

Lawrence Berkeley National Laboratory

Recent Work

Title

Journal of Glenn T. Seaborg - 1980-1989; Vol. 1.01: January 1, 1980 -June 30, 1980:

Permalink

<https://escholarship.org/uc/item/70b7j424>

Author

Seaborg, G.T.

Publication Date

1993-09-01

PUB-699
Vol. 1.01
GTS Press
September 1993

JOURNAL OF
GLENN T. SEABORG

1980-1989

January 1, 1980 – June 30, 1980

Lawrence Berkeley Laboratory
University of California

DISCLAIMER

This document was prepared as an account of work sponsored by the United States Government. While this document is believed to contain correct information, neither the United States Government nor any agency thereof, nor the Regents of the University of California, nor any of their employees, makes any warranty, express or implied, or assumes any legal responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by its trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof, or the Regents of the University of California. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof or the Regents of the University of California.

PREFACE

I have kept a journal since I was a boy, most of the time recording the daily events in an organized manner. For the rest of the time the events were recorded in a non-systematic manner, with the intention that all of the material could be organized at a later date in a systematic daily journal. These volumes fall into the former category.

My life can be logically divided into eight periods. These volumes cover the eighth, and probably final, period, beginning in November 1971.

The eight periods can be summarized as follows:

- I. Childhood in Ishpeming, Michigan, 1912-1922 (10.5 years). This period is not covered in a journal. It is described in the prelude to the first volume of my journal (January 1, 1927-August 10, 1934).
- II. Youth in Southern California, 1922-1934 (12 years). The first four years of this period are not covered in my journal; a brief description is given in the prelude to the first volume of my journal. My systematic journal begins on January 1, 1927, the middle of my sophomore year in high school at David Starr Jordan High School in the Watts District of Los Angeles. The period concludes with my graduation from UCLA in 1934.
- III. Early Days at the University of California in Berkeley, 1934-1942 (8 years). This period is covered in the second (August 11, 1934-June 30, 1939) and third (July 1, 1939-April 17, 1942) volumes of my journal. This includes the time of my graduate work at the University of California at Berkeley (1934-1937), service as the personal research assistant of Gilbert N. Lewis (1937-1939) and as instructor (1939-1941) and assistant professor (1941). Highlights of my research during this period include my participation in the discovery of plutonium and its fissionable isotope (mass number 239) and a number of isotopes very useful in the diagnosis and treatment of disease (such as ^{131}I , ^{60}Co and $^{99\text{m}}\text{Tc}$).
- IV. Wartime Metallurgical Laboratory, University of Chicago, April 19, 1942-May 19, 1946 (4 years). During this period I was responsible for the development of the chemical processes used in the production of plutonium and participated in the discovery of the elements americium (atomic number 95) and curium (atomic number 96). This period is covered in four volumes: April 1942-April 1943, May 1943-April 1944, May 1944-April 1945, and May 1945-May 1946.

- V. University of California at Berkeley, May 20, 1946-June 30, 1958 (12 years). During this time I served as Professor of Chemistry and Director of the Division of Nuclear Chemistry of the Radiation Laboratory. I participated in the discovery of berkelium (atomic number 97), californium (98), einsteinium (99), fermium (100), mendelevium (101), and nobelium (102). Other responsibilities included service during the second half of this period as the faculty athletic representative for the Berkeley campus to the Pacific Coast Intercollegiate Athletic Conference. The journal material for this period was not assembled on a current daily basis, has in the meantime been assembled, and is covered in 12 volumes.
- VI Chancellor, University of California at Berkeley, covering the period July 1, 1958 -January 31, 1961 (2.5 years). Unusually successful in athletics, Berkeley teams won the NCAA basketball championship in 1959; the football team played in the Rose Bowl on January 1, 1959; the rowing team won the National Intercollegiate Regatta Association championship in 1960; the baseball team won the California Intercollegiate Baseball Association championship in 1960; and the water polo teams won the AAUW water polo championships in 1959 and 1960.

Buildings completed during my tenure were Kroeber Hall, the Lowie Museum of Anthropology, Campbell Hall, the first eight residence halls and the Strawberry Canyon recreational complex; and plans were made for building the Student Union complex, married student housing, Latimer Hall, Barrows Hall, Tolman Hall, the University Art Museum, the biochemistry building and the virus laboratory. The College of Environmental Design was established; the Lawrence Hall of Science and the Space Sciences Laboratory had their origins as well as the Earl Warren Legal Center and the Laboratory of Chemical Biodynamics; also established were a variety of new research institutes, centers and facilities in diverse fields. This period, for which the material was assembled from my extensive notes and supporting material, is covered in three journals: July 1, 1958-June 30, 1959; July 1, 1959-June 30, 1960; and July 1, 1960-January 31, 1961.

- VII. Chairman, U.S. Atomic Energy Commission, covering period February 1, 1961-November 6, 1971 (10.5 years). The systematic journal covering this period has been published in 28 volumes. The topics covered in these volumes include the Limited Test Ban Treaty (LTBT), the Non-Proliferation Treaty (NPT), the Strategic Arms Limitation Treaty (SALT) and ABM Treaty, the Cuban Missile Crisis, the program of international cooperation (including my visits to 60 countries), the program for support of research, the Los Alamos Meson Facility and the 200 BeV Accelerator, the National Transplutonium Production Program, the civilian nuclear power reactor program, the Raw Materials Program, the Gas Centrifuge Program, the Cutback in Production of Fissionable Materials, the Regulatory Program, the Radioisotopes Program, the nuclear power in space program, the nuclear weapons testing program, the Plowshare Program, the Controlled Thermonuclear Research Program (CTR), the Nuclear Education and Training Program, and the Technical Information and Exhibits Program.

VIII . The University of California, Berkeley, November 7, 1971-. These volumes of a systematic journal begin with November 7, 1971, and are being issued as they are prepared for publication.

It is interesting to try to rank these periods in terms of which I have found most exciting. Certainly the period of highest excitement would be Period IV, the time of my wartime work at the Metallurgical Laboratory. Next would come Period III, the time of discovery of plutonium, followed by Period V, the time of discovery of numerous other transuranium elements. Next would come Period VII, the time of my chairmanship of the U.S. Atomic Energy Commission, and then Period VI, the time of my chancellorship at Berkeley. The other Periods I, II, and VIII would be difficult to rate on such a scale.

The colors of the covers of my journals for the various periods range from red, across the optical spectrum, to violet. Thus the three volumes covering Periods II and III have red covers. The four volumes covering period IV have orange covers. The twelve volumes covering the twelve years of Period V have yellow-orange covers. The three volumes covering Period VI have yellow covers. The 28 volumes covering period VII have green covers. The estimated 30 (and more) volumes covering Period VIII will have blue covers (1971-1979) and violet covers (1980-). The total of the number of volumes will be more than 70, and they average some 500-600 pages each. This averages close to one volume per year for the 66 years covered (thus far) by my journal.

The source material and backup material for these more than 70 volumes consists of hundreds of thousands of documents that are available because I have saved and preserved essentially all my documents throughout my career, beginning with my kindergarten days. The majority of these documents are being transferred to the Library of Congress, although some of the early documents will be housed in the Bancroft Library of the University of California at Berkeley. Copies of the journals will be housed in a number of libraries and repositories. For example, the 28 volumes corresponding to Period VII (Chairman, U.S. Atomic Energy Commission, 1961-1971) have been placed in the Kennedy, Johnson and Nixon Presidential Libraries, the Bancroft Library at Berkeley, the Main Library at UCLA, the History of Science library at University of California at Berkeley, the Department of History at the University of California at Santa Barbara, the Department of Energy History Division, the U.S. Nuclear Regulatory Commission, the Glenn T. Seaborg Center for Teaching & Learning Science and Mathematics at Northern Michigan University, the Library of Congress, the Hoover Institute of Stanford University, the Lawrence Livermore National Laboratory, and the National Historical Publications and Records Commission (National Archives).

This set of my journals covers Period VIII of my life, beginning on November 7, 1971 upon my return from Washington, D. C., where I had served as Chairman of the U.S. Atomic Energy Commission for some ten and one-half years.

INTRODUCTION

Soon after my return to the University of California at Berkeley, I was appointed University Professor of Chemistry (a title now held by some 15 professors throughout the statewide nine-campus University of California with its 7,500 faculty members). I was also appointed head of the Nuclear Chemistry Division (soon to become the Nuclear Science Division) of the Lawrence Radiation Laboratory (soon to become the Lawrence Berkeley Laboratory) in which position I served until 1975, when I was appointed Associate Director at Large of the Lawrence Berkeley Laboratory, a position that I have held since. I resumed my collaboration in research with my long-time associate Albert Ghiorso and joined his associates Mike Nitschke, Matti Nurmi, Bob Silva, Almon Larsh, James Harris, and Robert Main in some of my research program. Iz Perlman and Sam Markowitz also participated to some extent. Diana Lee, who joined my research group in 1974, played a central role in assisting and collaborating with the researchers.

During this period I conducted research with a group of graduate and undergraduate students, and visiting and postdoctoral scientists. My graduate students and their Ph.D. theses included:

Irwin Binder, "A Radiochemical Study of the Reactions of Heavy Ions with Gold", December 1977

David J. Morrissey, "Study of the Role of Complete Fusion in the Reaction of ^{48}Ca and ^{56}Fe with Cerium and Terbium," June 1978

Kimberly E. Williams, "Radiochemical Studies of Neutron Deficient Actinide Isotopes," December 1978

Elizabeth A. Rauscher, "Coupled Channel Alpha Decay Theory for Even and Odd-Mass Light and Heavy Nuclei," December 1979

Rodney H. Banks, "Preparation and Spectroscopic Properties of Three New Actinide IV Borohydrides," June 1980

Kenneth E. Thomas, III, "Transfer Products from the Reactions of Heavy Ions with Heavy Nuclei," June 1980

Rose M. McFarland, "Recoil Range Studies of Heavy Products of Multinucleon Transfer from ^{18}O to ^{245}Cm and ^{249}Cf ," September 1982

L. Patrick Somerville, "Observation of New Spontaneous Fission Activities from Elements 100 to 105," June 1982

Yoshimitsu Morita, "Angular Distributions of Target Fragments from the Reactions of 292 MeV - 25.2 GeV ^{12}C with ^{197}Au and ^{238}U ," May 1983

Patrick L. McGaughey, "Intermediate and High Energy Reactions of Uranium with Iron and Carbon," June 1983

Kenton J. Moody, "Actinide Production in the Reactions of Heavy Ions with Curium-248," June 1983

Saburo Yashita, "The Identification of New Astatine Isotopes Using the Gas-Filled Magnetic Separator, SASSY," February 1984

Ronald S. Shinomoto, "Methyltrihydroborate Complexes of the Lanthanides and Actinides," August 1984

Robert B. Welch, "Actinide Production from Xenon Bombardments," January 1985

Kenneth E. Gregorich, "Actinide Production in ^{136}Xe Bombardments of ^{249}Cf ," August 1985

P. A. Wilmarth, "Beta-Delayed Proton Emission in Neutron-Deficient Lanthanide Isotopes," September 1988

Wing K. Kot, "Electronic Structure in the Actinides--Three Case Studies," April 1991.

M. S. degree:

Edward Henry Sebesta, "Analysis and Development of FACE Automatic Apparatus for Rapid Identification of Transuranium Isotopes," September 1978.

Among the postdoctoral scientists and visiting graduate students were Carol Alonso and Jose Alonso (1972-74), Patricia Baisden (1975-78), Coreen Casey (various visits 1985-89), Cheng Luo (1980-81), Burkhard Fricke (1972, 1975), Hisaaki Kudo (1981-82), R. Eric Leber (1976-77), C. H. Lee (1984), Wen-Xin Li (1982-84), David Morrissey (1978-80), Chris Ortel (1979-81), Roland J. Otto (1974-78), L. Sihver (1985, 1987), and Satoru Tanaka (1982-83). Among the visiting scientists (some from foreign countries) were Kjell Aleklett (1978-79, and many times in the 1980s), Reinhard Brandt (many times in the 1980s), William R. Daniels (1972), Gerhard Dersch (1984), Gerhard Feige (1984), Malcolm M. Fowler (1974-75), Heinz Gaggeler (many times in the 1980s), H. Groening (1981), Darleane C. Hoffman (1978-79), James Hogan (1978-79), Phil Horwitz (1972), Won Mak Jae (1978-80), Jens Kratz (1972-74, 1986, 1988), P. Lemmertz (many times in the 1980s), Jol Liljenzin (1972-73), Yuan-Fang Liu (1980-81), Walter Loveland (1976-77, 1980, 1983-84, and very many other times), Nikolai Mikheev (1977), Ted Norris (1973-74), Toisto Raunemaa (1973-74), Michel de Saint-Simon (1977), Matthias Schädel (many times in the 1980s), N. Trautmann (1972 and other visits), Hans von Gunten (1980-81), Kurt Wolfsberg (1972), Z. Xu (1986-87), Yu-Wen Yu (summers 1982-84), and Ivo Zvara (1976). We have also had interesting visits from G. N. Flerov and Yuri Oganessian of the Soviet Dubna Laboratory. Undergraduate research students included Elissa Bicknese, Judith Brodtkin, Jose Carvalho, Wayne Chan, Simon Chin, Michela DiCasa, Elaine Dong, Dana Dunlavey, Linda England, Jeff Frank, Larry Frank, Carolyn Gottstein, Kenneth E. Gregorich, Barbara V. Jacak, Patricia Juergens, Mike Kilroy, Robert Klein, Kip Knudsen, Joy Kobayashi, Robert H. Kraus, Walter Kwan, Huan Duy Le, Cynthia Lee, Wayne Marsh, Hung Nguyen, Loan Nguyen,

Bonner Nishida, Rajiv Pande, Michael Perry, Can Phan, Marilyn Rodder, Gregory Sayles, Martin Schulman, Huy Trinh, and Michael Varney.

The accelerators used in connection with this research were the SuperHILAC and the 88-Inch Cyclotron. In addition, research was conducted using the Bevatron and Bevalac (the combination of the SuperHILAC, as injector, and the Bevatron--this combination was built as a result of the suggestion of Ghiorso) with heavy ions in the areas of intermediate and relativistic energies.

The research program was concerned largely with an investigation of the nuclear properties of the heavy transuranium elements, the synthesis and identification of new isotopes of the transuranium elements, the study of the chemical properties of the transuranium elements and the attempts to synthesize and identify new transuranium elements including superheavy elements (elements in the region of atomic number 114 and neutron number 184). The research program also encompassed a broad and diverse radiochemical study of heavy-ion-induced reactions, which included one of the earliest observations and investigation of the inelastic transfer interaction. At various times Roland Otto, David Morrissey, and Darleane Hoffman shared in the direction of the research.

In 1974 I was associated with a group that succeeded in synthesizing and identifying an isotope of the new element with the atomic number 106; the group consisted of Albert Ghiorso, Mike Nitschke, Jose Alonso, Carol Alonso and Matti Nurmia of the Lawrence Berkeley Laboratory and Ken Hulet and Ron Loughheed of the Lawrence Livermore National Laboratory.

More recently Ghiorso has attempted to synthesize and identify an isotope or number of isotopes of element 110 with the help of Pat Somerville, Diana Lee, and many others.

My collaboration with Walter Loveland, which has included use of the Bevatron and Bevalac and accelerators in other laboratories, began in 1976 when he spent a sabbatical leave in Berkeley and continues to date (1993). Our collaborative research program has involved: (a) the use of radiochemical techniques to study the mechanism of nucleus-nucleus collisions and (b) critical reviews of the status of heavy element research. Research in the former area began with measurements of the target fragment mass distributions in relativistic heavy ion reactions, culminating in seminal papers in 1976 and 1989 explaining, respectively, the shape of these distributions and the concept of total kinetic energy scaling. The radiochemical techniques, however, were most appropriately applied to the study of intermediate energy (10-100 MeV/nucleon) collisions because of the larger particle beam intensities available in this energy region. In studies of intermediate energy reactions, the superior (Z, A) resolution and the lack of energy thresholds in the radiochemical techniques led to the discovery of the principal reaction channel, heavy residue formation, and its characterization (1986-90). Important critical reviews of the properties of heavy and superheavy elements were published in 1979, 1985, and 1990.

Other Department of Chemistry faculty members associated with the laboratory's Nuclear Chemistry (Nuclear Science) Division have included

Professors Darleane C. Hoffman, Joseph Cerny, Samuel S. Markowitz (who joined the Applied Science Division), Luciano G. Moretto, John O. Rasmussen, David A. Shirley (who became director of the Materials and Molecular Research Division and then director of the Lawrence Berkeley Laboratory), and David H. Templeton (who joined the Materials and Molecular Research Division). I was succeeded as Director of the Nuclear Chemistry (Nuclear Science) Division by Bernard Harvey, who was followed by Joseph Cerny and then James Symons.

I also pursued my interest in the chemical properties of the actinide elements by involving myself in a research program with Norman Edelstein (some of my graduate students performed their research with him). In this connection I was associated with other Department of Chemistry faculty members--Kenneth N. Raymond, Richard Andersen, Neil Bartlett, Andrew Streitwieser--and their periodic "Actinide Chemistry Seminar."

In 1984 Darleane Hoffman joined the Department of Chemistry on campus as a Professor and the Nuclear Science Division of the Lawrence Berkeley Laboratory. She assumed the responsibility for the heavy ion radiochemistry research program and for the incoming graduate students in this general area of research. The post-doctorate students included Michael Mohar and Yasuo Watanabe. The graduate students who have worked with or are working with Professor Hoffman include Robert Chasteler, Kenneth Czerwinski, Nancy Hannink, Roger Henderson, Dianne Bennett, Carolyn Gannett, Howard Hall, Robert Chadwick, Peter Johannson, John Leyba, Bobby Kadkhodayan, Steven Kreek, Todd Hamilton, Chris Kacher, Michael Lane, Eric Sylwester, and Mary Neu. The undergraduate students who worked with Professor Hoffman included Raj Ajarwal, Atlee B. Benally, Elizabeth Brady, Aaron Charlop, Y. Y. Chu, David Dorsett, Reggie Gaylord, George Haynes, Chris Kacher, Lithium Lin, Teresita Padron, and Yasmin Williams. Visiting scientists (including some graduate students from other institutions) included Urs Baltensperger, Helmut Barth, Reinhard Brandt, Willie Bröchle, Shan-Yu Cai, Kuen-Bey Chen, Heinz Gäggeler, Yuichi Hatsukawa, Mathias Heck, Günter Herrmann, Dieter Jost, Jens Kratz, Christoph Lienert, Walter Loveland, Ann Mueller, Ya Nai-Qi, Hiromichi Nakahara, H. A. O'Brien, Matthias Schädel, Ulrich Scherer, K. Sümmerer, Andreas Türler, Hans von Gunten, C. M. Wai, and Yu-Wen Yu.

Biweekly luncheon meetings of our research group were held in my office. This group assumed the colloquial appellation "Superheavy Element Interlaboratory Khemists" or SHEIKS, a name that lost its descriptive character with the passage of time, but which has nevertheless been retained up to the present time and will continue to be used.

I taught Freshman Chemistry laboratory sections 1972-1982 and also the Nuclear Chemistry course (Chemistry 123) with John Rasmussen in the winter quarter of 1978. I met once a week for lunch with a group of undergraduate chemistry majors, called the "Freshman Cluster Group" during the late 70s and early 80s. I also have given numerous lectures to undergraduate classes such as freshman chemistry, nuclear chemistry, inorganic chemistry, political science and orientation classes.

During this period my office staff was under the leadership of three outstanding administrative assistants, first, from 1971-76 Sheila Saxby; from 1977-83 Pat Johnson; and, finally, and especially, from 1983 on Sherrill Whyte. Supporting staff included Shandrika Combs, Caesar Cruz, Sharon Date, Margie Hollander, June Jackson, Carol James, Sylvia Kihara, Jane Kingston, Sonia Lazos, Nancy Lockhart, Lin Lorenz, Janice Ludwig, Shawndra Martinez, Delores Mason, Marta Munoz, Grace Nubla, Debbie Olson, Joy Perkins, Zoe Randolph, Pamela Taylor, Elaine Trevino, Kathy Vanderhagen, Peggy Yamada, David Yan, and an army of temporary help.

In the area of international cooperation in science I am particularly proud that I suggested and helped to initiate the Interciencia Association of the American Association for the Advancement in Science (which encourages collaboration with our neighbors in Latin America) and the Affiliate Scheme of the International Union of Pure and Applied Chemistry (which serves as a sort of international chemical society).

During 1972 I served as President of the American Association for the Advancement of Science and during 1973 as Chairman of the Board of Directors of the AAAS. While serving in these offices I was instrumental in establishing the office of International Science. It was largely in this connection that the Interciencia Association was established.

From May 24 to June 10, 1973, my wife Helen and I visited the People's Republic of China. We were members of a team including physical and biological scientists and representatives of the social sciences and the humanities (and a few of their wives) sponsored by the U.S. Committee for Scholarly Communication with the People's Republic of China. Ours was the first group to visit the People's Republic of China on a semi-official basis for the purpose of negotiating agreements for exchange of scholars and visitors between our two countries. While in Beijing [Peking] we had the pleasure of attending a meeting in the Great Hall of the People (National People's Congress Building) in Tiannamen [Tien An Men] Square in Beijing. Attending, in addition to our group, were members of the Chinese Academy of Sciences, the Chinese Science and Technology Association and many leaders of Chinese scientific institutes and laboratories. Of special interest was the attendance at this meeting of Chinese Premier Zhou Enlai [Chou En-Lai], whom we all met and who played an active role in negotiating the exchange agreement with the members of our delegation. During this visit to the People's Republic of China, we visited, besides Beijing, Shenzhen {Shumchun}, Guangzhou [Canton], Nanjing [Nanking], Wuxi [Wu-hsi], Xuzhou [Soochow], Shanghai and Changsha [Ch'ang Sha]. I kept a complete journal during this visit, which was published in a document entitled "China Journal."

I visited the People's Republic of China again from May 17-June 11, 1978, as chairman of a delegation for "Pure and Applied Chemistry." During this trip we visited Beijing, Dalian [Talien], Changchun [Ch'ang Chun], Shenyang [Chenyang], Fushun, Shanghai, Hang Zhou [Hangchow], Xian [Sian], and Langzhou [Lanchow]. Again I kept a complete journal which was published in a document entitled, "China Revisited." (A book, Chemistry and Chemical Engineering in the People's Republic of China, was also published by the American Chemical Society.)

My journal recounts a number of visits of delegations from the People's Republic of China to the United States, when I helped host them both in Berkeley and in Washington, D.C.

I served as President-elect of the American Chemical Society in 1975. I then served as President of the ACS in 1976 (the year of its centennial) and as Past-President in 1977. I served as a member of the ACS Board of Directors during each of these three years. At the centennial banquet held in New York in April 1976 I had the pleasure of introducing Senator Ted Kennedy as our keynote speaker. Also at the time of the New York centennial meeting I played host to a gathering of heads of chemical societies throughout the world, and at that time I proposed the creation of an International Chemical Society. Although such a society never came to fruition, one consequence of my proposal was the creation of the Affiliate Scheme of the International Union of Pure and Applied Chemistry which came into effect in February, 1985.

I served as founding president of the International Organization for Chemical Sciences in Development (IOCD) beginning in 1981 and continued until 1992. The aim of this organization is to help to provide the benefits of chemistry to people in developing countries of the world. IOCD's working groups draw scientists from Third World countries into collaboration with scientists from industrial countries into research focused on areas of vital developmental concern: unchecked population growth, persisting parasitic diseases, and declining agricultural productivity. The scientists in IOCD's working groups represent the broad geographic regions of Africa, Asia, Latin America, and the Middle East. IOCD's Working Group on Tropical Diseases, for example, involves in its work 16 laboratories around the world. By 1989 the group had tested over 100 chemical compounds, several of which show promise in treating devastating ailments found in developing countries. Another important way IOCD is assisting Third World scientists is to offer them certain technical services without charge. IOCD's scheme of Analytical Service Centers will submit a scientist's compound to analysis by magnetic resonance spectroscopy or mass spectroscopy, for example, methods that require sophisticated and costly apparatus not often available in Third World countries. Similarly, the IOCD Biological Screening Service will test chemical compounds for their biological activity.

Having been involved with the Lawrence Hall of Science on the Berkeley campus since its inception in the fall of 1958, I immediately resumed an active role on its Faculty Advisory Committee upon my return from Washington in 1971, later serving as the chairman of this committee. I then served as director of the Lawrence Hall of Science from 1982-1984 and have served as chairman since 1984. The Lawrence Hall of Science has and is playing a leadership role in solving the national crisis in pre-college science and math education. It carries on in three areas: 1) to improve the quality of mathematics and science instruction for the benefit of pre-collegiate students through the development of innovative math and science courses and accompanying curriculum materials and teaching training services; 2) to augment pre-college mathematics and science instruction provided by schools by offering special mathematics and science courses at the Hall; and 3) to enhance the knowledge, appreciation, and enjoyment of mathematics and science for the general public by providing the community with a math and science center. The Hall's curriculum materials have a widespread use on a national scale and substantial use on an international scale. The overall success of the

Hall's program has led to an extreme shortage of space needed to accommodate the expanding efforts--preliminary plans have been prepared for an addition to the building and fundraising for this is in progress (in 1993).

I served as a member of the National Commission on Excellence in Education (NCEE), which worked under the chairmanship of David P. Gardner from the fall of 1981 until April 1983 to produce its report, "A Nation At Risk." We presented this report to President Ronald Reagan on April 26, 1983. This report has had a substantial impact on the national reform movement toward improving the status of pre-college education, especially science and math education, in the United States. More recently I served as co-chairman with Secretary of Energy James D. Watkins at a summit conference on pre-college science and math education held at the Lawrence Hall of Science October 9-10, 1989. The report covering this conference was issued on May 22, 1990. It makes a call for the following reforms by the year 2000: a core curriculum in science and mathematics for pre-school through high school; high quality teacher training in hands-on science for 10% of the nation's teachers each year; a significant increase in female, minority, disabled, and disadvantaged students completing high school and advancing to graduate education, careers in mathematics and science, and science teacher training; the establishment and expansion of community alliances involving government, education, and business to improve mathematics and science education; and the development in the U.S. of a workforce equipped to meet the technological demands of the 21st century.

I continue to serve as chairman of Science Service (a post that I have held since 1966). Science Service is a national organization that is devoted to an increase in the public understanding of science; it conducts the annual Science Talent Search in Washington, D.C., and the annual International Science and Engineering Fair, and publishes the very effective weekly Science News magazine. I have continued during this period to interview the 40 Science Talent Search finalists in my role as a judge; since 1964 I have conducted this interview 30 times, for a total of 1200 finalists. In March 1989 I had the pleasure of serving as co-host when President George Bush visited the Science Talent Search exhibits and addressed the Science Talent Search finalists and other spectators in the auditorium of the National Academy of Sciences building. (I had the responsibility of briefing President Bush on so-called "cold fusion" on a visit with him in the Oval Office of the White House on April 14, 1989.) In March 1991 I participated in the 50th anniversary celebration of the Science Talent Search at which President Bush was our speaker.

I have served as a member of the Board of Directors of the World Future Society since 1969 and attended the annual meetings of the Board, each year during this period. In 1974 I had the pleasure of introducing Vice President Gerald Ford for his talk at a symposium on "Energy: Today's Choices, Tomorrow's Opportunities" sponsored by the World Future Society in Washington, D.C.

During much of this period I have been active with the American Academy of Achievement in connection with their annual "Salute to Excellence" symposia and banquet where the achievements of hundreds of students and American leaders in all walks of life are recognized. In 1984 I met President Jimmy Carter, one of the honorees

at the banquet that year and in 1985, I renewed my acquaintance with President Gerald Ford, an honoree of that year. Others that Helen and I have met at the annual banquets include: Kareem Abdul-Jabbar (basketball star), Roy Acuff (country music), Paul "Red" Adair (tamer of wild oil well fires), Mortimer J. Adler (author, philosopher), Jack Anderson (reporter), Paul Anka (singer), Walter Annenberg (publisher), Gene Autry (singing cowboy movie star), Kenneth Behring (real estate, owner of the Seattle Seahawks football team), James H. Billington (Librarian of Congress), Bonnie Blair (skating champion), Erma Bombeck (humorist), Ernest Boyer (educator), Benjamin Bradlee (Washington Post), Tom Brokaw (anchor, NBC "Nightly News"), Warren E. Burger (15th Chief Justice of U.S. Supreme Court), Susan Butcher (bobsledder), Frank Capra (motion picture producer and director), Jimmy Carter (39th President of the United States), Johnny Cash (country music), Tom Clancy (author), Joseph and Holly Coors (Colorado civic leaders), Kevin Costner (actor), Francis Crick (Nobel Prize, Medicine), Olivia M. DeHavilland (actress), Alan M. Dershowitz (defense attorney), William DeVries (heart surgeon), E. L. Doctorow (author), Michael Douglas (actor), Richard Dreyfuss (actor), Clint Eastwood (actor), Julius "Dr. J" Erving (basketball star), Phil Esposito (hockey star), Bob Feller (baseball pitcher), Betty and Gerald Ford (38th U.S. president), John Forsythe (TV star), Ernest and Julio Gallo (Gallo Brothers winery), Robert Gallo (Director, National Cancer Institute), David Gardner (President, University of California), Steve Garvey (baseball star), Robert Gates (Director, CIA), Gordon P. Getty (composer, philanthropist), "Dizzy" Gillespie (jazz trumpeter/musician, composer, bandleader), Barry Goldwater (former U.S. Senator), Jane Goodall (primate research), Andrew Goodpaster (presidential aide), Cecil Green (cofounder of Texas Instruments), Vartan Gregorian (President, Brown University), Walter Haas, Jr. (Levi Strauss Co.), Franco Harris (football star), Helen Hayes (actress), Henry Heimlich (the "Heimlich Maneuver"), Jim Henson (creator of "The Muppets"), Audrey Hepburn (film actress and UNICEF Goodwill Ambassador), Seymour M. Hersh (journalist, author), Kenneth Hofmann (real estate), Hal Holbrook (actor of stage, screen, television), Lou Holtz (football coach, Notre Dame), Bill Honig (California State Superintendent of Public Instruction), Whitney Houston (popular singer), Jesse L. Jackson (civic and political leader, clergyman), Judith Jamison (Artistic Director, Alvin Ailey Dance Theater), Robert Jarvik (inventor of total artificial, electrohydraulically powered heart), Robert Trent Jones, Jr. (golf course architect), Quincy Jones (musician), Chuck Jones (animation producer), David Jones (former chairman, Joint Chiefs of Staff), Michael Jordan (basketball star), Max Kampelman (international statesman), David T. Kearns (retired Chairman of Xerox Corp, Deputy Secretary of Education), Jack Kemp (Secretary, Housing and Urban Development; ex-football player), Donald Kennedy (educator), Steve Largent (football receiving star), Dean Lasher (newspaper publisher), Norman Lear (TV producer), Jim Lehrer (co-anchor, McNeil-Lehrer News Hour), Sol Linowitz (international statesman), George Lucas (motion picture producer), Henry Mancini (giant of popular music field), Wynton Marsalis (jazz trumpeter), Walter Massey (Director, NSF), Peter Matthiessen (author), Robert McC. Adams (The Secretary, Smithsonian), Michael Milken (financier, "King of Junk Bonds"), Lowell Milken (Milken Foundation), Marvin Minsky (artificial intelligence), Robert Mondavi (Mondavi Winery), Edmund Morris (Pulitzer-Prize-winning biographer), Ralph Nader (consumer crusader), Paul Nitze (arms control advisor), Jessye Norman (recording artist), Antonia Novello (U.S. Surgeon General), Sandra Day O'Connor (Associate Justice, U.S. Supreme Court), Dolly Parton (entertainer), Joe Paterno (football coach, Penn State), Walter Payton (football star), Minnie Pearl (Grand Old Opry), Claude Pepper (Congressman), Javier Perez de Cuellar (Secretary-General of the United Nations), Ross Perot (Texan billionaire businessman), T. Boone Pickens (oil industry entrepreneur),

Lieutenant General Colin Powell (Pentagon Chief of Staff), Leontyne Price (concert and opera singer), Ronald Reagan (40th President of the U.S.), Burt Reynolds (actor), Brooks Robinson (baseball star), Steven Rosenberg (surgeon), Henry Rosovsky (education and economics), Pete Rozelle (Commissioner, National Football League), Carlo Rubbia (Nobel Prize in Physics), Rosalyn Russell (actress), Diane Sawyer (television news journalist), Charles Schulz (cartoonist), General H. Norman Schwarzkopf (Commander-in-Chief of Operation Desert Storm in 1991 Persian Gulf war), Brent Scowcroft (long-time presidential adviser on national security), John Sculley (CEO, Apple Computers), Tom Selleck (television and motion picture actor), William S. Sessions (Director, F.B.I.), Sidney Sheldon (author), Dinah Shore (singer, television talk-show hostess), Walter H. Shorenstein (owner of the Shorenstein Co., real estate development), Beverly Sills (opera singer, opera company director), Gene K. Siskel (film critic), Joan Steitz (Professor, Molecular Biophysics, Yale University), Isaac Stern (renowned violinist), Wallace Stegner (author, master storyteller), Edward Stone (Director, Jet Propulsion Laboratory), Oliver Stone (motion picture director and writer), Barbara Streisand (entertainer), Louis Sullivan (Secretary, Department of Health and Human Services), John Sununu (White House Chief of Staff, former New Hampshire governor), Elizabeth Taylor (actress), Edward Teller (nuclear scientist), Joe Theisman (star football quarterback), Lowell Thomas (radio reporter), Chang-Lin Tien (Chancellor, University of California at Berkeley), Clyde W. Tombaugh (discoverer of Pluto), John Travolta (movie star), Ted Turner (CNN broadcasting, cable television), Mona Van Duyn (Poet Laureate of U.S.), Herschel Walker (football star), Bill Walsh (football coach, San Francisco 49ers), Barbara Walters (television journalist), Dennis Washington (construction), Faye Wattleton (President, Planned Parenthood Foundation of America), Lawrence Welk (star of television), Ronald Williams (real estate development), Oprah Winfrey (television show hostess), Bob Woodward (Watergate journalist), Henry Winkler (TV star), Stephen Wynn (Golden Nugget, Inc., owner of the Mirage hotel and casino), Charles Yeager (first to break sound barrier), and Andrew Young (U. S. ambassador to U. N., Atlanta mayor, champion of civil rights).

During much of 1972 and 1973 I served on the 80-member Citizens' Task Force of the East Bay Regional Park District (EBRPD) that had the responsibility of advising the EBRPD on a master plan for the future expansion and operations of the District. I served as chairman of the Trails Committee, and Joe Bort served as chairman of the Citizens' Task Force. During this period I participated in a number of hikes and exploratory trips with members of the Citizens' Task Force which were conducted for the purpose of accumulating data that would be helpful in preparing our report to the District. Our Citizens' Task Force submitted a master plan which was accepted and put into force. Following this experience with the Citizens' Task Force, in the succeeding years Helen and I took multitudinous hikes on weekends, often with members of the Mt. Diablo Regional Group of the Sierra Club (I sometimes served as leader) in the various parks of the East Bay Regional Park District and their interconnecting trails.

In 1978 I became a charter member of the newly formed American Hiking Society. When Helen and I attended one of the Board meetings of the American Hiking Society in Vienna, Virginia (a suburb of Washington, D.C.), at which the idea for a cross-country hike was discussed, I made the suggestion that the decision should be made to go ahead with it; and it was accepted. I said that I would be willing to take responsibility for scouting and laying out the trail across California for the cross-

country hike, which became known as "HikaNation." During weekends Helen and I together with our friends, Joe and Betty Goldstein, explored the route and laid out the path for the hike across California. Jeannie Harmon acted as pathfinder for the state of California portion. The HikaNation started in San Francisco on Saturday, April 12, 1980. A group of some 6,000 people walked across the Bay Bridge early Sunday morning April 13th (for which I had helped obtain permission from Sacramento). Helen and I accompanied the group across much of California. The participating group consisted of 100-200 people. The route that we had laid out was about 265 miles long and was traversed in 21 hiking days, with an average of about 13 miles per day. Helen and I left the group at the Nevada border; it continued with a core group of about 40 people across the United States. Helen and I joined the HikaNation group at Harper's Ferry, West Virginia on May 9, 1981, and hiked with them along the C&O Canal tow path to Washington, D.C., where we arrived on May 13, 1981. From June 1990 until July 1991, our son Eric and his friend Ellen Dudley scouted, under the auspices of the American Hiking Society and Backpacker magazine, the route of a west-east trail, "The American Discovery Trail," across the United States (from San Francisco at the Pacific Ocean to Delaware at the Atlantic Ocean).

As a result of our contacts with the HikaNation group and in connection with laying out the trail across California, Helen and I bought a vacation home in Strawberry near Highway 50 in 1980, which we have used as a weekend and summer vacation spot and origin of our hikes in the Sierra. I later served on the Board of Directors (1980-1984) and for a period as vice president (1981-1982) of the American Hiking Society and continue to serve on the Advisory Board. My son Eric served on the Board of Directors and also served three years as president of the American Hiking Society. He also has served as an editor in their publications.

During this period Helen and I made a number of trips to Ishpeming, Michigan (my birthplace). On one of these trips, in the summer of 1980, we purchased the Seaborg house at 639 East Division Street from Oscar Kurin, who owned it at that time. This house was purchased by my grandfather, John Eric Seaborg, in about 1882, when my father was about two years old, and is the house in which my father and his sisters and brothers were raised. It was sold to the Kurin family in about 1914 and remained in their possession until Oscar Kurin sold it back to me in 1980 for a purchase price of \$6,700. It is now the oldest house in Ishpeming. On this same visit to Ishpeming (1980) I attended the 50th anniversary reunion of the high school graduation class of 1930, the class of my schoolmates in Ishpeming until I left in October 1922. I served as the speaker at the reunion banquet on this occasion (Summer of 1980).

In 1978 I was asked to join, in the role of president, the Swedish Council of America (an umbrella organization of Swedish-American societies). I served as president for four years and then continued to serve on the Board of Directors. On October 27, 1984, the Swedish Council of America awarded jointly to me and Ann-Margret their annual Great Swedish Heritage Award at their meeting in Seattle. I also served during this period, and continue to serve, as a member of the Royal Round Table, a joint organization of the Swedish Council of America and Swedish leaders and industrialists. I attended meetings of this group, which are held in alternate years in the United States and Sweden. In November 1992, on the occasion of a gala celebrating my

80th birthday, I was presented the Order of the Polar Star by a representative of the King of Sweden.

My wife Helen and I attended the Nobel ceremonies in Stockholm in 1975 on the occasion of the 75th anniversary of the Nobel Ceremony and have attended the Nobel ceremonies in the years 1978, 1979, 1980, and 1985 and on the occasion of the 90th anniversary in 1991. We visited many of my relatives in Sweden on these trips as well as on a number of other trips to Sweden.

I served 1970-1982 as vice president and 1982-1986 as president of the International Platform Association (IPA), an organization of platform performers, that is, public speakers. Before, during and after my presidency Helen and I usually attended the annual convention of the IPA in Washington, D.C., during the summer, where we met many outstanding personalities, such as Senator Robert C. Byrd, Harry Blackstone, Dick Cavett, Mario Cuomo, Douglas Fairbanks, Jr., Malcolm Forbes, George Gallup, Peter Grace, Jesse Jackson, James Kilpatrick, G. Gordon Liddy, Ed Meese, Claude Pepper, George Plimpton, Mark Russell, Carl Sagan, Lowell Thomas, and Governor George Wallace.

A number of annual awards, lectureships and so forth were established in my name: the Glenn T. Seaborg Actinide Award (starting date, 1984); the Glenn T. Seaborg Medal, American Nuclear Society (1984); the Glenn T. Seaborg Medal, UCLA (1987); the Glenn T. Seaborg Research Award, Alpha Chi Sigma, UCLA (1979); the Glenn T. Seaborg Award, International Platform Association (1979); the Glenn T. Seaborg Nobel Prize Visit Awards (two from the International Science and Engineering Fair in May 1978 and one from the Swedish Council of America in 1979); the Glenn T. Seaborg Lectureship in Inorganic Chemistry at Berkeley (February 1990); also the Glenn T. Seaborg Laboratory, Kevex Corporation (established in 1985); the Glenn T. Seaborg Center for Teaching & Learning Science and Mathematics, Northern Michigan University (1985); and the Glenn T. Seaborg Institute for Transactinium Science, Lawrence Livermore National Laboratory (1991).

I was the author or co-author of about 100 papers published in scientific journals or books and the following books: Nuclear Milestones (1972), Transuranium Elements - Products of Modern Alchemy (1978), Kennedy, Khrushchev and the Test Ban (1981), Nuclear Chemistry (1982), The Chemistry of the Actinide Elements, 2nd Edition (1986), Stemming the Tide: Arms Control in the Johnson Years (1987), Elements Beyond Uranium (1990), The Atomic Energy Commission under Nixon: Adjusting to Troubled Times (1993), Modern Alchemy: Selected Papers of Glenn T. Seaborg (1993), and Chancellor at Berkeley (1993).

My public speaking schedule included about 700 speeches on a wide variety of topics. Included were talks each year (1972-1993) at the Science Talent Search in Washington, talks at seven of the annual International Science and Engineering Fairs, eight commencement addresses, four science building dedicatory addresses, and talks nearly every year since 1984 to the Nuclear Science Summer School (for high school students chosen at a national level) at San Jose State University. Celebrations observing the 25th anniversary of the discovery of elements 97 and 98 were held in January 1975,

of elements 99 and 100 in January 1978, and of element 101 in March 1980. In February 1991 we celebrated the 50th anniversary of the discovery of element 94.

Honors during this period included the Founder's Medal of Hebrew University (1981), Rudder Lectures at Texas A&M (3/26-28/73), French Legion of Honor (4/13/73), the Gold Medal of the American Institute of Chemists (5/18/73), Austin M. Patterson Award of the Dayton Section of the American Chemical Society (6/7/75), Bicentennial Science Lectureship of Stephen F. Austin State University in Nacodoches, Texas (9/2/75), Goosh-Stephens Lectureship of Baylor University (11/3-4/77), Francis G. Slack Lectureship of Vanderbilt University (11/30 and 12/1/77), Priestley Award of the American Chemical Society (4/2/79), J. T. Baker Nobel Laureate Lectureship of Caltech (10/24/79), Distinguished Lectureship in Materials and Society of the American Society of Metals (11/13/79), Henry DeWolf Smyth Award of the American Nuclear Society (11/17/82), Glenn T. Seaborg Medal of the American Nuclear Society (11/12/85), the Berkeley Academic Senate's Clark Kerr Award (1986), UCLA Glenn T. Seaborg Medal (10/23/87), the Vannevar Bush Award of the National Science Board (5/11/88), and the National Medal of Science (9/16/91).

I was also elected to foreign membership in five academies of science: Royal Academy of Sciences, Sweden (1972), Deutsche Akademie der Naturforscher Leopoldina, East Germany (1973), Polish Academy of Sciences (1975), Academy of Arts and Sciences of Puerto Rico (1982), Chemical Society of Japan (1985), and Serbian Academy of Sciences and Arts (1985). This brings the total number to eleven.

I continued my membership in the Scientific Advisory Board of the Welch Foundation, attending the semiannual meetings each of the years 1972-present. I served as Chairman of the Board of Directors of Kevex Corporation until it changed ownership in 1988.

The journal covers the activities of our children for this period. Dianne and Eric returned with us to our home in Lafayette when we moved back there from Washington in 1971. Pete moved to our home in Washington (at 3825 Harrison Street). Lynne and her husband, William B. Cobb, Dave and Steve were already in California (Steve and Dave attending the University of California at Davis).

Dianne attended Stanley Intermediate School in Lafayette and finished the ninth grade in 1973, was graduated from Acalanes High School in Lafayette in 1977, and received a B.S. in Human Development from the University of California at Davis in 1982. After living in Los Angeles for a while she has returned and is now living at home in Lafayette.

Eric graduated from Acalanes High School in 1972 and graduated from the University of California at Davis in 1976 with a B.A. degree in Human Ecology. He moved back to Washington, D.C., in 1978 and to Free Union, Virginia in 1991, and married Ellen Dudley on September 25, 1992.

Steve finished his undergraduate work at the University of California at Davis in 1973 with a B.A. in Psychology and then went on to obtain an M.S.W. in Social Welfare

at San Diego State University. He remained in San Diego, where he married Pat Calvert in August 1986, and they are still living in La Mesa near San Diego.

Dave finished his undergraduate work at the University of California at Davis with a B.S. in Zoology in 1972 and went on to obtain an M.A. in Zoology at the University of California at Berkeley in 1974. On June 17, 1990 he married Adele Fong Yee. Dave and Adele have been living in Lafayette since that time.

Lynne and Bill moved back to the Midwest and East, where Lynne obtained a Ph.D. in Clinical Psychology at Purdue University in May 1979 and Bill an M.D. at Howard University (Washington, D.C.) in 1978. They moved to Iowa City in 1978, where Bill did his medical internship at the University of Iowa. Their daughter Lela Bates Cobb was born on February 15, 1981, in Iowa City. In 1983 they moved to Grand Junction, Colorado, where their second daughter Molly Seaborg Cobb was born on October 6, 1984. They are still living in Grand Junction.

Pete is still living in our Washington home. He began the operation of a used bookstore (featuring books of the Civil War era) on Connecticut Avenue, and he later moved the bookstore to Georgetown, where he is presently in business.

This brings us up to date as the volumes of Period VIII continue to be issued in 1993.

ACKNOWLEDGEMENTS

I wish to express my appreciation to my daughter Dianne and to members of my office staff--Sherrill Whyte, Margie Hollander, June Jackson, Grace Nubla, Marta Munoz, Janice Ludwig, Pat Somerville, Nancy Lockhart, David Yan, Clare Redburn, and others--who helped to assemble, type, and prepare the name indexes for these journals.



Glenn T. Seaborg
June, 1993

THE UNIVERSITY OF ROCHESTER

ROCHESTER, NEW YORK 14627

GRADUATE STUDIES

Letter of Recommendation

(Send this form to the person from whom this letter is requested, together with a stamped envelope addressed as indicated in the mailing instructions accompanying the application form.)

The applicant should complete this section.

Jacok Barbara V is applying to

last

first

middle

the University of Rochester for graduate study in the college of Arts & Sciences, in the field of Chemistry.

Name of respondent Dr. Glenn T. Seaborg
please print or type

I do do not agree to waive my right under The Family Education Rights and Privacy Act of 1974 to review specific and composite letters of recommendation. Barbara V. Jacok 12/20/79
signed date

The respondent should complete this section.

The Admissions Committee will be very grateful for your estimate of the applicant's preparation, aptitude, the initiative and creativity necessary for independent work, and of the motivation or strength of commitment to the professional career implied by this program of study. If you have taught the applicant, your comparison of the applicant to other students who have done graduate work at Rochester or your school would be valuable.

Please return your recommendation as soon as possible; the Committee considers these letters vital parts of the application, and decision must wait on them.

Barbara has been engaged in research in nuclear chemistry under my direction since the summer of 1978. She is one of the best undergraduate research students that has ever been associated with me and has been operating on the level of my top graduate students.

During the Winter Quarter of 1978 (that is during her Junior year) she was a member of the nuclear chemistry class (Chemistry 123) taught by John Rasmussen and me; here Barbara had the highest grade in a class of 30, ahead of most of the graduate students.

Barbara has worked on several research projects, a result of the desire of different members of my research group to have her as a collaborator. One project has been the identification of reaction products produced in the bombardment of uranium with 28 GeV protons in the Brookhaven National Laboratory's AGS accelerator; she won the American Chemical Society's Charles D. Cory Award in Nuclear Chemistry (presented annually to undergraduates whose completed nuclear or nuclear oriented research projects in chemistry or chemical technology are judged to be the best among submitted), on the basis of this work. She has also worked on the identification of actinide isotopes produced in the bombardment of actinide targets with heavy ions.

Barbara has a very pleasant and engaging personality; she is intelligent, industrious and gives every evidence of becoming a first class scientist.

Among the students at a similar level whom you have known in recent years, how would you rate this student?

upper 2% X upper 10% _____ upper 25% _____ upper 50% _____ lower 50% _____

How long have you known the applicant? 2 1/2 years (as Teacher, Supervisor, etc.?) Teacher and Supervisor

Signature: Glenn T. Seaborg Date January 2, 1980

Position, Profession or Occupation University Professor of Chemistry; Associate Director, Lawrence Berkeley Laboratory

and professional address: University of California, Berkeley, California 94720 Phone # (415) 486-5661

Tuesday, January 1, 1980- Lafayette

Today is New Year's day.

Helen and I watched the Rose Parade from Pasadena on television. Later in the day Kent and I took a hike to Lafayette Ridge.

Helen, Dianne, Dave, Kent and I watched parts of the Cotton Bowl and saw the University of Houston beat the University of Nebraska 17-14, and in the Sugar Bowl, the University of Alabama beat the University of Arkansas 24-9.

We had lunch in the playroom, and then watched the Rose Bowl game. U.S.C. beat Ohio State University 17-16. During and after dinner in the playroom, Dianne, Kent and I then watched the Orange Bowl game. The University of Oklahoma beat Florida State University 24-7.

Wednesday, January 2, 1980- Berkeley

I went over my mail with Pat and dictated answers to letters, etc.

Luo Cheng showed up to begin work with me for a year and a half stay. He will start with Diana Lee on the study of production of actinide isotopes from heavy ion bombardment of actinide targets. He filled out the necessary papers with Eileen Eiland.

I went by Building 70 and talked to Diana Lee, Ken Moody, Rose McFarland, and Barbara Jacak about their Christmas vacations, etc.

I dictated letters of recommendation for Barbara Jacak (copy attached) for admission to graduate school at the University of Rochester and the University of Washington; to Gerard J. Dreiss, Associate Editor of The Physical Review with my comments on the revised version of a paper, "Search for Naturally Occurring Superheavy Element $Z = 110$, $A = 274$ "; to Wally Schulz with an abstract for my plenary address at the San Francisco Transplutonium Production Symposium next August; and to Monty Montgomery regarding questions about the HikaNation. I replied to a student, Barry Fortson, that the most exciting part of my job is the research that I perform with my graduate students. I also responded to Leonard Katzin's letter of December 28th, thanking him for sending his material updating Chapter III of our revision of The Chemistry of the Actinide Elements. This material was sent on to Joe Katz.

At 10:40 a.m. I received a call from Mickey Kerlick of William Carey's office, AAAS headquarters in Washington, D.C. Ms. Kerlick invited me to attend the award ceremony for George P. Miller, which is scheduled for Sunday, January 6th, at 8:30 p.m. at the San Francisco Hilton Continental Ballroom. I thanked her for her thoughtfulness in calling me and I said I would try to attend.

At 10:55 a.m. I talked with Gordon Bixler. He will leave tomorrow for India to attend a workshop. He said the draft minutes of our IAC meeting in September are in

UNIVERSITY OF WASHINGTON
DEPARTMENT OF CHEMISTRY
GRADUATE STUDENT APPLICATION EVALUATION FORM

Printed Name of Applicant
Barbara V. Jacob

The applicant understands this form (and any accompanying statement) is submitted as a confidential evaluation and waives the right (Public Law 93-380) to examine it.

Applicant's signature Barbara V. Jacob

Return to:
Graduate Student Recruitment Committee
Department of Chemistry BG-10
University of Washington
Seattle, Washington 98195
United States of America

1. I know the applicant very well, moderately well, only slightly (please underline).

Very well.

2. My contact with the applicant comes from a lecture class (rank), a laboratory section, another relationship (please underline)

Lecture class (third in class of 30 containing many graduate students, undergraduate research under my direction, assistant in an undergraduate chemistry cluster advisory group of chemistry majors).

3. I would rate him (or her) as follows:

	Excellent	Above Average	Average	Unable to Judge
Ability to communicate (in English)	X			
Industriousness	X			
Initiative	X			
Knowledge of Chemistry	X			
Laboratory technique	X			
Reasoning ability	X			

4. Supply a statement regarding your estimate of the applicant's aptitude for graduate work:

Barbara has done undergraduate research work under my direction since the summer of 1977. She is one of the best undergraduate research students that has ever been associated with me and has been operating on the level of my top graduate students. Barbara has worked on several research projects, a result of the desire of different members of my research group to have her as a collaborator. One project has been the identification of reaction products produced in the bombardment of uranium with 28 GeV protons in the Brookhaven National Laboratory's AGS accelerator; she won the ACS 1979 Charles D. Coryell Award in Nuclear Chemistry on the basis of this work. She has also worked on the identification of actinide isotopes produced in the bombardment of actinide targets with heavy ions.

Barbara has a very pleasant and engaging personality; she is intelligent, industrious and gives every evidence of becoming a first class scientist.

5. If possible, compare the applicant with other students you have recommended here:

I do not recall whether I have recommended other students to your Department; however, she would compare favorably with any undergraduate students that I have ever recommended for graduate work anywhere. I might add that during the Winter Quarter of 1978 (that is during her Junior year) she was a member of the Nuclear Chemistry class (Chemistry 123 taught by John Rasmussen and me; it was in this class that she had the third highest grade in a class of 30 - ahead of most of the graduate students.

Printed name of Respondent: GLENN T. SEABORG

Signature: Glenn T. Seaborg Title: University Professor of Chemistry and Director, Lawrence Berkeley Laboratory

Department: Nuclear Science Institution, University of California Date: January
Dept. of Chemistry

the mail to me. He is also working on his comments on my article for The Sciences. We talked about getting a person to represent the ACS in the consortium of societies concerned with international activities of the AAAS. After some discussion we agreed that Bob Parry would be logical person to ask and I said I would contact him.

At 11:15 a.m. I called Ray Colvig. I gave him some background on the IPA Glenn T. Seaborg Science Award and asked him for any ideas for a 1980 winner of this Award. He knew of Ray Bradbury, a science fiction writer. We also talked about Carl Sagan and Jacques Cousteau. He will attend the dinner for the Association of Science Writers held in conjunction with the AAAS meetings in San Francisco and may get some ideas from that occasion. He said he is just about finished with the year 1958 (of my chancellor years) and he will be sending me notes on that. We discussed some ways of "quarterbacking" of the past as certain items pertain to present considerations and problems at U.C. and elsewhere. He will send me a copy of the Gazette story from last Sunday's paper in which I am interviewed and quoted.

At 11:30 a.m. I talked to Robert Parry. I first congratulated him on his election as Director-at-Large in the American Chemical Society. I asked him if he would serve as the ACS representative to the AAAS consortium of affiliates of societies having international activities; I told him that Gordon Bixler has been serving in a staff liaison position but now the society wishes a more formal representation and the appointment will be made by the ACS President. He said he would serve in this capacity as long as the time demands were not too heavy. I notified Gordon of his decision.

Then Bob asked me if I would serve on a fundraising committee for the PRF endowment fund. Bill Baker has been approached to be the chairman with Bob doing most of the staff work. The committee will attempt to raise funds from oil companies and others to augment the dwindling PRF fund, which is being eaten away by inflation and faces rather severe cutbacks for grants. I said I would do this but that I could not attend many meetings; Bob said it was not expected that the committee would have many meetings and most of its activities will be carried out by mail and telephone. He will be meeting with Bill Baker in late January and I will hear more about this committee after that time.

At 11:50 a.m. Bill Jolly called to ask if I would substitute for the scheduled speaker at the "Frontiers of the Natural Sciences" program of the AAAS, Sunday, January 6th at 2:30 p.m. in the San Francisco Hilton Hotel Continental Ballroom. I said I would speak on "Our Heritage of the Elements." Rolf Sinclair (National Science Foundation and Secretary of the Physics Division) is in charge of the arrangements. I talked to Richard Lemmon and told him that I would nominate Melvin Calvin for the Parsons Award; the nomination is due March 1, 1980. I agreed to his interviewing me at some time in late January or early February regarding my opinion of how the ACS experimental Science Commission is working out.

At 12:15 p.m. Ms. Lestina from the Illinois Science Lecture Series called to invite me to speak on energy on December 5th or 6th, in Chicago. I declined as I will be out of the country at that time. I gave her the name of Chauncey Starr at EPRI and she said that Melvin Calvin and Hans Bethe had also been recommended to her. I suggested she try to contact Bethe first.

I received letters from Bernhard W. LeVander of the American Swedish Institute; from Howard Fawcett, chairman of the Division of Chemical Health and Safety, who thanked me for my role before the Science Commission to reverse the action of the Divisional Activity Committee. The Committee had wanted to eliminate the Division of Chemical Health and Safety. In his letter, Howard also mentioned that he will be the division's new councilor to the ACS. I also received a letter from Tenzin Geyche, secretary to His Holiness the Dali Lama (attached).

I had lunch in the cafeteria with Frank Stephens. I tried to convince him to stay at LBL rather than accept a group leader position at ORNL. I told him I think we can actually get the add-on to the SuperHILAC and keep a viable low energy nuclear physics budget.

At about 4 p.m. I went by Building 70 to talk to Pat McGaughey, Barbara Jacak and Diana Lee.

I talked to Eileen Eiland and learned there is apparently some delay in the arrival of Luo Cheng's papers from DOE to clear him to start work with me.

I called Darleane Hoffman; she will come to LBL at some time during the week of January 14th.

Helen, Dianne, Kent, Dave and I had dinner in the kitchen.

Dave, who is moving back to Keyston's, had a date this evening. I worked in the study during the evening.

Thursday, January 3, 1980- Berkeley

I went by Building 70 at about 9:30 a.m. to talk to Diana Lee and Luo Cheng. Diana is getting Cheng started on his program of work on the production of actinide isotopes from heavy ion bombardments of actinide targets. I also talked to Ken Moody, who has planned a bombardment of ^{29}Si with ^{18}O at the 88-Inch Cyclotron to study the relative yields of ^{44}Sc isomers. I also talked to Rose McFarland about her research.

At about 10 a.m. I walked up to the HILAC building to have a talk with Al Ghiorso about Saburo Yashita's planned work on ranges of recoils in various gases, Somerville's job situation (he didn't get the position at ORNL), Mike Nitschke's recoil detection system (it seems to be working), our plans to request 40 micrograms of ^{254}Es (Ghiorso now supports it), etc.

Ken Moody and Pat McGaughey dropped in to tell me plans are complete for their ^{29}Si plus ^{18}O bombardment next Tuesday.

I dictated several letters to the following people to accompany pictures I took while in Stockholm in December: Mr. and Mrs. Willard Cheek, Dr. Wilhelm Odelberg,



TERKHEEN CHOLING
DHARMSALA CANTT
KANBERA DISTRICT
HIMACHAL PRADESH

December 18, 1957

Dr. Glenn T. Seaborg
Associate Director
Lawrence Berkeley Laboratory
UNIVERSITY OF CALIFORNIA, Berkeley
Berkeley, California 94720
U. S. A.

Dear Dr. Seaborg:

I apologize for this delay. His Holiness the Dalai Lama has asked me to convey to you His appreciation for the trouble you had taken in showing Him around the Lawrence Berkeley Laboratory, University of California. His Holiness was also deeply interested to hear and appreciated your explanation about atoms and neutrons when you later met Him during His rest before the reception.

The visit of His Holiness to the United States was gruelling and extremely exhausting, but it was also a big success. The people whom His Holiness addressed received Him with much warmth and love. Their response was very enthusiastic. It was most encouraging. Even the media - the press as well as the TV - was favourable to the trip.

With my best wishes,

Yours sincerely,

Tenzin Geyche
Secretary to H.H. the Dalai Lama

/pd

Yngve Ohman, Lena Björck-Kaplan, Signe Karlstrom, Edward Lindell, Ellen Eliason, Curtis Carlson, Nils William Olsson, and Dorothy Schriver. I also wrote to Betsy J. Stover to tell her I have written to Professor Marguerite Warren in support of her application for the position of Vice President for Research and Dean of Graduate Studies at the State University of New York at Albany; to George Rogosa to thank him for his summaries on the 40 STS finalists; to Richard Donovan regarding the International Platform Association; and to Congressman Ronald Dellums on behalf of CUWA (attached).

I sent out 27 letters regarding HikaNation-to reserve overnight camping sites, for publicity purposes and to people interested in joining the hike.

At about 11:30 a.m. Dick Frankel came by and I rode with him to the headquarters of Kevex in Foster City. We then walked to the nearby George's restaurant, where we had our lunch. Dick and I then talked to Hunter Simpson (in Seattle) by phone. Hunter agreed to become a member of the Board of Directors of Kevex--he will come down to Kevex later this month and Dick and I will meet with him. Dick and I then met with George Kladnik and George Thomas. Kladnik gave a survey of future business for Kevex in the field of analysis of semiconductors (potentially some 2,000 customers in the U.S.) and Thomas similarly surveyed future metal analyses (thousands of firms in the U.S.). Dick and I made short tours of the buildings.

I rode back to LBL with Dr. Benedict Schiffbein, who recently joined Kevex, coming from ETAC. We arrived at LBL at almost 3:30 p.m.

I received a call from Ken Madsen with some disturbing news about Tim Adami's irresponsible financial activities at Strawberry Lodge. We will need to have a meeting about this.

I went by Building 70 to talk to Ken Moody (who was analyzing data) and Barbara Jacak (who told me she will be leaving for the GSI laboratory in Germany on January 23rd).

Helen, Dianne and I had dinner in the playroom. (Dave has moved back to Keyston's and Kent went to Davis today.)

I called Tim Adami at Strawberry Lodge and Ken Madsen at his home to discuss the strain in relations that is developing between them and some financial problems at Strawberry Lodge.

I called Brian Thiessen at his home in Alamo to discuss his plans to bring a sewer line to his property on El Toyonal, below our Orinda property; this brings the sewer somewhat closer to our property.

Friday, January 4, 1980- Berkeley

At 9:25 a.m. I talked with Preston French (Manager of Parks and Grounds, Yolo County, Woodland, California) regarding access to the Clarksburg Landing facility,

January 3, 1980

Congressman Ronald Dellums
House Office Building
Washington, D.C. 20515

Dear Congressman Dellums:

As a consortium of over 25 conservation-minded organizations of the East Bay Area, CUWA urges your active support of HR 5578 by Representative Phillip Burton to restore and protect wilderness areas. Although our primary activity has been concerned with establishment and protection of natural areas close to urban centers, we also are concerned that the nation's larger wilderness areas be adequately recognized and protected.

Although many of our country's wilderness areas are roadless and have little recreational value, they are invaluable watershed areas. Only by adequate protection of our watersheds can we assure an adequate supply and protection of our water, one of our most essential natural resources, and also provide protection against flooding and its consequent destruction of both urban and rural properties.

Our further concern is that failure to adequately protect still other wilderness areas, such as those having some recreational value, could result in these areas becoming unattractive to those who enjoy the wilderness for recreation. Nevertheless, need for such recreation would continue and so place an undue burden of overuse on existing local, state and national parks many of which are now overcrowded in the vacation season.

Many of our wilderness areas include the habitats of rare and endangered species of plants and animals. This is particularly true of some areas in California such as the Siskiyou, Cook and Green Pass areas, Snow Mountain, Red Buttes, Russian Peaks, and parts of Sheep Mountain where many native plant species are found and could provide valuable adjuncts to the gene pool. Passage of HR 5578, therefore, would serve several areas of much needed and economically important protection.

Sincerely yours,

Glenn T. Seaborg

CTS/11

cc: Senator Alan Cranston
Senator S. I. Hayakawa

4a

bcc: Roger Reeve

which is under his jurisdiction. Although there is a county ordinance prohibiting overnight camping there, French was sure something could be worked out. He mentioned another facility about five miles further that might be available but is not generally open to the public--I believe this is too distant to make camp on that day. I later dictated a letter to French as a follow-up to our conversation, restating the some of the points we discussed and inviting him to join in the Hike.

I wrote to Wang De-Xi to thank him for sending me the first issue of the Journal of Nuclear and Radiochemistry published in China and told him that Luo Cheng has just joined my group this week. I also told him that I do not have any objection to the publication of a Chinese translation of my Priestley Medal address. I sent prints of pictures taken in Stockholm to Andrew Zupan and Martha Papay, the two ISEF winners of the "Glenn T. Seaborg Nobel Prize Visit Awards." I also wrote two letters of recommendation for Barbara Jacak, one to Michigan State University and one to the University of Maryland.

At 9:30 a.m. I called Ken Madsen at his office; he told me he has talked to Tim Adami last night and this morning and effected some reconciliation. We all will probably meet next Tuesday night for further discussions.

I went by Building 70 to see Diana Lee (she told me we still have electronic troubles with the alpha counters), Luo Cheng and Ken Moody.

I walked down to the campus to hold my office hours from 10 a.m. to noon. Peter Nicholson from Piedmont (who lives at the Delta Kappa Epsilon house, and who is now an undeclared major) dropped in to say he wants to join my freshman chemistry cluster advisory group. I said this would be okay. He learned about me from his chemistry teacher Mrs. Juliette Dunham at Skyline High School. Margarete Dunham also dropped in; she told me she failed Math 1A last quarter --this requires some readjustments in this quarter's program. Roland Hsu (who is half Chinese) came in for help to pre-enroll in Chemistry 1B and I took him to see Falick.

I dropped in to see Chairman Tinoco to review Alex Pines' file for promotion to full professor (to be considered at a meeting of the Chemistry Department full professors next Friday afternoon); I expressed myself as being in favor. Luciano Moretto was also in Tinoco's office so we discussed Jens Kratz and Walter Loveland as candidates for an appointment in nuclear chemistry (radiochemistry) in the Department of Chemistry.

At about 11:30 a.m. Luciano Moretto dropped in to my Latimer Hall office to discuss further with me candidates for an appointment in nuclear chemistry (radiochemistry) in the Chemistry Department, our mutual hope for an addition to the Bevalac, the deficiencies in leadership at NSD and LBL, etc.

I walked back up to LBL and had lunch in the cafeteria with Rick Gough. We discussed plans for a new injector source for the 88-Inch Cyclotron, his interest in moving to Texas A&M, possible postdoctoral positions for Pat Somerville, etc.

At 1 p.m. Marilyn Rodder came in with a request that I write a supporting letter for admission to schools of business in general; it would be addressed to the Office of Student Advising and Assistance on campus. She reminded me that she had been in my Chemistry 1C Laboratory Section in the Spring of 1977, did volunteer research with my group in the summer of 1978, and took Chem 14 in the Winter and Spring of 1979.

From 1:30 p.m. to 3:45 p.m. I met in my office with Wladslaw Swiatecki, Al Ghiorso, Ken Hulet, Saburo Yashita, Matti Leino, and Matti Nurmia (who left early) to explore Swiatecki's latest ideas on superheavy elements. He is urging us to try to detect compound nuclei through their characteristic x-rays before they emit neutrons (in approximately 10^{-18} seconds).

Che-Chen Liu, freshman chemistry cluster advisory student, came in at 3:45 p.m. and I signed her study list.

I received a letter from Doubleday publishing company saying that, although Mrs. Onassis had not seen our book (i.e., Kennedy, Khrushchev and the Test Ban; An Eyewitness Account), Doubleday has decided not to publish it because it would not be as successful as they would want.

I called Ben Loeb and had a long talk with him about the content of the last chapter of our book.

At about 5:15 p.m. I dropped by Joe Cerny's office to talk to him about the new LBL overhead policy, the new course (Chemistry 195) he is teaching this quarter, and other matters.

Helen, Dianne, Kent and I had dinner in the kitchen. During the evening I worked in the study preparing for my talks at the AAAS meeting in San Francisco tomorrow and Sunday, etc.

Saturday, January 5, 1980- San Francisco

I rode to the Hilton Hotel in San Francisco with Kate Gung, to attend and speak at the AAAS meeting. Here I met and talked to Len Rieser, Bill Nierenberg, Bob Rice, Bill Golden, Bill Carey, Dael Wolfle, Marcel Roche, Dave Beckler, Mark Christensen and many others.

Starting a little after 11 a.m., in the Continental Ballroom, I participated with John Geesman (California Energy Commission's staff) in a question and answer session in which the two of us answered the questions from four high school students (Walker, Baxter, Liston, and Harris). John Geesman and I were introduced by Jaime Oazaca (Vice President, Northrup Corporation, Anaheim) and the four students introduced themselves. There were about 1,700 high school students in the audience. The program, "Energy Sources and Utilizations," was arranged by Bob Cremer of the Lawrence Hall of Science as part of an AAAS "Youth Symposium: Frontiers of Science," in which Hubert Alyea and Arthur Lane preceded us. Kenneth Morris followed us.

I opened with a short statement in which I emphasized the serious nature of our energy crisis and described our energy use in terms of millions of barrels of oil equivalent per day. Then John Geesman made a statement explaining how California's energy program is more advanced than that of the federal government because it rules out the use of nuclear power.

In response to questions I described the six sources of energy available to us and our need to develop them all, said the waste disposal problem is a political and not a scientific one, described how heavy hydrogen from the oceans can serve as fuel for fusion reactors (which will not be available for 30, 40 or 50 years), and described the limitations on the use of solar energy and my predictions of a hydrogen economy as the most feasible path. John Geesman's answers were naive and mainly along the lines of Governor Brown's philosophy.

After this session I met Stan and Renee Schneider and the three of us met Helen in our Phoenix in front of the Hilton Hotel. We drove to Sausalito and had lunch at the Sweet Shoppe restaurant. We then drove to Sonoma to visit the old home of Vallejo, to Glen Ellen to visit the Jack London State Park, and on home via Oakville, Yountville, Napa, Vallejo, Benicia and Walnut Creek.

Renee and Stan Schneider had supper with Helen, Dianne and me in our dining room. After supper their friends George and Shirley Parce came by and drove Stan and Renee to their home (above the Claremont Hotel).

Sunday, January 6, 1980- San Francisco/Lafayette

Helen and I watched part of the AFC Championship Game between the Pittsburgh Steelers and the Houston Oilers (we learned later the Steelers won by a score of 27-13). We then we drove to San Francisco to attend the AAAS meeting.

While Helen had lunch with Stan and Renee Schneider and Dave, I went to the Oxford Room of the St. Francis Hotel to attend the luncheon for the 10th Interciencia-Sponsored Symposium. I sat at the head table with Leonard Rieser (President of the Interciencia Association), Marcel Roche (Editor of Interciencia magazine), Dr. Abrahamson (Immediate Past President of the Scientific, Technological and Engineering Community of Canada [SCITECC]); Dr. del Campo (representative from Mexico with whom I worked to plan the 1973 AAAS meeting in Mexico City), and Phil Abelson, who left early.

Phil Abelson, Leonard Rieser, Marcel Roche and I made plans for setting up a non-profit association to raise funds to support the Interciencia Association; I agreed to serve on a committee to work on such a project.

Marcel Roche told me Interciencia magazine has about 2,000 subscribers--approximately 600-700 of these are in the United States.

After lunch Leonard Rieser made some remarks and then called on me. I recalled my role in bringing AAAS into international activities, my trips to Mexico City

to work with del Campo in planning for the AAAS meeting in 1973, my participation (including my remarks in Spanish in the opening session) and in the 1973 meeting along with President Etcheverria and Dr. Bueno. I expressed admiration for the successful way that Leonard Rieser and others launched in 1975 and sustained the Interciencia Association and that Marcel Roche has guided Interciencia magazine. Leonard Rieser then called on del Campo, Abrahamson and Roche for comments.

Among the approximately 50 people present at the luncheon were Roger Revelle, Walter Roberts, James Rowe and Dr. Bergeron (former president of SCITECC).

At the end of the program I walked with Roberts to the Hilton Hotel where I went to Continental Ballroom Four to give my talk at the "Frontiers of the Natural Sciences" program. I talked for about an hour on "Our Heritage of the Elements." My talk consisted of a short history of the discovery of the elements, the role they have played in determining man's destiny, and the source problem and the need for recycling, and then went into a more detailed description of the new elements and the work on and hope for the superheavy elements. My talk was illustrated by 29 slides. (It was in connection with the new elements that I used the slides.)

After my talk I joined Helen and Stan and Renee Schneider; we heard the talk by Diacris on statistical methods used in ESP experiments.

The four of us then walked to the St. Francis Hotel, where we went to the Elizabethan Room to join Dave, who was listening to a talk on "Human Circadian Clocks." Here we talked to John and Louise Rasmussen, their daughter Jane, and Roger and Marian Reeve. In the lobby we met Pat Johnson, her daughter Celeste, and Pat's mother, along with Lin Lorenz, Jim Stack and Jim's father (who is in San Francisco for the AAAS meeting).

Helen, Stan, Renee, Dave and I then had a bite to eat at Harvey's Kitchen. After this, Dave, Stan and Renee planned a walk through Chinatown before attending AAAS President Boulding's lecture.

Helen and I drove home to Lafayette. Helen then drove Dianne and Kent (who just came from his parents' home) to Davis.

I did some work in the study.

Monday, January 7, 1980- Berkeley/San Francisco

Walter Loveland started his sabbatical stay with my group this morning; he will be here until about March 20th. I went by Building 70 to discuss his program with him. I also talked to Ken Moody about his chemical yields in our ^{136}Xe plus ^{248}Cm bombardment.

I walked down to the campus and attended Professor Myers' Chemistry 1B lecture in PSL from 9:10 a.m. to 10 a.m. I then went by Latimer Hall to ascertain my Chemistry 1B laboratory section assignments.

I walked back up the hill where I attended the scheduling meeting in Building 88 for a while (McFarland was given her shift time for ^{18}O plus La) and then went by Building 70 to talk to Diana Lee, Pat McGaughey and Luo Cheng. I also talked to Walter Loveland about our paper-writing schedule.

At 11 a.m. I talked with Jan Cooney, Rescue Volunteer Fire Department. She said they would be glad to have the hikers camp there on Saturday, April 26th. There is a water hose attached to the Fire Department building but there are no toilet or cooking facilities. Because they are a volunteer fire department they cannot leave their building unlocked in order to provide toilet facilities to the hikers. She said the Baptist church may have facilities; the small store nearby does not have public facilities. I told her I would work something out to solve that problem and we would plan to stay at Rescue on that date.

I sent an abstract of my plenary lecture (for the ACS San Francisco meeting next August) for the symposium, "Nuclear Properties of the Transplutonium Elements," to Ken Hulet as he requested. I also wrote a letter of support for Marilyn Rodder for admission to a graduate school of business. I received a very interesting letter from Yngve Ohman (attached).

I walked down to the Faculty Club and had lunch in the Lewis-Latimer Room with the faculty of the Department of Chemistry. Bryce Crawford was there and I talked to him about his present activities. I also talked to Jim Cason about some of his investments, including one in the Apache Oil Company.

I walked back up to my LBL office and conferred with Walt Loveland about our proposed experiment at CERN--86 MeV per nucleon ^{12}C on Ta, Bi, U. We may decide to collaborate with the Reinhard Brandt group at Marburg on this experiment.

At 2:25 p.m. Dick Hildebrand returned my call to express interest and enthusiasm about the cross-county hike (which he had misinterpreted as ending in Walnut Creek). He agreed to have a welcoming ceremony for the hikers at noon at Heather Farms Park and asked if there were anything else he might do. I encouraged him (or anyone else interested) to join the hike along the way. He suggested I contact the Walnut Creek police concerning the crossing of several streets along the way and agreed that Bob Pond was the correct person to contact concerning our intended overnight stop in Walnut Creek Open Space.

At 3 p.m. Bill Monahan from the Brannan Island State Recreation Area called me concerning approval of our overnight stop at Brannan Island on Saturday, April 19, 1980. He said that I should send in the application to Ticketron with a check for two Group Camps at \$10 each, plus a \$1.75 reservation fee. I invited him and any of his friends or rangers to join us in the hike.

At 4 p.m. I attended the Nuclear Science Division seminar in Building 70A/Room 3377 where Shoji Nagamiyaz talked on "Geometry and Dynamics of High Energy Heavy Ion Collisions."

Professor Glenn T. Seaborg

Lawrence Berkeley Laboratory, BERKELEY, California 947 20, USA

Dear Glenn,

It was a very great event to meet you and your charming wife Helen in Stockholm on December 9 and 10. Many thanks for the kindness you showed me, particularly in connection with our visit to Laxbrostugan on Skansen. I gave a detailed report to Gunnel when returning to our home in Lund, and I think she felt sorry for not having had the opportunity to be with us.

I am a little late in sending you the material I promised, but enclosed you will find now my diagram of 1973 showing that Brita was born in Michel Hinderssons 2:nd marriage (with Maria van Gent). I also enclose Xerox - copies of some of Barta 'letters of 1663 including the one of March 7 giving the reference to Michel Hindersson . I was not able to find this reference from my first inspection of these letters (when I found them on Riksarkivet) but from the Xerox-copies I made for Göte Klingberg he was lucky in finding it (Arboga Minne). In a letter to Göte I have asked him to write a summary of his van Gent-papers as you suggested.

I promised to send you a list of those "cousins" of Your 's who became professors. So far, I have the following list :

1) From Brita 's son Johan Ohman

Karl-Herman Forsslund, Born 00 deceased, entomologist, son of the author.
Yngve Ohman, born 03, astrophysicist.

2) From Brita 's daughter Katrina Ohman

Göte Klingberg, pedagogics, *born 18.*

Lars Kjelleñ, born 23, virologi (The brother of Göte 's wife).

3) From Brita 's son Anders Ohman

Alfred Westholm, born 04, archaeologist. Father as well as mother descendants. The brother of his grandfather gave Laxbro to Skansen.

Related : Gunnar Arpi, Born 19, geography. His grandfather 's second ~~second~~ cousin was married to a descendant in 4:th generation to Anders.

This is what I am able to give you to-day. Gunnel joins me in sending you and your family warm wishes for a Happy New Year.

Yours

Yngve

Helen and I drove to San Francisco and went to the Yorkshire Room of the St. Francis Hotel to attend the pre-dinner reception and black-tie dinner honoring former presidents of AAAS. Among those present and to whom we spoke were AAAS officers: Fred Mosteller (President), Kenneth E. Boulding (Chairman), Edward David (Immediate Past-Chairman), Ann David, Allan Bromley (President-Elect), Mrs. Allan Bromley, William T. Golden (Treasurer), William D. Carey (Executive Officer), Mrs. William Carey, Anna J. Harrison (Director), Russell W. Peterson (Director), AAAS members, Leonard Rieser, Roger and Ellen Revelle, Athelstan Spilhaus, Allen Hammond, Bentley Glass, David and Shirley Saxon, Dr. and Mrs. Ed Ginzton, Dr. and Mrs. William McElroy, Dr. and Mrs. Philip Abelson, Lewis Branscomb, Rosemary Chalk (Staff Officer, AAAS), Arthur Herschman, Dael Wolfle, and Dr. and Mrs. Chauncey Starr; from foreign countries, Mr. and Mrs. Starveld (Science Attaché, Swedish Embassy, Stockholm), Dr. Adam (president of a scientific association in Hungary), Gunnar Hambræus (Executive Officer of the Royal Swedish Engineering Academy), Marcel Roche (Editor of Interciencia magazine), and Dr. and Mrs. Ziman (Bristol, U.K.--Dr. Ziman heads a scientific association).

After the reception we went to dinner in the neighboring North and South Olympic Rooms. I sat at a table with Ed Ginzton, Mrs. Abelson, Ed David, Allan Bromley, Mrs. Carey and Mrs. Saxon.

Since I was sitting next to Ed Ginzton, who is chairman of the subcommittee of the Regents Committee to make recommendations to the president on the selection of a successor to Andrew Sessler as Director of Lawrence Berkeley Laboratory, he asked for my views. He told me that the leading in-house candidates are Joe Cerny, David Shirley, George Trilling and J. D. Jackson, with Hermann Grunder also in the running. The leading outside candidates are Frank Press, Francis Lowe of MIT and Jack Sandweiss of Yale. His committee will rank the in-house candidates in order of preference and the outside candidates in order of preference.

During and after dinner Bill Carey served as an informal Master of Ceremonies and called on Ed David, Kenneth Boulding, Fred Mosteller, Allan Bromley and Marcel Roche for remarks; Lewis Branscomb, Spilhaus and Revelle also made some remarks. After the dinner Rieser and I walked up to the Hilton Hotel to pick up in his room some material on the Interciencia Association that I requested.

Helen and I then drove home and we arrived there about 11 p.m.

Tuesday, January 8, 1980- Berkeley

At 8:45 a.m. I received a call from Mason Rumney, a member of the World Future Society attending the AAAS meeting in San Francisco. He asked if I would participate in a panel he is organizing for the World Future Society Toronto Conference next July. This panel will emphasize the control and use of nuclear weaponry in the next 50 years, using the "... national command authority approach." I told him that I could not attend the conference because of previous commitments. In answer to his query about experts on nuclear weapons within the membership of the WFS, I referred him to Ed Cornish. He also mentioned Michael Michaelis, whom I agreed would be a

good choice for a panelist. He asked me to keep his request in mind in the event I find it possible to attend the conference.

I sent in a renomination of professors Goldanskii, Chance and Frauenfelder for the Award of the 1980 Nobel Prize for Chemistry for their discovery, which demonstrates the complete violation of the Arrhenius Law of reaction rates at low and very low temperatures and reveals a low-temperature limit of chemical reaction rates caused by quantum-tunneling of electrons, atoms and molecules through activation barriers.

I wrote to Arthur Hall, who runs the Ace Hereford Ranch, Minden, Nevada; to Professor Yuan-Fang Liu, Department of Technical Physics, Beijing University (copy attached), in response to his request to come to LBL to work with my group; and to Harvey Patt in support of the application of Professor Betsy J. Stover for the position of Dean, Graduate Division, University of California, San Francisco (copy attached). I received a communication from Andrew Sessler regarding scientific burdens and a copy of a letter from Sessler to Saxon concerning the name of the Lawrence Berkeley Laboratory (copy attached).

At 10:45 a.m. I received a call from Margarita Douglas, a Trustee of the American Scandinavian Foundation (ASF), New York, who is currently visiting in the Bay Area. She told me about the ASF sponsorship of the Viking Exhibit being designed by David Wilson for the British Museum which will be at the Metropolitan Museum in New York beginning on September 24th. On that occasion the ASF will sponsor a "Gala Preview" to which she invited me; the ASF will also sponsor "Hospitality Weekends, Viking Committee" and asked if I would serve on her committee. (Vice President Walter Mondale and Mrs. Mondale are Honorary Chairmen of the Viking Exhibit Committee.) She said I should have received a letter from David Swickard inviting me to serve. I told her I might be able to do that but that it was almost impossible for me to undertake any meetings or travel in addition to my already overscheduled calendar. She said they would be happy just to have my name on the membership list. She told me about other long-prospect hopes of the New York ASF--a Scandinavian Culture Center to include a gallery, exhibition area, auditorium, etc. She discussed the San Francisco ASF Chapter and asked if I were very active and I told her about my speaking engagement before the California Chapters of ASF in Monterey last summer. She is hoping to inspire a more "lively" chapter in San Francisco.

I worked with Walter Loveland on the addendum to our request to CERN for our 86 MeV/nucleon ^{12}C bombardments. I also talked to Rose McFarland, Barbara Jacak, Luo Cheng and Ken Moody in Building 70. At a little before noon I walked down to Latimer Hall and held the first luncheon meeting of this quarter with my freshman cluster advisory group. Barbara Jacak was also there. Three students were present--Samuel Behar, Barbara Dorfman and Ray Lambertson. I asked Behar to play the role of my aide (because Barbara Jacak is leaving) in buying soft drinks, cookies, fruit, etc., for our luncheon meetings and I gave him \$10 (as a starter) for this purpose.

From 1 p.m. to 1:10 p.m. I met with the Chemistry 1B, Section 3 laboratory instructional staff. This quarter I will circulate among laboratory Rooms A (Howard Nathel, TA), B (Mark Berg, TA), C (J. D. Arenivar, TA), D (S. A. Munk, TA), E (D. J.

=====
486-5661

January 8, 1980

Professor Yuan-fang Liu
Department of Technical Physics
Beijing University
Beijing, People's Republic of China

Dear Professor Liu:

This is in response to your letter of December 22, 1979. I certainly do remember our meeting during my visit to Beijing in 1973 and your excellent performance as the interpreter for my talk on the transuranium elements at the Institute of Physics.

I would be very pleased to have you work as a visiting scholar under my supervision with my group here at the Lawrence Berkeley Laboratory with the understanding that your expenses would be paid by the Chinese government as indicated in your letter. The suggested period of one year and starting time of the Spring of 1980 is satisfactory.

Your research program would be in the field of heavy ion radiochemistry and would involve the use of chemical separations to identify reaction products and nuclear reaction mechanisms in the region of the actinide elements. There would, of course, be flexibility according to your desires as to which aspects you would like to emphasize.

Your stay at LBL will come under the auspices of the cooperative exchange agreement (signed January 31, 1979), the US-PRC Joint Accord on High Energy Physics. Because we are a National Laboratory, it will be necessary to obtain approval from the U.S. Department of Energy. This approval can take as long as sixty days or more after which Mrs. Pearl Cone, Foreign Personnel Office of LBL, will be in contact with you regarding Visa documentation, the IAP-66 form and other necessary information. I shall, however, advise you as soon as approval is granted. I do not anticipate any problems and look forward to your arrival to work with my research group.

Cordially,

Glenn T. Seaborg

GTS:pj

bcc: J. Cerny, E. Hyde, P. Cone, E. Eiland w/correspondence.

January 8, 1980

Dr. Harvey M. Patt
Professor of Radiobiology
Chairperson, Search Committee
for Dean, Graduate Division
University of California, San
Francisco
Office of the Chancellor
San Francisco, CA 94143

Dear Professor Patt:

I am writing in support of the application of Professor Betsy J. Stover for the position of Dean, Graduate Division, University of California, San Francisco.

I have known Betsy Stover since the time in the late 1940's when she did her graduate work for the Ph.D. degree as a member of my nuclear chemistry group at the Lawrence Berkeley Laboratory (at that time, the Radiation Laboratory) and the Department of Chemistry here at the University of California, Berkeley. She was an outstanding student at that time, performing with distinction in two areas of research - the identification of new radioactive isotopes and the investigation of the chemical properties and absorption spectrum properties of the synthetic transuranium element americium.

Upon receipt of her Ph.D. degree in 1950, she immediately joined the staff of the University of Utah and led the effort there on the investigation of the metabolism of plutonium and other radio-nuclides in living systems. I have followed this work with interest throughout the ensuing years and would rate her as one of the leading authorities in the world on the radiobiology of the important element plutonium.

In October of 1970, I had the honor of participating in a ceremony held by the Radiobiology Laboratory at the University of Utah in commemoration of the twenty years of investigation there on the toxic effects of plutonium and other radioactive materials in animals. This occasion was commemorated by the publication of the definitive work Radiobiology of Plutonium which was edited by Betsy Stover and Webster Jee.

Betsy Stover has exhibited a continuous performance of excellent scientific output throughout her entire career. Her scientific output has covered a broad area of investigation; noteworthy is her deep theoretical understanding of the reactions and rate processes that take place in biological systems.

January 8, 1980

She has served since 1974 as Director of the Graduate Training Program in Pharmacology at the University of North Carolina where she has been since 1970 as an Associate Professor and Professor in the Department of Pharmacology. In this role she has acquired administrative experience and demonstrated leadership qualities and commitment to quality graduate training.

She is friendly, cooperative and considerate. She interacts well with people, both those working for her and those to whom she is responsible. She is a good speaker and would represent the University effectively in national educational circles. She has the self-confidence that follows properly from her scientific achievements and her administrative experience.

Sincerely yours,

Glenn T. Seaborg

GTS:pj



Lawrence Berkeley Laboratory

University of California
Berkeley, California 94720
Telephone 415-486-4000
FTS: 451-4000

January 2, 1980

DC 80-1

President David Saxon
714 University Hall
Systemwide Administration

Dear Dave,

I am writing to you concerning the name of the Lawrence Berkeley Laboratory. My concern may, however, be twisted from what you expect.

Some time ago, an amendment to the DOE Civilian Authorization Act was proposed by Congressman Fuqua and subsequently passed by the House. This amendment which concerned me, and which I tried to stop, proposed a study of alternate management for LBL and a change of our name to the Lawrence Berkeley National Laboratory.

Subsequently a similar amendment, but now concerning Sandia, LLL and LASL, was put forward to the DOE National Security Authorization Act. This authorization was passed by both Houses of Congress and signed into law on one of the last days of December, presumably with the amendment included. On the other hand, for the last two years there has been no authorization act for the civilian programs (because of the Clinch River controversy) and it appears likely that there will be no such bill this year.

Let me assume, for present purposes, that the above scenario becomes reality. In that case, all of the other multi-purpose national laboratories will then have national in their names (Namely BNL, ORNL, ANL, PNL, LANL, LLNL & SNL.) and we shall be the only exception! I have discussed the above possibility with my associate directors (but not more widely) and they have charged me to explore with you your reaction to the proposal (assuming the above scenario) that the University of California take the initiative and change the name of LBL. Perhaps this could be done at the same time as the By-laws are modified to incorporate the mandated changes of the names of LLL and LASL.

There is some thought required, if we do change our name, as to what that name should be. Presumably it should include the words Lawrence and National, but perhaps it should not be the Lawrence Berkeley National Laboratory. We will be glad to consider this subject further, but felt it best to first receive your reactions to these thoughts.

Sincerely,

Andrew M. Sessler
Director

cc: W. Fretter
Associate Directors

Keller, TA), and F (S. F. "Rody" Rodgers, TA). Wayne Hubbel is the section leader. I gave the pre-lab discussion in Room A, after Nathel had checked the roll. Richard relieved me at 3 p.m., and I then walked back up to my LBL office.

At 5 p.m. I went by Building 70 to talk to Walter Loveland and to Diana Lee and Luo Cheng. Lee told me that Dan Landis has fixed the trouble in our alpha counting system.

On the way home I went by Building 88, where I found Moody and McGaughey waiting for their ^{18}O beam to become available.

When I arrived home Helen told me Ken Madsen had called to postpone our meeting until Thursday morning at breakfast.

Helen and I had dinner in the playroom--our first night alone for a long time. Later I worked in the study on our interlaboratory paper (LBL, ANL and BNL) on "Recoil Properties of Products from 8 GeV ^{20}Ne on ^{181}Ta ."

Wednesday, January 9, 1980- Berkeley

I went by to see Walter Loveland to discuss our paper on recoil products from 8 GeV ^{20}Ne plus ^{181}Ta . We also discussed the interpretation of our data on the yields of actinide isotopes from heavy ion bombardments.

I walked down to the campus and went to the meeting in Room J from 9:10 to 9:30 a.m. of the Chemistry 1B instructional staff and then attended Professor Myers' Chemistry 1B lecture in PSL until 10 a.m.

I wrote to Dan Tyler Moore regarding his three suggestions for next summer's Glenn Seaborg Award (Carl Sagan, Ray Bradbury and Jacques Cousteau); I said that Carl Sagan is the best candidate by far and suggested that another good candidate would be Walter Sullivan (Science Editor of the New York Times). I thanked Arlon Hunt, who sent me his report, "Technical and Economic Assessment of Solar Distillation for Large Scale Production of Fresh Water." I sent Nils William Olsson a copy of the very nice letter recently received from Sven Eliason describing his Swedish vacation. We received a VENUS Planning Committee memorandum today.

At noon I held the regularly scheduled SHEIKS meeting in my office. I gave a report on the word through a New York Times reporter (Clyde Farnsworth) that the Russians plan to produce gold from lead in a fusion reactor. Walter Loveland gave a report on some thoughts on (1) the effects of (calculated) fission barriers on the yields of actinide isotopes, (2) the transition between low energy and high energy effects at about 15 MeV/nucleon, and (3) the possible use of the 88-Inch Cyclotron to furnish 15 MeV/nucleon ^{16}O ions. Ken Moody reported on his yields of Pa, U, Np, Pu, Am, Cm, Bk isotopes from ^{248}Cm plus ^{136}Xe and on his work last night with Pat McGaughey to look for ^{44}Si isomer yields from ^{18}O bombardments at the 88-Inch Cyclotron. Al Ghiorso reported on his plans to study the yield for the ^{208}Pb (^{18}O , ^7Be) ^{219}Em reaction. After the meeting I talked to Matti Nurmi about his continuation with my group at

25% of his time; he may have to transfer from Al Ghiorso to the E&E Division on the other 25% of his time because of Ghiorso's lack of funds. I also discussed the progress of Linda England (whom I am paying \$300 per month from my personal funds) in her work, suggesting she become more involved with other members of our group in her work. Saburo Yashita told me about his work with Greg Stover on developing a radiation detector for scintillations using new plastic light conductors.

At 1:50 p.m. I talked with Clyde Farnsworth, a reporter for The New York Times, Washington, D.C. office. He first conveyed greetings to me from John Finney; I returned the greeting and said that I missed John as I no longer had anyone to spar with as resourceful as he in putting together a story.

Farnsworth asked my opinion of the story out of USSR that, in their experiments with fusion energy research, they found that the metal liners used in the process changed composition resulting in the production of gold from lead in usable amounts and leading one to believe that lead alloys could be converted to gold in an economical way, adding that the cost would be about \$600/ounce. This story was given to a Chicago reporter by a Russian scientist, who claimed two classmates of his had discovered this result in 1972 and the Russians were now engaged in further work on this process at their fusion research center near Lake Baikal. He had also talked to Melvin Gottlieb and Edwin Goldwasser about this; Gottlieb said it was "fishy" and Goldwasser said that it is generally accepted that the Russians are in advance of us in fusion technology and we have followed their lead in the last two decades; I said this is true. I gave him background information such as the mass and atomic numbers of gold; how it is possible in accelerators we have available today to hit lead with high energy particles and make a few atoms of gold (by knocking out three charges, i.e. gold with atomic number 79, and lead at 82); that it is done everyday under laboratory conditions.

I said I am skeptical about the veracity of the Russian's report for several reasons--for example where could they get enough particles? Using an ordinary fission reactor does not give you enough energy in the neutrons to get this result; bombarding lead with neutrons with enough energy would call for a fusion reactor the magnitude of which has not been built yet (14 MeV/neutron)--such a fusion reactor would operate with tritium and deuterium and does not exist in the world today. However, I added that the Russians could have extrapolated data and calculated that some day in the future they could make usable amounts of gold in this manner. It would take a fantastic amount of neutron flux running about a year to make gold by the ounce.

From about 2 p.m. to 2:15 p.m. I met in my office with Fred Lothrop and Walter Loveland to discuss our hope to use some ^{12}C beam time that might be available at night during the present partial shutdown of the Bevalac (to save electric power).

At 2:45 p.m. I discussed with Candy Voelker the situation regarding a publisher for my book, Kennedy, Khrushchev and the Test Ban; An Eyewitness Account. She will contact the woman who wrote the letter from Viking Press, and will mention that I do not expect any advance payment and that the usual royalty they expect to give is agreeable, and will explore the possibility of Viking accepting the book for publication under these conditions. She will also talk with Jim Clark at U.C. Press, after talking with

Viking. She said it is the practice to contact just one university press at a time since they are non-profit and will not compete with each other.

Yuan Lee came by about 4 p.m. to tell me that Ken Raymond is at Stanford today where he is exploring their offer to him. Ken wants more autonomy in the use of his research budget in the actinide group and Yuan suggested I talk to him. I later went down to talk to Norman Edelstein. He is willing to consider allocating the money to Ken Raymond and the others in a lump sum, but he will have to check with the other senior investigators and Dave Shirley to see if they agree.

Mike Nitschke called to say he has just come from a meeting of the Equipment Committee at which they decided not to give me the money for the microcomputer (\$14,000) and the multichannel analyzer (\$13,000) that I requested. I will receive some \$3,500 for small items. I went by Building 70 to tell Diana Lee and Walter Loveland about this decision.

At 4:25 p.m. Alan La Pointe and Jack Hill came to my office to show me their case for the EBRPD buying the Taylor-McCosker parcels near Alvarado Park as logical additions to Wildcat Canyon Park. They want me to look this over with Wally Costa and a few others on Saturday morning.

Helen and I had dinner in the playroom.

Ken Madsen called to say Tim Adami has not prepared the expense sheet yet so we have to postpone our meeting. I worked in the study during the evening.

Thursday, January 10, 1980- Berkeley

At 8:20 a.m. I went by Building 70 to talk to Walter Loveland and Ken Moody. We discussed plans for Bevalac and 88-Inch Cyclotron bombardments.

During the morning hours I finished writing my paper on an International Chemical Society for The Sciences magazine.

I had lunch in the cafeteria with Walter Loveland and Wladyslaw Swiatecki; we discussed his latest views on how to make SHE via compound nuclear reactions. He now believes that the reaction ^{238}U plus ^{76}Ge may offer some promise.

At 3:05 p.m. I talked with Kenneth Raymond and urged him to stay on at LBL. (He has received an offer from Stanford.) I told him that I think the allocation of funds for his research through the actinide chemistry group can be changed to suit him better.

At about 3:30 p.m. I walked down to the campus to pick up my mail and the weekly Chemistry 1B "Fulminator" (newsletter).

At 4:10 p.m. John Ekhouse, a reporter with the Berkeley Gazette, called to ask me my opinion of the effect President Carter's policy regarding the Russian invasion of Afghanistan will have on scientific exchanges with the USSR. I said I was not aware of

any canceled scientific exchanges by the State Department and that I did not know if exchanges would lessen tensions under the conditions that exist today. I suggested he call the chairmen of the Chemistry and Physics Departments to see if they had any news of canceled exchange programs.

At 4:15 p.m. I met in my office with Diana Lee, Walter Loveland and Pat McGaughey to discuss how we will operate under the new rules for cost charging at the computer center. After this I met with Walter Loveland and Pat McGaughey to discuss our plans for using 250 MeV/nucleon ^{12}C during night bombardments at the Bevalac (McGaughey and Morita) and 8.5-15 MeV/nucleon ^{16}O at the 88-Inch Cyclotron (Moody).

Helen and I had dinner in the playroom after which I worked in the study.

Friday, January 11, 1980- Berkeley

I went by Building 70 at 8:30 a.m. to talk to Walter Loveland and Ken Moody.

I walked down to my Latimer Hall office (446) in the rain a little before 10 a.m. to hold my regularly scheduled office hour. Sharon Barez (from my laboratory and discussion sections) came in and I worked out a number of problems for her. Simon Chin came in and I had a long talk with him to try to help him overcome his psychological problems.

I then taught my Chemistry 1B Discussion Section in Room D from 11 a.m. until noon, and following that I walked back up to my LBL office in the rain.

I had lunch in the cafeteria with zu Putlitz (visiting here from GSI), Richard Diamond, Frank Selph, W. Swiatecki and (later) Geoffrey Chew. After lunch zu Putlitz came by my office. We talked about the recent unsuccessful ^{248}Cm plus ^{238}U bombardment at GSI and the conference on heavy isotopes scheduled for Dubna in September. zu Putlitz has been invited but probably will not accept. He objects to the absence of an international committee to plan the program. I then took zu Putlitz by Building 70/Room 203 to talk to Barbara Jacak, Walter Loveland, Rose McFarland and Rollie Otto. He discussed details of Jacak's forthcoming stay at GSI.

I talked to Kathy about typing the final copy of Volume IV of the Met Lab Sec C-I history and she agreed.

I sent information regarding HikaNation to several interested people today: Gloria Allen, Jean Beam (coordinator of the hike for Nevada), Bill Marx and Roger Monroe. I wrote a note to Professor N. N. Semenov (Director of the Institute of Chemical Physics) to tell him that I renominated Goldanskii, Chance and Frauenfelder as candidates for the 1980 Nobel Prize in Chemistry.

Saturday, January 12, 1980- Lafayette

At 10:30 a.m. this Saturday morning, I talked by phone with Jack Ingram to discuss the route for the cross-country hike that I have selected through the Sierra region. He has determined the ski route for the "Snowshoe Thompson" celebration and is very familiar with the route I have laid out. He told me some ways of avoiding Highway 50 and identified some people I should contact.

1. Starting about a mile west of Kyburz, perhaps where the Webber Mill Road intersects Highway 50, there is a high power line PG&E right-of-way between Highway 50 and the river (that is south of Highway 50), which might offer an alternate route to hike rather than along Highway 50.
2. From Pow Wow there is a microwave relay station maintenance road south of, and almost parallel to, Highway 50 that continues to about 100 yards east of Little Norway. Although this might be mushy in May it is worth considering.
3. There is a road parallel to Highway 89 (proceeding back and forth across Highway 89) as far as Grass Lake. Then there is a road on the right side of Highway 89 to Luther Pass and another road continuing through the Danberg property.
4. From Sorensen's Resort there is a road (old Highway 88) to the right of Highway 88-89 along the canyon of the east fork of the Carson River that continues a good deal of the distance to Woodfords.

He told me to contact Larry Kuhl, Deputy Sheriff of Albany County in Markleeville to inform him of the hike so that he may be some help.

I drove in the rain to Denny's restaurant at the corner of Highway 80 and San Pablo Dam Road to have lunch with a group called "Friends of Wildcat Canyon." Present were Wally Costa (Director EBRPD), Harlan Kessel (Director EBRPD), Ted Radke (Director EBRPD), Nancy Fahden (Supervisor, District 2), Barbara Gordon (Senior Assistant to Assemblyman John T. Knox), Juanita de Beaux (Senior Assistant of State Senator Nejedly), Jean-Marie Batliner (member of the Friends of Wildcat Canyon), Jack Hill (member of the Friends of Wildcat Canyon), Alan La Pointe (head of the Friends of Wildcat Canyon), and Sat Nishita (member of the Friends of Wildcat Canyon).

I told the group about the cross-country hike and promised to send information to several of them. Costa told me he has the responsibility of responding to my letter to EBRPD.

After lunch we rode in a mini-bus to Alvarado Square for a slide presentation by La Pointe on the Taylor/McCosker parcels on San Pablo Ridge. Friends of Wildcat Canyon want EBRPD to acquire these parcels, which lie between Wildcat Canyon Regional Park and Alvarado Park.

Next most of us rode to Alvarado Park and on up the road by the Taylor/McCosker parcels. We did some walking through Alvarado Park. After this, we rode back to Denny's. I told Harlan Kessel, who is in charge of marketing for University of California Press, about my book, Kennedy, Khrushchev and the Test Ban: An Eyewitness Account. He wants me to discuss with U.C. Press the possibility of their serving as the publisher for the book.

I drove back home and then took a hike up Lafayette Ridge and on to the old boundary of Briones Park and back. I hiked in a drizzle of rain most of the way.

Helen and I had dinner in the playroom. After dinner we watched part of the UC-Berkeley/University of Washington basketball game played in Seattle.

Sunday, January 13, 1980- Lafayette

Signe Karlstrom called to invite me to talk at the Detroit Swedish Council at their annual meeting held in June. Since Tore Tallroth will be in the United States in June, they might also invite him to attend the annual meeting. She also suggested contacting Robert Lundgren (Administrative Vice President of Detroit Edison) regarding a luncheon talk on energy to Detroit businessmen. (The first Sunday in November, when the Detroit Swedish Council has its annual smorgasbord, is another possible date for me to talk to them.) Signe is unhappy about the way the choice of winners of the Swedish Council of America Achievement Awards is proceeding. She thinks Oscar Lundin and Nils Stahle should be considered as recipients.

I read Chemistry 1B material.

Helen and I had lunch in the playroom. We watched Bjorn Borg beat Vitas Gerulaitis in the Grand Prix Masters tennis (played in New York) 6-2, 6-2.

I put together a brief summary of my California itinerary for our AHS cross-country hike (HikaNation).

Helen and I had dinner in the playroom, then watched "60 Minutes" on CBS TV.

I read reprints in the study during the evening.

Monday, January 14, 1980- Berkeley

Darleane Hoffman, who arrived last night, started a three-day stay with us this morning. I conferred with her and Diana Lee about the data, and its interpretation, from our ^{248}Cm plus ^{18}O bombardment, and made plans for another ^{248}Cm plus ^{16}O bombardment.

I also went by to see Walter Loveland, who worked over the weekend on computer treatment of data from our Bevalac runs.

I talked with Kathy and Margie about plans for Kathy to type Volume IV of the Met Lab Sec C-I history.

At 8:55 a.m. I walked down to PSL to hear Professor Myers' Chemistry 1B lecture. I then attended the scheduling meeting in Building 88. We were scheduled for ^{248}Cm plus ^{16}O (for Diana Lee) and ^{197}Au plus ^{12}C (for Walter Loveland, Ken Moody and Rose McFarland).

In my absence a telephone call was received from Paul Lochak; a copy of Pat's memorandum to me follows:

Re: Saudi Arabian Solar Desalination Project

Lochak has discovered that although Gibbs & Hill cannot be involved directly in this project in Saudi Arabia because of ties there, they can participate in the project and provide ALL OF THE TECHNICAL SUPPORT that would be necessary to prepare this project in the United States. This means that GEOMET could be the leader company, can engage the most knowledgeable and qualified people in the U.S. for this project and could cooperate with G&H, who would be handling the technical end in the U.S. He has talked with George Milly about this extensively; Milly has a deep interest in solar energy and desalination efforts.

The company that plays the lead role (GEOMET) has to be "qualified" by SERI (Solar Energy Research Institute) in Colorado and the qualifying will be done by a committee of three Saudi Arabians and two officials of SERI. What Lochak needs from you are: 1. Do you know anyone at SERI? 2. Do you think GEOMET would have any difficulty in being accepted as "qualified," and if you think there would be such difficulties, 3. Could you help them find the best way to become qualified. He stressed the point that this is the project to be executed in Saudi Arabia (evidently there is more than one project).

At 11:10 a.m. I called Mel Simmons, who told me that the person in charge of SERI's international programs is George Warfield--formerly the director of the University of Delaware's chemistry and physics program. Warfield's assistant, who heads up the "developing nations program," is Anwar Malik. Mel said that things at SERI are now chaotic; after a couple of years of rapid growth and during which people thought they could get down to doing their jobs, the new Director (Hayes) has fired many people, changed program policies, etc. Hayes took his undergraduate training at Stanford, majored in economics in graduate school (did not graduate) and is not skilled in dealing with people.

At 11:30 a.m. I talked with Paul Lochak about the hurdle of getting GEOMET qualified (by SERI and a committee of five people; three from SERI, two from SA) as the "lead" company for the Saudi Arabian solar desalination project (with Gibbs & Hill doing the technical work in the U.S.). I gave him what information I have from my conversation with Mel Simmons and told him that I will try to reach George Warfield, who is in charge of international matters for SERI. I also gave Paul some background on the management of SERI, the present Director, and told him SERI is presently in a state of flux (since the appointment of Dennis Hayes as Director) with many Associate Directors fired or resigning. However, Warfield appears to be in a solid position in

international affairs of the organization. I asked Paul if he intends to be in Washington for the STS Banquet on February 25th; he will be there and will bring a friend. He also asked if I had heard from Sargent Shriver, which I have not. We discussed the Ted Kennedy campaign for President which is not going too well at the moment. Paul then said he will call me tomorrow (Tuesday, January 15th) after I have had an opportunity to talk to George Warfield.

At 11:45 a.m. I talked with Candy Voelker. I told her about my conversation on Saturday with Harlan Kessel, a Director of the EBRPD and also Director of Marketing for University Press. Kessel was excited about my book, Kennedy, Khrushchev and the Test Ban; An Eyewitness Account. I told Candy that in light of this development she might temper her conversation with Elizabeth Sifton of Viking Press a bit (i.e. in the matter of concessions and our need for a publisher). Candy's former boss at Harper & Rowe is Jim Clark at University Press. I may just send University Press the returned manuscript from Doubleday for its perusal. Candy will let me know the status of things after her conversation with Sifton of Viking Press.

Walter Loveland and I walked down to the Faculty Club to attend the regular Monday luncheon of the Chemistry Department faculty. I introduced him to Joel Hildebrand, Herbert Strauss, Ken Pitzer, and Chester O' Kanski. I also introduced him to the whole assemblage. We walked back up the hill.

Reid Laitner called to say he may have a potential buyer for our Orinda land. He has formed his own firm, "Centurion Realty, Inc."

At 1:05 p.m. George Milly (President of GEOMET, Inc.) called to say that he had just talked to Paul Lochak about the solar energy plant. I said that I didn't know if GEOMET were strong enough in that area to compete. I told him that I had a call in to George Warfield of the Solar Energy Research Institute and that I would ask if Milly could contact him. (Milly will be in Boulder, Colorado, until January 24th. SERI is in Lakewood, Colorado, between Denver and Golden.)

We then discussed GEOMET's forthcoming annual meeting and I told George that the best times for me would be the morning of February 22nd or the morning of Tuesday, February 26th. George will try to schedule it for the morning of February 22nd. George then informed me that GEOMET had bought a holding company from the Equitable Life Insurance Company. George said it was purchased for \$400,000-\$75,000 of which was in cash. GEOMET will pay 75% of the Accounts Receivable. The Company has an office in Long Island and one in Rockville, Maryland. GEOMET is now cutting down on the personnel and estimates that 60-80 people will be left. The firm deals in industrial hygiene and toxicology. The office on Long Island is doing an aquatic marine biology census collecting data in preparation for a Long Island nuclear power plant. When I asked why they sold the company George told me that Equitable Insurance Company decided to sell all the companies it held that did not deal directly with insurance. They put \$7 million in this company and it was poorly managed and the person in charge absconded with a lot of the funds.

At 1:45 p.m. I called George Warfield, who transferred me to Ivan Smith, who is the project manager for the Saudi Arabian desalination project. Smith said we had met

some years ago. I told him that I was calling on behalf of some friends who are interested in that project, and one would be contacting him from nearby Boulder, Colorado and the other person is in Paris, France. He said he would be happy to tell them about the project and I gave him Paul Lochak's name and affiliation and George Milly's as well.

The desalination procurement package will be issued on February 1st (or near that date); Phase 1 will be "design studies" for both brackish and salt water desalination plants. From these design studies multiple awards will be made (he said at least two) for construction of demonstration projects, possibly one in the U.S. and one in Saudi Arabia (but this is not firm, both could be in one country or the other). These are to be pilot plants to handle 100 to 400 cubic meters/day capacity. The design phase can be based on any solar system available, i.e. biomass, direct solar, photovoltaic, etc. The first phase will be at a fixed price and the second phase at a cost + fixed fee.

After my talk with Ivan Smith of SERI, I called George Milly to give him Smith's name and telephone number and told him that Smith will be expecting to hear from him. We agreed that rather than have me go through the bits of information I have from Smith, it would be better for Milly to get all his information first hand; we also agreed that this would not be a convenient time to make the contacts for consultants and others I know, who would be helpful to the desalination project in Saudi Arabia. I told George that I will be talking with Paul Lochak in the morning and will give him the same information.

At 2:30 p.m. I called Ted Kirksey who is in charge of scheduling LBL colloquia. I told him about the cross-country hike (HikaNation). He thought that LBL personnel would be very interested in knowing more about this and we set a time for me to give a presentation with my slides on Thursday, March 6th, at 4 p.m., in the Building 50 auditorium. He will have a good person on the slide projector for me and we will talk about a title for my talk later.

From 2:30 p.m. to 3:30 p.m. I met in my office with Darleane Hoffman, Diana Lee, Luo Cheng and Walter Loveland to discuss our program of studying reaction products from light ion reactions in the actinide region. After our ^{248}Cm plus ^{16}O bombardment scheduled for January 28th, we will probably study the products from the ^{248}Cm plus ^{22}Ne reaction.

I sent several letters out today regarding HikaNation, many of them with detailed itineraries for the California portion of the hike. Letters went out to Jack Ingram, Barbara Gordon, Jean Marie Batliner, Donald Nance, and Mike McReynolds (regarding the planning meeting).

I received an interesting letter from Roland Erickson regarding current business of the Swedish Council of America.

At 4 p.m. I attended in Building 50 auditorium the NSD seminar by Erwin Friedlander on "Interaction Properties of Fragments from Relativistic Heavy-Ion Collisions at Bevalac Energies: an LBL-NRC Collaboration." This seminar lasted until 5:30 p.m. He described experiments that can be interpreted in terms of quark reactions.

Helen and I had dinner in the playroom. I worked in the study during the evening.

Tuesday, January 15, 1980- Berkeley

Ken Madsen called to give me an update report. Tim Adami is coming down today and he will get in touch with me after talking to Ken.

I went by Building 70 to talk to Darleane Hoffman and Diana Lee about their data analysis, and Walter Loveland about our program for writing up our Bevalac work.

Joe Cerny dropped in at 9:30 a.m. to discuss the situation with respect to the selection of a new director for LBL.

At 9:50 a.m. Joe Katz and I discussed Spencer Weart's book, Scientists in Power, which includes a description of the work of Irene Joliot-Curie. Joe has written his review of the book for Chemical and Engineering News, which he read to me and he will send a copy. It is an excellent review and one which needed to be written. Joe did a tremendous amount of research in preparation for this review and we hope it will counteract some of the erroneous conclusions that might be drawn by people giving the book a cursory reading.

At 10:30 a.m. I talked with Nils William Olsson about the SCA Spring meeting to be scheduled in New York and our need to make a contact soon with Marcus Wallenberg. Nils will contact the people at the Swedish Chamber of Commerce in New York to get their date, which we need to avoid conflicting with and then call me back. I suggested that we schedule our SCA meeting between the dates of March 31st and April 8th. If we cannot get Marcus Wallenberg, Roland Erickson will be asked to contact Lasse Winberg of Bofors in Sweden. Nils received the pictures I sent from my trip to Stockholm; he may be able to use all of them for SCA publicity.

At 11:15 a.m. Mary Jefferds called to enlist my help in getting through a HCRS (Heritage Conservation Recreation Service) grant from the Department of Interior for the Claremont Canyon Acquisition #2. This is a grant of \$450,000, which will be used for purchase of the Claremont Canyon property of Elwin Marg by the East Bay Regional Park District. The EBRPD will match this grant thereby being able to raise the necessary funds for purchase (although the asking price is one million dollars). Apparently this grant has gone through to the top for signing and is being held up in the office of James Joseph, Undersecretary (and below Bob Herbst, Deputy Secretary). According to Mary there has been support all along the way for this grant from Herbst, Chris Delaport, and from Joseph himself. Hulet Hornbeck has been in Washington since Monday talking to people about this, being on hand with all necessary information, etc. Today appears to be a deadline for the signing of this grant. Mary gave me the telephone numbers of Joseph, the Director's office, and numbers to reach her. I said I would try to reach Joseph this afternoon. On the matter of the HikaNation,

the person in charge of arrangements for the EBRPD is Linda Chew; she is also the publicity person.

I wrote to Walter Goggin, Manager of the Land Division of East Bay Municipal Utility District, to thank him for sending an informal permit letter for HikaNation hikers to cross EBMUD lands and sent all the materials on to Jim Kern.

At a little before noon I walked down to meet with my Cluster Advisory group in my Latimer Hall office (446). Dean Norman Phillips was our guest and he described some of the history of the College of Chemistry for the six students who were present.

At 1 p.m. I attended the pre-instruction meeting in 382 Latimer Hall and then helped to give the quiz in Room B and helped with pre-lab discussions.

Joe Antognini, a senior in economics, has taken over this laboratory room from Mark Berg. After the pre-lab discussion, I circulated among Laboratory Rooms A, B, C, D, E, F until 3 p.m.

I then dropped in to see Dean Phillips in his office. We discussed plans to observe Joel Hildebrand's 100th birthday in November of next year (1981). We are considering an all-day symposium in his honor or some kind of reception/dinner. I walked back up the hill and arrived at my office about 3:30 p.m.

I went by Building 70 to talk to Darleane Hoffman and Diana Lee, who are still busy analyzing and interpreting their data.

On the way home, I went by Building 70 to talk to Walter Loveland about our scheduled bombardment, ^{12}C plus ^{197}Au , at the 88-Inch Cyclotron next Tuesday. Rollie Otto was there and he said he would like to participate in this experiment, perhaps making a chemical separation of iridium.

When I arrived home, Dick Trudeau (EBRPD) called to discuss the attempts to get federal financial aid to purchase the Claremont Canyon (Marg) property. He said that James Joseph and De La Porte have turned them down. He wants me to call someone to try to get a reversal of this decision.

Helen and I had dinner in the playroom and afterward I worked in the study.

Wednesday, January 16, 1980- Berkeley

Ken Madsen called early this morning. He and Bonny met with Tim Adami and Peter McMullen yesterday and came to an amicable agreement. Peter will be the General Manager of Strawberry and Tim will have an overview position with special emphasis on finances, marketing and building.

I went by Building 70 to talk to Walter Loveland and Darleane Hoffman about our schedule for today.

At a little before 9 a.m. I walked down in the rain to a meeting in Room J, followed by the last part of the Chemistry 1B lecture in PSL. I then walked back up to my LBL office.

I wrote to Jane Olson (Editor, American Scientist) to tell her that I have written an article, "The New Elements," which I will send to her as soon as the illustrations have been prepared within a week or so; I sent a contribution to the Lawrence Hall of Science Annual Fund on behalf of Helen and me, in the amount of \$500; and I wrote to John Emory regarding the cross-country hike and sent him the information he requested.

At 10:15 a.m. Paul Lochak called to tell me that he had spoken to George Milly and I told him that I also talked to Milly. I said that Ivan Smith was the person at SERI who could give Paul the most help because Smith works for George Warfield in charge of the department. I told Paul that Phase I, "Design Studies for Brackish and Salt Water Desalination," would be awarded in February. Phase II, "Multiple Awards," will be made for construction of demonstration projects. These would be followed by pilot plants for 100-400 m³/day. The design phase is at a fixed cost and the second phase will be at a fixed cost plus a fee. I told Paul that I had mentioned SIT and Paul said that SIT wouldn't be involved because the Saudi Arabians said this would have to be a U.S. project. Paul also told me that he was planning to be in Washington, D.C. for the Science Talent Search dinner.

At 10:55 a.m. I talked with Donald Nance, Sacramento County Parks and Recreation Department. Since Nance had not seen my letter to him of January 3rd, I read parts of the letter to him and gave him background on the cross-country hike. I called him to ask whether the bridge across the American River has been completed and it has not been--in fact, it probably will not be completed until late summer 1980. Therefore, it will be necessary for the hikers to cross at Watt Avenue and follow city streets, coming back to the trail at Goethe Park.

I went by Building 70 to talk to Barbara Jacak, who returned last night from her visit with Bob Vandenbosch at the University of Washington in Seattle yesterday, and to Ken Moody. Barbara is considering the University of Washington as a possible place to do her graduate work in nuclear chemistry. I also talked to Darleane Hoffman and Diana Lee about their work on ²⁴⁸Cm plus ¹⁸O data.

I talked to Walter Loveland about our latest version of our paper, "Target Residues from the Reaction of 8 GeV ²⁰Ne with ¹⁸¹Ta and ¹⁹⁷Au," being revised for publication in Physical Review C.

I met in my office from 11 a.m. to 11:45 a.m. with Darleane Hoffman, Diana Lee and Barbara Jacak to discuss the details of treatment of our ²⁴⁸Cm plus ¹⁸O data and plans for future bombardments--²⁴⁸Cm plus ¹⁶O and ²⁴⁹Cf plus ¹⁸O.

I had lunch in the cafeteria with Walter Loveland, Pat McGaughey, Ken Moody, Yoshi Morita and Barbara Jacak. Morita has just returned to work following his visit to Japan over the holidays. He will participate in the ¹⁹⁷Au plus ¹⁶O experiment, and follow up at the 88-Inch Cyclotron next Tuesday.

I attended the Actinide Chemistry seminar in Building 70/Room 191. Present were Norman Edelstein, Andrew Streitweiser, Dave Templeton, Ken Raymond, Jerry Bucher, Pat Durbin, Allan Zalkin, Frederick Weigl, Helena Ruben, George Shalimoff, Richard Andersen, Charles Eigenbrot and others. Weigl reported on the synthesis of plutonium sequestering agents (CAMS) and Durbin on their test on animals.

At 1:15 p.m. I talked with Alan La Pointe; he thanked me for participating in the discussions and visit to adjoining land to the Alvarado Park and near Wildcat Canyon (McCosker and Taylor parcels) last Saturday. He said there was very good response to the acquisition of the parcels of land from the executive session of the EBRPD Board meeting and the first step now is to get an assessment of the property. He wishes to be advised of the date for the next planning meeting for HikaNation. Tonight he is attending a meeting of the East Bay Trail Council and he will distribute my shortened version of the route through California.

At 2:35 p.m. I spoke with Nicholas Wade, a reporter with Science magazine, who called me from Washington, D.C. He asked me what my reaction would be to any action taken by the American Chemical Society International Activities Committee with regard to exchanges with the USSR. I told him that the IAC is not engaged in any exchange program (mentioned the U.S.-USSR Catalysis Program, funded by NSF). I said we conducted our business at our semi-annual meetings and that I did not believe this matter was really an issue for the American Chemical Society and the International Activities Committee--that we are a private organization. He said that the Longshoreman's Union, and a society of civil engineers have taken some action on voiding agreements/associations, etc. with the USSR.

At 2:45 p.m. I talked with Eric Jankel (an Assistant in Secretary of Interior Andrus' office) regarding the Claremont Canyon Acquisition #2 allocation. He told me that the application was denied yesterday and, as background, told me that the EBRPD came to the Department of Interior seeking a Contingency Reserve Fund grant, which is a portion of the Land and Water Conservation fund, supported at \$350 million annually from revenues from oil and gas leases. This fund is distributed across the country and applications are solicited from every state. The Contingency Reserve Fund (from the LWC Fund) is supported by \$9 million for the entire country per year and is for emergency acquisitions. Three points were stressed by Jankel: 1) the size of the EBRPD request, 2) that EBRPD has already received one such grant in the amount of \$174,000 from this fund, and that 3) this application came so quickly from San Francisco to Washington that it has not gone through the normal process. He mentioned further the recent grant to EBRPD from the State for \$347,000 for the Arrowhead Marsh Development Project. He believes that if the Claremont Canyon acquisition is of such extreme importance, then diverting this money away from the marsh development project should be explored.

I told him about the Citizens Task Force and my work in that organization; that the EBRPD funds are very limited and were cut back drastically by Proposition 13 and I told him that this project, if supported, would receive a great deal of publicity. I also asked if the amount was less--say, one-half that originally requested--if the matter could be reconsidered. He said this was a possibility. I said I would carry this message back to Richard Trudeau. I asked if he had spoken to Hulet Hornbeck, who is now in

Washington working on this matter and he had not heard from Hornbeck up to this point.

Following my conversation with Eric Jankel I tried to reach Richard Trudeau who was out of the office. Since Mary Jefferds was there, I conveyed to her the conversation I had with Eric Jankel. I told her that Jankel was definitely on top of the matter, knew all the details, and to my surprise was receptive to the idea of the amount of the grant requested being cut in half. I told her that Jankel did not believe he had talked with Hulet Hornbeck. She will tell Richard Trudeau about these conversations. I also told Mary that I was unable to find a "route" to Professor Marg, which she agreed was probably just as well in view of Marg's attitude towards this project.

At 3:10 p.m. I talked with Mike McReynolds about the need to get a time and place for our HikaNation planning meeting. After some discussion we settled on February 6th (later changed to February 4th) and he will try to arrange the meeting at the North Face in Berkeley, where we met before. He is sending letters to all members of the AHS in California and a special letter to those people who have already contacted me or other members of the planning committee. He brought me up to date on contacts with local politicians. We talked about the need for some kind of registration form, even if it isn't complete at this time. I told him that I had more or less promised people that I would have some kind of form for them at the time of my speech before the Mt. Diablo chapter of the Sierra Club on February 13th. Mike said the committee still is without working funds; he said for me to keep track of out-of-pocket expenses. We talked about fees: there will be a separate fee for the first two days of the hike. Regarding publicity: he has been in contact with Sam Connelly of Sunset magazine, who has already developed a draft of an article about the hike. He is sending a letter to every leading newspaper and radio and television station in California.

From 3:30 p.m. to 4:30 p.m. we had a going-away champagne party for Barbara Jacak. Those present were: Won Mok Jae, Diana Lee, Rose McFarland, Pat McGaughey, Ken Moody, Michael Perry, Al Ghiorso, Darleane Hoffman, Walter Loveland, Yoshi Morita, Marty Schulman, Lin Lorenz, Kathy Van Der Haeghen, Pat Somerville, Pat Johnson, Isadore Perlman (for a few minutes), Joe Cerny (for a few moments), Eileen Eiland, Dolores Jones, Frances Mann, Wanda Smith-Burnett, and Crystal Llewellyn. There was a cake with the inscription, "A new Element at GSI - B_j." Lin took some pictures and I made a little talk describing Barbara's career as my cluster group assistant, undergraduate research student, etc.

After the reception I talked in my office with Darleane Hoffman about the plans of the ACS Division of Nuclear Science and Technology to invite Wang De-Xi and others to present papers at the ACS meeting in San Francisco in August (or in Berkeley just before or after). We also discussed plans for our ²⁴⁸Cm plus ¹⁶O bombardment on January 28th; perhaps, Matti Nurmi will separate the No fraction and help with the Cm and Am fractions.

At 5:05 p.m. I returned Professor Rollie Myers call of earlier this afternoon. He asked me which pages in the chemistry book he should assign to his students in order to prepare them for my chemistry lecture. I told him that they should read up to page 931 in Chapter 23--thus omitting "Applications of Isotopes."

I called Candy Voelker at 5:10 p.m. to ask if she had been able to get in touch with Elizabeth Sifton of Viking Press to discuss the possible publication of our book, Kennedy, Khrushchev and the Test Ban; An Eyewitness Account. Candy told me that she had not been able to reach her. I told Candy that Harlan Kessel of U.C. Press is interested in the book but that I want to check with commercial publishers first. I told her that Harlan Kessel called again this afternoon and that I would go ahead and give him the manuscript now, which would be irreversible if he accepted it. She agreed that I should go ahead.

At 5:15 p.m. I returned an earlier call to Harlan Kessel. He said that they had been working on Claremont Canyon all day and that they had an appointment with the mayor on Friday morning but the Department of Interior didn't want to go for \$450,000. Kessel has been in contact with Jankel.

I then told Harlan Kessel about the book that Ben Loeb and I have written, Kennedy, Khrushchev and the Test Ban; An Eyewitness Account. I told him the book was based on my extensive journals and that it deals mainly with Kennedy's push for a Limited Test Ban Treaty and covers from 1961 to 1963. It also includes several as yet unpublished pictures of Kennedy and me when he visited AEC headquarters and the Nevada Test Site, etc. He was very interested and asked for a copy of the manuscript. I told him I would have my secretary bring one down for him to his office on the top floor of the University Extension Building. Lin Lorenz delivered a copy of the manuscript to Kessel today at 5:45 p.m.

I went by Building 70 at a little before 6 p.m. to say goodbye to Darleane Hoffman, who was busy with Diana Lee going over our data.

I had dinner at the Faculty Club with Walter Loveland. We discussed many matters concerning plans for our research, including possible candidates for postdoctoral people.

When I arrived home Helen had returned from her YWCA dinner in Berkeley.

I worked in the study. I received a phone call from Ralph Wright inviting me to lead one or more hikes for the Mt. Diablo chapter of the Sierra Club in the next quarter (May-August). I should let him know by February 1st.

Thursday, January 17, 1980- Berkeley

I went by Building 70 to talk to Iz Perlman, who has been busy the last few weeks working on a manuscript on his archeological research. I also talked to Walter Loveland about the note I received from Wladyslaw Swiatecki yesterday on calculations of probabilities for SHE formation in compound nucleus reactions.

I wrote to Roy Schroeder thanking him for his letter of January 12th (copy attached). I wrote to Fred Basolo in answer to his nice note of January 9th thanking me for giving a "Frontiers in Chemistry" talk at the last AAAS meeting. Fred had been

January 12, 1980

Dr. Glenn T. Seaborg
University of California
Lawrence Berkeley Laboratory
1 Cyclotron Road
Berkeley, California 94720

Dear Dr. Seaborg;

It was very interesting to receive the result of your research project on the Met Lab at the University of Chicago. Thanks for including me in your thoughts.

I vividly remember Dr.s Jaffee and English(and his chain smoking) I have been in touch with Elwin Covey every year since I left the Lab. He is truely a fine person.

During your years as head of the AEC, I delighted in recounting to my friends the time I hung a periodic table on your brick office wall using a star grill and making a horrendous racket while you seemed not to hear, burried deep in thought.

Since I am an avid golfer, it was amusing to note the sporadic references you made to the various golf outings- that was a touch of CLASS.

Of much current concern, of course, is the energy crisis. With Jane Fonda and Tom Hayden running around the country damning nuclear energy while the Russians push to produce nuclear power plants on almost an assembly line basis, one has to wonder whose side they are on.

It might be of interest to you to know what happened to me after I left the Met Lab in 1942.

- 3½ years in the Navy From Boot camp to Ensign
and discharge as Lt. jg
- 1½ years at University of Cincinnati
Grad 1946 Bach. of Business Admin.
- 1 year public accountin;
- 1 year cost accountin.
- 5 years industrial engineering at Western Electric 1956
- 23 years as Account Executive Merrill Lynch et al
(need any tips on the stock market?)

Sorry that Doris (my bride for 32 years) and I were unable to attend your get together last summer. Thanks so much for inviting us. Incidentally, we have three children: Mike 31, Elsa 26 and Bill 19.

Please accept this letter as a small tribute to a person who I have always held in the highest regard. The service that you have rendered to your profession and to your country will live in history.

Although it is a bit late, may I wish you and yours a Merry Christmas and a happy and prosperous 1960 and may God bless you.

Roy C. Schroeder

originally scheduled to give the talk, but he had to cancel his appearance due to the death of his brother. I also congratulated him on the success of his recent trip to the People's Republic of China where he gave a series of lectures sponsored by the Ministry of Education and the President of Nankai University. During the course of his trip, Fred had the opportunity to meet with Vice Premier Fang Yi, an indication of the esteem in which the Chinese held him. I also wrote to Woodford McCool of the College of Extended Studies at San Diego State University regarding his citing me in a talk on "Elders in Our Society". I also sent a letter to Hugh O'Neil, Doubleday Publishing Company, in response to the anonymously addressed form letter which I received from them.

At 9:45 a.m. Hulet Hornbeck called me from the office of Ron Dellums in Washington, D.C., where he has been working with Robert Bauer on the EBRPD request for a grant for the Claremont Canyon Acquisition #2. He gave me the status of the request at this time, and that he was staying in Washington until they were successful, that things were moving forward very fast right now, and that they have reduced the amount of the request to \$250,000. He said that Richard Trudeau spoke with Eric Jankel this morning and Jankel mentioned others in Washington with whom he has spoken, or with whom Bauer has spoken: Jack Watson (White House), James Copeland and Herky Harris. He said since they tried the normal process--going through the HCR office up to James Joseph, etc.--they were now prepared to approach the matter through the "political route."

At 11:10 a.m. I talked with Dorothy Schriver. I thanked her for the very good photographs she sent on to me from the GM photographer and asked her to send a print to Nils William Olsson of the one with Helen, Ellen Eliason and me with the King and Queen of Sweden. She said she will do so. We discussed the Chinese translation of Science News--which has a circulation of 50,000 in the PRC. (Schriver had seen the news item about this in the China Newsletter.) She said Science Service is negotiating for advertising at \$6,000 a page, which will be split with the Chinese.

The Capitol Hilton will be the headquarters hotel for the STS this year and Dorothy will make a reservation for me. My judging duties will be on Friday, February 22nd, in the afternoon, after the exhibits are set up. Friday night, she hopes to have Walter Gilbert, an STS winner in 1949, and now a professor in Microbiology at Harvard, share the platform with me.

Hans Mark has accepted her invitation to be the Awards Banquet speaker on Monday, February 25th. Hermann Mark, his father, will attend the banquet and will be a house guest of Milton Harris. I told Dorothy about Herman being awarded the 1980 Perkin Medal in New York on February 22nd and that I had been invited but had to decline because of the obvious conflict in dates.

She has approached Frank Press about an appointment with President Carter for the STS students, or with him or a member of his staff at the White House. I told her that I had mentioned the presidential appointment with Stanley Schneider at the AAAS meeting and I suggested she call Stan for any assistance he might lend.

At 11:30 a.m. I received a call from David Ekroth at The Encyclopedia of Chemical Technology. He said that Volume 9 will be out in March and Volume 10 in April; they are on a four-year schedule and are due to be finished in 1983. He asked for my suggestion for someone to write the article on plutonium and plutonium compounds (due in November); I immediately recommended Fritz Weigel and gave David his address in West Germany.

I had lunch in the cafeteria with Walter Loveland and Iz Perlman, joined later by Ed McMillan. We discussed, among other things, the energy problem in the United States.

At 1:30 p.m. I attended the lecture by Philip Siemans, "Evidence for Production of Quark Matter," in the Building 70A Conference Room.

At 4 p.m. I walked down to Latimer Hall to pick up my mail.

I met in my LBL office from 4:30 p.m. until 5:30 p.m. with a group of students and their chemistry teacher from Skyline High School: Thea Vaughan, Bill Boyd, John Landgraff, Scott Spalding and Mrs. Dunham. Three of these students were in the audience for the "Youth Symposium" at the AAAS meeting in San Francisco on Saturday, January 5th. We discussed the energy problem and I went over my notes from my talk on energy at the Bohemian Grove last July and gave each of the students a copy of the statistics I used. They asked me many questions regarding nuclear energy and our discussions were taped by the students for later use in their advanced chemistry class with Mrs. Dunham.

I went by Building 70 to see Walter Loveland and Barbara Jacak on the way home.

Helen and I had dinner in the playroom and afterward I worked in the study.

Friday, January 18, 1980- Berkeley

At 8:40 a.m. I called Craig Evans to consult with him about a number of items regarding HikaNation. I told him that we need to set a general starting time each morning of the hike--either 8:30 or 9 a.m. A starting time for the first day is set for 10 a.m. and 6 a.m. on the second day for crossing the Bay Bridge. I would also like to know what cities in California Monty Montgomery is designating as "contact" cities where people can send supplies ahead and join the hikers. (Monty is in the process of deciding what cities across the route will be designated as contact locations; there will be some 60 such spots along the route.) Craig said that Monty has assured him that Nevada is under control; he personally has hiked along the designated route and has been in close contact with the Nevada coordinator. Utah is now the trouble spot; Jim Kern and Monty will visit Utah the first week in February; perhaps Bill Kemsley will go along too. They now have three sets of USGS maps, one for an office copy, one to go with the hikers, and one set to indicate any corrections that need to be made as the hikers go along. We talked about the necessity for a "fact sheet." I told Craig I would

send him my summary description of the California route and also told him about our planning meeting on February 4th; it will not be possible for him to come out for that.

At 9:35 a.m. Stanley Kirschner returned my call. I told him that Gordon Bixler is now in India and that we could all talk when he returns next week. Stanley Kirschner had written me on December 29th inquiring about funding for travel for individual members of ICS. I asked if he had made a request to the National Science Foundation for funds yet and he said he hasn't but that he is ready and willing to do so at any time. He also suggested that we apply for funds from the Chemistry Division of the National Academy of Sciences (Bill Spindel) or from private corporations like Dreyfus. He said that obtaining money for foreigners would be very difficult and said that we could work by correspondence and the phone. However, our most difficult problem will be in convincing IUPAC and the others that individual memberships in an International Chemical Society would not be harmful to them. We agreed that we would have a conference call with Gordon Bixler, Stanley Kirschner and me when Bixler returns from India.

At about 9:40 a.m. I went by Building 70 to see Walter Loveland, Ken Moody, Diana Lee, Cheng Luo and Barbara Jacak. I said goodbye to Barbara since this is her last day at LBL before leaving next Wednesday for New York and the East to visit the University of Rochester and the University of Maryland on her way to the GSI laboratory in West Germany where she will stay through August 1980.

At a little before 10 a.m. I went down to my Latimer Hall office/Room 446 to hold my regularly scheduled office hour and at 11 a.m. met with my discussion group (Chemistry 1B) in Room D. I then walked back up to my office and had lunch at my desk. I then attended the NSD Program Committee meeting in the Building 70 Conference Room. In attendance were Joe Cerny, John Rasmussen, Howel Pugh, Doug Greiner, Richard Diamond, Homer Conzett, Frank Stephens and I. Hans Gutbrod joined later. We discussed the equipment budget for FY 1980 and its allocation among the various activities.

After the meeting I met Dick Vitek, who thanked me for supporting him at the ACS meeting in San Francisco in 1976 when I, as ACS President, did not allow people to take him off the program when he reported the presence of arsenic in certain wines.

I then went by Building 70 to talk to Walter Loveland, Pat McGaughey, Ken Moody, Rose McFarland and Marty Schulman.

Iz Perlman dropped in to show me his comments on the DOE logo; they are very clever.

Jack Ingram called; he is going to his place at Echo Lake this weekend.

I sent several letters today regarding HikaNation, including Vern Roberts (Mayor of Antioch) and Edward Earl (Area Manager, Mt. Diablo State Park). I also wrote to Joan Steck, Saint John's University, declining an invitation to participate in a debate on nuclear power; to Bruce Dropesky about the letter from Günter Herrmann stating that I believe that Günter has made the proper diagnosis but I am not sure that I

know what we can do about it. I also wrote to Francis E. Blacet (Emeritus Professor Chemistry, UCLA) to thank him very much for the copy of Professor Crowell's text which I received yesterday; to Vitalii Goldanskii thanking him for his letter of January 3rd (attached); in response to an invitation to the International Symposium on the Synthesis and Properties of New Elements (from Y. T. Oganessian), I wrote to decline; I sent the most recent program for the 25th anniversary of the discovery of mendelevium to the participants; and finally, I wrote to Herman Mark regarding his receiving the 1980 Perkin Medal of the Society of Chemical Industry.

I drove home where Helen and I were soon joined by Ken and Bonny Madsen and the four of us left in Madsen's car at about 3:15 p.m. to ride to Strawberry Lodge. We arrived at Strawberry Lodge about 6:15 p.m. After talking to Tim Adami, Peter McMullen, Victor Otto, Nancy, and others, Tim, Ken, Bonny, Helen and I had dinner in the dining room. Tim told me that he found it necessary to let Ken Hollbrook go. Charles and Kim Olmsted arrived at about 8:15 p.m. The Madsens told us they still would like to have the Olmsteds buy a share in Strawberry; aside, Tim told us he is not keen on this.

We met Penny Prentice Pickett (Lynne's childhood friend) and her husband Greg and their three children.

Helen and I spent the night in the McMullens' apartment while the Madsens stayed in Adami's apartment.

Saturday, January 19, 1980- Strawberry Lodge

Helen and I had breakfast in the Lodge with Tim Adami, Ken and Bonny Madsen, Peter McMullen, Drago, Bob Lingard, Victor Ott, and Charles and Helen (Kim) Olmsted. After some remarks by Ken, Peter called on Drago, Bob and Victor to describe their problems and concerns. We had a discussion of the general financial situation. Ken made it clear that Peter is the General Manager and Tim is the President. I asked for an accounting of our debts after Drago, Bob and Victor had left; Peter told us that besides \$29,000 owed for skis, etc. (in the ski shop), there is about \$36,000 owed of which the largest item, about \$20,000, is back taxes due for employee benefits.

Helen, Tim, Ken, Bonny, Peter and I had lunch at the same large round table in the dining room (where we had our breakfast and the following discussions), then we went across Highway 50 to Strawberry Market, the garage and gas station. We were joined by Charles and Kim. We toured the premises which are for sale for \$180,000 (with a \$96,000 mortgage extant at 7 1/2% interest). It may be available for an offer lower than this.

Helen and I rode with Ken and Bonny to the start of the road to Echo Lake (off Johnson Pass Road), while Tim accompanied us in his van with skis and ski poles. The five of us then skied in about a mile to Echo Lake Chalet (a possible overnight stop for HikaNation in lieu of Little Norway), when we had skied back to our starting point we met Jack Ingram, whose cabin is off to the left (going in to Echo Lake), about one-fourth to one-half mile from the start of the road to Echo Lake (near Camp Berkeley).

He had left me information on Snowshoe Thompson's route from Placerville to Genoa last night at Strawberry Lodge; this is the route he determined for the 200th anniversary observance in January 1976. We agreed to confer further on the route that the HikaNation should use.

We then rode back to Strawberry Lodge. Helen, Tim, Ken, Bonny and I met in Tim's apartment to discuss Kim Olmsted's possible involvement. We continued the discussion at dinner in the Lodge and after dinner in Peter's apartment (where we are staying). Ken and Bonny told us that Kim's financial participation would be contingent on her having a paying position at Strawberry Lodge. Tim opposed this (as did Peter when we checked with him). Tim, Helen, and I then agreed to have Ken and Bonny offer Kim financial participation without any paid position (or any day-to-day involvement) at the Lodge; she would be limited to the financial contribution she can make now and her equity, compared to the rest of us, would have to be determined. We also discussed Tim's problems at home caused by his continued stay at the Lodge (without pay) to the detriment of his family.

Sunday, January 20, 1980- Strawberry Lodge/Lafayette

Helen and I had breakfast at Strawberry Lodge with Bob Lingard. We were joined toward the end by Ken and Bonny Madsen and Tim Adami. We then rode back home with Ken and Bonny, stopping for lunch at the Nut Tree in Vacaville. Ken told us that Kim Olmsted still wants to invest \$100,000 under our condition (no work by her at the Lodge). I also discussed with Ken the determination of our equities if Tim does not invest his \$100,000 (i.e., calculation on the basis of a total of \$400,000 rather than \$500,000) and Kim's equity if she invests \$100,000 (calculated on the basis of increased value to \$600,000 plus her \$100,000 or a total of \$700,000 to determine her percentage). When we arrived home we introduced Dave to Ken and Bonny.

Dave and I took a hike part way up Lafayette Ridge. Then Helen, Dave and I watched television in the playroom (the Super Bowl XIV) which the Pittsburgh Steelers won over the Los Angeles Rams 31-19.

Helen, Dave (who had stayed in our house during our visit to Strawberry) and I had dinner in the playroom.

I read Chemistry 1B material in the study after dinner.

Monday, January 21, 1980- Berkeley

I went by Building 70 to talk to Walter Loveland, Cheng Luo, Rose McFarland and Ken Moody.

I then walked down to the campus to attend the Chemistry 1B lecture from 9:10 a.m. to 10 a.m.

I left my LBL office at about 11 a.m. to attend the Commonwealth Club luncheon in San Francisco; I had trouble with my car so Pat drove me to San Francisco to the Sheraton Palace Hotel where Energy Secretary Charles W. Duncan, Jr. gave a talk on "The Energy Outlook: Prospects for the 1980's." The head table guests, including Duncan, were as usual assembled near the entrance door so I spoke to Duncan for a while. He told me that he had visited the Lawrence Livermore Laboratory this morning and showed me a little piece of conducting cable from a thermonuclear device that they had given him as a sample. He showed no evidence that he knew who I was even though I was introduced to him.

I then sat at a table and had my lunch and then heard Duncan's speech which placed much emphasis on the crisis facing us due to the oil importation problem but did not have much concrete to suggest. He referred to nuclear energy a couple of times, mispronouncing the word in the usual manner. After the end of the talk and the question period I returned to my LBL office by way of BART and the AC Transit.

I received a New Year greeting from Nicolai Mikheev along with the latest data on monovalent mendelevium, according to him, obtained together with Polish colleagues. I wrote to Ted Sherburne to thank him for sending "Science Education in the 'New' China" and to Nancy Fahden (Chairman, Board of Supervisors, Contra Costa County) regarding HikaNation.

At about 3:45 p.m. I went by Building 70 to talk to Rose McFarland about her bombardment at the 88-Inch Cyclotron today. She bombarded ^{139}La with ^{18}O to look for ^{150}Pm (^{11}Be pickup) and other products. The bombardment went well. I also talked to Ken Moody, who is getting ready for his experiment with Walter Loveland at the 88-Inch Cyclotron tomorrow-- ^{197}Au plus ^{16}O to look for yields of nuclides just below Au to compare with such yields produced in bombardments with RHI.

Robert Welch was there, so I showed him his desk in the Room 209 office (where Ken Moody, Pat McGaughey and Yoshi Morita also have their desks) and told him he will be working with Ken Moody to start his research.

I talked to Luo Cheng in the Room 203 office, (which he will be sharing with Rose McFarland, Walter Loveland and Marty Schulman).

I also talked to Diana Lee in Room 209 (her office-laboratory) about the possibility that we will be given one of the old PDP-9 computers. We were not given our requested 16 bit microcomputer with 64K memory (estimated cost, \$14,000) by the Nuclear Science Division Equipment Committee.

At 4:50 p.m. I returned the call from Ben Schiflebind of Kevex. He called to make arrangements to pick me up next Monday morning at 8:30 a.m. I told him that I would notify the guards at Blackberry Canyon gate to let him through on January 28th.

Again, on the way home, I went by Building 70/Room 203, to talk to Walter Loveland, Rose McFarland and Rollie Otto about plans for tomorrow's ^{197}Au plus ^{16}O bombardment. We discussed possible fission products that might be identified.

Helen and I had dinner in the playroom. I read my papers and worked Chemistry 1B problems in the study after dinner.

Tuesday, January 22, 1980- Berkeley

Kay Petersen called me at home at 7:30 a.m. and asked if I would endorse LaVern Craig in her campaign for Lafayette City Council and I said I would.

At 8:30 a.m. Robert Kreutzmann (Sierra Club's Loma Prieta Chapter, San Mateo and Santa Clara counties) called to tell me that he would like to include information on the cross-country hike in their March newsletter. I told him I would send him a copy of our itinerary. I also gave him Mike McReynolds' telephone numbers as he wishes to be able to contact Mike.

At about 9 a.m. I went by Building 70/Room 203, to discuss today's bombardment (^{197}Au plus ^{16}O) at the 88-Inch Cyclotron with Walter Loveland.

At about 9:50 a.m. I went up to the Lawrence Hall of Science where I met other Nobel Laureates in the plaza area for a session of picture-taking for the National Geographic magazine. James A. Sugar and Doug McWilliams were there to take pictures. The group consisted of Ed McMillan, Luis Alvarez, Owen Chamberlain, Emilio Segrè, Melvin Calvin, Donald Glaser, and me. It was a windy day and Alvarez left after the first set of pictures taken on the plaza near the entrance; Glaser left after the second set of pictures were taken out near the Sunstone; so, with the third set of pictures, there were only McMillan, Chamberlain, Segrè, Calvin and me.

At 10:30 a.m. I had a conference call with Jim Kern and Monty Montgomery in Florida. We discussed the starting times for the cross-country hike. I told them that Pat Johnson had just talked with Craig Evans, who suggested a starting time of no later than 8 a.m., and when the numbers dwindled, 7 a.m. I told them that I want something definite to put on the itinerary so that people could join us anywhere along the route and that 9 a.m. would allow enough time for the campers to have breakfast and pack up sleeping bags, and also allow new people the time to drive from their homes to join us. We agreed on the 9 a.m. starting time (at least for the California portion) and they asked about how many hours a day I planned to be hiking. I told them that we would hike an average of 12.5 miles a day. We then discussed food and mail drops and together we whittled down Monty Montgomery's seven original drop spots to four-- Antioch, Folsom, Placerville, and Little Norway. I will include this information on the itinerary.

Monty and Jim then told me that they still have no national sponsorship (although Sears, the San Francisco Chronicle, Traveler's Insurance, Wendy's and Johnson Wax are considering sponsorship). Jim informed me that the American Hiking Society received an \$10,000 anonymous loan to cover expenses at the opening ceremony and that they are considering having everyone pay a \$1 bridge toll and then \$1 per day per hiker up to 30 days. (Anyone who hikes for more than 30 days will pay no more than \$30.) I told Jim Kern that Mike McReynolds does not want to change the time for the February 4th meeting at North Face to coincide with Jim Kern's trip to the

San Francisco area due to a fear that it would get bogged down with the national part of the hike rather than the first two days and the California portion. I told them that I would also be showing my slides at a meeting on February 13th at Acalanes High School for the Mount Diablo Chapter of Sierra Club. They said they would send a fact sheet to me and I will send them the revised shortened itinerary along with a list of names of people they should send followup information.

At 11:45 a.m. I talked with Gordon Bixler, who had just returned from attending the ACS sponsored Indian workshop; he said it went very well. As a result of the workshop there are seven proposals ready to be submitted for funding consideration. These proposals will be lumped into one large grant request, which Gordon will be working on in the next week or so in order to have it ready for review as a "working draft" by the Indian-U.S. Joint Commission at its next meeting on February 28-29th. Although this Commission is not a funding organization, their endorsement of the request carries a great deal of weight with funding offices. The proposal then has to be approved by the Board of Directors of the American Chemical Society and the IAC before being put into final form. The amount being requested is \$1M each year over a period of five years; the proposals include some health-related projects, some insecticide and energy-related projects, etc.

On the subject of book royalties for the symposium on economic development in developing countries, Harry Szmant does not want any royalty for himself or others involved, however he is requesting \$500 from the sale of the book to defray costs of graduate student assistance in organizing the symposium, mailing and other incidentals. I told Gordon I approved of this arrangement.

I went down to my Latimer Hall office a little before 12 noon to meet with my Freshman Cluster Advisory Group. Professor Samuel Markowitz was our guest.

I then went to the pre-instruction meeting in Latimer/Room 328 and then gave a talk in Room C (Dave Keller, teaching assistant). I then rotated among Rooms A, B, C, D, E, F. I told Wayne Hubbel about HikaNation and Strawberry Lodge and he is interested in both.

I walked back up to my LBL office.

At 3:30 p.m. I called Nils William Olsson and told him that of the dates he gave me from Roland Erickson for the SCA spring meeting in New York, Monday, April 7th, is the best. He will advise Roland tomorrow morning and I will contact Marcus Wallenberg to ascertain his availability for that date. Nils will leave for Minneapolis on Monday, January 28th, and will be there until February 11th; I can reach him either at the Institute or at the Radisson Hotel. He will be preparing the SCA newsletter winter edition. While he is in Minneapolis, the Awards Committee will meet on February 11th. Signe Karlstrom will be asked to attend and put forth her concerns at that time. The Awards Committee will list the award candidates with short biographies on each one; this will be distributed to the entire Board as a ballot for the voting process. Nils will also meet with Glen Brolander and Ed Lindell to plan for this year's winner of the Nobel Visit Award. The winner will be announced in a later newsletter of SCA. Nils will make an accounting of all donations received and send a copy to me and the finance

committee (Carlson and Erickson). He will also take up the June Bartlett request for funds. He will publish Ellen Eliason's thank-you letter in the SCA newsletter.

At 4:05 p.m. I called Ben Loeb to respond to his recent letter point-by-point. We discussed some changes in the first 19 chapters and the content of Chapter 20 which will be the concluding chapter. I said I would send him the remaining \$2,000 at the conclusion of Chapter 20, and then an additional \$2,000 to compensate him for his work on improving the entire manuscript.

I went by Building 88 on the way home. Walter Loveland, Pat McGaughey, Ken Moody, Rose McFarland, Robert Welch and Marty Schulman were there. The first bombardment-- ^{197}Au with 215 MeV ^{16}O was just getting underway.

I declined an invitation (letter to Carl M. York) to attend a workshop on "Policies for an Energy Efficient Economy" at the Vail Seminar Center next month. I also gave Lin another draft with some changes in our route across California for HikaNation (attached).

Helen and I had dinner in the playroom. From 8 to 9 p.m. we watched a NOVA television program featuring Edward Teller. I worked on my Chemistry 1B lecture for tomorrow.

Wednesday, January 23, 1980- Berkeley

At 8:25 a.m. I placed a call to the office of Marcus Wallenberg in Stockholm, Sweden. Wallenberg had left his office for the day so I talked with Schwerin, his secretary and the person I had spoken with when in Stockholm in December attending the Nobel ceremonies. I told Schwerin that I called to invite Wallenberg to attend the meeting of the Swedish Council of America in New York, Monday, April 7th, and asked if he would talk to the assembled group, which will include the top executives of Swedish sister industries in the U.S. (particularly the New York area). He said he will talk to Wallenberg tomorrow morning and call me back.

At about 8:45 a.m. I walked down to the campus to give my lecture on the nucleus to the Chemistry 1B class in PSL. The room was full to overflowing with people sitting on the steps. A substantial portion of the Chemistry 4B class was present because Professor Pines did not hold a class this morning and urged his students to attend my lecture. Also, there were a number of students present from other nonscientific departments as a result of their hearing about my lecture. I gave my talk illustrated by 31 slides. I used a football to illustrate the shape of a prolate spheroid (nuclei). After my talk I was approached by a large group of students to continue asking questions. Two of the students expressed interest in working with me at LBL. One, Ivy Lui, Cheney Hall/Room 703, who would work on a volunteer basis, is majoring in electrical engineering. She was born in Hong Kong where her parents now reside. She lived in Canada for two years to finish high school where she rated high (perhaps in the top ten) in a class of about 100 students. She received an "A" in Chemistry 1A. She will keep in touch with me and will send me her class records, etc., and her address. The second student, Todd Saldinger (Room 105, whose parents live in

ROUTE ACROSS CALIFORNIA FOR CROSS COUNTRY HIKE

(HIKANATION)

Glenn T. Seaborg

- Day 1 - Saturday, April 12. Opening ceremony, 10 a.m., at Golden Gate Park (Polo Field) then west across Great Highway, north through Golden Gate National Recreation Area, past southern terminus of Golden Gate Bridge, Golden Gate Promenade, Fort Mason, The Embarcadero, Ferry Building Park Area. 11 miles, 300 foot climb.
- Day 2 - Sunday, April 13. Start at 6 a.m. at Fremont St. on-ramp, cross Bay Bridge (upper level), Aquatic Park (lunch), Dwight Way, Strawberry Canyon Trail, Tilden Park (Lake Anza area). 16 miles, 1000 foot climb.
- Day 3 - Monday, April 14. Inspiration Point, San Pablo Reservoir, Briones Reservoir, Briones Park (Bear Creek Road entrance area). 12 miles, 1500 foot climb.
- Day 4 - Tuesday, April 15. Lafayette Ridge, across Walnut Creek, Heather Farms Park (lunch), Shell Ridge Open Space (far end). 14 miles, 1000 foot climb.
- Day 5 - Wednesday, April 16. Diablo Foothills Regional Park, Wall Ridge Fire Trail, Summit Trail, Mt. Diablo (top). 10 miles, 2500 foot climb.
- Day 6 - Thursday, April 17. Donner Canyon, Clayton (lunch), Black Diamond Way, Black Diamond Trail, Nortonville Trail, Stewartville Trail, Black Diamond Mines Regional Preserve (far end). 12 miles, 1000 foot climb.
- Day 7 - Friday, April 18. Rest at Black Diamond Mines Regional Preserve. FOOD AND MAIL DROP, ANTIOCH POST OFFICE (Postmaster, 420 - 4th Avenue, Antioch, CA 94509).
- Day 8 - Saturday, April 19. Contra Loma Park, through Antioch, Antioch Bridge, along Highway 160, Brannan Island State Recreation Area. 16 miles, 300 foot climb.
- Day 9 - Sunday, April 20. Twitchell Island Road, Brannan Island Road, Jackson Slough Road, Terminous Road, Isleton, Highway 160, Isleton Road, Ko-Ket Resort (on Sacramento River opposite Ryde). 15 miles, level.

- Day 10 - Monday, April 21. Isleton Road, Walnut Grove, River Road, Locke, cross Sacramento River, South River Road, Clarksburg Fishing Access (on Sacramento River). 16 miles, level.
- Day 11 - Tuesday, April 22. South River Road, cross Sacramento River, Freeport, along abandoned Southern Pacific railroad track, Old Sacramento, Discovery Park (Sacramento). 16 miles, level.
- Day 12 - Wednesday, April 23. Jedediah Smith National Recreation Trail, cross American River, C. M. Goethe Park (Rancho Cordova). 14 miles, level.
- Day 13 - Thursday, April 24. Jedediah Smith National Recreation Trail, cross American River at Hazel Ave., Riding and Hiking Trail through Folsom Lake State Recreation Area, Negro Bar Park (near Folsom). 15 miles, 700 foot climb.
- Day 14 - Friday, April 25. Rest at Negro Bar Park. FOOD AND MAIL DROP, FOLSOM POST OFFICE (Postmaster, 610 Coloma St., Folsom, CA 95630).
- Day 15 - Saturday, April 26. Cross Lake Natoma (American River), through Folsom, Green Valley Road, Rescue (Fire Station). 13 miles, 1200 foot climb.
- Day 16 - Sunday, April 27. Green Valley Road, Placerville (City Park). 10 miles, 1500 foot climb. FOOD AND MAIL DROP, PLACERVILLE POST OFFICE (Postmaster, 3045 Sacramento St., Placerville, CA 95667).
- Day 17 - Monday, April 28. Carson Road, Pony Express Trail Road, through Camino, Mt Danaher Ranger Station. 10 miles, 1800 foot climb.
- Day 18 - Tuesday, April 29. Pony Express Trail Road, Pollock Pines, cross Highway 50, Sly Park Road, Park Creek Road, Forest Road, Fresh Pond, south side of Highway 50, Highway 50 underpass, north side of Highway 50, Bridal Veil Picnic Area. 14 miles, 600 foot climb, then 600 feet down.
- Day 19 - Wednesday, April 30. North side of Highway 50, Riverton, cross South Fork of American River, trail to Cleveland Corral (near Ice House Road), El Dorado National Forest Recreation-Information Center, Ice House Road, Webber Mill Road, Highway 50, Kyburz. 12 miles, 1500 foot climb.

- Day 20 - Thursday, May 1. Pony Express Trail (north of Highway 50), Wright's Lake Road, Highway 50, Pony Express Trail (north of Highway 50), Highway 50, trails and old road north of Highway 50, Strawberry Lodge. 10 miles, 2000 foot climb.
- Day 21 - Friday, May 2. Rest at Strawberry Lodge.
- Day 22 - Saturday, May 3. Pony Express Trail (south of Highway 50), cross South Fork of American River at Slippery Ford, Highway 50, Camp Sacramento (or Strawberry Canyon, over Lover's Leap on trail to Camp Sacramento), various Tract roads on south side of South Fork of American River, Pow Wow, Highway 50, Little Norway. 8 miles, 1800 foot climb (or 10 miles, 2800 foot climb on route over Lover's Leap). FOOD AND MAIL DROP, LITTLE NORWAY POST OFFICE (Postmaster, Hwy. 50, Little Norway, CA 95721).
- Day 23 - Sunday, May 4. Pacific Crest Trail, Echo Summit, Hawley's Grade, south Upper Truckee Road, Highway 89 (or parallel side roads), Luther Pass, Highway 88-89, Sorensen's Resort (or Kit Carson Campground). 12 miles, 1500 foot climb.
- Day 24 - Monday, May 5. Highway 88-89, Woodfords, Carson River Road, Ace Hereford Ranch. 8 miles, 1500 foot down.
- Day 25 - Tuesday, May 6. North on Dressler Lane through Gardnerville Ranchos, cross east fork of Carson River. South along Highway 395 to start hike across Nevada.

SUMMARY

San Francisco to Ace Hereford Ranch at Nevada border. A total of about 265 miles in 21 hiking days (3 days of rest) for an average of 12.5 miles per day. A total of about 20,000 feet of altitude gain for an average of about 1000 feet climb per day and about 750 feet downhill per day. Of the 265 miles about 115 miles (43%) are on trails (including an abandoned railroad track and very rough, nearly unused back road in the Sierras), about 90 miles are on roads or highways, about 30 miles on levee or back roads, and about 30 miles on city streets.

9 a.m. - Starting Time each morning, except Days 1 and 2.

Overnight camping sites are underlined.

Berkeley) is a sophomore, who worked last summer in the Energy & Environment Division of LBL with Gregg Traynor on a paid basis. He may decide to major in chemistry. He has a 3.7--3.8 GPA and he would need a paying job. I told him that if he gets in touch with LBL and gets a position as a Lab Co-op student or something equivalent and wants to contact me to work in my group, I would talk to him; he will keep in touch.

At 10:55 a.m. I talked with Jeremy Stone regarding the situation in the USSR and the internal exile of Sakharov. Stone is suggesting I send a telegram to either Anatoly F. Dobrynin or the President of the USSR Academy of Science on behalf of Sakharov, urging external exile to the west and protesting a possible trial on the grounds of treason. There are six Americans who are members of the Soviet Academy of Sciences and Stone is attempting to contact us all--Herman Mark, Albert Szert-Gyorgyi, Linus Pauling, Severo Ochoa and Hari Gobind Khorana. I told him I would give this serious consideration but that I want to make certain that anything I do to protest the treatment of Sakharov is not counterproductive on his behalf. He referred me to Sakharov's step-daughter (Tanya Yankelevich, who lives in Boston, and whose husband's name is Efrim). We discussed the invasion of Afghanistan and the boycott of the Olympics, which he favors. Stone also said he had been in contact with Ben Loeb.

At about 11 a.m. I went by Building 70 and learned from Walter Loveland that the bombardments last night at the 88-Inch Cyclotron were quite successful. There were short and long bombardments of ^{197}Au with 1, 7.5 (through absorber), 10, 17 (through absorber) MeV/nucleon ^{16}O ions, with dramatic differences in the yield curves of lighter elements (as determined by measurements of x-ray emission).

At 11:20 a.m. I was able to reach Tanya Yankelevich. I asked her how she felt with respect to my sending a telegram of some kind on behalf of Sakharov and asked if she thought he would want to be expelled to the West. She was not able to give me an answer because of the difficulties of the situation. She said the most that could be hoped for is that communication with her family be restored.

I held the regular biweekly luncheon meeting of my heavy ion radiochemistry (SHEIKS) group in my office. Present were Walter Loveland, Al Ghiorso, Rollie Otto, Pat McGaughey, Michael Perry, Marty Schulman, Won Mok Jae, Yoshi Morita, Luo Cheng, Diana Lee, Pat Somerville, and Rose McFarland.

Walter Loveland reported on the results for some of last night's bombardments at the 88-Inch Cyclotron, which ended at 8 a.m. this morning. Al Ghiorso reported on his experiments in progress at the 88-Inch. He is investigating the yield of ^{219}Em from ^{208}Pb plus ^{16}O (set limit of < 10 mb so far), and from ^{208}Pb plus ^{18}O (in progress at the present moment). He said he has observed ^{211}Em from ^{209}Bi plus ^{16}O . Rose McFarland reported on her treatment of data from ^{139}La plus ^{18}O (much Tb isotopes but no Pm, due to ^{11}Be emission, observed so far). Diana Lee mentioned her plans to study the ^{248}Cm plus ^{16}O reaction yields at the 88-Inch Cyclotron next Monday (with Luo Cheng). Rollie Otto said he plans to do some chemical separations on some of the ^{197}Au targets (bombarded last night) after his regular work day (at his job at the Energy & Environment Division). Late this afternoon Rollie hopes to separate Tl, Ir, and Y-R.E. fractions.

After the meeting I took Mike Perry up to Building 70/Room 209 to show him his desk; he will work with Ken Moody.

Many letters regarding HikaNation (that I have been dictating on and off all day) went out today. The letters went to: James Kern (President, AHS) enclosing an up-to-date itinerary and a list of people to whom the itinerary had been sent, to Wallace Brazelton (Chairman, Solano County Board of Supervisors) advising him of the hike and inviting the Board of Supervisors to participate if they wish, the same letter to Twyla Thompson (Yolo County Board of Supervisors), Joseph E. Sheedy (Sacramento County Board of Supervisors), Arliene Todd (El Dorado County Board of Supervisors), William K. Freeman (Alpine County Board of Supervisors). I also wrote to W. A. Behrens (Cal-Trans) regarding permission to cross the Bay Bridge. I sent some prints of pictures that I received through Signe Karlstrom from Hugh Wells of the General Motors Company to Ellen Eliason. I declined an invitation to attend the Third General Assembly of the World Future Society in Toronto in July 1980. I received a letter from Ken Hulet giving me a list of invited speakers for the symposium next September at the ACS meeting in San Francisco. They are: G. T. Seaborg and A. Ghiorso (LBL), R. L. Hahn (ORNL), M. Schädel (GSI), I. Ahmad (ANL), C. E. Bemis (ORNL), Yu. Ts. Oganessian (Dubna), J. Browne, J. B. Wilhelmy and D. C. Hoffman (LASL), R. W. Hoff (LLL), and R. Brandt (Marburg).

At about 4 p.m. I went by Building 70, where Walter Loveland, Pat McGaughey, and Ken Moody were busy counting their multitudinous samples from last night's bombardment; Rose McFarland and Marty Schulman were busy working on their chemistry for Th plus ^{18}O bombardments; Luo Cheng was working on chemistry for next Monday's ^{248}Cm plus ^{18}O bombardment; and Yoshi Morita was working on his data.

When Michael Perry came back at 4:30 p.m. I took him by Room 209 to talk to Ken Moody (who had been home catching up on his sleep earlier when Perry was there). We made arrangements to get started on some research (uranium chemistry to separate uranium fractions in bombardment of actinide targets).

Helen and I drove to Blake House to attend the dinner given by David and Shirley Saxon for Andy and Gladys Sessler. Present at the dinner were the Fretters, McMillans, Brewers, Hitches, J. D. Jacksons, Swains, Wilsons, Regent Joseph Moore, Birges, Townes', Reidhaars, Hydes, John Perkins', Sidney Drells (Physicist from SLAC), Angus Taylors, Hartsoughs, Luis Alvarez, and the Fuchs'. (Fuchs is an economist from Stanford.) I sat at a table with Bill Fretter, Elsie MacMillan, Leo Brewer, Nancy Hitch, J. D. Jackson, Donald Swain, David Wilson, Joseph Moore, Bob Birge, Mrs. Townes, Mrs. Hartsough, and Mrs. Drell.

After dinner David Saxon made some welcoming remarks and then called on Andy Sessler, who made a short response. Dave then called on Gladys Sessler, who gave a rather charming talk covering reminiscences, observations, and impressions of her role as the wife of the Director of Lawrence Berkeley Laboratory.

After dinner during the coffee serving, I talked briefly with David Saxon about the search for the Director of LBL. He said the list has been narrowed down to three insiders (Shirley, Grunder and Trilling) and two outsiders he did not identify. He said that he will get in touch with me for a discussion before he makes a final choice.

Helen and I drove home where we arrived at about 10:45 p.m.

Thursday, January 24, 1980- Berkeley

At 9:10 a.m. Gordon Bixler, Stanley Kirschner and I discussed the problem of obtaining travel funds for persons from developing nations, who wish to attend the ICS Executive Committee meeting in Bangkok in April. We believe funds will be needed for M. Adgangba (Chairman, Association of faculties of Sciences of African Universities), Simao Mathias (Institute of Chemistry, Sao Paulo, Brazil) and Sherman Thomas (President, Colegio Federado de Quimicos, San Jose, Costa Rica). Stanley Kirschner will also need travel funds but we agreed this was a logical expense of the IAC. It appears about \$6,000 to \$7,000 will be needed for airfares and living expenses will need to be handled by individuals.

I will call George Pimentel (Deputy Director, National Science Foundation) to ask his advice about funds from the NSF. (There is a rule against granting funds to non-residents and non-citizens.) However, there may be a way around this rule in this case and I will also contact Milton Harris (Dreyfus Foundation, who arranged for \$25,000 grant to help CHEMRAWN). Gordon will call John Kingston (UNESCO) to explore funding possibilities and will also call Mathias to ascertain his needs and to ask him to send a letter to Executive Committee members with details of the Bangkok meeting. Gordon will also call Thomas to ascertain his needs. Gordon will get back to me with information from these calls. We discussed the letter Gordon and I received from Polly Newman and Gordon will send it on to Mike Heylin. We also talked of the letter from Anna Harrison suggesting a change in the name of the IAC. Both copies of these letters will be sent to Stanley today. We also discussed the International Electrochemical Society and the remote possibility of inviting Yaeger (former president of the Society) to attend one of our IAC meetings when it is held close to Cleveland. We decided to place an item on our agenda for the breakfast meeting in Houston to discuss the possibility of going to an international journal through Pergammon Press--something similar to that put out by the International Electrochemical Society.

At about 10 a.m. I went by Building 70 to talk to Walter Loveland and Ken Moody. Loveland told me that Rollie Otto, with some help from Rose McFarland, separated Tl and Au fractions from a couple of bombarded Au targets last night and will separate Ir and Y-R.E. fractions tonight.

At about 11 a.m. there was a substantial earthquake which was centered near Livermore.

I received a letter from Liu Yang-fang regarding his wish to work with me to continue his research in the field of heavy ion radiochemistry. I also received a short sentence reply from Hugh O'Neill of Doubleday, saying he would be delighted to read

my book, Kennedy, Khrushchev and the Test Ban: An Eyewitness Account, if I would like to resubmit it to Doubleday. I sent an abstract of my paper, "Discovery of Fission and the Transuranium Elements," to Academician Milutin Garasanin of the Serbian Academy of Sciences and Arts. I also sent my manuscript for my article, "The New Elements," to Jane Olson, Editor, American Scientist. I sent a telegram stating, "Please use your best efforts to convince Soviet authorities to allow the Sakharovs to accept President Carter's offer to come to the United States" to Ambassador Anatoly F. Dobrynin, USSR Embassy, Washington, D.C.

At a little before 11 a.m. I walked down to the campus to give the Chemistry 1B lecture (illustrated by slides) on the nucleus in PSL. The room was packed indicating that many students were there in addition to those who usually attend the regularly scheduled Tuesday and Thursday lectures. The lecture, again, was very well received. I again showed a football to illustrate the shape of a prolate spheroid (nucleus).

After my lecture I was given a ride to Spenger's Fish Grotto by Pat and Lin where in a special banquet room I attended the luncheon of the California Section of the American Chemical Society where Gardner Stacy spoke on "The Energy Challenge." There were about 60 people present and I sat at the head table with Attila Pavlath, Ed Wallace, Bob Ford (Chairman), Bob Lindqvist, Gardner Stacy and Louis and Bea Pollack. I sat between Ford and Wallace. After the luncheon Ford introduced Stacy, who talked for 30 minutes followed by about 20 minutes of questions. His talk was largely on the warning of our need for additional energy supplies and a listing of the various sources available including nuclear. I talked to a number of people including Aldo Benedetti, who reminded me that he took quantitative analysis from Professor Blaisdell in 1934 when I was the teaching assistant in the course. I got a ride back to LBL with Len Dreher along with a couple of his friends.

At about 4:30 p.m. I met in my office with Yoshi Morita and Walter Loveland to discuss Morita's research program. We agreed he will treat the data on last summer's and last November's ^{12}C and ^{20}Ne bombardments of Bi in the Bevalac, and do an angular distribution calibration experiment at the 88-Inch Cyclotron using fission products from V plus 42 MeV He ions (whose angular distribution is known).

At about 5 p.m. I went by Building 70. Diana Lee and Luo Cheng were practicing their chemistry for Monday's bombardment-- ^{248}Cm plus ^{16}O . Rollie Otto came by and said that he will do his chemistry (Ir and Y-R.E.) from the ^{197}Au plus ^{16}O bombardment tomorrow night; we made plans with Walter Loveland and Rose McFarland for this.

Helen and I had dinner in the playroom.

I worked Chemistry 1B problems and read the assignments during the evening in the study.

Friday, January 25, 1980- Berkeley

Bernard Harvey told me he cannot attend the symposium on the 25th anniversary of mendelevium because he will be in Japan at that time.

I went by Building 70 to talk to Ken Moody (busy making gamma ray measurements), Walter Loveland, Rose McFarland and Diana Lee.

I was able to reach Milton Harris at his office in Washington, D.C. at 8:30 a.m. this morning. I gave him some background on the International meeting of Chemical Society Presidents, the Executive Committee that was formed (of the larger "study" group) on an International Chemical Society. I told him about the April meeting in Bangkok to discuss the ICS and the need for funding for three of the chemical society representatives from small developing countries--somewhere in the area of \$7,000, and asked if, in his opinion, the Dreyfus Foundation would be receptive to this request. He suggested that I talk with William Evers of the Dreyfus Foundation in New York. He said that the Dreyfus Foundation had been pleased with the results of the CHEMRAWN Conference (for which they gave \$25,000), that he found them rather receptive to new ideas and they are always experimenting with new projects. I said I would call Evers.

I talked with William Evers of the Dreyfus Foundation in New York at 8:40 a.m., immediately after speaking with Milton Harris. I again explained the meeting of the presidents of chemical societies from all over the world, told him about the study committee and executive committee that had been formed, and the need to find support for travel funds for three of the representatives of small developing countries. He was not too encouraging but said he would get a quick answer back to me after checking with his executive committee. (He is Executive Director.) The full board of the Dreyfus Foundation does not meet until April but since the meeting of the Executive Committee is also in April, he will get back to me next week. He mentioned that the International Chemical Society came up during a recent board meeting and the board members did not show much enthusiasm for it--judging from the comments that were made.

At 8:50 a.m. Paul Lochak called because he had just read in the Paris newspapers about the earthquake felt here yesterday morning (11:01 a.m.). He said the papers carried stories of some 40 injuries at the "Lawrence" laboratory and he was concerned that it may have been LBL and inquired about our well-being. I assured him there were no injuries to speak of and that all was well. He said that George Milly had been in touch with SERI officials in Colorado, that GEOMET will get a "request for bid" and will attend a meeting of all bidders in Colorado on February 15th. Paul did not speak with SERI representatives. We then spoke about the presidential election in the U.S.

I replied to Erich Heftmann's invitation to write the foreword to his forthcoming revision of Chromatography. I asked him to send me copies of the "forewords" to the three previous editions before I make a decision. I wrote a letter of recommendation for Elizabeth Rauscher; a few paragraphs about synthetic transuranium elements to be used by LBL Public Information; and I received a nice letter from Juliette Dunham, chemistry teacher in the Oakland Unified School District, who thanked me for visiting with her class from Skyline High School.

I walked down to my office in 446 Latimer Hall to hold my regularly scheduled office hour 10-11 a.m. Professor Bob Bergman dropped in to discuss the problem of

establishing a sufficient degree of financial independence for Ken Raymond's research to convince him to stay. Although Norman Edelstein agrees, some of the others in the actinide group may have reservations about rearranging the funding pattern. Simon Chin dropped in—he does not want to repeat chemistry 12A (organic chemistry) lab as required because he dislikes this so much it makes it impossible to study for his other courses. I told him he must conquer this phobia if he is to continue in school.

I taught my discussion section in Room D from 11:10 a.m. until noon.

After my discussion section I talked to Leroy Parker, who needs a report from LBL; I told him he cannot have routine entrance to LBL because he is not a regular worker there. I will try to find him a copy of the report. I also talked to Arun Gangopadhyay, who said his wife and child will leave him if he does not find a means of support or succeed in his work with me at LBL (which cannot start until he passes Chemistry 123). I told him that, unfortunately, I cannot help him—he, himself, has to succeed. I then walked up to LBL. I had lunch in the cafeteria with Walter Loveland. We later joined Al Ghiorso, Mike Nitschke and W. Swiatecki at their table.

Bergman called at about 2 p.m. to tell me the problem with Ken Raymond has been solved. Edelstein will set up a separate account for him.

At 2:20 p.m. Larry Helm returned my call and I told him that plans were established and that camping had been approved for the top of Mount Diablo. He said that camping wasn't as much his concern as the trails I proposed we take. He suggested that Mitchell Canyon Trail was a nice easy fire road into Clayton. I told him that we were coming from the other side and that I was aware of all the trails on Mount Diablo, having hiked there very often. I told him our route and he deferred to my judgment. He asked if we would have a support vehicle on top and I told him that the national coordinator would have one vehicle there. He said that was fine and he asked if we would be sleeping on the pavement. I told him we would and he suggested we sleep off the pavement on the grass near the restrooms. I thanked him and invited him along on the hike.

At about 2:30 p.m. Wladyslaw Swiatecki dropped in with the fourth installment of his calculations of yields of SHE from fusion reactions. He concludes that ^{238}U plus ^{76}Ge is the best reaction.

From 2:45 p.m. to 3:15 p.m. two of my chemistry 1B students, Mendy and Pamela Lou, came by my LBL office for help with problems.

At 3:20 p.m. Paul Seabury called me to discuss a special emergency meeting that the University Senate is holding because of a petition signed by over 100 faculty members. The petition urged a complete split between the University and the Laboratories. Paul admitted that he hadn't attended a Senate meeting in over six years and I said I had not been to one in over 20 years. The meeting is set for Tuesday, January 29th. I asked him who would attend who supported the Lab-University stand and he said that Charlie Townes and Bill Fretter would be there. I suggested he contact Sam Markowitz, Jim Cason, Dean Norman Phillips, Luciano Moretto, David Shirley,

Luis Alvarez, Ed McMillan, Larry Grossman, Carl Helmholz, Larry Ruby, Thomas Pigford, Robert Cottrell, Dan Arnon, and Robert Colwell.

At 4:15 p.m. I called Fred Bell at the Camino Ranger Station. He greeted me with the news that he had just finished drafting a letter to me giving us permission to camp at Bridal Veil Campgrounds on HikaNation. We discussed the Pony Express Trails and he said that he is in the process of getting them down on the ground but has more aerial photographs to examine and that they are subject to much change before this April's cross-country hike. He said he had seen a copy of our itinerary from Phil Corson. They had discussed it and had some suggestions of alternate routes to take which I encouraged him to send me. He said that they are using the old roads and that five to ten miles of new trails will be made to join those old roads together. He said that his suggestions of alternate routes would keep the hike more away from the new Highway 50. I asked how far the trails extended to the east and he said that his district ended at Echo summit. He gave me the directions to get to the Camino Ranger Station (first Camino exit after Placerville) on the Pony Express Trail Road. I recognized the area and asked him if it were next to the church and he said it was. I told him that I had talked to someone there last year while Helen and I were scouting out the trails for the cross-country hike.

I went by Building 70 at about 4:30 p.m. and talked to Walter Loveland, Pat McGaughey, Rose McFarland, Ken Moody, Michael Perry, Marty Schulman, Yoshi Morita, Luo Cheng, and Diana Lee. Perry's friend, Tana Woodward, was there and I agreed she can join my Freshman Cluster Chemistry Advisory group.

Yoshi Morita told me his Ph.D. Qualifying Committee has been appointed--Ruby (Chairman), Searcy, Kaplan, Grossman and Rasmussen.

On my way home I went by the computer center in Building 50 to watch Walter Loveland at work.

Helen and I had dinner in the playroom. After dinner I worked in the study reading proof on the final copy of May 1945 of my Met Lab Section C-I history.

Saturday, January 26, 1980- Lafayette

Alone, I hiked from the Mitchell Canyon entrance to the top of Mt. Diablo and back. I went by way of Mitchell Canyon and Deer Flat roads and Juniper picnic area, starting at 10:30 a.m. and reaching the top at 1 p.m. I ate my backpack lunch in the Snack Bar. (Judy Mullin of Walnut Creek runs the snack bar but a young man was operating it today.) At the top of Mt. Diablo I met Peggy Klentz, who works in contracts at the University of California in University Hall.

I went down by way of Prospector Gap (straight down the steep slope past Ransom Rock), then by the fire road past Big Spring, Murchio Gap, Deer Flat, and then along Mitchell Canyon Road to the entrance. I arrived a little after 4 p.m. with an elapsed time of two and one-half hours from the top.

I arrived home a little after 4:30 p.m.

Helen and I had dinner in the playroom. A rather large earthquake, about 5.6 on the Richter Scale and lasting nearly ten seconds, struck at 6:33 p.m. It shook our house quite substantially, but there was no damage.

I worked in the study during the evening.

Sunday, January 27, 1980- Lafayette

I read Chemistry 1B material and worked problems. During and after lunch in the playroom Helen and I watched the NFL All Star game played in Honolulu. The NFL beat the AFL All Stars 37-27.

I called Ralph Wright to tell him I will lead a Mt. Diablo Chapter Sierra Club hike to Mt. Diablo on June 17th and in Las Trampas on July 19th. I called Arthur Hall to tell him we will visit him at the Ace Hereford Ranch next Saturday and I called Joe Goldstein to arrange to meet him and Betty to ride to the Planning Meeting for HikaNation at North Face in Berkeley, February 4th.

Helen and I had dinner in the playroom. After dinner I worked in the study.

Monday, January 28, 1980- Berkeley

I rode with Ben Schifflerbind, who came by LBL a little before 8:30 a.m., to drive me to the Kevex headquarters for the Board of Directors meeting. Here I joined Hunter Simpson, the new member of the board of Directors of Kevex, and Richard Frankel for a tour of the Kevex facilities that lasted until 11 a.m.

Starting at 11 a.m. in Frankel's office, I presided over a meeting of the Board of Directors at which Directors Simpson, Frankel, Cushing and Kramer were present. Paul Baker was also present. We followed the agenda (attached). We decided that the compensation for outside Board members will be \$2,000 per year paid quarterly, plus \$300 for each Board or Committee meeting attended. We decided that the Audit Committee of the Board shall consist of outside Directors with Simpson as Chairman, and Seaborg and this Committee will meet twice a year. The Compensation Committee of the Board will consist of outside Board members with Seaborg, as Chairman, Simpson and Lesser. The Nominating Committee of the Board will consist of outside Board members with Seaborg, as Chairman, Simpson and Frankel--ex officio members.

During his discussion of the "Five Year Plan," Frankel indicated that management will have to be strengthened in order to handle the increased volume of business and, thus, he is in the process of hiring a production manager, Bob McLean. We approved the "Business Conduct Guidelines," for Kevex team members and agreed that we should have similar guidelines for Kevex team leaders.

KEVEX BOARD MEETING

January 28, 1980

Agenda

I. Tour of Facilities *9:45 am - 11:00 am*

start 11 am

II. Organization of Board

A. Introduction of New Director - Mr. Hunter Simpson

B. Compensation of Board Members *\$2000/yr. (paid quarterly)
\$335/mo*

C. Discussion of Board Committees

(i) Audit *audit committee*

(ii) Compensation *See Mr. Simpson's letter
\$2000/yr. \$335/mo*

(iii) Nominating *See Mr. Simpson's letter*

III. Financial Summary *P. L. McLean, Pres.*

A. Discussion of Five-Year Plan

B. Review of Current Quarter

C. Current Estimate of FY 1980

IV. Business Conduct Guidelines

A. Team Members

B. Team Leaders

V. Introduction of Officers *Callie*

The Kevex officers then came in--Colby, Fuller, Woldseth, and Culver. We had a general discussion consisting mainly of descriptions by Simpson of how his firm, Physio-Control, operates. His firm was recently acquired by the Eli Lilly Company. I rode back to my LBL office with Ben Schiffler and arrived at 3 p.m.

After returning from the Kevex meeting I went over the day's mail with Lin Lorenz.

At 3:30 p.m. I went to Building 70 to talk with Ken Moody, who spent the weekend with the computer treating data from our ^{197}Au plus ^{16}O bombardment at the 88-Inch Cyclotron); Diana Lee, and Marty Schulman, who were busy with their chemistry. Pat McGaughey was getting ready for his Nuclear Science Division Seminar today and Morita told me his U plus 42 MeV ^4He bombardment to measure angular distribution of fission products in a calibration experiment, is scheduled for Monday, February 11th.

At 4 p.m. today I attended the NSD seminar in Building 70/Room 3377 Conference Room. John Sullivan was the first speaker and he talked on "Small Angle Pion Production in Heavy Ion Reactions." Pat McGaughey spoke next on the topic of "Application of the Nuclear Fireball Model to Target Residue Production in the Relativistic Reaction of Neon and Uranium;" he did a good job.

After the seminar I talked with Mrs. Süyreyya Barkan in my office. She is in the Lab as a guest of Mike Lederer and has worked with Dick Myer of Lawrence Livermore Laboratory. She is originally from Turkey. Her husband died in Turkey recently and she has three children in college in the United States. She has a B1 visa good only until October 31st. She has a Ph.D. in Nuclear Physics with Professor Dee and Professor Curran of Glasgow University. She has worked one year at Argonne National laboratory with Roy Ringo and has worked at Saclay with Rene Joly. Cerny has told her that there might be postdoctoral positions open in NSD this summer. She had been told that there might also be positions in high energy physics. I told her that these positions are usually filled by hand-picked candidates by research men who are looking for particular expertise in their fields. I suggested that she try to obtain a position in the Energy and Environment Division.

Helen and I drove by the Segrès to pick up Rosa and then drove to Orinda Community Center to attend in Room 8, the monthly meeting of the Orinda Planning Commission. We arrived at the Community Center a little after 7 p.m. as the meeting was getting started. Emilio joined us soon after our arrival. We were there for the purpose of participating in the hearing on the application of KROW Communications for approval of an amendment to their existing land use permit to increase the height of their radio transmission tower by 50 feet. Present were Orinda Area Planning Commission members R. C. Grassi (Chairman), Harb, Robert L. Mills, Jane Laidley, James R. Lucas, Ronald Plomgren, and James Lubin (who arrived later at about 8:30 p.m. in the middle of the discussion of our agenda item). Also present was Karl Wandry of the Orinda Planning Department and two others.

Although the KROW Communications agenda item was No. 7 on the agenda, it was taken early in the evening starting about 8:15 p.m. First there was a vote on the

EIR with no discussion by the outside witnesses and this was approved with Mills, Lucas, Harb, Plomgren voting for it, Grassi voting against and Laidley abstaining because she had taken a position in the consideration of the same item by the Orinda Association Planning Committee on March 15, 1979 (when she voted against it).

Then we came to the consideration of the KROW Communications application. Jay Watson, owner of the existing tower and the person requesting the amendment to the land use permit to increase the height of the tower, spoke first. He claimed the site was unique, that Channel 66, the proposed television station featuring religious programs, would constitute a public service to Orinda despite the fact that it would be a Vallejo/Fairfield station. He claimed that this was the only possibility for a religious station. (He also identified his present use permit for the present tower as #204.68.) He did concede that the required flashing red light would have a visual impact on the adjoining land but would not be so bad at a moderate distance. Watson was followed by four or five other supporters of the application including representatives of the Redwood television ministries, who would operate the Channel 66. Grassi then asked for presentations by those opposed to the application.

I spoke first, describing the Seaborg-Segrè 50 acres of adjoining land and stated that the flashing red light would have severe adverse impact on this land. I also said that it would have an adverse impact on many of the homes throughout Orinda. I called attention to the fact that no light would be required at the present approved 220 foot level and, therefore, an unreasonable price in terms of visual pollution would have to be suffered just in order to go up 16 more feet--to the 236 foot level that was being requested. I said that the required case for an exception to the Contra Costa County regulations against such a lighted tower had not been made and that there were other places that the television tower for Channel 66 could be placed. I pointed out that in the Contra Costa Times last week there was a story about a Vallejo church group, representing First Century Broadcasting, that was applying for Channel 42 and, thus, it is not true as stated by Watson, that this Channel 66 is the only possibility for a religious station.

I was followed by Larry Crutcher of the East Bay Regional Park District, who described the negative visual impact on the neighboring Tilden Park and indicated that the EBRPD Board of Directors had voted unanimously to oppose the application last November and reaffirmed their opposition in a recent meeting.

Then Sue Watson spoke and read a letter that she had written to the EBRPD with a copy to the Orinda Area Planning Commission in which she opposed the application on the basis of its visual pollution and the fact that the television station would be serving Vallejo and Fairfield and not Orinda and sites for the tower near Vallejo or elsewhere would be more suitable.

Ian Mackinlay then spoke against the application, identifying himself as an architect living in Orinda Woods where the adverse visual effects of the flashing red light would be deplored by the residents.

Following these presentations, the members of the Commission expressed their views. Following, a motion was made by Mills to reject the application with Mills,

Grassi, Plomgren, Lucas and Harb voting "yes", Lubin voting "no", and Laidley abstaining.

After we left the meeting, Sue Watson and I talked with Jay Watson outside of the Community Center. Watson did not seem too disappointed and actually indicated that there were other sites that the Redwood television ministries could use for their tower such as at Sibley Regional Park.

Helen and I drove home, arriving at about 9:30 p.m.

Tuesday, January 29, 1980- Berkeley

I dictated eight letters this morning in answer to inquiries received about HikaNation (Richard Ryon, Margaret Tracy, Jean Hauser, Edward Bennett, John Mertes, Nancy Main, Dottie Doresett, and Dorothy Henneberry). I also wrote to Signe Karlstrom agreeing to speak before the Detroit Swedish Council on Wednesday, May 21st on "Our Energy Problem." Among my mail this morning were "thank you" letters from James D'Ianni, Mary Good and Rolf Sinclair (AAAS). I also received a translation of the main points of "Thirty Years in Retrospect" by Wang De-Xi from Yung Yee Chu and an invitation to write the foreword to the revised edition of Chromatography due to be published by Elsevier in 1981.

At 9:30 a.m. I placed a call to Charles Overberger at the University of Michigan in response to his letter of January 22, 1980. I told him that I did not plan to attend this symposium and that it was not much of a meeting from the international point of view because they don't have the traditional committee. I told him that I attended a similar symposium in about 1976 and that I considered it a waste of time and simply a propaganda forum. Charles Overberger told me that he had received a note from O. Lewin Keller, who is also allegedly included in the program and he is not going either. We discussed it and Overberger decided that he will tell them that neither of us are coming and that I consider it a propaganda conference.

Mike McReynolds called me at 9:55 a.m. to ask if I had received a letter from Craig Evans. I looked through my morning mail and found that I had. Mike went on to tell me that he has talked to Jay Goldsmith of the Pacific Southwest Office of the Heritage Conservation and Recreation Service (HCRS) and he has agreed to come to the meeting on Monday, February 4th at North Face and has also agreed to talk on the role of the Department of Interior. We discussed the conference of the American Planning Association which, coincidentally, will be held in San Francisco on April 12-16 (the start of our cross-country hike). He told me that the person to contact with the American Planning Association is Charles Q. Forester (Director of Planning and Host Committee Coordinator for the conference). Mike has talked with his secretary and she will have Forester call Mike about HikaNation. I asked him if he had contacted all the Bay Area Chapters of Sierra Club. He said he had sent a letter to Stan Abinanti which had been returned in the mail today. I told him that I think it would be a good idea to write each of the local chapters individually and I agreed to do this. I also asked him if he had received the fact sheet from Monty Montgomery and he said he had not. I agreed to send him one. I then asked him if he could secure the large screen on which

I showed my slides at North Face. He said he could and I told him that I wanted to use it again for my talk at North Face on Wednesday, February 4th.

At 10:15 a.m. Gordon Bixler called me from the Office on International Activities to ask my opinion on the stance that the IAC should take on Russian exchanges. I told him that I support the President's decisions. He told me that the only ACS direct connection with the Soviet Union was through the Catalysis Program for which we had a signed protocol for 12 months which ended this July. It was still continuing but I voiced my opinion that if Frank Press, the President's Science Advisor, wishes us to discontinue this program, we should not be belligerent and should go along with President Carter. Since the topic will definitely come up at the Houston ACS meeting in March, Gordon said that Ray Mariella, James D'Ianni and he will discuss it beforehand and make some recommendations to the ACS.

We then discussed international support for an International Chemical Society. Gordon told me that 18 of the 46 letters circulated by the Chemical Institute of Great Britain had been signed; the People's Republic of China and Argentina are refusing to sign.

At 10:35 a.m. I called Phillip McCoy of the Sacramento County Department of Parks and Recreation to tell him that I had received his letter of January 21, 1980 with its permission forms for camping in C. M. Goethe Park. I asked which of the forms should be returned to him and he said that all except the white copy should be returned. The white copy should be presented at the time of the cross-country hike. He also told me about the "White Lock Combination" area on the form which he said was the combination to the padlock on the gate to the park. It is changed each month. He told me that I need not necessarily sign it but someone from the American Hiking Society must sign, date it, address it, and give a driver's license number. I then asked him if he would like to join us. He said that he has talked with his wife and daughter about the hike and they might consider doing part of it. We discussed the route that the cross-country hike will follow and I told him that I will send him a copy of the itinerary for the California portion. He then informed me that he was an engineering student at Sacramento State University before going into the Park Service.

At 11:10 a.m. Ted Sherburne and Dorothy Schriver called me to discuss a new program that might be considered and undertaken by Science Service in cooperation with the International Science Youth group, and for which the American Chemical Society and the American Physical Society might be asked to cooperate with Science Service in their efforts. Ted recently attended an international meeting of the ISY in Tunisia where the programs that have been referred to as the "Olympiads" were studied. These Olympiads have been held almost exclusively in the past in Eastern European countries but they are now becoming more "internationalized" with participation from Western European countries, also Sweden, Norway, Denmark, and in the mathematics, the U.S. as well. The examinations are given for mathematics, chemistry, physics, and biology. They are given to teams of students in competing countries, who then compete with each other in the Olympiads. The Mathematics Olympiad will be held in the U.S. next year and the coordination is under the general auspices of the American Association of Mathematics Teachers. In the U.S. some 380,000 students take the math test and the top two or three hundred are given a "pre-

Olympiad test" and from that group a team of six students take a three-week training program (given at Annapolis or West Point because the Military is very supportive of this effort). Ted will go to Varna, Bulgaria, in July for the physics Olympiad to observe how it is done. (The biology and chemistry Olympiads may be held in Vienna.) He believes that Science Service could be the U.S. sponsor for the chemistry and physics, and perhaps later, for the biology Olympiads. He will contact Gordon Bixler for advice on the best contacts within ACS to explore this idea. I said that a lot of research needs to be done and I cautioned about USSR involvement, which Ted said is not significant. We then discussed Science News in the PRC; Ted said that its circulation is twice that of Scientific American (which is 25,000) and Scientific American charges \$10,000 per advertising page while Science News charges \$2,000. We discussed revenue possibilities for Science News because of this development.

I then spoke with Dorothy alone. She confirmed my arrival and departure times for the Science Talent Search in Washington in February and I told her that Helen would be there with me. She has heard from Stig Ramel that he will attend the ISEF in St. Paul in May. The dinner on Thursday, May 8th, will be hosted by Bob Adams and Ray Herzog (Adams is the president of 3M Company) and on Friday morning Adams is planning to accompany Stig Ramel, myself and others on a tour of the exhibits after which we will have lunch at 3M and presumably they will stay on for my talk. Afterward, there will be a tour of the 3M facilities. The Grand Awards banquet is Friday, May 9th, and I will have my usual duties in that connection. Dorothy will make reservations for me at the Capitol Hilton for STS and at the Radisson Hotel in St. Paul for the ISEF. We will ask Helen about joining me in St. Paul while we are all together in Washington.

At 11:40 a.m. Jesse Hwa called to ask me how to obtain ACS and IAC blessings for the Delegation of Polymer Chemists going to the People's Republic of China in May. I told him that he should write two memos--one addressed to me with a copy to Gordon Bixler asking for approval from the International Activities Committee and one addressed to James D'Ianni and Mary Good asking for the approval of the American Chemical Society. Jesse said that he would do this and expressed the hope that this topic might be discussed at the ACS meeting in Houston in March. Another item about which Jesse informed me was the fact that the Czechoslovakian professor, Dr. Lim, has now succeeded in getting out of his country and is coming to the United States after five years of fighting with his government.

I met with my Freshman Cluster Advisory Group for our noon bag lunch in my office, 446 Latimer Hall. Professor Judith Klinman was our guest.

I went to the instruction meeting for Chemistry 1B from 1 p.m. until 1:10 p.m. in Room 328 Latimer and then gave the quiz (second one of the quarter) and led a pre-lab discussion in Room D (Munk is the TA) and rotated among Rooms A, B, C, D, E, and F, until 3 p.m. I walked back up to my LBL office.

At about 4 p.m. Joe Cerny dropped in to ask me to present the work of my research group to the Nuclear Science Division Visiting Committee at 2 p.m. on Wednesday, March 6th; I agreed. He has learned that the finalists for LBL Director are Shirley, Grunder, Trilling, Martin Blume, and Sandweiss.

At 4:30 p.m. I went by Building 70 and talked to Rose McFarland and Marty Schulman, who were busy with their chemistry, and to Diana Lee and Cheng Luo, who told me their ^{248}Cm plus ^{16}O bombardment yesterday aborted due to operator failure; they will get their bombardment on the graveyard shift on Thursday morning.

Helen and I had dinner in the playroom while watching the news on television. Dave is home sick with the flu. I worked in the study. I called Jack Ingram to discuss the cross-country hike route near Little Norway.

Wednesday, January 30, 1980- Berkeley

I learned this morning that the Berkeley Academic Senate rejected, by a vote of 124 to 104, the proposal that the University sever its connections with LLL and LASL.

I reached Greg Choppin by telephone at 8:30 a.m. and he agrees to change the date for the 25th Anniversary of Mendeleevium to Friday, March 28th. I let Bernard Harvey know this immediately since the date was changed to accommodate his schedule.

I answered a questionnaire from Barbara Yambor regarding the attitudes of research scientists toward ethical principles; I consented to the use of my endorsement for the ACS catalog (made during the period when I was a member of the ACS Board); I wrote a letter of nomination for Professor Melvin Calvin for the 1980 Charles Lathrop Parsons Award of the ACS (copy attached) and I received an invitation to submit an article for The Book of Predictions to be published by Irving Wallace and David Wallenchinsky. I made arrangements to meet over an informal luncheon with officers and some board members of the World Future Society on February 22nd and I agreed to write the foreword for the next edition of Chromotography. I sent more letters answering inquiries regarding the cross-country hike.

I attended the last half of Professor Myer's lecture at about 9:30 a.m. in PSL. I then went to Latimer Hall/Room 219 to check the folders of Albert H. Schroeder and Stephen A. Benner, applicants for appointment as assistant professor in the Department of Chemistry. They have good records. There will be a meeting of the Department of Chemistry faculty at 3:10 p.m. next Monday, Latimer Hall/Room 406, to consider these applications.

I called Al Ghiorso to inform him about the change in date for the 25th anniversary of mendeleevium symposium. He then told me that he has negative results from his ^{208}Pb plus ^{18}O bombardment to look for ^{219}Em ; he found no daughter ^{211}Pb , ^{211}Bi , but only ^{211}Bi formed directly.

I called Darleane Hoffman to change the date of the mendeleevium symposium and told her about Ghiorso's negative result on ^{219}Em .

I then attended the regular Actinide Chemistry seminar in Building 70/Room 191. Present were Norman Edelstein, Andrew Streitweiser, Allan Zalkin, Helena



Lawrence Berkeley Laboratory

University of California
Berkeley, California 94720
Telephone 415/843-2740
486-5661

January 30, 1980

Dr. Justin W. Collat, Head
Awards Program
American Chemical Society
1155 Sixteenth Street, N.W.
Washington, D.C. 20036

Dear Dr. Collat:

I am writing to nominate Professor Melvin Calvin for the 1980 Charles Lathrop Parsons Award of the American Chemical Society.

Dr. Calvin received the Nobel Prize for Chemistry in 1961 for his fundamental work on the path of carbon in photosynthesis. His proposal that plants change light energy to chemical energy by transferring an electron in an organized array of pigment molecules and other substances was substantiated by research in his laboratory and elsewhere. More recently, Calvin's research has turned to using the principles of photosynthesis as a renewable resource for energy and materials and basic studies in solar energy research. Particularly noteworthy is his imaginative suggestion that certain plants can be grown on a large scale to produce materials rich in hydrocarbons to serve as a source of gasoline; he has conducted research that shows that this approach might make a substantial contribution to the solution of the energy problem. In addition, the current research in the Laboratory of Chemical Biodynamics at Berkeley (of which he is the founding Director) is heavily involved in chemical carcinogenesis, studying the molecular mechanisms of transformation of normal cells to malignant cells. He also has developed theories for the chemical evolution of life which have been substantiated through studies of organic substances found in ancient rocks and the formation of organic molecules by irradiation of gas mixtures simulating the atmosphere thought to exist on earth billions of years ago.

The basis of my nomination of Calvin for the Parsons Award, however, is his outstanding public service, which I shall describe. As the attached record indicates, this service may be differentiated into three major categories: scientific and professional societies, governmental committees, and international committees and boards.

Professor Calvin has performed major services for four of the nation's most distinguished scientific societies: The American Chemical Society, the American Association for the Advancement of Science, the American Society of Plant Physiology, and the National Academy of Sciences. For two of these societies (ACS and ASPP) he has served as President. He also has served as President of the Pacific Division of the AAAS, and on two important committees of the NAS. All of this service constitutes an admirable contribution to the functioning of these important scientific organizations and to the scientific and scholarly progress of the nation.

Calvin's simultaneous service to the United States government is equally outstanding. Among the many advisory posts listed in the record, particular attention should be drawn to his roles with the National Aeronautics and Space Administration and with the Executive Office of the President.

The entire effort that NASA has mounted over the past seventeen years to search for life in extraterrestrial space has been greatly influenced by Professor Calvin's participation and advice. His efforts include: (1) in the first lunar (Apollo) landings, plans to protect the Moon against biological contamination from the Earth, (2) procedures to protect the Earth from possible lunar pathogens on and in the returning Apollo spacecraft, (3) strategies for the search for organic and biological compounds in returned lunar samples, and (4) plans for the search for biological compounds and for life on other planets.

Professor Calvin has served the Executive Office of the President in two ways. From 1963 to 1966 he was a member of the President's Science Advisory Committee. In 1975 Professor Calvin served on the President's Advisory Group on Major Advances in Science and Technology. At the conclusion of that service, President Ford wrote to Calvin (letter dated August 13, 1976):

"Throughout the past nine months, while we were awaiting creation of the Office of Science and Technology Policy, you and your colleagues were of great assistance to me and to our country in focusing attention on issues vital to our Nation which have involved science and technology. Your advice and counsel have helped give the new Office of Science and Technology Policy and the President's Committee on Science and Technology a head start in carrying out their responsibilities."

Professor Calvin also has served on a number of international groups dedicated to the progress of world science. He has served on the Joint Commission on Applied Radioactivity of the International Union of Pure and Applied Chemistry, on the U.S.

January 30, 1980

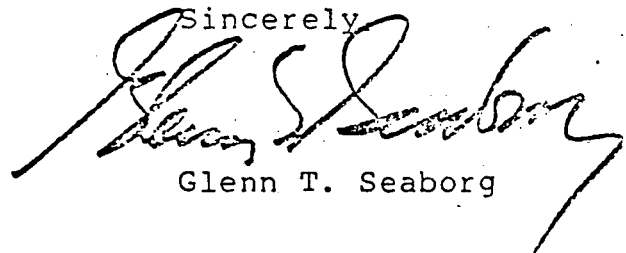
Committee of the International Union of Biochemistry, on the Commission on Molecular Biophysics of the International Organization for Pure and Applied Biophysics, and as U.S. Chairman of the Joint US-USSR Editorial Board for the four-volume summary entitled Foundations of Space Biology and Medicine. Concerning the latter effort, James C. Fletcher, Administrator in the National Aeronautics and Space Administration, wrote to Calvin (letter dated October 5, 1976):

"I want especially to thank you as Chairman of the Editorial Board who worked so diligently toward the completion of these volumes in a most challenging and unusual context requiring the greatest tact and persistence. The result is a truly comprehensive and systematic treatise dealing with the problems of space biology and medicine. Congratulations."

I am enclosing biographical data and a summary outline of his contributions to public service in support of this nomination.

All of the above adds up to a distinguished career in public service, one that could be most suitably recognized by naming Melvin Calvin the recipient of the 1980 Charles Lathrop Parsons Award.

Sincerely



Glenn T. Seaborg

GTS/11

Encs: Biographical Data (6 copies)
Summary of Public Service (5 copies)

Ruben, George Shalimoff, Charles Eigenbrot, Richard Andersen, Grimmet, Charles Van Deurzen, Don Tilley and others. Van Deurzen is here on a sabbatical with John Conway and spoke on the electronic structures of gaseous U and ionized U atoms--U, U⁺¹, U⁺², U⁺³, U⁺⁴, U⁺⁵.

I checked the Figures for part of Pat Somerville's thesis and approved them.

At 2:15 I walked down to the campus and met from 2:30 p.m. to 3:30 p.m. in Jim Hart's office in the Bancroft Library, with the Clark Kerr Award Committee. Present besides me were Jim Hart (Chairman), S. S. Elberg, W. W. Horn, and Robert Scalapino. Jim Hart said that he had talked to Clark Kerr and told him the four names at the top of our list, namely, Hannah Gray, E. T. Grether, Joel Hildebrand and Albert Bowker. Kerr responded with another list of names as follows: William Bowen, Robin Fleming, John Kennedy, Dick Lyman, Martin Meyerson, Stephen Muller, Jack Oswald, Robert O'Neil, and Claiborne Pell. Horn suggested the names of Lynn White and Franklin Murphy for consideration. Hart then went on to say that when he pressed Kerr for his top choices, Kerr suggested Joel Hildebrand, John Oswald and Martin Meyerson. After a good deal of discussion wherein I emphasized Hildebrand's involvement in the fight for basic education in the 1950's, and his country-wide reputation as a teacher of chemistry, we selected Joel Hildebrand as the recipient of the Clark Kerr Award for 1980. We agreed that Hart should arrange with Garth Wilson to have the presentation made on Charter Day this spring, April 10th.

I walked back up to my LBL office and arrived at 3:40 p.m.

From 4 p.m. to 4:30 p.m. I met in my office with Frank Stephens and Richard Diamond. Stephens wants to have some meetings of Nuclear Science Division people to discuss 1) future additions to the SuperHILAC and/or the 88-Inch Cyclotron to increase their capability, i.e., extend to higher energies and 2) split NSD into a nuclear physics and a Bevalac or high energy nuclear physics division.

At 4:40 p.m. I called Strawberry Lodge and talked to Cody Goard (the new accountant) and Bonny Madsen. I learned that there had been another dispute between Tim Adami and Ken Madsen. I then called Kathleen Madsen at home and found she is unaware of the new situation.

Helen and I had dinner in the playroom. I called Judy Mullin, who runs the Snack Bar at the top of Mt. Diablo, to tell her the HikaNation crowd will be there Wednesday evening, the night of April 16th and Thursday morning, April 17th. She said she will be there and will have the Snack Bar open.

Eugene Guth called from Oak Ridge at about 7:30 p.m. and talked to me for about 15 minutes about the energy problem. He is going to Washington Friday to suggest to Harold Brown or Hans Mark that I chair an energy committee to be composed of Bill Baker, Merv Goldberg, Chauncey Starr and me, which could do something to solve our nation's energy problem.

I worked in the study during the evening and read proof on the final copy of June 1945 of my Met Lab Sec. C-I history.

Thursday, January 31, 1980- Berkeley

Ken Madsen returned my call of yesterday; he described the situation with respect to Tim Adami and Strawberry Lodge—it is very confused. I then called Kathleen Madsen and she said Tim will call me.

I wrote to Warren Kingsley (J. T. Baker Chemical Company) and I agreed to take part in the presentation of the Nobel Laureate Signature Award at the Awards Banquet in Houston on March 24th. I returned the "permission" letter signed by James A. Kern (President of AHS) to Walter D. Goggin (Manager of the Land Division of EBMUD). I wrote two letters to Mayor Lionel Wilson and the Oakland City Council and the Board of Directors of the East Bay Municipal Utility District on behalf of CUWA concerning the development of the Oakland hills area near Skyline Boulevard, which would necessitate use of the EBMUD emergency water pipeline. I reminded them that a public understanding had been reached in 1977 with the city, EBMUD, and various citizen groups agreeing that the pipeline would not be used in such a manner. I also pointed out that area in which the new development is taking place is already over-built and that the existing level of fire-protection was inadequate.

At 9:15 a.m. I called Marcus Wallenberg's office in Stockholm to find out whether he will be able to attend the Swedish Council of America dinner in April. I talked to the secretary, who said Wallenberg is not able to give a definite answer yet.

At 9:20 a.m. I called Governor W. Averell Harriman at his home in Washington, D.C. I reminded him of our recent meeting at the Kennedy Library opening in Boston and told him about the book that Ben Loeb and I are writing. I asked whether we could meet with him when I come East at the end of February. I told him that I would like to talk about his role and impressions and thoughts about the Kennedy administration's actions on the Limited Test Ban Treaty since he played such an important role in the period. He agreed to the meeting and we arranged it for Friday morning, at his home, February 22nd at 11 a.m. I told him I would be accompanied by Ben Loeb, my co-author. Harriman requested that we bring a tape recorder so there would be no question about what he said. He also suggested that we contact Adrian Fisher because he would have a better memory of what happened during those times. He asked what I felt should be done with Afghanistan and I told him my feelings about boycotting the Olympics.

At 9:30 a.m. I called Ben Loeb to tell him about our appointment with W. Averell Harriman. he said that sounded excellent and we agreed to meet for breakfast at my hotel (Capitol Hilton) at 9 a.m. on Friday, February 22nd. I asked him to bring a tape recorder and also an extra copy of the manuscript to leave with Harriman should the occasion present itself. He said this could be arranged. I told him that I have not heard from University Press yet but that Doubleday had written me a letter apologizing for their previous form letter rejection and saying that they would be happy to read it now. I told him that I would send him copies of the letters. We discussed his progress on the final chapter of our book and I brought up the suggestion that we might try to get

Harriman to write the foreword for our book. I also told him that I was trying to reach Adrian Fisher to invite him to the meeting on Friday, February 22nd.

At 9:50 a.m. I returned Mike McReynolds' call of earlier this morning. He informed me that they have a meeting set up with Cal-Trans on Wednesday, February 6th, between 10 a.m. and 12 noon at the Cal-Trans Building at 150 Oak Street in San Francisco. I told him that I probably will not be able to attend. He said that Cal-Trans had sent a letter to Senator Nejedly concerning a bridge toll that our group would have to pay. Mike said he had received a call from Bechtel after I wrote to W. A. Behrens about our plans to cross the Antioch Bridge on our route across California. Bechtel had been confused and I told Mike that I was just informing them about our plans and I wasn't asking permission for anything. Mike also said they have "seed money" for our opening ceremony. The local Wendy's hamburger chain has agreed to give \$10,000 for the start. Mike informed me that Arthur Agnos (who is handling the political aspects of the cross-country hike) has an ecological mailing list and will send out letters to everyone on it with anything we wish to include. I suggested that he send them each a copy of the California itinerary and Mike said I should bring a stack of them to the meeting at North Face on Monday night (February 4th) for distribution and to give to Eric Schockman, who will pass them on to Agnos. I agreed to this and asked if Bet Muth had arranged to have the large screen. He said Bet had the large screen and agreed to an agenda with me kicking it off with my slides.

At 10:15 a.m. I went by Building 70 to talk to Kenton Moody and Rose McFarland.

Tim Adami returned my call and confirmed that he is leaving our Strawberry Lodge enterprise largely because Kim Olmsted is being brought in. He will continue to give it some time for a while, however.

At 11 a.m. I received a call from John Rasmussen, who was filling out the teaching preference forms from the Chemistry Department for next year. He asked me if I would consider teaching Chemistry 123 with him next year as we have done in the past. He said he had discussed this with Ignacio Tinoco (Department Chairman) and said that his first choice would be to teach it with me. I explained to John that I am supposed to be full-time faculty person on retirement but that the Department hasn't had enough money to make up the difference. I said that didn't matter too much though and that I would consider doing it with less involvement on my part. I suggested 25% and John agreed. He said there would be a lot of flexibility and I could shuffle my schedule without much trouble. I said that I wanted to spend more of my time at the end of the quarter discussing nuclear matters. We then discussed a number of other matters including a mistake in the article sent to me by Y. Y. Chu.

At 11:15 a.m. I reached Kathleen Handron who has recently been appointed the new Lab Recreation Director. I told her I read about her appointment in the Currents, and I welcomed her to the new position. I asked whether there had been mention of a hiking trail around the periphery of the Lab. I told her that I had scouted the trail with Harvey Levy and Sherry Fuzesy about a year or two ago and that Andrew Sessler and Earl Hyde also knew about it. I told her that she might consider getting Sierra Club

volunteers to build the trail relatively cheaply. She thanked me for my suggestions and said that she will add it to her list.

I had lunch in the cafeteria with Diana Lee, Ken Moody, Pat McGaughey and Rose McFarland. I suggested to Rose that she look for ^{243}Pu from ^{238}U plus ^{18}O . Diana and I discussed my need for results from our ^{248}Cm plus ^{136}Xe bombardment (actinide yields) for my talk to the NSD Visiting Committee on March 6th.

At 12:40 p.m., after securing the phone numbers from the USACDA (U.S. Arms Control & Disarmament Agency), I called Ambassador Adrian "Butch" Fisher in Geneva, Switzerland. I asked whether I might meet with him in Washington at some time between February 21st and 26th. I told him that the purpose of the meeting was to get his impressions for my book, Kennedy, Khrushchev and the Test Ban - An Eyewitness Account. He told me that he will not return to Washington, D.C., until March 7th, because he and his wife are touring Europe after his stay in Geneva is finished around February 14th. He gave me the address and phone number of his home when he returns to the States.

He made a comment about the "Outstanding Young Men of 1948" of which both he and I were chosen and we talked a bit about his retiring from the government to go back to being a professor at Georgetown University. He said he will be back in Washington in his house on "N" Street after July 1st.

At 12:45 p.m. I called Roland Erickson to give him an update on getting Marcus Wallenberg to speak to the Swedish Council of America on April 7th. I told him that I had called Wallenberg's office in Stockholm this morning and had talked to his secretary, Mr. Schwerin, who had said Wallenberg hadn't given him a definite answer yet but had it under serious consideration. Schwerin will call me as soon as he has an answer. Roland said that he hopes it will be soon so that they might have the chance to get the Consul General in New York to come.

Al Ghiorso dropped in at 2:30 p.m. and urged my support of Hermann Grunder to be Director of LBL. He told me he may look for ^{220}Fr from ^{208}Bi plus ^{18}O ; this would be the analog of ^{260}Md (source of 1.5 sec. symmetric S.F.?) from ^{248}Cm plus ^{18}O .

During a couple of hours of the afternoon I went through the "Personal Data Blanks" of the 40 STS finalists.

Ken Madsen called at 3:30 p.m. to set up a meeting involving Ken and Bonny Madsen, Tim and Kathy Adami, Tom Donahue (Madsen's attorney), and Helen and I at our home next Tuesday evening.

I walked down to Lewis Hall to attend the Graduate Research Conference in Room 100. I first had tea and cookies in the Latimer Hall Commons Room. Kathleen M. Morden (Professor Tinoco is her Research Director) talked on "Magnetic Resonance Studies of Oligonucleotides." Morgan P Conrad (Professor Strauss is his Research Director) talked on "Vibrational Spectroscopy of Poly Vinylidene Fluoride". I walked back up to my LBL office with Rose McFarland.

Helen and I had dinner in the playroom.

Jim Kern returned my call at home to discuss some aspects of sending out information to Sierra Club members regarding HikaNation.

I called Ken Madsen at his home, to arrange for assignment of Tim Adami's former apartment at Strawberry Lodge to Helen and me until our cottage is completed.

Friday, February 1, 1980- Berkeley

Walter Loveland has been back in Corvallis since last Saturday and returned to the Lawrence Berkeley Laboratory this morning. I went by Building 70 and found that Diana Lee and Luo Cheng were making the chemical separation (Md, Fm, Es, Cf, Cm, Am fractions) on the ^{248}Cm plus ^{16}O bombardment, which was completed at 8:08 a.m. this morning at the 88-Inch Cyclotron. The bombardment on the night owl shift was only of moderate intensity. Al Ghiorso and Iz Perlman were in Building 70 and we discussed our research program. Al Ghiorso will look for ^{220}Fr from ^{208}Pb plus ^{18}O next Friday (using the 88-Inch Cyclotron).

Richard Frankel called at 9:20 a.m. to tell me that Peter Whitney, a reporter for the San Francisco Examiner, will do a story on KeveX, which will probably appear in next Wednesday's edition (February 6th). He wanted to take a picture of me with Frankel and also get a picture of the KeveX Board of Directors. I told Dick my schedule today won't allow this.

In today's mail I received the "Proceedings of the Third Philip Morris Science Symposium" from Helmut Wakeham (Vice President of the Philip Morris Research Center). I responded to Richard D. Smith (Editor) The Sciences, regarding my article on an international chemical society.

Just before 10 a.m. I walked down to my Latimer Hall office. I taught my Chem 1B discussion group in Room D and walked back up to my LBL office. I had lunch in the cafeteria with Al Ghiorso and was joined later by Mike Nitschke. We discussed the status of the race for LBL Director and the feasibility of splitting the Nuclear Science Division.

Al Ghiorso and I then went to visit Building 70. Diana Lee and Luo Cheng were working in Room 209 and had finished their chemical separation procedure. She gave the Cm and Am fractions to Ghiorso; in particular, he will count alpha particles and will look for ^{242}Cm growing from ^{242}Am .

Later in the day I went by Building 70/Room 203 and spent from about 2:30 p.m. to 3:30 p.m. talking to Walter Loveland and Dave Morrissey (who dropped by) about our publication schedule, our equipment problem, and whether we might get an old PDP-15 computer transferred to us from the Moretto group. I also discussed the ramifications of such a transfer with Diana Lee. She was showing Luo how to count the alpha particles and SF from their chemical fractions isolated this morning.

At 3:50 p.m. today Jack Ingram called to say that he cannot meet me this weekend. He asked if I will be at Strawberry the following weekend or the weekend of the 16th, 17th and 18th--the 18th being President's Day and a holiday. We then discussed the scouting that Helen and I plan to do this weekend. He told me there will be trees with very high markers just before we get to Lake Audrian and, if we see orange diamond markers, they will indicate that the trail is part of the Snowshoe Thompson trail. He told me that it is about three miles from Little Norway to Pow Wow. On the Highway 89 portion, he advised us to follow the aqueduct where it goes under Highway 89 (the willows will be closest at that point). I asked if he will be able to

take time off and accompany us on the Hike on the days we will need him most-- Sunday, May 4th and Monday, May 5th. He said he believes he can do this.

I then returned an earlier call from Bruce Dropesky and we talked about the general problem of enticing young people to consider scientific careers in radiochemistry. He referred to the letter he distributed written by Günter Herrmann and I said I agree with Herrmann's letter but do not know exactly what I can do about it. He asked me to think about how we might get a summer program into the national laboratories aimed at introducing (for example) third year high school students into the field. I said I will give it some thought.

At about 5 p.m. I went by Building 70 and had a talk with Diana Lee about a research program for Luo Cheng which might broaden his present work on actinide isotopes and better prepare him for a research program when he returns to the PRC. I also discussed making a ^{244}Pu target for Rose McFarland in the event I decide that she should do her thesis work on the identification of actinide isotopes and reaction mechanisms from heavy ion bombardments of ^{244}Pu .

I drove down to University House to attend a reception in honor of Herbert Simon, a visiting Regents Lecturer. Helen met me there. Chancellor Albert Bowker and his mother were there. Rosedith Bowker was away visiting in Los Angeles. Helen and I talked to many of the guests including Phillip and Charlotte Farnsworth. Phillip was involved with E.O. Lawrence in his television invention of the 1950's. (Charlotte is the widow of Rowan Gaither.)

Helen and I then drove to the Faculty Club, where we had dinner with Walter Loveland. From here, the three of us walked to the University Art Museum to attend a reception and exhibit of early photographs of China sponsored by the Chinese Chapter of the Berkeley Alumni Association. We talked to many of the guests, including Xijun Qui (Chiu), a guest scientist from the Institute of Nuclear Physics at Shanghai, who is now working at the University of California at Santa Barbara (and brought to Berkeley for a visit by John Rasmussen), and Shuang-Hui Shih, a guest scientist from the Institute of Nuclear Physics at Shanghai, now at LBL working with Dick Diamond. I met both of them during my visits to the Institute of Nuclear Physics in 1973 and 1978. They told me that Ho Fu Lu, now on a sabbatical visit in the United States, may return to his post as Director of the Institute of Nuclear Physics. I promised to send Qui a copy of "China Revisited."

At about 9 p.m. Roy Gock, President of the Chinese Chapter, opened a little program with some welcoming remarks. He then called on Bert Mah, who served as Master of Ceremonies and who called on Sheridan Warrick, Director of International House, for some remarks. Mah then introduced me as former U.C. Chancellor, Chairman of AEC, visitor to and friend of China, etc., and I made some remarks. I said that Mrs. Seaborg and I were pleased to be with our Chinese and Chinese-American friends. I described our early visit to the PRC in 1973 under the auspices of the Committee for Scholarly Communication with the People's Republic of China, which opened up the exchange program. At the time we had a long meeting with Premier Chou En Lai (one of the most interesting events of my life), whom we found to be very human, intelligent and well-informed on our proposed exchange program. I next

discussed my visit to the PRC as head of the Delegation on Pure and Applied Chemistry in 1978, and I concluded by extolling the exchange program and introduced my exchange colleague Luo Cheng and again expressed pleasure that Mrs. Seaborg and I were invited to be present tonight. Mah then introduced a number of the University of California faculty who were present--Shiing-Shen Chen, Dean Ernest Kuh, John Rasmussen, and others. He also had a Chinese student read the names of all the visitors, exchange scholars, visiting scientists and students now at the University of California. He then called on Bill Gong, Chairman for the evening's event, who read a prepared speech. Following this Luo Cheng led Helen, Walter Loveland and me on a tour of the old Chinese photographic exhibition featuring feudal China before the revolution of 1911. Helen and I had a talk with Bradley and Penny Moore (who visited and who both lectured in the PRC last year). Walt, Helen and I walked back to the Faculty Club and then Helen and I drove home, where we arrived about 10:30 p.m. Dianne, Kent Freeman and Dolf Tarango, who had arrived earlier during our absence, returned from a visit to a "Hoedown" at Happy Valley School. They spent the night at our house and are scheduled to return to Davis tomorrow morning.

Saturday, February 2, 1980- Lafayette/Strawberry Lodge

Helen and I left at about 8:45 a.m. to drive to Strawberry Lodge, where we arrived at about 11:45 a.m. We talked to Peter McMullen who brought us up to date on affairs at the Lodge. He showed me a detailed balance sheet, the first ever prepared. He told us about some irregularities in Adami's handling of money.

Lin Lorenz and Jim Stack arrived and joined Peter, Helen and me at lunch in the dining room. Gill Gallagher also joined us at lunch. After lunch we showed Lin and Jim their quarters in our apartment and then visited the motel across the street and our cottage. The four of us then were outfitted in skis, shoes and ski poles, drove up to Pow Wow, visited with Alice Lyon for a while and then explored, on skis, the first part of the cross-country route to Little Norway to the right (south) of Highway 50. Helen and I drove to Sorensen's Resort, watching out for the hiking route along both sides of Highway 89 as described by Jack Ingram. At Sorensen's I talked to Helen Hulthen, who said she will welcome us on May 4th; she will make cabins available to the cross-country hiking group if the ground is too wet for camping. She plans to join us at Little Norway for the hike to Sorensen's on Sunday, May 4th.

Helen and I then drove to the Ace Hereford Ranch where we met Arthur and Joann Hall, their 14-year-old daughter Kim and their 17-year-old son Whitney. After some drinks we all had dinner. We learned that Arthur and Joann are from Yakima, Washington, and majored in metallurgy at the University of Washington. Arthur worked at Hanford one summer on the diffusion of plutonium while he was still in school. He worked from about 1960 to 1964 with Admiral Rickover at AEC during the time I was Chairman. Arthur is in the investment business in Minden, operating a mutual fund for sophisticated investors. The Hall family lives in a condominium in Minden during the week and spends the weekend in their home here at the Ace Hereford Ranch. They raise Herefords for breeding purposes and also have a cattle ranch in Grass Valley with a total of 900 cattle between the two places.

Helen and I retired at about 10:30 p.m.

Sunday, February 3, 1980- Strawberry Lodge/Lafayette

Helen and I had breakfast with Arthur, Joann and Whitney, and then rode with Arthur on an exploration trip for the route of our cross-country hike. We drove back to Hope Valley resort (Dale and Judy Costanza, owners), where I introduced Arthur and Helen to Helen Hulthen. We then drove back to the Ace Hereford Ranch and the place where we will camp, then on north to the first bridge over the east branch of the Carson River, through Dresslerville, then Gardnerville Ranchos (to the second bridge over the east branch of the Carson River), on to Centerville and over the east branch of the Carson River (in south Gardnerville), then south on Highway 395 to the Washoe Reservation campground and finally back via Centerville on Highway 88 to the Ace Hereford Ranch. Here Helen and I had lunch with Arthur, Joann and Whitney.

As a result of our exploration, the hiking route from Sorensen's Resort should be routed as follows:

Route for May 5th--from Sorensen's Resort proceed on old road at left side of Highway 88-89, cross Highway 88-89 and proceed on the road to the right to Snowshoe Springs Campground (about one mile from Sorensen's, where there are water and toilets), then go along Highway 88-89 for one and three-fourth miles (view of snow-covered Pine Nut Mountains ahead), then go on a road to left of the highway for 100 yards, cross the highway, go on the road to the right through a residential area (contact Judge Hillary Cook for permission to hike through this property), cross the highway and go on road to the left which becomes a frontage road into Woodfords (about five miles from Sorensen's), proceed on Highway 88 about one-fourth mile to Carson River road (at the right), go on Carson River Road past the entrance to Ace Hereford Ranch nearly to Highway 88, jog right about 100 yards on a paved road, then turn left on a dirt road (west branch of Carson River on the right) to a gate on the right made of green iron bars, enter through the gate about one-fourth mile to the bank of the west branch of the Carson River to a grove of Jeffrey pines and cottonwoods, which is the campground (about three and one-half miles from Woodfords, eight and one-half miles from Sorensen's where wood, a firepit, and water from the river is available).

Route for May 6th--Continue north on the dirt road about one-half mile and where the road turns to the left, continue straight ahead on Dressler Path, enter Nevada (about two miles from campground at Ace Hereford Ranch). Continue one mile and then turn right on paved Dressler Lane, continue to Dressler Ranch (write Frederick Dressler to confirm permission to hike through his ranch), continue on a bridge across the west branch of the Carson River, continue on a dirt road a few hundred yards, go on a dirt road to the left for about a mile, continue on right branch of a fork in the road, then continue on this dirt road (avoiding side roads to the left or right) to a gate of green iron bars. Go through this gate down a rough dirt road, pass a yellow house on the left, through the Washoe Reservation campground, finally crossing the east branch of the Carson

River on a bridge, and up the road to the left about 100 yards to Highway 395 (about seven miles from the campground at Ace Hereford Ranch). Then proceed south on Highway 395 to a campground at Holbrook Junction (about five miles beyond Washoe Reservation and about 12 miles from the campground at Ace Hereford Ranch).

Helen and I then drove back to Strawberry Lodge. I talked to Peter McMullen, who gave me a balance sheet and an income statement for 1980. Helen and I left Strawberry Lodge at about 3:45 p.m. to have dinner with Dianne and Kent at their apartment in Davis. We arrived at about 5:30 p.m. Dianne told me she received all "A" grades last quarter.

Helen and I drove home to Lafayette and arrived at about 8:30 p.m. I went over my mail and my talk for tomorrow night, etc.

Monday, February 4, 1980- Berkeley

I went over my mail, etc., with Lin and Pat. I then went by Building 70 to talk to Walter Loveland about his and Moody's work on our data this weekend. I walked down to PSL to hear Professor Myers' lecture in Chemistry 1B from 9:10 a.m. to 10 a.m.

I walked back up to Building 88, where I attended the scheduling meeting of the 88-Inch Cyclotron and later met with Bernard Harvey in his office. Harvey told me that Joe Cerny had received a telephone call from Enloe Ritter questioning whether Yuan-Fang Liu should be allowed to work in actinide chemistry when he joins me. I asked Harvey to pass on that Yuan-Fang Liu will only learn elementary actinide chemistry to use as a tool when studying chemistry in the actinide region. I also discussed with Harvey the concerns of Frank Stephens and others. We feel we can alleviate these concerns by agreeing to request funds for a booster at the SuperHILAC and perhaps splitting the Nuclear Science Division into two parts to insure funding for low energy nuclear chemistry. We also discussed other ideas concerning leadership at LBL, such as appointing a Deputy Director to be in charge of the Physics Accelerator and Nuclear Science Divisions.

I walked back up to my LBL office.

At about noon I walked down to the Faculty Club to attend the weekly luncheon meeting of the Faculty of the Department of Chemistry. I then went down to California Hall to the Chancellor's office, where, from 1:30 p.m. to 2:45 p.m., I attended a meeting of the Faculty Mentors in the Chancellor's Conference Room. Present at the meeting were: Lincoln Constance (Chairman), Jane McWilliams, Errol Mauchlan (Assistant Chancellor), Ed Feder (Associate Dean), Joan Chen, Mike Clancy, Gail Butterfield, Richard Sutch, Franco Nicosia, Scott Farmer, Jim Harder, Andrew Liebhold, Robert Middlekauff, and Terry Ewell. The discussion was general and related very much to the difficulties of keeping the students interested and coming back to the meetings.

I then walked back to my office in 446 Latimer and called my office to go over some messages. I then went to 406 Latimer for a meeting of the faculty to consider the appointment of Edward Schroeder (IBM) and Stephen Benner (a Fellow at Harvard) to Assistant Professors in the Department of Chemistry. Present were: Ignacio Tinoco (Chairman), Charles Harris, Kenneth Pitzer, David Templeton, Rollie Myers, Herbert Strauss, Steven Brown, Frederick Jensen, Sam Markowitz, Harold Johnston, Richard Andersen, Norman Phillips, Donald Noyce, Andrew Streitwieser, John Rasmussen, James Cason, William Dauben, William Jolly, William Miller, Judith Klinman, C. Bradley Moore, David Shirley, Robert Connick, Henry Rapoport, Robert Harris, Robert Bergman, Peter Vollhardt, Paul Bartlett, John Winn, Clayton Heathcock, Sung-Hou Kim, John Clark, Craig Hill and two others--(Lawrence Pratt, Richard Saykally, Richard Mathies or William Washburn).

Charles Harris presented the case for Edward Schroeder and Miller endorsed his appointment on behalf of the Planning Committee. After a short discussion there was a vote of approval by secret ballot. Robert Bergman presented the case for Stephen Benner and Miller indicated approval by the Planning Committee and then, after a somewhat longer discussion, there was a vote of approval by secret ballot.

I rode up the hill to Building 50 with David Shirley, which gave us the opportunity to talk about the impending choice for LBL Director. He was familiar with the five finalists--Shirley, Grunder, Trilling, Blume and Sandweiss. We discussed such items as VENUS, the future of the Energy and Environment Division, and some other aspects of laboratory management.

I went to the Director's area in Building 50, where a gathering of laboratory people proceeded to hold a surprise party honoring Paul Witherspoon on his 61st birthday. He was presented with an award for his work in the geothermal area of LBL by Dick DuVal of DOE-SAN. While here, I had an opportunity to talk with Andy Sessler about the five finalists for LBL Director. I went over these with him and his preferences agree with mine. I went back to my LBL office for a few minutes and then to Room 3377 to attend the remainder of the NSD Seminar given by E. L. Alpen on "Bevalac Biomedical Science." At the seminar I saw Yoshi Morita, who said that Lawrence Ruby told him I can be a member of his prelim committee. I then told Ruby that I would be glad to do so.

Jeannie Harmon had dinner with Helen and me. Joe and Betty Goldstein and Jack Ingram arrived and we rode with the Goldsteins' to the North Face store, where at 7:30 p.m. we attended a meeting of the Planning Committee for the American Hiking Society's cross-country hike. Mike McReynolds opened the meeting and then introduced me. I talked about the California portion of the Hike which I illustrated with 61 slides. Jay Goldsmith (Heritage Recreation and Conservation Service [HRCS] Pacific Southwest Regional Office) talked about his organization's involvement and co-sponsorship of the Hike to promote awareness of trail opportunities and trail problems. McReynolds then introduced Norman Gee, who spoke briefly about the role of the Sierra Club in the Hike. Eric Shockman (Assistant to Assemblyman Art Agnos) talked about the political aspects of closing the San Francisco Bay Bridge for foot traffic. He stated that there is an Assembly Concurrent Resolution (ACR), which, this month, should be introduced and passed by the State Legislature. He encouraged us to write

letters to Governor Brown and the State Legislators supporting the passage of this ARC Resolution. Eric Shockman also told us that the Resolution will include permission for the Bay Area Bicycle Action Council to ride across the top level of the bridge in June so that approvals for biking and hiking can be accomplished at the same time. He stressed that the American Hiking Society can support the bicyclists after our hike by continuing to write letters in support of the bridge closure. For our hike one lane of the bridge will be closed with a buffer lane and for the bike day, the whole top level of the bridge will be closed. CHP has been enlisted to control traffic.

Mike McReynolds then described the four categories of committees which will be needed for opening weekend as follows:

1. Logistics Committee. Purpose: To arrange for busses to transport people to their cars after the hike. (One person suggested we contact BART to see if an early train can be run from Oakland to San Francisco on Sunday for the bridge crossing. Mike will check into this.) Mike also will try to get use of army equipment (such as walkie-talkies to communicate instructions).
2. On-Site Committee. Purpose: To handle registration, setting up tables and chairs, collecting fees, establish security stations for committee members to leave personal belongings--i.e. backpacks, arrange for chemical toilets, and clean-up after the hike.
3. Promotion and publicity: McReynolds suggested a poster contest to promote interest and get good art relatively cheaply. A public relations committee is needed to get widespread, hopefully, national publicity.
4. Ceremony: This committee will set up public address systems, put up banners, take care of special guests (hopefully a movie star and some prominent politicians) and arrange for a master-of-ceremonies. Mike said that the Black Raven Pipe Band has agreed to play at the opening ceremony.

Mike then described the registration fees (\$3 for opening day which will include Sunday's walk across the bridge, \$2 if people just want to walk the bridge); the free packets and what they might contain--certificates for free Wendy's hamburgers, HikaNation patches, certificates printed saying, "I Survived the Opening Weekend of HikaNation," with names put in by calligraphy students, etc. I introduced Bud Wentz of the Lawrence Hall of Science, who showed some sky calendars (which included sky clocks) that people might take on the hike across the country. He said the Lawrence Hall of Science had a few thousand star clocks which could be included in the registration packet for free. Mike asked if anyone else knew a business that could give something free in exchange for advertising. The meeting ended with a question and answer session at about 9:30 p.m. I introduced Mike McReynolds to Barbara Langlois, who volunteered to serve on the promotion and publicity committee. Barbara and her husband, Gordon, said they will hike the entire California portion. I also spoke to Bet Muth about buying a sleeping bag from North Face and she gave me some literature.

Helen and I rode back to our Lafayette home with Joe and Betty Goldstein and Jack Ingram. They all came into our house for a while and Jack Ingram went through

his file to give me the names, addresses and phone numbers of a number of additional people I should contact in the Placerville and El Dorado areas.

Tuesday, February 5, 1980- Berkeley

At 8:45 a.m. Nils William Olsson called me from Minneapolis, where he is putting the finishing touches on the Swedish Council of America SCA Newsletter. He will be in Minneapolis until Saturday. We agreed that plans should go forward to arrange the SCA dinner and meeting in New York on Monday, April 7th, and we will not wait very much longer for an answer from Marcus Wallenberg on whether or not he will speak to our Council and invited guests on that date. I told Nils that I had spoken twice by telephone with Scherin, Wallenberg's secretary, who assured me that a decision will be made soon by Wallenberg. We also discussed the possibility of getting the Swedish Consul General in New York to host the dinner (with SCA paying for it). If Wallenberg declines our invitation we will have Roland Erickson contact Winberg of Bofors, and if that fails, I said I would give a talk on energy.

I went over accumulated mail with Pat. I responded to Professor H. R. von Gunten's letter regarding his proposed visit to LBL, to Mrs. Gerald (Ella) Hagar thanking her for her contribution to the Lawrence Hall of Science, and I authorized an increase in salary for Nils William Olsson (Executive Director) and for William E. Carlson (Assistant Treasurer) of the Swedish Council of America. I dictated nine letters regarding the cross-country hike that dealt with various permissions, response to requests for information, etc. Today's mail brought a reprint of my article (written with David W. Ridgway), "The Measure of a Man and a Study," in the Journal of Chemical Education, January 1980, 57, 10 (attached) and a copy of a very interesting letter written by Joe Katz to R. D. Macfarlane regarding ^{252}Cf -plasma desorption mass spectrometers (attached).

At about 10:30 a.m. I met with Bill Jenkins and Iz Perlman. Helen had lunch with Bill as I had to meet with my freshman cluster advisory group. Professor James Cason was our guest today.

Following lunch, I went to Latimer Hall/Room 328, where I was in charge of the Chem 1B laboratory section because Professor Hubbell was ill with the flu. I did the prelab discussion in Room E (Dave Keller, Teaching Assistant). Due to Hubbell's absence, I circulated about Rooms A, B, C, D, E, F, G, H, J, K, L, and M. I talked to Judy Brodtkin in Room M. She has completed requirements for a B.A. in history of science with a grade point average of 3.7 but is delaying graduation and is shifting to nuclear chemistry. She received a B in Chemistry 1A. I agreed to her coming to see me to discuss her future. She is a friend of Rodney Banks. I also talked to Ed Gee in Room M. He is interested in nuclear chemistry (especially calculations of critical mass of plutonium), has an undeclared major and got a grade of B- in Chemistry 1A. I agreed to his keeping in touch with me.

I then walked back up to my LBL office.

The Measure of a Man and a Study

During the 13 years that Tom Lippincott served as editor of the *JOURNAL OF CHEMICAL EDUCATION*, he did much to shape the progress of contemporary chemical education. One of the most impressive ways in which Professor Lippincott influenced contemporary chemical education was through his incisive and perceptive editorials from which one vividly senses the man and how he thinks.

One entire editorial (March 1979)¹ was devoted to the precepts and educational philosophy of William Cullen, Professor of Medicine and Chemistry at the University of Edinburgh, who lived in the latter part of the 18th century. Lippincott pointed out Cullen's perception of chemical science as an experiment-focused institution having philosophic, theoretical, and utilitarian interests and obligations. Lippincott expressed his own feeling when he observed that, "a precious intellectual passion appears to be the stimulus for good chemistry and good science."

Lippincott noted that Cullen's influence on the thought and activity of scholars and practitioners rested in part on his breadth of conception and clarity of purpose, and in part, on his view of chemistry as a separate and specialized discipline.

Since Lippincott's passion was, and is, chemical education, and since he has evidenced a special interest in high school chemistry education (October 1978), we thought it might be especially interesting to see how the CHEM Study program (the Chemical Education Material Study) would relate to Lippincott's and Cullen's standards.

CHEM Study was one of the major NSF-sponsored curriculum improvement programs originally sparked by Sputnik. Sputnik effectively served to undermine the widely held beliefs in the infallibility of American science education. Sputnik streaked across our horizon on October 4, 1957. In 1959 a group of concerned scientists representing ACS asked for help in designing a high school chemistry curriculum which would supersede the descriptive, memory-oriented courses which had become so common in the United States. University professors interrupted their research and teaching and teamed with highly motivated high school teachers to develop what became a very successful curriculum improvement project consisting of written materials and films. Certainly it was successful as measured by wide adoption—by about half the high schools in the United States—by the number of texts sold—nearly a million copies in the English version alone—translations into 16 foreign languages—32,000 prints of its 27 films sold with 9,000 film rentals per year. It paid its own way. The entire original NSF grant was repaid plus more than one million dollars in addition.

Wide acceptance is just one, and sometimes a misleading, indicator of success. Let us try, then, to compare CHEM Study with Lippincott's and Cullen's criteria.

Cullen perceived chemical science as "an experiment-focused institution." The first sentence of the CHEM Study text, aptly titled, "Chemistry: An Experimental Science" quotes Leonardo da Vinci as saying "... those sciences are vain and full of errors which are not born from experiment, the mother of all certainty. ..."

Professor Kenneth Pitzer (University of California, Berkeley), a member of the CHEM Study Steering Committee, as the outline for the CHEM Study text was being developed, in 1960 said²

I believe very strongly that chemistry is an experimental science and should be so presented to the student. At the same time chemistry is not merely an accumulation of experimental facts but has a very general and beautiful structure which also should be presented as soon as possible even if all the experimental basis is not yet available to the student.

CHEM Study, while preserving its emphasis on the importance of the experiment, continually stressed the "beautiful structure" of chemistry by encouraging the student to realize that by observing the results of experiments and their regularities one may come to recognize and identify the unifying principles which are the framework and structure of chemistry.

An awareness of the beauty of chemistry comes when one does an experiment, the outcome of which he does not know, and then experiences the thrill of knowing that there are regularities that lead to the understanding of the unifying principles. Here is the beauty and the passion of chemistry. What a far cry this is from, "Here is a law of chemistry—now let us memorize it—now we will do an experiment to prove the law is valid."

CHEM Study throughout promotes the philosophy that the personal observation of regularities leading to unifying principles can develop the ability to formulate one's own hypotheses or theories. This indeed, is in conformity with Cullen's maxim that theoretical interest reflects the desire to understand the behavior of substances, the causes of natural phenomena and the nature of the world itself.

In one editorial (July 1978) Lippincott commented as follows

Logical positivism or logical empiricism, the view of science most generally held today by scientists and the public, was shaped by a school of positivist philosophers, the Vienna Circle, during the 1930's and 40's. In this view, science is a logical process in which scientists propose theories on the basis of inductive logic and confirm or refute them by experimental tests or predictions deductively derived from the theory. When theories fail, new ones are proposed and adopted because of their greater explanatory power. In this way, science moves inexorably closer to the truth.

CHEM Study attempted to enable students to understand and to emulate the way scientists think and act and to learn the ways in which scientific knowledge is accumulated.

Lippincott elucidated this well when he observed (January 1978), "The truly educated person fully understands that knowledge is a necessary but insufficient component of a successful life. Beyond knowledge there is meaning."

It would seem then, that Lippincott, Cullen, and CHEM Study are in basic agreement as to the content, the method, the philosophy and, if you choose—the passion involved in teaching chemistry.

CHEM Study was, of course, very much involved in teaching high school chemistry. Lippincott feels very strongly about the importance of chemistry in the high school. It is evident that he realized that it was in the high school that students so often make up their minds as to their future profession. He wrote, (October 1978) "... of the vacuum in continuing education of (high school) science teachers created by

¹ Dates on which editorials appeared in the *JOURNAL OF CHEMICAL EDUCATION*.

² Merrill and Ridgway, "The CHEM Study Story," W. H. Freeman & Co., p. 131.

the termination of the NSF institutes and conferences and of the backlash against CBA and CHEMS type courses by students and parents who want something less challenging."

He lamented that as a result, curriculum planners, publishers, and authors of textbooks appear to be retreating to the pre-Sputnik philosophy in ways that are unacceptable to practicing chemists. He concluded that serious teachers are having difficulty opposing this movement and are looking for an integrity preserving successor to CBA-CHEMS type courses. It is critical that the healthy evolution of the type envisaged by CHEM Study and applauded by Lippincott should preserve that essential integrity.

Lippincott notes that in the proposed new Office of High School Chemical Education and the High School Chemistry Teachers Committee within the ACS Division of Chemical Education, effective action may be taken to establish an atmosphere that will enable high school chemistry teachers to feel that they are part of the family of professional chemists.

This would be helpful.

One of the long term objectives of CHEM Study was to "influence strongly the curriculum—while creating a situation conducive to healthy evolution." Examination of some of the newer high school chemistry textbooks reveals that many of them have been influenced strongly by CHEM Study. Prefaces to many college chemistry texts refer to CHEM Study and the solid background it has provided for students.

CHEM Study is now being developed and adopted in West Germany. One influential German educator opposed the introduction of CHEM Study saying that it was too difficult for the average secondary school student. When asked if he thought the good student should be deprived of CHEM Study, he relented. The translation is proceeding.

The teaching of chemistry is an experiment. The results of the experiment have been watched, its regularities have been observed and, hopefully, its principles will be useful in helping devoted teachers to achieve a healthy evolution.

U.S. DEPARTMENT OF ENERGY

ARGONNE NATIONAL LABORATORY

9700 SOUTH CASS AVENUE, ARGONNE, ILLINOIS 60439

TELEPHONE 312/972-3537

February 1, 1980

S-1 2/5/80

Professor R.D. Macfarlane
 Dept. of Chemistry
 Texas A&M University
 College Station, TX 77843

Dear Ron:

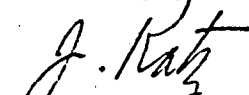
This letter is in support of your efforts to acquire a new and more powerful data acquisition system for the ^{252}Cf -plasma desorption mass spectrometers (^{252}Cf -PDMS) expected to become operational soon.

I have had an excellent opportunity to become familiar with your ^{252}Cf -plasma desorption mass spectrometer in the course of the collaborative work we have been engaged in. I consider this new kind of mass spectroscopy that you have pioneered at Texas A&M to be one of the most innovative developments in chemistry in recent years, one that is destined to have very important consequences in many areas of research. The chlorophyll research we are doing will, in my opinion, make a major contribution to the solution of some of the most challenging problems related to chlorophyll function in photosynthesis. The application of ^{252}Cf -PDMS to antibiotics and other large, fragile molecules has yielded vital information not accessible by any other means. The ability to determine the mass of very heavy ions produced from proteins, complex carbohydrates, nucleotides and other biologically important substances is certain to have a major impact in molecular biology, photosynthesis research, and chemotherapy, to mention only a few areas that come to mind. In short, ^{252}Cf -PDMS is a very important new tool of great potential.

More modern computerized data acquisition and data processing are absolutely essential if the full potential of ^{252}Cf -PDMS is to be realized. New computer developments make data acquisition and processing possible that are completely beyond the capabilities of the computer of a few years ago. I consider provision of modern computer capabilities for the next generation of ^{252}Cf -plasma desorption mass spectrometers to be an eminently worthwhile investment that is sure to give a large pay-out in first-class science.

You can count on me to do whatever I can to advance the development of ^{252}Cf -PDMS.

Sincerely yours,



Joseph J. Katz
 Chemistry Division

cc: G.T. Seaborg

br

THE UNIVERSITY OF CHICAGO

ARGONNE UNIVERSITIES ASSOCIATION

62c

From 4 p.m. to 6 p.m. I met in my office with Reid Laitner (Centurion Realty), H. L. (Tim) Timmermans (Security Pacific Real Estate Brokerage), and Emilio and Rosa Segrè, to discuss an offer from John Worm (President, Hexon Corporation, Berkeley), for our Orinda land. Worm has offered \$450,000 with a nonrefundable deposit of \$5,000 due on November 15, 1980 (if the sale does not mature), with a down payment and the remainder payable within two years. Segrè and I made a counter offer to sell for \$550,000 (with \$30,000 commission to the realtors), and a nonrefundable deposit of \$10,000 due November 15th and \$5,000 of this due on August 5th.

Helen and I had dinner in the playroom, later joined by Dave, who had spent the weekend at Point Reyes. The Madsens and Adamis were scheduled to come by, but Tim Adami postponed our meeting until tomorrow night as Helen and I learned from Ken Madsen at 7:30 p.m.

During the evening I worked on a revised draft of my detailed HikaNation itinerary and on my correspondence, etc., in the study.

Wednesday, February 6, 1980- Berkeley

I went by Building 70 and talked to Walter Loveland and Ken Moody about our 189 forms due near the end of this month.

At 8:50 a.m. I called Jerome L. Duggan, Co-Chairman of the Sixth Conference on the Application of Accelerators in Research and Industry. In a letter dated November 19, 1979, Dr. Duggan had asked me to present the keynote address on Monday, November 3, 1980 at 9:30 a.m. I told him that I would give the lecture with the title, "Some Recollections of Early Heavy Element Research." He asked me to send a current curriculum vitae and said he would have my stipend and travel expenses waiting when I arrived. I told him that I would fly in on Sunday afternoon and leave Monday afternoon. Dr. Duggan said that he would have a driver pick me up and take me back to the airport if I gave him a schedule. He estimated that there would be 400 to 500 people in the audience for my talk.

I walked down to Latimer Hall and met in PSL/Room J with others, then attended Professor Myers' lecture. I then walked back up to my LBL office.

At 10:20 a.m. I talked with Clarence Mayhew about possible speakers for the Bohemian Grove encampment this coming summer. We discussed several people--Starker Leopold, Melvin Calvin, Luis Alvarez, Lee DuBridge, Athel Spilhaus, Edward Teller, Emil Mrak, Roger Revelle, Bill Hewlett and others. He may enlist my help in getting Edward Teller to speak on nuclear power.

I held the regular biweekly luncheon meeting of my research group in my office from noon until 1:30 p.m. Present were Al Ghiorso, Walter Loveland, Matti Nurmi, Marty Schulman, Pat McGaughey, Ken Moody, Rollie Otto, Michael Perry, Won Mok Jae, Cheng Luo, Linda England, Saburo Yashita, Pat Somerville, and Rose McFarland.

Diana Lee reported on the yields of ^{256}Fm (14 nb), ^{254}Fm (2.7 mb) and ^{252}Fm and ^{255}Fm (14 mb) from ^{248}Cm plus ^{16}O and from ^{248}Cm plus ^{18}O (460 nb, 4.3 mb, and 2.8 mb).

Al Ghiorso continued the report on the bombardment ^{248}Cm plus ^{16}O . He said the yield of ^{242}gAm (16 hrs) via its ^{242}Cm daughter, is less than 400nb; hence the yield of $^{242\text{m}}\text{Am}$ is less than 0.04 nb. Ghiorso said he plans to look for ^{220}Fr , produced by ^{208}Pb plus ^{18}O , via ^{212}Bi (and ^{212}Po).

Rose McFarland reported on her plans to study yields of trans-target nuclides from Cs or La plus ^{18}O , for comparison of yields from ^{244}Pu or ^{238}U plus ^{18}O . Ken Moody reported on his yields of products (via x-ray detection) from 218 and 315 Mev ^{16}O plus ^{197}Au ; there is a dramatic shift in peak of yields between the two. Walter Loveland reported on his various plots of data from ^{12}C plus U (Bevalac bombardments). McFarland gave me the charts she has prepared to look at the various types of reactions and detectable nuclides whose yields she might measure from ^{232}Th , ^{238}U and ^{244}Pu plus ^{18}O .

I asked Linda England to shift from working on mica track scanning to working with Walter Loveland on his treatment and plotting of Bevalac data.

Preliminary copies of the Nuclear Science Annual Report (LBL-9711, July 1, 1978 to June 30, 1979) appeared today.

I met with Richard Lemmon from 2 p.m. until about 2:40 p.m. He wanted my evaluation of the Science Commission experiment of the ACS and I indicated that it was successful in my view. I gave as examples of useful functions the action of the Science Commission in saving the new Division of Health & Safety when it was threatened with extinction by the Divisional Activities Committee and the role of the SCICOM working group, International Scientific Involvements (Jordan J. Bloomfield, Chairman), in mediating the differences of opinion between the International Activities Committee, the Meetings & Expositions Committee and Divisional Activities Committee concerning international meetings. He also asked me to think about some function that the ACS might have in recognition of the 100th birthday of Joel Hildebrand late next year. He also asked whether the Nuclear Science Division is making use of the compilation of awards that our LBL Award Committee has assembled. I said that I would call this to the attention of the NSD Program Committee at their next meeting.

At 2:40 p.m. I returned an earlier call from Mike McReynolds. He said that he had attended the meeting with Cal Trans by himself because Eric Schockman had to go to Sacramento. He said that the group will be on the north side of the Bridge rather than the south. He reported that the California Highway Patrol reserves the right to cancel the event in case there is terrible weather. Mike also asked if I would write a letter to EBMUD asking for permission to cross its yards and use its tunnel on the east side of the Bridge (parallel to the freeway along toll plaza). We will discuss this further at the Steering Committee meeting which we set up for Monday night, February 11th, at 8 p.m., at Mike McReynolds' house. He said that Bob Cottrell, Norman Gee, Jim Kern, and other members of the Steering Committee have already agreed to be there.

At 4:15 p.m. Nils William Olsson called to say that he received the picture of Helen, Ellen Eliason and me with the King and Queen of Sweden and will run it in this edition of the SCA Newsletter. He called Ben Freedman, the Swedish Consul General in New York, who pointed out that the SCA dinner scheduled for April 7th falls on the day after Easter, which is a holiday for his staff; he would like very much to host the dinner and will see what can be arranged but it may be difficult because of the date. We discussed dates in April and decided to leave it the 7th, especially since we have not yet heard from Marcus Wallenberg.

The SCA Awards Committee will meet on Friday; Signe Karlstrom has a conflict but Curt Carlson, Nils and the others will be in telephone contact with her. The Committee will come up with nominations and prepare biographies and ballots to be sent to the entire Board for voting. I asked Nils if the Midwest Institute of Scandinavian Culture is a member of the Swedish Council of America and he said they were not; he has approached them many times but not successfully. Curtis Carlson believes their plans are not entirely realistic regarding the building of the Nordic Center. I told Nils that I am preparing a letter of support for them.

I went by Building 70/Room 203 at 4:30 p.m. to talk to Walter Loveland about the preparation of our 189 form and our SuperHILAC proposal. I also talked to Ken Moody, Pat McGaughey and Diana Lee about preparing abstracts of papers to be submitted for presentation at the ACS meeting in San Francisco in August.

I answered a January 30th letter from Edgar R. Miller today and wrote a letter of support for the Midwest Institute of Scandinavian Culture to establish a "Nordic Center" on the Chippewa River in Dunn County, Wisconsin, and I dictated three more letters regarding the HikaNation (to Mr. and Mrs. Arthur Hall, Donna Lovely and Frederick Dressler).

At 4:40 p.m. I talked with Ray Colvig about Taylor, the Canadian Ambassador who was a hero in assisting the Americans to escape from Iran (those who hid in the Canadian Embassy in Tehran). He was also a Berkeley student (MBA Student) at the time I was Chancellor. Ray said he knew this and in fact was contacted by the media in Canada for information about the Ambassador when he was a student at Berkeley (received his degree in 1959). Ray will incorporate this into his draft of the text pertaining to my chancellor days. He said he is about finished with his notes on the year 1958 and will soon be sending them up to me for review. We discussed some of the circumstances surrounding the 1958 Rose Bowl--the last one that UCB attended, the Sugar Bowl invitation to the Cougars which I supported (against the wishes of UCLA and USC), etc. We will probably meet before my trip to Washington, February 21st.

Helen and I had dinner in the playroom. Ken and Bonny Madsen and Helen and I talked for a while about the terms for Tim Adami's withdrawal from the Strawberry Lodge project. Then Tim and Kathleen Adami came and we all discussed the conditions for Tim's withdrawal and the status of things that need to be done at the Lodge. Ken showed me the bid Ken Holbrook is making to refurbish the motel across the street (\$10,000-\$15,000).

Thursday, February 7, 1980 - Berkeley

Early this morning after arriving at my LBL office I talked to Walter Loveland about his role in helping me prepare the separate 189 forms for our SuperHILAC-Bevalac work and our 88-Inch Cyclotron work.

At 8:30 a.m. I called Gordon Bixler to go over a few pending items with him. Regarding Jesse Hwa's letter seeking endorsement by the ACS and the IAC for the Chinese American Polymer Delegation to China, Gordon will distribute Hwa's letter to the IAC members and include some kind of ballot; I asked Gordon to make a point of including the fact that there is no money involved in this project for the ACS or the IAC. We discussed the communiqué from Eric Parker of the Royal Institute of Chemistry to Gardner Stacy which included letters from 18 presidents of chemical societies. Gardner is preparing some information that will include other activities discussed at the President's meeting, such as energy, licensing, etc. The ICS Subcommittee also can discuss this at Houston if they wish. Gordon has had no luck in raising money for the travel expenses for the Executive Committee of the ICS meeting in April; Kingston said he had no money for this purpose and I told Gordon I am still waiting to hear from the Dreyfus Foundation. We discussed Mike Heylin's letter to me inviting two contributions per year to the "Comments" section of Chemical and Engineering News. Gordon will expand on the IAC report to the ACS Council and send it to me for a first draft.

At about 9:45 a.m. I drove to the G. Paul Bishop photography studio where I sat for a black and white portrait to be used in the Bancroft Library. While there I also met Mrs. Bishop. Bishop enlisted my help in getting Melvin Calvin, Luis Alvarez, Emilio Segrè and Edward Teller to also have their portraits done and I said that I would help with Calvin, Alvarez, and Segrè, but I was not hopeful about Teller.

I sent a letter to Chancellor Albert Bowker accepting his invitation to membership in the Berkeley Fellows and I dictated to Lin about five letters responding to information about HikaNation and seeking certain permissions (i.e., to use the Audrian subdivision route as an alternate to Highway 50 near Nevada).

At about 11 a.m. I went to Building 70/Room 203 to talk to Walter Loveland and Linda England. Linda will complete her work with Pat Somerville next Wednesday then start with Walter Loveland.

I had lunch in the cafeteria with Walter Loveland, joined later by Earl Hyde. I discussed with Loveland the possibility of his collaborating on a benchmark book on nuclear chemistry.

At 1:30 p.m. I went by Building 70/Room 213 to talk to Diana Lee. She said she and Luo Cheng would like to do some fusion threshold experiments on the ^{20}Ne plus U reaction at the 88-Inch Cyclotron. I also talked further with Rose McFarland about her proposed ^{244}Pu plus ^{18}O , and other similar reactions and experiments.

At 1:45 p.m. I called Sergeant Metcalf of the California Highway Patrol to inform him of HikaNation. I gave him some background of our route and talked to him

specifically about our hiking along Green Valley Road from Folsom, through Rescue to Placerville. He thanked me for informing the California Highway Patrol of our hike and said he saw no problem with our plans. He asked when we would be hiking that portion and I told him April 26th to 27th and that we would be averaging 12 miles per day. I told him there may be between 50 to 100 hikers.

At 2 p.m. I called Dave Mori, Camp Manager of Camp Sacramento, and told him about HikaNation. I asked him if the hikers might hike through Camp Sacramento and he said he will contact the necessary officials in the National Forest Service for permission and I told him that I had contacted some people in the NFS already. I described the route and said that we will be going through Camp Sacramento on May 3rd. I invited him to join us and I will send him a copy of the itinerary.

At 2:10 p.m. I called Ralph King, whose name I had gotten from L. G. (Bud) Wykoff. I told him about HikaNation and the its route across California. He offered to give the hikers jars of honey when they hike the road to Echo Lake. I told him that I will send him a copy of the California portion of the itinerary.

At 2:30 p.m. I talked with David Saxon about the appointment of a new Director of LBL. We discussed the five finalists: David Shirley, Hermann Grunder, George Trilling, Blume and Sandweiss. I stated that I feel strongly that it should be one of the three insiders and, among these, I favor David Shirley. He indicated that David is on the top of the list of his Advisory Committee as well. He asked if he might use my name in his support if there should be some opposition from one of the Regents and I told him I will support him.

At 2:40 p.m. I talked with W. O. Baker, who gave me some interesting information about discount bonds as investment vehicles. He claims these are a better buy now than they have been in a long, long time, and suggested Morgan Guaranty Trust (#20192 with a twelve-year maturity); Federated Department Stores, Sinking Fund Debentures, Etna Life & Casualty Bonds, Marcor, Inc. (formerly Montgomery Ward), and Subordinated Debentures. We then talked a bit about the plan to form an ad hoc committee to see about creating a chemistry research fund (similar to the petroleum research fund), and Bill asked me to serve on that committee. I told him I had spoken about this with Bob Parry and already agreed to serve although I stated that it would be difficult to attend meetings, etc. It is hoped most of the committee's work can be handled by mail and telephone. Other members, to date, are: E. J. Corey, Bob Parry, Ted Doan (Dow family), Joe Coppoc, and Gronowski (EXXON). I told him about the phone call I received from Eugene Guth and said that he might expect to hear from Guth, who went to Washington to convince the Carter administration to form an "energy committee" composed of Willard Libby, W. O. Baker, Admiral Hyman Rickover, Floyd Culler, and me. We then discussed the energy problem and the present dismal outlook due to poor planning in Washington.

I called Darrell Pierce at the Inter-County Title Company at 2:45 p.m. today. I gave him the background on the cross-country hike and asked for permission to cross his meadow near Pow Wow. I told him that Bud Wykoff had given me his name as the owner of the property. Darrell Pierce said that this was perfectly fine with him and that all he asked was that we lock all the gates behind us as we go through the meadow

because there may be horses there at that time. I assured him we would do so and told him that we would be going through on Saturday, May 3rd. He then told me about the route that goes through his property. He said that there is an old road that angles off at 45 degrees which we should take on the south side of the American River, beyond the road to the El Dorado ski area. He said this road skirts the south side of his meadow and goes through the Audrian Subdivision. His instructions were to turn to the left when we got into his meadow and to go about 100 yards and we would come up to the microwave and radio repeater station service road. We would get to Little Norway on this road. I told him that I would send him a copy of the itinerary and invited him and his friends to join us.

At 3:15 p.m. I went by Building 70/Room 203 to show Walter Loveland the letter I received today from Kjell Aleklett (attached) and to talk to Diana Lee and Luo Cheng about their proposed new research project (fusion thresholds from U plus ^{20}Ne) while there.

I walked down to Latimer Hall on campus to pick up my mail and then walked back up the hill to my LBL office.

Helen and I drove to Blake House to attend a dinner in honor of the local committee for the January 1980 AAAS meeting. After the pre-dinner reception and conversation, Helen and I sat at a table with Cynthia Pace, Ed Ginzton, Shirley Saxon, Mona McMorris, Mollie Balamuth, Maggie Johnston, Mrs. Moore, Gloria Copeland, Sharon Bonney, Sherwood Washburn, Lee Davenport, Luis Alvarez, and Anthony Tiano. At the other table were David Saxon, Mrs. Ginzton, Pat Peacetime, Ted Johnston, Jan Alvarez, Joseph Moore, Mrs. Davenport, Mr. Bonney, Mr. William Balamuth, Bob Cremer and Mrs. Anthony Tiano. In addition we met and talked to Mr. and Mrs. Les Hogan of Fairchild Camera who left before the dinner. We told him that Charles Seaborg, the son of my first cousin Charles Seaborg, is, or at least was, working at Fairchild Camera. He said he would try to look him up.

Bob Cremer told me that my session with John Geesman and the students at the Youth Symposium at the AAAS meeting was videotaped and the tape has attracted a good deal of attention and might even be made part of a package to be shown around at high schools throughout the country. He said that many of the students went back and wrote articles in high school papers and he will send me copies of these. I asked him to send two copies plus addresses of high school editors so I could send them on to my son Eric for possible use in connection with the Student Press Service. I sat next to Cindy Pace and in the course of our conversation I learned a good deal about the operation of University Hall, the role of Pat Pelfrey as President Saxon's speech writer, etc. Luis Alvarez told me that at 10 a.m. today he sold his company to Smith-Kline and gave me the impression that he got a good price. As we were leaving, Gloria Copeland asked me to figure out ways of livening up the atmosphere in University Hall (which she commented is somewhat like working in an "insurance company").

Helen and I drove home, arriving at about 10:30 p.m.

Research Laboratory

Studsvik January 27, 1980

57 2/7/80

Dear Dr Seaborg,

— Once again I will thank you for coming to Studsvik. It was very nice to see you here. I have made copies of some of the articles in the newspapers. Included are also the pictures which were taken at the visit of our laboratory.

The new year could have started better for me than it has. When working on the constructions of our new house I fell down and hurt my head. I had to stay in hospital for one week and then at home for two more weeks, but today I am back at my office again. My sight is not perfect due to the fall but the doctors say that in three-four months I will recover.

I have received the letter from Loveland about our proposal. We have not officially submitted it to CERN yet, which means that I can take the "memorandum" and add that as "additional comments". I plan to submit the proposal at the end of this week and it will be presented for the CERN meeting in March.

When you were at Studsvik I mentioned that one has plans to write about heavy ion beams in the Swedish journal called "Forskning och Framsteg". The editor for all the articles will be professor Hans Ryde from the University of Lund. He has asked me if I together with you can write some pages about "production of new nuclides with heavy ion beams". It can include production of new light isotopes, production of new trans-uranium elements, and discussion about the possibility of production of super heavy elements. The problem is that we can only write about 4-5 pages. I hope that you are interested in writing the article and if you are, you will later be officially invited to write it from the journal. I think that we have to start writing it in English and then translate it to Swedish. Included to this letter is a copy of all the articles that are planned for this issue of "Forskning och Framsteg". I also include some pages from another issue of this journal.

NATURVETENSKAPLIGA FORSKNINGSLABORATORIET I STUDSVIK
The Studsvik Science Research Laboratory

Professor Ryde has also asked me if I can ask you helping us to find the right persons at Berkeley for the articles 5) and 6). He has proposed some persons and wonder now if you think that these persons are the right ones (if not, you are free to suggest others). We will also be thankful if you have time to ask them if they are interested. Later they will also officially be invited. The issue will be printed at the end of this year.

If Dr Seaborg can help us with these things we would be very thankful and it will save us time.

Yours sincerely,

Kjell Hellmatt

he got a good price. As we were leaving, Gloria Copeland asked me to figure out ways of livening up the atmosphere in University Hall (which she commented is somewhat like working in an "insurance company").

Helen and I drove home, arriving at about 10:30 p.m.

Friday, February 8, 1980- Berkeley

I went by Building 70, learned that Rose McFarland's bombardment this morning at the 88-Inch Cyclotron--²³²Th plus ¹⁸⁰--was not too good (approximately two microampere-beams); however, her chemistry is going well. I talked to Diana Lee about setting up an alpha counting system for Rose McFarland.

At 9 a.m. Mark Jacobs from Dreyfus Third Century Fund called to tell me that a new FCC Advertising rule has come into effect saying that no fund can advertise its yield or performance unless it has that information contained in its prospectus. Mark told me that they want to pass a post-effective amendment to include this information in their prospectus and submit it to the FCC for approval. He will send me a copy and if it is okay with me I need not call him back. He told me that there will be one ad in this Sunday's Times but that it will indicate that further information can be obtained on the Fund's performance by writing and inquiring directly to the Fund. We will discuss this more at the meeting on Wednesday, February 27th, at 10 a.m.

At 9:05 a.m. Paul Lochak called from Paris to request two proxy statements from me: 1. A proxy statement designating his father, Boris Lochak, as my representative at the SIT Board of Directors meeting scheduled for Saturday, February 9th, and 2. A proxy statement designating Paul Lochak as my representative in the voting for new directors of Transcontinental Exploration and Mining Ltd. (TEAM); this proxy represents 20 shares of stock. The stockholders meeting of TEAM will be held within the next couple of weeks. I sent the two statements by Telex to Paul at 2:15 p.m. today. Paul will probably arrive in Washington on Thursday evening in preparation for a meeting to be held at GEOMET between GEOMET representatives, Gibbs & Hill people, and one or more individuals from Saudi Arabia; the date and time of this meeting is not firm but might be held on Friday, February 22nd. I told Paul I could meet with them from 1 p.m. until about 2:30 p.m., but my day is pretty well scheduled. Paul will call on Monday, February 11th.

At 9:20 a.m. I called L. G. "Bud" Wykoff. I gave him background information about our cross-country hike (HikaNation) sponsored by the American Hiking Society. I asked him for his permission to hike across his property in the Audrian Subdivision and he said, "certainly." I told him that there would be between 50 and 100 hikers, and that we would be coming on Saturday, May 3rd. He asked if I were aware that there would still be snow there at that time because it is almost always shaded. He told me about a nice campsite that we were welcome to use near Echo Lake and I told him about our difficulty in crossing Highway 50 and our desire to avoid it as much as possible. He told me that the camp at Echo Lake was run by a person in his church named "Muddy Waters" who brought underprivileged

children up there for summer camp every year. Wykoff said that he would be willing to go up ahead of time and relay conditions to us beforehand. I told him I would appreciate that gesture. He said that the route we should take would be across the Pierce property and then continue on until we reached the microwave and radio repeater station service road and that it would take us to Little Norway. He gave me the names of two people to contact: Darrell Pierce who owns Derringer Meadow (Inter-County Title Company, Placerville) and Ralph King, who lives in Echo Portals near Echo Lake, and whom Wykoff described as "the old man of the mountain."

At 10 a.m. I walked down to my Latimer Hall office to hold my regularly scheduled office hour from 10 to 11 a.m.

John Hughes, from my laboratory Room C this quarter, dropped in to talk about conversion of LLL to peacetime uses, disarmament, etc. Larry Frank (sophomore who heard my Chemistry 1B lecture last year) dropped by. He wants to work with me this summer as a volunteer. He lives in San Rafael (I loaned him the Harvey book earlier this year). He has grades of "A" in Physics 5B and 5C and is interested in nuclear physics. He worked in the Astronomy Department last summer. Jim Barstow (graduate student with Paul Bartlett) came in to discuss his plans to invest in Kevex.

I taught the discussion group section in Room D from 11:10 a.m. until noon, and then walked back up to my LBL office.

I had lunch in the cafeteria with Dave Morrissey, Lee Sobotka, Dick McDonald (Moretto post-doc from U.C. Davis, who knows Dave and Carol Chelander). Morrissey and Sobotka told me that Moretto's old PDP 12b computer might be used by my group via remote control through a connecting hookup.

I went by Building 70 at about 2 p.m. and talked to Walter Loveland about his and Morrissey's conference call this morning involving our BNL and ANL co-authors for our interlaboratory paper; a number of agreements were hammered out, but James Cumming still wants to draft a couple of paragraphs and change a figure. Rose McFarland and Marty Schulman have finished their Pu and Np separations from their Th plus ^{18}O bombardment; they will separate the transPu fraction tomorrow.

I also talked to Pat McGaughey about his firestreak calculations and Yoshi Morita about his calculations. Diana Lee was talking with Darleane Hoffman by phone about the status of our research program.

At 2:55 p.m. I talked with John Crowell (TA in Chemistry 4) about the qualifications of Dana Charles Dunlavey. Crowell said that he is a very good student, active and works very hard, is fairly intelligent and got an A in the course last quarter; he has no reservations about Dunlavey but on the other hand would not recommend him as "outstanding."

I went by Building 70 again at about 3 p.m. I learned that Yashita, Matti Leino and Ken Moody are seeing ^{39}Cl from their ^{27}Al plus ^{18}O bombardment at noon today. McFarland and Schulman, after checking the purity of their Pu fraction on Asaro's Ge-Li detector system, will further purify the Pu fraction. I talked to Walter Loveland about the changes needed

in our interlaboratory paper as the result of this morning's conference and to Diana Lee about setting up an alpha count system for Rose McFarland and about the role of Matti Nurmi in our research program. Loveland and I also talked to Yoshi Morita about his calculations and will continue this discussion next week.

I received a nice invitation today from Nunzio Palladino (Pennsylvania State University) which I will have to decline because of the cross-country hike conflicts and I wrote a letter in support of the admission of John Coulter Jenkins to the Rochester Institute of Technology (attached).

I drove down to Euclid Avenue to meet Helen and we drove to Strawberry Lodge, leaving at about 4:15 p.m. and arriving there at about 7:30 p.m. Helen and I had dinner in the dining room joined toward the end by Peter McMullen. He told us our cottage will be ready by the end of March and the motel by the middle of April. We spent the night in the Adami's apartment in the four-plex.

Saturday, February 9, 1980- Strawberry Lodge

Helen and I had breakfast in the dining room with Bob Lingard and Mike Smith (the new maintenance manager).

Starting at about 10 a.m. Helen and I did some cross-country skiing up Strawberry Canyon Road as far as the El Dorado Natural Forest campground at a restricted area. This was well beyond any ski tracks from previous skiers. We had our sandwich lunch prepared by the Lodge, en route. We returned to our quarters a little after 6 p.m. We met Ken Hodge, a physician from Sacramento, who lives in Scott Tract. We had dinner at the Lodge. The dining room was full to capacity with many customers waiting for tables. We met Gerry Spieler, who works for the San Francisco Chronicle covering the El Dorado County area. She was taking pictures for a Strawberry Lodge brochure. Mrs. Olmsted, who had arrived during the afternoon, was busy showing people to tables, etc., in violation of the agreement we reached with the Madsens that she should not work in the Lodge. She told us that today she had bought a five bedroom house just across from the Lodge, and she will move into it to live here. We returned to our quarters and did some reading before retiring.

Tim Adami came by at about 10 p.m. on the way to South Lake Tahoe to do some skiing, to pick up his skis, some clothes, ski boots (his were missing).

Sunday, February 10, 1980- Strawberry Lodge

Helen and I had breakfast in the dining room, then left at about 10:45 a.m. for some exploration of hiking routes on the way home. We drove up Ice House Road about 0.5 miles to locate the road coming into Ice House Road, presumably the road we could take from above Bridal Veil picnic area. We then drove to Bridal Veil picnic area to assess the feasibility of hikers' fording the South Fork of the American River at that point, which doesn't seem to be very feasible. We then stopped at Pacific House and talked to the

Friday, February 8, 1980- Berkeley

I went by Building 70, learned that Rose McFarland's bombardment this morning at the 88-Inch Cyclotron-- ^{232}Th plus ^{18}O --was not too good (approximately two microampere-beams); however, her chemistry is going well. I talked to Diana Lee about setting up an alpha counting system for Rose McFarland.

At 9 a.m. Mark Jacobs from Dreyfus Third Century Fund called to tell me that a new FCC Advertising rule has come into effect saying that no fund can advertise its yield or performance unless it has that information contained in its prospectus. Mark told me that they want to pass a post-effective amendment to include this information in their prospectus and submit it to the FCC for approval. He will send me a copy and if it is okay with me I need not call him back. He told me that there will be one ad in this Sunday's Times but that it will indicate that further information can be obtained on the Fund's performance by writing and inquiring directly to the Fund. We will discuss this more at the meeting on Wednesday, February 27th, at 10 a.m.

At 9:05 a.m. Paul Lochak called from Paris to request two proxy statements from me: 1. A proxy statement designating his father, Boris Lochak, as my representative at the SIT Board of Directors meeting scheduled for Saturday, February 9th, and 2. A proxy statement designating Paul Lochak as my representative in the voting for new directors of Transcontinental Exploration and Mining Ltd. (TEAM); this proxy represents 20 shares of stock. The stockholders meeting of TEAM will be held within the next couple of weeks. I sent the two statements by Telex to Paul at 2:15 p.m. today. Paul will probably arrive in Washington on Thursday evening in preparation for a meeting to be held at GEOMET between GEOMET representatives, Gibbs & Hill people, and one or more individuals from Saudi Arabia; the date and time of this meeting is not firm but might be held on Friday, February 22nd. I told Paul I could meet with them from 1 p.m. until about 2:30 p.m., but my day is pretty well scheduled. Paul will call on Monday, February 11th.

At 9:20 a.m. I called L. G. "Bud" Wykoff. I gave him background information about our cross-country hike (HikaNation) sponsored by the American Hiking Society. I asked him for his permission to hike across his property in the Audrian Subdivision and he said, "certainly." I told him that there would be between 50 and 100 hikers, and that we would be coming on Saturday, May 3rd. He asked if I were aware that there would still be snow there at that time because it is almost always shaded. He told me about a nice campsite that we were welcome to use near Echo Lake and I told him about our difficulty in crossing Highway 50 and our desire to avoid it as much as possible. He told me that the camp at Echo Lake was run by a person in his church named "Muddy Waters" who brought underprivileged children up there for summer camp every year. Wykoff said that he would be willing to go up ahead of time and relay conditions to us beforehand. I told him I would appreciate that gesture. He said that the route we should take would be across the Pierce property and then continue on until we reached the microwave and radio repeater station service road and that it would take us to Little Norway. He gave me the names of two people to contact: Darrell Pierce who owns Derringer Meadow (Inter-County Title Company, Placerville) and Ralph King, who lives in Echo Portals near Echo Lake, and whom Wykoff described as "the old man of the mountain."

At 10 a.m. I walked down to my Latimer Hall office to hold my regularly scheduled office hour from 10 to 11 a.m.

John Hughes, from my laboratory Room C this quarter, dropped in to talk about conversion of LLL to peacetime uses, disarmament, etc. Larry Frank (sophomore who heard my Chemistry 1B lecture last year) dropped by. He wants to work with me this summer as a volunteer. He lives in San Rafael (I loaned him the Harvey book earlier this year). He has grades of "A" in Physics 5B and 5C and is interested in nuclear physics. He worked in the Astronomy Department last summer. Jim Barstow (graduate student with Paul Bartlett) came in to discuss his plans to invest in Kevex.

I taught the discussion group section in Room D from 11:10 a.m. until noon, and then walked back up to my LBL office.

I had lunch in the cafeteria with Dave Morrissey, Lee Sobotka, Dick McDonald (Moretto post-doc from U.C. Davis, who knows Dave and Carol Chelander). Morrissey and Sobotka told me that Moretto's old PDP 12b computer might be used by my group via remote control through a connecting hookup.

I went by Building 70 at about 2 p.m. and talked to Walter Loveland about his and Morrissey's conference call this morning involving our BNL and ANL co-authors for our interlaboratory paper; a number of agreements were hammered out, but James Cumming still wants to draft a couple of paragraphs and change a figure. Rose McFarland and Marty Schulman have finished their Pu and Np separations from their Th plus ^{18}O bombardment; they will separate the transPu fraction tomorrow.

I also talked to Pat McGaughey about his firestreak calculations and Yoshi Morita about his calculations. Diana Lee was talking with Darleane Hoffman by phone about the status of our research program.

At 2:55 p.m. I talked with John Crowell (TA in Chemistry 4) about the qualifications of Dana Charles Dunlavey. Crowell said that he is a very good student, active and works very hard, is fairly intelligent and got an A in the course last quarter; he has no reservations about Dunlavey but on the other hand would not recommend him as "outstanding."

I went by Building 70 again at about 3 p.m. I learned that Yashita, Matti Leino and Ken Moody are seeing ^{39}Cl from their ^{27}Al plus ^{18}O bombardment at noon today. McFarland and Schulman, after checking the purity of their Pu fraction on Asaro's Ge-Li detector system, will further purify the Pu fraction. I talked to Walter Loveland about the changes needed in our interlaboratory paper as the result of this morning's conference and to Diana Lee about setting up an alpha count system for Rose McFarland and about the role of Matti Nurmi in our research program. Loveland and I also talked to Yoshi Morita about his calculations and will continue this discussion next week.

I received a nice invitation today from Nunzio Palladino (Pennsylvania State University) which I will have to decline because of the cross-country hike conflicts and I wrote a letter in support of the admission of John Coulter Jenkins to the Rochester Institute of Technology (attached).

I drove down to Euclid Avenue to meet Helen and we drove to Strawberry Lodge, leaving at about 4:15 p.m. and arriving there at about 7:30 p.m. Helen and I had dinner in the dining room joined toward the end by Peter McMullen. He told us our cottage will be ready by the end of March and the motel by the middle of April. We spent the night in the Adami's apartment in the four-plex.

Saturday, February 9, 1980- Strawberry Lodge

Helen and I had breakfast in the dining room with Bob Lingard and Mike Smith (the new maintenance manager).

Starting at about 10 a.m. Helen and I did some cross-country skiing up Strawberry Canyon Road as far as the El Dorado Natural Forest campground at a restricted area. This was well beyond any ski tracks from previous skiers. We had our sandwich lunch prepared by the Lodge, en route. We returned to our quarters a little after 6 p.m. We met Ken Hodge, a physician from Sacramento, who lives in Scott Tract. We had dinner at the Lodge. The dining room was full to capacity with many customers waiting for tables. We met Gerry Spieler, who works for the San Francisco Chronicle covering the El Dorado County area. She was taking pictures for a Strawberry Lodge brochure. Mrs. Olmsted, who had arrived during the afternoon, was busy showing people to tables, etc., in violation of the agreement we reached with the Madsens that she should not work in the Lodge. She told us that today she had bought a five bedroom house just across from the Lodge, and she will move into it to live here. We returned to our quarters and did some reading before retiring.

Tim Adami came by at about 10 p.m. on the way to South Lake Tahoe to do some skiing, to pick up his skis, some clothes, ski boots (his were missing).

Sunday, February 10, 1980- Strawberry Lodge

Helen and I had breakfast in the dining room, then left at about 10:45 a.m. for some exploration of hiking routes on the way home. We drove up Ice House Road about 0.5 miles to locate the road coming into Ice House Road, presumably the road we could take from above Bridal Veil picnic area. We then drove to Bridal Veil picnic area to assess the feasibility of hikers' fording the South Fork of the American River at that point, which doesn't seem to be very feasible. We then stopped at Pacific House and talked to the proprietor, Dee Keuseff, and his longtime resident of the area and friend, Floyd Poole. Floyd described the roads in the area and said, that without using a bridge it would not be possible to ford the South Fork of the American River on April 30th. We drove on a frontage road west toward Fresh Pond to its end (about three-fourths of a mile) just short of Fresh Pond (100 yards) at a creek going under Highway 50 through a six foot underpass. We drove on Highway 50 and stopped at the Pacific Ranger

=====

486-5661

February 8, 1980

Mr. Richard M. Fuller
Assistant Director of Admissions
Rochester Institute of Technology
One Lomb Memorial Drive
Rochester, New York 14623

Dear Mr. Fuller:

I am writing in support of the application for admission of John Coulter Jenkins of Wilmington, Delaware, with the hope that my letter will arrive in time for consideration.

I have known Mr. Jenkins all of his life. His family and ours have been friends for many years. During the 1960's we were residing in Washington, D.C., so we were frequent guests in each others' homes and travelled and camped together.

Mr. Jenkins is an intelligent and hard working young man with a vibrant personality. He is a young man with a great deal of enthusiasm and energy. I believe that Mr. Jenkins would be a fine member of your student body, and it is a pleasure to recommend him.

Sincerely yours,

Glenn T. Seaborg

GTS:pj

Station at Fresh Pond, where I talked to Marjorie Norton. (The ranger here is Craig Harasek.) Marjorie was not very familiar with the area.

Helen and I then drove to Pollock Pines where we had lunch at The Haven restaurant. After lunch we drove across Highway 50 and then drove on Sly Park Road (El Dorado Highway E-16--one and one-half miles), then left on Park Creek Road, which becomes a dirt road after 0.4 miles, and then about three miles to a road on the left with a road direction sign saying two miles to Highway 50. We proceeded on about one-fourth mile, where we encountered a mud hole; we then had to turn back and drove to the junction of Sly Park Road with Highway 50. We explored a frontage road heading east on the south side of Highway 50, but this came to a dead end after 0.8 miles high above Highway 50. We next drove back to Fresh Pond and drove up Forest Road to its end (about one-third mile). I then walked the 100 yards east along the low fences (two fences, one wire and one picket) about 100 yards to the creek at the six foot underpass under Highway 50--thus connecting with the end of the frontage road that we drove before lunch. We then drove the stretch of the Pony Express Trail Road from the crossroads across Highway 50 at the east end of Pollock Pines to Bullion Bend which is a distance of one mile. We measured this distance along Highway 50 as 0.6 miles and the distance from Bullion Bend to Fresh Pond along Highway 50 as 2.1 miles. (This may be a better route than that along Sly Park Road, Park Creek Road and the road down to Highway 50, a distance of seven and one-half miles, to Fresh Pond.) We measured the distance from the Highway 50 crossing at the east end of Pollock Pines to Mt. Danaher Road as five miles, and the distance from this intersection to Mt. Danaher Ranger Station as about one-third mile. In summary the two alternate routes from Mt. Danaher Ranger Station to Bridal Veil picnic area are as follows:

1. Along Pony Express Trail Road to the road across Highway 50 at the east end of Pollock Pines (five miles), continue on Pony Express Trail to Bullion Bend (one mile), go to Highway 50 and proceed on the north side of Highway 50 to Fresh Pond (two and one-half miles), cross Highway 50 and proceed along the fence on the south side of Highway 50--100 yards to a creek, cross the creek and proceed along the frontage road three-fourths of a mile to a point opposite Pacific House, cross Highway 50, and proceed on the north side of Highway 50 to Bridal Veil Picnic area (two miles), for a total of 11 miles.

2. Along Pony Express Trail Road to the road across Highway 50 at the east end of Pollock Pines (five miles), cross under Highway 50 and continue on Sly Park Road (one and one-half miles), proceed on Park Creek Road to the start of the road down to Highway 50 (four miles), proceed on road to Highway 50 (two miles), cross Highway 50 and proceed along the north side of Highway 50 to Bridal Veil picnic area (perhaps two miles) for a total of 14 miles.

Helen and I then drove home arriving at about 6:30 p.m.

Peter McMullen called in response to the message I left him at Strawberry Lodge and we discussed the problems caused by Mrs. Kim (Charles) Olmsted's appearance at Strawberry Lodge. He said she assumes she will have a salaried position. He will call Ken Madsen about this tomorrow.

Helen and I had dinner in the playroom.

I called Ken Madsen to apprise him of the Olmsted problem. Ken agreed that our agreement is that she will not work in the Lodge. He will discuss this with Peter McMullen.

Reid Laitner called to say that the Hexon Corporation, prospective buyers of our Orinda land, have made a counter-counter offer which is a three year (rather than a two year) term and a free choice on their part of the portions of the land to be conveyed after each payment. I said we (the sellers) must have a guarantee that they (the buyers) must buy the entire piece of land and not be in a position to leave us with the fourth piece after we have conveyed three pieces. I called Segrè to discuss the counter-counter offer. We may accept it if we get a guarantee, but we will want it checked by a lawyer.

Jeannie Harmon called and we arranged to go to the HikaNation planning meeting tomorrow night in San Francisco at the home of Mike McReynolds.

Monday, February 11, 1980- Berkeley

Ken Madsen called and we discussed further the possible terms for settlement with Tim Adami; a salary for the period he worked after Madsens left Strawberry seemed best. Ken told me that Tim and Kathleen have parted. We also discussed the Olmsted problem at Strawberry and I suggested he talk to McMullen to get some important relevant facts.

A little before 9 a.m. I walked down to PSL to the Chemistry 1B lecture and then walked back up to Building 70, where I talked to Walter Loveland and Pat McGaughey. They did some cascade calculations over the weekend. In her experiments, Diana Lee finds much more ^{251}Es from ^{248}Cm plus ^{16}O than from ^{248}Cm plus ^{18}O .

Saburo Yashita called and said he finds ^{39}Cl and many other nuclides from ^{27}Al plus ^{18}O , and ^{41}Ar and other nuclides from Si plus ^{18}O . He wants to test the Al and Si for impurities and I suggested the use of x-ray fluorescence.

At 10:55 a.m. E. B. "Ted" Ellsworth returned my call of last Friday. I told him about the cross-country hike and we compared various relative advantages to the two alternative routes which I came up with after my scouting this weekend. He told me that I should contact Floyd Poole who will be able to give me an accurate description of the best route from the Mount Danaher Ranger Station to the Bridal Veil picnic area to Kyburz. I told him I will send him a description of the hike.

At 11:30 a.m. Richard Carlson called from the County Attorney's office in Placerville to find out my position in the American Hiking Society because he is drafting a resolution for the Board of Supervisors concerning HikaNation. I told him that I am coordinator for the California portion of HikaNation and a member of the Planning Committee. I asked him to send me a copy of the resolution and he said he will if it is passed.

Reid Laitner called at about 11:45 a.m. to say the prospective buyer of our Orinda land may sign the contract as it is. (He may not make a counter-counter proposal.)

I walked down the hill and attended the regular chemistry faculty lunch in the Lewis-Latimer Room of the Faculty Club. I met Mary Jo Ondrechen, a candidate for a faculty position in our Department of Chemistry. I then walked back up the hill to my LBL office.

Al Ghiorso dropped in at 3 p.m. to discuss Saburo Yashita's results from ^{27}Al plus ^{18}O and Si plus ^{18}O bombardments. I suggested consulting Kevex to determine impurities in the Al and Si. I then called Dick Frankel to thank him for the statements he made in the article regarding Kevex in yesterday's Chronicle-Examiner (copy attached). He said the stock went up two points today. I asked if there were someone in Kevex research who could advise one of my graduate students (Saburo Yashita) regarding a problem with the analysis of chlorine in aluminum and he said Rolf Woldseth will give me a call back as he is the best person to ask. Woldseth called back later and said he would be glad to make the analysis.

At 3:15 p.m. I received a call from Dick Davis (Davis-Skaggs, Inc.) who first commented on the story in the Chronicle-Examiner yesterday about Kevex. He then told me about a new company by the name of Sierra Nuclear Corporation, the outgrowth of experiments in reprocessing of nuclear fuel by the use of molten tin and putting small units in a plant, reprocessing the fuel at the originating location (without moving it) then taking the waste in a solid form (with a half-life in the several hundreds of years rather than in the thousands) and therefore, getting the waste down to a small volume. I said I thought this might be a good idea and I would be interested in reading more about it. He will put information in the mail to me today. The person who is behind this project is Dick Dorst, who went to Harvard with Dick Davis, and who has been working with tin nitride. Others connected with this new company are Bob Anderson, Parley, Bob Armisted of SRI--all of whom have good reputations.

Walter Loveland dropped in at 3:30 p.m. to discuss the preparation of our SuperHILAC proposal and the 189 budget forms.

Dr. E. Bennett (Acting Chairman of the Department of Chemistry, Arkansas State University, Jonesboro) called to invite me to give the keynote address at their "Convention of Scholars," April 21-25, 1980. The date of the keynote address is April 24th and I had to decline because of HikaNation commitments.

Ken Madsen called at 3:45 p.m. to discuss the letter he is writing to Tim Adami to propose a settlement based on compensation for his five months of work at Strawberry.

A picture showing the King of Sweden and me together, looking at the scroll especially prepared for the event of the ACS commemoration of the 200th birthday of Jöns Jacob Berzelius in Stockholm, appeared in this week's issue of Chemical and Engineering News (attached). I received long letters from Stanley Kirschner and Robert K. Neuman regarding the survey on the formation of an International Chemical

By Peter D. Whitney
Examiner Staff Writer

THERE'S hardly an installment in "Star Trek" when Dr. "Bones" McCoy doesn't have occasion to whip out his little hand-held diagnostic device, run it over some prone victim, and pronounce at once that he or she is suffering from tertiary coreopsis, the dread Hasenpfer syndrome, or the effects of a Klingon stun gun.

The marketplace hasn't achieved quite that degree of instantaneous diagnosis, but a little Foster City corporation has taken significant steps along the way. It's a newly public company whose board chairman is the Nobel laureate Dr. Glenn Seaborg of the University of California, former chairman of the Atomic Energy Commission. He is involved because President and founder Richard Frankel recruited him — having known him 25 years before when both men were directors of a little Pennsylvania corporation called Nuclear Science and Engineering.

Seaborg, said Frankel, is "an absolutely brilliant administrator. If there's the opposite of an absent-minded professor, he's the one. When things are scheduled for a certain time, he remembers it and wants it done."

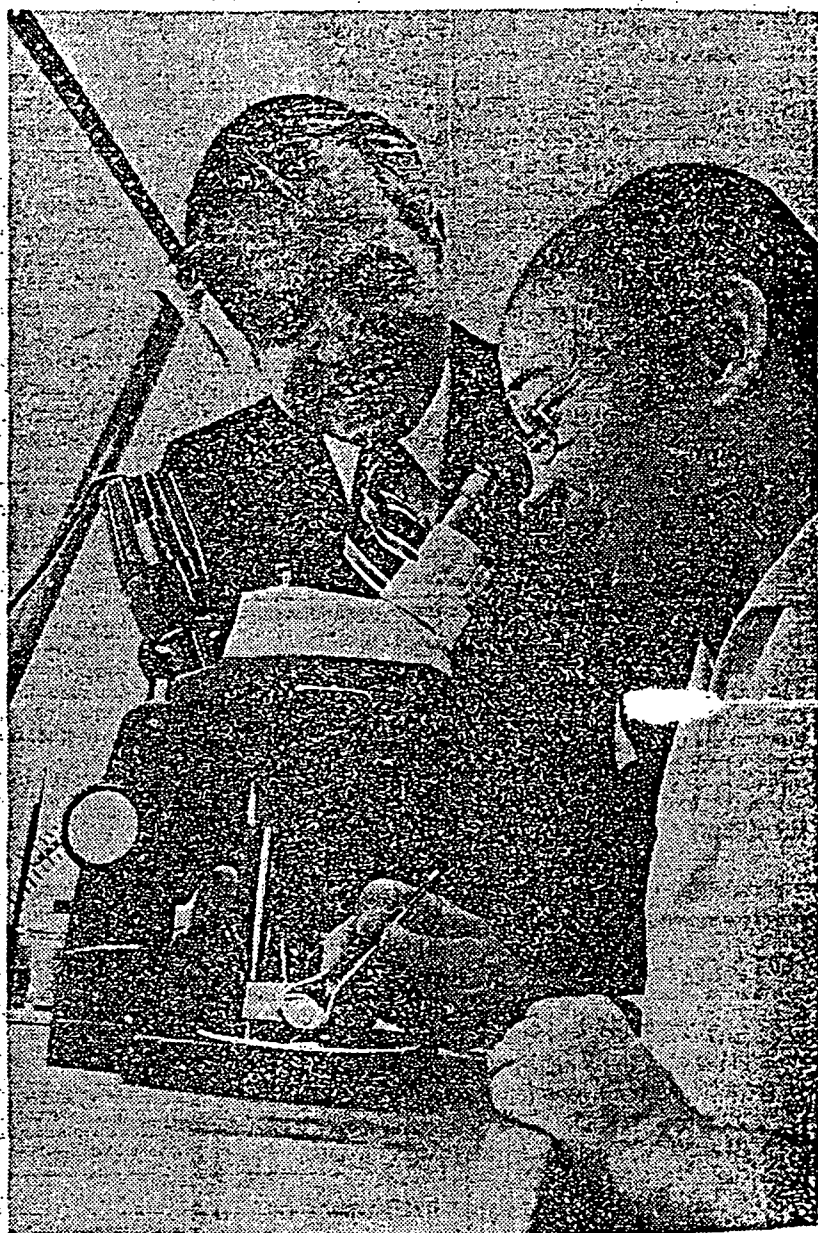
One or two of the things that are possible with McCoy's magic instrument have been achieved by Kevex Corp.

One is "non-invasive" medical analysis. "Bones" hardly ever sticks a needle in his patients' arms, and he never makes them open their mouths and say "Ah-h." Like the Star Trek devices, the Kevex machines usually operate outside and even some distance from the body.

An example is the diagnosis of the thyroid gland, whose iodine content is all-important. The patient can simply be wheeled under the machine for the reading — no need to imbibe a radioactive iodine solution, as in conventional analysis.

And the Kevex machines do not destroy the samples of blood or urine or tissue that are placed under their brief X-ray bombardment. Most other means of analysis require chemical or heat treatment that consume the sample. Those treated by X-ray energy spectrography — the technology used — can usually be put back into the files for later comparison or further research.

The technology is based on a discovery made at the Lawrence Ra-



Examiner/Gordon Stone

Kevex founder Richard Frankel observes Hanepen's analysis

little over a decade ago — that you could read the X-ray spectrum characteristic of an element with the aid of a clever little device made of silicon doped — infused with a small number of atoms that find place in the crystal lattice — with lithium — and that the reading would be sufficiently discriminating to tell you just how much of each element was in a sample.

The accuracy developed by the Kevex researchers enables them to say that a patient has trace elements in his body in proportions as low as parts per billion.

cause, according to Dr. Selig Gellert, medical research consultant to Kevex, the medical profession is beginning to discover the significance in our metabolism of elements that are present in such tiny quantities, yet are essential for survival. Their value for animal and vegetable life, too, is critical and influences the yield we get from our farms.

Such elements as zinc, manganese, copper, selenium, molybdenum and others usually function as single atoms in a big molecule — but atoms that make all the difference in that mole-

KeveX analysis proved that one was genuine, the other a forgery'

Some of the observations have been made statistically, like the fact that there's more breast cancer in women who live in regions that are deficient in selenium. Selenium in larger doses is a poison, but tiny trace amounts apparently are essential. Why, medicine isn't quite sure.

But medical research is only a part of KeveX. Ability to analyze materials quickly and accurately is important in industry.

Take the case of jet engines. George Thomas, manager for industrial systems, says the turbine blades, several of them on a shaft, have to be made of exotic super-alloys of such metals as nickel, cobalt, chrome, molybdenum, tungsten, tantalum, hafnium and others. And the requirement is specific for the position along the shaft — one alloy will work as blade No. 1 but not No. 3 or 5.

The metals are often extremely expensive, so there's a big saving in reclaiming the surplus machinings, casting slugs, and rejected blades. And that's where the ability to sort the specific alloys becomes all-important. The risk the company runs if it puts the wrong blade in the wrong slot is millions of dollars worth of damage. Even the welding wires that are used have to be compatible with the specific alloys, and the KeveX analyzer does that.

You pop a metal sample on a small circular aperture, drop the protective shield, and press the button. In a few seconds, a screen shows the proportions of the sample's metallic elements, and a little printer gives you a permanent record.

In the cement industry, according to Ben Schiefelbein of the KeveX research staff, aluminum compounds with calcium are the norm, and make for a strong concrete. But there may be other metal compounds in the mix that are almost indistinguishable whose presence isn't favorable. In time, it's likely that KeveX analysis machines will regulate and standardize those proportions.

Then there's detective work. The Metropolitan Museum of Art has a

Glenn Seaborg: 'If there's the opposite of an absent-minded professor, he's the one'



Examiner/Judith Calson Rausch

what substances were used in the Old Masters' paints, but what hidden layers of earlier painting may lie behind the outer one. A stamp collector firm in Japan sent a pair of specimens; KeveX analysis proved that one was genuine, the other a forgery.

And the KeveX detectors have been the only ones used for the NASA space probes. The ones to Jupiter and Saturn are still operating reliably after 5 years.

KeveX was formed as a private corporation in 1967 by Frankel, an electrical engineer who had moved into management and Edward Woo, who had worked under him at a company called Technical Measurement and who had been trained at the Rad Lab in Berkeley. Woo heard that Frankel had lost his job in a dispute with the board and suggested that they get together to manufacture the detector.

"Woo is the best detector maker in the world," says Frankel. They scraped up what money they could — Frankel sold his house, enlisted his relatives, and they started with about \$85,000. They never went through the Silicon Valley tradition of starting in a garage, buying their Foster City land early.

But the company has never lost

going-public stock sale last October shows only one fiscal year, 1976, when sales even slightly backed off — by then the company had grown from \$149,516 the first year to over \$4 million. Its results as of the end of July 1979 were \$12,529,799 sales, and net income of \$1,585,000.

And KeveX never needed venture capital from outside. It generated its own cash by starting with the sale of the detectors, and graduated only later to the innovative systems for which it is now well known.

In fact, KeveX wouldn't have felt any need to become a publicly listed company, with all the expense and trouble of satisfying the Securities and Exchange Commission, if it had not been for the fact that, over the years, it had attracted talented engineers and managers with stock options. In the absence of a public market for KeveX stock, the options weren't a liquid asset. Frankel said the other day that the sale of shares also gave the company the chance to raise \$5.5 million of new capital that was useful if not absolutely necessary.

Recently KeveX stock was trading at \$23½ bid, up from the \$17-per-share level at which it went public.

ACS News

ACS grants help small colleges buy CA

The American Chemical Society is offering substantial grants to aid small colleges in purchasing *Chemical Abstracts* and certain other publications of the society's Chemical Abstracts Service.

Under the new grant program, colleges that offer no degree higher than the bachelor's in chemistry or a related discipline and have fewer than 3000 students are eligible for grants ranging from \$1500 to \$4000 toward purchase of *Chemical Abstracts* or lease of the microfilm or microfiche versions of the publication. The amount of the grant depends on the college's enrollment.

Colleges with fewer than 500 students can receive a grant of \$4000 toward the price of *Chemical Abstracts* in either printed form or microform; those with enrollments between 500 and 999 are eligible for a grant of \$3500; those with enrollments from 1000 to 1999 can receive a grant of \$2500; and those with 2000 to 2999 students are eligible for a grant of \$1500. The current price of an annual subscription to CA in

printed form is \$5000. Subscriptions to the microfilm or microfiche editions are \$6500 per year.

Qualifying colleges also are eligible for a grant of \$1000 toward the \$1500 annual subscription price of the *Chemical Abstracts* Section Groupings and grants equal to half the price of *Chemical Titles* and the *Chemical Abstracts Service Source Index*. During 1980 only, ACS also will grant small colleges up to half the Chemical Abstracts Service catalog price for back issues of *Chemical Abstracts*. Colleges purchasing back issues under the program will be allowed to pay for them over a five-year period with no interest charge.

ACS Board chairman Mary L. Good says that the new grant program was developed to help smaller colleges acquire information services like *Chemical Abstracts* at a time when many are being squeezed by rising costs and stringent budget restrictions. "ACS hopes the grants will bring *Chemical Abstracts* within the reach of hundreds of colleges that could not otherwise afford it and give

more undergraduate students an opportunity to become familiar with this essential tool of chemical research," Good says.

Colleges are limited to one grant toward purchase of each of the services included in the program. Services purchased under the grant program may not be shared with other organizations or institutions.

Colleges subscribing to *Chemical Abstracts* or the CA Section Groupings under the program during 1980 also will receive up to \$150 worth of introductory on-line access to the CA Search computer-readable file during the first year of the subscription and a package of educational aids that includes workbooks on the use of *Chemical Abstracts* and the CA Search computer file, the CA Index Guide, and special aids for searching Chemical Abstracts Service computer-readable files.

For additional information on the grant program write: Marketing Division, Chemical Abstracts Service, P.O. Box 3012, Columbus, Ohio 43210. □



ACS commemorates 200th birthday of Berzelius

On behalf of ACS, Nobel Laureate and former ACS president Glenn T. Seaborg (right) presents a specially prepared scroll commemorating the 200th anniversary of the birth of Jöns Jacob Berzelius to King Carl XVI Gustaf of Sweden, during an audience with the king on Dec. 7, 1979, in Stockholm. ACS celebrated the anniversary with the preparation of scrolls recognizing the Swedish chemist's contributions to modern chemistry. Presidents of 36 of the world's chemical societies received the scrolls at a meeting in September 1979 at ACS headquarters in Washington. Berzelius, born on Aug. 20, 1779, made contributions to several fields of chemistry as theorist, innovator, teacher, and author. He is remembered especially as the originator of the system of chemical symbols still in use today.

Society (attached). I responded to a few more letters asking for information regarding the cross-country hike.

I had dinner at the Faculty Club with Walter Loveland and Jeannie Harmon. Accompanied by Jeannie I drove to the home of Mike McReynolds in San Francisco. Here a number of us--Mike McReynolds, Norman Gee, Bob Chapman and Eric Schockman, among others--met with Jim Kern (President of the American Hiking Society). We made plans for the opening ceremony and the first day's hike, which will end at the Ferry Building. There will be a stop at Wendy's at Beach Street and Leavenworth, where the hikers can have their certificates of recognition signed by calligraphers. The first night's camp will be made at the parking lot below the Fremont Street on-ramp (actually the off-ramp). We discussed the projections for leaving the Bay Bridge just before the toll plaza, going under the freeway and hiking through EBMUD property, through a tunnel and then on Oakland streets to Aquatic Park in Berkeley. At the end of the Bay Bridge, where most of the hikers will leave the hike, they can go to the AC Transit bus stop at the Oakland Army Terminal and catch busses back to San Francisco.

The participants at the Polo Grounds in Golden Gate Park will purchase \$3 packets containing HikaNation patches, Star Clocks, a ticket for crossing the Bay Bridge, etc. Hikers on the next day, Sunday, April 13th, who want only to cross the Bay Bridge, can purchase \$2 tickets near the Fremont on-ramp. There will be no advance registration. The cost of hiking on subsequent days will be \$1 per day up to 30 days. This can be paid by hikers starting Monday, April 14th. If hikers wish they can send their money into the Miami address of the Hiking Society. It is now estimated that it will take a total of 13 months and 4,500 miles to complete the route. A lead person, chosen for his/her leadership qualities, along with a pathfinder who will be a source of information about the route, will be designated for each segment of the hike. Jeannie Harmon told me she intends to hike the entire route across California and will be a pathfinder for most or many of the 21 segments. Eric Schockman said that he will inform the Mayor of Sacramento and other relevant officials and arrange welcoming ceremonies there.

We left the meeting a little after 10 p.m. to drive home to Lafayette where Jeannie Harmon had parked her car. She then went home to Concord.

While in San Francisco at the meeting on HikaNation planning, Reid Laitner called Helen to tell her that the buyers of our Orinda property have decided to accept our counter offer without change. The deal should start through escrow immediately.

Tuesday, February 12, 1980- Berkeley

I responded to Dean William A. Shack, Graduate Division, for comments on the Lawrence Hall of Science Annual Report (attached). I signed 593 certificates for the Annual Science Talent Search for award and scholarship winners and teachers (sample attached). I sent a note to Jack Stocker, who is recovering from open heart surgery, and a short note to William Jenkins to tell him I wrote a letter in support of John's application for admission to the Rochester Institute of Technology. I dictated letters to



WAYNE STATE UNIVERSITY

COLLEGE OF LIBERAL ARTS

DETROIT, MICHIGAN 48202

DEPARTMENT OF CHEMISTRY

February 6, 1980

Professor Glenn Seaborg
Lawrence Berkeley Laboratory
University of California, Berkeley
Berkeley, California 94720

5-2 2/11/80

Dear Glenn:

I have received the group of petitions from Gordon Bixler which relate to the opposition of certain chemical societies (mostly European) to the formation of an international chemical society which would accept individual members. I notice with interest the marked paucity of signers representing chemical societies from developing countries. It is my personal experience that chemical societies and chemists from developing nations are particularly interested in the formation of an international chemical society which would accept individual members. I recently visited China and was informed there that the Chinese Academy of Sciences is especially favorably disposed toward the creation of such an international chemical society.

I also note from a careful reading of the petition signed by the Presidents of the various chemical societies that they are favorably disposed toward the creation of an umbrella organization which would exclude scientists as members. They have in effect favored the formation of a kind of ICSU (International Council of Scientific Unions), which is an umbrella organization that includes representatives from the various scientific unions, such as the International Union of Pure and Applied Chemistry, the International Union of Pure and Applied Physics, etc. The petition seems to favor an umbrella organization which would have representatives from each of the existing federations of chemical societies, which would be yet another organization that does not allow individual members and which would represent a high degree of exclusivity. The petitions even state that it is possible that such a "framework" might be formed through IUPAC, an organization which also does not accept individual members.

It seems to me that this would not achieve in any way the desired objectives connected with having individual scientists involved in an international organization of chemists designed to accept individual members. Further, I cannot agree that such a society would "cut across existing national societies in such a way that it would inevitably lead to greater expense and to dilution of effort". The proposal that

Professor Glenn Seaborg
Lawrence Berkeley Laboratory
University of California, Berkeley
Berkeley, California 94720

February 6, 1980

(continued) page 2

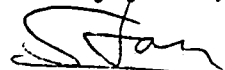
membership in an international chemical society would be open only to persons who are already members of their national chemical societies would actually help to insure the strength and vitality of such national societies. Further, I believe that only persons who are interested in international activities in chemistry would join an international chemical society, and they would do this in addition to being members of their national societies. In my opinion there are many thousands of chemists throughout the world who would be interested in belonging to an international chemical society which accepts individual members.

Therefore, I would like to propose that we move forward with our plans and to recommend that the proposed meeting of the Executive Committee of the Study Committee on the Formation of an International Chemical Society go forward as planned. I believe that one of the things which this Executive Committee will do is to have each of its members ascertain the degree of interest of individuals in their regions in the formation of an international chemical society which accepts individual members. If this interest is strong, as I believe it will be, then I believe that the Executive Committee will develop some mechanism for the formation of an International Chemical Society which it will propose both to the chemical societies of the world and to individual chemists throughout the world.

If there really is strong interest throughout the world in an international chemical society, I hope that this fact will ultimately become evident, and I also hope that the officers of the eighteen chemical societies will recognize the situation and moderate their opposition. However, I believe the international chemical society concept can be moved forward even if they do not change their stand.

Still further, I hope that if world-wide interest in an international chemical society can be shown to be strong, the International Union of Pure and Applied Chemistry will modify its stand on the existence of such a society. It may even be willing to be the International Chemical Society and to create another category of membership called "Individual Member". Obviously this is not something which will occur overnight, and I urge that we all be patient and continue to work diligently toward a most desirable objective.

Sincerely yours,



Stanley Kirschner
Professor of Chemistry

SK/ed

cc: Mr. Gordon Bixler, Professor Robert C. Brasted,
Mr. Rodney N. Hader, Dr. Jesse C. H. Hwa, Dr. James D. D'Ianni,
Dr. Raymond P. Mariella, Professor Simao Mathias,
Professor Robert W. Parry, Professor Gardner W. Stacy,
Professor Minoru Tsutsui



Lawrence Berkeley Laboratory

University of California
Berkeley, California 94720
Telephone 415/843-2740

February 12, 1980

Dean William A. Shack
Graduate Division
1 California Hall
Berkeley Campus

Dear Dean Shack:

This is in reply to your letter of November 29, 1979 requesting the Lawrence Hall of Science Advisory Committee to review and comment upon the 1978-79 Annual Report of the Lawrence Hall of Science.

The Members of the Advisory Committee have read the report and a number of them have passed on to me their comments. These have in general been laudatory of the manner in which the LHS is fulfilling its mission of interpreting science for, and increasing the understanding of science by, the general public. I include here some of their other comments.

I might add that the five page introduction gives a very readable and concise summary of the year's activities.

The comments include the suggestion that the activities at the Hall be increased, old exhibits be refurbished and new exhibits developed, and availability to the community be increased.

I am sure that Dr. Laetsch is in accord with these suggestions but finds himself limited because of a funding deficiency. The Hall's Regents' Opportunity Funds have not been augmented since 1974 and cost of living increases have wiped out that augmentation. Several unanticipated increases for clerical and specialist positions have further eroded the base funds. An increase in the Regents' Opportunity Funds from the campus has been requested; if such augmentation is not received the only alternative will be to severely prune programs.

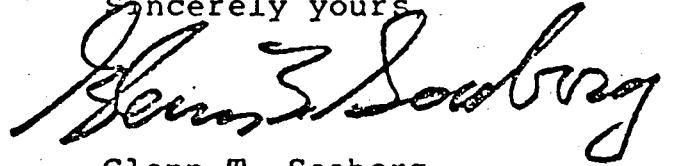
An increase in the availability of the Hall's activities to the community depends on a solution to the public transportation problem, a point that I highlighted in my letter to Dean Brown last year.

One suggestion related to the Health Activities Project (HAP) with the thought that health units be introduced at each grade level so that the accumulation of effects at the end of primary school might give the child a sound basis on which to base health habits for the rest of his/her life.

February 12, 1980

Finally, I would like to direct a suggestion to the campus. The long-term welfare of the Hall is linked closely with its ability to develop close ties with University programs which are recognized to be central to the interests of both the Campus and the Hall. The University must pay more attention to pre-college education during the coming decade, and the Hall is an obvious center for development of these programs in math and science. The Campus should be encouraged to work with the Hall to develop effective programs in this area.

Sincerely yours,



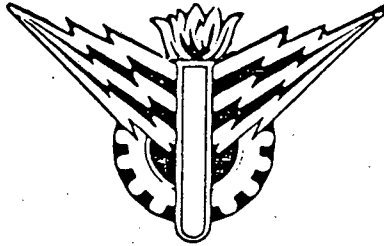
Glenn T. Seaborg
Chairman
LHS Advisory Committee

GTS/11

cc: Advisory Committee Members
Dr. Wm. M. Laetsch

2/12/80

⁵⁷⁸
G.T. Seaborg signed 530 certificates which were returned
by Air Express to Science Service this date. pj



Certificate of Honor

awarded to

GARY EUGENE McGAHAN

AUSTIN HIGH SCHOOL

as a member of the

HONORS GROUP

in the Annual

SCIENCE TALENT SEARCH

for the

WESTINGHOUSE SCIENCE SCHOLARSHIPS AND AWARDS

A Science Service activity sponsored by
the Westinghouse Educational Foundation

A large, stylized handwritten signature in black ink, which appears to read "Glenn T. Seaborg".

President
Science Service

HikaNation and one to Walter Goggin (requesting permission to cross some EBMUD property). I received an important letter today (attached) from the Dreyfus Third Century Fund, Inc. regarding the Fund's registration statement.

At 9:35 a.m. I called Craig Harsek at the Pacific Ranger Station. He transferred me to Clyde Carter (Resources Adviser). I gave Carter the background of our cross-country hike, in particular, the portion between the Mount Danaheer Ranger Station and Kyburz. Carter said that if we could visit this weekend (he lives only a half mile from the intersection of Sly Park Road and Highway 50) he would show us the outlined hiking route. He said that in November he had talked to Phil Corson. Carter's suggested route follows Sly Park Road from the east end of Pollack Pines and then the Sly Park turnoff to Park Creek Road, with a left turn just before the corporation yard. Or, coming up from Fresh Pond, go down the hill past the weather station and past the dump toward SMUD, take a dirt road through a cutbank which comes out above the freeway, then go about 200 yards and cross the ditch on a wooden bridge, stay to the left above an old dump, which will run into Park Creek. I asked Carter whether it were feasible to cross the south fork of the American River and he told me that it would not be possible at the Bridal Veil picnic area in April. He said the Blair bridge was unsafe for pedestrians and had been closed by the County.

At 10:10 a.m. Jaime Merino called to ask if I were available to give a talk before the Petroleum Institute of Mexico to people interested or involved in the oil industry in Mexico. I declined, saying that my schedule at present is overcrowded. Jaime said that he and Blanche will be in the Bay Area (to care for their grandchildren) beginning next week and they will call us when they arrive. I related to him our travel plans for the upcoming three-day weekend and our trip to Washington beginning February 21st.

At 10:15 a.m. I talked with Tom Budinger about the conference to investigate and evaluate the use of nuclear magnetic resonance plus positron emission tomography and the need for fiber optics and the application of laser beams for the purpose of reinforcing diagnostic medical procedures. I gave him information I had from a February letter to me from Cecil H. Green and told him about the high-level advisory committee, which includes people such as David Saxon, William O. Baker and Charles Sprague, and I asked him for suggestions on people to attend and participate in the conference. He had many suggestions to make and will send them to me. He suggested Earl Wood (Mayo Clinic), Doug Boyd (UCSF), Albert Macovski (Stanford, teaches medical imaging), and Thomas Newton (UCSF, neuro-radiology medicine).

I walked down to my Latimer Hall office where I met with my Freshman Cluster Advisory group. Professor Melvin Calvin was our guest speaker and he talked about gasoline trees. I attended the pre-lab discussion in Room 325 from 1 p.m. to 1:20 p.m. and then helped to give the quiz in our pre-lab discussion in room C, where G. J. Rodgers is the teaching assistant. I circulated among rooms A, B, C, D, E, F, until 3 p.m. and then walked back up to my LBL office.

I called David Judd and told him about a recent letter I received from Kjell Aleklett about the forthcoming articles on heavy ion research to be published in the Swedish Journal, *Forskning och Framsteg*. I asked Judd about his interest in preparing one of the articles for this series on his study of heavy ions to induce thermonuclear

Dreyfus

Third Century Fund

767 Fifth Avenue, New York, N.Y. 10022 • 212/935-3000

gms 2/12/80
important - file

Mark N. Jacobs
Secretary

February 8, 1980

TO: The Board of Directors
The Dreyfus Third Century Fund, Inc.

RE: Post-Effective Amendment to the
Fund's Registration Statement

As I told most of you during our telephone conversations today, we have prepared a post-effective amendment to the Fund's registration statement, a copy of which is attached. It describes the Fund's performance and how it is determined, and compares the Fund's performance to the Dow Jones Industrial Average, Standard & Poor's 500, and the Consumer Price Index. The post-effective amendment has been reviewed by Reavis & McGrath, and with your permission, it is being filed with the S.E.C. today.

Should you have any questions or comments regarding the post-effective amendment, please let me know. Your changes, can, of course, be reflected before it is declared effective.

As we discussed, when the post-effective amendment has been declared effective, we can place advertisements for the Fund under the S.E.C.'s Rule 434(d) showing actual performance and comparison figures.

I look forward to seeing you at the next Board Meeting on February 27th.

MNJ/bh
Attachment



THE DREYFUS THIRD CENTURY FUND, INC.
 Supplement to Prospectus dated October 1, 1979

The figures below show total return performance information for the one and five year periods ended December 31, 1979 and from March 29, 1972, the date the Fund commenced operations, through December 31, 1979. For purposes of the performance information set forth in this sticker, the calculations include the reinvestment of all capital gains distributions and income dividends for the indicated periods. In addition, comparative information with respect to the Consumer Price Index, the Dow Jones Industrial Average and the Standard & Poor's 500 Stock Index ("S&P 500") is also included.

During the period from March 29, 1972 to December 31, 1979, a \$1,000 investment in the Fund grew to \$2,354, representing an increase of 135.4%. For the five years ended December 31, 1979 a \$1,000 investment rose to \$3,818, representing an increase of 281.8%. A \$1,000 investment in the Fund on January 1, 1979 would have grown to \$1,600 on December 31, 1979, representing an increase of 60.0%. During those same periods, the Consumer Price Index (1) rose 85.4% (2), 47.9% and 13.3%, respectively. Thus, an investment in the Fund has increased in value at a rate in excess of inflation rate.

Performance will vary from time to time and these results are not necessarily representative of future results. The investor should remember that performance is a function of portfolio management in selecting the type and quality of portfolio securities and is affected by operating expenses. (See "Investment Objectives and Management Policies" and "Management of the Fund".) Performance information, such as that shown below, may not provide a basis for comparison with other investments or other investment companies using a different method of calculating performance.

The following is an example, for purposes of illustration only, of the performance since operations commences and for the five year and one year periods ended December 31, 1979. The prospectus may be in use for a full year and, accordingly, performance figures for periods subsequent to December 31, 1979 may vary substantially from the examples shown below:

VALUE - DECEMBER 31, 1979				COMPARED TO		
Initial \$1,000 Investment	Capital Gain Distributions Reinvested	Income Dividends Reinvested	Percentage Total Increase	Dow Jones Industrial Average (3)(6)	Standard & Poor's 500 (4)(6)	Consumer Price Index (1)

representing an increase of 35.4%, 47.9% and 13.3%, respectively. Thus, an investment in the Fund has increased in value at a rate in excess of inflation rate.

Performance will vary from time to time and these results are not necessarily representative of future results. The investor should remember that performance is a function of portfolio management in selecting the type and quality of portfolio securities and is affected by operating expenses. (See "Investment Objectives and Management Policies" and "Management of the Fund".) Performance information, such as that shown below, may not provide a basis for comparison with other investments or other investment companies using a different method of calculating performance.

The following is an example, for purposes of illustration only, of the performance since operations commences and for the five year and one year periods ended December 31, 1979. The prospectus may be in use for a full year and, accordingly, performance figures for periods subsequent to December 31, 1979 may vary substantially from the examples shown below:

	VALUE - DECEMBER 31, 1979					COMPARED TO		
	Initial \$1,000 Investment	Capital Gain Distributions Reinvested	Income Dividends Reinvested	Total	Percentage Increase	Dow Jones Industrial Average (3)(6)	Standard & Poor's 500 (4)(6)	Consumer Price Index (1)
3/31/72-12/31/79 (5)	\$ 1,820	\$ 327	\$ 207	\$ 2,354	135.4 %	29.9 % (2)	40.8 % (2)	85.4 % (2)
5 years (5)	3,037	530	251	3,818	281.8	76.6	99.0	47.9
1 year	1,430	144	26	1,600	60.0	10.7	18.7	13.3

The Consumer Price Index is a statistical measure of change, over time, in the prices of goods and services in major expenditure groups -- such as food, housing, apparel, transportation, medical care, entertainment, and other goods and services -- typically purchased by urban consumers. Essentially, it measures the purchasing power of consumers' dollars by comparing what a sample "market basket" of goods and services costs today with what the same sample market basket cost at an earlier date.

3/31/72 - 12/31/79

The Dow Jones Industrial Average is a weighted average of 30 blue chip industrial corporations listed on the New York Stock Exchange.

The S&P 500 is an unweighted average of 500 stocks, over 95% of which are listed on the New York Stock Exchange; 400 are industrial issues; the remaining stocks are divided among transportation, utility and financial issues and represent a cross-section of the entire New York Stock Exchange.

The Fund currently has no sales load; the 8.75% sales charge in effect from 3/29/72 - 3/31/76 and the 8.50% sales charge in effect from 4/1/76 - 7/17/77 are not reflected in these figures.

Assuming reinvestment of dividends. Source - Lipper Analytical Services

fusion. He said he would be glad to prepare an article. I told him he will receive a formal invitation and instructions from the editor, Hans Ryde, University of Lund.

Walter Loveland came by at about 4 p.m. to discuss preparation of our 189 budget forms. At 5 p.m. I went by Building 70 to talk to Ken Moody about a possible scheduling of Xe bombardments at the SuperHILAC in early April.

Helen and I had dinner in the playroom and afterward I worked in the study, including going over my slides for my talk at the Mt. Diablo chapter of the Sierra Club tomorrow night.

Wednesday, February 13, 1980 - Berkeley

I conferred with Walter Loveland about our SuperHILAC proposal this morning. I walked down to the PSL, where I attended the last part of the Chemistry 1B lecture and walked back up the hill to my LBL office.

At 11 a.m. Walter Loveland came in to discuss further our SuperHILAC proposal and to discuss our 189 forms.

I had lunch in the cafeteria with Walter Loveland, Pat McGaughey, Ken Moody, Marty Schulman, Diana Lee and then attended the Actinide Chemistry Seminar. Norman Edelstein, Andrew Streitwieser, Richard Andersen, David L. Grimmitt, Helena Ruben, Terry Tilley, Frederick Weitzl, Jerry Bucher, and others were there. Bill Smith talked on bond lengths of hydroxamic acids, and Richard Andersen talked on acetyl amides of U(IV) chlorides.

I saw Fred Goulding and discussed with him Saxon's advisory committee's recommendations for the LBL Director. The matter probably won't go to the Regents until the March meeting.

I received a nice letter today from Mrs. Martin C. Menk, whom I met briefly at a reception at Gustavus Adolphus College last October. I sent a memorandum to the participants in the 25th anniversary of the discovery of mendelevium regarding our plans to film certain segments of the proceedings.

At 2:40 p.m. I talked with Dan Shannon, Washington Bureau of the Los Angeles Times. He said that about 20 years ago he was standing on the inaugural platform in Washington, D.C. with me. He is doing a story about how John Kennedy's appointees are supporting or not supporting Ted Kennedy's presidential aspirations. I said that I am neutral and will refrain from making any comments about his qualifications or chances. Shannon has been trying to locate Charles Hitch and I told him Hitch can be reached here at LBL. We talked about a few of the other people from that era and their whereabouts at this time (Elizabeth Rudell-Smith, "Red" Fay, Roger Tubbs, etc.) He asked questions about my role in Science Service and the STS.

At 3:20 p.m. I talked with Jim Halverson, who will film the proceedings of the 25th anniversary of the discovery of mendelevium. He will film at least ten minutes of

the presentations of the discoverers--A. Ghiorso, B. Harvey, G. Choppin and me. The first three to four minutes of the discoverers' talks will be made into a film suitable for showing to science students. He will also film ten minutes of each talk given after "Reminiscences"--that is, talks by Ken Hulet, Darleane Hoffman and Arnold Friedman. He will film all of my introductions of the speakers and the short talks scheduled between the presentations. By filming in ten-minute sequences it will not be necessary to rent additional equipment or film magazines. It will also cut down on the cost considerably.

Ken Madsen called at 4:15 p.m. to tell me the price Harry Murray is asking for Strawberry Market and Garage is \$150,000 to \$160,000, depending on the terms. (The mortgage is \$98,000 at seven and one-half percent interest.)

I went by Building 70 to talk to Walter Loveland about the publication list for our 189 form and the GSI "Nachrichten" report on their ^{248}Cm plus ^{238}U experiment. I also talked to Rose McFarland about a possible ^{238}U plus ^{18}O ^{250}Bk experiment (analog of ^{248}Cm plus ^{18}O ^{260}Md experiment). I also talked to Ken Moody about his research program.

I went by Building 70 to see Walter Loveland on the way home. I told him Frank Stephens, to whom I had just spoken, was very disappointed that he could not borrow our Ge-Li detector next week. We need it for our experiments.

When I arrived home, my grandfather's (John Eric Seaborg) trunk arrived from my cousin Betty Rigby. He used this trunk for his belongings when he crossed the Atlantic Ocean from Sweden, in steerage, in 1867.

Helen and I drove to the Acalanes High School and went to Room 313 for a meeting of the Mount Diablo Regional Group of the Sierra Club, where I was scheduled to speak on HikaNation. There were about 75 people present--so large a crowd that they had to remove a partition and expand the space to include a neighboring room. After the introduction and short reports by the officers of the Regional Group, Dottie Dorset introduced me. She told the story about how I had attended the Annual Meeting of the American Hiking Society in Washington, D.C. between other meetings that I was attending, and sparked the AHS to get started on the cross country hike. I gave my talk illustrated with about 150 slides. I also described the background for the hike, the problems involved in getting permissions, the plans for registration on the first three days of the hike, etc. I spoke for nearly an hour followed by a question and answer period. After the meeting I spoke with Joe and Betty Goldstein and Jeannie Harmon. Joe and Betty agreed to show Jeannie a number of the parts of the route during some of the weekends between now and beginning of the hike in April.

Helen and I then drove home and arrived about 9:30 p.m.

Thursday, February 14, 1980 - Berkeley

At 8:15 a.m. I placed a call to Marcus Wallenberg's office in Sweden and talked to his secretary, Schwerin. Schwerin told me that he had not been able to talk to Dr.

Wallenberg yet because he was coming in later this afternoon. I said that we would call him tomorrow morning and asked if Wallenberg would consider the alternate dates of April 2nd or 3rd if he cannot make it on April 7th.

I answered affirmatively a letter written February 10th from Francis Boland regarding the formation of a "Camp Membership Candidate Committee" for the Bohemian Club, Wayside Log Camp (attached).

At 8:50 a.m. I called William Evers, Dreyfus Foundation, regarding financial assistance to pay for travel expenses for three members of an executive committee of the study committee on an International Chemical Society. I again explained to him the background for this request and the people for whom the assistance is being sought. I said the amount needed is about \$7,000. The annual meeting of the trustees of the Foundation takes place April 10th, but I told him that I need an answer much earlier than that because the proposed meeting of the executive committee of the study committee will take place in April in Bangkok. He said he will call me with an answer within a week.

At 8:55 a.m. I called Stanley Kirschner to tell him about my conversation a few minutes ago with William Evers of the Dreyfus Foundation. We discussed the possibilities of having a conference call between the nine members of the executive committee of the study committee for an International Chemical Society instead of having the meeting in Bangkok. The cost of the telephone conference call would be less than his airfare to Bangkok. I said this is a good idea if we fail to procure the travel money. I asked Stanley to put together an agenda prior to the call. Committee assignments will be made in advance and Stanley (at ACS expense) will consult with Professor Simao Mathias in advance of the conference call. I told Stanley that his letter to Mathias, and also his letter to me, were both very good and I appreciated his "go ahead" attitude regarding the ICS. We then discussed the recent poll taken by the ACS regarding an ICS, the results obtained, and how we might deal with this development. I will send Stanley a copy of a letter I received from Robert Neuman. He suggested a call be made to Justin Collat to ascertain the feasibility of obtaining travel funds from the PRF; I told Stanley that I was not too hopeful that this would be possible but he will make the call on the off-chance that it will work out.

At 9:15 a.m. I called Richard Frankel to tell him about the conference being planned by Cecil Green and suggested there might be representation from Kevex--he immediately suggested Dr. Selig A. Gellert, Laguna Honda Hospital. Dick said Dr. Gellert is an excellent speaker, enthralls people and has excellent credentials. His work can be described as "an internist doing research work on the role of trace elements in biological systems for detection and corrections of disease." I told Dick that I will recommend an invitation be extended to Dr. Gellert to speak (first choice) and/or participate as a member of the audience.

At 10:35 a.m. I called Fred Albaugh. I asked him whether he had heard about the tin nitride for reprocessing spent nuclear fuel, which is being sponsored by the Sierra Nuclear Corporation. He said he had not heard about it. I then gave my best regards to Edrey and he, in turn, sent best regards to Helen.



5-D 2/13/80

February 10, 1980

Dear Wayside Logger:

Among the high priority items of organizing the newly selected Camp Administration, is the systemizing, and in a sense, formalizing the selection of new Camp members.

Following discussion with a number of members, it has been determined that this end might best be served by a small permanent standing committee-titled "Camp Membership Candidate Committee"

The function of this group would be to seek out, screen and propose to the whole Camp membership, worthy potential new candidates, and to determine the timing and priority of invitations to membership.

This latter consideration arises from the fact that at present, Camp facilities and accommodations are almost in exact balance with the number of Camp members. Hence our ability to accept new members or to invite worthy guests is severely restricted.

It is my understanding that for years past, consideration and election of new members has been an agenda item of the Camp Annual Meeting. In as much as this meeting is held on the final Saturday of the annual Grove Encampment, it has occasionally posed some problems due to absent members and consequent delay in extending invitations to desirable prospective new members. The proposed committee would serve to obviate such difficulties and permit more frequent, continuous and timely consideration of prospective candidates.

The committee would be empowered to receive suggestions, seek out, screen and after properly canvassing Camp members, to extend membership invitations to selected candidates, within the constraints of the then existing number of members, and of course to the absence of positive dissent or expressed serious reservations.



February 10, 1980
continued.

To implement this concept, I have taken the initiative of requesting the following Campmates to form such a committee, all of whom have concurred in the idea and have consented to serve;

Harry Goff, Chairman,
Charles R. Stuart, Jr.,
Fred Henderson, III

The Camp Captain would be an ex-officio member.

It is stressed that the existence of this committee is in no way intended to preempt nor to substitute for the right and privilege of any individual member to propose prospective candidates. On the contrary, it is hoped and believed that the committee can facilitate and function most effectively, when it serves as a clearinghouse and official channel for member proposals and recommendations.

Your thoughts and comments on this matter are welcomed.

Best personal regards to each of you.

Francis H. Boland
Captain

I hosted a luncheon today (in absentia) for my staff--Margie Hollander, Kathy Van Der Haeghen, Lin Lorenz, and Pat Johnson. Luncheon was held at the Good Earth restaurant in downtown Berkeley and the ladies reported back they enjoyed their Valentine luncheon very much.

I had lunch in the cafeteria with Walter Loveland, Pat McGaughey, Ken Moody, Rose McFarland and Diana Lee. After lunch I went by Room 203/70 to talk to Walter Loveland and Ken Moody about ^{138}Ba plus ^{76}Ge as an alternate reaction to ^{130}Te plus ^{86}Kr to study the fusion reaction.

I met in the Director's Conference Room from 2 p.m. until nearly 4 p.m. with the Scientific Program Council. Present were Andrew Sessler (Chairman), Earl Hyde, Art Rosenfeld, Frank Stephens, Angela Galtieri, Norman Goldstein, Frank Robben, (two others), and the speaker Phyllis Fox.

Phyllis spoke on the oil shale program. The production aspects of this are centered on the campus and the environmental aspects in LBL. Phyllis used to work on the campus on this but has now moved to LBL. She described the many environmental problems connected with the production of oil from oil shale including the large amounts of dirty water produced (as much water as oil from in-situ production and one-tenth as much water as oil for ex-situ production). In addition there is the leeching problem with the alkaline spent oil shale residues. There is also a problem of leeching with the crushed untreated oil shale brought above ground in connection with in-situ processing.

At about 4:30 p.m. I walked down to Latimer Hall, in the rain, to pick up my mail.

On the way home I went by Building 70 to talk to Luo Cheng. I described our plans to have him make chemical identification of the products (Po, Bi, Pb, etc.) of the ^{138}Ba plus ^{76}Ge and ^{130}Te plus ^{86}Kr reactions to look for the fusion reaction.

Helen and I had dinner in the playroom. I worked in the study during the evening on our 189 forms, etc.

Friday, February 15, 1980 - Berkeley

At 8:25 a.m. I called Marcus Wallenberg in Stockholm, Sweden. He told me that he cannot talk to the SCA on April 7th or the 2nd or 3rd because he must be in Washington on the 10th of April. I asked if he could attend on the 9th or 11th and he agreed that he could attend on the 9th. I told him that I would contact Roland Erickson to see if this can be arranged and then call him back early next week.

At 8:40 a.m., after speaking with Marcus Wallenberg in Stockholm, Sweden, I attempted to reach both Roland Erickson and Nils William Olsson; since neither were available, I spoke with Dagmar Olsson and told her that Marcus Wallenberg could speak to the Swedish Council of America at a meeting in New York if it is scheduled for Wednesday, April 9th (a date which will fit in with a scheduled trip of Wallenberg's). I

told her that this date is okay with me--with much changing of my commitments already scheduled for that date--and I am trying to reach Roland Erickson to see if his calendar will accommodate this change. She said she believes Roland is in Florida (I later tried to reach him there without success) and she will give this message to Nils when he returns home this evening.

I went by Building 70 at about 9 a.m. to talk to Diana Lee about her plans to get Luo Cheng started on practicing chemical separations.

At 9:50 a.m. I received a call from Claire Anders, CBS-London, "60 Minutes" program. She wanted information about the nuclear accident in the Ural Mountains in the late 1950's. She mistakenly believed I was Chairman of the Atomic Energy Commission at that time. I told her I was not Chairman nor was well-versed on the matter. I suggested that she contact Harold Agnew (who did an extensive study of this incident), Robert Hollingsworth (who was Assistant General Manager of the AEC at that time) and/or Willard Libby (who was on the Commission then). She wanted to discuss several theories--i.e. that there was a nuclear waste accident, radioactivity from buried waste and/or fallout from weapons tests. (I pointed out to her that this area was near USSR weapons testing grounds.) She asked about my trip to the USSR in 1971 and asked if I was near that area and I said I was not. She then said that a report from ORNL will soon be published in Science magazine about this nuclear accident.

At 9:40 a.m. I talked with Gordon Bixler about the report of the IAC to the Board of Directors for the March 23rd meeting. He is preparing a short report which will include the recommendation of Bob Parry's subcommittee that a letter be sent from ACS to the USSR organizers of a conference (wishing them the best of scientific success with it), and a few other items. We discussed the letter I received from Robert Neuman giving the results of a poll on ACS taking the initiative for an International Chemical Society. I asked Gordon to look into the possibility of Neuman extracting some data for me from the responses received. I believe that two categories of replies (those who said they were in favor of an ICS but did not want ACS to take the initiative, and those who wanted to use the approach of restructuring an organization like IUPAC to form an ICS), if added to the total percentage of responses, would reduce the 58% unfavorable response. He said he will talk to Neuman about this. I told Gordon that I will be in Washington next week and part of the week of the 25th for the Science Talent Institute. He gave me the bad news that Bob Brasted has a serious form of cancer of the skin.

At 10 a.m. I walked in the rain down to my Latimer Hall office to hold my usual office hour. From about 10:15 a.m. until 11 a.m. I met with Dana Dunlavey in my office. He is the son of Dean C. Dunlavey, who got his Ph.D. with me (1949-52). He wants to do research work with me as a volunteer, perhaps, starting this summer. His grades last quarter were: Chem 4A - A, Physics 5A - A, Math 1B - A-, Law and Economics - C+. He is interested in going into chemistry or possibly into medicine. He was among the top three in his high school at Palos Verdes, where he went for three years; his final year was spent at Exeter. I said I will let him know about working with my research group.

I then taught my Chemistry 1B section in Room D from 11:10 until noon. Afterwards, I walked back up the hill to my LBL office in a heavy rain.

Peter McMullen called and said he talked with the Madsens and, he believes, reached an understanding about the role of Mrs. Olmsted. He is going to meet with the Madsens at their home on Monday.

I had lunch in the cafeteria with Walter Loveland. After lunch we went over the 189 form for the 88-Inch Cyclotron program. (There must be a separate form for the SuperHILAC-Bevalac program and this is also being prepared with Loveland's help.)

I called Ken Madsen to discuss possible terms for buying Strawberry Market and Garage. He told me that his attorney Tom Donahue, is ready to talk to Norman Tuttle about the agreement between Ken Madsen and me. I called Norman Tuttle to bring him up to date on the Strawberry Lodge negotiations.

Today I wrote letters to Kjell Aleklett; to Jim Kern telling him about the Southern Pacific granting permission to use the abandoned railroad tracks for HikaNation; to Twyla Thompson (Yolo County Board of Supervisors) and thanked her for the resolution endorsing HikaNation; to Professor Adam Allerhand with a recommendation for Victor Viola; to Cecil Green and returning the completed list of suggested speakers' names for the upcoming conference; to Dean Dunlavey about his son; and I signed and sent Carl Djerassi an invitation from the American Academy of Achievement.

At 3:15 p.m. I called Mike McReynolds to talk about the letter I received from the Southern Pacific Land Company concerning my request to use abandoned Southern Pacific railroad tracks from Freeport to Sacramento during HikaNation. I told Mike they wanted proof of insurance for bodily injury of \$300,000/\$750,000 and \$100,000/\$100,000 for property damage. Mike told me that AHS was paying \$4,000 for the \$10 million insurance policy for crossing the Bay Bridge and \$1,000 for the \$1,000,000 insurance policy for use of Golden Gate Park's Polo Field. He said they may just want proof that the AHS has insurance for the HikaNation and we may not have to provide special bonds. I told him they wanted \$70 to defray the cost of the paperwork. I told him that I would send Jim Kern, Craig Evans, Monty Montgomery and him copies of the letter. We talked about the telephone numbers for the answering service and Mike clarified for me that the callers were to ask for Operator 150. He also told me that they have a story about HikaNation going to press in Sunset magazine.

At 3:25 p.m. I called Clyde Carter to tell him that I plan to come to Strawberry Lodge tomorrow and asked if I could get together with him to scout some trails. He agreed and told me to come to the Ranger Station and call him. I told him we would be in at about 11 a.m. and he volunteered to come pick us up and drive us around in his four-wheel-drive vehicle.

I called Tom Budinger at 4:45 p.m. to go over the list of suggested speakers and participants that he sent me in response to the letter I received from Cecil H. Green asking for help with the conference on the topic, "Biological Imaging: Contributions from Contemporary Physics and Engineering." We went over the list and separated

speakers from participants, agreeing there is really no line of demarcation since all of these people are excellent choices for a conference of this kind, which I will mention in my response to Green. I thanked Tom for his assistance and said he was on my list as a speaker.

At 5 p.m. I went by Room 203/Building 70 to discuss with Luo Cheng his chemical procedures for isolating At, Po, Bi, Pb, etc., and to give him the radiochemistry booklets (Nuclear Science Series) for these elements.

I drove home in a heavy rain. Helen and I had dinner in the playroom and afterward I worked in the study.

In the late evening Helen, with Kent, drove to Davis to pick up Dianne, who is not feeling well.

Saturday, February 16, 1980 - Fresh Pond/Strawberry Lodge

Dave and I left at 8:45 a.m. and drove in a heavy rain to Fresh Pond and arrived at about 11:30 a.m. Here Clyde Carter and his son Curt joined us and together we drove over the route to Sly Park Road. We then drove back to Fresh Pond over the Cross Country Hike anticipated route, as follows: Proceed about one and one-half miles along Sly Park Road, then take Park Creek Road (to the left) about one-half mile (to within 100 yards from the end of the paved portion), take a dirt road to the left about a mile (which comes out on a paved frontage road nearly opposite Forest Road), and proceed about one-fourth mile to Fresh Pond.

Dave and I then drove on in heavy rain to Strawberry Lodge, where we arrived at about 1:15 p.m. Here we joined Peter McMullen and Bob Lingard in the dining room just as they were finishing lunch. After lunch, while Dave was watching hockey Olympic Games on television in the bar, I had a two-hour meeting with Peter McMullen to go over the financial accounts of Strawberry Lodge. We discussed the means of keeping Mrs. Kim Olmsted within bounds, the possible purchase of Strawberry Market-Garage and Strawberry Meadow. We also discussed an intriguing new idea of Peter's and Mike Ulrich's. Under this plan we would borrow \$300K on the Lodge from a bank, pay back the Madsens to the extent their equity would be \$100K, then have Mrs. Olmsted, Mike Ulrich and Peter McMullen and the Seaborgs each invest \$100K. This would correspond to five owners each owning 20% as members of a corporation.

I then met Dave in the Ski Shop, where we were outfitted with skis, and spent about an hour skiing in the meadow during a lull in the rain. After this I took Dave on a tour of the Lodge, Motel, Market-Garage, and Strawberry Valley House historic marker.

Dave and I then moved into our apartment in the four-plex, changed our clothes and went to dinner in the dining room. We had dinner with Peter McMullen, joined later by Mrs. Olmsted (who had just arrived) for a cup of chocolate. I noticed she was less active in performing duties in the dining room.

At a little after 10 p.m., during an intermission from the little band playing in the dining room, Dave did his stand-up comedy act. He did pretty well but he had a rather difficult and noisy audience.

I met Frank Barton's children--a daughter Maria and a son Peter. Barton is the proprietor of Little Norway.

Dave met Terry, Vivian, Katie, Pauline, Drago, Nancy and others on the staff. I returned to our quarters and retired about 11 p.m., while Dave stayed on to do another show at the next intermission of the band.

Sunday, February 17, 1980 - Strawberry Lodge

We woke to a rain which had continued all night long.

Dave and I had breakfast in the Lodge dining room, joined by Bill Gallagher. Mrs. Olmsted was busy with various table-tending jobs.

The word from several sources was that Dave's second appearance in the ballroom last night was quite well-received.

Dave and I drove to Little Norway. We first skied into Lake Audrian (completely frozen over) and then skied on the snow-covered microwave and radio repeater maintenance road--this apparently would be the last part of the Pow Wow to Little Norway segment keeping off Highway 50. We skied back, had lunch (packed by Helen) in our car. It was snowing hard with a wet snow, but the skiing was good.

At Little Norway Resort we talked to Mr. and Mrs. Frank Barton about the Cross Country Hike--they expect us on May 3rd. We also talked to Dick Johnson, Manager of the "Echo Nordic Center" (a ski shop), and told him about our Cross Country Hike. He said that a good route from the bottom of Hawley's Grade is to go on up to Highway 89 (as planned) and then head off to the left of Highway 89 to Big Meadow; continue on to a trail to Scott's Lake; then continue on a jeep road to Hope Valley and Highway 88 and on to the Sorensen's. This route passes on the right hand side of Waterhouse Peak.

Dave and I then skied on ski trails across to Johnson Pass Road and then along the road to Echo Lake and back. When we returned to the corner of the road to Echo Lake and Johnson Pass Road we stopped in at the house (old red house) of Ralph King. Ralph welcomed us into his Echo Portals, and former store and camp headquarters where he has lived since 1936. He first began his stay in this area in the mid 1920's and he knows everybody who lived in or had summer places in the Echo Lake area during those years, including the Robert Sprouls, Stanley Freeborns, William Fretters, etc. He served me hot tea and cookies, told us about the Mt. Ralston Lodge (near Pinecrest Camp) which is for sale at \$185,000. He gave Dave and me each a jar of honey, which he gets free from a friend in Turlock. Ralph promised Helen and me the use of a cabin with a view if we want to visit the Echo Lake area.

Dave and I returned to our car at Little Norway and drove back to Strawberry Lodge.

Dave and I, with the help of Mike McGrath (who identified himself as the Assistant Manager of Strawberry Lodge), visited the house owned by Mel Smothers, and which the Madsens had hoped to purchase. (Mike Smith and three other Strawberry Lodge employees rent rooms in this house.) The house has a large living room with a fireplace and a propane gas heater and a small connecting kitchen (with a propane gas stove, sink and refrigerator), two bedrooms each with a complete bath downstairs, and an enclosed back porch with a fireplace, one bedroom and a separate bathroom upstairs. (The hot water heater is upstairs in a separate room.) There are a number of good-sized clothes closets. There are steps leading down from the back porch. The small lot (privately owned) extends to the nearby river. The interior of the house is not in very good shape but could be fixed up for about \$10,000 (Peter McMullen's estimate).

Mike McGrath came into our quarters (No. 8 of the four-plex) to talk to us. He has just started with Strawberry Lodge this week and will apparently live in No. 8 when we are not there.

Dave and I changed out of our wet clothes and went to the dining room to have our dinner. Mrs. Olmsted was busy at various tasks in the dining room. After dinner Dave and I visited the lounge, bar, etc.--the place was teeming with activity including lots of kids. We talked to Drago, who indicated that Strawberry is becoming known and business is steadily increasing.

I went back to No. 8 and Dave stayed on for a while to partake of the activity in the Lodge.

Monday, February 18, 1980 - Strawberry

Dave and I had breakfast in the dining room. Mrs. Olmsted was busy working in the Lodge.

We were not able to start our Pontiac Phoenix; so, with the help of Mike Smith, we enlisted the help of the mechanic from Kyburz Garage to get it started. We left for home at about 11 a.m. and stopped at Fresh Pond on the way to take some pictures. We arrived home at about 2 p.m.

At about 3 p.m. Nils William Olsson called from Florida. Then, as a result of my subsequent call to Roland Erickson, also in Florida, and a return call to Olsson, we decided to go ahead with the SCA Board meeting, and dinner at which Marcus Wallenberg has said he will speak, on Wednesday, April 9th, even though Roland Erickson cannot attend. Nils William Olsson and I also agreed to have a luncheon meeting with Lena Kaplan and Polly Hill, on Wednesday, February 27th, at the Chemist's Club, to discuss arrangements and invitees for the Marcus Wallenberg dinner on April 9th.

I read my mail, worked on my talk for the 25th anniversary of mendelevium, and did some reading.

Helen, Dianne and I had dinner in the study and after dinner I read Chemistry 1B material, etc.

Tuesday, February 19, 1980 - Berkeley

At 9 a.m. I called Wally B. Curtis to tell him that the large bond asked by the Southern Pacific for permission to hike along the abandoned railroad tracks from Freeport to front Street in Sacramento may be difficult for the AHS to secure. I told him that I had sent his letter on to the AHS officials. He then told me that the bond was largely a policy matter and that, if necessary, even the \$75.00 could be waived. He told me his entire family (five children) were hikers and I invited him to join us. I told him I would send him a copy of our itinerary. We discussed the route from the railroad tracks to Discovery Park and he told me that there was a route via Eye Street under the railroad bridge and on top of the levee to Richards Boulevard. He said that there is a pedestrian viaduct to the top of the Eye Street Bridge. He said that the Southern Pacific Land Company had recently sold land to the city and would have an easement. He gave me the phone number of Sacramento's Director of Recreation and Parks.

At 9:15 a.m. George Milly (President of GEOMET) called to give me the schedule of the people from Saudi Arabia. They will arrive on Thursday night, February 21st, and will meet at 10 a.m. on Friday morning. I told him that I could not attend because I was meeting with W. Averell Harriman at 11 a.m. in Washington, D.C. They will hold the meeting at his Rockville, Maryland office. We discussed the possibility of having lunch and George agreed to have someone waiting to pick me up at Harriman's residence at 11:45 a.m. I asked whether it might be possible to arrange for a meeting on Saturday morning and George said he would suggest it. I asked if the chauffeur could bring a sandwich and an apple for me to eat on the drive to Rockville. I then asked about the Board meeting on the 26th of February and George told me that no one else could make it and that it would be scheduled for a regular date in March.

At 9:35 a.m. I returned an earlier call from Nils William Olsson in Florida. He told me that he had contacted Lena Kaplan, who was enthusiastic about the arrangement with Marcus Wallenberg, and she will contact Swedish Consul General Bengt Friedman, a personal friend of hers, to make arrangements for the dinner at the Consul General's quarters. He told me that she will join us for lunch next Wednesday to discuss the plans. He told me that he is seeing Roland Erickson this Saturday so he will be able to come to the luncheon armed with his ideas.

At 9:40 a.m. Andrew Suttle (Marine Biomedical Institute) called me to say that he had talked with Cecil Green and Dr. Smith about the speakers for the upcoming conference. He asked whether Dr. Tom Budinger is one of the best people in this field and I assured him that he is.

At 9:50 a.m. I called Joe Katz to discuss progress on the revision of our book, Chemistry of the Actinide Elements, and invite him to come for a week of intensive

work on the revision this summer. Joe said it is going slowly. He has received Leonard Katzin's revisions and hasn't quite found a solution for summarizing Fritz Weigel's voluminous material. He said he has arranged for some post docs for this summer and that on August 2nd and 3rd he will be attending a conference in Boulder, Colorado. We set a tentative arrival date for July 27th.

At 10 a.m. Lieutenant Bob Mitchel of the California Highway Patrol returned a call I had made earlier to Captain Von Rajcs. Mitchel will handle the South Sacramento area. He said that there would be no problem with the HikaNation route planned for Antioch to Sacramento. I invited him to join us on the hike and said that I would send him a detailed itinerary.

At 10:20 a.m. I called Solon Wisham, Director of the Sacramento Parks & Recreation Department, and gave him the background of HikaNation. I told him that I got his name from W. B. Curtis. He told me that the easements and trails have not yet been constructed and he does not foresee that they will be finished by the time of our Hike. He gave me modifications to the route given me earlier by W. B. ("Wally") Curtis and said that we should come to Miller park at the end of Front Street and then follow Front Street up the Pioneer Bridge and go on to Capital Avenue. He said that he would notify the City Police about our Hike. I said I would send him an itinerary.

At 10:37 a.m. Ben Loeb called to ask my arrival time on Thursday. I told him I will be arriving at 8:45 p.m. on United Airlines Flight No. 58. He said he has the last two chapters finished and will leave them in my hotel room. He told me that he is now reviewing the first draft and will aim it toward the conclusion. We discussed our breakfast meeting on Friday and what text we might leave with Harriman. I told him that I had not heard from the University Press. I said he should hire someone to help him assemble the entire text with revisions.

At 10:45 a.m. I called Ranger Fred Bell to discuss with him the route out of the Bridal Veil Picnic Area. I told him that I had talked with Floyd Poole, who has lived in the area since 1910, and Floyd definitely felt that we wouldn't be able to cross the river at that place. I asked if there could be an exception made for us so we could use the Blair Bridge and go on the Brockliss Toll Road to save a few miles. He said that would not be possible because of the extremely dangerous condition that the bridge is in. He said he had spoken with the engineer of the bridge who said that it was unsafe and could fall into the river at any time. He assured me that the trail inward from Wright's Lake Road would definitely be cleared out before our Hike. He gave me his phone number in Bullion Bend. I told him that I would be in the area on Saturday and asked if I could contact him.

At 10:50 a.m. I called Ingrid Burkett to explore the possibility of purchasing the cottage two doors up from the bridge near Strawberry Lodge. I talked to Mel Smothers who told me that they have two properties, one near the Thomas Art Gallery and the other near the bridge. I told him I would have to think it over.

At 11:15 a.m. Mel Smothers called me back with information about the sales price for the cabin that Dave and I inspected last Saturday near Strawberry Lodge. Mel Smothers said the sales price is \$87,500; it has a first mortgage of \$40,000 at 10% interest

(repayable at \$400 per month with no balloon payments). It has a \$47,500 purchase requirement and the previous seller is carrying the first note.

At noon I walked down to my Latimer Hall office to hold my regular biweekly bag luncheon of my Cluster Group. I talked about nuclear research, controlled thermonuclear fusion, and attempts to synthesize superheavy elements.

I then attended a pre-instruction meeting in Room 328 before my laboratory section. After the pre-Lab discussion period I divided my time among Rooms A, B, C, D, E, and F. Wayne Hubbel reminded me that he was an STS scholarship winner (from Oregon) in 1961. He said I had interviewed him and he heard me speak to the STS finalists.

I walked back up to my LBL office.

At 3:30 p.m. Willy Yee of the Oakland City Council called me to inform me that the hearing for reclassification of the EBMUD emergency waterline will be held tonight in the City Council Chambers (third floor of City Hall) in Oakland at 7:30 p.m. He said that it was Item 14 on the agenda and that he hoped I could attend to express the views of those concerned. The developer of Grizzly Peak Estates (north of the Caldecott Tunnel at the intersection of Marlboro Terrace and Grizzly Peak Road) wants permission to use EBMUD's emergency water line for two years while the subdivision is being built. They will then seek reclassification of the line so that it can be used by the subdivision, which would greatly overtax the system and create a far worse fire potential. Dan Hallig is the person representing the Grizzly Peak Estates. He told me that EBMUD is in favor of it and that they want the developer to pay \$37,000 to a fund for the use of the emergency line. I told him I couldn't attend the meeting but that I will try to contact Roger Reeve and ask him to attend the hearing.

At 3:45 p.m. I reached Roger Reeve and told him about the phone call from Willy Yee of the Oakland City Planning Office and asked if he could attend the City Council meeting tonight at 7:30 p.m. He said he had another engagement but that he could call John Sutter on the Council, let him know our feelings, and then see if May Blos or someone else could attend the meeting.

I went to Building 70 at about 4:30 p.m. and talked to Ken Moody about completing his Cs + Ne work for a paper with Jim Hogan at the International Conference on Nuclear Physics in Berkeley this summer. I then spoke with Rose McFarland about her Th + ^{18}O bombardment scheduled for next Tuesday. I also talked to Diana Lee and Darleane Hoffman, who had just phoned, about our results from our last ^{248}Cm plus ^{16}O bombardment. Diana Lee has observed a large yield of ^7Be , which raises the question of whether it comes from a (^{16}O , ^7Be , out) reaction, or from the Be backing material.

Walter Loveland dropped in and we discussed our plans for treatment of data. I placed some emphasis on treating the data from our recent Ta bombardment (measurement of product angular recoils) at the SuperHILAC to tie these data into Ken Thomas' thesis date for publication. He told me he plans to go home to Corvallis next week for a visit.

Helen and I had dinner in the playroom. I worked in the study after dinner, reading correspondence, etc.

Wednesday, February 20, 1980 - Berkeley

At 8:15 a.m. I called Stockholm to leave word that April 9th is fine for the dinner at the Swedish Consul General's residence in New York. Schwerin will tell Wallenberg.

I sent a letter to Dr. S. P. K. Gupta, India, responding to his letter of February 6th. Gupta is writing a biography of Dr. Homi Bhabha and he wanted some information regarding my connections with Dr. Homi Bhabha, particularly in regard to the Tarapur reactors so I enclosed a copy of chapter dealing with India from one of my LBL reports covering the international activities during my tenure as Chairman of the U.S. Atomic Energy Commission. I sent a letter declining a luncheon invitation for February 29th from Charles E. Young (Chancellor of UCLA).

On my way to campus, I went by Building 70 and talked to Walter Loveland and Rollie Otto about their reports for today's SHEIKS meeting. I talked to Ken Moody about our plans to have him treat the Ta recoil data. On campus, I attended a meeting in Room J with other members of the chemistry faculty and then caught the last part of Professor Rollie Myer's lecture in PSL. I walked back up to the hill to my LBL office.

At 10 a.m. Frank Bigger called to ask if there will be a question and answer session after my March 23rd talk in Houston; I told him I have planned for there to be a question and answer session.

At 11 a.m. I called Harlan Kessel to check the status of my manuscript, Kennedy, Khrushchev and the Test Ban - An Eyewitness Account, with U.C. University Press. Harlan told me he had forwarded the manuscript to Sheila Berg, Science Editor for University Press in Los Angeles. I told Harlan I am leaving for Washington, D.C., tomorrow and I may come back with changes because I have an appointment with Averell Harriman.

At 11:20 a.m. I called the Chemists' Club in New York and made lunch reservation for four for Wednesday, February 27th at 12:30 p.m.

I held the regular biweekly luncheon meeting of my heavy ion radio-chemistry research group in my office from noon to 1:30 p.m. Present were Walter Loveland, Pat McGaughey, Ken Moody, Mike Perry, Martin Schulman, Diana Lee, Linda England, Al Ghiorso, Rollie Otto, Yoshi Morita, Matti Nurmi, Luo Cheng, Matti Leino, and Saburo Yashita. Rose Marie McFarland arrived later. Yoshi Morita presented his calculations on the energies and angular distribution of products from U plus Ne. Al Ghiorso discussed the yield of the reactions $^{208}\text{Pb} (^{18}\text{O}, ^7\text{Be}) ^{219}\text{Em}$ ($s = 10\text{b}$) and $^{208}\text{Pb} (^{18}\text{O}, ^6\text{Li}) ^{220}\text{Fr}$ (300b). The latter reaction is analogous to $^{248}\text{Cm} (^{18}\text{O}, ^6\text{Li}) ^{260}\text{Md}$. Saburo Yashita described the yield of the reactions $^{\text{nat}}\text{Si} (^{18}\text{O}, ^7\text{Be}) ^{41}\text{Ar}$ (15b if it is due to ^{30}Si). Matti Leino described the yield of the reaction $^{27}\text{Al} (^{18}\text{O}, ^7\text{Be}) ^{38}\text{Cl}$ (20 mb) and $^{27}\text{Al} (^{18}\text{O}, ^6\text{Be}) ^{39}\text{Cl}$ (2b). Rollie Otto reported on his chemical fractions (Ir, Au, Tl, La's) from Au plus 7 and 16 MeV/amu ^{16}O . Walter Loveland made some comments on the speed of our

calculations, using the large computer, compared to previous calculations using smaller computers.

I met with an ad hoc low energy physics research group in Building 70/Room 191, from 1:30 p.m. to 3:40 p.m. Present were Frank Stephens, Dick Diamond, Bernard Harvey, Luciano Moretto, Wladyslaw Swiatecki, Jorgen Randrup, Al Ghiorso, Robert Stokstad, James Symons and me. We were later joined by Joe Cerny. The purpose of the meeting was to discuss means to insure the future of low energy nuclear physics at LBL in the face of the Lab's decision to go for VENUS. At the conclusion of the discussion votes were taken on three issues: 1. Do we agree that there should be a strong low energy physics program at LBL in the future? (The vote was unanimous in favor.) 2. Do we agree that we should request funds for a heavy ion accelerator adequate to insure such a low energy nuclear physics program? (All were in favor except Joe Cerny, Robert Stokstad, and James Symons.) 2. Do we agree that we should request funds for such a heavy ion accelerator in connection with (such as first stage of) VENUS? The vote was in favor and unanimous.

I returned to my LBL office at 3:40 p.m.

At 3:45 p.m. Ted Sherburne of Science Service called me. He wanted to know my feelings about the people who were up for renomination to the Board this year (Bowen Dees, O. W. Riegel, Aaron Rosenthal, John Troan, and myself). I told him that I felt all five should be renominated.

I had dinner in the Faculty Club with Walter Loveland. (Helen was attending a YWCA dinner meeting.)

Helen and I called Steve at about 9 p.m. to inquire how the heavy rains are effecting him. He is getting along well.

I called Peter McMullen at Strawberry Lodge. It is snowing and a storm has caused an electrical outage. He said he has been having trouble with Mrs. Olmsted.

Thursday, February 21, 1980 - Berkeley/Washington, D.C.

Helen drove me to LBL and then she went to the U.C. Library to look up news items published December 1945 for my Met. Lab. Sec. C-I history.

I called Mel Smothers to further discuss the purchase of the house at Strawberry.

At 9 a.m. I called John Hanson of the Apache Corporation in Minneapolis and told him that Jim Cason had told me about corporation and investment possibilities with Apache. I asked him to send me information and a prospectus, and to please mail the information packet to the Capital Hilton and also to my home.

I wrote a letter to Justin Collat (in support of the nomination of Joe Cerny for the 1981 ACS Award for Nuclear Chemistry) and to George Esser (President of the

National Academy of Public Administration) to decline an invitation to attend the NAPA's second annual west coast regional meeting.

I went to Building 70 and reviewed the transparencies with Loveland for my talk to the Nuclear Science Division Visiting Committee on March 6th.

Ken Madsen returned my call and we discussed a possible counter-offer to Murray for the Strawberry Market-Garage, the possibility of buying Strawberry Meadow from Trevor Thomas, and the problems of making a financial settlement with Tim Adami.

Around 11 a.m. Helen came by to drive me to the San Francisco airport. I boarded United Flight #58, which left at about 1 p.m. and arrived at the Washington, D.C., Dulles Airport, at about 8:45 p.m. (Helen is scheduled to fly to Washington tonight. She will leave the San Francisco airport at 11:45 p.m. on TWA Flight # 266, and is scheduled to arrive in Washington, D.C., National Airport, at 9:24 a.m. tomorrow.)

Ben Loeb met me and drove me to the Capital Hilton Hotel. I checked into Room 967. I told Ben that Harlan Kessel had indicated the U.C.-University Press will publish our book with some revisions. Ben told me about the revisions he has made and that he has completed the first drafts on the last two chapters. He left the master copy with me, which I read before retiring at midnight.

Friday, February 22, 1980 - Washington, D.C.

I called Gordon Bixler to suggest he call Stanley Kirschner to tell him I have an anonymous donor to cover the cost of Mathias' trip from Brazil to Bangkok for the meeting of the Executive Committee and that we should go ahead with plans for the Bangkok meeting.

I had breakfast in the hotel coffee shop with Ben Loeb. We discussed our forthcoming meeting with W. Averell Harriman and the general status of our book and its publication. Ben and I then drove to the home of W. Averell Harriman for our meeting with him.

Ben and I met with W. Averell Harriman and his secretary Margaret Chapman from 11 a.m. to noon. We told him about our book and then entered into a discussion which was recorded on Ben's tape recorder. He told us about negotiations, along with Adrian Fisher, John McNaughton, and Carl Kaysen, with Nikita Khrushchev, Andrei Gromyko, etc., in Moscow in July and August, 1963. As a result of our discussion we left him with a copy of the draft of the 21 complete chapters of our book. He agreed to write a foreword to our book (which we will draft), and he agreed to make available to Ben Loeb (through Margaret Chapman) copies of the memoranda, telegrams, etc., involving his negotiations with Khrushchev, subject to his checking and approving the material we choose to use, and checking with Adrian Fisher to obtain his concurrence. Harriman said he is agreeing to help in this manner because of his respect and regard for me and his desire that a book on the Limited Test Ban Treaty (like ours) should be as complete and authentic as possible. He thinks that a Comprehensive Test Ban Treaty

would have been attained, soon after the Limited Test Ban Treaty, had President Kennedy lived.

Tommy Campbell and I rode to some of the offices of GEOMET Technology. In the conference room I joined the meeting in progress on Solar Desalination. Present were the following representatives from Saudi Arabia: Abdul Razak S. Bougairy (delegation head), Alaywan, Fayez (who did his work in physics at Texas A & M University), Nazer, Luigi, M. Kholosi (who moved to Saudi Arabia in 1963 from Egypt), Saikali representatives of GEOMET (George Milly, Charles Judkins, Richard Allen, John Swift, Demetrios Moschandreas, William Malloy, and I), Paul Lochak, representatives of Gibbs and Hill (Vice President Don Davis, Director of New Technology George Stern, Consulting Engineer of Solar Technology Paul Curto, Chief Engineer Oscar Horn and Chemical Engineer Meduka Chiravolu), and representatives of the AAI Corporation (Senior Design Engineer Ted Stastny and Harold Wilkening from the Energy Systems Department).

When I arrived the meeting was in progress and Item 6 of the agenda (attached) was being discussed. Don Davis expressed interest that Gibbs and Hill and GEOMET continue a working relationship in the transfer of technology (beyond the work on solar desalination) with Saudi Arabia and Bougairy Trading and Contracting. Bougairy spoke on the formation of a joint U.S.-Saudi Arabian company to pursue various projects. George Stern described the Gibbs and Hill response to an RFP for the design of a solar desalination plant, and spoke of a pilot prototype with a capacity of 100-400 cubic meters of water per day to be followed by a plant with a capacity of 6,000 cubic meters per day. Fayez described a simpler design by the Saudis. It was decided to hold another meeting in the afternoon to compare designs in more detail. The possibility of having a continuing relationship, beyond the Solaris project, between the Saudis and GEOMET and Gibbs and Hill will be explored further.

I rode to the National Academy of Sciences building at 21st and Constitution with Tommy Campbell and Kholosi, who was on his way to the Embassy Row Hotel where the Saudi delegation is staying. Kholosi described to me his views on the present precarious Middle East situation. He thinks it is inevitable that the Soviet Union will proceed south to Iran and further to insure its oil supply and, in order to avoid war, the United States will have to make a compromise with the Soviet Union and allow them a share of the control of the Middle East oil supply. (He thinks the U.S. will have to reduce its use of oil and turn to nuclear power and coal in order to survive.)

En route I ate a sandwich lunch.

Beginning at 3:15 p.m. and continuing until about 7 p.m., I interviewed the 40 Science Talent Search finalists at their exhibits in the Great Hall. The 40 finalists were: Joel Friedman, Brian Greene, Alan Murray, Lisa Randall, Scott Thornberg, John Andersland, Tony Bohnert, Pamela Epstein, Anthony Laberge, Craig Perdue, Craig Bina, Robin Chang, David Chiang, Michael Finn, George Weinert, David Wickliff, Jenae Bunyak, Heather Dick, Lourdes Gamez, Gary McGahan, Naomi Taylor, Arielle Bienenstock, Paul Feldman, Melissa Hull, John Maturi, Jaren Middleton, Mark Prestigiacomio, Kenneth Browlee, David Galbi, David Gelba, John Vidic, Karen Jerome, Lee Turkel, Faith Van Nice, Philip Wang, Sarah Kupferberg, David Rothenberg, Eugene

AGENDA
Solar Desalination Meeting
22 February 1980
Page 2

AGENDA ITEMS:

1. Introductions
2. Background of GEOMET, Inc.
3. Background of Gibbs & Hill
4. Background of AAI
5. Construction Company
6. Proposed System
7. Lunch
8. Discussion



Brady, Bryan Penprase, and Mark Turner. New York Times photographer George Tames took pictures of me with some of the finalists and New York Times reporter Dena Kleinman interviewed most of the finalists.

Following a reception I attended a dinner in the Refectory for the 40 finalists, Science Service and Westinghouse people (Tom Phares and Mrs. Phares, et al.) and members of the press. I sat at a table with Mark Turner, George Weinert, Brian Greene, David Gelba and Faith Van Nice. Following dinner we went to the lecture room, where James D. Ebert (President, Carnegie Institute of Washington), spoke on the use of simple organisms in biological research and I spoke on the transuranium elements, illustrated by 30 slides. I answered a number of questions following my talk, first from the podium and then from a group of about 20 STS winners surrounding me. I rode back to the Capital Hilton on the bus with the STS winners.

Saturday, February 23, 1980 - Washington, D.C.

I had breakfast in the hotel coffee shop and then spent the morning in my room reading material in preparation for my March 6th report to the NSD Visiting Committee.

Helen came by at about 12:15 p.m. and Eric (who now has a beard) joined us a half hour later. We had lunch together in the hotel coffee shop. After lunch we took a taxi to the National Academy of Sciences, where we viewed the STS exhibits and I talked to some of the STS finalists.

Leaving around 3 p.m. I rode with Pedro Albrecht, along with David Axelrod, Russell Johnson, and James Hummel, to the Capital Hilton Hotel. We were joined by Alan DeSilva, Stuart Hauser and Brigid Leventhal in Room W800. We eight judges discussed the STS candidates and finally agreed on a tie between John Michael Andersland (East Lansing, Michigan) and Lisa Joy Randall (Fresh Meadows, New York). Other top winners are as follows: Michael Vincent Finn (Annandale, Virginia), Craig Richard Bina (Arlington Heights, Illinois), Melissa Willene Hull (New York, New York), Bryan Edward Penprase (San Marino, California), Naomi Taylor (Bayside, New York), Paul Neil Feldman (Brooklyn, New York), Pamela Lynne Epstein (Merritt Island, Florida), David Chiang (New York, New York). Brian Randolph Greene was chosen as first alternate and Karen Lisa Jerome as second alternate.

I returned to my room and soon Helen returned from her visit with Eric to the National Gallery of Art. Helen and I rode in the STS bus (while Eric walked) to the Golden Palace, where we joined Wendy Warring, Eric's girl friend. We had dinner here with the STS finalists, Science Service and Westinghouse people. Helen, Eric, Wendy and I sat at a table with Paul Feldman, Sarah Kupferberg, David Rothenberg, Scott Thornberg, David Chiang, and Eileen Milling (a reporter for the Associated Press). We had a multi-course Chinese dinner. After dinner we went by STS bus to see the musical review Day by Day. Helen and I said goodbye to Eric and Wendy and then rode back to the Capital Hilton on the STS bus. Helen went by taxi to 3825 Harrison Street to spend the night at Pete's place.

Sunday, February 24, 1980 - Washington, D.C.

I had breakfast in the hotel coffee shop and then I took a taxi to 3825 Harrison Street, where I met Eric and Helen. The three of us walked to Rock Creek Park, via Broadbranch Road, then took a hike toward Pearce Mill on the Black Horse Trail and back on the White Horse Trail via Military Road. We stopped during our hike for a sandwich lunch prepared by Helen. We returned to 3825 Harrison Street where we had tea and cookies with Pete.

Eric then went by bicycle and I by taxi to the home of Craig Evans to attend a meeting of the American Hiking Society people to plan this year's "Hike-In" at Prince William Forest (weekend of June 1st). Present were Craig Evans, Susan Murphy (Craig's fiancée and secretary), Mr. and Mrs. Bill Rennibohm (Heritage Conservation and Recreation Service), Bud Herrman (Chairman, AHS Education Committee), Mr. and Mrs. Ed Read, Chuck Williamson, and another couple. I rode back to 3825 Harrison Street with the Rennibohms, who were en route to their home in Virginia. Helen, Pete, Daphne Keller (Pete's friend) and I walked to the nearby Cafe Burgundy, where we were joined by Eric (who arrived by bike) and we all had dinner. After dinner I rode by bus back to the Capital Hilton Hotel and took a walk before retiring.

Monday, February 25, 1980 - Washington, D.C.

I had breakfast in the hotel coffee shop with Paul Lochak. In my room, after breakfast, we discussed S.I.T. and GEOMET business and progress in the negotiations with the Saudis for a joint program (GEOMET-Gibbs and Hill and the Saudis) on solar desalination and broader programs. I asked him if he could find the money (\$7,000) to cover transportation costs for three of the participants to attend the ICS meeting in Bangkok.

After Lochak left Ben Loeb came by at about 10 a.m. We discussed the next steps in the preparation of our book in connection with its publication by U.C.- University Press, our meeting last Friday with Averell Harriman, and the preparation of a draft of his foreword for our book. I told Ben Loeb that if he wants to collaborate with me on a second book based on my journal, e.g., covering my role in the attainment of the Non-Proliferation Treaty, I would pay him \$10,000 for this contribution.

I met Paul Lochak and his friend Simone Ballandras and we took a taxi to the Cosmos Club where we had lunch. I then took a taxi to the ACS headquarters, where I met with Gordon Bixler. I told him I have \$2,000 (from a private donor) to add to the transportation cost of Simao Mathias to the meeting in Bangkok and I am trying to raise \$4,000-\$5,000 more for the African (Messan Adgangba) and the Costa Rican (Sherman Thomas) representatives. He is communicating this information to Stanley Kirschner. I met Pat Morgan, editor of SciQuest, and she told me they are preparing a 2,000 word version of my Baker Nobel Laureate lecture for my approval for publication. They will send the draft for my approval this summer.



Eric and Peter Seaborg, 3825 Harrison, February 24, 1980



Peter and Eric Seaborg, Capital Hilton, Washington, D.C., February 25, 1980

I rode with Paul Lochak by taxi to the home of Sargent Shriver, where we had a long talk, from 3 p.m. to 5 p.m. with Sargent, and from 4 p.m. to 5 p.m. with Eunice, (Mrs. Sargent) Shriver. I tried to convince them, especially Eunice, that Teddy's stand on nuclear power (especially his most recent strengthening of his anti-nuclear position) is not only wrong from the standpoint of the welfare of the United States, but is also wrong, politically, for his presidential aspirations. I may have made some progress. Eunice said she will talk to Teddy about this tomorrow and he may get in touch with me. Sargent may also have him get in touch with Harvey Brooks. I suggested that Teddy embrace the NAS CONAES Report.

We returned by taxi to the Capital Hilton Hotel. I went to my room where I was joined by Helen and we changed into our formal clothes. We went first to Tom Phares suite on the 12th floor for a reception to meet the Westinghouse people and then to the pre-dinner reception in the South American Room. We were joined by Pete and Eric and, as usual, we met a large number of our friends, including Paul and Simone. We went on to the Presidential Ballroom to attend the STS Awards Banquet. I sat at the head table with Hans Mark (Secretary of the Air Force), Thomas J. Murrin, Ted Sherburne, Dorothy Schriver, David Axelrod, Pedro Albrecht, Alan DeSilva, Stuart Hauser, James Hummel, Russell Johnson, and Brigid Leventhal. After introductory remarks by Ted Sherburne, Dorothy Schriver introduced the 40 STS winners. Ted Sherburne then introduced me and I welcomed those present on behalf of the Board of Trustees of Science Service. I described the role of Science Service and I said that this banquet is the most important social event for science every year in Washington. Ted Sherburne introduced Naomi Taylor, who spoke for the winners, and who did an excellent job. Ted then introduced Murrin, who made remarks on the importance of science in today's world. I introduced Hans Mark and mentioned that I met him in a freshman chemistry laboratory section at Berkeley more than 30 years ago and had hired him as an Associate Professor, when I was Chancellor at Berkeley in 1960. I also said that he has not decided to stay in Washington as long as I did and hopes to return to California soon. Dr. Mark gave a charming short talk, which included reminiscences about his role as an STS participant in 1947 and emphasized the opportunity for young people in America. The ten winners and alternates were then introduced by David Axelrod: 1. Lisa Joy Randall (Stuyvesant High School, New York, New York) and 2. John Michael Andersland (East Lansing High School, East Lansing, Michigan). This is the first tie in the history of the Science Talent Search since 1942. 3. Michael Vincent Finn (Lake Braddock Secondary School, Burke, Virginia), 4. Craig Richard Bina (Wheeling High School, Wheeling, Illinois), 5. Melissa Willene Hull (Hunter College High School, New York, New York), 6. Bryan Edward Penprase (San Marino High School, San Marino, California), 7. Naomi Taylor (Benjamin N. Cardozo High School, Bayside, New York), 8. Paul Neil Feldman (Stuyvesant High School, New York, New York), 9. Pamela Lynn Epstein (Merritt Island High School, Merritt Island, Florida), 10. David Chiang (Bronx High School of Science, New York, New York). The alternates were: Brian Randolph Greene (Stuyvesant High School, New York, New York) and Karen Lisa Jerome (South Shore High School, Brooklyn, New York). I then went to the Massachusetts Room for picture taking with the ten scholarship winners, Hans Mark and others. Helen, Peter, Eric and I then went to the Executive Club Room for the post-dinner reception. We then went to our room where we changed clothes and Eric went home by bus. Helen and Pete went to 3825 Harrison Street in his car.

I called Victor Weisskopf in Boston and agreed to sign a telegram to the Soviet Academy of Sciences regarding Sakharov. The telegram will read:

"We are deeply concerned about Sakharov's forced move to Gorki and his isolation from the world. We do not understand condemnation by Academy Presidium and his exclusion from annual meeting. If situation does not improve or if it deteriorates our conscience may not allow us to remain members of an Academy that approves such treatment of a colleague."

I retired at about midnight.

Tuesday, February 26, 1980 - Washington, D.C./New York

I had breakfast in the hotel coffee shop with Paul Lochak, then rode with him and Tommy Campbell to the GEOMET headquarters in Gaithersburg. Here I met for a time with George Milly, Charles Judkins, and Jack Swift and they brought me up to date on GEOMET activities. With the recent acquisition of Equitable Environmental and Health Company (from Equitable Life), GEOMET, INC. is now effectively a holding company with three divisions: 1. GEOMET Technologies, Inc., which includes the basic GEOMET business (including the recent Equitable acquisition and whose 35 employees are in the Rockville office), 2. GEMEX, and 3. American Health Systems. A laboratory, with aquatic competence, Woodbury, Connecticut (approximately 30 employees), has also been acquired from Equitable. Bill Malloy (former Vice President of the Equitable acquisition) has transferred to GEOMET Technologies.

In the GEMEX operations, AGIP is being closed down. They have one good find, which GEMEX will try to sell on a percentage basis. Texas Gulf is returning the Radon Springs, Wyoming operation to GEMEX, which a Japanese firm is interested in pursuing. The two remaining operations, over which GEMEX has full control, are Denison and GEMEX partners and they will do some drilling this summer. The radon technique may have some application in finding oil under "fractured shale" deposits in the San Juan Basin in New Mexico. The blood test system being considered by Coulter Company is in trouble and may be dropped by Coulter; Dick Allen is in Florida working on this. In a concluding discussion, George Milly said that GEOMET should be strengthening its activities in the physical science area. I agreed to try to find them a consultant (in the Washington, D.C. area) to help on this. Paul Lochak joined us and we discussed GETEX activities. Buchalet is active with proposed projects in Brazil and France, and would like to involve Anglo-America Company in exploration in Argentina. I told them I want them to circumscribe Anglo-America's involvement due to their South African connection. Paul Lochak discussed the nature of TEAM'S financial liability vis-a-vis GETEX.

I left at about 11:45 a.m. and rode with Tommy Campbell to the Cosmos Club to attend the luncheon meeting of the Executive Committee of the World Future Society. Present at the meeting were Arnold Barach, Michael Michaelis, Rowan A. Wakefield, Edward S. Cornish, Frank Hopkins Snowden, Peter Zuckerman and I. We followed the agenda (attached). We decided to increase the allowed limit of members on the Board of Directors from 11 to 21, and to create a Council of advisors of some 20 members.



WORLD FUTURE SOCIETY

EXECUTIVE COMMITTEE MEETING

Time: 12:00 noon, Tuesday, February 26, 1980

Place: Cosmos Club (Room A -- Third Floor)
2121 Massachusetts Avenue, N.W.
Washington, D.C.

AGENDA

1. 1979 Progress Report.
2. 1979 Financial Results.
3. 1980 Program and Action Plan.
4. 1980 Budget.
5. Report on Conference in Toronto.

Arnold Barach suggested that Eric come around to see him for help in getting a job as a writer. Edward Cornish suggested that Eric, and perhaps Peter, come to see him about some writing assignments. I took a taxi to Student Press Service where I met with Eric. I met his co-workers on SPS: Jonathan Schnyer (Managing Director); Lori Adams (Business Director); Toni Giovanetti, Kim Lifton, Doug Nash (reporters); and Trish Donahue (Kennedy Youth Policy Institute).

I took a taxi to Science Service to attend and preside over a meeting of the Board of Trustees of Science Service. The meeting began at 4 p.m. and we followed the agenda (attached). Present were O. W. Riegel, Edward Bliss, Milton Harris, Elizabeth Neufeld, Gerald Tape, Allen V. Astin, Joseph W. Berg, Jr., Julius Duscha, David A. Goslin, E. G. Sherburne, Jr., Donald Harless, Robert Trotter and I. We decided to renovate our present building rather than move to new quarters. (This decision has oscillated back and forth for several years.) The present Trustees, Bowen Dees, O. W. Riegel, Aaron Rosenthal, John Troan and I, whose terms expire in 1980, were re-elected and the present officers were re-elected.

Ted Sherburne described the pending proposal from Conoco to support (to the extent of \$500,000 to \$700,000 per year) a scholarship program for high school graduates based on projects in the energy field. He also described a possible Science Service program, "Olympiad," in the fields of chemistry and physics. We set the time for the next Board meeting for 11 a.m., Thursday, May 22nd, continuing through lunch. We adjourned at about 6:15 p.m.

I joined Paul Lochak and Simone Ballandras in taking a taxi to the National Airport. We took the 7 p.m. Eastern Shuttle to New York's La Guardia Airport and a taxi to the Chemists' Club, where I got out. I checked into Room 630 and had dinner at the nearby Howard Johnson's on 42nd Street. I took a walk before retiring. I learned from television reports that Carter beat Kennedy rather decisively in the New Hampshire primary today and that Ronald Reagan beat George Bush by a two to one margin.

Wednesday, February 27, 1980 - New York

I had breakfast with Paul Lochak in the Chemists' Club dining room and then walked to the General Motors Building to attend the meeting of the Dreyfus Third Century Fund Board of Directors. The meeting started at 10 a.m. and was held in an office because the Conference Room was occupied. We followed the agenda (attached). Present were Directors Howard Stein, J. George Harrar, Alice P. Jones, and I, along with Susan Grant, Kenneth Oberman, John J. Pyburn, Mark N. Jacobs, Lawrence M. Greene, Jeffrey Friedman and Mary Amato. Russell Guglielmino arrived at 10:30 a.m. and Mathew "Andy" Baxter, Jr. (new Vice President of the Dreyfus Third Century Fund, an officer in other Dreyfus funds, and a top finisher in the Boston Marathon) entered the meeting at 11:15 a.m. All except Alice Jones, J. George Harrar and me (Howard Stein had left earlier) and Russell Guglielmino left the room at about 11:30 a.m. Directors Alice Jones, J. George Harrar and I approved the terms of the Management Contract and Distribution Agreement. The others returned, including Howard Stein, and we

AGENDA

MEETING OF THE BOARD OF TRUSTEES OF SCIENCE SERVICE

Tuesday, February 26, 1980

Science Service Building

1. Approval of Minutes of September 14, 1979.
2. Report of Finance Committee, including proposed 80-81 budget.
3. Sale of THINGS of science
4. Report of Building Committee
5. Report of Nominating Committee, and election of new Board members and new Officers
6. Approval of Auditor of Fiscal Year 79-80 audit
7. Proposed new Science Youth Activities programs *Conoco*
8. New Business
9. Date of next meeting ~~Th. June 19~~
~~Th. June 19~~
10. Executive Session ~~Th. May 23~~
91^a Th. May 23

AGENDA

THE DREYFUS THIRD CENTURY FUND, INC.

BOARD OF DIRECTORS MEETING

WEDNESDAY, FEBRUARY 27, 1980

10:00 A.M.

- I. Approval of Minutes of Previous Board of Directors Meeting

- II. Legal Matters
 - A. Blue Sky Registration
 - B. Election of Officer
 - C. Report on Settlement of Korenstein and Amins Litigation
 - D. Discussion of Proxy Voting
 - E. Advertising
 - F. Discussion of Procedure of Pricing Fund Shares in Tender Offer Situations

- III. Annual Review
 - A. Management Contract
 - B. Distribution Agreement
 - C. Fidelity Bond
 - D. Pricing
 - E. Central Depository

- IV. Investment Matters
 - A. Oil Drilling
 - B. Oil Service
 - C. Oil Construction
 - D. Special Consideration Company
 - E. Valuation of Securities

- V. Portfolio Review and General Business Discussion

finished the agenda and adjourned at about noon. I suggested to Mark Jacobs and Susan Grant that the meeting of the Board for June be moved from Wednesday, June 18th to Thursday, June 19th. He will let me know.

I took a taxi to the Chemists' Club and called Lin Lorenz in my LBL office to be brought up to date on correspondence, phone calls, etc., and returned a call from Bill Fretter (about Cecil Green's meeting), and then had lunch at the Club with Nils William Olsson and Lena Bjork-Kaplan to discuss plans for the SCA Board meeting and dinner, at which Marcus Wallenberg will speak, Wednesday, April 9th, in New York. We agreed to start the SCA Board meeting at 10 a.m. at the Swedish Consulate, have a sandwich lunch there, conclude by 2:30 p.m., and go to Swedish Church for afternoon coffee and tea. The dinner at 7 p.m. will be at the Swedish Consul General's residence. After dinner, at the table, Consul Bengt Friedman will speak and then I will speak (describing explicitly the objectives of the Swedish Council of America). Coffee is planned in another room. Nils William Olsson and Lena Bjork-Kaplan will send me some suggestions for explicit objectives of the SCA. The dinner is for "Presidents of Swedish subsidiary companies in the U.S.A." Lena Kaplan has identified about 35 companies (and presidents), with the help of Tomas Eriksson (Managing Director, Swedish Chamber of Commerce of the U.S.). Lena is also conferring with the Swedish Trade Office. Lena will phone each of these invitees next week to alert them to their impending invitations to the April 9th dinner. She will also make the arrangements for the SCA meeting, visit to the Swedish Church, dinner at the Swedish Consulate residence, etc. Nils William Olsson will send me the agenda for the SCA Board meeting for my approval. I agreed to write a letter to President Carter protesting the proposed closing of the U.S. Consulate in Gothenburg.

After a short conversation with Paul Steiner (Maitre d' at the Chemists' Club) and Joseph Spalino (new Manager of the Chemists' Club) I took a taxi to the Kennedy Airport, where I boarded TWA Flight #47, which left at about 4:30 p.m. and arrived at San Francisco International Airport at about 7:40 p.m. Dave met me and drove me home. I read the mail that had accumulated during my absence.

Thursday, February 28, 1980 - Berkeley

At 8:30 a.m. I received a telephone call from Mark Jacobs, Dreyfus Third Century Fund, regarding my suggestion that the June Board of Directors meeting be changed from Wednesday, June 18th, to Thursday, June 19th. He had taken a poll of the Directors and it was not possible to change the date.

At 8:40 a.m. Glen Brolander (Augustana College and member of the Swedish Council of America) called about a letter I received from Thomas Tredway, President of Augustana, inviting me to accept an honorary degree and present the Commencement address on Sunday, May 25th. I told Glen I will accept the invitation and he will advise Tredway accordingly. Glen said that all activities, beginning with Baccalaureate exercises at about 10 a.m. and ending with the Commencement ceremonies at 3 p.m., will be on Sunday. There is a flight out of Molene to San Francisco via Denver which leaves at 5:50 p.m. that I will try to schedule. Hotel reservations for Saturday, May 24th, will be made for me by Glen. I told him about the luncheon I had in New York

with Nils William Olsson and Lena Bjork-Kaplan and that we laid out plans for the April 9th meeting of the Council. Glen is on the committee (serving with Ed Lindell and Nils Hasselmo), who will select the 1980 recipient of the Nobel Travel Award.

I returned Clarence Mayhew's call of last week and he told me he had secured a weekend pass for Edward Teller at the Bohemian Grove and he said that Teller will be staying at the Wayside Log Camp. His meals will be provided free in return for a speech by Teller on nuclear power plants on Saturday, July 26, 1980. Clarence suggested that Teller and I go up together and I agreed to call Teller and work out the arrangements.

At 9:30 a.m. I returned a call to Werner Hersch. We discussed the University system and then he told me that he was involved in a job with the DOE and Rand Corporation trying to assess the charge to public utility companies for turning over their spent nuclear fuel to DOE. He asked me about Research and Development money, regardless of whether it was for peaceful or military purposes, which had been allocated to storage and disposal of nuclear waste by the AEC. I said it would be difficult to assess, except for the fact that military processes during the war, and for some time after, used different processes than the utilities adopted later on their nuclear fuel. I told him that both the fuel for nuclear reactors and for military uses were processed for a long time by the Purex process. Before that, the Redox process was used and during the war, the Bismuth-Phosphate process was used. I told him to contact John Erlewine and Robert Hollingsworth, who were closer to the allocation of funds for that purpose during the AEC years than I was. I also suggested he contact Frank Pittman. Hersch then asked if I would be a consultant for the Rand Corporation as this project moved along. I told him I could be contacted by phone, but not otherwise. He told me that President Carter's stand to pay the public utilities a lump sum fee was causing many problems. Hirsch said it would be easier if the utilities were made to pay some sort of annual fee.

At 9:50 a.m. I called Mike McReynolds, who told me the San Francisco and Alameda Board of Supervisors gave unanimous approval to close two lanes on the upper level of the Bay Bridge for HikaNation on Sunday, April 13th. He explained he had sent letters for multi-signatures addressed to all the members of the Transportation Committee in the California Assembly. He said I should run off more copies if I could get more than 26 people to sign the letters. Mike told me that Mayor Lionel Wilson of Oakland was very eager to help with HikaNation and suggested enlisting his support with EBMUD and AC Transit. I told him, that at first, he should deal directly with Walter Goggin. Mike told me that he had been approached by the leader of Disabled Athletes, who wanted his group to be allowed to accompany the hikers across the Bay Bridge. Mike said they will allow only those who are able to handle the strenuous nature of the hike. We discussed the article which will come out in the April issue of Sunset Magazine in two or three weeks.

At 11:05 a.m. I returned a call from Joseph Swidler regarding a meeting of the advisory board (of which I am a member) for a national conference on energy, "Energy for the 80's", which is scheduled for Tuesday, March 4th, in Washington, D.C.. I told him I had just returned from a trip to Washington and New York and could not make another one so soon. He asked to have lunch with me when I am next in Washington.

I received letters from Jane Olson (Editor of American Scientist), one from Saxon thanking me for participating in the Youth Symposium for the AAAS meeting, and from Don Harless of Science Service with an invitation for me to attend an energy conference in Milan, Italy.

At 2:20 p.m. Michael Stiefel, a graduate student from MIT, called to interview me for his thesis on the breeder reactor program. He asked about several people, who were initially involved in the program, whether there had been serious disagreements about the program within the AEC, about Battelle's management, problems in obtaining funds for the program from the Bureau of the Budget, how the Clinch River site was determined, why the breeder reactor program could not get as much federal support in moneys as NASA and the JCAE, and how the national laboratories felt about the breeder reactor program and to what I attributed my rapport with President Johnson.

At 2:35 p.m. Ken Thomas called me from Los Alamos to discuss his thesis. He said he had heard from several sources that Walter Loveland was going to write up his thesis findings and he wanted to write them up himself separately for publication. I told him that would be fine and I had suggested it to Loveland only because I thought that he (Ken) wanted some help and that I hadn't seen any written material from him. I said his results were timely but the longer he waits to publish it, the less of an impact it will make. I urged him to get something written quickly and he will send me some drafts early next week. We talked about Kim Williams Thomas and their involvement in building a new house.

At 3:15 p.m. Professor Fred Wilt (Department of Zoology) called on behalf of the Academic Senate Committee on Committees and asked if I were willing to serve another year on the Clark Kerr Award Committee and I agreed to do so.

At 3:30 p.m. I walked to Latimer Hall to pick up my mail and walked back to my LBL office.

When I arrived home at 5:30 p.m., I found Edward Teller had returned my call. On behalf of Clarence Mayhew, I invited him to be a guest at Wayside Log Camp that weekend and on July 26th, speak at 4 p.m. at the Bohemian Grove Encampment. He accepted the invitation.

I rode with Emilio Segrè from my home to University House to attend the black tie Thirteenth Annual Dinner of The Berkeley Fellows. I was inaugurated into membership along with James D. Hart and Walter A. Haas, Jr. (Catherine S. Kerr and William M. Roth, also new members this year, were not present.) Among those present at the dinner were: Chancellor and Mrs. Albert Bowker, Ida W. Sproul, E. Morris Cox, Sanford S. Elberg, Christian E. Markey, Jr., Ralph L. Edwards, James H. Doolittle, Walter E. Hoadley, Knowles A. Ryerson, Garff B. Wilson, Thomas C. Blaisdell, Mrs. Gerald H. Hagar, Edmund G. Brown, Mrs. John E. Mock, Sylvia McLaughlin, Donald H. McLaughlin, Herman H. Phleger, Louis P. Martini, Louis H. Heilbron, Mrs. Roger W. Heyns, Wendell W. Witter, Maynard J. Toll, Willard F. Libby, Stanley E. McCaffrey, Harry R. Wellman, Wakefield Taylor, Rudolph A. Peterson, Stephen D.

Bechtel, Sr., Eugene E. Trefethen, Joel H. Hildebrand, Lynn O. Waldorf, Josephine Miles, Edward W. Strong, Ewald T. Grether, Robert H. Gerdes, Elinor R. Heller, W. Bryon Rumford, and Preston Hotchkis. I sat at a table with new members James Hart and Walter Haas, also with Louis Martini, Herman Phleger, Albert Bowker, and Ida Sproul. I had a delightful conversation with Ida, who recalled for me the great friendship between Eric and her grandson, Richard. After dinner Chancellor Bowker made some welcoming remarks and then gave brief biographical descriptions of new members Haas, Hart and me. In his description of me he emphasized that the reason I had not been elected a member of The Berkeley Fellows earlier is that I had not been eligible; he said, facetiously, that the standards were very high. He did say that I was now eligible because I had formally reached emeritus status, although I still was active as a professor in many areas. He referred to my service with the University from instructor to University Professor and Faculty Athletic Representative to Chancellor. He also mentioned my scientific accomplishments and service as Chairman of AEC.

He called on Wakefield Taylor (Chairman of Selection Committee for The Berkeley Fellows), who made reference to the fact that this was the last dinner for The Berkeley Fellows to be hosted by Chancellor and Mrs. Bowker. He said that a call for contributions by The Berkeley Fellows to be applied towards a gift for the Bowkers had resulted in a tremendous response and, thus, they were in a position to make two nice presentations. He made the presentation of a large set of Waterford crystal goblets; this presentation was followed by Ralph Edwards, who in his usual humorous vein, and with the help of Garff Wilson and Stanley McCaffrey, presented the Bowkers with a large Magnavox stereo system. Albert and Rose Bowker responded with some emotional remarks and expressed their appreciation and their regrets at leaving. I took home with me, as is traditional, a wine glass inscribed with the information that this was the 13th Annual Dinner meeting of The Berkeley Fellows, dated February 28, 1980. I then rode home to Lafayette with Emilio. Helen arrived home from her trip to Washington, D.C., at about 11 p.m.

Friday, February 29, 1980 - Berkeley

I wrote a letter of congratulations to Cyril Ponnampereuma for his involvement in the Indian Workshop and told him his draft proposal for the India/U.S. Cooperative Research in Chemistry looked fine to me. I wrote Marian Watry (Manager of the El Dorado County Chamber of Commerce in Placerville) enclosing a detailed itinerary for HikaNation and sent copies to Jim Kern, Craig Evans and Monty Montgomery. I wrote Joe Bort of the Alameda County Board of Supervisors and sent an autographed picture to Raymond Doyle, Jr. at his request.

At 8:55 a.m. I called Clarence Mayhew and told him Edward Teller called last evening. I told him that Teller agreed to give a talk at the Bohemian Grove and is expecting a letter with details from Mayhew. I told him there is a slight problem to be worked out regarding travel to the Grove since Teller will be in Monterey on Friday of that weekend, and transportation will have to be arranged.

At 9 a.m. I returned a call to Al Gbiorso. He is mystified as to why Dubna scientists didn't see 16 m.s. S.F. ^{242}mAm in their bombardments of ^{232}Th with ^{76}Ge ions,

which throws doubts on the validity of their experiments (i.e., their claims of setting limits in the cross sections for producing SHE).

At 10 a.m. I walked down to campus to hold my regular office hour in Latimer/Room 446, from 10 to 11 a.m. I then held my discussion section in Room D. I then walked back to my LBL office.

I accepted an invitation from Sessler to serve on the committee for the 50th Anniversary of LBL as an Honorary Adviser. I sent a copy of a very encouraging note I received yesterday from Harlan Kessel and Sheila Berg to Ben Loeb.

I had lunch with Albert Ghiorso in the cafeteria regarding publication of our book. We discussed our plans for ^{76}Ge bombardments (La target to make Ac and fission products, U plus ^{76}Ge , etc.)

From 2 p.m. to 3 p.m. I met in my office with Ken Moody, Diana Lee, Michael Perry, Martin Schulman and Rose Marie McFarland to plan our ^{248}Cm plus ^{136}Xe bombardments at the SuperHILAC on April 6th. We also plan to participate in Al Ghiorso's experiment, U plus Ge, to look for lanthanide fission products. After the meeting I talked to Rose Marie McFarland. She is considering looking for transfer products from ^{197}Au plus ^{18}O and ^{186}W plus ^{18}O , instead of working in the lanthanide region. Yuan Lee dropped by to discuss the status of choice of Director for LBL. He is concerned about the opposition in the Department of Chemistry to the leading candidate, but I suggested that this opposition can be counter-productive because we need to prevent a really undesirable appointment and I am in a position to work on this.

I called Mel Smothers and talked to Mrs. Smothers. I learned that they now have decided not to sell their house near Strawberry Lodge. I called Peter McMullen and learned we have bought Strawberry Market and Garage. Peter said he had reached an agreement with the Madsens to keep Mrs. Olmsted from participating in the everyday duties of operating Strawberry Lodge (her busybody activities annoy the staff). He also told me that he may have convinced the Madsens to take out a bank loan on Strawberry Lodge and expand the ownership to five people (add Peter McMullen and Mike Ulrich) of equal equities (20% each).

I received a thank you letter from Mike Perry. I signed a letter concurring with the International Activities Committee that the ACS not serve as a sponsoring society for the Fourth International Conference on Collective Phenomena.

At 4:15 p.m. Luo Cheng and Chang Yu-man came in for a picture with me. Chang Yu-man is a nuclear engineer attending UCB, who lives with the Mac Laetsch family.

I rode with Dick Miller (Davis, Skaggs and Company, and a friend of Dick Frankel) to the Treasure Island Officers' Club to attend the Founder's Day banquet of Pi Kappa Alpha (founded March 1, 1868, by ex-cadets, participants in the Civil War battle of New Market from Virginia Polytechnic).

I met Bill Callender, organizer of the banquet, and many active and alumni members of the Alpha Sigma chapter. I sat at the head table with Peter Kane, (President of the Alpha Sigma Chapter, and who had visited me in my Latimer Hall office to invite me to visit their house on Piedmont and Durant Avenue), Paul Swenson (Counselor to the Chapter and graduate student in business administration at Berkeley), Garff Wilson, Lynn O. "Pappy" Waldorf, Tim Hough, and Richard Ralph (directs housing for the national organization). Near the beginning of dinner, Bill Callender introduced Garff Wilson as Master of Ceremonies and he made some welcoming remarks including some history of Pi Kappa Alpha. Later Wilson called on Peter Kane, Paul Swenson, Richard Ralph and me for remarks. I referred to myself as a member of the "Class of 1978", described my impressions of my initiation ritual at the national meeting in San Francisco in 1978, compared this with my initiation into Alpha Chi Sigma at UCLA, and made reference to my contacts with Garff Wilson during my Chancellor days. I concluded with the hope I can visit the Pi Kappa Alpha (Alpha Sigma Chapter) house in the future. Garff Wilson introduced Pappy Waldorf, who gave an inspirational talk on the values of fraternity life, with references to his experiences (including participation in football and crew) at Syracuse University. Finally Garff Wilson called on Paul Swenson and Tim Hough, who presented gifts to a number of people present. I received a bottle of wine.

I rode back to Lafayette with Dick Miller. He told me much about the opportunities for investment in the Laguna venture. I told him about Strawberry Lodge (he was familiar with it from long ago) and my May 17th Sierra Club hike to Mt. Diablo.

Saturday, March 1, 1980 - Lafayette

I worked on some of the slides for my talk next Thursday at the LBL colloquium and I read proof on the final copy for September and October of my Met Lab Section C-I History.

I had lunch in the playroom with Helen and then took a hike to Homestead Valley in Briones Regional Park and back.

I had dinner in the playroom with Helen and Dave (who has moved out of Keystones, and is living with us until he finds a new place to live, probably in Berkeley). After dinner I worked in the study and read Ray Colvig's summary material for my chancellor book.

Sunday, March 2, 1980 - Lafayette

I read reprints, etc., and William Leonard Smith's thesis, "Archetypes for Actinide-Specific Sequestering Agents." I am on his Ph.D. Committee.

I had lunch with Helen in the playroom and later read Chemistry 1B material. It was too rainy to take a hike.

Helen, Dave and I had dinner in the playroom and then watched "60 Minutes" on CBS. I then called the Madsens to discuss the status of things at Strawberry Lodge. During the evening I worked in the study.

Monday, March 3, 1980 - Berkeley

At 9:20 a.m. Gordon Bixler returned my call. He said they received 12 inches of snow in Washington, D.C., yesterday, but today things are moving again. We talked about funding for the International Chemical Society members and how we seem to have "struck out" in obtaining funds for foreign members' travel needs. He asked if I would call Thomas F. Malone at the National Academy of Sciences about the matter and I said I would think about it. Gordon and I discussed the Annual Report for the ACS for 1979 to be published in the C & E News at the end of April. I gave him my corrections (including putting future tense into past tense for the Indian Workshop--held January 1980); we discussed the Houston agenda and the additions that Gordon had. He said that Marjorie Gardner would be talking about international education and that Cyril Ponamperuma wants to talk about Sri Lanka and ChemRAWN II. Gordon told me he has been approached by the Membership Affairs Committee. They insist that persons wishing to present papers at the ACS meetings have to be members of the ACS (if American) and if they are foreigners, membership isn't required. Gordon also told me the meeting has to start at 2:30 p.m. because the room can't be reserved for 2 p.m. or earlier. The Awards Banquet will be held Monday evening at 6 or 6:30 p.m. Gordon informed me that everyone who had voted had voted in favor of the Hwa endorsement except David S. Breslow, who abstained.

I went to the reception in the Director's Conference Room for the visiting Chinese High Energy Physicists delegation. The group included Feng Si-chang, Fang Yi-ping, Zheng Min and some other Chinese. From LBL, those present included Earl Hyde, Iz Perlman, Hermann Grunder, John Rasmussen, Walt Hartsough, Lee Wagner, and one other. Earl Hyde gave a description of the Laboratory and its history with references to Feng's work here. Feng then responded with many reminiscences of his work here (1949-1952) with such references to Iz Perlman, who was his research director, and to me (in my capacity as Director of the Nuclear Chemistry Division at that time).

At 11:30 a.m. I received a call from Professor Christopher Foote, Chairman of the Department of Chemistry, UCLA. He asked if I could attend a two-day symposium commemorating 50 years of chemistry at UCLA. This event is scheduled for Monday and Tuesday, June 2-3. On Monday evening Alpha Chi Sigma will present the second annual "Glenn T. Seaborg Research Award" and they will be in touch with me regarding plans for that evening. Professor Foote was not sure at this point what part they will want me to play in the proceedings but he asked if I would be willing to give a talk sometime during the symposium. The format has not yet been worked out. All UCLA alumni will be invited to attend and the list of alumni (from the Department of Chemistry) is very imposing (according to Foote). The event will be widely publicized. I said I would put this on my calendar and wait to hear more details from the Alpha Chi Sigma organizers. We then talked about plans for an endowment fund in memory of my good friend from UCLA student days, Saul Winstein. I said I would be happy to help with this effort.

I went to the Faculty Club for lunch with the chemistry department faculty and I sat at a table with John Rasmussen, Iz Perlman, Feng Si-chang, Fang Yi-ping and Zheng Min, from the High Energy Physics delegation from the People's Republic of China--Feng is the head. John Rasmussen introduced Feng, who made some reminiscing remarks about his days at Berkeley and referred to John Rasmussen, Iz Perlman, Joel Hildebrand and me.

After the luncheon I went to Ken Pitzer's office to discuss our forthcoming meeting (to be held at the San Francisco Hilton Inn, two weeks from today--March 17th) with the Regents Advisory Committee on the choice of a director for LBL. We agreed to support the recommendation of the Advisory Committee (David Shirley), which is apparently being opposed by a couple of the Regents.

At 1:30 p.m. I talked with Jane Olson (editor, American Scientist) regarding my manuscript, "The New Elements." She told me that the copy-edited manuscript is on its way and asked that I look at it immediately in order to facilitate the article's appearance in the May issue of the magazine. I said I could even call her with changes or comments if that would be of help. We discussed their process for reproducing the illustrations. They will use their own style of lettering but will reproduce the periodic tables faithfully. They will send me proofs of the illustrations. Undiscovered elements will be shown in a slight change of color, which will make them easily discernible to the reader. She asked for slides or negatives for my color illustrations.

At 2 p.m. I called Ray Colvig to tell him how much I enjoyed reading the material he sent covering four months of my chancellor days; it was an exercise in nostalgia. I told him the idea of including a sample of one day's letters was good and the day he picked was especially interesting because of the scope of the letters received. He is ready to send more material.

I received a note from Darleane Hoffman today. She enclosed responses from James E. Leiss and James S. Kane in the DOE to the letter from the ACS Division of Nuclear Chemistry and Technology requesting that a branch of Nuclear and Radiochemistry be established within the Chemical Sciences Division of BES (attached). Both Leiss' and Kane's responses were not favorable, and Darleane found their response discouraging and lacking in understanding of general radiochemistry and the relatively low amount of funding in the U.S. for such studies.

I sent a letter of support for Pat Somerville for a postdoctoral appointment and one for Catherine Webb. I also wrote a few letters responding to requests for information on HikaNation and also requesting reservations for hikers for the picnic area near Aquatic Park and the Mt. Danaher Ranger Station near Camino, California.

At about 3:30 p.m. I went by Building 70. Ken Moody, Pat McGaughey, Marty Schulman and Rose McFarland were putting new grounding leads in for the gamma detection systems, which was improving the resolution. I also talked to Diana Lee about her continuing calculation of actinide yields from ^{248}Cm plus ^{136}Xe , and to Luo Cheng about the picture-taking with his PRC colleagues tomorrow morning. I talked to Bernard Harvey about the impasse that is developing with two of the Regents on the Advisory Committee for the selection of the Director of LBL.

Helen and I drove to the home of Ken and Bonnie Madsen in Saratoga to have a discussion with the Madsens, Peter McMullen, Kim and Charles Olmsteds and Mike Ulrich about the present status and the future plans for the Strawberry Lodge enterprise. A settlement needs to be made with the Adamis, then we will go ahead with refurbishing the motel. Work has been started on our cottage and we are in the process of purchasing Strawberry Market-Garage. We are negotiating with Trevor Thomas regarding purchase of Strawberry Meadow and the land behind the motel and market. We need to secure more financing, possibly through more partners (Ulrich, McMullen) or a loan, in order to make these purchases.

Tuesday, March 4, 1980 - Berkeley

At 9:40 a.m. I called Harlan Kessel regarding the possibility of University Press publishing my book, Kennedy, Krushchev, and the Test Ban: An Eyewitness Account. I told him about my visit with Averell Harriman, his willingness to make his files available to us (covering his stay in Moscow during June, July and August 1963, while he was the chief negotiator for the Limited Test Ban Treaty), and his agreement to write the foreword for our book. Harriman believes that such a book should be written and since it is being written it ought to be complete; further, he is an old friend of mine and, on the basis of these considerations, he is cooperating fully with Ben Loeb and me. I then told him that I have a very rough first draft of the final chapters, which are subject



Department of Energy
Washington, D.C. 20545

February 12, 1980

Dr. Darleane C. Hoffman
CNC-Division, MS-760
Los Alamos Scientific Laboratory
Los Alamos, New Mexico 87544

Dear Dr. Hoffman:

In your letter to me of November 30, 1979, you express concern regarding DOE support of nuclear and radiochemistry, and specifically propose the creation of a Nuclear and Radiochemistry Branch in the Division of Chemical Sciences of BES. Your letter points to the many contributions of nuclear and radiochemists in the study of the nucleus and in the development of the applications of nuclear technology. You also express valid concern regarding the decrease in the numbers of new graduate students in nuclear and radiochemistry.

Your letter also expresses views regarding the future management of those activities which constitute the DOE Nuclear Sciences program. In this connection I should point out that recent changes at DOE in the Nuclear Sciences program relate to how this program is managed, not to the scope of the Nuclear Sciences program. There have been no discussions which would imply a change in scope of this program.

I cannot agree that your proposed Nuclear and Radiochemistry Branch in the Division of Chemical Sciences of BES would be sensible. Consider the implications of this proposal. Both this new Branch and the Nuclear Sciences and Nuclear Physics programs are devoted to the study of the nucleus and to the development of methods whereby nuclear techniques may be applied in other areas. Proposals are now judged upon the basis of scientific and technical merit. Consideration is not given to whether the work is proposed by chemists or by physicists. With the new Branch which you propose they would also presumably be judged upon whether the work is proposed by chemists or by physicists. Eventually there would also be pressure to judge proposals by chemists as to whether they use chemical techniques or counter techniques. In my opinion these are not valid criteria upon which to judge proposals for scientific research.

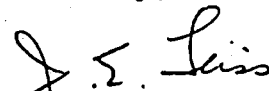
To be very specific about the above comments, I believe that our programs should continue to fund research in areas mentioned in your letter such as nuclear fission, the nuclear properties of actinides, and spallation and fragmentation studies provided scientifically competitive and interesting proposals for such research are received. However, I could not accept the argument that the fact that proposals come from chemists or from physicists should be a consideration.

I would like to comment on two additional and interrelated problems mentioned in your letter. These are the development and application of nuclear techniques in other scientific disciplines, and the growing need for graduates with nuclear and radiochemical training. We see it as part of our responsibility to support new ideas whereby nuclear techniques may be applied in other scientific disciplines to the point where the techniques have been developed and demonstrated. However it is clearly impossible for us to support the continued applications of these techniques in other scientific areas or in major applied programs. To do so would rapidly deplete our budgets for the support of new nuclear research. A real problem does exist in how to get applications of these new techniques picked up by other programs. Here I believe that the University and Laboratory scientists have a major responsibility to sell the advantages of the new techniques which they have developed.

This latter point is closely connected with the problem of attracting and training new students. Students are attracted by exciting science, by opportunity to work on interesting and important problems, by stimulating teachers, and by opportunity for future employment. Since many of the specific opportunities for new research and for employment are in these areas of application, training in this work is clearly an advantage.

In summary, although I am very sympathetic to the problems which you have raised, I do not believe that your proposed solution is a good one, nor do I believe that your proposed Nuclear and Radiochemistry Branch in the Division of Chemical Sciences of BES would have the effect which you desire.

Sincerely,



James E. Leiss
Associate Director for
High Energy and Nuclear Physics
Office of Energy Research

Identical letters sent to:
Dr. Jerome Hudis, BNL
Prof. V.E.Viola, Jr., U of Md.

cc: Executive Committee Members,
Div. of Nuclear Chemistry & Technology, ACS
James S. Kane, BES/OER



COPY

Department of Energy
Washington, D.C. 20545

FEB 8 1980

Dr. Darleane C. Hoffman
CNC-Division, MS-760
Los Alamos Scientific Laboratory
Los Alamos, New Mexico 87544

Dear Dr. Hoffman:

In your letter to me of November 30, 1979, you have raised a truly difficult issue, and it is one that cannot be easily resolved. In brief, you believe that nuclear and radiochemistry should not be managed by the Nuclear Physics program office, but rather should be under a separate Nuclear and Radiochemistry branch of the Chemical Sciences Program. Your position is based on the assertion that 1) proposals by nuclear chemists for studies of the nucleus will not fare well in competition with other nuclear physics research, 2) chemists bring special insight and are a broadening influence on nuclear science, and 3) students trained in nuclear and radiochemistry are in great demand, yet are in short supply.

I do not wish to debate the merit of these points. Indeed, I agree wholly with the last two. But from my viewpoint, there are other, contravening issues; issues that make me very reluctant to do what you suggest. These considerations could lead to diversion of funds from nuclear chemistry, rather than its augmentation.

Competition with Similar Research

All research must compete in some arena. BES is a mission organization; its research must be relevant to some aspect of energy. Moreover, there are priorities associated with the different technologies. Studies on spallation, for example, could have to compete with coal chemistry, combustion, catalysis, photoelectrochemistry and many others. I am convinced that the topics you name -- fission, nuclear properties of the actinides, heavy ion reactions and the production of new isotopes -- will compete far better with other nuclear physics research than with these purely chemical topics. The BES program is justified primarily for its contribution towards meeting the nation's energy needs, while the nuclear physics program is justified on the more general grounds of the DOE's special role in this particular area of science. Fission and perhaps also the nuclear properties of the actinides are clearly germane to the nation's energy needs, but as areas of research I believe that they would be better managed by the nuclear physics program.

Need for Graduates with Nuclear and Radiochemical Training

Your point is valid. Yet BES clearly cannot assume responsibility for scientific manpower training in one area, and not in others. In all areas, the nature of the training BES supports is determined by the choice of research topics, not vice versa. Our BES initiative in the chemical properties of the actinides in natural environments will provide some help.

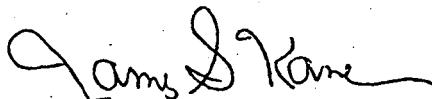
Difficulty with Separate Organizational Structure for Each Discipline

We don't follow this practice anywhere else in BES. For example, our Materials Sciences Program supports work that originates in many different university departments -- physics, metallurgy, ceramics, mechanical and electrical engineering, and chemistry. Chemical Sciences is similarly broad, with elements of atomic physics, molecular physics, chemistry, and chemical engineering, plus others.

We try to structure our organization around logical subject themes, so there is some sort of programmatic coherence. In our view, research related to events inside the nucleus is much more closely related to nuclear physics than to chemistry.

It is for these kinds of reasons that I believe it unwise to restructure BES to accommodate the needs of nuclear and radiochemistry, worthy as the field may be. I believe that the consolidation of the management of the longer range, more basic components of nuclear research into one organization will enable us to give the subject equitable treatment. I will do my best to see that this happens.

Sincerely,



James S. Kane
Associate Director
for Basic Energy Sciences
Office of Energy Research

Identical letters sent to:
Dr. Jerome Hudis, BNL
Prof. V. E. Viola, Jr., Univ. of Md.

cc: Executive Committee Members,
Div. of Nuclear Chemistry & Technology, ACS

to a great deal of change in view of Harriman's involvement but Harlan suggested I send them to Sheila Berg, University Press editor at UCLA, direct. He will call her today and give her a summary of our discussion this morning. The editorial committee meets this Friday, but this is too soon for them to consider my book. The reviews, however, by Berg and perhaps others, will be ready for the committee's meeting near the end of May at UCLA (there are 17 people on the committee). Following their judgment a contract will be offered. I told Harlan I was not interested in making contract negotiations beyond what is normally done. They will assign a sponsoring editor, who will work closely with Ben and me and with whom we can take up particular editorial considerations such as citations, notes, etc. University Press will have front page coverage in the New York Times Review this Sunday. They currently have three best sellers, including two books written by Berkeley people—Leonard Michaels and Tony Nero (author of Guide to Nuclear Reactors).

Cheng Luo took pictures of me with several of his colleagues from the People's Republic of China this morning. Yuan Lee assisted in the picture taking. Those present were Ching-Cheng Hsu (LBL), Guo-Zhong He (LBL), Hsiao-ping Tsao (Physics Dept.), Chu-Han Chang (Civil Engineering), Shang-Yuan Zhou (Nuclear Engineering), and Zhuang-Jian Zhang (LBL). One other person from PRC, Yu-man Chang (Nuclear Engineering) could not be present for this picture today.

I wrote to Justin Bloom in response to a letter he wrote to me (attached). Justin was trying to locate a letter written to Riyokichi Sagane in 1945 just prior to the explosion at Hiroshima. I indicated in my letter that Luis Alvarez had been the author of the letter to Dr. Sagane and that after contacting him, Luis did not wish to resurrect such a communication in light of today's friendly relations between the United States and Japan. I concluded my letter to Justin Bloom by saying that Helen and I would look forward to hearing from him and Robbie when they next come to Berkeley. I then wrote to Professor Lukasz A. Turski (Institute of Theoretical Physics) regarding a statement erroneously attributed to me; I wrote a letter of support of the nomination of Lew Keller for Fellow status in the AAAS and to Frank Bigger granting permission to use a quotation from me for the ACS radio public service announcements for "Earth Day, 1980" (attached). I sent colored slides to Jane Olson (American Scientist), for use with my article on "The New Elements" being prepared for publication by that magazine. I sent drafts of the last two chapters of my book, Kennedy, Krushchev and the Test Ban: An Eyewitness Account, to Sheila Berg, Editor, University of California Press, UCLA.

Darleane Hoffman is here to spend the week and attend the meetings of the Nuclear Science Division Visiting Committee (of which she is a member). I spent about an hour going over our mutual research program with her in Building 70. I talked to Rollie Otto in Building 70; I learned that he did not get the position at U.C. Davis (for which I recommended him).

At 11:45 a.m. I talked with Alfred Sugerman who was representing the Northern California Section of the American Nuclear Society. He asked if I would speak to the group at their next meeting in mid-April or near the beginning of May, which I had to decline because of a heavy schedule. He then asked if I would speak at their final

FEB 1 9 1980



EMBASSY OF THE
UNITED STATES OF AMERICA

Tokyo, Japan

B-2 2/19/80

February 1, 1980

Dr. Glenn T. Seaborg
Professor of Chemistry
Lawrence Berkeley Laboratory
University of California
Berkeley, California 94720

Dear Glenn:

To my great regret, it has been a long time since I have had occasion to write to you. Something has come up recently which I think would be of interest to you more than most people. I was approached recently by a fairly prominent Japanese scientist, Dr. Tetsuzo Kitagawa, who asked me to try to obtain a copy of a letter written by a person at the University of California to Dr. Ryokichi Sagane. Apparently this letter was dropped over Japan just prior to the explosion at Hiroshima and was an effort to persuade the Japanese to surrender. Dr. Kitagawa has heard that a copy of this letter is at some museum in the United States. Unfortunately, since Dr. Sagane died some years ago, Dr. Kitagawa is unable to provide information on the author of the letter or on the museum.

With your fantastic recollection of events just prior to the end of World War II, it occurs to me that you may have some knowledge of this incident or at least could tell me where to go to obtain further information.

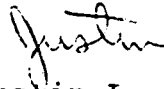
Incidentally, I am translating a paper by Dr. Kitagawa which gives his recollection of a visit by him to Hiroshima just after the explosion in his capacity as a scientist trying to assess the nature of the explosion and the damage caused.

Robbie and I are well and active and we are expecting to take home leave again within the next few months.

We are anxious to see you and Helen and we will certainly stop in Berkeley to do so if our travels take us to that part of the U. S.

With warmest regards,

Sincerely,



Justin L. Bloom
Counselor for Scientific
and Technological Affairs



THE UNITED STATES OF AMERICA

OFFICIAL BUSINESS

Office of Scientific & Technological Affairs
American Embassy (Tokyo)
APO San Francisco 96303

PSA #1
30 SECONDS

MARCH 1980

ANNOUNCER: FORMER PRESIDENT OF THE AMERICAN CHEMICAL SOCIETY
DR. GLENN SEABORG SPEAKS ABOUT OUR ENVIRONMENT AND
OUR DWINDLING NATURAL RESOURCES.

DR. SEABORG: SOCIETY CAN SAVE ENORMOUS AMOUNTS OF ENERGY THROUGH
THE SYSTEMATIC AND HABITUAL REUSE OF MOST OF ITS
RESOURCES. IN THE NEXT DECADE, WE MUST BECOME A
"RECYCLE SOCIETY." AFTER 1985, VIRTUALLY ALL
MATERIALS WILL HAVE TO BE REUSED INDEFINITELY. SOME
WASTES WILL HAVE TO BE CONVERTED TO ENERGY AND OTHERS
TO EDIBLE PROTEIN AND CARBOHYDRATE SOURCES. SUCH
MEASURES WILL BE VITAL TO OUR WELL-BEING AND TO THE
VERY SURVIVAL OF OUR ECONOMY.

ANNOUNCER: GLENN SEABORG, WINNER OF THE NOBEL PRIZE, AND CODISCOVERER
OF 10 NEW ELEMENTS REMINDS YOU THAT THE SECOND
ENVIRONMENTAL DECADE BEGINS ON APRIL 22. THAT'S
EARTH DAY, 1980.

meeting for the year at the end of May in Palo Alto and again I had to decline. He asked me to speak on "Energy Options for the 1980's" or "The Good Old Days."

I met with my Freshman Cluster Group in my Latimer Hall office at noon for our bag lunch meeting; I then attended the pre-lab section meeting in Room 328 from 1-1:10 p.m. After this session I met with Ken Raymond in my office for about 20 minutes. He told me the good news that he has decided (as of yesterday) to remain at Berkeley, rather than accept the offer from Stanford University. I then circulated around Rooms A, B, C, D, E, and F, until about 3:15 p.m. I walked back up to my LBL office, where I talked to Bob Mann of Davis, Skaggs and Company and decided to buy into a Limited Partnership in the Laguna Oil and Gas Program.

Gabor Somorjai called and then came by to discuss his nomination for the 1980 Wolf Foundation Prize in Chemistry. I will write a letter of support. We also discussed the current problems in the selection of the Director of LBL; he supports the first choice of the Advisory Committee.

Bill Smith came by. He started to work at Clorox in Pleasanton yesterday. I signed the title page of his thesis.

At 4:30 p.m. I tried to call Bet Muth at The North Face. She was unavailable so I talked to Jack Gilbert. I told him about the Ski Shop at Strawberry Lodge. I gave him Bob Lingard's name and phone number and he gave me the number of their sales representative, Eric Liske, in that area. I asked if they had rock climbing equipment. He told me that Royal Robbins used to climb Lover's Leap all the time and that he has a store in Modesto, California (but now lives in Colorado). We discussed sleeping bags and I ordered a blue Superlite Large, which he will have delivered to my Lafayette home by UPS.

On the way home I stopped by to see Darleane Hoffman and Diana Lee. They may help Al Ghiorso in Friday's run--²³²Th plus ¹⁸O to look for ²⁴⁴Am.

Helen, Dave and I had dinner in the playroom. We were pleased to learn, from TV news, that John Anderson is leading the Republican primaries held in Massachusetts and Vermont today. After dinner I worked in the study.

Wednesday, March 5, 1980 - Berkeley

At 9:25 a.m. Robert Penneman called me to ask if the revision of our book, The Chemistry of the Actinide Elements, had been published because he has received a request for a reprint. I told him that it had not been published and that I have sent out a list of chapters and authors. We discussed his chapter, which he is now bringing up to date, and he told me that he will travel to Argonne to work with Joe Katz for a few days on the book.

I sent the draft of our Foreword for Averell Harriman's possible use to Harlan Kessel for our book, Kennedy, Krushchev, and the Test Ban ... and asked him for any comments. Among the correspondence today was a letter to the Oakland City

Planning Commission on behalf of CUWA, a congratulatory letter to Dorr Etzler (who is retiring from Chevron in May), and a retirement letter for Stephen Lawroski to be presented to him at a special ceremony in his honor (attached). I wrote a letter of appreciation to the El Dorado Board of Supervisors for their resolution endorsing HikaNation and to Aaron Wildavsky to draw his attention to an excellent article, "Some Comments on Risk Assessment," in NRC's 1979 Current Issues and Studies. I received an interesting letter today from Vitalii Goldanskii and one from Professor von Dincklage (who was recently at LBL doing an experiment for Knut Bächmann's group in West Germany).

I held the regular biweekly luncheon meeting of my heavy ion radiochemistry group in my office. Present were Al Ghiorso, Rollie Otto, Walter Loveland, Darleane Hoffman, Iz Perlman, Cheng Luo, Pat McGaughey, Marty Schulman, Ken Moody, Diana Lee, Yoshi Morita, and Rose McFarland. Al Ghiorso reported on his plans for his U plus ^{74}Ge experiment. Rollie Otto (in this experiment) reported on his plans to chemically separate a fraction, perhaps Ta, and do recoil experiments to establish whether fusion occurs. Rose McFarland described her attempts to find a good system to study transfer reactions (formal transfer of ^{11}Be , etc.) in the region of $Z = 75-80$. I went over plans to prepare abstracts for the August ACS meeting in San Francisco.

I called Norman Tuttle to get advice on how to foreclose on Philip Wirthman if he doesn't meet his due payment for the two acre piece of Orinda land we sold him two years ago.

At about 3 p.m. Jerry Howland dropped in to say hello.

I checked the manuscript for my article, "The New Elements," prepared for publication by the editors of American Scientist.

Helen, Dave and I had dinner in the playroom. After dinner I worked on my two speeches for tomorrow.

Thursday, March 6, 1980 - Berkeley

I sent a letter to Bob Mann (Davis, Skaggs & Company) to formalize my purchase of a Limited Partnership in Laguna Petroleum Company. I sent a note to Jane Olson (Editor, American Scientist) along with my copy-edited manuscript for my article, "The New Elements." I dictated several letters to Lin that are going to various Ranger stations along our HikaNation California route together with detailed itineraries and answered some requests for general information.

I had lunch in the cafeteria with members of the NSD Visiting Committee (Benjamin Bayman, Henry Blosser, Darleane Hoffman, Arthur Kerman, J. Rayford Nix and Paul Stelson) along with some NSD staff members.

=====

486-5661

March 5, 1980

Dr. Stephen Lawroski
Argonne National Laboratory
9700 South Cass Avenue
Argonne, Illinois 60439

Dear Steve:

I understand that you are retiring from Argonne National Laboratory. I cannot let this occasion go by without some comment.

Our close association began at the Metallurgical Laboratory more than thirty-five years ago. Working in my Section C-I, you were responsible for the Redox Process which played such an important interim role at Hanford in the years following World War II.

However, our association (I might say this included my Helen), goes much beyond those strenuous days in the laboratories of New Chem and the West Stands. Our taxing six-day a week work schedule was punctuated by our torrid golf matches on Sundays which took place no matter how foul the weather (because after all, we were limited to this one recreation day per week - regardless of rain or shine). My conscience still hurts me about that occasion at Timber Trails when I forced you to play out of a deep very narrow trench (it really should have been ruled an unplayable lie), thus adding about ten strokes to your total which I needed in order to beat you.

Helen and I certainly appreciated your coming all the way to Lafayette, California to attend the reunion after thirty-five years of the old Met Lab Sec. C-I gang. This was a pleasant experience in nostalgia and we enjoyed having you with us.

We wish for you a happy and productive "retirement" and look forward to seeing you on many occasions in the future.

With warmest regards,

Cordially,

Glenn T. Seaborg

GTS:pj

From 1:15 p.m. to 1:50 p.m. I presented the NSD Visiting Committee with a report on the work of my research group at the Bevalac, SuperHILAC, and 88-Inch Cyclotron .

Ben Loeb called at 3:10 p.m. and said he had just come from looking at the material that Averell Harriman had placed at our disposal and he was very excited. He said that the material is very rich in information including daily long cables between Harriman and President Kennedy with detailed responses by Kennedy. This means that there will need to be considerable revision of our book both to our dismay and great delight.

Then Marcus Wallenberg called from Seattle, Washington. He thanked me for the invitation from the Swedish Council of America to speak at our dinner in New York on Wednesday, April 9th, and asked on what subject he should speak. I told him that it was entirely his choice, that Swedish-American relations in the industrial field would be a good subject, adding that we were very interested in what is going on in Sweden, such as their energy situation, the vote to be taken on March 23rd regarding nuclear power plants, in fact, anything that he wishes to say at all would be fine. We discussed the upcoming vote in Sweden and he expressed his great concern about the amount of emotional propaganda used in Sweden regarding nuclear energy and the reluctance of many people to vote at all. He then asked me about the composition of attendees at the dinner on April 9th. I told him that we would have a list sent to him describing and identifying those people who will be present on April 9th. I said there would be about 30 people present, and the dinner may be held at the residence of the Swedish Consul General in New York on Park Avenue. He will speak for about 20 to 30 minutes and invite questions. In closing he invited me to attend the award ceremony in his honor at Georgetown University in Washington, D.C., on April 10th, and also to have dinner with him and others at Ambassador Wachtmeister's residence. I said I will try to work out my schedule to do this.

I wrote a note to Lena Bjork-Kaplan to tell her about my conversation with Wallenberg.

At 4:10 p.m. in the Building 50 auditorium I gave a talk at the LBL Colloquium series entitled, "Invitation to Adventure - Blazing a Footpath from the Golden Gate to Nevada," illustrated with about 150 slides. I was introduced by Ted Kirksey. My talk was followed by a question and answer period. I made available a number of short forms of the California itinerary and had a number of people sign letters to California state assemblymen asking their support for the bill giving permission to walk across the Bay Bridge on Sunday, April 13th.

I returned to my office and went by to talk to Walter Loveland in Building 70. I then attended a reception for the NSD Visiting Committee in Room 191.

Helen, Dave and I had dinner in the playroom, after which I worked in the study.

Friday, March 7, 1980 - Berkeley

Eric arrived at San Francisco Airport at 3:30 a.m., where he was picked up by Helen. He is here to attend the wedding of Dennis Byrne in Ukiah on Saturday. (Dennis was his roommate at Davis.)

At 8:30 a.m. I called Gordon Bixler to discuss the material that he recently sent me concerning Stan Kirchner's travel money to Bangkok. Gordon suggested that I write Ray Mariella and request funds; he told me that Stan told him he would only need about \$300 to cover the three days in Bangkok and the difference in air fare from Bangkok to Peking, China, where he will be on April 20th. I said that I didn't want to go before the Board to ask for a small sum like that. Gordon said that the only other question he had was the title Stan should use for travel--if he were a representative of the ACS' International Chemical Society Subcommittee, then it would have to be brought before the Board. Gordon told me that Mathias no longer needed funds because he was getting money from his research council and the only two people left who needed money were Sherman Thomas and Messan Adgangba from Africa. We discussed the letter from Fritsche who gloated over the ACS vote, which was unfavorable to the International Chemical Society. I told Gordon that we should write a letter to counteract his letter. We will discuss this with Stan Kirchner.

I went by Building 70 and found Diana Lee and Luo Cheng working on the separation of an Am fraction from their ^{232}Th plus ^{18}O bombardment early this morning. I also stopped by to talk to Walter Loveland. I walked down to my Latimer Hall office for my regularly scheduled office hour from 10-11 a.m. I then attended the laboratory discussion section from 11-12 noon in Room D.

Upon my return to my LBL office I conferred with Darleane Hoffman about our paper on our ^{248}Cm plus ^{18}O work and our abstract on this work for the August ACS meeting in San Francisco.

At 12:25 p.m. I returned an earlier call from Nils William Olsson. He told me that Bengt Friedman wants to do his own invitations to the April 9th dinner on Consulate General stationery but that the Swedish Council of America would be mentioned. Nils told me that the conference room would be available for us at 10:30 a.m. and then he read me the letter he will send out to all the Board members this afternoon. The only correction I made was his use of the term "... and a few specially invited guests." He will delete the word "few". He also told me about an added agenda item involving the Participatory Group of the Council--which consists of the Swedish Historical Foundation of Philadelphia, the Detroit Swedish Council, the American Swedish Institute and the Swedish Pioneer Historical Society--according to the suggestion of Maynard Hasselmo. We discussed the meeting which Curtis Carlson will have on April 1st or 2nd on the implementation of the awards and it will be an agenda item for the April 9th Board meeting.

I told Nils about the call I received from Marcus Wallenberg and that Wallenberg had invited me to a dinner the following night at the Swedish Embassy and the award ceremony at which Wallenberg will receive an honor at Georgetown University the

following afternoon (April 10th). I told Nils that I expected to be able to attend both of these though it would be difficult.

I then went to lunch in the cafeteria with Al Ghiorso. At 1:15 p.m. I called Mike McReynolds to check if he had spoken to Walter Goggin about getting permission to cross the EBMUD water pollution control plant grounds. He told me that he hadn't and didn't see a need to bother him. Mike said that by walking two blocks around we could bypass the EBMUD property entirely. I asked if he had received a copy of the letter from Cal Trans' B. Bechtold. Mike said that Lin had sent it to him and he was taking care of Bob Cashion. Mike then requested that we send all future correspondence on the HikaNation to his office rather than to his home.

At 1:20 p.m. I talked with Jeff Friedman, Dreyfus Third Century Fund. He called to get verbal consent from all the Directors to acquire a stock interest in CETUS, one of the three or four private companies involved in DNA work. This company is headquartered in the Palo Alto area (near Stanford University) and Donald Glaser, Peter Farley, Ronald Cape, Joshua Lederberg, and Carl Djerassi are some of the people involved in this company now doing work on interferon, not only in a pharmaceutical process but also for industrial oriented processes for chemical products from nonpetroleum sources (feed stocks, etc.). They have no present plans to go "public" but through E. F. Hutton Company are in the process of raising some \$55 million dollars through institutional offerings. An informational package will go out to Directors next week and the company will be discussed at the next Board meeting. I gave my consent.

At 1:30 p.m. I returned a call from Dr. Kaftan (Gene Resource Conservation Program of the Bodega Bay Institute) who asked me to lead a movement to have Nobel Prize winners endorse their program and I indicated that I did not think that Nobel Prize winners would want to do this because they are very reluctant to use the Nobel name in any such actions. I suggested that he get in touch with Melvin Calvin on an individual basis to see if he could enlist his support. He will send me more information.

From about 2:30 p.m. until 3:10 p.m. I met with Fang Yi-ping, Feng Xi-zhang, and Zheng Min from the People's Republic of China, accompanied by Lee Wagner. Fang Yi-ping and Feng Xi-zhang told me that they had heard me speak at the Institute of Physics in Peking during 1973 and also had heard me speak during my 1978 visit. They are going to the Houston meeting of the ACS. Fang Yi-ping is a radiochemist turned into a high energy physicist. Fang and Zheng were working at the Institute of Atomic Energy in 1973. Fang said he had asked to see me but was not allowed to see me on that visit due to the "Gang of Four."

I sent letters with detailed HikaNation itineraries to Jeannie Harmon, Mike McReynolds, Monty Montgomery, Barbara Leighly, Craig Evans, James Kern, and Richard Warnick. I wrote to Ed Broden and told him that my schedule will allow me to attend the Board of Governors meeting of the American Swedish Historical Foundation and Museum during the early afternoon of Friday, May 23rd, and I sent Professor Arnikar, University of Poona, Pune, India, my permission to use a limited number of decay schemes from our article in Reviews of Modern Physics, 1958 Vol. 30, p. 585, for use in his textbook, Elements of Nuclear Chemistry.

At about 3:30 p.m. I conferred in my office with Rose McFarland about an abstract for her talk, "Transfer Reactions of ^{18}O on Heavy Target Nuclei."

I talked to Darleane Hoffman about the hopes of some of us for a booster for the SuperHilac or other means at LBL to obtain heavy ions up to 10 to 50 MeV/nucleon region.

I called Peter McMullen at Strawberry Lodge to get up to date.

Ben Loeb called and told me he has been reading and summarizing the Harriman material via tape. I agreed to pay his daughter (soon coming home for vacation) \$4.25 an hour to transcribe the tapes if she wants to do it.

I went by Building 70, and found Diana Lee and Luo just finishing the separation of the Am fraction from this morning's ^{232}Th plus ^{18}O bombardment. They will look for gamma-rays from ^{244}Am .

Helen, Dave and I had dinner in the playroom. I worked in the study during the evening.

Saturday, March 8, 1980 - Lafayette

Helen and I took a hike in Mt. Diablo State Park. Starting a little after 11 a.m. at the Donner Canyon Gate (at Regency Woods) we hiked the Middle Trail, then on to Big Spring, and back via Meridian Ridge. We arrived back a little after 4 p.m. We had our backpack lunch at a spot along Middle Trail.

Helen, Dave and I had dinner in the study. We watched a National Geographic show on Channel 9 on the wonders of photography. After dinner I worked in the study.

Eric and Bill Sprotte, back from the wedding and post-wedding dinner in Ukiah, arrived at about 10 p.m. Bill, as well as Eric, spent the night with us.

Sunday, March 9, 1980 - Lafayette/Kansas City

Helen, Eric, Bill Sprotte, Dave and I had breakfast in the kitchen. I give Eric, Bill and Dave summary material on HikaNation.

Helen drove me to San Francisco International Airport where I boarded TWA Flight #408, which left at about 12:30 p.m. and arrived at Kansas City, Missouri, airport at about 5:45 p.m. I was met by Leonard and Jeannie Archer (he is a chemistry professor at Missouri Western State College, MWSC), who drove me to the Ramada Inn in St. Joseph. Here I checked into Suite #226. Richard Schwarz (Chairman, Department of Chemistry, MWSC) joined the Archers and me here and we ate a snack. I rode with the Archers to MWSC to the Fine Arts Auditorium. I met Dr. M. O. Looney,

(President of MWSC) and others. Leonard Archer made some introductory remarks concerning Chemathon '80 and then he introduced me. I gave my talk, "Our Energy Problem." I started by telling about Helen's visits to St. Joseph (to the State Hospital No. 2, where she saw movies in the 1920's) as a child. I gave my talk, along the lines of my Bohemian Grove talk last July, illustrated with 12 slides. My talk was followed by a question and answer session dominated by an aggressive young man, who was violently anti-nuclear and totally unrealistic in his fancied solution to our energy situation (examples are extreme conservation and renewable energy sources not dominated by the imperialists).

After my talk there was a reception in the neighboring foyer, sponsored by Philips Roxanne, Inc. (and hosted by John Thompson of Philips Roxanne). Here I met chemistry faculty and students of MWSC, high school teachers (whose students are participating in Chemathon '80) and parents of Robert Duncan, an STS finalist in 1978. I rode back to the Ramada Inn with George Ocksah and "Mickey" Heckel (she is a long-time chemistry teacher at MWSC). I called Helen to tell her about my changed airplane reservation for return tomorrow night.

Monday, March 10, 1980 - St. Joseph, Missouri

I had breakfast in the Ramada Inn Restaurant with Dr. Looney (President of MWSC) and Martin Hogwill (Vice President of MWSC). I rode with Hogwill by the State Hospital No. 2, the Pony Express Monument, the Pony Express Stables, the Patee House and Pony Express Office (built in 1858, now a National Historical Landmark), and the home of Jessie James next door.

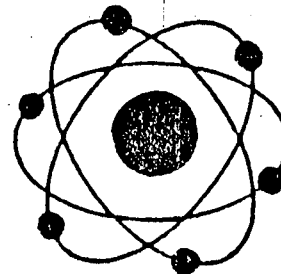
I then rode on to the College Center for a press conference in the faculty lounge. Present were Roger Rowlett (Kansas City Times), Don Bradley (News-Press, St. Joseph, Missouri), Mark Pickerel (KQTV, St. Joseph), Kathie Cross (KFEQ Radio, St. Joseph), Lou Jakouac (News-Press), and Ann Meffert (MWSC Public Relations Office). The questions were largely on nuclear power and our energy problem. I outlined the dimensions of the problem, our present supply of energy in terms of barrels of oil equivalent per day, the sources of energy available on a short, intermediate and long time scale. Following my press conference I met in the Faculty Lounge with the instructors from the high schools whose students are participating in Chemathon '80 (list attached). For a little over an hour I answered a wide range of questions covering my work and interests and opinions about today's students, etc. We went downstairs (all the high school instructors and MWSC people) for a buffet lunch. I met MWSC chemistry faculty members Russ Smith, John Redmond, Larry Lamburg, and Dean of Arts and Sciences, Bob Scott. I sat at the head table with Dr. Looney, Dr. Archer, and Dr. Robert Nelson (Vice President, Academic Affairs, MWSC). After lunch I visited the science building with Rich Schwarz and then went down to the Fine Arts Auditorium. I gave my talk, "The New Elements," illustrated with 29 slides to an audience of high school chemistry and physics students, and high school instructors to an audience numbering about 725. The talk was followed by a lively question and answer period; it was well-received and I signed many autographs. After the talk I participated in giving awards to the winners of Chemathon '80 (based on a written examination this

THANK YOU SPONSORS OF CHEMATHON '80



Missouri Western State College, 4525 Downs Drive,
St. Joseph, Missouri
Missouri Western State College Foundation
Missouri Western State College Cultural Events
Committee
Missouri Western State College, Department of
Chemistry
Missouri Western State College, Department of
Mathematical Sciences
Missouri Western State College Bookstore
American Chemical Society, Kansas City Section
Philips Roxane, Inc., 2621 North Belt, St.
Joseph, MO
Lake Road Warehouse Company, Lower Lake Road,
St. Joseph, MO
Hillyard Chemical Company, 4th & Jules, St.
Joseph, MO
Passport Bookstore, 4502 Mitchell, St. Joseph,
MO
Holt, Rinehart & Winston Publishers Inc., 383
Madison Ave., New York, NY
Missouri Water & Steam Supply Company, 818 South
Sixth, St. Joseph, MO
First National Bank, 4th & Felix, St. Joseph, MO
Commerce Bank, 5th & Edmond, St. Joseph, MO
St. Joseph Light & Power, 520 Francis, St.
Joseph, MO
Industrial Heating & Plumbing Company, 1710 South
Eighth, St. Joseph, MO
Wire Rope Corporation of America, 609 North
Second, St. Joseph, MO
Iowa-Missouri Walnut Company, 2801 South Second,
St. Joseph, MO
A. J. August Menswear, 5th & Felix, St. Joseph,
MO
Joe Optican Jewelry Company, 702 Felix, St.
Joseph, MO

CHEMATHON



MWSC

MARCH 9-10, 1980

HOSTED BY

THE DEPARTMENT OF CHEMISTRY

AND

CHEMISTRY EDUCATORS ASSOCIATION

"CHEMATHON '80" MWSC

SCHEDULE OF EVENTS
 DR. GLENN T. SEABORG,
 UNIV. OF CALIFORNIA

Fine Arts
 Auditorium

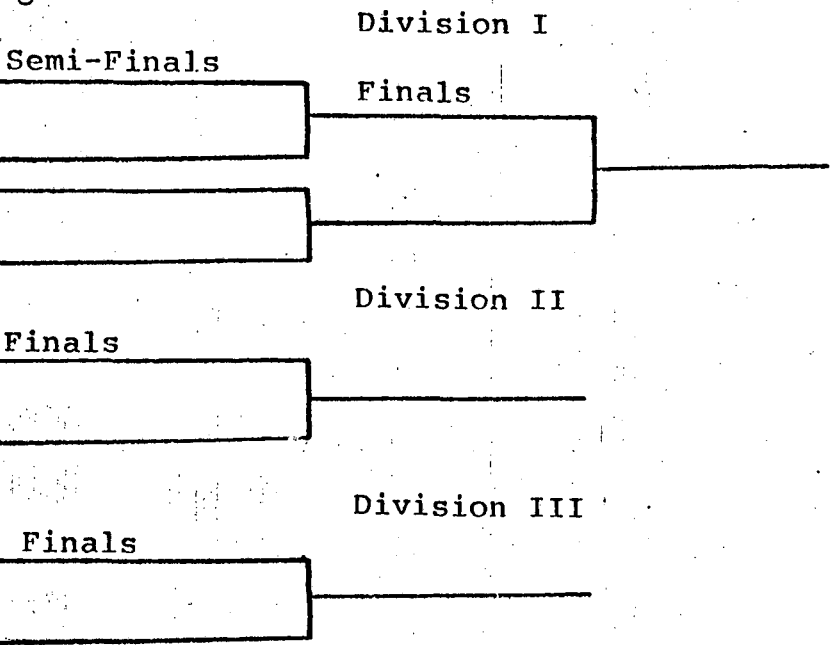
Sunday 9th
 8:00 p.m.

MONDAY 10TH

8:30- 9:00	General Meeting	F. A. Auditorium
9:00-10:30	Written Exam CEA Meeting	Assigned Rooms Planetarium
10:30-12:30	Campus Tours	Chemistry Majors
11:30- 1:00	Lunch	College Union
1:00- 2:00	Keynote Lecture Dr. Glenn T. Seaborg University of California "The New Elements"	F. A. Auditorium
2:00- 2:30	Winners Announced	F. A. Auditorium
2:30- 4:00	Oral Chemathon	F. A. Auditorium

* * * * *

114b



Benton High School Donald F. Lentz	Lincoln Academy No. Joanne Sabatka
Bishop Ward High School of Kansas City, KS Sr. Paulette Krick	Maryville R-2 H.S. Nancy Jensen
Cameron High School John Brooks/ Bob Olsen	Maysville High School Judy Colhour
Central High School W. McLaughlin/K. Sprouse	Mid-Buchanan H.S. Sue Williams
Chillicothe High School James Puckett	Midway H.S. of Denton, KS Tom Robison
Craig R-3 High School Leslie Johnson	North Andrew R-6 H.S. Jack Hilsabeck
East Buchanan High School Richard Zebelean	North Platte R-1 H.S. Allen Constant
Excelior Springs H.S. Roger Stucki	Park Hill R-5 H.S. Kent Kavanaugh
J. C. Penney High School Raymond Jordon	Paseo High School M. Seever/E. McCoy
Jefferson High School Jennifer Johnson	Platte County R-3 H.S. Mike Goodlet
Kearney R-1 High School Ed Harbord/Randy Dix	Ridgeway R-5 H.S. Faith Bent
King City R-1 High School Marcia Silkett	South Nodaway R-4 H.S. Kila Henry
Lafayette High School Barbara Eddins	Troy H.S. of Troy, KS William Foster
LeBlond High School Sr. M. Berchmans	West Platte High School T. J. Beach

morning). Bob Optician (Central High School in St. Joseph) won a first place, as he has for the last two years.

I was interviewed many times on my activities by Lynn Cassidy of the Platte County Citizen. (She will send me a copy of her article.) I rode with Eric Cote (a science major at MWSC and a resident of St. Joseph) to the Patee House Museum which includes the Pony Express Office, all of which we were shown by Gary Chilcote (possibly a cousin of Bill Chilcote of Lafayette); this is an extensive museum, privately maintained and operated. We then visited the house of Jessie James next door. This is the house, where Jessie James, under the name of Tom Howard, was shot and killed by Bob Ford on April 3, 1882. A cavity in the wall is purported to be where the bullet finally lodged. The house was moved from its original site at 1318 Lafayette Street on a hill about a block away.

I then rode with Eric to the Pony Express Stables Museum. This extensive exhibit includes a large wall map of the entire Pony Express route, operated from April 3, 1860 to October 24, 1861. I bought a replica of this map (two copies) and copies of Pony Express advertising posters. Also included in the Museum are pictures of Pony Express Stations, including the one at Strawberry (taken in 1962, with a view of Lovers Leap in the background). I was shown this museum by Rick Nolf (Director, St. Joseph Museum and the Pony Express Stables Museum). The expert on the Pony Express Trail is Dan Reynolds (Assistant Director and Curator of the Pony Express Stables Museum).

We rode back to the science building at MWSC, where I joined Leonard Archer and Richard Schwarz and rode with them to the Hilton Plaza Airport Inn (next to the Kansas City Airport). Here, in the Litton Ballroom North, I talked to a meeting of the Kansas City Section of the ACS (about 125 people were present, including a number of ladies). I spoke on "Our Energy Problem" illustrated with 12 slides (a talk very similar to my talk last night). Before my talk, during the reception, I was interviewed by John M. Wylie, II (Kansas City Star). The questions were mainly on the Nuclear Regulatory Commission and the previous role of the AEC in this area.

I sat at the head table with Franklin Poge (Chairman, Kansas City Section--with the Kansas City Water Company), Paul Good (Program Chairman, Kansas City Section--with the University of Kansas Medical Center), Earl Bloomingdale (Food and Drug Administration in Kansas City), Margaret Brown (Chairman-Elect, Kansas City Section--Mobray Company), Charles Cohen (Treasurer, Kansas City Section--Mobray Company), Gary Anderson (University of Missouri, Kansas City), and Ludwig Krachma (retired). I was introduced by Frank Poge and my talk was followed by a rather long and sophisticated question and answer period.

I rode to nearby Kansas City Airport with Schwarz and Archer and boarded United Airlines Flight #737, which left at about 11:10 p.m. After a stop in Los Angeles I arrived at the San Francisco International Airport at about 2:20 a.m. Helen met me and drove me home to Lafayette. She told me Eric's cold has forced him to postpone his return to Washington.

Tuesday, March 11, 1980 - Berkeley

I went over my accumulated correspondence with Pat.

At 9:15 a.m. Milton Copulos called me to discuss the "Coalition for Growth" day. He told me that this was a letterhead organization and they wished to use my name. He said the organization was a 501C3 under the IRS (a tax exempt educational institution) and they were pro-nuclear. He told me that the "Coalition for Growth" day (April 16, 1980) was being organized in opposition to the "Anti-Big Business" day on April 17th. He said there would be no financial or other commitment for me except the use of my name. I asked who the other members would be and he told me that Clay La Force, Milton Friedman, and Walter Williams (Temple University economist) had joined. They were also trying to enlist Clark Bush Watson (American Association for Blacks for Energy), Hans Bethe, Edward Teller, Eugene Wigner, Mark Rowden, and the governors of some states--such as Dixie Lee Ray. He told me he is a friend of Eric Leber. I mentioned the head of the American Public Power Association and Joe Swidler as possible supporters. Milton said they were also being asked.

We discussed the use of the term, "Coalition for Growth," and I asked if it could be less pejorative and stress growth for economic stability rather than growth for its own sake. Milt assured me that it would be conveyed in the text. He told me about some anti-nuclear demonstrations he had attended and I asked him to send me the list of people and also a copy of the ads that will appear in newspapers soon. Copulos also told me where the financial support for the organization came from.

I received two reviews in the mail of my book, Transuranium Elements-Products of Modern Alchemy (attached). I sent a luncheon invitation with a copy of the day's program, to the participants of the 25th anniversary of the discovery of mendelevium symposium, and copies of the HikaNation detailed itinerary to Jean Beam and Ed Berger (District Ranger, Mt. Danaher Ranger Station).

At about 10 a.m. I went to Building 70 and found Linda England at work processing data for Pat McGaughey. Walter Loveland is away on a visit to Brookhaven National Laboratory to give a talk.

At about 10:45 a.m. I drove to the BART Rockridge Station and took BART to San Francisco to attend the reception (in the Italian Room) and luncheon (in the ballroom) in the St. Francis Hotel of the Northern California ARCS Chapter. During the reception before the luncheon, I had my picture taken with Mrs. Ann Miller, Mrs. Gorham B. Knowles, and one other ARCS official by William Young (long-time photographer for the San Francisco Chronicle and now retired). At lunch, I sat at a table with Mr. and Mrs. Bernard (Buzz and Jill) Kramer (Jill is the Chairman of the ARCS Scholarship Committee, Northern Chapter.), Mrs. Malcolm Cravens, Dr. Soderquist of USF and USF student Russell Lemesh (winner of an ARCS scholarship), John A. Hildebrand (from Stanford University and a winner of an ARCS scholarship), Melissa Hagstrom (John Hildebrand's friend), Mrs. Grover (guest of Mrs. Cravens), and photographer William Young. I sat beside Jill Kramer, which gave us the opportunity to discuss the ARCS program, etc. She told me that the scholarship total has gone up to \$100,000 this year. After lunch Mrs. Knowles gave the welcoming remarks and then introduced

AR 11 1980



DAR

Clipped from: Chemistry in Britain
 Vol. No.: 15 Issue: 45 Page(s) _____ Date: 5/79

This volume contains reproductions of 122 original papers divided into seven sections, each of which is preceded by a short introduction by the editor, Professor G. T. Seaborg. The first of these sections consists of six early (1934-39) papers in which the results of neutron bombardment of uranium were first interpreted on the basis that the radioactivity produced in the process was due to the formation of the then unknown transuranium elements. This incorrect view led to other work in which the radioactivity was ascribed to uranium fission products. It is these papers which are the basis of the discovery of the thermal neutron fission of uranium. The following 26 papers describe the subsequent discovery of the elements from $Z = 93$ to $Z = 106$, and the criteria upon which claims to such discoveries can be based, and these are followed by nine papers which describe the first isolation of some of these elements.

A considerable part of the book is

devoted to the nuclear properties (30 papers) and chemistry (45 papers) of these elements; in these sections the selection made is naturally not comprehensive, and opinions as to the contents of the chemistry section would certainly differ from one chemist to another. The book concludes with a paper on the superheavy elements and four papers on the searches for neptunium, plutonium and the superheavy elements in nature.

The value of collections of published papers of this kind is that they provide a useful historical record of the progress in a particular field gathered together into one handy volume; the editorial comment before each of the sections is useful and the production of the book is excellent. The end product should be of interest to chemists and physicists alike, and to those interested in the history of science. The price is not too excessive for these days, and the volume is highly recommended.

K. W. BAGNALL

Benchmark Papers in Physical Chemistry and Chemical Physics, Vol. 1: Transuranium Elements, Products of Modern Alchemy
 G. T. Seaborg (Ed.)
 New York: Academic for Dowden, Hutchinson and Ross 1978 Pp 488
 \$36.00 ISBN 0 87933 326 X

Clipped from: Physics Bulletin
 Vol. No.: _____ Issue: _____ Page(s) _____ Date: _____

Transuranium Elements - Products of Modern Alchemy: Benchmark Papers in Physical Chemistry and Chemical Physics, Vol 1 Glenn T. Seaborg (ed) 1978
 New York: Academic (Dowden Hutchinson and Ross, Pennsylvania)
 xxiv + 488 pp price \$36

This collection of papers, drawn from a wide range of publications, highlights the physical and chemical properties of these important elements. It provides an excellent framework for understanding how the more exotic elements can be prepared and unambiguously identified. Such elements, although extremely scarce, play an increasingly important role in physics, and this book is a useful introduction for those already engaged in or planning to work with them.

W D Hamilton

James A. van Allen, who gave a short summary of space science research. He gave a humorous introduction involving a W. C. Fields story about thumbing through the Bible on his deathbed looking for loopholes. Mrs. Kramer then presided over the awarding of the scholarships. She introduced the various University officials, who were present on the stage with their ARCS scholarship winners, and the ARCS scholarship winners from their schools in the order given in the program. The student recipients were on the stage and came down to the lectern to receive their scholarship diplomas and checks from the relevant University official with the help of Mrs. Kramer and Mrs. Knowles.

Before and after the luncheon and ceremony, I talked to a number of my friends including Emilio and Rosa Segrè. I rode back on BART to the Rockridge Station and drove to the campus in my Phoenix Pontiac. I arrived at about 2:30 p.m. and spent about 45 minutes circulating among laboratory rooms A, B, C, D, E, and F in Latimer Hall. This was laboratory check-out day. I drove to my LBL office.

At 3:30 p.m. Kenneth Craver returned my call of earlier this morning concerning the Divisional Officers' Caucus at the Houston ACS meeting. He told me that Barbara Montague and Jordan Bloomfield will represent the Divisional Officers and I need not attend if I had to make special arrangements. I told him that I would not attend then. He said that the report will be available for me to read later. At about 4:30 p.m. I went by Building 70 and talked to Ken Moody about his new chemical separation method for Am (oxidation to VI state and use of fluoride cycle) to be used in our forthcoming ^{248}Cm plus ^{136}Xe bombardment; Marty Schulman and Robert Welch will also be working on this.

I talked to Pat McGaughey, who plans to go to CERN in September to participate with Walter Loveland and Kjell Aleklett in our experiment utilizing their 86 MeV/nucleon ^{12}C beam. I also discussed with Yoshi Morita his Bevalac experiment and with Diana Lee her plans to separate a Bk fraction in her next ^{248}Cm plus ^{18}O and ^{16}O bombardments.

Helen, Eric and I had dinner in the kitchen. Dave had his dinner in the playroom. Later Helen drove Eric to the San Francisco Airport so he could fly home to Washington. He hopes to attend a conference in New York City on Thursday and Friday despite his cold.

I caught up on my mail, papers, etc., in the study during the evening.

Wednesday, March 12, 1980 - Berkeley

At 8:30 a.m. I placed a call to Stanley Kirschner at his request. He said that ACS President James D'Ianni is worried that Kirschner might commit the ACS to expenditures at the meeting in Bangkok to consider the formation of an International Chemical Society. Kirschner assured him that he is not going to do so. I agreed to talk to Gardner Stacy to clarify his and my appointment of Kirschner as the official ACS representative on the International Committee to study the formation of an ICS. We discussed the possibility of my speaking at the biennial conference of the ACS Division

of Chemical Education in Rochester, New York, at some time during the period June 22-26th, in the afternoon of the 23rd, 24th, or 25th or the morning of the 26th. I said I would let him know when he calls back Thursday, March 20th. I told him that I have funds to pay for the extra cost of his going to Bangkok during his trip to China and the additional \$2,000 to cover the cost of Messan Adgangba's round trip transportation to Bangkok, and, if anything is left over, cover the cost of Sherman Thomas transportation.

I walked down to the PSL to attend Professor Myers last Chem 1B lecture of the quarter. He reviewed the material presented during the quarter and ended with a demonstration of the thermite reaction.

I viewed, with the help of Lee Merrill, the No. 8 film of "The Elements" TV series of 1956 for possible use at the 25th Md Symposium. The film suits that purpose.

I wrote a letter to Lynn Lippstreu (ASUC Administrative Vice-President) regarding the Advisory Committee to the Lawrence Hall of Science (attached). She had written me inquiring in regards to how the committee functions so that the ASUC understand the workings of the committee and provide information to students who wished to apply for the position of student representative to the committee. I also sent four more letters regarding HikaNation as follows: Lt. Bob Mitchell (California Highway Patrol), Clyde Carter (Pacific Ranger Station, Pollock Pines), John Moore and Bob Cashion (Department of Transportation, S.F.)

At 10:15 a.m. Mike McReynolds called me to give me the good news that the resolution for closing the Bay Bridge had passed the Assembly Transportation Committee--the biggest hurdle. Now it will go to the Senate floor and Mike said it will not even need to go through the Senate Transportation Committee. Mike told me that Molly Marcelino is the representative for the bicycling day group. I told Mike that I was going to show Jeannie Harmon the route from Sacramento east this weekend because she will be going across the whole state and I want someone who knows the route, since I will be joining them only off and on. We discussed the letter I sent Mike from John K. Morgan of the conservation group. Mike felt he didn't want to dilute our activity with someone else's cause. Mike said that weekly meetings are necessary from this week until opening day. I told him my schedule won't permit it but that I will be well represented by Jeannie Harmon. He said that Norman Gee, Gloria Allen, Jeannie Harmon, Bob Chapman and Bob Conlin, and he are the members of the Planning Committee, which will try to meet every Monday night. He said that Joe and Betty Goldsteins have dropped out. Mike told me they have an incredibly good poster designed by a person in Santa Barbara and they are having them printed and will send them to me. Kim Allen's poster will be made into a backdrop (with the help of her art class at Wilcox High School) for the opening ceremonies. There will be about seven speakers at the opening day ceremonies--Mayor Diane Feinstein, Mayor of Oakland Lionel Wilson, Valerie Raymond and John Molinari (representing the Boards of Supervisors for Alameda and San Francisco Counties), Jim Kern (American Hiking Society) and Cecil Andrus (a representative of the Governor). William Kemsley will act as Master of Ceremonies. I asked Mike if Eric Schockman has made arrangements in Sacramento for possible welcoming ceremonies there. Mike said that he hasn't but he will talk to Eric about it today. Mike said there are now 100 people who are hiking "all

=====
486-5661

March 12, 1980

Ms. Lynn Lippstreu
ASUC Administrative Vice-President
200 Eshleman Hall
Berkeley Campus

Dear Ms. Lippstreu:

This is in reply to your letter of March 7, regarding the Advisory Committee to the Lawrence Hall of Science.

The Advisory Committee is expected to work closely with the Director of the Hall, to advise on such matters brought before the committee, such as the appropriateness of policies and special programs undertaken, especially those programs that encourage interdisciplinary faculty and graduate student participation, and to aid in promoting close relationships with campus departments and organized research units in related fields. As Chairman of the Committee it is my responsibility to comment on the Hall's Annual Report and to send this review to the Dean of the Graduate Division. At the time of the Hall's five-year review, the committee is expected to supply an evaluation of the Hall's effectiveness.

The Committee meets at least twice a year. The student representatives (Tony Heinz is the student committee member this year), have attended the meetings since I have been Chairman. (I assumed the chairmanship in 1977.)

The topics of major concern to the committee this year have been the continuing funding deficiency, the public transportation problem (an increase in the availability of the Hall's activities to the community depends on a solution to this problem), and the Hall's ability to develop close ties with the University programs which are recognized to be central to the interests of both the campus and the Hall.

In my opinion, the Advisory Committee continues to fulfill its obligation to the Hall and to the campus.

The next meeting of the committee will be held on Wednesday, May 14th. May I cordially invite you to attend as our guest. I have attached a list of the members for your information.

Sincerely yours,

Glenn T. Seaborg

the way". I told him that this might present a problem with the figure I quoted to the places where we are planning overnight stays. Mike told me the hikers will be staying at the YMCA Hotel on Golden Gate Avenue in San Francisco until opening day and on Friday night, April 11th. All the hikers who are hiking all the way across the country will meet in Glide Memorial Church for the physical to be administered by the Lawrence Hall of Science people.

At 11:30 a.m. I talked to Jordan Bloomfield about the Divisional Officers Caucus to be held Saturday, March 22nd, in Houston. He is not planning to attend and did not think it necessary for either Barbara Montague or me to attend. Jack Stocker is recovering from an illness and cannot attend. I expressed some concern that Agenda Item #5 ("Proposal for the National Meeting in Honolulu in the Spring of 1986") will not be covered by an appropriate point of view but Bloomfield did not seem too disturbed about this, stating that the "Divisional Officers Caucus" is not an official entity of the ACS, but rather an ad hoc group put together by Ken Craver for purposes not altogether clear. Jordan expressed some dismay that Craver was calling a meeting of this kind in order to have "...members of the Science Commission report on their deliberations." I told Jordan that I would not change my itinerary in order to attend.

I had lunch in the cafeteria with Walter Loveland (just returned from BNL), Pat McGaughey, Ken Moody and Marty Schulman. Walter Loveland said he received a good reaction to our research during his visit and talk at BNL.

At 12:30 p.m. I attended the Actinide Chemistry seminar in Building 70 Conference Room. In attendance were Norman Edelstein, Andrew Streitweiser, Richard Andersen, David Templeton, Allan Zalkin, Helena Ruben, George Shalimoff, Frederick Weitzl, Terry Tilley, and others. Hsu-Kun Wang spoke on the determination of the structure of substituted uranocenes.

Harvard Holmes returned my call at 1:27 p.m. I asked him about Aaron Marcus. (Marcus is a consultant to the Laboratory, who operates through Holmes.) Holmes said Marcus is a competent speaker with a background in graphic arts and computer graphics. I thanked him for his recommendation.

At a little before 4 p.m. I drove to the campus to attend the first of the two lectures of the 67th Annual Faculty Research Lectures in Wheeler Auditorium. Chancellor Bowker presided and before he introduced Czeslaw Milosz as a lecturer for 1980, he introduced previous Faculty Research Lecturers present today. Among those introduced were Murray Emeneau, Emilio Segrè, Bertrand Bronson, Luis Alvarez, Alfred Tarski, Lew Brewer, Yuen Ren Chao, Heinz Fraenkel-Conrat, Francis Turner, David Blackwell, Horace Barker, Daniel Mazia, John Reynolds, William Bouwsma, Josephine Miles, John Verhoogen, Frank Beach, Joseph Kerman, Shiing Shen Chern, Erwin Hahn, J. Desmond Clark and I. Czeslaw Milosz then gave his talk on the subject, "On Ignorance, Learned and Literary." His lecture was somewhat difficult to understand.

Helen and I then went to University House to attend the reception and dinner in honor of this year's Faculty Research Lecturers, Czeslaw Milosz and Daniel Koshland, Jr. I sat at a table with Alfred Tarski, Mrs. Alexander Glazer, Mrs. Lawrence Grossman

and Murray Emeneau. Our conversation revolved a good deal around the forthcoming Presidential primaries and elections and there was a lot of support for John Anderson. Toward the end of the dinner, Rosedith Bowker gave a toast to this year's Faculty Research Lecturers. I then got up and took note of the fact that this would be the last dinner for past and present Faculty Research Lecturers and guests that Albert and Rosedith Bowker would be giving. Albert is accepting a position with the Department of Education and we toasted his success. Helen and I spent a good deal of time with Bunny Koshland, who is now a member of the National Science Board. We drove home, where we arrived shortly after 9 p.m.

Thursday, March 13, 1980 - Berkeley

I went by Building 70 to talk to Walter Loveland. He was working on illustrations for our paper for the Houston ACS meeting, which will be given by David Morrissey. I read Loveland's abstract for our paper, "Target Fragment Energies and Momenta in the Reaction of 4.8 GeV ^{12}C and 42 GeV ^{20}Ne with ^{238}U ", to be given at the International Conference on Nuclear Physics to be held in Berkeley in August.

At 8:35 a.m. I talked with Bernard Brody. He inquired about the reunion last July of our Met Lab Sec C-I group; I told him 75 people attended and it was a success. He had been advised to invest in Kevex and called to get information about the company from me because he noticed that I am Chairman of the Kevex Board of Directors. I gave him a thorough briefing on the Company's activities and prospects for the future, including one of its applications which Brody is most interested in--that of studying the effect of environment on the aging process through trace metal content in the hair, etc. I told him that Kevex management believes it will take about five years to establish a market in medicine for this x-ray fluorescence apparatus.

At 8:45 a.m. I called Dan Tyler Moore, International Platform Association, in response to his February 27, 1980, letter inquiring about the appropriateness of inviting Aaron Marcus to make a presentation at the annual convention. I told him I had done some investigating and believed that Marcus seemed to be all right and would probably have something to say that would interest convention participants. He said he would put his name in the file.

I told him that my son David asked for information regarding the IPA "amateur competition" (or something like that) he understands takes place at the annual convention. Dan said that Eileen Hall is in charge of this activity in which a dozen or so people, who have done a lot of speaking (but have not made it in a "big" way), are asked to make a presentation. This affords them an opportunity for more exposure to program chairmen, etc. He will send Eileen's address to David at our home address. He also suggested that David read his book, Lecturing for Profit (which is now out of print). Carl Sagan has not yet responded to the IPA invitation to accept the Glenn T. Seaborg Award; the letter, however, was sent to a New England address and I believe that Sagan may be spending a good deal of time doing some film making in Los Angeles. If he has not responded in the next week or so, Dan will track him down by telephone. I again asked Dan to consider scheduling the award ceremony on Monday or Tuesday, August 4th or 5th, which he agreed to do.

At 9:30 a.m. I called Preston French, Yolo County Manager of Parks & Grounds, to talk about the letter I had received from David Bolland yesterday suggesting that the HikaNation group use the Clarksburg High School grounds three miles further--rather than using the Clarksburg Fishing access because it is striped bass season. I explained to Preston that the hikers will be hiking 16 miles the day before we reach Clarksburg and 16 miles the day after Clarksburg and I feel that an added three miles will be too strenuous. I told Preston that the night before we camp at Ko-Ket Resort near Meader's Beach on the Sacramento River (opposite the Ryde Hotel) and the day after Clarksburg, the group will be walking most of the 16 miles on old Southern Pacific Railroad tracks to Old Sacramento. Preston suggested it might be possible for us to camp across the street from the Clarksburg Fishing Access behind a filling station in a field. He will check with the owner of the property and write to me. I asked if there will be toilet facilities and water available and he thinks they may be able to arrange something for that one night. I told him I will send him an itinerary so he can see our route.

I had lunch in the cafeteria with Walter Loveland, Pat McGaughey, Ken Moody, Rose McFarland and Diana Lee.

I reached Christian Nelson at the East Bay Regional Park District at 2:45 p.m. I talked with him about several points in his letter to me of March 6, 1980. I told him that the Lake Anza lawn sounded like a good spot for overnight camping. Christian Nelson said they were willing to open the snack shop for the hikers unless I thought it wouldn't be necessary. I will contact him when I get more feedback from other participants in the hike. Christian also said that the welcoming ceremonies are probably being handled by Linda Chew in public relations. He will check with her about progress on that. He also said that they would be willing to open up the Environmental Education Center about one-half mile away from the camp spot for the hikers to have something to do at night. He asked me for a time when they could close the gates to the Lake Anza area so the hikers wouldn't be disturbed and I told him that 10 p.m. sounded like a good time to stop hikers' visitors. We then discussed the Briones Park segment and Christian said that the campsite was as close as possible to restrooms and a water fountain. He said they would supply wood for campfires and there were picnic tables scattered around and there are barbecue pits. He suggested that I contact Hulet Hornbeck to get permission to cross Kip Brown's property. At Black Diamond Regional Preserve EBRPD will supply firewood for a campfire and one-half barrel portable grills. He suggested that Joanne Dean come out to Black Diamond on our day of rest and take interested hikers on a tour through a mine and maybe through the historic cemetery. I said I liked the idea. He also said that Joanne Dean may join us to show us the route Christian suggested to get into the park without crossing any private property. I thanked him for his help and told him that we would be in touch as things developed and we had a better idea of how many hikers we will actually have.

I went by Building 70 at about 3 p.m. and talked to Diana Lee and Luo Cheng about their research programs. I then walked down to Latimer Hall to pick up my mail at 3:30 p.m.

I called Hulet Hornbeck at 4 p.m. to tell him about the passage of the resolution in the State Legislature to allow HikaNation to cross the Bay Bridge and told him about the letter from Christian Nelson offering much assistance in Tilden, Briones and Black Diamond Parks. I then asked about Kip Brown's property and he will write a letter to the owners asking for permission for HikaNation to cross their land. He told me that Wally Costa now owns it. I asked Hulet if he would join us for that segment and he said that he hoped to go with us for longer than that. I told him I would send him another copy of the itinerary and a copy of the CUWA letter concerning EBMUD's attempts to get emergency water lines reclassified. Hulet said he will be able to join us only until noon on Tuesday since the afternoon will be taken up with a Board meeting. I told him that was all right because Bob Pond or his representative Ron White will join us at Pleasant Hill Road and take us to the top of Mount Diablo. We discussed developments with the Claremont Canyon situation and Hulet told me they received \$225,000 in federal moneys for land purchases.

At 4:15 p.m. Gloria Copeland called to ask if I could attend the meeting with the committee to advise the President on a selection of a new Director of LBL at 10 a.m. on Monday, March 17th, rather than the previously scheduled time of 10:30 a.m. I told her I would try to rearrange my schedule to allow for this change. I told her that I was thinking of ways to "liven" up University Hall (following up on our conversation at a dinner following the AAAS Annual Meeting held by President Saxon at his home). I suggested that seminars be set on a monthly or bimonthly basis with fairly good speakers from the campus to speak on timely topics of interest. I said I would be glad to kick something like this off (for example) with a talk on the energy problem. She thanked me for my suggestion and said she would look into it.

I answered a letter from Kjell Lagerstrom regarding a selection of a Swedish-American recipient of the John Ericson Medal Award for the year 1980. I told him I would take this up at the next meeting of the SCA Board on April 9th. I answered a letter from Thomas Tredway (President, Augustana College) regarding my accepting an honorary degree and giving the Commencement address on Sunday, May 25th. For Citizens for Urban Wilderness Areas (CUWA) I sent a letter to Assemblyman Lawrence Kapiloff regarding the defeat of Senate Bill 200 to authorize construction of the Peripheral Canal. Copies of my letter were sent to Speaker Leo T. McCarthy, Assemblymen Daniel Boatwright, Henry J. Mello, and Tom Bates, The Montclair, Oakland Tribune and Contra Costa Times, Save the Bay Association, Hulet Hornbeck (East Bay Regional Park District), Roger Reeve, and Susan Watson. I accepted an invitation to attend the Division of Chemical Education reception at the Houston ACS meeting. I sent a few more itineraries for HikaNation and I accepted an invitation to participate in the symposium in celebration of the UCLA Chemistry Department's 50th Anniversary and the presentation of the Alpha Chi Sigma, "Glenn Seaborg Research Award", and I filled out a form for Eric Leber's application for membership in the American Society of Mechanical Engineers.

I called Peter McMullen at Strawberry to get an update. I learned to my dismay that he is suffering from heart trouble (hopefully minor) and will go into the hospital at South Lake Tahoe for a checkup on Monday.

I called Fred Bell at the Camino Ranger Station. He still hopes to clear the trail beyond Wrights Lake Road. I asked him to check the trail between Riverton and Cleveland Corral and he said that he would.

Just before I left for home, I went by Building 70 to talk to Walter Loveland.

Helen, Dave and I had dinner in the playroom. We watched the televised League of Women Voters program featuring the Republican president candidates Ronald Reagan, John Anderson, Phillip Crane and George Bush, with Howard K. Smith as Master of Ceremonies. After dinner I read Chemistry 1B material, and then watched the last part of the NCAA basketball playoff game between UCLA and Ohio State; UCLA won, 72-68.

Friday, March 14, 1980 - Berkeley

At 8:50 a.m. I called Stanley Krischner and told him that I would give the plenary lecture at the Division of Chemical Education ACS biennial conference in Rochester, New York, if it would be scheduled for Monday afternoon, June 23rd. Then I could catch a 4:15 p.m. plane back to San Francisco. I told him I could arrange to fly from Austin, Texas, and arrive in Rochester at 8:38 p.m. on Sunday, June 22nd. He was very pleased that I could make this arrangement. I will be getting more information including a request for a title and abstract of a couple of hundred words.

I asked him to write a letter to the full executive committee of the Study Committee on the Formation of an ICS on the misinterpretation of the ACS vote on an ICS (following up on the letter received from Germany which misunderstood the vote). He said he had written such a letter to Kamchorn Manunapichu and Mathias, but he would send one to the others on the committee as well. I asked him to check on the travel expenses of Adgangba and the monetary assistance Sherman Thomas may need from Costa Rica, plus his extra expenses, for it might be well to get travel money to people in advance of the trip to Bangkok. He will look into it.

Walter Loveland dropped in at about 9 a.m. to warn me that our computer bill for cascade calculations this weekend will run about \$900 to \$1,200.

At 9:20 a.m. I talked with Edwin Zebrowski (EPRI) and asked him for suggestions for speakers for the AAAS Annual Meeting on the topic of chemical processes in waste disposal. He suggested Floyd Culler, who is active in OTA hearings and chairman of an IAEA committee on the subject, and who is probably the best person in the country to speak on the subject. From industry he suggested Edward Howard (Vice President of Boston-Edison and a nuclear engineer), and finally, Alfred Platt (Batelle), who is capable and an excellent speaker able to speak on everything between policy and the technical level. I will transmit these names to Bill Jolly.

I walked down to my Latimer Hall office to hold my regularly scheduled office hour from 10 to 11 a.m. Trudy Rilling, who is a sophomore in entomology, came in to talk to me about quarks, gluons, etc. I promised to send her information on a book on elementary quantum mechanics.

From 11:15 a.m. until noon I then attended the discussion session in Room D. I reviewed the work of the entire quarter in preparation for the final examination on Monday. I then walked up the hill to my LBL office and went to lunch in the cafeteria with Walter Loveland and Bob Silva. I was later joined by Al Ghiorso. Al said his U plus ^{74}Ge bombardment is getting underway. Rollie Otto may do chemistry on this to test for the fusion reaction. We also discussed the paper I am reviewing for Physical Review Letters on the SF branching of $^{259}\text{104}$. I then had a session in Room 209/Building 70 with Walter Loveland, Pat McGaughey, and Yoshi Morita, where we planned for our Bevalac experiment. The bombardment starts at midnight tomorrow (U, Bi, Au, Ta plus 250 MeV/A ^{12}C).

Otto Schnepf, who has recently been appointed Science Attaché at the U.S. Embassy in Peking, China, called to make an appointment to see me either Wednesday or Thursday of next week. He will also see Yuan Lee, Bill Miller, Brad Moore and others. I told him I would be happy to talk with him about the People's Republic of China and my two trips there. He mentioned that George Pimentel was instrumental in his appointment.

I received an invitation from Andrew M. Sessler to serve on the Organizing Committee as an honorary advisor for the celebration of the 50th Anniversary of LBL in 1981. Other honorary advisors would be Luis Alvarez, Melvin Calvin, John H. Lawrence, Edwin McMillan, and Emilio Segrè. The organizing committee members for the 50th anniversary celebration are Ed Lofgren (Chairman), Leo Brewer, Joseph Cerny, Robert M. Glaeser, J. David Jackson, Will Siri, Donald W. Stallings, Harold Wollenberg, Jr., John Feack (Public Information Advisor), and Theodore Kirksey (Executive Secretary).

I wrote to Mr. Y. Gruder (Director General of the Wolf Foundation) in support of the nomination of G. A. Somorjai for the 1980 Wolf Prize in Chemistry (attached); to Bill Jolly regarding a speaker for the AAAS Annual Meeting. I sent Peter Seaborg a copy of the Redskins renewal invoice, my check and ticket pickup information and also wrote to Lynne and Bill to tell them about my travel plans which will enable me to visit them in Iowa City in late May.

Walter Loveland dropped in at 4 p.m. to discuss plans for our future SuperHILAC experiment-- ^{130}Te plus ^{86}Kr to look for evaporation residue products.

On the way home I went by Building 70 to talk to Walter Loveland and David Morrissey (who was visiting) about our joint paper with the BNL and ANL groups. I also talked to Bob Welch and Marty Schulman who were working on the chemical procedure for separating Am from the Al foil containing recoil products from our scheduled (April 6) ^{248}Cm plus ^{136}Xe bombardment.

Helen and I had dinner in the playroom. Dave was in San Francisco attending an Eastern symposium. I worked in the study during the evening.

=====
486-5661

March 14, 1980

Mr. Y. Gruder
Director General
The Wolf Foundation
P. O. Box 398
Herzlia Bet, Israel

Dear Mr. Gruder:

I am writing in support of the nomination of Professor G. A. Somorjai for the 1980 Wolf Prize in Chemistry.

Professor Somorjai is one of the world's leading investigators in the structure and chemistry of solid surfaces. His research has played a leading role in the establishment of the field of modern catalysis science. He has identified the atomic scale ingredients necessary to build a working catalyst to carry out surface reactions selectively and at faster rates. As a consequence, new high technology catalysts have been developed that are having great impact on chemical technologies.

Professor Somorjai's major contributions have been in the elucidation of the structure of solid surfaces and of absorbed molecular monolayers, and in the investigation of the molecular scale of the mechanisms of surface reactions that are catalyzed by transition metal surfaces.

I believe that Professor Gabor Somorjai is very well qualified to receive the 1980 Wolf Prize in Chemistry.

Sincerely yours,

Glenn T. Seaborg

GTS:pj

bcc: Richard Lemmon

Saturday, March 15, 1980 - Lafayette/Strawberry Lodge

Helen and I drove by Jeannie Harmon's home in Concord to pick her up and then drove to Strawberry Lodge. En route we identified the route of HikaNation. We left home about 8:45 a.m. and ate our backpack lunches at Discovery Park in Sacramento. We arrived at Strawberry around 6:45 p.m. We checked the campsite at Clarksburg, where we found Merritt's Landing across from the fishing access, a snack bar and a public phone (Preston French said we could camp here overnight if we wished). We went by the route along Front Street and through Old Sacramento (the route just beyond Watt Avenue--a trail on the right which is on the south side of the American River--through Grist Mill Dam Recreation area, along Mira Del Rio Drive, Escobar Way, Allegheny Drive, Bradshaw Road, Folsom Boulevard, Rod Beaudry Drive to C. M. Goethe Park), Negro Bar Park and the route to City Park, Placerville on to east Pollock Pines, Sly Park Road, Park Creek Road, then back to Highway 50 to Fresh Pond and looked at the route to Pacific House, Bridal Veil Picnic area on to Riverton, Ice House Road to the start of Webber Mill Road, then back to Highway 50, the start of the Pony Express Trail at Kyburz, stop at Wrights Lake Road, and on to Strawberry Lodge.

We learned from Mike McGrath and Drago that Peter McMullen had an apparent heart attack yesterday on the way to Barton Memorial Hospital in South Lake Tahoe, where he is now in intensive care.

Helen, Jeannie and I had dinner in the dining room and were later joined by Katie. I gave McGrath and Drago the Pony Express map and wall posters I bought in St. Joseph last Monday. Helen and I, along with Jeannie, spent the night in McMullen's fourplex apartment.

Sunday, March 16, 1980 - Strawberry Lodge/Lafayette

Helen, Jeannie and I had breakfast in the Lodge. After breakfast we visited Bob Lingard and his new assistant Greg Williams. Bob told me the Forest Service may change the use of Strawberry Canyon to introduce the use of snowmobiles, thus spoiling cross country skiing. I said I would sign a letter protesting this.

We also went by to see the renovation work that is just beginning on our cottage. I talked to Mike McGrath about his new responsibilities as acting manager of Strawberry Lodge during Peter McMullen's illness.

Helen, Jeannie and I left Strawberry Lodge to continue our exploration of the HikaNation route on the way home. We investigated the route across Wrights Lake Road and the beginning of the route out of Kyburz. We then drove to Riverton and Jeannie and I hiked the route to Webber Mill Ridge Road. Helen met us here and we had our backpack lunch. We then drove to Pacific House and explored the damaged bridge on the Peavine Road across the South Fork of the American River. We talked to Dimitri (Dee) Kousseff, the owner of Pacific House, who invited us to use this as an overnight stop on April 29th instead of the Bridal Veil Picnic Area. We stopped by the Pacific Ranger Station at Fresh Pond. We determined this would not be a suitable

overnight stop. We started back home. We dropped Jeannie off at her home in Concord and arrived home in Lafayette at about 6:15 p.m.

Helen, Dave and I had dinner in the playroom, while watching "60 Minutes."

I called Ken Madsen to have a long talk on the phone with him about things at Strawberry Lodge and then I called Norman Tuttle to bring him up to date.

Monday, March 17, 1980 - Berkeley

I went by Building 70 and learned that our Bevalac bombardment went well yesterday and this morning. (We got a good ^{12}C beam.) Walter Loveland, Pat McGaughey, Ken Moody and Saburo Yashita were busy getting the samples ready for counting.

I rode with Ken Pitzer to the San Francisco Airport Hilton Inn where the two of us met with members of the Joint Committee to Advise the President in the Selection of a Director for the Lawrence Berkeley Laboratory. We met in Vintage Room #8 starting a little after 10 a.m. The Committee had just finished meeting with Earl Parker in the room across the hall and we greeted Earl as he came out. Present at the meeting were regents John F. Henning, John H. Lawrence, William A. Wilson and from faculty, research scientists and research administrators, Edward L. Ginzton, Frederick S. Goulding, Alan W. Searcy, President David Saxon, William Fretter, and Gloria Copeland. Our remarks were tape recorded.

President Saxon told us the main reason for the meeting was to get the advice of Ken Pitzer, in his role as Chairman of the Scientific and Education Advisory Committee for the Lawrence Berkeley Laboratory, and me, in view of my long time association with the Lawrence Berkeley Laboratory and my experience as Berkeley Chancellor and Chairman of the AEC, on a question that has arisen regarding David Shirley's possible appointment as Director of the Lawrence Berkeley Laboratory. He said the Committee has finished hearing Earl Parker describe this problem which has to do with Shirley's handling of Victor Zackay and Earl Parker during the period before they left LBL with a certain amount of ill feeling. Pitzer and I both indicated that we were familiar with the alleged situation and that we felt that Shirley handled it properly and in an ethical manner. We both indicated that Shirley, as an eminent scientist and proven administrator, is well qualified to serve as Director of LBL and would be a strong leader when strong leadership is required. Near the end of the meeting John Lawrence referred to a letter written by Leo Brewer to LBL Director Andrew Sessler, but withdrawn and destroyed, purportedly protesting his displacement as IMRD Director by David Shirley through the action of Sessler. Pitzer said that he recalls that Leo Brewer was anxious to leave the Directorship of IMRD, and, thus, such a letter to Andy Sessler seems highly unlikely. Pitzer and I concluded our meeting with the Committee at about 10:40 a.m. and then rode back to the Berkeley campus together. Upon arrival, I walked up the hill to my LBL office.

I had lunch in the cafeteria with Earl Hyde and told him about my meeting this morning.

At 1:45 p.m. Alan La Pointe called to bring me up to date on the Wildcat Canyon/East Bay Regional Park possible land acquisition matter. The Trust for Public Land (TPL) is very interested in the property now. The developer is ready to sell his option on the McCosker land and the EBRPD has scheduled a meeting of the members of the Board at the Richmond City Council office tomorrow. Alan will present a slide show and will present the petition signed by 10,000 people. Many government representatives are sending representatives (i.e., John Nejedly, Powers) and he asked if I would attend and make a statement on preserving the park. I told him that it was not possible for me to do so tomorrow. He said that TPL will put up the money for the land on Wednesday and the Park District will guarantee those funds down the line. I asked if Hulet Hornbeck knows that TPL is involved to this extent and he said that Hulet Hornbeck and Richard Trudeau have changed their opinion on TPL involvement.

At about 2:30 p.m. I went by Building 70 to watch progress by Walter Loveland, Pat McGaughey and Yoshi Morita on making gamma ray measurements on the various target and recoil catchers from the Bevalac bombardment.

At 2:45 p.m. I called Fred Bell to pose the question again of whether the HikaNation group could cross the bridge near the Brockliss Toll Road. I told him that Helen and I and a friend had scouted the route this past weekend and we noticed many people as well as motorcyclists using the bridge. He said that officially he could not recommend our use of the bridge because he had talked to the engineer of the bridge, who felt that it could fall into the river any day now. He said that the county had officially condemned the bridge but was aware of the continued use of the bridge by people in the area. Fred told me that he will give me the engineer's name and phone number tomorrow afternoon. I told Fred that we had scouted the trail from Riverton to Cleveland Corral to Webber Mill Road and therefore he didn't have to. He said that he would do so anyway and would also get a crew working on the trail near Wright's Lake Road. He now has a crew working at the other end of this trail near the Pyramid Campground. I explained the change in our route if we were to take the bridge to the Brockliss Toll Road. I asked whether Brockliss Toll Road was the one that connected with Peavine Ridge Road on the right about 200 yards up from the bridge, and asked whether it went all the way to Ice House Road. Fred told me that he would need to consult his maps to be sure but felt that the road did parallel the river and Highway 50.

An important letter was sent out today to Lt. John Sherman of the California Highway Patrol regarding HikaNation. I briefly described the American Hiking Society and HikaNation, and assured him that we would try to avoid Highways 508 and 89 as we will have a large group of hikers, approximately 100. I enclosed a copy of the detailed itinerary for the California portion of the hike.

At about 4:30 p.m. I went by Latimer Hall/Room 406 to join the Chemistry 1B instructional staff. We went down to Harmon Gymnasium (some went to PSL and Life Sciences Building) to administer the Chemistry 1B final examination from 5 p.m. until 8 p.m.

I drove home, arriving about 9 p.m. I had a bite to eat and did some reading before retiring.

Tuesday, March 18, 1980 - Berkeley

At 8:30 a.m. I had a conference telephone call with chemistry and physics students at Cleveland High School, Cleveland, Tennessee. There were about 45 students in the room, who listened to an amplified telephone speaker and submitted questions through their teacher, Ashley Smith. A list of questions were sent to me in advance and our conversation followed pretty much in the order of the questions (attached). Mr. Smith began the conversation by expressing pleasure over this opportunity to discuss some matters of scientific interest to the students. I began by expressing words of greeting to the students. To those who are in chemistry and physics, I said I hoped they will continue their interest and pursue science as a career.

The first questions concerned my early life and what stimulated me to pursue a life in science. I told them about my early high school years, and that through a laboratory course in chemistry in my junior year (at 15 years of age) I was introduced to science. I told them that I did not take any science courses up to that time because I was interested in literature courses. I told them about my teacher Dwight Logan Reid and how he influenced my life and inspired a life-long interest in chemistry and physics. In college my interest in nuclear chemistry and nuclear physics grew when I took a course in atomic physics at UCLA from Professor John Adams. At that time I became very interested in the new investigations in nuclear physics at the University of California at Berkeley, where Ernest O. Lawrence had invented the cyclotron. As a result, I enrolled in graduate school at University of California at Berkeley, where, starting in 1934, I had a TA in the Chemistry Department and where I also collaborated with the Physics Department at the (then called) Radiation Laboratory. I mentioned that it was at this time that Enrico Fermi and his co-workers in Rome were doing their historic experiments on the bombardment of elements with neutrons, believing that they were discovering the transuranium elements.

In answer to a question about my most satisfying experience in my scientific career, I said that it would have to have been in 1944 with the recognition of the placement of the heaviest elements in the periodic table. I went on to explain the actinide series of elements, their placement in the periodic table, the changes that took place in the periodic table after World War II, the confusion that reigned for a time until I recognized where the placement of the actinide series should be.

A harder question to answer was what was my most frustrating experience--I told them that I guessed it would have to be our search for the superheavy elements that we have been trying to synthesize for the past ten years. I told them that these are the very heavy elements that are centered in an "Island of Stability" around atomic number 114 and that there should be some not stable but longer-lived radioactive isotopes centered around that part of the periodic table and that we have been trying to synthesize those without success. I said we are irradiating heavy targets with heavy ions--as an example I told them about our experiments bombarding curium with calcium.

QUESTIONS FOR DR. SEABORG

1. What were the events in your early life that stimulated you toward a scientific career?
2. When in your college years did you decide to pursue the field of radio-chemistry?
3. What has been your most satisfying and most frustrating experience in your scientific career?
4. What, in your opinion, is your major contribution to chemistry?
5. What is the purpose of discovering elements that are produced in such small quantities and are so short lived (ie, of what importance are the transuranium elements in man's search for a better life?)
6. Why did you patent the process involved in making some of the transuranium elements?
7. In your view, what effect has the Three Mile Island incident had on the future of nuclear energy?
8. What is your position on the breeder reactor?
9. Please discuss the granting of a license to TVA for loading nuclear fuel at the Sequoyah Nuclear Plant. Was it not premature, since no public hearing was held and the state emergency plan has not been approved? (Cleveland is located 30 miles east of Sequoyah.)
10. Do you feel that developments in fusion research can be accelerated to give us some relief from the energy crisis before 2,000?

In answer to their question about what I consider to be my major contribution, I said it would have to be the recognition of the actinide concept and my participating in the discovery of the transuranium elements themselves.

In response to a question about the value of discovering these elements, I responded that the main importance is the broad one of increasing knowledge, of increasing our knowledge of atomic and nuclear structure which leads man to a better understanding of all the elements and makes it possible for him to synthesize and produce new alloys, etc., which in turn allows for better control of these elements in our search for better energy sources, better construction materials, etc. I gave some examples of how these elements better our lives--plutonium 238 used in nuclear batteries in space exploration; americium--241 used in the diagnosis of thyroid disorders; and californium--252 used in the treatment of cancer. I explained to them the reasons for my patents on americium and curium, which were the only patents on chemical elements ever obtained and this was done solely for the benefit of the U.S. government, which would allow it to have control over the use of these elements.

I said I could not tell what the result of the accident at Three Mile Island would be at this time; however, I believe that the use of nuclear energy in this country and throughout the world is going to be necessary as one of the resources we have available on a near time scale--citing also, coal, solar power, and biomass. I said that we need the breeder reactor and told them about the decisions made in other countries to develop the breeder reactor--Japan, France, USSR, and that the U.S. is lagging behind in this area which is vital to our well-being. I said that the U.S. is more vulnerable now than at any time in its history for the oil exporting countries are in a position to make it very difficult for Americans to carry on our daily lives should the supply of oil be cut off.

Regarding a question about the licensing for loading nuclear fuel at the Sequoyah Nuclear Plant, some 30 miles distance from Cleveland, I said I could not conceive of a licensing procedure being either premature or "too fast". The prediction I would make would be quite to the contrary for there would be plenty of time to work out everything connected with licensing and loading nuclear fuel at a plant. I added that I was not at all familiar with the case they brought up. Concerning fusion power, I said I did not believe there was any chance at all of thermonuclear reactors being built economically on an appreciable scale until after the year 2000.

On how I felt receiving the Nobel Prize, I said I felt happy and elated to receive it, for the Nobel Prize is in a class by itself and is the best form of recognition that a scientist can receive

I said I spent some time in their area (Clinton, Tennessee) during the early 1940's, when I was visiting the Oak Ridge National Laboratory every month for a period of nearly two years. Mr. Smith said that Clinton is quite close to Cleveland.

The next question concerned what I did as Chairman of the AEC. I said I presided over a Commission of five people, including me, and we were the policy board for all the operations of the AEC. We decided upon the development and building of nuclear weapons, a large amount of support of basic research in the physical

and biological sciences, the production of radioactive isotopes used in medicine today (in virtually every hospital in the country), the interaction with a large number of governments of foreign countries in trying to establish the benefits of the peaceful uses of atomic energy along with the control and prevention of the proliferation of weapons, the development of nuclear power and the breeder reactor, and a large program of aid to education was undertaken including grants to a number of small colleges, etc.

I was asked what field of research a student scientist should concentrate on today. I responded that the first priority for this country is energy. This problem has to be solved since the U.S. cannot continue to rely on importing oil. A young scientist might concentrate on biology or medicine, the field of material development, and methods for finding natural resources. I said that a choice of any of the above would be beneficial to our country.

In closing I said I hoped a number of the students in the audience would choose a career in science. Speaking for myself, I said I never felt that I had to work for a living because I have always done what I wanted and enjoyed doing. Someone always came along to pay me for doing what I liked and wanted to do. The life of a scientist is a very satisfying life and I could indeed recommend it. Mr. Smith thanked me for my time with the students and said he would see me at the ISEF in Minneapolis/St. Paul in May.

At 11:15 a.m. Roger Reeve called to tell me of a special meeting being held by the City Council on Thursday concerning the emergency water lines that developers want to use near Grizzly Peaks Estates. He, along with Mary Good (one of the people who lost their homes in the 1975 fire), and John Sutter (chairman of the group studying the effects of the emergency water usage) plan to attend.

At 11:30 a.m. Jane Olson (American Scientist magazine) called to thank me for the speedy submission of my manuscript and told me I will receive proofs shortly. We discussed the problems she is having in printing two color pictures of Half Dome and Mount Diablo, and asked for ones with more contrast. She also said that the picture of me with the Quiz Kids would not reproduce well on their high speed rotary presses.

I sent Stanley Kirschner an abstract for my talk at the ACS Division of Chemical Education conference in Rochester, Monday, June 23rd. I wrote a letter of recommendation to EVIST on behalf of A. Hunter Dupree. I sent letters to Marie Seaman and Nancy Fahden with itineraries for HikaNation. I replied to a letter from Ken Thomas and encouraged him to write up his thesis for publication. I requested a Faculty Summer Lab Coop assignment with my radiochemistry group and asked for the resumes of Mary Brookins (Jackson State University, Jackson, Mississippi), Galmage Bursh (Southern University, Baton Rouge, Louisiana), Allen Miles (Wiley College, Marshall, Texas), Patricia Reeves (Southern University, Baton Rouge, Louisiana), and Glarretter Carter (Alcorn State University, Lorman, Mississippi).

I had lunch in the cafeteria with Walter Loveland and Earl Hyde. At about 3:30 p.m. I walked down to Latimer Hall to pick up my mail and to look in on the Teaching Assistants in Latimer Hall/Room 405, who were grading the Chemistry 1B final examinations.

I went by Building 70 and talked to Walter Loveland about the two papers he is completing drafts for before he leaves on Thursday. I also talked to Ken Moody about his paper with Matti Nurmi describing our actinide target area, to Pat McGaughey about his measurements of gamma-rays of the isotopes formed in our Bevalac bombardment on Sunday, and to Rose McFarland and Luo Cheng.

I met Helen in Berkeley and we drove to the Sessler home to attend a reception and dinner of recent LBL Associate Directors, in recognition and farewell of Sessler's termination of his LBL Directorship.

Wednesday, March 19, 1980 - Berkeley

I called Norman Tuttle to discuss the agreement on Strawberry that he is drawing up for me and the Madsens.

At 8:40 a.m. I received a call from Walter Goggin of the EBMUD Land Division and we discussed the HikaNation route after crossing the Bay Bridge. I told him that we could go around rather than through the EBMUD water pollution control plant property and he told me about an old timber overpass that we might use that goes over the Southern Pacific Railroad tracks. I told him that I had sent his letter to Mike McReynolds and Goggin said he would be glad to show Mike the route he proposed if Mike would get in touch with him. I asked Goggin if he would be joining us and he said he will join us on April 14th when the group goes from Inspiration Point to Briones Reservoir. He said that he will have rangers standing by for that stretch in case our group needs assistance. He said he will be hiking with the group. He said they have made a new trail that parallels Bear Creek Road and I said that the group would be camping that night near the entrance to Briones at Bear Creek Road.

Rose McFarland came by my office and worked on the abstract for her paper to be presented at the August ACS meeting in San Francisco. I sent my review of "Spontaneous-Fission Branching in the Decay of $^{259}\text{104}$ to The Physical Review. I sent three letters regarding HikaNation to Larry Earl, Joseph Sheedy (Chairman, Board of Supervisors, Sacramento County) and Philip Eisenberg (Mayor of Sacramento). I responded to the 1980 call for proposals for consideration at the Bevatron/Bevalac Nuclear Science Program Advisory Committee to the effect that my group is not requesting any additional running time.

At 9:25 a.m. I called Steve Jackson (engineer for El Dorado Public Works Department, Placerville) to talk about the bridge below the Brockliss Toll Road. I gave him background information on HikaNation and the American Hiking Society and told him our proposed route from the Mount Danaher Ranger Station to Pacific House and then on to Kyburz. I told him we wanted to stay off Highway 50 as much as possible and the way to do that was to use the bridge below the Brockliss Toll Road and continue to Kyburz without going to the Bridal Veil Picnic area. I told him my wife and I had been up to inspect the bridge this past weekend and saw many pedestrians, as well as motorcyclists using the bridge, and I asked whether he could give us permission to cross it for this hike. He said he couldn't endorse anyone going over the bridge

saying it might fail and even with the installation of metal plates it is standing only by a residual distribution of forces. He said that while it may be possible for a car to drive over it without falling, it is possible that foot traffic could make it fall and he didn't advise us to use it at all. He said there wouldn't be anyone stopping us from using it and that he would rather not know if we did use it; we left it at that. He tried to suggest alternative routes and realized that I had investigated them all and this was the best route available. He then gave me the address of Mike Rafferty, a reporter for the Mountain Democrat, for the best coverage of our HikaNation event. I then called Fred Bell to tell him of my conversation with Steve Jackson, engineer of the bridge below the Brockliss Toll Road. I told him of our change of overnight stops from Bridal Veil Picnic area to Pacific House.

Thursday, March 20, 1980 - Berkeley

I had my physical examination at the LBL medical center this morning. It seemed to go well. Dr. John Weaver of Berkeley was the examining physician.

Les Winsberg dropped in at 9:30 a.m. He is visiting his son who lives in Berkeley. Les is spending the spring quarter and summer at Caltech. Walter Loveland dropped in at about 10 a.m. and we went over in more detail some plans for research work after he finishes his present stay here--today is his last day and he will drive back to Corvallis tomorrow.

At 10:25 a.m. I called Mike Rafferty, a reporter who was recommended by Steve Jackson and who writes for the Mountain Democrat newspaper in Placerville. I asked if he had heard of HikaNation and he told me they had already done a story on it when it came before the Board of Supervisors. He said that he expects to have a photographer and reporter go with the group when it comes through their area. I told him that we would be going through Placerville on Sunday, April 27 and said that I would send him an itinerary to aid him with dates and places.

At 11 a.m. I called Don Pearson at the Placerville Parks and Recreation Department to check on progress of arrangements for HikaNation in that area. He told me that there will be a resolution supporting HikaNation before the City Council soon and he has contacted three to four people concerning a welcoming ceremony for us. (He should hear from them by the first of next week.) He said he has spoken to the Mayor and the high school band. The high school band was enthusiastic and the mayor has not returned his call yet. I then told him about our lack of toilets at Rescue and asked if there was anything he could do to help. He will check into it. He said that we might be able to use the school (which is some distance away). He will call back when he has made some contacts. Don asked me what time the group would be coming through and I told him that it might be 4 p.m. or earlier on Sunday, April 27. He said that anywhere along the creek next to Green Valley Road would be nice to stop for lunch. I said that if he joined us, he may be able to help with that.

At 11:45 a.m. I talked with Daniel Ford, a writer for the New Yorker magazine, who will come out to Berkeley to interview me, and others, for a series of articles on the history of nuclear power in the U.S. Among these articles will be a "Profile" article

on my role as Chairman of the AEC, how major decisions were made, my views on the major decisions I was involved in, historical interest material, etc. I suggested he get copies and read the AEC Annual Reports; he said he has read my speeches from those years, press releases, testimonies before Congress, etc. We also discussed his contacting several people working with me at AEC during my tenure - Robert Hollingsworth, Walter Zinn, Alvin Weinberg, Arnold Fritsch, Spofford English, Julius Ruben and others.

I had lunch in the cafeteria with Walter Loveland and Pat McGaughey. After lunch, Loveland and I walked up to the Hilac Building to have a look at progress on the third injector.

I signed letters sent to many members of the Lawrence Hall of Science Advisory Committee inviting them to participate in the Hall's annual fund drive; I also answered a letter from Marcel Roche, Editor of Interciencia (attached), informing her that I agreed with her analysis and suggested solutions. I wrote that I did not have an immediate suggestion for possible funding sources, but I suggested that a committee be formed involving people like Leonard Rieser and Phil Abelson, a suggestion I had made during the Interciencia luncheon on January 6th at the AAAS annual meeting. I also gave her permission to quote my statement that she cited. Finally, I sent some slides that I hope will be suitable for use with my article, "The New Elements" to Jane Olson, American Scientist.

At 2:15 p.m. Ezra Heitowitt from Mike McCormack's office called regarding the budget cuts in the DOE budget that may be suggested by Mike's Committee on Science and Technology. He pointed out that in addition to President Carter's cuts in his present attempts to balance the budget, Congress will make some cuts; these, of course, will get into the nuclear research area. They intend to leave high energy nuclear physics intact and the cuts in low energy nuclear physics will not touch operating but will merely defer the ATLAS accelerator at ANL; they will also slow down the MSU heavy ion accelerator. They will try to protect capital equipment. Other cuts will include deferring the Chemistry and Materials Science Laboratory at LBL although the Atomic Resolution Microscope Laboratory will be kept intact. In answer to my question about the overall budget for high energy physics, he answered 242M, an increase of about 10% over last year; he said that ISABEL is so stretched out already, that the committee is not inclined to cut it further. I told Ezra that from the standpoint of the scientific community as a whole, they will not like it if those huge figures for high energy physics are left more or less where they are and 1 and 2 million dollar cuts are taken here and there - sort of "nickel and dime'ing" all other areas. I said that many of these other sciences are going to bring the country closer to resolving the energy crisis than high energy physics--in fact many people feel the best way to fusion power is through heavy ion inertial fusion. He said perhaps heavy ion inertial fusion research could be taken out of military control and placed under domestic control, and that McCormack now has a fusion expert from ORNL on his staff, Dr. Allan Menze.

I asked about the proposal to centralize all energy legislation into review by one committee. He said that Mike favors a "tripod" effect, in that the Committee on Science and Technology will retain Energy R&D, that a single committee be formed for overall policy functions, thus clearing up ambiguity between the Dingle and Udall committees.

INTERCIENCIA

Marcel Roche, *Editor*
Luis A. Ordóñez, *Editor-Asociado*
Beatriz Fair, *Gerente*

Una Revista de Ciencia y Tecnología para el Desarrollo / A Journal of Science and Technology for Development / Uma Revista de Ciência e Tecnologia para o Desenvolvimento /

5 March 1980

MS 3/20/80

Dr. Glenn Seaborg
University of California, Berkeley
Department of Chemistry
Berkeley, California 94720
USA

Dear Glenn,

I have been giving a lot of thought lately to Inter-ciencia, and have talked about it to quite a few members of the American (in its true sense !) scientific community.

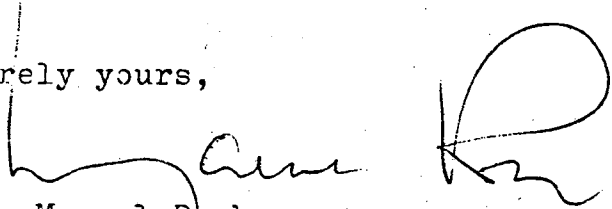
The result of this soul-searching is summarized in the appended document, which is as a matter of fact a very personal one. At my request, however, it will be brought to discussion at a meeting of Asociación Inter-ciencia Executive Body and Regional Editors in Washington 14 and 15 April.

I hope you can find time to read the document and send me your comments before the meeting. You were one of the early motors in this movement and I know of your continued interest; I hope you can help us again with your advice. Preliminary council about possible sources of funds would be specially appreciated.

One last thing: in the next issue of the Journal we would like to quote in a prominent way your statement (related to my parenthetic remark, line 3 of this letter) which was made at the Mexico City meeting in the summer of 1973 (and is again quoted in your mimeographed paper "An International Chemical Society" p.14) beginning "Perhaps the next step might be to join our sister national associations of science in Latin America to create a true American Association...".

With best regards, I am

Sincerely yours,


Marcel Roche

At 3:55 p.m. I talked with Adrian Fisher at his home in the Blue Ridge Mountains, Virginia; he and his wife have just returned from Geneva. I told him about my book, "Kennedy, Khrushchev and the Test Ban: An Eyewitness Account" and the visit my co-author and I had recently with Averell Harriman during which he agreed to make some of his files pertaining to the Moscow negotiations available to us and also agreed to write an introduction for our book. I told Fisher that during our conversation Harriman expressed the hope that there would be no indiscretions regarding the use of this material - no misuses, etc. - and he asked that we make our notes and writing based on his files available to Fisher for his review before the book is finished. He said this would be fine; that he did not anticipate any problems at all. I told him that Ben Loeb, my co-author, will send copies of his notes direct to him at his Virginia home and that he, of course, can see the writing as well when that is complete.

At 4:50 p.m. Lauren Moray called to invite me to a 50th birthday party for Professor Ian Carmichael in the Department of Geology tomorrow night at 8 p.m. Unfortunately, I had to decline.

At about 5:15 p.m. Walter Loveland dropped in to say goodbye. On the way home I went by Building 70 to see Ken Moody and Yoshi Morita. I discussed with Morita his plans for treating the data from his angular distribution part of last Sunday's Bevalac bombardment.

Helen, Dave and I had dinner in the playroom.

Norman Tuttle called to say he met with Donahue (Madsen's lawyer) but came to no agreement regarding Strawberry Lodge. The matter is complicated by Tim Adami's unreasonable demands. Helen drove to Davis to pick up Dianne and Kent.

Friday, March 21, 1980 - Berkeley

I went by Building 70 to talk to Ken Moody, Pat McGaughey and Rose McFarland.

At 9:15 a.m. I called Brad Rovanpera (Lafayette Sun reporter) to ask if he had everything he needed for a story on HikaNation. He said that he had and that Barbara Langlois would be submitting a story with a map of the route to be published before the Hike began. I made arrangements for Brad to meet me at my house on Tuesday, April 15, to follow me up to Briones so that he could get some pictures of the group. He will come to my house at 8:15 a.m. He wants to get pictures of the hikers on Lafayette Ridge.

Brad then asked me a few questions about Three Mile Island since it will soon be the one year anniversary of its occurrence. He wanted an interview next week but I told him that I would be out of town. He then asked whether I thought Three Mile Island (TMI) had been blown out of proportion by the media. I told him that there wasn't as much danger as the media had reported. I told him that I read that the

greatest danger was from car accidents when the people evacuated. I explained background radiation to him and told him that everyone is exposed to it every day and that the dose is 100 millirems/year and that TMI had only added about 1 millirem to that. I explained that radiation would be higher for people in brick or concrete homes or to people who lived in Denver. Brad asked how TMI would affect nuclear power development in this country and I said that I didn't know but that other countries of the world were forging ahead - France, Japan, Russia - and the U.S. may fall further behind because of TMI. I said that France is becoming independent of the importation of oil whereas we are becoming more dependent. Brad asked about the nuclear waste problem and its cost and I said that the problem could be solved if the decision was made and that the public utilities should pay the cost. He asked if I had consulted with the NRC in the past year and I said that I hadn't been asked. He asked about other alternative sources such as solar and I said that would be a long range type of energy. We have coal now and oil shale and perhaps could use some solar energy for heating but we need nuclear to keep a good mix. Brad then asked about the storage of plutonium at the Lawrence Livermore Lab and I told him that people who have worked with plutonium are amused at the furor that was caused and that it isn't as dangerous as the media made it out to be. I told him that a person would have to ingest plutonium, either in the lungs or in the blood stream before it would be harmful. I said that even in the digestive system it would go straight through.

At 10:10 a.m. I called Jeannie Harmon to talk about HikaNation. I asked if she had spoken to Mike McReynolds about the meetings and she said that she talked to Norman Gee and made arrangements to attend this Friday night and next Friday. I asked if she could bring some posters home for me and drop them off at the house so Helen could bring them in to the office on Monday. She said that she could bring them by the house on Wednesday morning when she saw Helen and I said that that would be OK. She will see if she can arrange it sooner but will definitely bring them by on Wednesday I asked for 25 (later I changed it to 50 or 60 after talking to David Meyerowitz who said that he would put them up under the name of the UC-Hiking Club if I couldn't put them up with Student Information Services. Jeannie said that she will put them up on other campuses in her area and five large sporting goods stores We discussed our planned hike for a week from Saturday from Pacific House to Ice House Road and other places. She told me she has obtained the newest map of the Sacramento area and I told her I wrote the Mayor of Sacramento and that someone would have to call him en route to give him approximate arrival time. I also told her that the side trip at Pleasant Grove House would be to Pine Hill Overlook.

I drove to the Rockridge BART station at about 11:15 a.m. and then proceeded by BART to San Francisco to attend the regular Friday noon luncheon meeting of the Commonwealth Club. The meeting was held this time in the Ralston Room of the Sheraton Palace Hotel. I sat at the head table; Edward Teller was the speaker on the subject "Middle East Conflict and U.S. Preparedness." The people at the head table were: Donna M. Smith, Editor, Commonwealth Club of California; The Honorable Salah El-Daour, and Consul General of Egypt; Howard G. Vesper, Former Chairman, General Advisory Committee of the U.S. Atomic Energy Commission; former Member, Club's Board of Governors; Dr. Roger E. Batzel, Director, LLL; Mrs. Edward Teller; Colonel Anthony H. Loughran, U.S.M.C.R., District Staff Manager, PT&T, Chairman, Club's Study Section on National Defense; John R. Shuman, President, John R. Shuman

Associates; Dr. Edward Teller; Ellen M. Newman, President, Ellen M. Newman & Associates; Dr. H. Potter Kerfoot, Vice President and General Manager, Advanced Systems Division, Lockheed Missiles and Space Company; and George R. Marotta, Senior Research Fellow, Hoover Institute on War, Revolution and Peace, Member, Club's Luncheon Program Committee. Since I sat next to Ellen Newman, President of Ellen M. Newman Associates, I had the opportunity to get acquainted with her. I told her about the cross country hike (HikaNation) and she suggested that we get in touch with KQED TV to ask them to film the hike for the record. She will get in touch with Tony Tiano, General Manager, KQED, to suggest this.

After the opening of the meeting by Club President, John R. Shuman, Teller was introduced by Ellen Newman. He spoke extemporaneously and quite sarcastically in his inimitable fashion. He emphasized the great dangers to our country from the almost certain cut-off of our oil supply from the Mideast; he emphasized the possibility of a nuclear war with USSR which, he said, we would lose because they have Civil Defense and we do not. He placed much emphasis on nuclear energy along with coal as the potential sources to meet our demand. He decried our national and state leadership; he said that in this presidential election he would favor some candidate other than Jimmy, Jerry or Teddy and then went on to endorse Ronald Reagan and later suggested that Dixie Lee Ray would be a good Vice Presidential candidate.

For the Question & Answer period following his talk, I submitted a query on his attitude towards Proposition 9. His answer could be interpreted as opposing Proposition 9 because he emphasized the effect that a 30% budget cut would have on the great University of California, mentioning David Saxon in this connection, but went on to say that he would favor Proposition 9 if that got rid of Governor Brown. I rode back with Roger Batzel and his driver as far as the Rockridge BART station and then drove on to my LBL office, arriving about 2:30 p.m.

At 2:45 p.m. I talked with Dr. Ernest Coleman in the High Energy Physics division of DOE about the approval for the visit from PRC of Professor Yuan-fang Liu, Beijing University, to LBL. I explained the reason for my call - the unexplained delays in obtaining permission - and read to him the description of research work to be undertaken by Liu. He said that the probable reason for the delay in approval is because he will be working in actinide chemistry which the defense department people feel is very sensitive - that the "catch" word is most likely "actinide" chemistry. He understood that the heavy ion chemistry that Liu will be doing with my group was done here at LBL 30 years ago and results have been published over and over again, and that Liu would be doing ion exchange separations only. He will talk to Dave Sutter about this matter and try to help clarify the matter so that approval can be given soon - since this has been dragging on now about ten weeks.

Dr. Coleman said he had met me before, he visits Berkeley frequently, was an Associate Professor at Stanford and University of Minnesota; he worked for the AEC during the last few months of its existence.

At 3:45 p.m. I talked with a reporter from the Oakland Tribune, Fred Garretson, who just received a press release from ACS regarding the paper David Morrissey will give at the Houston meeting. The press release would lead to some

misunderstandings about the synthetic production of gold from a base metal. I believe I was successful in clarifying the difference between the production of gold in a few atoms from the production of, say an ounce of gold which would cost more than a quadrillion dollars. I said there was no commercial value to this experiment and it was a basic research experiment of no potential practical use at all.

I was not able to reach Tony Tiano, General Manager of KQED, Channel 9, San Francisco at 3:50 p.m. but I left word with his secretary as to the nature of my call (following up on a telephone call he should receive from Ellen Newman). I told his secretary a little about the hike, the date, purpose, etc. and said I will send him further information on HikaNation today.

David Shirley was appointed Director of LBL today; the announcement was made at the Regents meeting this morning. The appointment is effective April 1, 1980.

I sent a letter of congratulations to Professor Albert Cotton on the occasion of his being awarded the Willard Gibbs Medal; I sent two more abstracts to Ken Hulet for the symposium "Nuclear Properties of the Transplutonium Elements" to be held during the San Francisco ACS meeting in August (attached) I responded to an invitation from Dr. H. C. Britt to attend the Gordon Research Conference on Nuclear Chemistry but unfortunately I will not be able to attend. Several more letters responding to information for HikaNation went out today. I received a very heartwarming fan letter from a young person in Kent, England.

At 4:20 p.m. Nils William Olsson called to go over the agenda for the April 9 meeting of the Swedish Council of America. We also discussed dinner plans for that evening. Nils said that Gus Johnson is seriously ill following a heart attack. We will talk again about these plans before April 8th.

Norman Tuttle called at about 4:30 p.m. to give me a progress report. I talked to Luo Cheng about a date to meet with some of the PRC scientists at LBL, and about his taking a course in Computer Science next quarter. Helen, Dianne, Kent and I had dinner in the playroom. I worked in the study during the evening.

Saturday, March 22, 1980 - Lafayette/Houston

Norman Tuttle came by at 9 a.m. to give me his draft of an agreement between Ken Madsen and me concerning the Strawberry property. I took a hike along Lafayette Ridge from 10 a.m. to 1:15 p.m. to explore the HikaNation route at the east end.

Helen, Dianne, Dave and I had lunch in the playroom (Kent left for his parent's home in Castro Valley this morning), while watching on TV the NCAA semi-final basketball game (in Indianapolis) between UCLA and Purdue University; UCLA won 67-62.

AL-6119.1001 11-6 0-00 00

Production of Heavy Actinides in the
Bombardment of ^{248}Cm with ^{16}O and ^{18}O

D. Lee	Lawrence Berkeley Laboratory		
B. Jacak	University of California	x	x
M. Nurmia	Berkeley, CA 94720		
<u>G.T. Seaborg</u>			x
Cheng Luo	Atomic Energy Research Institute		
	Beijing, People's Republic of China		
D.C. Hoffman	Los Alamos Scientific Laboratory		
	MS-760		
	Los Alamos, NM 87545		

Lawrence Berkeley Laboratory

x

Physical Review

PRODUCTION OF HEAVY ACTINIDES IN THE BOMBARDMENT OF ^{248}Cm WITH ^{16}O AND ^{18}O .*

D. Lee, B. Jacak, M. Nurmia, G.T. Seaborg, Lawrence Berkeley Laboratory, University of California, Berkeley, CA 94720, Cheng Luo, Atomic Energy Research Institute, Beijing, People's Republic of China, D.C. Hoffman, Los Alamos Scientific Laboratory, MS-760, Los Alamos, NM 87545.

The cross sections for production of some 20 isotopes of Bk through No in bombardments of ^{248}Cm with 95 MeV ^{18}O and ^{16}O ions have been measured. The observation of so many isotopes in the region between atomic numbers of those of the target and the compound nucleus points to prominent direct, quasielastic and/or deep inelastic transfer reactions. The recoiling actinide isotopes were caught in gold foils and were radiochemically separated by elution from cation exchange resin columns with alpha-hydroxyisobutyrate. In general, the peak of the mass yield curve for each element is about two mass units higher for the ^{18}O bombardments, reflecting the neutron excess of the projectile.

*Supported in part by the Nuclear Physics Division of the U.S. Department of Energy.

Helen drove me to the San Francisco Airport where I boarded National flight #50, which left at about 6 p.m. (45 minutes late) and arrived at Houston at about 12:20 a.m. (Sunday - about an hour late). I spoke to Norman Tuttle by telephone from the San Francisco Airport before I left.

Upon arrival, I was met by Hettie Hunter, representing the Southeast Texas ACS Section and Oscar Sarabia, Director of Personnel for Houston Independent School District, who drove me to the Hyatt Regency Hotel where I checked into room 2101.

Sunday, March 23, 1980 - Houston

I had breakfast in the Whistler's Walk (restaurant in the hotel) with Gordon Bixler. We talked to Stanley Kirschner who gave me a set of Chinese prints as a gift from Jeing Feng (member of the PRC delegation of chemists to the U.S. in 1977), who asked Kirschner to carry the gift to me when he visited the PRC in December.

I went back up to my room to read ACS material, had lunch in my room.

I went down to the meeting of the Board of Directors in the West Ballroom at 1:30 p.m., soon presented the report of the International Activities Committee for Board approval of the letter from President James D'Ianni supporting the Fourth International Conference on Collective Phenomena to be held by dissident Soviet scientists in Moscow (attached) next month. The Board also approved acceptance of the \$2000 anonymous donation to support travel of a delegate to the meeting of the Executive Committee of the Study Committee on the Formation of an International Chemical Society in Bangkok next month.

I soon went to the Statesman Ballroom of the nearby Sheraton Houston Hotel to give my speech to high school students and teachers of chemistry (the Ballroom was full) sponsored by the ACS Division of Chemical Education and the Southeast Texas Section of the ACS. I was introduced by Henry Shenfield, Department of Chemistry, University of Houston, spoke for about an hour, used 29 slides for my talk "The New Elements." This was followed by about 45 minutes of questions, covering the transuranium elements, my career, including one question on the energy crisis.

Carlos Byers, a reporter for the Houston Chronicle, was there and he asked me questions after my talk about the superheavy elements' physical properties.

I then rode with Hettie Hunter and her daughter to the Houston Museum of Natural Science where, after a reception with buffet food, we heard a talk on the origin of life by Dick Lemmon, then saw a film show in the Burke Baker Planetarium produced by the ACS on "Springtime of the Universe." Here I met Ms. Barbara J. Franklin, Dr. and Mrs. Warren J. Rouborn, Frank Bigger, Dr. G. Warren Smith, Dr. Mike Richard and many others, of the approximately 100 people present. I met Barbara Cooper, daughter of Admiral and Mrs. Krick, long time friends of the Lewis Strauss'. I then rode with Hettie Hunter and her daughter to Brennan's Restaurant. Since it was now nearly 9 p.m., I decided to skip the dinner there, went on to the Sheraton-Houston Hotel. Here I went to Room 2235 to attend the Open House of the Division of

(1) Approval of Letter Concerning the
Fourth International Conference on Collective Phenomena

Based on a proposal by its Subcommittee on Scientific Freedom and/or Human Rights, the Committee on International Activities recommends that the President of the American Chemical Society send a letter of encouragement to the organizers of the Fourth International Conference on Collective Phenomena, which will be held in Moscow, U.S.S.R., April 13-15, 1980.

The proposed text for Board consideration is as follows:

Dr. Victor Brailovsky
Vernadsky Pr. 99/1/128
Moscow - 117526
U.S.S.R.

Dear Dr. Brailovsky:

The American Chemical Society is dedicated to the advancement and dissemination of knowledge of the science of chemistry. As part of that purpose, we are committed to act to preserve and to enhance freedom of scientific communication and the exchange of scientific information.

With this in mind, the Board of Directors of the American Chemical Society joins me in expressing our earnest hope for the scientific success of the Fourth International Conference on Collective Phenomena to be held in Moscow on April 13-15, 1980. Please convey to your colleagues on the Organizing Committee of the Conference and in the scientific community of the Soviet Union our best wishes for a successful conference helping us toward new advances in science.

Sincerely,

James D. D'Ianni

This conference was brought to the attention of Dr. Ellis Fields in his capacity as chairman of the Subcommittee on Scientific Freedom and/or Human Rights by Dorothy Hirsch, Co-Director of the Committee of Concerned Scientists, Inc. In her letter of November 20, 1979, to Dr. Fields, she asked that the ACS join other societies as a sponsoring society, and she provided the following background to the conference:

...these International Conferences are an outgrowth of the permanent weekly Sunday Seminar, the first session of which took place on April 12, 1972. Its participants are Soviet scientists refused permission to leave the USSR, yet deprived of their professional means of livelihood within it. The eclectic nature of the topics covered at these meetings provides a forum for scientific exchange

for ostracized scientists in a variety of disciplines. It is through the milestone international meetings that even broader scientific exchange is achieved coupled with an extremely effective demonstration of support for refuseniks and dissidents.

In July 1974 the first International Conference was aborted as a result of the KGB arresting the Soviet participants and the denial of visas to foreign scientists on the grounds that they had not been invited by a bona fide organization. The fate of this "seminar-that-never-was" was widely attributed to the excesses of advance publicity working to provoke the Russians.

Avoiding advance publicity to obviate any appearance of provocation to Soviet authorities, the Fifth Anniversary Seminar did take place in April 1977. Participating were nine American, one Canadian and some twenty to thirty Soviet scientists. The Conference was "open" in every sense of the word with its title deliberately chosen to accommodate as wide a cross-section of scientific interest as possible. This was the first unofficial international conference to be held in the USSR in over fifty years.

Advance planning for the third in the series of International Conferences was distinguished by low key publicity. Of the eight Americans who applied for visas to attend the December 1978 Conference, only three were permitted to enter the USSR. The three-day gathering was the scene of lively scientific interchange among the three Americans, one Briton, seven Frenchmen and some twenty-five to thirty Soviets. An upcoming issue of the Annals of the N.Y. Academy of Sciences will feature the papers presented at this meeting.

Dr. Fields and the subcommittee considered her request but decided not to recommend that the ACS serve as a sponsor for the forthcoming fourth conference. Their basic reasoning:

The subject matter is primarily addressed to physicists and ACS sponsorship should be limited to meetings more closely allied with chemistry.

The International Activities Committee concurred with the subcommittee's recommendation that the ACS not serve as a sponsoring society. In doing so, however, the suggestion was made that a simple letter of encouragement such as is presented here for Board consideration be sent. By mail ballot, the International Activities Committee voted eight to seven in favor of recommending to the Board that a letter be sent.

Chemical Education, hosted by Dr. and Mrs. Glenn Crosby (he is from Washington State University) and Dr. and Mrs. John Moore. Here I talked to Art Campbell (who is again going to teach Chemistry 1B at Berkeley this summer), the Gardner Stacy's, many high school teachers (here as a result of the Division's new high school program), others. I met Sylvia A. Ware, Manager, Office of High School Chemistry, American Chemical Society. She invited me to be on an advisory committee for the ACS high school chemistry program and Dr. W.T. Lippincott will get in touch with me about this.

I then returned to my room.

Monday, March 24, 1980 - Houston

I went to the Pecan Room to attend the meeting of the International Chemical Society Subcommittee of the International Activities Committee. We agreed that at the Bangkok meeting Stanley Kirschner, as a fallback position, should agree to a worldwide Federation of Chemical Society Federations that would have individual memberships through national chemical societies. Nominal dues of \$1 to \$3 per year might be collected through national chemical societies. If the other representatives, except the German representative, opt for a more direct international chemical society, which of course would exclude the Europeans, we might agree to that. Because the Board, yesterday in executive session, rescinded its earlier action (that accepted the \$2000 anonymous donation to send the African representative to Bangkok), I strenuously objected to this whole matter of treatment of the \$2000 donation.

The meeting was attended by Stanley Kirschner, Jesse Hwa, Minoru Tsutsui, Bob Brasted, Polly Newman (toward the end), Al Zettlemoyer, and Gordon Bixler. There also was general agreement that we should move toward the establishment of an ACS Division of International Activities. Jesse Hwa will pursue this with Bill Bailey.

At 10 a.m. I went to Bob Henze's room (No. 1914) to attend the meeting of the Scientific Activities Group of the Science Commission. Present were Roy Whistler, chairman, Herbert Kaesz, Marvin Lang, Barbara Montague, Al Zettlemoyer and Bob Henze. We tried to identify scientific activities that are not receiving attention in the Science Commission. I emphasized the importance of bringing high school teachers of chemistry into ACS activities. I also identified the problems we are having with the Meetings and Expositions Committee on scheduling international meetings.

I walked to the Albert Thomas Convention and Exhibit Center, walked through the exhibit area. At the J.T. Baker exhibit I talked to Paul Klaas and at the Prentice Hall exhibit I talked to Betsy Perry.

I then met Joyce Kaufman, Olga Kinard (crystallographer from England) and Enrico Clemente (quantum chemist from Italy now with IBM). We had lunch together at the Normandy Cafeteria. Joyce said that Benchmark wants a book on Nuclear Chemistry. I told her that Walter Loveland will collaborate with me on this. Joyce and I also discussed the problems with scheduling international meetings, e.g. at Honolulu in 1986 - particular opposition comes from the Meetings and Expositions Committee and the Divisional Officers Caucus.

I walked back to the Hyatt Regency Hotel. I then went down to the Redbud Room to preside over the meeting of the International Activities Committee from 2:30 to 5:30 p.m. Present were Bob Brasted, David Breslow, Ellis Fields, Marjorie Gardner, Jesse Hwa, Stanley Kirschner, Polly Newman, Bob Parry, Cyril Ponnampereuma, Arthur Roy, Bill Bailey, John Sheehan, Fred Rust, Harry Szmant, Edward Biehl, Milton Harris, W. Fox, M. Tsutsui. Paul Florey was among those in the audience who contributed.

We followed the agenda. High points were the decision to send a strong letter of protest regarding Sakharov to Soviet authorities with many carbon copies (C&E News, New York Times, etc.). We also decided to pursue the matter of a Pacific Basin meeting in Honolulu in 1986.

I went to my room, quickly changed to my tuxedo, went to the Cottonwood Suite for picture taking. I had my picture taken with Wayne Gladfelter, recipient of the first Nobel Laureate Signature Award for a Graduate Student in Chemistry sponsored by J. T. Baker Chemical Company, and N. Paul Klaas (President of J. T. Baker Chemical Company). I talked to Bob Parry, arranged to have the ACS pay the travel costs of Adgangba to Bangkok and back after all I also talked to Art Poskanzer (recipient of the ACS Award for Nuclear Chemistry) and John H. Neiler (Vice President, EG&G ORTEC, sponsor of the Award). I next went to the reception in the Imperial Ballroom, then into the adjacent part of the Ballroom for the Awards Dinner and Program. I sat at a table with Paul Klaas, Warren Kingsley, John Wotiz, Dr. Pignolet (friend of Gladfelter) and some other representatives of J T, Baker Company.

ACS President James D'Ianni presided, Milton Harris gave his Priestley Medal Address on "Science and Technology in the '80's--The Hopes and The Hindrances." I participated in the presentation to Gladfelter, along with N Paul Klaas. President D'Ianni told the audience that I participated in my role as a 1951 Nobel Prize winner, 1976 ACS President, and the person who conceived the Award. I talked to Sukh Dev (Multi-Chem Research Center, India) to ask why he signed the anti-ICS letter that originated in Germany, To my surprise he said he did this because he thinks that IUPAC can be modified to have individual members. I explained this is our view as well. Perhaps he will modify the Indian stand now that he understands the situation.

I went up to my room, saw the last part of the NCAA Basketball Championship between UCLA and the University of Louisville; Louisville won, 59-54,

Tuesday March 25, 1980, Houston

I had breakfast in my room then went to the Laredo Room in the nearby Sheraton Houston hotel to attend the meeting of the Science Commission. Present were Warren Falconer, Chairman, R. L. Whistler, Jordan Bloomfield, J Kenneth Craver, James Idol, Herbert Kaesz, C. M. Lang, William E. McEwen, Barbara Montague, Polly Newman, Bob Parry, Lockhart Rogers, M. Kent Wilson, Bob Henze, Clayton Callis, George Brown and Robert K. Fox, some for all and some for part of the time. Others were present as well.

Of interest to me was the unanimous adoption of a resolution requesting that a meeting be held in Honolulu at the first possible opportunity after 1985. Another resolution endorsed Atlanta for the spring 1986 meeting, and still another endorsed Honolulu for the fall 1986 meeting if the Meetings and Expositions Committee (in meetings with me and representatives of other committees) can be convinced to change the site from their proposal that it be Anaheim. I offered to attend a meeting of the Meetings and Expositions Committee if it is held on June 24th.

We then had lunch in the Board Room. I sat next to Herb Kaesz of UCLA (we discussed the forthcoming June Symposium in honor of Saul Winstein at UCLA in which I will participate) and Roy Whistler (member of Committee on Committees). I suggested that David Whetstone be appointed to the International Activities Committee and told Roy that I would like to terminate as Chairman of IAC at the end of 1980, after four years of service.

I walked to the Albert Thomas Convention Center and attended, in room 202, the symposium in honor of Art Poskanzer. Earl Hyde presided and spoke on "Art and Science" after which Art Poskanzer gave his Award Address "Central Collisions of Relativistic Nuclei". During the intermission I spoke to Hans von Gunten about his planned sabbatical with my group at LBL. He and his family will arrive about July 15-20. He will inform us of the exact date so we can find him a three-bedroom house to rent. He will take a two week vacation in August (Yosemite--Yellowstone Parks, etc). He and his son, Urs, like to rock climb so I told him about the 800 - 1,000 foot perpendicular cliff at Strawberry (this is Lover's Leap). He prefers Bevalac work and the Edelstein program.

Klapisch told me that the CERN Advisory Committee approved our experiment. Helge Ravn (of Denmark), in charge of this area of research at CERN, will be in Berkeley on Monday, where he will speak at the NSD seminar. I next heard the talks by Bruce Wilkins on "Evidence for a New Reaction Mechanism in the Interaction of 3-12 Gev/c Protons with Uranium," and J. R Nix on "What Are We Learning from Relativistic Heavy-Ion Collisions."

I then walked back to the Hyatt Regency Hotel, went up to my room, called my office and talked to Pat Johnson. She told me about the information from Julie Ruben on Dan Ford--he is not connected with New Yorker magazine. I suggested she call off my appointment with him next Tuesday. I then called Julie Ruben to confirm the problem with Ford. I had dinner in my room and then did some reading.

Wednesday, March 26, 1980 - Houston

I had breakfast in my room and then went to the Ballroom to attend the ACS Council meeting. President D'Ianni presided and the Agenda was followed. A resolution of commendation for Herman S. Bloch was adopted in recognition of his 34 consecutive years of service on the Council and ten years on the Board of Directors.

Robert Parry and Mary Good were selected as candidates for President-elect and Gordon Knapp was selected to fill the vacancy on the Committee on Nominations and Elections. At the intermission I went up to my room to return a call from Paul Fields at ANL in Chicago. Paul told me that the McCormack House Committee has terminated ATLAS and will not ask for its authorization. I said I doubted that it had been terminated. I said I believe that it had been postponed, an act that has become almost routine. I said that our Third Injector at LBL was also postponed. I promised to call Mike McCormack's office about this.

I returned to the Council meeting and heard Warren Falconer make the motion that the Fall 1986 meeting should be held in Honolulu. I spoke in favor of this motion and emphasized the planned participation of PRC chemists, the need to rank scientific and international cooperation values above cost at least once in every 13 meetings. The vote was yes--106, no--215, 26 abstained. There was a motion that the Fall 1986 meeting be held in Anaheim. The vote was yes--165, no--75 and abstain--106. Larry Powell at the Northeastern section moved that a "third meeting" be held in Honolulu (ordinarily two meetings are held each year). The vote was yes--144, no--122 and abstain--80. When I stepped into the foyer for a moment, Hans Roth of Bell Laboratories invited me to speak (on the superheavy elements) at Bell Laboratories in their Distinguished Lecture series. The lectures are on Monday or Friday near the middle of the month and he suggested the months of October or January. He will write me. William Marshall of ORNL told me he has joined IPA and may attend the August meeting in Washington. James Idol offered me his help to advance the cause of a Honolulu meeting and Professor Clay Sharts (Chemistry Department, San Diego State University) offered to serve on the IAC India Committee and gave me some personal data.

The Council meeting adjourned at about 1:15 p.m. I had lunch in the Regency Cafe with Al Zettlemoyer, Bob Fox, Paul Smith and Patricia Figueras.

After lunch, I talked to Warren Falconer, Bob Henze, and Al Zettlemoyer. We asked Henze to talk to Winsted to find a time for meeting in Honolulu (a "third meeting") in 1986, 1985, or even 1984. Falconer has asked Jordon Bloomfield to have his sub-committee work on this also.

I went to the Laredo Room in the Sheraton Houston Hotel to attend the symposium on Federal R & D Funding in Chemistry. ACS President James D'Ianni presided and the speakers and their topics were Gayle Pesyna on "The Role of the Office of Management and the Budget in Development of the Federal R & D Budget," Richard S. Nicholson on "R & D Funding in Chemistry at NSF," Elliot Pierce on "Chemistry Research at the Department of Energy."

I then went to the nearby San Antonio Room to attend a Board reception and dinner for the R & D Symposium speakers. Polly Newman and I talked to Board members Joe Adamcik, Jim D'Ianni, and Bill Bailey, as well as Ray Mariella, about the now planned Honolulu meeting. I sat at a table with Gayle Pesyna (recently with OMB, now with President Carter's National Agenda for the 1980's Commission), Richard S. Nicholson (in charge of the Chemistry Division of NSF), Jim D'Ianni, Bill Bailey, and Nhung McClelland (ACS Office of Chemistry and Public Affairs staff). I described for my table companions the annual Washington STS program.

Bailey, Newman, Bob Fox and I then went up to the top of the Hyatt Regency Hotel to have a drink in the rotating bar. We outlined some criteria for the 1985 (1984 or 1986) Honolulu meeting.

Thursday, March 27, 1980 - Houston/San Francisco

I had breakfast in my room and then took a taxi to the Albert Thomas Convention Center. Here in Room 202 I attended a program of the Division of Nuclear Science & Technology. I heard papers by James M. Symons, "Production of Nuclei Far from Stability in ^{56}Fe -Induced Reactions," Darleane C. Hoffman, "Production of ^{259}Fm in Bombardment of ^{248}Cm with ^{180}O ," Edwin Kashy, "Precise Mass Measurements of Nuclei Far from Beta Stability," and Kenneth S. Toth, "Investigation of Nuclei Near $N=82$; Evidence for a Shell Closure at $Z=64$." I commented on the many ways in which Flerov's work on elements 104 - 107 has been proven wrong. I told many of the members of DNST about the planned Honolulu meeting and expressed the hope that DNST will participate. I also told Teng Fu-shang that I suggested PRC participate.

I took a taxi back to the Hyatt Regency Hotel and then went to the Peppercorns restaurant to have lunch with Ray Mariella, Jim D'Ianni, Polly Newman, Bill Bailey and Bob Fox (an ad hoc committee) to discuss plans and strategy for the Honolulu meeting. Afterward, I went to my room to call my LBL office. I talked to Pat Johnson (to be brought up to date on my mail, etc.) and to Al Ghiorso (about tomorrow's symposium on the 25th anniversary of Md.).

At a little before 4 p.m. I took a taxi, along with Darleane Hoffman and Herbert Strauss to the Houston International Airport. Here, joined by Dave Morrissey, we boarded National Airlines Flight No. 117, which left at about 6:15 p.m. and arrived at the San Francisco International Airport at about 8 p.m. Helen met me and Herb Strauss rode to his Berkeley home on Prince Street with us. When I arrived home I was greeted by Dianne. I went over my stack of accumulated papers.

Friday, March 28, 1980 - Berkeley

I called Ezra Heitowitt in U. S. Representative Mike McCormack's office, at 8:25 a.m., to discuss certain portions of the DOE budget, which pertain to ANL's ATLAS program in particular. In his opinion, the budget adjustment for this program is a postponement, not a final cut in the program. He has discussed this with several people from ANL (Jerry Garvey for one), and also told them that the Committee will make a recommendation in their report that this budget item is only to delay the program for one year and the Committee will support and encourage the Department to resubmit this request for authorization in the 1982 budget. There are no new developments in the DOE budget matter, except that some adjustments will now be made in the high energy physics construction requests.

At 8:40 a.m. I returned a call from Lynn Malgren, the new Director of the American Swedish Museum in Philadelphia. My plan now is to arrive in Philadelphia at 11 a.m., take a taxi directly to the Museum, have lunch with her, and perhaps with other members of the Board of Governors of the American Swedish Historical Foundation and Museum, and look over the exhibit in the museum that contains material regarding my career. She wants to bring the Seaborg exhibit up to date and this can best be done when I am there to give advice and see what they already have on hand. In the meantime, I will send her an updated biography and picture. The meeting of the Board of Governors will begin at 2 p.m., allowing me an hour's time to be with them.

At 8:50 a.m. I talked with Mary Painter, New Yorker magazine, regarding the request of Daniel Ford, Union of Concerned Scientists, to interview me for a piece he is writing on nuclear power. She explained to me the policy of the New Yorker regarding the publication and acceptance of articles--they do not have salaried or commissioned writers on their staff. I told her that I was concerned about the questionable manner in which Mr. Ford presented his affiliation with the New Yorker. I also told her that because of my heavy schedule at this time, I could not devote the time to the kind of interview Mr. Ford is seeking.

At 9:40 a.m. I talked with Curtis Carlson who said he was meeting at this time with members of the Awards Committee. He asked if I had contacted Candice Bergen regarding the posthumous award to Edgar Bergen; I said I had not and believed that protocol would call for me contacting Mrs. Bergen first. I agreed to do this and report back to the Board on April 9th. Curtis has contacted the Lindbergh family and, departing from their long-standing practice of not accepting awards of any kind, they have decided to accept the award of the Swedish Council of America. It may be that Mrs. Charles Lindbergh and her son will attend the ceremony. Curtis told me he is bringing his wife, Arlene, to the Swedish Council of America dinner and she will also attend the April 10th dinner at the Wachmeisters.

While I was in Houston I received a telegram from Kjell Aleklett giving me the news that our proposal was accepted by CERN; I received a copy of a letter to Monty Montgomery written by the Director of the Heritage Conservation and Recreation Service (U.S. Department of Interior), Chris Delaporte, regarding HikaNation (attached); I also received a nice letter from the Cleveland High School due to the conference call I had with chemistry students (attached); I received a group of copies of correspondence regarding the International Chemical Society--from Eric Parker (Royal Institute of Chemistry, London), T.H. Glynn Michael (The Chemical Institute of Canada), Sukh Dev (representing Presidents of Chemical Societies), and Tan Sri Dr. B.C. Sekhar (Malaysian Institute of Chemistry) (attached). I answered a letter from Professor Sidney Drell (Stanford Linear Accelerator Center) asking me to join with him and some colleagues in a Committee of Support for an International Scientific Congress dedicated in honor of Andrei Sakharov, which I agreed to do. He sent me a copy of a letter from Drs. D. Chudnovsky, G. Chudnovsky, and B. Moisezon, initiators of the idea of a Sakharov tribute (attached).

At 10:50 a.m. today Daniel Meyerowitz, head of the U.C. hiking club called me for information regarding HikaNation. I described much of the route across California, and told him I could send him a detailed itinerary. He said that he just noticed a small

1980



United States Department of the Interior

HERITAGE CONSERVATION AND RECREATION SERVICE
WASHINGTON, D. C. 20240

IN REPLY REFER TO:

*Clear
Fall
Candy*

18 1980

870 2/27/80

Monty Montgomery
HikaNation Coordinator
American Hiking Society, Miami Branch
18600 S.W. 157th Avenue
Miami, FL 33187

Dear Mr. Montgomery:

I want to wish you, and all the other hikers who will be joining you, the best of luck for the successful completion of the HikaNation.

I am pleased that this Service has been able to cooperate as closely as it has with the American Hiking Society in the planning for the cross-country hike. The hike has great potential for assisting both our organizations in implementing our hiking and trail programs. It also should serve as a challenge to hikers and other trail organizations, and as a vehicle for demonstrating the need for a coordinated trails effort throughout the Nation.

Under the Intergovernmental Personnel Agreement between this Service and the American Hiking Society, we are employing a staff member of the AHS in our Washington office throughout October, 1980 to assist with mutually beneficial trail programs, such as our National Trails System Planning Effort, an urban walking program and the HikaNation. The trails coordinators in our regional offices will also be providing cooperative support for the HikaNation throughout its duration. They will be your contact points for any assistance you may require from the HCRS in these regions.

The HikaNation should be an exciting endeavor for both our organizations. As the HikaNation Coordinator, however, you have the most exciting job--that of traveling with the hikers to provide support services as they make their way across the Nation.

I am looking forward to following your progress and of welcoming you to Washington, D.C. when you complete the last leg of your hike down the C&O Canal next spring.

Sincerely,

Chris Therral Delaporte
Director

CLEVELAND HIGH SCHOOL

CLEVELAND, TENNESSEE 37311

CHARLES F. CARRICK
PRINCIPAL

850 RAIDER DRIVE
PHONE 472-4588



March 20, 1980

Apr 3/26/80

Dr. Glenn T. Seaborg
University of California
Lawrence Berkeley Laboratory
Building 70A Room 3307
Berkeley, California 94720

Dear Dr. Seaborg:

Thank you very much for taking time from your busy schedule to speak to my classes. They were excited prior to your talk; however, your talk stimulated an even greater interest in all fields of science, especially nuclear chemistry. This experience will be one of the memorable events of their high school years. Again, thank you for providing your time, specifically, and generally thank you for your interest in high school science education.

I hope to see you in May at the International Science and Engineering Fair in St. Paul.

Sincerely,

Ashley Smith
Ashley Smith

S/e

MAR 26 1980



Copies to Dr. Kirochner, Beasted, Hwa, Perry, Seaberg, Isoton

Royal Institute of Chemistry

30 Russell Square, London WC1B 5DT 01-580 3482

RE Parker, BSc, PhD, CChem, FRIC/Secretary & Registrar

RECEIVED

Professor Gardner Stacy
American Chemical Society
1155 Sixteenth St NW
WASHINGTON DC 20036
USA

MAR 19 1980

OFFICE OF
INTERNATIONAL
ACTIVITIES

BSA 3/27/80

5 March 1980

REP/EKM

Dear Professor Stacy,

INTERNATIONAL CHEMICAL SOCIETY

We have now heard from three more Presidents, all of whom support the letter that I sent to you from twenty Presidents and who wish also to become co-signatories. They are Professor Sukh Dev of the Indian Chemical Society, whose letter I enclose; Dr R Ohlson of the Swedish Chemical Society, whose letter was, I understand, sent directly to you; and Tan Sri Dr B C Sekhar of the Malaysian Institute of Chemistry. In the last case, Dr Sekhar has not sent me the actual signed copy of the letter but the enclosed letter from him makes the position of the Malaysian Institute clear.

I shall of course keep you informed if and when any further letters arrive.

Yours sincerely,

Eric Parker

cc Dr James D'Ianni



Wava, Perry, Seaberg, Boutsin, Stacy, D'Amico KNH 0 61
 3/17/80
 2/19/80

THE CHEMICAL INSTITUTE OF CANADA
 L'INSTITUT DE CHIMIE DU CANADA

EXECUTIVE DIRECTOR T.H.G. MICHAEL, F.C.I.C., DIRECTEUR EXECUTIF
 151 SLATER, SUITE 906, OTTAWA, ONTARIO K1P 5H3
 TELEPHONE (613) 233-5623

RECEIVED

1980 March 11

Dr. R.E. Parker, F.R.I.C.
 Secretary and Registrar
 Royal Institute of Chemistry
 30 Russell Square
 London WC1B 5DT, England

MAR 18 1980

OFFICE OF
 INTERNATIONAL
 ACTIVITIES

RECEIVED
 MAR 17 1980

Executive Director's Office

re: International Chemical Society

Dear Eric:

I am acknowledging copies of your letters of January 21 and March 5 regarding reactions to the proposal discussed in Washington, D.C., in September 1979, to establish an International Chemical Society.

May I first say that neither Dr. Renzoni, the incumbent President of this Institute, nor I, appear to have a copy of the original letter from Drs. Spinks and Norman referred to in the January 21 letter. This may be one more sad commentary on the state of the Canadian postal system.

I have discussed the whole matter again with Dr. Renzoni, who is out of the country at the moment. He has asked me to comment on the matter on his behalf, essentially to say that the meeting of the Chemical Society Presidents appointed a committee in Washington to explore the desirability or otherwise of founding a society, and not to proceed with its establishment. He feels that The Chemical Institute of Canada should not express a firm opinion on the proposed action until the committee's report and recommendations are known.

However, I can say on behalf of Dr. Renzoni, and also personally, that on the evidence so far presented, we cannot see the viability of any new organization, and would much prefer to see some extension of IUPAC activities so as to achieve greater international cooperation.

With the very best regards.

Yours sincerely,

T.H.G. MICHAEL

T.H. Glynn Michael, F.C.I.C.
 Executive Director

THGM/jf

cc: Dr. L.S. Renzoni, F.C.I.C.
 Dr. R.P. Mariella

THIS COPY FOR...

RECEIVED

Professor Gardner Stacy
American Chemical Society
1155 Sixteenth St NW
WASHINGTON DC 20036
USA

MAR 19 1980

OFFICE OF
INTERNATIONAL
ACTIVITIES

Dear Professor Stacy,

INTERNATIONAL CHEMICAL SOCIETY

We, the undersigned Presidents of Chemical Societies, believe that the course of international collaboration in chemistry would not best be served by the creation of an international chemical society with individual members. Such a society would cut across existing national societies and would inevitably lead to greater expense and to dilution of effort.

We believe that international collaboration would be better served by building on existing institutions and, in particular, on the existing national chemical societies and on federations of these societies. There are already federations in Europe and Asia and Latin America and there is a Union of Arab Chemical Societies and an Association of Faculties of Science of African Universities. It seems to us that a framework could easily and economically be developed to link together these federations and similar groupings, provided that appropriate safeguards were devised so as not to exclude societies which are not presently in any such grouping. It is possible that such a framework might be formed through IUPAC.

We hope that a solution of this kind will find favour and that scarce resources will not be expended in attempting to create a single international society, which we do not believe could be viable either now or in the foreseeable future.

Yours sincerely,

Sukh Dev

28.12.79

Dr Sukh Dev
President

144e

-7 FEB 1980



MALAYSIAN RUBBER RESEARCH AND DEVELOPMENT BOARD

RECEIVED

NATURAL RUBBER BUILDING, 150 JALAN AMPANG, KUALA LUMPUR 04-06, MALAYSIA

P.O. BOX 508, KUALA LUMPUR 01-02, MALAYSIA Telex: MRRDB MA30953

Telephone: 23451/2 Telegraph: Conserch, Kuala Lumpur
83305/6

Our ref:

Your ref:

MAR 18 1980

OFFICE OF
INTERNATIONAL
ACTIVITIES

29th January 1980

Dr R E Parker
Secretary & Registrar
Royal Institute of Chemistry
30 Russell Square
London SC1B 5DT

Dear Dr Parker

I have just seen your letter to Professor Stacy on the formation of the International Chemical Society.

The Malaysian Institute of Chemistry although late in submitting their views, nevertheless endorsed the points expressed in the letter signed by the various Presidents of Chemical Societies.

I am sorry for not responding to you earlier. I was away and the Council had met and all this took an inordinate period of time. If there is any purpose served in your next communication to Professor Stacy, you may inform him that the Malaysian Institute of Chemistry is in agreement with your Institute and others on the proposal of the International Chemical Society.

Yours sincerely

(Tan Sri Dr B. C. Sekhar)

President
Malaysian Institute of Chemistry

c.c. Secretary
Malaysian Institute of Chemistry
c/o Rubber Research Institute of Malaysia
P.O. Box 150
Kuala Lumpur
Malaysia.

March 25, 1980

Dear Colleague,

In Moscow on January 22, 1980, Dr. Andrei D. Sakharov, the outstanding Soviet physicist and Nobel Peace laureate, was arrested and stripped of all his state and academic awards and honors. Dr. Sakharov and his wife were sent into exile in Gorky, and Dr. Sakharov was barred by the authorities from all communication with foreigners and also with many inside the country. Dr. Sakharov has a serious heart condition, and his wife is half blind. On February 4, Mrs. Sakharov issued an urgent appeal to scientists all over the world to help Dr. Sakharov.

Dr. Sakharov is a genuine defender and protector of all innocent victims of state persecution in the U.S.S.R., and is one of the principal leaders of the struggle for human rights all over the world. Dr. Sakharov is an exceptional example in human history of an outstanding scientist who has devoted his life to the protection of human rights and to the progress of mankind.

This arrest has caused great shock, as well as widespread expressions of outrage, in the international scientific community. It is having a profoundly harmful effect on cooperation between the Western and Soviet scientific communities. Many scientists are now finding themselves unwilling to participate in such official scientific exchanges while not only Sakharov, but also other colleagues, are being denied their human rights in the Soviet Union.

The purpose of this letter is to propose an International Scientific Congress dedicated in honor of Andrei Sakharov. This conference could serve two purposes. The first would be to demonstrate strong international support for him and what he stands for as a courageous and outspoken leader of the human rights movement. The second would be to honor his important scientific contributions in the year of his sixtieth birthday. We propose to invite leading intellectuals, scholars, and scientists in the world who would report on Dr. Sakharov's contribution in Physics, as well as on his writings and work in support of human rights throughout the world.

Ideally, this conference should be in New York, New York, and the time would be in the winter of 1980-81. We will look to private foundations and national scholarly societies for support for this conference.

Your help and suggestions concerning this idea, as well as an expression of your interest, are most cordially requested.

(signed)

Dr. D. Chudnovsky

Dr. G. Chudnovsky

Dr. B. Moishezon

ad for HikaNation on a Sierra Club bulletin board. I explained the registration procedures and the fees and the opening weekend ceremonies on April 12 and 13 starting at the Polo Grounds in Golden Gate Park. He said he is considering doing the whole trip. We then talked about the posters which need to be distributed. He said we could use the U.C. Hiking Club as a sponsoring group so we could distribute the posters to all the campus offices. I told him that I would also send him the list of state coordinators so he could contact them for further information about their state. Daniel then told me he is a nephew of Ben Orlove, my friend and Assistant Professor of Anthropology at U.C.-Davis, and that he had been to my house several years ago.

Greg Choppin and Trish Baisden dropped in at 11:15 a.m. I gave them autographed copies of the proceedings of the 97-98 and 99-100 25th anniversary symposia.

I talked to Walter Loveland, who is here for a seminar being given at the Lawrence Hall of Science, about the Benchmark book on nuclear chemistry. We agreed to collaborate on this and get started soon. He will add to my outline of topics and send the revised outline to me for forwarding to Joyce Kaufman.

I hosted a luncheon in the bottom level of the cafeteria for participants and other guests in connection with the 25th anniversary of the discovery of mendelevium. Present were Earl Hyde, Jack Hollander, David Shirley, Richard Diamond, Walter Loveland, Luciano Moretto, Michael Nitschke, Wladyslaw Swiatecki, John Wild, Ron Loughheed, Trish Baisden, Diana Lee, Jan Rydberg and Rod Degan. After lunch Joe Moore took pictures in front of Building 70A of the entire luncheon group and the discoverers of mendelevium (Ghiorso, Harvey, Choppin and me) and the program participants (Ghiorso, Harvey, Choppin, me, Hulet, Hoffman, and Arnold M. Friedman).

At 2 p.m. the program on the 25th anniversary of the discovery of mendelevium started in Room 3377 of Building 70A. I presided and the program was followed. Portions of the program were filmed by Jim Halverson and all of it was recorded on tape (for use in preparing the Proceedings). In my introductory remarks I showed 13 slides and showed the film (last half of program No. 8 of The Elements) covering the re-enactment of the discovery of mendelevium (shown by Lee Merrill). I made special reference to Stan Thompson and my relationship with him and his role. I introduced in turn and with numerous personal references, Ghiorso, Harvey and Choppin, and each of them give charming "reminiscences." I then introduced Ken Hulet who spoke on "Chemical Properties".

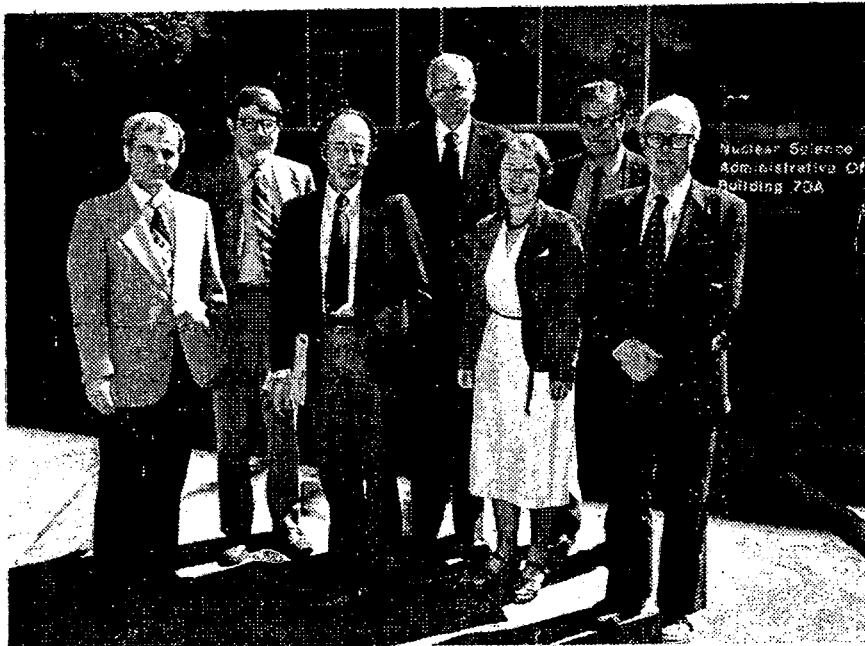
After an intermission I introduced Darleane Hoffman, who talked on "Nuclear Properties" and A. Friedman, who talked on "Radioactive Properties". I then brought the program to an end with a summary of the special role of the discovery experiment in setting the stage for the discovery of heavier elements and the unique role of mendelevium.

I had dinner in the playroom with Helen, Kent and Dianne, and afterward, worked in the study during the evening.



Anniversary Commemorating the 25th Anniversary of the Discovery of Mendelevium, March 28, 1980

First row: Arnold Friedman, Earl Hyde, (unknown), Darleane Hoffman, Greg Choppin, Bernie Harvey, (unknown), Jack Hollander, Diana Lee, Trish Baisden, Dick Diamond. Second row: Walter Loveland, Ken Hulet, Wyadslaw Swiatecki, (unknown), Seaborg, Dave Shirley, Al Ghiorso, Ron Loughheed, Mike Nitschke, Luciano Moretto.



L to R: Greg Choppin, Ken Hulet, Arnold Friedman, Seaborg, Darleane Hoffman, Al Ghiorso, Bernie Harvey.

Saturday, March 29, 1980 - Lafayette/Strawberry Lodge

Helen and I drove by Jeannie Harmon's to pick her up, then drove to Pacific House (on Highway 50 just beyond Fresh Pond). We parked our Phoenix, hiked down Peavine Ridge Road to and over the condemned bridge over the South Fork of the American River and on up to Brockliss Toll Road (or a similar old road, now only a trail) to eat our back pack lunch.

Jeannie and I then hiked on this trail (Brockliss Toll Road) on the left (north) side of the South Fork of the American River. After about 1.5 miles we jogged left about 100 yards, then, after going through some barbed wire fences, continued in the same direction on a somewhat better road until we reached a paved road (White Meadows Road), on which we continued to Ice House Road. Just before this we met Helen who had driven around to Ice House Road.

We then drove on to Silver Fork, stopped here to try to find a route, off of Highway 50, to Kyburz (about 1.5 miles). We then drove on, stopped at Highway marker 55.89 to check the trail here.

We then drove on to the Strawberry Lodge where we met Mel Smothers and went with him to look at "Strawberry House," with the view of possibly buying it if we can get the right purchase price.

Helen, Jeannie and I then had dinner in the Strawberry Lodge dining room. After dinner we went to Peter McMullin's quadriplex apartment to spend the night.

Sunday, March 30, 1980 - Strawberry Lodge/Lafayette

Helen, Jeannie, and I had breakfast in Strawberry Lodge. I then talked to Mel Smothers, and told him we are not interested in Strawberry House (No. 2 Strawberry Lane) unless the price is \$80K (with the \$40K at 10% mortgage) and it is renovated to some extent. Mel then showed us a house at 58 Margaret Drive, Strawberry Heights (formerly owned by Klovee--former part-owner of Strawberry Lodge). The owner is Jack Bolman and his asking price is \$75K (with a \$45K 9 3/4% mortgage).

Helen, Jeannie and I then went to the home of Bob and Rose Mary Sheldon (No. 31, just opposite Strawberry Lodge across the river). After showing us their house, they showed us (from the outside) a number of other houses (including a "solar house" on a hill in Strawberry Heights) which are, or will be, for sale.

Helen, Jeannie and I and the Sheldon's, then drove to Kyburz. Jeannie, Bob and I, before and after lunch, explored a route from Fresh Pond to Kyburz that remains off Highway 50 the entire way. The route is as follows: Starting at the end of Webber Mill Road, continue on the north (left) side of Highway 50 on an old trail road to a point opposite Wildwood (at Silver Fork). Then cross Highway 50 and proceed on Wildwood Way across the South Fork of the American River (on a bridge), turn left at Collins' home, proceed on a logging road through Bodwell property, proceed on Redwood

Road and then go left on Silver Fork Road and across the South Fork of the American River to Kyburz.

Helen, Jeannie, Bob, Rose Mary and I had lunch at the "Eatery" at Silver Fork. (Red is the proprietor.) Here we talked to Highway Patrolman Jeremiah about trail routes.

Helen, Jeannie and I then drove home. We left about 3 p.m., dropped Jeannie off at her home in Concord, and arrived home in Lafayette at about 6:15 p.m.

Helen, Dianne, Kent and I had dinner in the kitchen.

I called Bonnie Madsen to be brought up to date on Strawberry Lodge management. She said she suspects that Peter McMullin has left the Lodge.

After dinner I read in the study.

Helen drove Dianne and Kent to Davis in the late evening.

Monday, March 31, 1980 - Lafayette

I spent the day at home suffering from a kind of flu.

Tuesday, April 1, 1980 - Berkeley

At 8:50 a.m. I called Mike McReynolds to talk about his idea for having the mayors of each town that HikaNation goes through sign a scroll and at the end of the Hike present the scroll to the President. He said that after California it will be mostly up to Monty Montgomery to contact the mayors of each town or their representative. Mike had another call to take so he called me back five minutes later to tell me of a conversation that he had with Margo Patterson Doss (San Francisco Chronicle). She told him about her experience with the Trans-Bay Tube walk for which 60,000 people turned out and said that she had done very little advertising. I asked if the press conference was still on for tomorrow and he assured me it was and also told me that Newsweek was definitely going to run a story about HikaNation in the next issue.

At 9 a.m. I contacted Dr. Sherman Thomas (President of the Colegio Federado de Quimicos y de Ingenieros Quimicos, San Jose, Costa Rica), who is presently visiting William Webber in Tigard, Oregon (for the next ten days approximately). Dr. Thomas is a member of the Executive Committee of the Study Committee on the Formation of an International Chemical Society and needs financial assistance to attend the April 17-19 planning meeting to be held in Bangkok. We ascertained that he could obtain a roundtrip ticket (Los Angeles/ Bangkok/Los Angeles) for \$1,494 which he can purchase in Oregon. He will also need some financial assistance for the overnight layover in Hong Kong. I told him I would send him a check for \$1,550 to cover these expenses (from an anonymous benefactor) today. He will call when the check is received.

At 10:45 a.m. I received a call from John Colby (Kevex), asking for assistance in obtaining the name of a contact at LLL knowledgeable about a process of using electron beams to channel through silicon (which would make a tuneable x-ray source)--a new development of significant importance to Kevex research. He saw a small notice of this in the January 1980 issue of Industrial R&D (Page 45); no other information was given.

I sent a thank you note to Jim Hogan for the paper he sent to me, "¹⁸O+ ¹³³Cs".

Richard Davis (Davis Skaggs, Inc.), Richard Dorst (a friend of Davis) and Phillip Larson (Sierra Nuclear) arrived at my office at about 11:40 a.m. and after talking a while we went to the cafeteria to have lunch. We discussed the tin nitride process for reprocessing spent nuclear fuel. I indicated they will have some trouble putting this across due to the powerful regulatory restrictions in the U.S. for nuclear power at the present time. They wanted to know if I would be willing to participate in some manner in their venture and I indicated my schedule would not permit this. I suggested Tom Pigford as a possible contact.

I received a letter from the Chemistry Educators Association thanking me for speaking at Chemathon '80.

I attended the meeting of the Associate Directors in the LBL Director's Conference Room from 1:30 p.m. to 4:10 p.m. Andy Sessler opened the meeting and turned it over to LBL Director-Designate David Shirley, who in turn asked Sessler to conduct the meeting. Present were: Jack Hollander, Ed Alpen, Paul Witherspoon, Joe

Cerny, George Pappas, Melvin Calvin, Ray Wakerling, Walt Hartsough, William Lester, Robert Birge, Earl Hyde, Ed Bennett (for E. Cairns), Tom Elioff (for Hermann Grunder). The agenda attached was followed.

I received a letter from Lennart Hultquist concerning my proposed collaboration with Kjell Aleklett to write some articles on heavy ion physics for the magazine Forskning och Framsteg.

At about 5 p.m. I went by Building 70, and talked to Diana Lee (and Luo Cheng) about their forthcoming bombardments. On Thursday they will do ^{248}Cm plus ^{16}O , as a yield calibration experiment, at the 88-inch cyclotron. On Sunday she will be part of the team (separating Md, Fm, Es, Cf fractions) from our Cm plus Xe (lower energy) experiment at the SuperHILAC. And a week from Friday she will do a ^{248}Cm plus ^{18}O experiment with the 88-inch cyclotron.

I had dinner with Helen in the playroom.

Wednesday, April 2, 1980 - Berkeley

At 9:05 a.m. I talked with Stanley Kirschner; I told him that Sherman Thomas was taken care of and that I had sent a check to him in the amount of \$1550 yesterday to cover his air fare and one night's lodging in Hong Kong, but I do not know what arrangements he is making to cover his hotel costs in Bangkok. Stan said that they were not able to get reservations at the Florida Hotel, also that hotel prices have gone up 50% and Gordon Bixler is cabling everyone involved and trying to get reservations at an alternate hotel. Professor Adgangba's expenses are being paid by the ACS. Stan leaves on April 14th for Bangkok.

I told Stan that before I left Houston I talked with Professor Sukh Dev, the representative of the Indian Chemical Society who signed the letter to Gardner Stacy regarding the formation of an ICS and Dev indicated to me that he signed this letter because he favored a modification of IUPAC. Stan will bring up this point of misunderstanding at the Bangkok meeting.

Unfortunately, Li Su will not be able to attend because of meeting conflicts in the Academy of Sciences, PRC; Gordon will cable him and suggest he send a representative. Stan will visit Li Su while in China.

I wrote a letter to G. Paul Bishop thanking him for the portrait of me. I also wrote to Lynn Malmgren at the American Swedish Historical Foundation and Museum in Philadelphia enclosing an updated biography, four photographs and a list of the elements I have discovered.

At about 10 a.m. I went by Building 70, and talked to Pat McGaughey and Linda England.

I had an 11 a.m. appointment with Dr. Lionel Sorenson (an ophthalmologist at

ASSOCIATE DIRECTORS MEETING

Tuesday, April 1 at 1:30

AGENDA

1. Contract Labor
2. Earthquake Awareness Day - Hartsough
3. 50th Anniversary Committee
4. GPF Review - Hartsough
5. Institutional Plan & May 8 Review
6. Term Appointments - Pope
7. AA Summer Programs - Pope
8. Economies in Administration Division - Pappas
9. Budget '80 & '81 and Salary Increases
10. Performance Evaluation and Compensation Policy - Lofgren, Wilson
11. April 21 management reviews by DOE.
12. Next mtg. Mon. May 5 1:30 pm.

cc: Pope
Lofgren
Wilson

3010 Colby Avenue, Berkeley) to have him check my inflamed right eye. He diagnosed the condition as "iritis," and began a treatment with drops including (modified form of) cortisone drops.

Helen met me and we drove to the State Building in San Francisco (350 McAllister Street), where we arrived at about 12:30 p.m. Arriving between 12:30 p.m. and 1 p.m. were Mike McReynolds, Norman Gee, Eric Schockman, John D. Cherry (Regional Director, Pacific Southwest Region, Heritage Conservation and Recreation Service, Department of Interior), Bob Halligan (Cal Trans District Information Office), Jay Goldsmith (Heritage Conservation and Recreation Service), Steven L. Haskell (Hullenbeck, Sunnyvale, who plans to hike the whole distance to Washington, D.C.), and Carl Tigue (Byers Associates, who planned the press conference). The press conference on HikaNation started at about 1:10 p.m.; the representatives of the news media present included Dale Champion (San Francisco Chronicle), Margo Patterson Doss (San Francisco Chronicle), a girl from radio station KGO with a tape recorder, a person from CBS with a tape recorder, and a couple of other reporters.

Mike opened the press conference with a five minute statement describing the opening two days of HikaNation. He then called on me and I explained how Helen and I got into the American Hiking Society (a gift charter membership from Eric and Dianne), how Helen and I and our friends scouted the route to the Nevada border, a description of the segments of the route with emphasis on staying off Highway 50 from Pollock Pines to Echo Summit. My talk was followed by numerous questions about the route, my interest in hiking, personal attitudes, etc. At Champion's direction a photographer from the San Francisco Chronicle took a picture of Helen and me.

Helen and I then drove home to Lafayette, where she put drops in my right eye at specified intervals during the remainder of the afternoon and evening.

I called my office and talked to Lin and Pat about my phone calls, mail, etc.

At 4 p.m. I called Briones Regional Park to talk to Ron Emanuelson (Park Supervisor), who had called me yesterday. Jack Kenny took the call instead of Ron Emanuelson. Jack Kenny will meet the hikers at Bear Creek entrance campground at Briones on Monday afternoon, April 14, and accompany the hikers to Springhill and Pleasant Hill Roads on the morning of April 15, where we will meet Bob Pond, Ron White and Mayor Hildebrand.

Jim D'Ianni called at about 4:30 p.m. He invited me to be a main speaker (in my role as Chairman of the International Activities Committee) along with him and the presidents of the Mexican and Canadian Chemical Societies, at the opening session of the Second North American Chemical Congress in San Francisco on the evening of Sunday, August 24th. I accepted. The length should be 10-15 minutes. He also asked me to serve as a backup if Congressman George Brown, scheduled to give the main address on international science and technology, fails to make an appearance, and I also agreed to do this. In this case the length would be 25-30 minutes. Helen and I had dinner in the playroom.

Thursday, April 3, 1980 - Berkeley

On the way to work I went by Dr. Sorenson's office for further treatment of the iritis condition in my right eye. He prescribed continued administration of drops, including the (modified form of) cortisone.

Yoshi Morita dropped in at about 10 a.m. to give me a copy of a write-up of his experiments and plans.

Vice President William Fretter called at 10:30 a.m. to ask my advice on committee members for the LLL and LASL Advisory Committee (President's Advisory Committee). Two of the present outside members are about to leave (John Foster and Hans Mark) and he asked me to think about appropriate outside people for the committee.

At 11 a.m. Paul Baker (KEVEX) called to find out the dates which I would be available for the Board meetings. I told him the best days were April 23, July 23, October 30 and January 29. Then Paul asked if there were any dates that were possible or any that were definitely out before he called the other Board members. I told him that April 21 and 25 were out. Any of the other July dates were possible, October 27, 28, and 31 were out, and January 26, 27 and 30 were out. We then discussed Kevex stock and Paul gave me the good news that Kevex shipments for March had reached an all-time-high of \$1,800,000.

At 11:15 a.m. I called Harlan Kessel (University Press) to check on the status of my manuscript, "Kennedy, Khrushchev and the Test Ban--An Eyewitness Account". He asked if he could get back to me this afternoon. I said that would be fine. He also asked if Sheila Berg (Science Editor for UC Press in Los Angeles) had called me and I told him that she hadn't.

I told Harlan that there might be major changes now that we had W. Averell Harriman's voluminous documents at our disposal. I also told him that W. Averell Harriman had accepted the draft of our foreword and will be adding to it.

Then Harlan Kessel and I talked briefly about HikaNation. Harlan wants to join us for the Sunday walk across the Bridge and will probably stay in San Francisco after the theater on Saturday, April 12. I told him that I would send him an updated brief version.

At 11:40 a.m. Fred Bell returned my call of earlier today. We spoke at some length about the preparations on his end for the HikaNation group. He said that his men have made a switchback about 1/4 mile east of Pyramid Campground. I told him that Helen and I had been up there this weekend and hadn't seen it. He agreed with me that there were three roads which were nearly indistinguishable and that some disappeared further along the trail. We finally decided on the route and Fred assured me that if they couldn't get the trail completely made before the hikers arrived that they would at least flag the route for us. Bell also said that he hoped to be able to hike

with us for at least that portion of the route.

I wrote a letter (copy attached) to Hunter Dupree giving him some of my recollections and comments on his article "A Historian's View of Advice to the President on Science: Retrospect and Prescription." I also wrote to Lynn Cassity thanking her for the article about me from the Platte County Citizen (copy of article attached).

I held the luncheon meeting of my Heavy Ion Radiochemistry Group. Present were Rollie Otto, Pat McGaughey, Robert Welch, Rose McFarland, Won Mok Jae and Pat Somerville. Rollie Otto reported on his attempt to observe fusion-fission from the ^{74}Ge plus U reaction, Pat Somerville on results from the ^{18}O plus ^{248}Cm reaction (21 ms and 16 ms SF activities and possibly ^{252}Cf and ^{254}Cf SF activities), Welch on his Am chemistry for Sunday's ^{136}Xe plus ^{248}Cm bombardment, and Pat McGaughey on his problems of calculating the degree of fission competition to determine his yields of products.

Monty Montgomery came to my office at 1:25 p.m. today. We made arrangements for him to attend the meeting at Mike McReynolds' home tonight and he will come to LBL tomorrow at 10:30 a.m. to have me mark the routes on the pertinent Geological Survey maps for California and to pick up materials from the Lawrence Hall of Science. The materials are Sky Clocks and Star Challenger Kits. The Sky Clocks will be included in the registration packets and the Star Challenger Kits will go with the all-the-way hikers. Monty Montgomery came in his Airstream trailer with his son. They had left Illinois two and a half weeks ago and had gotten snowed in in Cheyenne, Wyoming for a day and a half.

I talked to Bonnie Madsen (at Strawberry Lodge) to work out a compromise (\$450K total value, rather than my \$400K or Madsen's \$500K). I called Norman Tuttle to inform him of this.

I reached Jeannie Harmon at 3 p.m. today to bring her up to date. I told her about Monty Montgomery's visit, and that we would not be able to go to the Sierra this weekend. I also told her that I would send her the updated versions (both short and long) of the California itineraries. I said I would not be able to attend tonight's meeting and said that I would be meeting with Monty Montgomery tomorrow morning again to map out the route on survey maps.

I received a personal thank you letter from Andy Sessler.

At 3:15 p.m. I talked to Sheila Berg (University Press, UCLA). She said that UC Press is very interested in publishing my book, that they have the manuscript out for reviews right now, and should have some reviews to show me in a couple of weeks. She offered a "tentative" contract, subject to approval of their editorial committee, but I told her that I would not push for that. She knew about the material made available to us by Averell Harriman and that he will write the foreword. The terms of their standard contract are 10% of the first five-thousand cloth-bound copies and 12% over that 5,000 number.

486-5661

April 3, 1980

Professor A. Hunter Dupree
Department of History
Brown University
Providence, Rhode Island 02912

Dear Hunter:

Thank you for your article, "A Historian's View of Advice to the President on Science: Retrospect and Prescription" enclosed with your letter of March 26, 1980.

It is interesting to me to read the recollections and views of an historian covering activities in which I participated.

Let me make some comments relying on my imperfect memory. I might have some records somewhere to help me recall but I do not have time to hunt them out.

The PSAC Panel report on research and graduate education was indeed written by MacGeorge Bundy, but on the basis of meetings and numerous telephone calls in which I participated. I don't recall that George Kistiakowsky ever felt that it should be called the "Kistiakowsky report."

I do not recall being involved in any ad hoc groups to advise Richard Nixon as a Republican candidate. I never saw or talked to him or his people after he was nominated. I do recall that at the instigation of Stan McCaffrey, I brought my son, Peter, and daughter, Lynne, into Vice President Nixon's office to meet him and I think this was sometime in the spring or late spring of 1960. Perhaps the impression that I was involved as Nixon's adviser arose as a result of a piece in a news magazine (I think it was U.S. News and World Report, but I am not sure), that listed (incorrectly in my case) with pictures a number of purported advisers to Nixon and including besides me, if I remember correctly, such people as Teller, Libby, and Kaplan. However, I have not looked this up and my memory could be faulty on the names and pictures that appeared in this article and the magazine in which it appeared.

April 3, 1980

I certainly do remember the meeting with Sargent Shriver; I suggested a very good candidate for the chairmanship of the AEC and I believe, but do not know, that he was offered the position. I have no way of knowing if Nixon would have offered me the job as Science Adviser but I doubt it.

I met with PSAC during the time that Wiesner was Science Adviser and I certainly did not have the impression that Kistiakowsky was functioning in a manner so as to usurp that role.

I think you are too harsh in your treatment of Lee DuBridge who was operating under great difficulties and, I think, not too badly.

I hope these recollections, emanating from another vantage point, might be of some use to you.

Cordially,

Glenn T. Seaborg

GTS/kv

Nobel winner speaks at Chemathon

by Lynn Kyle Cassity

The Missouri Western State College chemistry department was honored to have Dr. Glenn T. Seaborg speak at their fourth annual Chemathon held Monday, March 11.

Dr. Seaborg is a research chemist and teacher at the Lawrence Berkeley Laboratory of the University of California. In 1951 he was awarded the Nobel prize for his work predicting the chemistry of the transuranium elements. His team of researchers discovered and named two of the transuranium elements, Americium (No. 95) and Curium (No. 96) in 1945 and has since been credited with most of the succeeding discoveries of these heavy elements. This research has continued and Dr. Seaborg is hopeful of synthesizing element No. 107 with the new uranium injector Berkeley will receive next year. He has also authored 12 books and numerous articles.

Dr. Seaborg teaches a freshman chemistry lab at Berkeley and works with eight graduate students in the research lab. He also travels, giving lectures on his work to students and other groups. While in St. Joseph, he gave a public talk at the College on energy and energy alternatives. To the 750 area high school students at the Chemathon he lectured on the transuranium elements. This lecture revolved around the Periodic Table of the Elements and the additions and corrections made to it

since 1871. He also explained why it is so difficult to synthesize the heavier elements and the ways scientists are trying to solve these problems. (The new uranium injector is one such hopeful solution.)

After the lecture students asked questions of Dr. Seaborg. One questioned the practicality and application of such research. His reply was that through synthesizing elements a better understanding of the elements is gained and that understanding produces practical applications. The portable electric energy packs the astronauts carried on the moon and are used on space satellites are results of this research. There have also been medical applications of the research on transuranium elements.

After his talk, the morning Chemathon test results were announced and the individual winners were awarded their certificates and prizes by Dr. Seaborg. After signing autographs for the students, Dr. Seaborg joined the audience to listen to the first round of the oral team competition before leaving to return to California.

When asked if there was anything he would like to add to this article, he stated, "I would like to include a few words of praise for the entire Chemathon concept. It is heartwarming to see the enthusiasm of students competing in a knowledge field."

Students place at Chemathon

Area schools had students place high in the Missouri Western Chemathon, which was held Monday, March 10, at St. Joseph.

Getting the top showing among the area schools was Platte County R-III, which had one student, Perry Alexander, finish ninth among approximately 100 students competing in the Chemistry II division. Alexander was rewarded with a special recognition certificate. R-III had one other student, Donnie Robertson, just miss an award by finishing in a tie for eleventh place in the same competition.

Those two, plus Jeff

Massengill, Tony Campbell, Cecilia Gonzales and Derek Sherry, also finished third in the team competition in the event. Park Hill and St. Joseph Central were the only two of the approximately 30 schools entered to place above R-III in the Chemistry II division.

West Platte had one student, Randy Cox, finish in the upper part of the Chemistry I division. Cox finished number 11 in the division, missing a tenth place showing by only one point.

Also represented at the Chemathon was North Platte.

At about 3:30 p.m. I called Ben Loeb to tell him about my conversation with Sheila Berg. I gave him a full progress report. He has not heard from Adrian Fisher and I said I would call Fisher in a few days--we do not want to hurry him, however, since Ben sent him quite a lot of material to read.

The East Bay Today newspaper had an article about the Bay Bridge walk (copy attached).

I met with several Chinese studying or doing research in the U.S. from 3:30 to 5 p.m. I told them about my two trips to China, gave them an autobiographical sketch of my life from birth in Ishpeming, Michigan through my scientific career, government service, chancellorship at U.C., etc. I showed them the book, Chemistry in the People's Republic of China, and gave each of those present who did not already have a copy, my China Revisited journal. I answered questions for a while and then pictures were taken of the group both inside my office and in front of Building 70A. Cheng Luo tape-recorded the meeting. Those present were: Guo-Zhe Zhao (Institute of High Energy Physics), Yun-Yong Wang (Institute of High Energy Physics), Chi-Ke Cheng, Shu-Kwan Wang (Nankai University), Chen-Hui Xu (here at NSD, LBL) Kai-Hao Chang (Department of EECS), Yu-Men Chang (Department of Nuclear Engineering), Shan-Yuan Zhou (Department of Naval Engineering), Tsing-Cheng Xu (Institute of Atomic Energy, Beijing).

Helen and I had dinner in the playroom.

I called Mike McReynolds to check on the HikaNation meeting going on in his home. Monty Montgomery was there and everything is under control.

Friday, April 4, 1980 - Berkeley

At 8:35 a.m. I returned Charles Dennison's call of earlier this morning. He wanted to discuss progress on the organization of ChemRAWN II. Charles told me that he is soliciting members for the Organizing Committee and that the initial meetings will be held in Germany and, through appropriate channels, in Japan. He will make a trip to Germany in May taking materials in German text about the proposed conference. Japanese text will be used in Japan out of courtesy. After those initial meetings to generate interest the same thing will be done in the U.S. and Canada. Then Charles asked for my help since I had played such an important role in ChemRAWN I. He said that Bill Baker had agreed to help and I told him that I would help as much as I could within my time limitations. Charles told me that foundations had already been approached for support.

At 9:45 a.m. I called Lieutenant Albrecht of the Clayton City Police to inform them of the Cross Country Hike which will be coming through Clayton on Thursday, April 17. I told him that the Mayor had been informed and that there would be a welcoming ceremony held during which the mayor would sign a scroll which would be carried all the way across the country (being signed by the mayors of all the cities the group passes through) and finally being presented to the President. I told Lt. Albrecht

Bay Bridge to open lanes for hikers, pedestrians

By Angel Fernandez
Tribune San Francisco Bureau

Even the most jaded sightseer will get a rare chance to view the Bay on Sunday, April 13, when the skyway of the Bay Bridge is offered to pedestrians for the first time since the span opened in 1936.

The American Hiking Society expects thousands to strut across the Bay as part of its grand sendoff for a hearty troupe of 80 backpackers who won't be turning back until they reach the Washington Monument.

The first transcontinental HikaNation walk between San Francisco and Washington, D.C., sets off Saturday, April 12 from the polo grounds in Golden Gate Park.

The two-year-old hiking society, sponsoring the event with the U.S. Heritage Conservation and Recreation Service, is prepared for more than 10,000 walking enthusiasts to join the hikers on the first leg of their 14-month journey — a route that

will circumscribe the city from Ocean Beach to the Ferry Building.

At 6 a.m. April 13, the California Transportation Department will set aside two lanes of the Bay Bridge's upper deck, and the society estimates some 25,000 hikers will take advantage of the offer before it expires at 9:30.

Those who wish to join the hike on April 12 may register at the polo grounds between 9 a.m. and 11 a.m., when the hike begins. Cost for the two days, including a commemorative packet and bridge passage Sunday, is \$3.

Those who only wish to dazzle their feet on the bridge can register at the Fremont Street off-ramp in San Francisco starting at 5 a.m. Sunday. Bridge passage alone will cost \$2.

AC Transit buses will be waiting to shuttle walkers from the Oakland Army Terminal on the east side of the bridge to the Oakland West BART station. BART plans to add trains to its skeletal Sunday service to handle the expected throng.



Dr. Seaborg and Luo Cheng with visiting Chinese scholars
to the University of California Berkeley



1. Wang Shu-Kwan, 2. Hsueh Chun-Hway, 3. Chang Yu-men, 4. Cheng Chi-Ke,
5. Wang Yun-Yong, 6. Luo Cheng, 7. Chao Kwo-Tze, 8. Chang Kai-Hau,
9. Hseu Tsing-Cheng, 10. Chou Shan-Yuan

our route and he asked if we had contacted the owner of The Grove. I told him that I'd written her today.

I wrote a letter of recommendation for Rollie Otto (copy attached).

I called Mel Smothers at Strawberry Lodge, and offered \$65,000 for the Jack Bobman house on Margaret Drive in Strawberry Heights (including the furniture). He will get in touch with Bobman and let me know.

Ken Moody dropped in at 10 a.m. to bring me up to date on preparations for Sunday's bombardment at the SuperHILAC-- ^{136}Xe plus ^{248}Cm .

At 10:15 a.m. I tried to call Supervisor Pickering at the Tilden Corp. Yard. He was out so I talked to his assistant. I just wanted to touch base with Supervisor Pickering about closing the remote gate at Tilden Regional Park at 10 p.m. on Sunday, April 13.

At 10:25 a.m. I called Christian Nelson to follow up on his letter to me of March 6, 1980. I told him that we would like the concession stand at Tilden Park open and stocked on the night of Sunday, April 13. (Christian told me that a follow-up memo was going out today to all the EBRPD people about HikaNation.) He will contact Linda Chew on progress with the welcoming ceremony at Tilden Park. I told Christian Nelson that our approximate arrival time in Tilden will be about 5 p.m. He will keep me informed of problems or progress.

At 10:30 a.m. Monty Montgomery came to my office. He picked up the Star Clocks from Lin Lorenz. He will buy the necessary fasteners for them and deliver them to Mike McReynolds for inclusion in the registration packets. Then Monty Montgomery, Lin Lorenz and I mapped, in duplicate, the entire route across California on Geographical Survey maps until 12:30 p.m. We then had hamburgers for lunch delivered by Pat Johnson. During lunch we talked about how Monty got involved in HikaNation and his other hiking adventures. He has hiked the entire Appalachian Trail and started on the Pacific Crest Trail but snow conditions prevented him from completing the hike. He also told us that he and his son hiked around Europe for eight weeks.

We went out to view his HikaNation van parked outside Building 70A. It has a large, 200 gallon water tank in the back which will be used in crossing the desert.

After the meeting and lunch with Monty Montgomery and Lin Lorenz, I joined the meeting of the NSD Program Committee in Building 70 conference room which was already underway. I arrived at about 12:50 p.m. Those present were: Joseph Cerny, Chairman, David Clark, Homer Conzett, Richard Diamond, Norman Glendenning, Douglas Greiner, Herman Grunder, Harry Heckman, Earl Hyde, Luciano Moretto, John Rasmussen, Frank Stephens, Hans Gutbrod, Howel Pugh and Robert Stokstad. We continued discussions according to the attached agenda. This meeting then turned into a Staff Committee meeting, chaired by Norman Glendenning. We discussed the replacement for Don Lebeck at the Ph.D. level for the Diamond-Stephens

486-5661

April 4, 1980

Dr. Elton J. Cairns
Energy & Environment Division
Bldg. 90, Room 3026
Lawrence Berkeley Laboratory

Dear Dr. Cairns:

I am writing in support of Dr. Roland J. Otto for appointment as Staff Scientist II in the Energy and Environment Division.

Rollie Otto worked with me in a post doctoral capacity from 1974 until 1978. During this time he was my chief aide in directing the research of about six graduate students. He was largely responsible for the preparation of the various categories of research proposals that were requested and for the research reports. He was very productive in his research output and exceptionally effective in his handling of graduate students and in his interpersonal relationships with coworkers. His research with me was in the area of studying the mechanisms of reactions induced by heavy ions furnished by the SuperHILAC and Bevalac. He employed sophisticated chemical separation procedures and used advanced radiation detection equipment to identify the products through their radioactive decay characteristics, that is, through the quantitative measurement of alpha particle and gamma-ray decay energies and half-lives as well as through the measurement of beta particle and spontaneous fission decay.

Our initial aim was to synthesize and identify by radiochemical techniques the so-called superheavy elements, that is, the elements in the region of atomic numbers 110-120 that are predicted to lie in an "island of stability" because of their increased half-lives due to closed proton and neutron shells. Although we did not succeed in discovering any superheavy elements, the program led to an increased understanding of the mechanisms for heavy ion nuclear reactions and, therefore, an understanding of why the production reactions we used are not feasible.

Tollie Otto's work ranked among the best in the world in this interesting area of research. The products of his research using the SuperHILAC included a better understanding of the deep inelastic transfer process, the relative thresholds for this process and the fusion reaction, and of the lowered fusion cross sections for systems with closed nucleon shells.

In addition, Otto participated in pioneering work in the identification of the large residues remaining after the bombardment of heavy nuclei with relativistic heavy ions at the Bevalac.

April 4, 1980

This work represented a classic illustration of the power of the radiochemical method in defining reaction mechanisms not possible to determine by other techniques.

Otto played a key role in developing our interactive computerized system for analysis of gamma-ray spectra from heavy ion nuclear reactions. This system and its modifications have been used in a number of other laboratories engaged in similar research programs.

Rollie Otto is a first-class scientist. He is intelligent, industrious, enthusiastic and, in my experience, continuously productive. He is very personable and gets long well with his co-workers.

I can recommend Rollie Otto without any reservation and with great enthusiasm for a position as Staff Scientist II in the Energy & Environment Division.

Sincerely yours,

Glenn T. Seaborg

GTS:pj

31 March 1980

As: 4/3/80

NSD PROGRAM COMMITTEE MEETING

Friday, 4 April 1980

12:00 P.M. - Bag Lunch

Building 70 Conference Room

AGENDA

- 1) FY'81 Budget Matters
- 2) Possible US-PRC Agreement in Nuclear Physics - May Visit
- 3) Observations from NUSAC and Associate Directors meetings
- 4) Replacement for Don Lebeck (R. M. Diamond)
- 5) FY'82 (and '81) Equipment Requests
- 6) Status of VENUS (H. Pugh)
- 7) Miscellaneous comments

group and possible candidates for a Divisional Fellow. Present were all except: Douglas Greiner, Earl Hyde, John Rasmussen and Hans Gutbrod.

At 2:05 p.m. I spoke with Malcolm MacFarland; I went over our somewhat revised route through the area of staying at Pacific House instead of Bridal Veil, and our route then to Riverton and on to Silver Fork to Kyburz, Kyburz to Strawberry where we will have a rest day on May 2. We discussed certain portions of the route that will need to be cleared a bit before the hikers get there--he is aware of these spots and in fact is meeting tonight with the Board of Directors of the Pony Express Trail in Placerville to see what can be done in advance of the hiker's arrival. I gave him Fred Bell's office and home telephone numbers and suggested they compare notes as Fred Bell is also working on parts of this Berkeley portion of our California. He knows of Bell's efforts but isn't certain just what parts of the route the Forest Service is going to clear for us. He was very familiar with that portion near Highway marker #5589.

At about 2:30 p.m. I walked down to my campus office (446 Latimer) to sign Cluster Student's study lists and to pick up my mail.

Marilyn Rodder dropped in at 3:45 p.m. and I agreed to her taking 3 units of Chemistry 194H with me this (spring) quarter. She will work with Pat Somerville in Building 70 at least at the beginning.

Bonnie Madsen called, and said she, Ken and Tom Donahue have decided not to accept my proposal of yesterday. I called Norman Tuttle to inform him.

Joe Cerny dropped in at 5 p.m. to suggest my budget next year which will be the same as this year plus 6% I asked Olivia to determine whether this will be sufficient to add a postdoctoral scientist to my group.

Helen and I had dinner in the playroom.

Saturday, April 5, 1980 - Lafayette

Mel Smothers called at 11:45 a.m. and told us that Bobman has accepted our offer of \$65,000 for the house on Margaret Drive in Strawberry Heights, subject to agreement by his estranged wife.

Kelly Gust of the Contra Costa Times called at about 12:30 p.m. to inquire about HikaNation, especially the California route. I described the origin, purposes, route, etc. for her. She may have a piece in tomorrow's paper.

Helen, Dave and I had lunch in the kitchen.

In the afternoon Helen and I took a hike along Lafayette Ridge into Briones Regional Park almost to Briones Peak and back.

Helen and I had dinner in the playroom. Dave came by a little later.

I called Norman Tuttle to say we are going to call the Madsens' to say we may withdraw from Strawberry and ask for payment on our notes. Helen and I later talked for an hour with Ken and Bonnie Madsen on the phone and said we wish to withdraw if they persist in their unreasonable equity demand. This led to a change in their attitude and it may be possible to work out an agreement on our terms.

Sunday, April 6, 1980 - Lafayette

I kept in touch with Ken Moody at the SuperHILAC by a number of phone calls to learn how our ^{136}Xe plus ^{248}Cm bombardments are proceeding. He told me that Ken Hulet made tests of his metallic gadolinium target starting at midnight last night in our actinide target setup. There was trouble getting a ^{136}Xe beam for our ^{248}Cm bombardments starting this morning, but the first of the short bombardments got started at about 4 p.m. McFadden will separate a Bk fraction. In following short bombardments Michael Perry will separate a U fraction and Robert Welch an Am fraction. These bombardments will be followed, if possible, by a longer bombardment from which Diana Lee will separate Md, Fm, Es, Cf fractions, McFarland Bk, Cm, Am fractions, Moody, Pu, Np, U, Pa, Th fractions.

Helen, Dave and I had lunch in the playroom (Dave spent last night with us, although he has moved into an apartment in Lafayette).

In the afternoon Helen and I took a hike along Lafayette Ridge as far as the University of California property and back.

Helen, Dave and I had our special Easter dinner together.

After this we watched the CBS show "60 Minutes," a special show covering Dan Rather's investigative visit to Afghanistan.

Helen and I had another long phone conversation with Ken and Bonnie Madsen. We agreed to proceed with our \$64.5K, allowing for Tim Adami's drop out of \$100K, with Kim Olmsted coming in at a reduced equity to allow for appreciation of the Lodge. As another option, we agreed to add our \$35.5K for a 20% ownership, contingent on Olmsted's \$100K and a 4th party adding \$100K.

Monday, April 7, 1980 - Berkeley

I went by Dr. Sorenson's office on the way to LBL, found my eye to be considerably improved.

I visited Ken Moody and Rose McFarland in Building 70, and learned that the short bombardments went all right but the long bombardment failed to take place.

At 9:55 a.m. I contacted Mrs. Edgar Bergen at her home in Los Angeles regarding

the Swedish Council of America's awards for Swedish-Americans and the fact that we have designated a certain number of these awards to be granted posthumously. I told her that it was the Board wish to grant one of these awards to her late husband, Edgar Bergen, and she responded with a great deal of pleasure, said she would try to be on hand to accept the award herself, but since her daughter Candice lives in New York, it might be that she would accept the award next fall at our Awards Banquet. I told her she will hear more formally about this but I wanted to talk to her first before the SCA Annual Meeting on Wednesday.

At 10 a.m. Bob Pond (Walnut Creek Open Space) called me to inform me about their arrangements for HikaNation. He said that he was sending me a copy of a letter from the Contra Costa County Water District granting HikaNation permission to use that area. Bob also wanted an estimate on our arrival time at Pleasant Hill Road. I told him that 11 a.m. on Tuesday, April 15, was a safe estimate though we may be there 15 minutes sooner. Bob said that Mayor Richard Hildebrand of Walnut Creek, planned to meet us at Pleasant Hill Road and walk with us to Heather Farms Park for the welcoming ceremony and then on to Walnut Creek Open Space campsite. Bob said that a reporter from the Contra Costa Times will be at the ceremony, as well as a representative from EBMUD and others. I thanked Bob for all his help in this and especially for getting us OK'd to go under the Highway.

At about 10 a.m. I called Norman Tuttle to bring him up to date on the conversations between the Madsens and the Seaborgs regarding Strawberry this weekend.

At 10:25 a.m. today Jeannie Harmon called me to bring me up-to-date. She said that she had spoken with Joanne Dean (Supervising Naturalist at Black Diamond Mines Regional Preserve) to arrange for more chemical toilets and Joanne told her that she had trouble with EBRPD in securing the toilets because they hadn't had something in writing from us. I agreed to write Christian Nelson about it. She also told me that Tim Gordon, the ranger at Tilden Regional Park has agreed to lead the group from the Lake Anza lawn to Inspiration Point. Jeannie told me that she and Mike McReynolds had worked out the route over the Bridge yesterday. Jeannie also told me that Roger Epperson agreed to meet the group at the Black Diamond Way entrance and take them to Rose Hill Cemetery where Tracy Gibbons will give a talk about the cemetery and the background on the Regional Preserve. Joanne Dean has Ok'd all the activities in Black Diamond Mines Regional Preserve. Jeannie then said that Roger Epperson may spend the night with the campers. On the day of rest, Friday, April 18, Joanne Dean will offer exploratory hikes near the campsite into Prospect Mine and Stewartville townsite. At 6 p.m. Jeannie said Bev Ortiz and Carleen Bruins will give a campfire program. I will send a copy of my letter to Christian Nelson to Jeannie Harmon. The Contra Costa Times ran a front page story on HikaNation.

At 11:05 a.m. I called Gordon Bixler; he is drafting the minutes of our meeting in March and will have a draft ready for me to look at on Thursday, April 10th; he will deliver it to the University Club where I will be staying. We discussed the subcommittee meeting (Fred Rust, chairman) relating to industrial research in developing countries, the upcoming Bangkok meeting of the Executive Committee of

the Study Committee on an ICS, and the Jordon Bloomfield subcommittee meeting coming up in St. Louis (on May 2) to discuss international meetings (i.e. how often they are to be held, and with whom, etc.). Bob Parry and Ellis Fields will attend this meeting on behalf of the Committee on International Activities. Gordon said that Bob Parry intends to call me about this meeting prior to May 2. We also talked a little about appointments to the IAC and in particular the possibility of submitting David Wetstone's name again for consideration by the appointing committee. Gordon said that Marjorie Gardner is also a good person to keep in mind in working special assignments now that she is a member of the International Activities Committee. He received a telegram this morning from Li Su informing that it wasn't possible for Li Su to send a delegate to Bangkok--there is not time to make an appointment, get the approvals and Visa in time for the April 17th meeting.

At 11:15 a.m. I received a call from a writer for Omni magazine, Phyllis Wolhman, who read her story to me covering the paper David Morrissey gave at the recent ACS meeting ("Production of gold isotopes by relativistic heavy ion reactions with Bismuth"). Her story was all right but I suggested she change one phrase--"... understanding of atomic structure" to indicate bismuth was used because of our overall research objectives--or something like this. She will change that sentence. She wants a picture of David Morrissey and me; I suggested she contact the LBL Public Information office and gave her John Feack's telephone number.

At 11:36 a.m. I called Olga Fineman in Idaho Falls to get identifications for their post-wedding dinner picture for use in my History of the Met Lab, Sec C-I, Volume IV.

I walked down to the campus, to attend the regular weekly luncheon meeting of the Chemistry Department faculty in the Lewis-Latimer Room of the Faculty Club.

I then participated in the qualifying examination of Charles Mark Phillips (student of Steve Brown) in Room 444, Latimer Hall, from 1:10 p.m. to 3:30 p.m. Committee members present were Leo Brewer (Chairman), Samuel Markowitz, Herbert Strauss and David Lyon. He had difficulty answering questions on carbonate-bicarbonate equilibria, chromate-dichromate equilibria, oxidation states of chromium, principles of laser operation, presence of plutonium in nature. We decided to have Phillips prepare a written set of answers to our questions and then appear before us for a second examination. I then walked back up to my LBL office.

I wrote a letter of recommendation for Betsy J. Stover for the position of Dean at the University of Tennessee Center for Health Sciences (copy attached) and one to Christian Nelson and Jiang Feng (copies attached).

At 3:40 p.m. I talked with Kerry Drager, a columnist with the Sacramento Bee who writes a weekly hiking column (which appears on Thursdays). He has done a short piece on HikaNation and is now writing a longer story. I gave him information on how Mrs. Seaborg and I became charter members of the American Hiking Society (our children having given us a membership), and how I got involved in HikaNation and planning the route through California. In answer to his questions about the route through Sacramento, I told him the two ways the hikers might use to get to Discovery

486-5661

April 7, 1980

Dr. Audrey N. Roberts
Co-Chairman
Graduate Dean Search Committee
College of Medicine
Department of Microbiology
University of Tennessee
858 Madison Avenue
Memphis, Tennessee 38163

Dear Dr. Roberts:

I am writing in support of the application of Professor Betsy J. Stover for the position of Dean of the Graduate School of Medical Sciences at the University of Tennessee Center for the Health Sciences.

I have known Betsy Stover since the time in the late 1940's when she did her graduate work for the Ph.D. degree as a member of my nuclear chemistry group at the Lawrence Berkeley Laboratory (at that time, the Radiation Laboratory) and the Department of Chemistry here at the University of California, Berkeley. She was an outstanding student at that time, performing with distinction in two areas of research - the identification of new radioactive isotopes and the investigation of the chemical properties and absorption spectrum properties of the synthetic transuranium element americium.

Upon receipt of her Ph.D. degree in 1950, she immediately joined the staff of the University of Utah and led the effort there on the investigation of the metabolism of plutonium and other radionuclides in living systems. I have followed this work with interest throughout the ensuing years and would rate her as one of the leading authorities in the world on the radiobiology of the important element plutonium.

In October of 1970, I had the honor of participating in a ceremony held by the Radiobiology Laboratory at the University of Utah in commemoration of the twenty years of investigation there on the toxic effects of plutonium and other radioactive materials in animals. This occasion was commemorated by the publication of the definitive work Radiobiology of Plutonium which was edited by Betsy Stover and Webster Jee.

April 7, 1980

Betsy Stover has exhibited a continuous performance of excellent scientific output throughout her entire career. Her scientific output has covered a broad area of investigation; noteworthy is her deep theoretical understanding of the reactions and rate processes that take place in biological systems.

She has served since 1974 as Director of the Graduate Training Program in Pharmacology at the University of North Carolina where she has been since 1970 as an Associate Professor and Professor in the Department of Pharmacology. In this role she has acquired administrative experience and demonstrated leadership qualities and commitment to quality graduate training.

She is friendly, cooperative and considerate. She interacts well with people, both those working for her and those to whom she is responsible. She is a good speaker and would represent the University effectively in national educational circles. She has the self-confidence that follows properly from her scientific achievements and her administrative experience.

Sincerely yours,

Glenn T. Seaborg

GTS/kv

Chron



Lawrence Berkeley Laboratory

University of California
Berkeley, California 94720
Telephone 415/843-2740
486-5661

April 7, 1980

Mr. Christian Nelson
Chief of Parks & Interpretation
East Bay Regional Park District
11500 Skyline Boulevard
Oakland, CA 94619

Dear Mr. Nelson:

Although we have discussed your letter of March 6, 1980 by telephone on several occasions, it is perhaps worthwhile for me also to respond in writing in order to summarize our conclusions.

The overnight stop on Day 2, Sunday April 13, will be at the Lake Anza area of Tilden Regional Park. It is difficult to estimate the number of people but something like 100-150 might be a reasonable guess. We would appreciate having the concession stand stocked and available and let us assume that about 100 people would participate in this. Also we hope that chemical toilets and perhaps half-barrel portable grills may be provided. I do not believe it will be necessary to staff the Environmental Education Center because this is some distance away and I doubt that people will want to take advantage of this at that time. I have spoken to Supervisor Pickering and he has agreed that closing the remote gate at about 10 p.m. would be appropriate and he will do so.

On the morning of Day 3, Monday, April 14, Ranger Tim Gordon has agreed to lead the group over a route of his choice to Inspiration Point. That evening our overnight stop will be inside of the Bear Creek Road entrance to Briones Regional Park where water and toilets and half-barrel portable grills will be available.

On the morning of Day 4, Tuesday, April 15, as we arrive at the CLS Properties (the former T.N. Brown/Jakovina Property) someone from the EBRPD will be there to insure that the entrance gate is open. I have written permission from Walter Costa for the group to pass over the CLS Properties, also called the "Sessions Property".

On Day 6, Thursday, April 17, Roger Epperson will meet the group at the Black Diamond Way entrance to Black Diamond Mines Regional Preserve in the middle of the afternoon and escort them to Rose Hill Cemetery where Tracy Gibbons will give a talk on the cemetery and the background of the Preserve. Roger Epperson may accompany the group to the campsite at the intersection of Stewartville and Oil Canyon Trails. Toilets and water to accommodate about 100 people might be available. Firewood and possibly some half-barrel portable grills might be provided at this location.

Mr. Christian Nelson

-2-

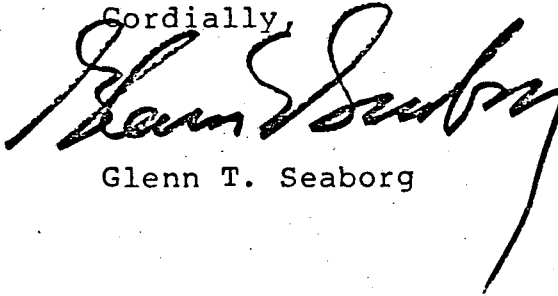
April 7, 1980

On Day 7, Friday, April 18, a day of rest at Black Diamond Mines Regional Preserve, Supervising Naturalist Joanne Dean will offer an exploratory hike, near the campsite, to Prospect Mine and the Stewartville town site. That evening there will be a campfire program by Bev Ortiz and Carleen Bruins. Joanne Dean, as I understand, has given general approval for all the activities in the Black Diamond Mines Regional Preserve.

There may be some points that I have overlooked but I believe this generally covers the planning that we have agreed on in various conversations.

We appreciate very much the time and effort that you and the staff of the EBRPD are giving to HikaNation in order to accomplish our goals and make HikaNation a resounding success.

Cordially,



Glenn T. Seaborg

GTS/11

cc: Jeannie Harmon



Union

Lawrence Berkeley Laboratory

University of California
Berkeley, California 94720
Telephone 415/843-2740
486-5661

April 7, 1980

Professor Jiang Feng
Deputy Director, Bureau of Chemistry
Academy of Sciences
Beijing, People's Republic of China

Dear Professor Jiang:

Professor Stanley Kirschner gave me the lovely selection of varied prints that you so kindly sent to Mrs. Seaborg and me.

We shall enjoy having these prints in our home and both of us send our thanks and appreciation for your thoughtfulness.

With best regards,

Cordially,

Glenn T. Seaborg

/pj

Park from Old Sacramento (going either under or over the complicated overpass of Highway 16), I described our route from Pollock Pines to Echo Summit, pointing out that we will not use the Highway 50 except for perhaps passing a ravine, etc., how we will use the Pony Express Trail, back roads, but mostly trails along the way. He asked the primary purpose of the hike and I told him to dramatize the value of hiking--for health, energy--the needs of hikers and the outlining of the first East-West trail across the U.S., and that this route might be used as a start for an E-W cross country hiking trail. I told him that we hope there will be a little ceremony in Old Sacramento when we arrive in the late afternoon on April 22nd. We hope the Mayor will be there. We are carrying along a signature sheet to have the Mayors sign in cities the hikers pass through and which will presumably be given to President Carter upon the hikers arrival in Washington, Lin will send him a detailed and a short version of our itinerary and he will send me a copy of his article.

Helen and I had dinner in the playroom.

From 7:45 to 8:45 p.m. Helen and I talked to Ken and Bonnie Madsen about a request from a potential buyer for Strawberry Lodge, Motel and Market. We agreed on an asking price.

Tuesday, April 8, 1980 - Berkeley/New York

I went by Building 70 to talk to Ken Moody, Rose McFarland and Diana Lee about results from our SuperHILAC bombardments Sunday and our future plans.

I received a copy of a newspaper article about the "gold" paper authored by David Morrissey, myself, and others, which was presented at the recent ACS meeting in March (attached).

Helen drove us to the San Francisco Airport, where I boarded TWA flight #806, which left at about 11:40 a.m. and arrived at New York (Kennedy Airport) at about 7:30 p.m.

I rode in to Manhattan with John Haldi, his wife, young son and daughter. They had just returned from a skiing vacation in Squaw Valley. He is an economist with the New York firm Gillis, Haldi and Clark, 666 Fifth Avenue, New York. They dropped me off at the Chemists Club where I checked into room 629. I then had dinner at the nearby Howard Johnsons on 42nd St.

Waiting for me at the Chemists Club was a package of correspondence from Eric Tornqvist asking me and the Swedish Council of America to support the request of the Swedish Colonial Society for the issuance of a commemorative stamp next year in recognition of the 200th anniversary of John Hanson's (a Swede) role as the first president of the United States under the Articles of Confederation.

Sacramento, Calif.
Bee

MAR 23 1980

Allen's P. C. B Est. 1888

Lab Gold Would Cost Billions^{11.9} To Produce

BERKELEY (AP) — Like Rumpelstiltskin, scientists at Lawrence Berkeley Laboratory have found a way to spin dross into gold. The only problem is that it costs a quadrillion dollars an ounce.

The gold — a few billion atoms worth — was "the trivial result" of an experiment on Berkeley's BEVLAC accelerator in which a target made of the metal bismuth was bombarded with charged atoms traveling near the speed of light, according to scientist David Morrissey.

He and three other scientists, including Nobel laureate physicist Glenn Seaborg, conducted the experiment at the lab in Berkeley and will deliver a report on their findings Monday at a meeting of the American Chemical Society in Houston.

"Transmutation of base metal into gold is possible but it is not a cost-effective way to make gold at the present time," Morrissey said. "In all our work we produced gold that was worth less than one-billionth of a cent."

"It would cost more than one quadrillion dollars per ounce to produce gold by this experiment," said Seaborg, who co-authored the paper to be delivered to the Houston meeting.

That would be a million-billion dollars. Gold sold Friday in New York at \$560 per ounce.

Morrissey, 27, a post-doctoral student from Briarcliff, N.Y., was the leader of the project. Co-authors of the paper are Walter Loveland of Oregon State and Kjell Aleklett of Stusvik, Sweden, who worked at Berkeley.

Wednesday, April 9, 1980 - New York

I had breakfast in the Club dining room.

Eric Tornqvist called regarding the John Hanson stamp matter and to warn me that Nils Olsson might be opposed to the issuance of a stamp on the basis that John Hanson was not a Swede. Tornqvist assured me Hanson was a Swede.

I took a taxi and walked in the rain to the Swedish Consulate (825 3rd Ave.), where on the 38th floor I presided over the annual meeting of the Swedish Council of America. Present were Lena Kaplan, Sven Eliason, Signe Karlstrom, Polly Hill, Curtis Carlson, Glen Brolander, Maynard Hasselquist, Nils Olsson and me. We followed the agenda (attached). Sven Eliason and Nils Olsson will call on Robert Anderson (Chairman of ARCO) to ask for a large support (\$10,000?) donation. The Board voted to not support the request of June Bartlett for \$500 to support the formation of an Association of Swedish Language Teachers. We agreed that the fall award dinner in Minneapolis will be held on Wednesday, October 15 or Wednesday, October 22.

We were served a Swedish delicatessen luncheon by Lena Kaplan. After lunch we agreed on a list of names for the various categories of SCA Awards. Nils Olsson will send these lists to all SCA Board members for ranking. I agreed to approach (by phone or in person) Carl Anderson, Jack Anderson, Erik Jonsson, Gloria Swanson, Elmer Engstrom, Stig Ramel, Marcus Wallenberg and Nils Stahle if they are selected. I will write a follow-up letter to each of those. We agreed to increase the number of participatory members (committee composed of Maynard Hasselquist, Chairman, Nils Olsson and me). In regard to the October SCA Board meeting in Minneapolis we will invite representatives of all the Associate Member organizations to the October meeting (Olsson will do.) We also decided to issue SCA membership cards to all donors, and to increase the size of the Board (send suggestions to Olsson). We agreed to support Eric Tornqvist's request for a John Hanson stamp via SCA (I am to write appropriate letters) and individually (I am to send the Tornqvist material to all Board members with guidance as to who they should write). I agreed to write a letter to President Carter regarding closing of the U.S. Consulate in Gothenberg (Olsson gave me a draft). We adjourned at about 3:30 p.m. (minutes of meeting attached).

Carlson, Karlstrom, Brolander, Hasselquist and I walked in the rain to the Swedish Church (formerly Swedish Seaman's Church) at 5 East 48th St. where Lena Larson (Signe Karlstrom's niece) showed us around.

I then walked back in the rain to the Chemists Club. Here I found a package from John Haldi, of Haldi Associates, Inc., "Social Decision Making for High Consequence Low Probability Occurrences."

I changed into my tuxedo, then walked 23 blocks to 64th St. and one block to Park Avenue in a driving rain. Here at the residence of Swedish Consul General and Mrs. Bengt Friedman, I attended the dinner honoring Dr. Marcus Wallenberg which was given jointly by Consul General and Mrs. Friedman and the Board of the Swedish Council of America.

SWEDISH COUNCIL OF AMERICA

Annual Meeting of its Board of Directors,
April 9, 1980 - 10:30 A.M.
Swedish Consulate General,
825 Third Avenue, New York, NY 10022

A G E N D A

1. Welcome Statement by Consul General Bengt Friedman
2. Welcome to new Board Members
3. Minutes of the Executive Board Meeting held in Grenelefe, FL
Nov. 13, 1979
4. Financial Report
5. Adoption of Budget for 1980
6. Report of Executive Director
7. Report of the Awards Committee
8. Report of Archives Committee
9. Report from the Legal Counsel on the By-Law change
10. Report of the Program Committee
11. Discussion of Fall Meeting to be held in Minneapolis this fall
12. New Business
13. Adjournment

MINUTES OF THE BOARD OF DIRECTORS OF SWEDISH COUNCIL OF AMERICA

HELD AT THE SWEDISH CONSULATE GENERAL IN NEW YORK APRIL 9, 1980.

Members Present

Glenn T. Seaborg, President,
Nils William Olsson, Executive Director and Acting Secretary
Maynard B. Hasselquist, Legal Counsel
Lena Biörck-Kaplan,
Glen E. Brolander
Curtis L. Carlson
Sven A. Eliason
Polly Bergstedt Hill
Signe Karlstrom

Members Absent

Robert O. Anderson
Edwin R. Broden
Edward E. Carlson
E. Stanley Enlund
Roland A. Erickson
William T. Hakala
Nils Hasselmo
LeRoy M. Johnson
Wesley R. Johnson

Philip R. Jonsson
Bernhard Le Vander
Edward A. Lindell
Eric R. Lund
Louis B. Lundborg
Joel W. Lundeen
Oscar A. Lundin
Rudolph A. Peterson

Lawrence J. Plym
Gunilla Ramell
Lloyd O. Swanson
Nils Y. Wessell

The President opened the meeting at 10:40 A.M., welcoming the Directors and in particular our new Board member, Sven A. Eliason of Los Angeles. The President noted that a half dozen cancellations had been received during the previous 24 hours due to severe weather conditions and the lack of hotel rooms in New York due to the transit strike.

The President welcomed the Swedish Consul General, Bengt Friedman, thanking him for hosting not only the business session at the Consulate General, but also the dinner at his residence that evening. Mr. Friedman responded by saying that he was very happy to welcome the Swedish Council Board members and hoped that the fine work being done would be further enhanced by the presence at the dinner that night of the Swedish business leader, Dr. Marcus Wallenberg, and a delegation of Swedish business leaders.

The minutes of the Executive Board meeting held in Grenelefe, Florida November 13, 1979 were approved as mailed to the members.

In the absence of the Treasurer, the Secretary pro tem presented the Financial Report prepared by our outgoing Treasurer, Gustave F. Johnson. The report showed that our income for 1979 was \$12,366.00 and our expenses were \$18,946.00, thus leaving a deficit for 1979 in the amount of \$6,580.00. The discussion that followed indicated that the members felt that a greater effort should be made to seek out financial support in the areas affiliated with the Council. Several Board members urged that former contributors be approached.

The budget for 1980 was presented showing income in the amount of \$ 25,750.00 and expenses in the amount of \$23,950.00, leaving a surplus of \$1,200.00. After a brief discussion the budget was adopted upon a motion by Lena Björck-Kaplan, seconded by Glen Brolander.

The Executive Director gave a brief report on his activities since the Executive Board meeting in November. He dwelled mostly on the work of expanding the mailing list of the Swedish Council News, which will reach a total of almost 20,000 by the next issue in May. He reported the fact that mail was running heavy in support of the SCA News. He reported that he would be canvassing the West Coast in the upcoming weeks to seek both financial support and new affiliate members in that area.

Curtis L. Carlson, chairman of the Awards Committee, reported on the meeting of his committee in Minneapolis on April 2. He submitted a recommendation from his committee that the proposed qualifications for the selection of nominees for the SCA Achievement Award be as follows:

"Nominees must be of established Swedish descent

"Nominees be recognized as having made a contribution to American Swedish relations and that

"Nominees be known nationally by their peers."

It was further recommended that the following restrictions be applied:

"No active member of the Board of Swedish Council of America is entitled to receive an Achievement Award until after his retirement from the Board of Directors.

"To be eligible to receive the Award, a nominee must agree to be present at the Award Ceremony. In the case of a posthumous Award, a member of the family must be present.

"No candidate currently seeking political office shall be eligible

No employee or individual deriving income from SCA shall be considered."

Curtis Carlson moved the adoption of these recommendations, which was seconded by Maynard Hasselquist. Motion PASSED.

The chairman of the Awards Committee then presented a list of candidates to be considered by the entire Board of Directors. The recommendation specified that a total of five now living nominees be elected for the awards this fall out of a total of fourteen candidates suggested by the committee. These names are to be submitted to the board, each board member to vote by indicating his or her ranking of the candidates by placing a number from one to fourteen in front of each candidate. The candidates placed into nomination by the Committee and approved by Board were as follows:

Carl Anderson, Nobel Prize winner in Physics
Jack Anderson, syndicated columnist
Wendell Anderson, former Governor of Minnesota
Conrad Bergendoff, former President of Augustana College
Marian Edman, author and scholar in Detroit, MI
Howard Hanson, American composer and musicologist

Erik Jonsson, former mayor of Dallas and industrialist
Ann-Margret Olson, singer and actress
Kenneth Olson, President of Digital Equipment Company
Karl A. Olsson, former President of North Park College
William Rehnquist, Supreme Court Justice
Gloria Swanson, actress (Richard Widmark, actor - backup candidate)
Elmer Engstrom, former President of RCA
Timothy Johnson, physician and consultant on ABC

The Awards Committee furthermore nominated the following Swedish nationals, one of which is to become the nominee for an Achievement Award to a living Swedish national. The same procedure was recommended that each Board member mark the ballot in ranking order of choice. The candidates recommended were:

Björn Borg, professional tennis champion
Stig Ramel, Director of the Nobel Foundation
Tore Tallroth, former Swedish Consul General in New York
Marcus Wallenberg, Swedish industrialist and banker
Albin Widén, Swedish author and instigator of the "Swedish American of the Year Award" in Sweden 21 years ago.
Greta Garbo, world-famous Swedish actress
Viveca Lindfors, Swedish actress, now living in New York
Nils K. Stahle, former Director of the Nobel Foundation
Ingrid Bergman, Swedish actress
Birgit Nilsson, world-famous Swedish singer

The Awards Committee also suggested posthumous awards. Four of the following candidates are to be selected as nominees by the Board members, using the same ranking technique. The candidates are as follows:

Edgar Bergen, noted entertainer and humorist
John Ericsson, inventor and scientist
John Hanson, first President of the United States in Congress Assembled
Charles A. Lindbergh, aviator, author and environmentalist
Carl Sandburg, author and folk song expert
Carl Milles, world-famous sculptor

Finally the Awards Committee suggested one posthumous award to a Swedish national, the voting to be done by the members of the Board, on the similar ranking system. The candidates suggested were as follows:

Birger Sandzén, famous artist
Dag Hammarskjöld, Swedish diplomat and U.N. Secretary
C.E. Johansson, famous inventor
Jussi Björling, world-famous opera artist and singer

The Executive Director was instructed to prepare the proper ballots with identifying information on all candidates to be mailed to all members of the Board.

In the absence of Edward Lindell, it was not possible to present a report on the Archives Committee.

Maynard B. Hasselquist, the Legal Counsel of SCA, introduced two resolutions to change the By-laws of SCA. The first was worded as follows:

RESOLVED: That Article VIII of the By-laws be amended to provide as follows:

The Board of Directors may amend the Articles of Incorporation and the By-laws of this corporation from time to time by a two-third(2/3) vote providing that due notice has been given of the meeting and of the proposed amendment.

Maynard Hasselquist moved and Curtis Carlson seconded the resolution, which then PASSED.

Mr. Hasselquist then proceeded to outline the action of the Executive Committee at its meeting held on November 13, 1979, recommending that the By-laws be amended to provide for staggered terms of directors as follows:

RESOLVED: That Section 3.02 of the By-laws be amended to provide as follows:

Section 3.02. Number, Qualification, and Term of Office

The number of directors shall be established by resolution of the Board of Directors but shall not be less than seven (7) nor more than thirty nine (39).

The members of the Board shall consist of (a) two (2) representatives appointed by each Participating Member as provided in Section 2.02(a) of these By-laws, (b) the Executive Director of this corporation, and (c) such other directors as shall be elected at the regular Annual Meeting. At the Annual Meeting held in 1980, one-third (1/3) of the number of directors to be elected shall be elected for a three (3) year term expiring in 1983, one-third (1/3) for a two (2) year term expiring in 1982, and one-third (1/3) for a one year term expiring in 1981. In 1981 and thereafter all directors to be elected shall be elected for three (3) year terms except for directors who are elected to fill vacancies as provided in Section 3.05. Each of the directors shall continue in office until the Annual Meeting in the year in which his or her term expires or in the case of appointed directors, when a successor shall have been appointed or until death, resignation, or removal as hereinafter provided. Upon expiration of a three year term of an elected member, such member shall not be eligible for reelection for at least one year.

Mr. Hasselquist moved the resolution, which Sven Eliason seconded. Motion was then PASSED.

It was recommended that Maynard Hasselquist as chairman, aided by Glen Brolander and Nils William Olsson be empowered to draw lots to determine which member serve terms of one year, two years and three years.

Glen Brolander recommended that a greater effort be made to solicit more participatory members and that Board representation be limited to one Board member from each such participating member.

A discussion followed concerning membership. It was the consensus of the meeting that all donors be given membership cards. It was also recommended that some of the larger donors be invited to join the Board of Directors. Additionally it was suggested that one member from every affiliate group be invited to come to the Awards Dinner in Minneapolis in October at the expense of the affiliate group. It was also urged that a greater geographical distribution of Board members be instituted.

Next followed a discussion of the fall meeting. A Committee on Arrangements was appointed by the Chairman, which named Curtis Carlson, chairman, with Nils Hasselmo, Lloyd O. Swanson, Edward Lindell, Maynard Hasselquist and Nils William Olsson as committee members.

Under new business the Chairman asked for suggestions of names for the John Ericsson Medal, given from time to time by one of our affiliate organizations, The Swedish Engineers Society of New York.

The Chairman reported that a movement is afoot to seek a commemorative stamp honoring John Hanson on the 200th anniversary of his death, November 5, 1981. Nils William Olsson moved, seconded by Glen Brolander that the Chairman send a letter to the U.S. Postal Authorities recommending that a commemorative stamp be issued. The motion PASSED.

Lena Biörck-Kaplan reported on the work being done by a committee to seek clarification on the fate of Raoul Wallenberg, Swedish diplomat, who disappeared during World War II, and thought to be still living in Russian concentration camps. Lena urged that the Swedish American community be involved to help solve this mystery.

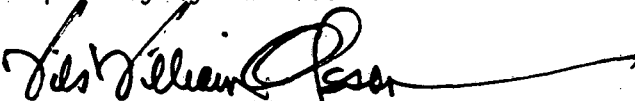
The idea of inserting a membership coupon in the Swedish Council News in order to stimulate gifts, large and small, was recommended and moved by Sven Eliason. Lena Biörck-Kaplan seconded the motion which then PASSED.

It was decided to set a date for the next meeting of the Board of Swedish Council of America in conjunction with a large Awards Dinner, the event to be held in Minneapolis in the second half of October, when a suitable hotel could be reserved (since the meeting was held Curtis Carlson has set the date definitely as October 24, 1980 and the place will be the commodious Radisson South Hotel in Minneapolis).

A vote of thanks was suggested by Signe Karlstrom and seconded by Glen Brolander to Consul General and Mrs. Bengt Friedman for the magnificent dinner held at the residence at 600 Park Avenue, New York City the evening of April 9. The motion PASSED.

The meeting of the Board of Directors was adjourned at 3:30 P.M.

Respectfully submitted


Nils William Olsson,
Secretary pro tem

April 19, 1980

Present were SCA Board members, (Brolander, Carlson with his wife, Arleen, Eliason, Hasselquist, Polly Hill, Lena Kaplan, Signe Karlstrom, Nils William. Olsson, and me), various presidents and executives of U.S. subsidiaries of Swedish industries and organizations (list attached). I met and talked to Marcus Wallenberg during the pre-dinner reception. He expressed satisfaction that I had persisted with him in setting a date for his appearance at our dinner.

At the dinner I sat at a table with Marcus Wallenberg, Mrs. Friedman, Curtis Carlson, Count Archibald Douglas, Björn Ahlström, John Heistein and John Nelson. Consul General Friedman gave the customary welcoming toast. During the serving of dessert I made some remarks, describing briefly the history of the SCA and its objectives and purposes. I emphasized bi-national relationship between the U.S. and Sweden and the passing on to our children and their children an appreciation of our Swedish heritage. I emphasized that the SCA is playing a vital role and that we will keep in touch with our guests of tonight to encourage their interest. I made special reference to Dr. Marcus Wallenberg, my long negotiations to arrange for his attendance and our delight at his presence.

After a short intermission to rearrange the tables and chairs, we reassembled for the serving of coffee and liqueurs. Then Wallenberg made his informal remarks, focused on the deteriorating economic situation in Sweden. He expressed his satisfaction that the referendum on nuclear power in Sweden last month had turned out so well.

T. Edward Karlsson, editor of the Swedish newspaper, Nordstjernen Svea, was present, as he was this morning at the Board meeting, to take a number of pictures. He took a picture of me with Wallenberg. Nils Olsson told me that he will terminate as Executive Director of the SCA (but continue as editor of the SCA newsletter), to be replaced by Ed Lindell if this is approved by me. I approved. Lindell will start as Assistant Executive Director of SCA on July 1, then gradually take over the duties of Executive Director. Lindell is resigning as President of Gustavus Adolphus College to take a position as coordinator of Swedish Lutheran Church activities. He will have his office in Minneapolis and his secretarial staff will be adequate to handle his SCA duties, which have the blessing of his Lutheran Church superiors. I expressed my satisfaction to Lena Kaplan for her excellent planning for tonight's dinner.

Björn Ahlström indicated to Lena Kaplan that he will give some support to SCA and Kees Sonius told me he will have his public relations man get in touch with me. I talked to and became acquainted with Olle Lindgren, who is traveling with Marcus Wallenberg and is head of the Economic Section of Wallenberg's bank (Skandinaviska Enskilda Banken). I talked to Kjell Lagerstrom (Saab USA, Inc. and Director of Awards, The American Society of Swedish Engineers), suggested Eric Jonsson (formerly with Texas Instruments) and Kenneth Olsen (President, Digital Equipment Company) as candidates for the John Ericsson Medal (if they are engineers). I also pledged to Lagerstrom a donation of \$500 to the American Society of Swedish Engineers as a contribution to continue the John Ericsson Medal as a gold medal (contingent on their raising the additional money needed). I rode, along with Maynard Hasselquist, back to

Dinner in honor of Dr Marcus Wallenberg

	<u>Table No</u>
Mr Björn Ahlström, President Volvo of America Corporation	4
Mr Bengt Bjernfalk, President Flygt Corporation	1
Mr Glen Brolander (SCA) Augustana College	5
Mr Curtis Carlson Swedish Council of America	4
Mrs Arleen Carlson	3
Count Archibald Douglas, Chairman Swedish-American Chamber of Commerce	4
Mr Sven Eliason Swedish Council of America	1
Mr Hans Fristedt, President Esselte Pendaflex Corporation	5
Mr Manyard Hasselquist Swedish Council of America	5
Mr John Heistein, Vice President, General Manager SAS	4
Mrs Polly Hill Swedish Council of America	2
Mr Richard Hill	3
Mr William Hogg, President & Managing Director Atlas Copco, Inc.	1
Mr Tom Jahn, President Facit-Addo, Inc	5
Mrs Lena Kaplan Swedish Council of America	1

Address:
825 Third Avenue, New York, N. Y. 10022

Telephone:
(212) 751-5900

Cable Address:
SVENSK New York

Dr Signe Karlström Swedish Council of America	2
Mr Kjell Lagerström Saab USA, Inc.	2
Mr John La Grua, President Scandinavian Securities Corporation	2
Mr John Leffler, President Wasa Ry-King	1
Mr Carl Lennmalm, President The Ericsson Corporation	2
Mr Bengt Liljestränd Products-from-Sweden	3
Mr Olle Lindgren SE-banken	5
Mr Bo Lycke, President Beijer Industries, Inc.	1
Mr John Magliana, President Datasaab System, Inc.	5
Mr Arne Mark, President Asea Inc.	1
Mr John Nelson, President Nordic American Banking Corporation	4
Mr Arne Nilsson, President Nife Incorporated	3
Mr G. B. Nilsson, President Uddeholm Steel Corporation	5
Mr Curt Olsson, President SE-banken	2
Mr Lars Olsson, President Flakt Inc.	3
Mr Nils William Olsson Swedish Council of America	3
Mr Glenn Seaborg Swedish Council of America	4
Mr Robert Sinclair, President Saab-Scania of America Inc.	2
Mr Kees Sonius, President The De Laval Separator Co	1
Mr E T Stephens, President L M Ericsson Telecommunications	3
Claes Tisell, Representative Post-Och Kreditbanken	3
Dr. Marcus Wallenberg	4

the Chemists Club in the Swedish Consul's car.

Thursday, April 10, 1980 - New York/Washington

I had breakfast in the Club restaurant, took a taxi to LaGuardia Airport, and boarded the 10 a.m. Eastern Airlines shuttle, which left at about 10:40 a.m. and arrived at Washington's National Airport at about 11:20 a.m. I took a taxi to the University Club, checked into room #608, and then called my LBL office to talk to Pat and Lin about my mail, phone calls, etc.

I had lunch in the Club restaurant with Joe Swidler. We discussed the energy situation, the sorry state of choice between U.S. presidential candidates, etc.

I then rode with Curtis and Arleen Carlson to Georgetown University, where in Heely Hall I attended the Honorary Degree Ceremony for Marcus Wallenberg (program attached). Wallenberg spoke on international statesmanship in government and business (he will send me a copy of his remarks) This was followed by a champagne reception at which I spoke to Ambassador Wilhelm and Mrs. Ulla Wachtmeister, Ambassador Kennedy-Minot, Averell Harriman, Count Archibald Douglas, William McChesney Martin, David A. Nelson (who works with Nils Olsson on SCA News and on retention of the U.S. Consulate in Gothenberg) and many others.

I rode back to the University Club with the Curtis Carlsons (they are staying at the Washington Hilton Hotel). I called Eric to bring him up to date on happenings at home. He is making some contacts regarding a job after he leaves Student Press Service on June 30.

I rode with the Curtis Carlsons to the Swedish Embassy residence to attend a dinner in honor of Marcus Wallenberg. At dinner I sat at a table with Mrs. Warren Christopher (wife of the Assistant Secretary of State), Mrs. Averell (Pamela) Harriman (I sat between them), Mrs. William Miller (wife of the Secretary of the Treasury), Ambassador Wachtmeister, Mrs. Charles Duncan (wife of the Secretary of Energy), Eugene Black (former president of the World Bank). I told Pamela about Averell's role with our book, reminded her of my and Helen's meeting her son, Winston Churchill II, in 1971.

Before and after dinner I talked to Marquis and Jane (McBain) Childs, Paul Volker (chief economic adviser to President Carter), Charles Duncan, William Miller, Mrs. Wachtmeister, Averell Harriman, Margareta Douglas (wife of Count Douglas--she contacted me to be on a ASF Viking Exhibit Committee). I rode back to the University Club with the Carlsons, and spoke to Pete by phone before retiring.

Friday, April 11, 1980 - Washington/San Francisco

I took a taxi to Dulles Airport, where I boarded United Airlines flight #53. Senator Ted Kennedy occupied the seat just behind me. We took off at about 9:30 a.m.

HONORARY DEGREE EXERCISES

- | | |
|--|---|
| I. OPENING OF THE CEREMONY | Rev. J. Donald Freeze, S.J.
Provost |
| II. INVOCATION | Rev. Lawrence J. Madden, S.J. |
| III. READING OF THE UNIVERSITY CHARTER | Virginia M. Keeler
Secretary of the University |
| IV. READING OF THE DEGREE CITATION | Dr. Peter F. Krogh
Dean
School of Foreign Service |
| V. CONFERRING OF THE HONORARY DEGREE | Rev. Timothy S. Healy, S.J.
President |
| VI. ACCEPTANCE | Marcus Wallenberg |
| VII. BENEDICTION | Rev. James A. Devereux, S.J. |

I sat next to Jan Wall of EPRI, who worked with Tom Pigford on the preparation of his section of the Kemeny Report.

After breakfast was served, Ted Kennedy joined me, occupying Wall's seat, and we had a long discussion on energy policy. I told him I think he lost a lot of voter support, from the segment of the population where he needs it most, on the basis of his anti-nuclear stance. I said we need nuclear energy as a part of our energy mix, that the U.S. has never been in as vulnerable a position as it is today, that this could even lead to our involvement in a war in the Mideast. In answer to his question, I said I believe that the nuclear waste disposal problem has been solved technically, that what is needed is a political decision to adopt a system. I described the action of ion exchange in surrounding soil as an insurance against the migration of fission products. I described the Oklo incident in Gabon, Africa, to him and told him about Sweden's progress in this field. We commented on the recent favorable vote in Sweden on nuclear power. In answer to a question, I estimated that practical power from nuclear fusion is 30 to 50 years away. I said, nevertheless, we should develop nuclear fusion. In answer to a question, I told him that energy from ocean thermal gradients doesn't look too hopeful. We agreed that geothermal energy will not make an appreciable contribution. In reply to his observation that the U.S. demand for electricity is going down, I cited the growing number of new families in the U.S., the needs of the poor people, and the worldwide need for energy in the rest of the world and that we must cooperate in meeting this need. With respect to solar energy, I agreed that solar heating of homes can make a contribution but practical solar electricity, as advocated by Jerry Brown, is actually many years away. I emphasized the reliance of countries like France on nuclear power. In answer to his questions about France's and the Soviet Union's progress on the breeder reactor, I said they have forged ahead of us. I decried President Carter's policy on the breeder reactor, explained why this is counterproductive in the prevention of the proliferation of nuclear weapons. I said nuclear power is relatively safe compared to other forms of energy, told him that coal burning releases more radioactivity to the atmosphere than comes from nuclear plants. I said that nuclear wastes decay at a rate so that after 500-1000 years, the amount of radioactivity is less than in uranium ores, which are widespread throughout the earth. I commended to him the National Academy of Sciences CONAES Report, with which he was familiar, saying that this was put together by hundreds of the most competent scientists in the United States. I suggested he adopt its recommendations as his energy platform. He has talked to his friend, Harvey Brooks, about this; said he will talk to him again.

I told him about my forthcoming book, "Kennedy, Khrushchev and the Test Ban--An Eyewitness Account" and about Averell Harriman's help with this. I said I believe the Limited Test Ban was the best achievement of President John Kennedy's administration, and this needs to be brought before the American people. I said that, had President Kennedy lived and Khrushchev remained in power, a Comprehensive Test Ban would undoubtedly have been attained early in Kennedy's second term.

I said to him I presume he is going to stay in the race for the presidential nomination and he assured me he is. He expressed some confidence over a favorable outcome in Pennsylvania. In response to my observation about the item in today's

paper that he will try to maneuver at the Democratic Convention a means of releasing Carter's delegates to vote as they wish, he said this plays only a minor role in his strategy. He suggested we should talk again sometime soon and asked when I was next traveling to Washington.

Later I had a long talk with Dwight Ink, who was aboard the plane. He is disgusted with President Carter and his policies, including his energy policy. He is assembling representatives of a number of key groups to try to convince the presidential winner, in the transition period, to appoint able people to key federal positions. He will keep me informed of progress in this enterprise. I told Dwight about my Kennedy book. We should let him read the draft of this because he has some recollections of McCone's favorable view toward the Limited Test Ban Treaty.

We arrived at San Francisco International Airport at about 11:40 a.m. As we were leaving the plane, I continued my conversation with Teddy Kennedy. We talked about the poor performance of the Carter administration and his poor choice of people to work in his administration. Kennedy suggested I get in touch with him when I visit Washington. Helen met me at the airport and drove us to Berkeley. She dropped off at the Rockridge BART station and took BART home to Lafayette and I drove on to my LBL office where I had lunch at my desk.

I wrote a letter to Ben Loeb bringing him up to date about my conversations with Pamela Harriman and Ted Kennedy and enclosing a check for his expenses for March 1980 (copy attached).

At 1:20 p.m. I called Curtis Carlson in Minneapolis to tell him that I thought October 24 (Friday) would be a better day for me to attend the Board of Directors meeting and the SCA Awards Banquet in Minneapolis. It will definitely be scheduled for that date.

I called Stanley Kirschner at 1:25 p.m. to discuss the letters from Dr. Yasuhide Yukawa regarding the ICS. Stan discussed his strategy for the meeting of the Executive Committee of the Study Committee on an ICS--our position of going to a "Federation of International Federations" made up of individual members (memberships through their national organizations), should there be resistance to the individual membership concept. He will leave Sunday night for Bangkok. If there is too much resistance, then we may wait until the meeting in Yugoslavia for further discussions within the Study Committee.

The HikaNation Bay Bridge crossing received a large story in the San Francisco Examiner (copy attached).

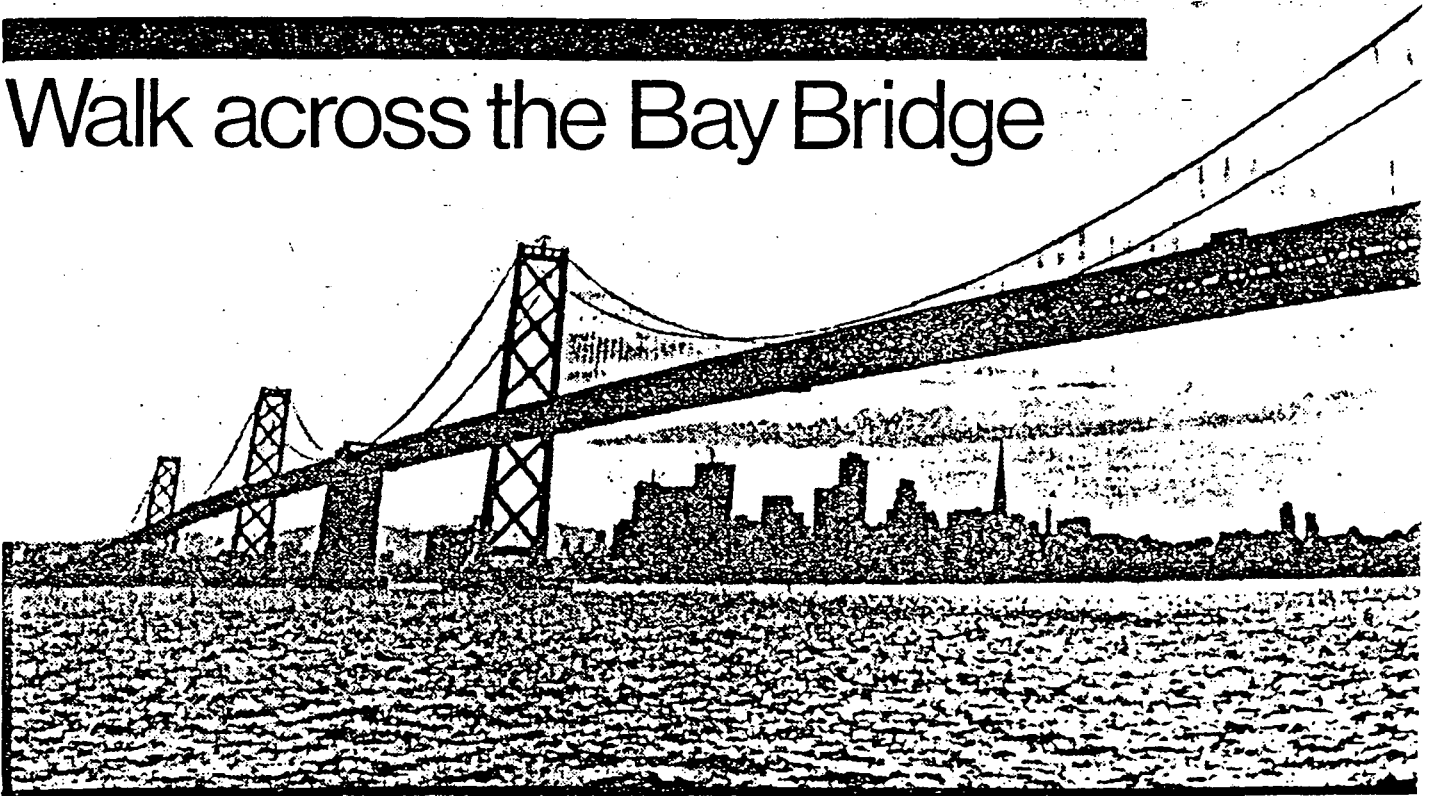
At 3:30 p.m. I went by Building 70, talked to Diana Lee who told me she had her ^{248}Cm plus ^{18}O bombardment this morning at the 88-inch cyclotron. It was successful, and her chemistry to separate Bk, etc., was successful. I also talked to Ken Moody, Robert Welch, and Yoshi Morita about their work.

Scene/Arts

SAN FRANCISCO CHRONICLE
April 11, 1980

TOGETHER

Walk across the Bay Bridge



**This will be the first hike
since 1936**

By Al Morch

IF SOMEONE tells you to "take a hike," you'll be able to do it literally this weekend — and perhaps keep going all the way to Washington, D.C. If you're not up to a 4,500-mile trek, you can still partake in a something-to-tell-your-grandchildren, historical event by joining the estimated 25,000 people who will walk across the San Francisco-Oakland Bay Bridge early Sunday morning with the 40 HikaNation hikers who plan to go the entire distance to the nation's capital over a circuitous, scenic route that will take 14 months.

The 6½-mile Sunday bridge walk starts at the Fremont Street on-ramp here and ends at the Oakland Army Base. Bridge officials will close down two lanes of the bridge's upper deck from 6 a.m. to 9:30 a.m. One lane is for walking, and the other will serve as a buffer between participants and autos driving across on the other lanes.

"However," said McReynolds, a long-distance hiker who works for a management consultant firm here, "I must stress the importance of hikers arriving at the downtown San Francisco assembly area on Fremont Street, between Howard and Folsom streets no later than 6:30 a.m.

Because of the large crowds expected, latecomers may not be permitted to make the crossing."

A bridge-crossing fee of \$2 will be charged, unless walkers have purchased the \$3 weekend registration packet, which contains a certificate of participation, and coupons that will get you free Pepsis at Wendy's in San Francisco and a commemorative three-color HikaNation shoulder patch.

More about how to purchase the packet later.

Since there is virtually no public transportation in operation during the early Sunday hours, and auto parking in the assembly area will be at a premium, the HikaNation people have come up with a super TGIF-style idea. You can arrive Saturday night via public transport, and camp out FREE in the guarded, and secure, fenced-in site underneath the Bay Bridge near the entrance ramp. Of course, you have to bring a sleeping bag, and because the campsite is paved with asphalt, McReynolds suggests bringing a bag pad for additional comfort.

In fact, you can have your usual Saturday night quake cents back to S.F.). You can continue to move along with the Washington-bound hikers to Berkeley's Aquatic Park, then to Tilden Park, where they will spend the night.

The Yerba Buena island entrances will be closed, so hikers will have to go all the way to Oakland.

If you are made of even harder stuff, you can start your portion of the 4,500 miles tomorrow morning in Golden Gate Park's Polo Field, where the opening ceremonies will be held at 10 a.m., and the hike begun shortly thereafter. The route from there wends out to the beach, north past the Cliff House, the Golden Gate Bridge, Fort Mason, Fisherman's Wharf, the Ferry Building and eventually the Fremont Street campsite.

There's no need to drop out once you have walked the

Bay Bridge, although special AC Transit shuttle buses will be available to carry participants (at 35 cents each) to BART's Oakland West stations (where normal fares prevail — i.e., 70 cents back to S.F.). You can continue to move along with the Washington-bound hikers to Berkeley's Aquatic Park, then to Tilden Park, where they will spend the night. Incidentally, the 265-mile route through California to the Nevada border was mapped out by 68-year-old Nobel Laureate Glenn T. Seaborg who walked the route, planning as he went,

so that only 30 miles of it is on public streets.

"The \$3 packet," said McReynolds, "is not a necessary purchase. However, we need the money to help defray the operational costs. Although each hiker will bear his or her own expenses — we estimate \$4,000 per person for one year's supply of food — we will provide support vehicles and do all the advance work necessary to clear the way for the hikers as they go from place to place. The packets will be available at Golden Gate Park and at the Fremont Street campsite, as will the \$2 bridge-crossing ticket, which is a must if you intend to walk the bridge. However, the bridge-crossing fee is included in the purchase of the \$3 packet.

McReynolds cautions that the bridge-crossing is a WALKING event, so leave your jogging and running shoes at home.

Ben Loeb called at 4:30 p.m. to tell me the concluding material in our book involving Harriman's mission to Moscow will run two chapters instead of one. I told him about my conversation this morning with Dwight Ink regarding John McCone's role. He may let Ink read the relevant chapter.

Helen and I had dinner in the playroom. Later in the evening we drove to San Francisco where we went to the Glide Memorial Methodist Church. Here we met with the 50-60 hikers who plan to go all the way on the HikaNation. Jim Kern and Mike McReynolds gave the instructions to the hikers. Dave Buller, from Lawrence Hall of Science, gave some physical examinations through some simple measurements. Monty Montgomery and his son Mark were present. Hughes and his two sons from Ishpeming, Michigan were there; his son Brian plans to go all the way. Jim Kern introduced Helen and me. We talked to Jeannie Harmon, who spent the night in Mike McReynolds' apartment.

Helen and I spent the night in the YMCA Hotel (351 Turk St.).

Saturday, April 12, 1980 - San Francisco

Helen and I had breakfast at Penny's Coffee Shop (on Taylor St. near Eddy). Joe and Betty Goldstein came by and rode with us to the Polo Grounds in Golden Gate Park. Here the opening ceremonies for HikaNation began at about 10:15 a.m. Jim Kern (President of the American Hiking Society) served as Master of Ceremonies. He introduced, for a few remarks, in order of appearance--State Senator Milton Marks, Governor Brown's representative Rusty Schweikert, San Francisco Supervisor John Bardis, HikaNation leader Monty Montgomery, George Cardinet (U.S. Geological Survey), John Cherry (Heritage Conservation and Recreation Service of the Department of the Interior), Mike McReynolds, me and Bill Kemsley (editor of Backpacker magazine). In my remarks I paid tribute to Jim Kern, Craig Evans, Bill Kemsley, Mike McReynolds and emphasized the purpose of HikaNation and the need for a national east-west trail, described the 21 segment (12 mile each) breakdown of the route across California, and expressed satisfaction at the extent I managed to find a route through the Sierra staying off Highway 50. I paid tribute to Joe and Betty Goldstein and Jeannie Harmon for their help. Jeannie Harmon was introduced as the pathfinder for today's hike.

At 11 a.m. sharp, with about 300 hikers, to the music of a band of bagpipers, we started the hike. We followed the planned route, first west to the Pacific Ocean (where everyone touched their shoes in the water), then north and around the periphery of the San Francisco peninsula through the Golden Gate National Recreation Area past the southern terminus of the Golden Gate Bridge. We stopped for lunch at Baker's Beach. We stopped at Wendy's in the Courtyard of the Anchorage at Fisherman's Wharf to have our names inscribed on HikaNation Participation Certificates. I hiked the last part, along the Embarcadero, with Jim Kern and Craig Evans. We terminated this first day's hike at the Ferry Building, then continued on to the parking lot under the Fremont Street on-ramp to the Bay Bridge, where many of the hikers were scheduled to spend the night.

Before and during the hike Helen and I took pictures with our Olympus and movie camera (G type fast film). A helicopter for Channel 4 TV news took pictures as we approached the Golden Gate Bridge in single file on a narrow part of the trail. Representatives of the news media, including Newsweek magazine, covered the beginning and other parts of the hike.

Helen and I rode with the Goldsteins to our car (parked at the Polo Grounds). We drove back to the Embarcadero area where I checked into room 853 of the YMCA Hotel there. We had dinner in the hotel cafeteria, joined by John McGee.

Helen then drove home to Lafayette to spend the night. She will give the Segrès a ride with her when she returns very early tomorrow for the hike across the Bay Bridge.

I spent the night in the Embarcadero YMCA Hotel, joined by Dave at about 1 a.m.

Sunday, April 13, 1980 - San Francisco/Berkeley

Dave and I got up at about 5 a.m., had a bite to eat in our room, walked to the Fremont Street off-ramp of the Bay Bridge. Here I joined Helen who had driven there, with the Segrès and Jack Ingram in our Phoenix.

We started the hike across the Bay Bridge at precisely 6 a.m. Jeannie Harmon, Norman Gee and I were in the front row. Bill Kemsley and others took numerous pictures. Helen took movies and I took pictures with our Olympus camera.

It was a marvelous day, clear and warm. The views were outstanding. Hikers poured on to the bridge from 6:00 a.m. to 7:30 a.m., some 5,000-10,000 in number. We in front reached the opposite end at about 7:30 a.m.

We followed the designated route to the Army Base. Here the cross country hikers, about 60-70 in number, rested a little over an hour, then joined by about 30 others, continued via Emeryville, Oakland and Berkeley streets to Aquatic Park in Berkeley, where most arrived at a little after 10:30 a.m. We had our back pack lunches here, then rested until about 12 noon. I talked to the assembled group, describing our route to Tilden Park, then introduced Berkeley mayor Eugene "Gus" Newport, who gave a few words of greeting.

The group then continued along Dwight Way, through the University of California campus, then along the U.C. Trail to Grizzly Peak Blvd., and the Grizzly Peak Trail and on to Lake Anza in Tilden Park. Helen met us on the Grizzly Peak Trail, helped guide front hikers and lagging hikers to Lake Anza. Joe and Betty Goldstein also helped guide lagging hikers from Aquatic Park to Lake Anza. The main contingent of hikers arrived at Lake Anza at about 5:30 p.m.



Seaborg speaking to group at opening ceremonies of HikaNation
Golden Gate Park, April 12, 1980



Through hikers just before starting on HikaNation
Golden Gate Park, April 12, 1980

At Lake Anza we were met by EBRPD President Mary Lee Jefferds, Director Harlan Kessel, General Manager Dick and Mrs. Trudeau, and Land Chief Hulet and Mrs. Hornbeck and Nancy McKay (Public Relations). Talking to the assembled hikers I described the EBRPD, introduced Mary Lee Jefferds, Harlan Kessel, Dick Trudeau and Hulet Hornbeck. Mary Lee Jefferds then made some welcoming remarks and presented me with an EBRPD tee-shirt. Jim Kern then made some announcements.

Helen and I drove home, arriving about 7 p.m.

Monday, April 14, 1980 - Berkeley

I drove by Dr. Sorenson's office on the way to work, found that my eye is in pretty good shape.

I wrote to Mac Laetsch at LHS regarding Dean William Shack's Advisory Report. Shack reported his conversation with Vice Chancellor Heyman who was persuaded by Shack to push for the proposal for the University Systemwide to augment the Hall's Regent's Opportunity Fund to support the Hall's programs in Health Activities, math and science. Both Shack and Heyman agreed that funding for the Hall has not kept pace with the rise in inflation. I also wrote to Oscar Lundin of the Detroit Swedish Council to report on meeting of the Board of Directors of the Swedish Council of America at which Signe Karlstrom gave a report about the supportive work of the Detroit Swedish Council. I also thanked Lundin for the careful and thoughtful consideration the Detroit Swedish Council had put into their nominations for the SCA Achievement Awards. Lastly, I also wrote to Consul General and Mrs. Bengt Friedman and thanked them for the SCA Dinner in honor of Marcus Wallenberg held in their home.

At about 10 a.m. I went by Building 70, talked to Diana Lee and Matti Nurmia, who are planning a ^{248}Cm plus ^{22}Ne bombardment next week (if Diana can schedule it at the scheduling meeting today).

I also talked to Linda England about her progress and plans.

At 10:45 a.m. Mayor Vern Roberts called me from Antioch to give me the details of the welcoming Ceremony that he has planned when HikaNation reaches the city of Antioch on Day Eight (Saturday, April 19). Mayor Roberts told me that Vice Mayor Tom Torlakson will meet the group at Black Diamond Mines and walk with them all the way to Antioch, where the group will be served refreshments at the Veterans of Foreign Wars Hall at the corner of Cavallo Road and Wilbur Avenue about 10 a.m.

Then near the entrance to the Antioch Bridge the group will stop for lunch (provided by the City of Antioch which will include a carton of milk, a sandwich, a bag of chips and a cookie for each hiker) on the E.I. DuPont lawn. Mayor Roberts asked me for an exact number of hikers so that there would be no waste and no one would be left out. I told him I wasn't sure yet. He asked if I would phone in the exact number on Friday to Mary Vargo, secretary in the City Manager's office, who will contact the canteen company. I told him I would do so. The Mayor then told me that most of the

Board of Supervisors will walk with the group from the Veterans of Foreign Wars Hall to the Antioch Bridge.

At 11 a.m. I called Dr. Erik G. M. Tornqvist, of the Swedish Colonial Society, to tell him that the Board of Directors of the Swedish Council of America voted to support his organization's efforts to have a commemorative stamp issued for the 200th anniversary of John Hanson's presidency of the United States under the Articles of Confederation. I told him that I will write a letter to the Citizens' Stamp Advisory Committee as President of SCA, and will ask individual members to also write appropriate letters to the Citizens' Stamp Advisory Committee and their Congressmen, especially if they know any of Scandinavian background. I also talked to him about the contribution I am willing to make to maintain the John Ericsson Medal as a gold medal, and the condition. I made that the remainder of the necessary funds (I will contribute \$500) be raised by the American Society of Swedish Engineers. I told him that two names are suggested as possible recipients of the John Ericsson Medal for 1980--Eric Jonsson and Kenneth Olsen. I told him that I did not see the Swedish Colonial Society on the list of members of the SCA; he said he was sure they were members but they might be delinquent in paying their dues. He is going to check on this.

At 11:30 a.m. I went by Building 70, learned from Diana Lee that she succeeded in scheduling the ^{248}Cm plus ^{22}Ne (136 MeV) bombardment for the owl shift on Friday. I also talked to Pat McGaughey and Luo Cheng. I walked down to the Faculty Club, attended the regular Monday luncheon meeting of the faculty of the Department of Chemistry.

I then went to Latimer Hall to pick up my mail and to sign the petition of Sam Behar (one of my Cluster Advisory students) to change to a chemistry major in the College of Chemistry. I walked back up to my LBL office.

Lin Lorenz picked up several newspapers which gave wide coverage to the Bay Bridge crossing yesterday (copies attached).

I accepted from Joe Cerny, the appointment as Archives Liaison for the Nuclear Chemistry Division. (Copy of letter from Vickie Davis attached.)

At 2:20 p.m. George Anest called from the City Manager's Office in Antioch to ask about the proclamation which he thought we wanted prepared to take to Washington, D.C. I told him that there was no need for a proclamation; we were just going to have the mayor of each town that HikaNation passed through sign a scroll which we would present to the President at the end of HikaNation. I told him that a few informal words of greeting were all that we required as we passed through Antioch. Mr. Anest then told me the news that Mayor Vern Roberts had not lost by two votes as I had been told but had won during a final recount by five votes. His opponent was Jim Davi.

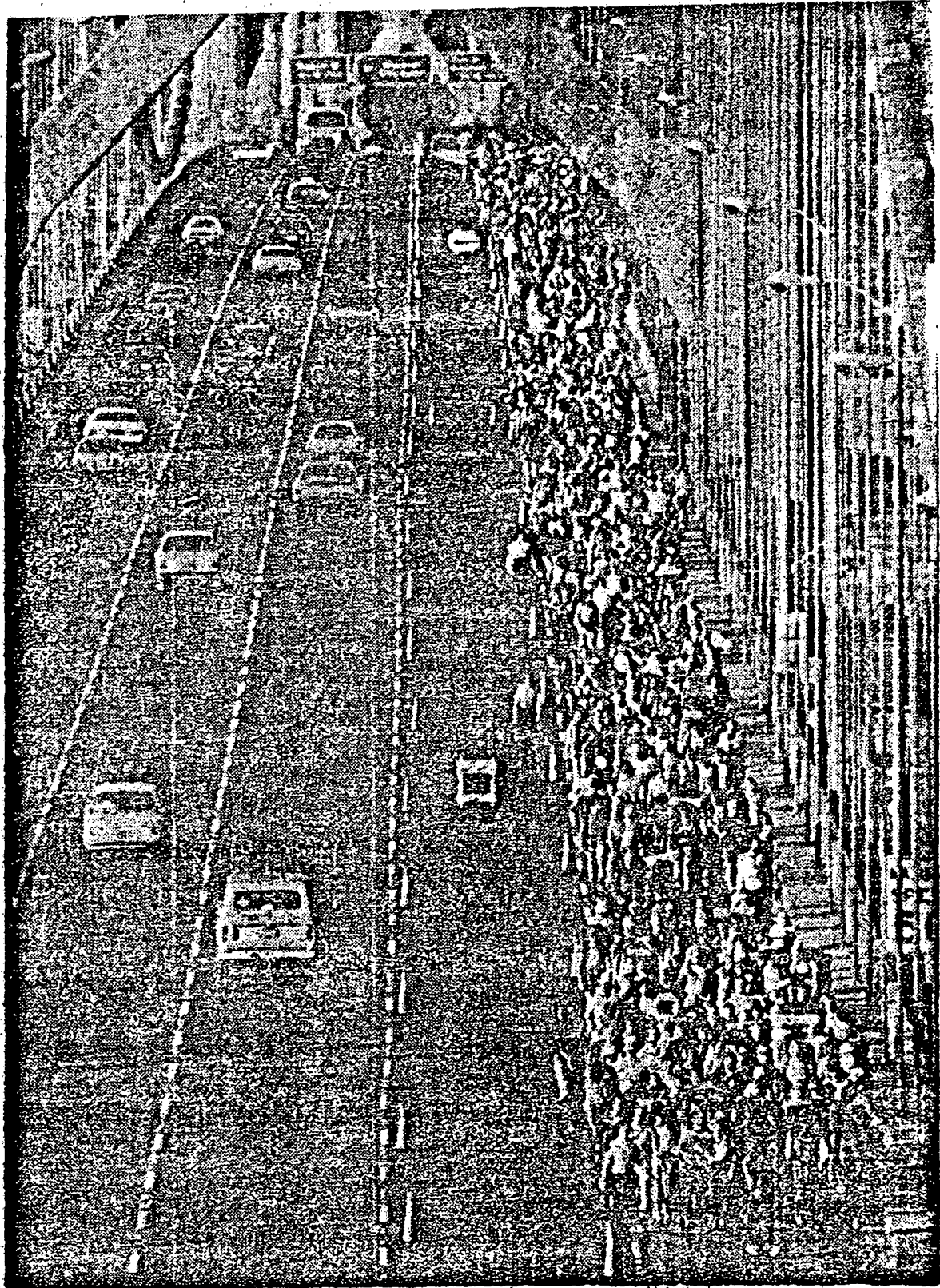
At 5 p.m. I went by Building 70 to talk to Diana Lee, Yoshi Morita, Pat McGaughey and Luo Cheng.

EAST BAY TODAY

Oakland, California, Monday, April 14, 1980



HIKING THE BRIDGE—Some 7,000 walkers take advantage of the once-in-a-lifetime chance to walk across the Bay Bridge. Story, A-7.



United Press International

7,000 hikers walk across the upper deck of the Bay Bridge Sunday

Bay Bridge reverberates to foot traffic for first time

By Ron Gonzales
Staff Writer

John Pace had flown and driven over the San Francisco-Oakland Bay Bridge, and had even sailed under it.

But early Sunday morning, with thousands of other hikers, he walked across it, the first time the bridge was opened to pedestrians since its construction in 1936.

"You could turn back and see the sunrise hit the San Francisco skyline, the sun gleaming off," said Pace, 55, a physician from Los Gatos. "It was a really spectacular sight."

Cheering as they started out and accompanied by the bellowing of bagpipes, about 7,000 walkers traversed the span of more than eight miles.

In the lead were 80 persons, including an 8-month-old baby and her parents, who planned to trek along America's back roads for the next 14 months, their final destination is Washington, D.C.

The transcontinental hikers, who carried bunches of brightly colored balloons across the bridge, estimated that they would reach the Nevada state line, 265 miles away, by May 6.

The cross-country hikers were making the

trip, called HikeaNation, to show that hiking is a wholesome family sport and that vast new networks of hiking trails are needed. The event was sponsored by the Department of the Interior and the American Hiking Society.

The walkers were allowed onto the bridge between 6 a.m. and 7:30 a.m., and bridge officials closed two lanes of the five-lane upper deck to motor vehicles.

The California Highway Patrol said 15,000 persons started off on the walk, but many did not finish. A team of CHP officers picked up stragglers.

Several adults pushed infants across the bridge in strollers.

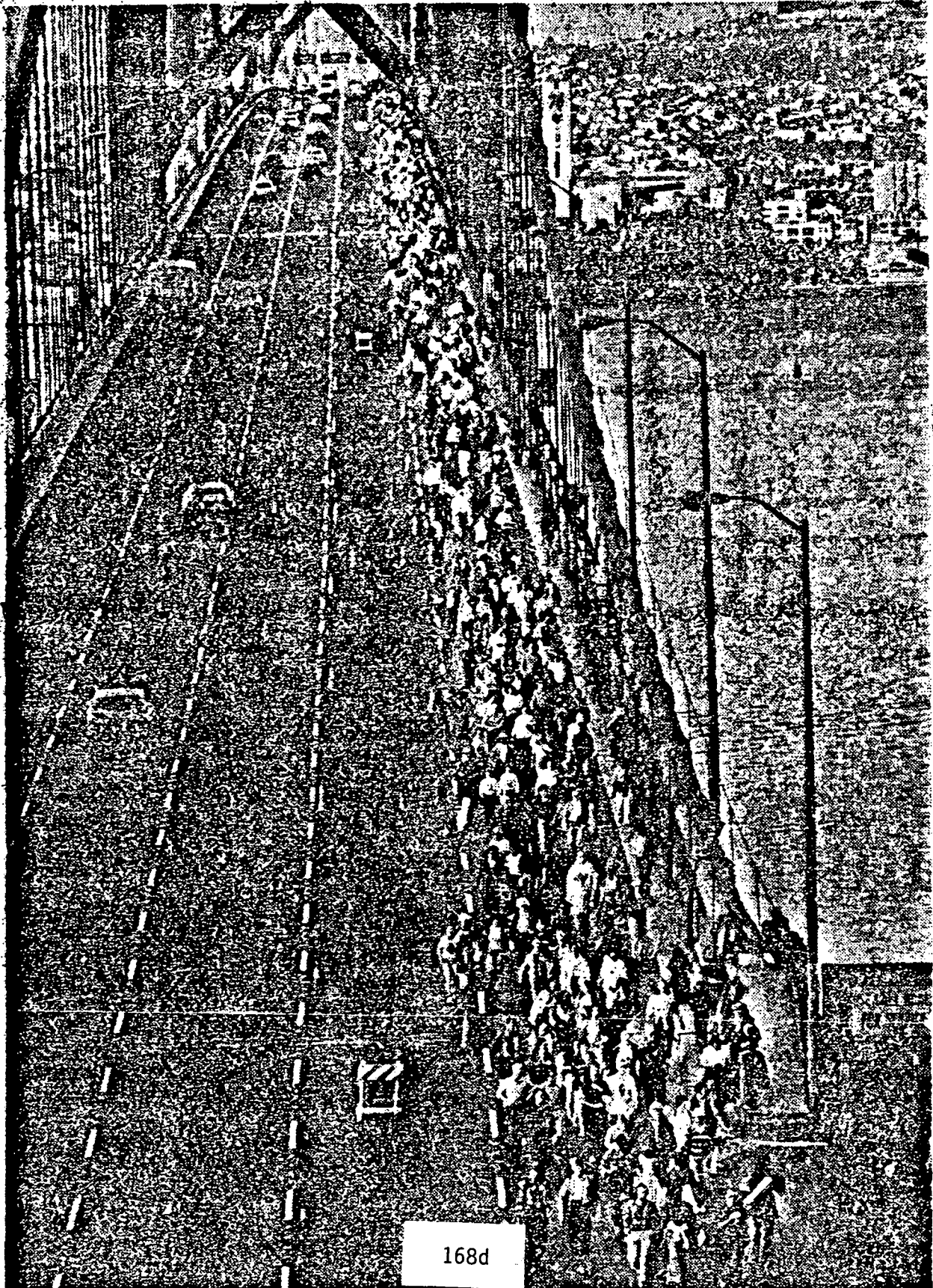
Jogging, running and bicycling were prohibited.

One man walked his bike across.

"This is terrific," a toll booth operator said. "The Bay Bridge is swarming with people instead of cars."

"When you cross the bridge by auto, you go 50 miles an hour," said Pace, who brunches on eggs Benedict and cheesecake after his walk. "It was the first time I could look through the cables and see the superstructure as I went by. It was impressive."

Bay Bridge Hike



168d

By Vici MacDonald

Some of the 7000 Bay Bridge hikers as they came down toward Yerba Buena Island

BAY BRIDGE HIKE

"You can walk the Golden Gate Bridge every weekend and I've never done it," said Rowell. "But this is the first time it's been possible on the Bay Bridge, so it caught my fancy."

First to complete the crossing of the bridge, at 7 a.m., was Robert Lee, 28, of Larkspur, a big-shouldered man who broke his back falling out of a tree three years ago and has been in a wheelchair ever since.

He said he planned to meet the hikers again briefly in Utah and then to rejoin them outside Washington, for the trip of about 150 miles along the banks of the Chesapeake and Ohio canal.

Lee, who lost a small front wheel and once fell out of his chair on the bridge, allowed that he'd had a small advantage over the hikers because he was able to coast the last half.

Behind him came the Ecotopian army, looking remarkably cheery after the seven-mile, two-hour adventure.

Backpacker Bill Swearingen, 19, who plans to go the whole distance, rested his feet at the eastern base of the bridge and took in the view. A redwing blackbird perched on a telephone line overhead.

Swearingen, who comes from car heaven (Sylmar, in the San Fernando Valley near Los Angeles), planned to sleep in Tilden Park last night. His pack weighed 40 pounds and contained a leaking jar for sprouting alfalfa seeds, a backpacker's stove, vitamins, 100 stamps from his grandmother, who lent him money for the journey, a Jose Cuervo T-shirt, a harmonica, three hats and several changes of underwear.

"As my mother says, it's only an 80th of my life, and it'll be something to tell my grandchildren about," he said, looking forward to the 14-month adventure.

When he was asked how he liked the trip across the bridge, his answer conjured up an image of what the bridge might look like if the gas crisis worsens.

"Other than the asphalt, it was fine," he said, evoking thoughts of seeding one lane with grass. "The asphalt's a little hard on the knees."

**7000 Cross Span —
First Time Since 1936**

By Katy Butler

An estimated 7000 cheerful hikers showed up at dawn yesterday in San Francisco to take two lanes of the upper deck of the Bay Bridge back from the gas-guzzling cars that have ruled since its opening in 1936.

They looked like an army from Ecotopia, the ecological utopia described in Ernest Callenbach's 1975 futuristic novel, where everything is recycled and cars are banned.

At the head of the army were 80 backpackers who plan to continue past Oakland — for 14 months and 4000 miles — to Washington, where they will further publicize the need for more hiking trails.

Families, grandparents and couples followed the backpackers as soon as the bridge opened to pedestrians at 6 a.m. They strolled up the gentle curves of the Fremont Street offramp to the bridge's top deck, looking down on

quiet city streets, new skyscrapers and old brick industrial lofts.

"We were expecting more hikers but we couldn't have handled them if they'd come," said James Kern, president of the American Hiking Association, which sponsored the hike with help from the

Back Page Col. 5

From Page 1

Interior Department's Heritage Conservation and Recreation Service and from a private foundation.

The bridge crossing cost walking participants \$2 each. It cost the sponsors \$11,500, most of that for liability insurance, and required a special act of the state Legislature.

From the top of the bridge the hikers could see the oil tanks off Richmond, big tankers on the bay and slow-moving barges breaking the shiny skin of the water.

Below, at the Hills Brothers coffee warehouse, the man on the sign eternally drank his morning cup of coffee. Like all sensible people at such an hour, he was still in his nightgown.

"I've wanted to do this since I was a little girl," said Charlene Reinhart, 27, who used to beg her father to let her out of the car when they drove across the seven-mile bridge. Reinhart, a supervisor of sewing machine operators, and her husband Scott and sons Jason, 6, and Sean, 7, had risen at 4:30 a.m. in Hayward to make the trip.

Behind them, under the weight of a 26-pound pack, Sharon Rowell, 45, of Stinson Beach, trudged in a pair of handmade sandals that had carried her through 200 miles of Nepal last year.

She said she planned to stay with the hikers for the 285 California miles of the hike, along a trail planned by hiker Glenn Seaborg, the 68-year-old Nobel Laureate who discovered plutonium.

MONDAY, APRIL 14, 1980

BERKELEY, CALIFORNIA



Staff Photo by Fred Adams

The best way to see America on a shoestring: 65 hikers bound for Washington led a parade of early morning walkers across the San Francisco-Oakland Bay Bridge yesterday on the second leg of their trek eastward to promote more national hiking trails. The California portion of the trail was scouted by UC Nobel Laureate Glenn T. Seaborg, member of the HikaNation committee which organized the walk.

5,000 on Coast Hail Cross-Country Hikers

Special to The New York Times

SAN FRANCISCO, April 13 — About 5,000 Californians got up early today and trekked eight miles across the Bay Bridge to the outskirts of Oakland, then bid farewell to an intrepid band setting out on a cross-country hike that is expected to take more than a year.

While most walked across the bridge, and many stopped often to savor the view on a fine, clear morning, a few ran and at least 10 crossed in wheelchairs.

The occasion, which involved closing off part of the bridge's top deck to cars, was designed by a two-year-old group called the American Hiking Society to draw attention to the society's existence and what it sees as a need for more hiking trails in both city and country. And, as one of the organizers added: "To show the American public that hiking is a healthy outdoor activity." The United States Department of the Interior is a co-sponsor.

It's a 'HikaNation'

In the vanguard today were 61 hikers who expect to reach Washington, D. C., in June 1981 in what the society calls a "HikaNation."

Traveling with them for the day was Glenn T. Seaborg, a former chairman of the Atomic Energy Commission, who laid out the group's route across California.

But for many who took part in the bridge walk, which cost them \$2 each in fees to the society, it was just an opportunity to do something that they ordinarily cannot do because pedestrians are banned from the structure.

"I'm a photographer and I've never had a chance to walk across the bridge," said Roger Helbig, who works at the Oakland Army Terminal, where buses waited to carry back to San Francisco those hikers who had had enough after the eight-mile crossing.

"All those little people on that big bridge, so high in the air," said one walker, marveling. "Everybody was intensely friendly. They all had big, blissful grins."

25,000 Were Expected

The organizers of the occasion said they were pleased with the turnout, although they had anticipated 25,000.

Michael McReynolds, a San Francisco organizer, said the cross-country group includes a man of 68, although most participants are in their 20's, taking time off from school or deferring the start of careers. Among them, he said, are a couple from San Diego with an 8-month-old child.

Another hiker, Toni Martinazzi, who is divorced, quit her job as a high school librarian in Portland, Ore., when she was refused a leave of absence to take part.



United Press International

Hikers crossing the San Francisco Bay Bridge on their way to Oakland

APR 14 1980

Archives Liaison. pj

Review of Archives Program March 1980

In late 1978, LBL decided to assume responsibility for preserving its own history. To this end an archivist was appointed and since that time I have devoted my energies to establishing an archival program. In the beginning I studied the problem: what is the history of the laboratory, what is now being done to preserve various records of that history, and what needs to be done to ensure an accurate preservation of LBL's story.

I discovered that some individuals with an instinctive sense of history try to safeguard whatever important artifacts and records come their way. Sometimes every scrap of paper seems vital so nothing is weeded. Other individuals have a positive abhorrence toward retention and dispose of every item which has outlived current usefulness. Most people are somewhere in between these extremes, confused not only by what to designate as important, but by the huge volume of accumulating paper. When this volume becomes too great, people dispose of the burden in self defense. Naturally the valuable is thrown out along with the worthless.

In addition to the individual attempts at preservation, I found out that LBL, as one of the DOE family of laboratories, is required to implement a records management program. The framework for such a program is provided by DOE, and in accordance with that framework LBL has its own records specialist and records clerk. We also have a records holding area for inactive records which departments need to retain, but which are too bulky to remain in the offices. Furthermore the LBL records office has access to the Federal Records Center in San Bruno for additional overflow records. Scientists and office personnel however, make only spotty use of the services.

Finally I discovered that UC's Bancroft Library has a special program aimed at preserving the papers of important individuals in science and technology in the western U.S. While the program is not directed specifically at LBL scientists, naturally many LBL staff members have been approached for donations. So the history of some LBL people has been preserved by Bancroft, though by no means has a comprehensive picture of the institution been saved.

After I had informed myself of what was already happening at LBL and the campus to preserve the historical record, I proposed to the Director a system for regularizing and coordinating all these efforts. The basic idea was to capitalize on the records program already in operation. If that program could systematically reach all the divisions and departments, then the important records would be safeguarded automatically, and an archivist would not have to establish another records routine.

Many of the techniques and goals of archives and records overlap, with the major difference being emphasis. To coordinate the two parallel functions of archives and records management, therefore, I was made supervisor of the records operation. I am now promoting a more active records program with an emphasis on educating office personnel to the records disposition principles. I am visiting each division to meet with the designated Archives liaison.

This person can provide information which will help me advise the division on retention schedules for divisional records. Another effort I am making is in conjunction with the Employee Development Office. We are setting up a records disposition course at LBL for secretaries. These efforts should enable at least the administrative records to flow smoothly to the Archives, to a more temporary records holding area, or to disposal.

The real substance of laboratory history, of course, is in the scientific offices. Research people by necessity do not conform to systems and regularization. My biggest challenge will be to tap these sources. I think once again education in conjunction with divisional assistance may be the answer. If I can help the scientists become aware of the importance of their records, the various storage facilities offered by LBL, and the archival program for truly significant records, I feel the chances of securing valuable historical records are greatly increased.

Finally, another input to the Archives which I hope will bear fruit is the History Committee appointed in late 1979 by Dr. Sessler. Members include Jim Born, Ed Lofgren, Ed McMillan, Art Rosenberg, Glenn Seaborg, Ray Wakerling, and myself. I hope this committee will provide advice, offer support, and help shape the direction of the Archives and Records Program at LBL.

*Letter signed by
Mike Jones
and [unclear]*

I wrote a letter to President Carter concerning the recent closing of the U.S. Consulate General in Gothenburg, Sweden by the Office of Management and Budget. (copy attached)

At 5: 35 p.m. Alan McClelland from the Central Research Department of DuPont caught me before I left for the day. He is putting together a special program for the ACS meeting in San Francisco in August and would like me to give a talk. I asked who the audience would be and who the other speakers were. He said that he had just started the process and I was the first possible speaker; he had contacted but that he wanted to have about four speakers on the West Coast (or who would be in attendance at the ACS meeting so a special trip need not be made). He said that the audience would be ACS people and that it would be scheduled for Sunday night (or a time when there were very few things going on). Mr. McClelland told me that the program would probably be from 7: 30 to 9: 30 p.m. and he wanted it to be low key and the speakers would not have to prepare any in-depth papers for it . The topic would be " Impact of Chemistry in the 1980 ' s: Where is it going and who will be doing it? " He said he hoped that it would be a stimulus for teachers and students especially and that the speakers would be those knowledgeable in wide areas. The other speakers to be asked will be George Pimentel, an organic chemist, and an industrial, research chemist. I suggested Bill Baker as a possible industrial chemist. The program will be co-sponsored by Corporation Associates and Mr. McClelland will send me a letter with the details .

Helen and I had dinner had dinner in the playroom and I worked in the study during the evening.

Tuesday, April 15, 1980--Briones/Walnut Creek

Helen and I drove to Briones Regional Park, picking up Norman Tuttle on the way. I introduced Norman Tuttle, as the Mayor of Lafayette, to the assembled hikers and told them about our newspaper publicity, including an article yesterday in the New York Times. Jim Kern also talked to the group.

We started our day's hike at a little after 9 a.m. We hiked through Homestead Valley to Lafayette Ridge, where we paused to let some of the others catch up. A rather large segment started late, never caught up, arrived at Ron White's place hours after I did with the advance group. On Lafayette Ridge, Kay Petersen and Shirley Nootbaar joined us. We were led for this portion of our hike by Ranger Jack Kenny of the EBRPD (as far as Ken Brown's property). When we reached Springhill School we were greeted by a large group of schoolchildren, and Bob Lilly, principal of the school. I talked to the children, describing HikaNation, then introduced Dick Hildebrand, Mayor of Walnut Creek, who made some welcoming remarks, and Jim Hazard, Walnut Creek City Councilman. We also met Bob Pond and Ron White. Among the people I met and talked to were Jennifer Russell, Recreation Director of Lafayette, Mrs. Crum (Peter's 4th grade teacher), Tom Martel (Contra Costa Times reporter), Louis Johnson (Jordan High School, class of 1931, Jeannette's class), and Barbara Pupino (who lives in the Nordstrum House on Nordstrum Lane).



SWEDISH COUNCIL OF AMERICA

4970 xxxxxxxx Drive xxxxxxxx Maryland 20016 Phone xxx301xxx229xxx6467xxxx

Office of the Executive Director

2600 Park Avenue, Minneapolis, Minnesota 55407. Telephone (612) 871-4907

April 14, 1980

- BOARD OF DIRECTORS**
- Aronsson, Karl-Gunnar
Detroit, MI
 - Biörck-Kaplan, Lena
New York, NY
 - Brodén, Edwin R.
Ithaca, PA
 - Carlson, Curtis L.
Minneapolis, MN
 - Enlund, E. Stanley
Chicago, IL
 - Erickson, Roland A.
Greenwich, CT
Vice President
 - Hasselmo, Nils
Minneapolis, MN
 - Hasselquist, Maynard B.
Minneapolis, MN
Legal Counsel
 - Johnson, Gustave F.
Minneapolis, MN
Treasurer
 - Jonsson, Philip R.
Dallas, TX
 - Karlstrom, Signe
Detroit, MI
 - Lindell, Edward A.
St. Peter, MN
 - Lund, Eric R.
Chicago, IL
 - Lundborg, Louis B.
Belvedere, CA
 - Lundeén, Joel W.
Chicago, IL
 - Lundin, Oscar A.
Detroit, MI
 - Olsson, Nils William
Washington, D.C.
Executive Director
 - Secretary*
 - Peterson, Rudolph A.
Piedmont, CA
 - Plynn, Lawrence J.
Delray Beach, FL
 - Ramell, Gunilla C.
New York, NY
 - Seaborg, Glenn T.
Berkeley, CA
Vice President
 - Gordon I. Swanson
St. Paul, MN
 - Wessell, Nils Y.
New York, NY
President

The President
The White House

Dear Mr. President:

I was deeply disappointed to learn of a recent decision made by the Office of Management & Budget to close the U.S. Consulate General in Gothenburg, Sweden. Many of us active in Swedish/American affairs were puzzled by its inclusion on the list of consulates to be closed for budgetary reasons. We had thought that when the late Senator Humphrey spearheaded efforts in 1975 to reopen the historic Consulate, that the question of its importance as an integral part of the U.S. mission in Sweden was established. This was further emphasized last year by Congress when it passed special legislation reflecting its opinion on the matter.

Because of the intense interest and dedication by Swedes and Americans alike over the 173 year relationship with Gothenburg, we feel this action must certainly be an oversight of which you are not personally acquainted. Furthermore, the merits of keeping the Consulate open are well-established and significantly different from other consulates on the list destined for closure.

I am quite confident that upon a check with those knowledgeable in commercial, cultural and foreign policy fields, you will find that all will agree that the benefits of keeping the consulate open far outweigh the projected savings in the budget. I would like to address a side of the problem I am familiar with — the academic and scientific fields.

In my visits and discussions with Swedes in the academic community, I have noticed a growing concern that the U.S. foreign policy is pulling away from a normally close relationship. With the absence of official American presence in Gothenburg the pull towards Eastern-bloc countries becomes more pronounced. This is especially true at the fine scientific and medical institutions in Gothenburg where a quite massive Soviet and East German effort is underway through seminars, cultural exchanges and trade fairs.

While Americans and Swedes will continue their longstanding exchange of scholars who have active contacts in both countries, I believe a subtle change is taking place among the younger faculty members and students. With the completion of a \$6 million Soviet Trade and Cultural Center staffed by 30 persons in Gothenburg, the academic and cultural life will be massively tilted in Russia's direction. Keeping two American staff persons and a small consulate open does not seem too extravagant under the circumstances. I can fully appreciate the

The President

-2-

April 14, 1980

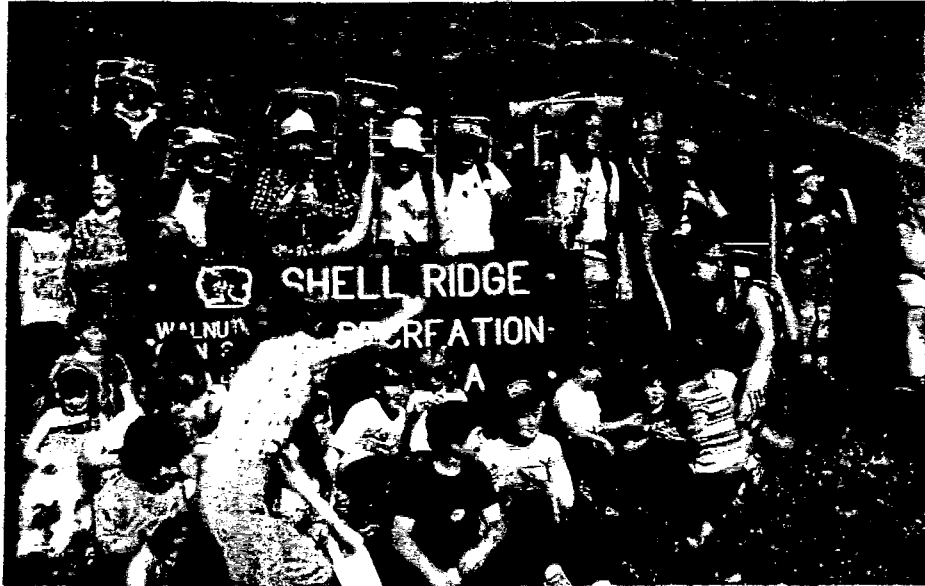
tremendous pressures you are under and would not bother with this letter if I did not feel that this action would cause irreparable harm to Swedish/American relations over the long run. Only last year, 350,000 West Sweden persons signed a petition asking the U.S. not to close the Gothenburg Consulate General. Thousands of Americans of Swedish descent are also concerned with this development in the relations of the two countries. I sincerely hope that you will reconsider this decision in light of these facts.

Respectfully yours,

(Signed) Glenn T. Seaborg

Glenn T. Seaborg,
President

GTS/11



HikaNation Group with Indian Valley School Children
Walnut Creek, April 15, 1980

Guided by Bob Pond and Ron White we proceeded over Acalanes Ridge to the Mokelumne Aqueduct where we were met and guided by Jack Harnett and Walter Goggin of EBMUD. We continued along the Contra Costa Canal to Heather Farms Park, where we had our backpack lunches; the snack bar was open for us. Here Gary Ginder (head of the Walnut Creek R-8 Open Space Advisory Committee and Foundation) and Hardy Miller of the same organization joined us for the walk on to Indian Valley School, where we were again greeted by school children, the principal and teachers. The children presented each of us with Walnut Creek Open Space buttons. I was presented with a vase of flowers (wild roses originating from plants brought from Austria long ago). We continued on to Ranger Ron White's ranch, where we were met by Mrs. Ron (Marne) White and Helen. The hikers set up their overnight camps here.

After waiting for a few more hikers to arrive (the others were hours behind), Helen and I, with Shirley Nootbaar, drove home to Lafayette. I went over our federal and state income tax returns, prepared by Helen. After we signed them Helen took them to the Walnut Creek Post Office in time to meet the deadline.

Wednesday, April 16, 1980--Berkeley

At 8:35 a.m. I talked to Bob Parry about the meeting to consider international meetings which will be held soon in St. Louis. Bob will try to attend and in the event that he does attend he wanted my views on the frequency of international meetings, locations, etc. I said that it would be good to have a third meeting between the traditional semi-annual meetings in 1986 or perhaps early in December 1985. I told him

about Polly Newman's contact with Glen Michael in Canada who had expressed agreement to combine the 3rd North American Chemical Congress with an international meeting in Honolulu (a Pacific Chemical Congress). Bob will check with Polly on this. I said that I thought it would be a good idea to have an international meeting once for every five meetings but they could be in simple places such as Puerto Rico, Canada, Honolulu, etc.

At 8:55 a.m. I called Jane Olson, Editor, American Scientist, regarding the figures for my article, "The New Elements". I told her that the figures 1 and 2, cannot be changed or combined, that both figures are crucial to the article. She will reinstate the figures as I submitted them. It is possible they will eliminate the figure of the Quiz Kids because of space problems.

At 9:35 a.m. I talked with Mike McReynolds about some concerns he has regarding the HikaNation. He had not seen the article on the hike by the New York Times; we will send him a copy. The coverage by the Contra Costa Times, while very good concerning the hike, printed his office and home unlisted number which has caused his problems. He was also concerned about the shortage of water at Shell Ridge; I told him that problem had been taken care of by Bob Pond. A package was delivered to his office for Monty Montgomery from P. Kean, St. Mary's, Maryland (1'x1'x4"). If Monty calls here, or if Jeannie Harmon calls, I will relay this information. He would like to ride up with me on Friday, April 25th to the Folsom/Roseville area to join the hikers. We will keep in touch regarding arrangements.

At 10:15 a.m. I called Chief of Police for the City of Clayton Gary Knox to talk to him about HikaNation and also to ask him what the name of the grocery store is next to The Grove. He told me that the store had a delicatessen with good sandwiches. Don Williams is the owner. Chief Knox asked if any newspaper reporters had been notified and I told him that the Contra Costa Times was covering HikaNation all the way across the state. Then Chief Knox told me that he would be present for the welcoming ceremony tomorrow as would the Vice Mayor and several others. I told him that it was difficult to judge but that the group expects to be in Clayton around noon. After some difficulty I reached Don Williams, owner of the Village Liquor and Grocery store next to The Grove in Clayton. I asked him whether his store stocked such items as Moleskins and insect repellent. He said that they had insect repellent but advised me to go to the Clayton Valley Center for anything more specialized. I informed him about HikaNation and the fact that the hikers will probably stop at his store for provisions. I asked if he could set aside some boxes for the hikers to send things home in.

At 10:45 a.m. I called Mary Vargo in the City Manager's Office in Antioch to talk about the arrival of the HikaNation group in Antioch on Saturday, April 19. I informed Ms. Vargo that the group would probably not arrive at the Veterans of Foreign Wars Hall on Wilbur Avenue until about 11 a.m. (not 10 a.m. as Mayor Roberts said on April 14). Mary Vargo told me that it was about a mile from Wilbur Avenue to the point near the Antioch Bridge where we will eat lunch on the lawn of DuPont so we should be able to make it there by 12 noon. She asked about the number of people expected and I told her it was difficult to make a precise estimation since people are able to join us anywhere along the route. I gave the number as 100 people which she will order

lunch for on Saturday.

I received a letter from Sherman Thomas concerning the meeting for the formation of an International Chemical Society (copy attached). I sent rough drafts of the taped proceedings from the mendeleevium symposium to the participants and asked them to make changes and resubmit them for publication.

At noon I held the regularly scheduled biweekly SHEIKS meeting in my office. This regular luncheon meeting of my heavy ion radiochemistry group was attended by Iz Perlman, Ken Moody, Pat McGaughey, Luo Cheng, Michael Perry, Robert Welch, Pat Somerville, Diana Lee, Martin Schulman, Won Mok Jae, Saburo Yashita, and Yoshi Morita. I was presented with a large birthday cake with a bridge on it (for the Bay Bridge crossing this past Sunday) by Pat Johnson, Kathy Van Der Haeghen and Lin Lorenz. On the cake was the inscription "Bridging the Gap" with 67 at one end of the bridge and 68 at the other. Lin Lorenz took pictures of the people at my birthday party and several of me as I opened the present which they gave me--a gold tee-shirt with the appliqué--"FEET don't fail me now".

After everyone had a piece of cake, Ken Moody, Michael Perry, and Robert Welch reported on their observation of Pu, Pa, Bk, U and Am isotopes from our recent ^{248}Cm plus ^{136}Xe bombardment and Pat Somerville reported on the angular distribution of ^{256}Md from ^{249}Bk plus ^{15}N . The meeting ended at 1 p.m.

I went by Building 70, Room 203 before leaving early at 3 p.m.

Thursday, April 17, 1980 - Lafayette

I spent the day at home, apparently suffering from a relapse of the flu.

Friday, April 18, 1980 - Lafayette

I again spent the day at home.

I made a number of phone calls regarding HikaNation to check on preparations at the upcoming overnight stops. I talked to Dale Dorn's assistant at Ko-Ket Resort (April 20 stop), Preston French for the Clarksburg Fishing Access Area (April 21 stop), Wanda Lynch of Sacramento Mayor Philip Eisenberg's office (he may greet the hikers in Old Sacramento at about 5 p.m. on April 22).

Helen and I rode with the Hulet Hornbecks to Black Diamond Mines Regional Preserve, to the HikaNation camping area at the corner of Stewartville and Black Canyon Roads, to join HikaNation for an evening program. I learned that there is some dissatisfaction with the strenuous schedule that I have laid out.

Dick and Phyllis Trudeau, the Howard Cogswells, Roger Epperson (who led the hikers from Mt. Diablo to Black Diamond Mines on Thursday), Joanne Dean (chief

4/16 XL: S. Sipes Sent 4-17-80

APR 15 1980

April 8, 1980

373 4/16/80

Dr Glenn T. Seaborg
Lawrence Radiation Laboratory
University of California

Dear Dr Seaborg:

Please accept a sincere thank you for making possible my attendance to the meeting of the Study Committee on the Formation of an International Chemical Society.

We live a time of trials and tribulations, of great anxiety and distrust. I feel, however, that this situation spells out how much needs to be done and reminds us of the role each of us must play in making this world a better place to live in. Only people can accomplish this. It is not so much a matter of doing things for people, but doing this with people and helping people help themselves.

We can no longer be innocent bystanders, we cannot part from the scene as if it were none of our business. Science is not a body of neutral facts that are transformed into useful "things". The

result of scientific achievements, and principal those due to the work of chemists affect, in one way or another the lives of people. It is up to us to make certain that the results benefit as many human beings as possible. The world is not only how we see it in the chemistry laboratory.

Closer ties and better understanding among chemists are goals worth pursuing. An international society is one way of achieving this goal.

Very sincerely yours

Sherman Thomas

S. THOMAS
11285 S.W. 92nd AVENUE
TIGARD, OREGON 97223

ranger at Black Diamond Mines Regional Preserve) were among those present. We had a wiener roast. After this, Dick Trudeau presented me with a surprise birthday cake--a lemon-flavored cake with the inscription on the frosting, "Happy Birthday--Glenn". I cut the first slices, after which Jeannie Harmon and Cindy Bain cut the remaining pieces for the hikers. I was also presented with a HikaNation poster, signed by all the cross country hikers, and a Postum T-shirt.

This was followed by a campfire program led by Joanne Dean.

Helen and I rode back to Lafayette with Dick and Phyllis Trudeau.

Saturday, April 19, 1980 - Lafayette

It is my birthday today.

Helen drove to Davis to be with Dianne and Kent at Picnic Day. On the way home she stopped by Brannan Island State Park, found that the HikaNation hikers had arrived there relatively early and in good shape.

I spent the day at home reading, etc.

Helen gave me a fine leather briefcase and two pairs of wool socks for my birthday and Dave and Dianne and Kent gave me birthday cards.

Sunday, April 20, 1980 - Lafayette

I read my mail, from my office.

In the late afternoon Helen drove to Ko-Ket Resort to check up on the HikaNation hikers. Everything was in order. They arrived early today.

Dave had a potluck dinner at our house for a number of people from The Brain Center, followed by an evening program.

Monday, April 21, 1980 - Berkeley

At 8:30 a.m., I returned a call from David Shirley regarding his concerns about the Chemical Material Sciences Bldg. budget authorization being cut out of DOE's budget for 1981 and the serious problems this will result in for the Laboratory. One-half of the total budget for this project (\$6.3 million dollars of a total budget of \$12.6 million) has been received and is committed for the purchase of ARM (Atomic Resolution Microscope), leaving very little for attendant equipment. Pulling the funding out for the second year allocation means the postponement of construction of the building which will house support facilities, feeder microscopes, preparation equipment, offices for staff, etc. Shirley asked if I would call Mike McCormack to

ascertain the possibility of reinstating this budget item in the Energy Subcommittee's (of the House Science & Technology Committee) markup budget that is going to the full committee soon. I said I would do so.

At 8:45 a.m. I called Dr. Ezra Heitowitt, Mike McCormack's staff man on the Energy Subcommittee of the House Science and Technology Committee. I told him of the tremendous consternation about the postponement of the Chemical Material Sciences Building (resulting from the funds being cut from the 1981 DOE budget) and asked if there was any way to get it back on the track. Ezra will be meeting with Mike McCormack today and asked if there was any specific new information that would be useful for them to know as it is their understanding that this is an office building and not essential for the operation of ARM. He also clarified for us the reason this allocation is in a two-part appropriations--due to the lack of a DOE authorization bill last year. (In fact, there has not been an authorization bill for the last two years.) Therefore, the Department has been operating on the assumption that "appropriations" is the same as "authorization,"

At 8:55 a.m. I called David Shirley and told him of my conversation with Ezra Heitowitt. David said that their assumption that this building is mainly an office building is absolutely wrong as it is actually mainly laboratory space. This is a three-story building, the upper two stories of which are entirely laboratory space; the lower floor has office space for support groups and some administrative offices. David said they will not go ahead with the plan to break ground for this building if the appropriation is cut--thus delaying it for another year, or longer, increasing its costs and cutting the effective use of ARM substantially. There will be enough money in the first half of the appropriation to build an enclosure for ARM, but that is all. I immediately called Ezra Heitowitt back at 9 a.m. and told him about the misunderstanding regarding the use of this building. He will call the appropriate people in DOE and try to straighten this out although it may be too late to reinstate this allocation in the Energy Subcommittee's markup. Ezra said that the Senate Budget Committee may not cut that particular item and if they put it back in the budget Mike's committee would probably go along.

At 9:15 a.m. I was able to reach Mike McCormack and explained the whole situation to him. He was not optimistic, told me about the large budget cuts he has had to make--cuts in the breeder program of \$280 million, fusion program cut \$50 million (which he feels is way below the necessary level to continue this effort). He said we might consider having someone make an amendment to the bill but he cannot do that.

At 9:25 I called Earl Hyde. I told him that McCormack is under tremendous pressure, that our building allocation has been written out of his bill and there is nothing he can do about it now. The bill goes to the full committee on Wednesday (April 23rd). Mike's staff will talk to Jim Kane and Earl thought that a call to Richard Kropschot wouldn't hurt (he will do that right away). We also discussed the advisability of sending a few letters explaining the impact of this cut on LBL building programs and use of ARM.

At 11:10 a.m. I called Don Pearson to check on his progress on arrangements for the HikaNation group to come through Placerville on Sunday, April 27. I told him that the group was having a little difficulty with the schedule and they were finding it strenuous but we hoped to keep to the schedule and be in Placerville as planned. I asked Don Pearson about the possibility of having the swimming pool open for the group and he gave me the unfortunate news that the swimming pool was under major repairs and that the boilers were down so there was no hope to use the pool. I told him about the lack of showers for the hikers and he said that there were two showers in the bathrooms that could be used but they would be cold showers because the water is heated only when the boilers are running. Don Pearson then told me about the welcoming ceremony arrangements. The Mayor and possibly the County Supervisor will meet the group at City Park at 4 p.m. The Mayor will present the group with a signed resolution and say a few words. We then discussed the problem of toilets at Rescue. Don Pearson said that he had talked to a lady in Rescue who was to call me but he will check back with her this afternoon and let me know what's arranged and also give me her name and number.

At 11:55 a.m. Sue Vandenbosch called to ask for a reference for a position she is applying for at the nuclear physics laboratory, Michigan State University. Although she has been out of the field for 16 years (has been teaching political science for eight years), she is anxious to return to physics research. Bob, her husband, is presently on sabbatical in Fargo, North Dakota, and is commuting to Morehead State University in Minnesota. He too hopes to obtain a staff position at Michigan State U and later a faculty position. She will send me her resume and the name of the person to whom a letter of reference should be sent.

I received a letter from President David Saxon thanking me for my participation in the LBL Director Search. I wrote a letter to Robert Adams thanking him for his letter of April 16 which included the proposed schedule for May 8-9 for the 31st International Science and Engineering Fair to be held in St. Paul, Minnesota. I told Mr. Adams that Mrs. Seaborg would be unable to accompany me. I also wrote to Gary L. Ginder telling him that I would accept an appointment to the Advisory Committee to the Walnut Creek Open Space Foundation but that it would largely be nominal due to my heavy schedule (copy of Ginder's letter attached). I wrote to Lena Biorck-Kaplan thanking her for the list of people invited to the April 9th dinner for SCA. I asked for suggestions for improvements and sent copies of the follow-up letters which I will send to those people on her list. I also wrote to Roland Erickson to inform him that Nils William Olsson is touring the western United States to meet with SCA Board members and that we drafted a follow-up letter that I will send to the attendees of the April 9th SCA dinner as well as those invitees who were unable to attend. I enclosed the draft to Erickson for his suggestions and comments.

I had lunch at my desk.

At 12:35 p.m. I received a call from Sherman Thomas informing me about the recent meeting in Bangkok to discuss an International Chemical Society. Sherman Thomas reported that six out of nine of the Executive Committee members were in attendance: Bogdan Baranowski of Poland, Messan Adgangba of Africa, Stanley

GARY L. GINDER

April 17, 1980

373 4/18/80

Dr. Glenn T. Seaborg
1154 Glen Road
Lafayette, California

Dear Dr. Seaborg:

The hikers are now beyond Walnut Creek's Open Space. We have each taken our photos and memories, leaving only footprints. Thank you for sharing those moments of your life and vision.

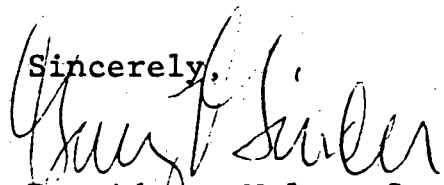
Symbolically, for those who have eyes to see such things, HikeaNation is a laser of hope slowly searching the hearts and minds of a people called America. It invites them to protect this fragile planet by realizing their potential, individually and collectively.

The Walnut Creek Open Space Foundation is an embryonic light with the capacity to become a laser. Its goal is to burn, brighter and brighter, suggesting to sister communities throughout this country that there is a better way of relating to the land. Like HikeaNation, it requires care and tending.

Enclosed is a copy of a letter which will provide you with a general sense of the "tone" we hope to bring to this new and enthusiastic organization. In light of those comments made by you as we proceeded along Shell Ridge, I invite your attention to that portion of the letter referred to as "the complimentary close," the place where the "very truly yours" is customarily placed.

I am advised by those who know more about such matters than I that a non-profit organization should always have an "advisory committee" of well known people who are willing to lend their names and, on rare occasions, counsel the board of directors. Would you be willing to consider becoming the first such member of our organization? Please advise.

Sincerely,



President, Walnut Creek
Open Space Foundation



GARY L. GINDER
549 LA VISTA ROAD

WALNUT CREEK, CALIFORNIA 94598

Kirschner, Kamchorn Manunapichu of Thailand, Simao Mathias of Brazil and Sherman Thomas. Sherman Thomas said that Baranowski was very positive and talked about the Federation of European Chemical Associations in Brussels during which a revolution was successfully blocked. He then told me to reserve the first week of February 1981 to attend a meeting of the Executive Committee in Costa Rica at the time of the Latin American Congress in Chemistry.

Sherman Thomas then told me that I will be expected to give a seminar or something but that the Latin American Federation of Chemical Societies will send an invitation. Sherman Thomas told me that the three objectives which Stanley Kirschner had proposed were fine and that the way to achieve the goals of the ICS are to get more third world countries involved. Sherman Thomas talked about the meeting in Yugoslavia.

Thomas wants to increase the size of the Executive Committee to include an observer from IUPAC and an observer from UNESCO and also a delegate from the U.S.S.R., Arabia, and the Federation of European Chemical Societies so we may try to neutralize the effects of Fritsche and Parker. We discussed changing the name of the proposed ICS to the International Confederation of Chemical Societies with no change in policy regarding individual memberships.

We then discussed the matter of making the ICS not just an organization with "how much I can get" but rather "how much I can contribute". There will be a report by the Executive Committee and also a report for ACS.

At about 1:30 p.m. Jens Kratz dropped into my office. He is visiting us for a week or so to give some talks with the view of looking him over for a possible position in the Department of Chemistry, carrying on his research at LBL in heavy ion radiochemistry. After talking a while I took him by Building 70 to talk to Diana Lee, Ken Moody, Pat McGaughey, Robert Welch, Luo Cheng and Rose Marie McFarland.

Later in the day, about 3 p.m., Ezra Heitowitt called me back and said he checked with DOE to get specifics on the impact of the proposed committee cut and DOE assured him that the silo and the ARM, along with some utilities that go with it, would all be covered in the current appropriation and that the \$6.3 million already appropriated would carry LBL through the next fiscal year OK on this particular project. He suggested that adjunct laboratory space be converted for use, that existing office space might be utilized, etc. In short, we did not get any support from DOE. Ezra had spoken with Jim Kane first and Don Stephens after that.

I then called Earl Hyde at 3:10 p.m. and told him about this lack of support from DOE. Earl will now send out a few letters. He was not able to discuss the situation with Kropschot who was out of town.

At the 4 p.m. NSD Seminar in room 3377/70A, I introduced Jens Kratz who spoke on "Radiochemical Studies of the Charge Asymmetry Mode in Damped Heavy-Ion Collisions".

Helen and I had dinner in the playroom. I worked in the study after dinner.

Tuesday, April 22, 1980 - Berkeley

I wrote a letter of recommendation for Sue Vandebosch for a staff position in the Nuclear Physics Department at Michigan State University (copy attached). I also sent a letter to all the members of the Board of directors of the Swedish Council of America concerning the issuance of a memorial stamp for John Hanson.

At 9:30 a.m. I returned Ben Loeb's call of earlier this morning. We discussed progress on our manuscript, "Kennedy, Khrushchev, and the Test Ban--An Eyewitness Account". He will contact Adrian Fisher to suggest he read the chapter covering the material from Averell Harriman (now complete and being typed). Ben asked about the publisher's comments on the manuscript which he would like to incorporate on his second draft, but I told him that Harlan Kessel (University Press) said that it had to be approved by several committees but sounded like it was going to go ahead with no problem. Ben said that he had not yet received the copies of the material Lin Lorenz sent but will wait a few more days. I told Ben that Harlan Kessel suggested a publication date of next fall/winter or early next spring for "Kennedy, Khrushchev, and the Test Ban--An Eyewitness Account". I suggested the latter and Ben agreed.

I sent a letter in support of the nomination of David Shirley for non-resident membership in the Cosmos Club (copy attached). I also sent Kjell Lagerstrom, Director of Awards for the American Society of Swedish Engineers, a letter suggesting Erik G.M. Tornqvist, John Erik Jonsson (long-time President and Chairman of the Board of Texas Instruments and one of the pioneers in the formation of the American Society of Swedish Engineers), and Kenneth Olsen (President of Digital Equipment Company) for the John Ericsson Medal Award. I also mentioned that Olsen might be a Norwegian rather than a Swede in view of the spelling of his name.

I declined an invitation from Robert Tsai of the University of Puerto Rico to speak at the Fifth Senior Technical Meeting sponsored by the ACS-Puerto Rico Section. I also wrote to George Sakalosky informing him that I could not find anyone who was willing to add an additional reading assignment to their schedule.

I had lunch at my desk.

At 2:20 p.m. I called Ken Hulet at LLL to tell him about the letter I received from the National Academy of Sciences asking for a host for two Soviet scientists that will be visiting the U.S. at the end of May. I told him that he would have to call the NAS if he is prepared to receive them, i.e. meet them at the airport, show them around for a few days. He said he would do so. The two scientists are Boris Myasoyedov and Yuriy Zolotov. I told him that I will send him a copy of the letter I received.

At 4 p.m. I went by Building 70 to talk to Ken Moody, Pat McGaughey, Diana Lee and Yoshi Morita.



Lawrence Berkeley Laboratory

University of California
Berkeley, California 94720
Telephone 415/843-2740-
486-5661

April 22, 1980

Professor Aaron Galonsky
Department of Physics
Michigan State University
East Lansing, Michigan 48823

Dear Professor Galonsky:

I am writing in support of the application of Dr. Sue Vandebosch for a staff position in the Nuclear Physics Department at Michigan State University. My evaluation relates to a period of about 25 years ago when Sue, then Sue Ritsema, worked as one of my graduate students at the Radiation Laboratory of the University of California, Berkeley. Her graduate research involved work on spallation-fission competition in reactions induced by light-charged particles in the actinide region. Her Master's thesis was concerned with the reaction of ^{238}U with helium ions and the use of chemical separations to isolate plutonium, neptunium, and uranium fractions as well as a broad range of fission products. Besides the determination of spallation-fission competition she obtained evidence for the alpha,t reaction and measured the increasing symmetry of fission with increasing helium ion energy.

Her work was an excellent pioneering effort at that time. It was later published as part of a larger research effort "Spallation-fission competition in the heaviest elements; Helium-ion induced reactions in uranium isotopes," Phys. Rev. 111, 1358 (1958).

Sue chose to stop her graduate work at the Master's degree level after a little more than a year, in order to marry Bob Vandebosch. She had the status of a Ph.D. candidate and I have no doubt that she could have gone on to qualify for the Ph.D. had she chosen to do so; in fact, her Master's thesis came close to being at the Ph.D. level.

After Sue obtained her Master's degree, she continued working at a reduced pace in literature searches and abstract writing and in the area of technical writing until her husband Bob obtained his Ph.D. degree and then they both moved to accept positions in the Chemistry Division of Argonne National Laboratory.

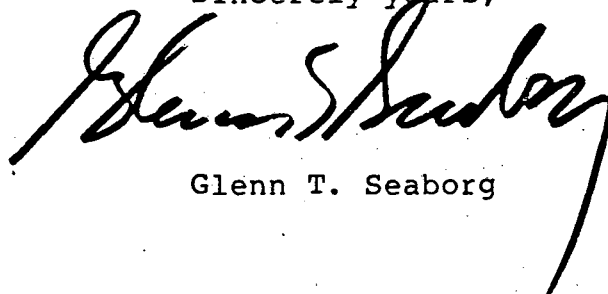
Professor Aaron Galonsky

-2-

April 21, 1980

I found Sue to be a good graduate student with a nice personality who got along well with her co-workers. She was working at the forefront of her field and understood very well the theoretical implications of her research.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Glenn T. Seaborg". The signature is written in a cursive style with a long, sweeping tail that extends downwards and to the right.

Glenn T. Seaborg

GTS/11

486-5661

April 22, 1980

Admissions Committee
The Cosmos Club
2121 Massachusetts Ave., N.W.
Washington, D.C. 20008

Gentlemen:

I am writing in support of the nomination of Dr. David A. Shirley for non-resident membership in the Cosmos Club.

I have known David Shirley for about twenty years, since his start with the Lawrence Berkeley Laboratory. He is an outstanding physical chemist who has done research over a broad range of fields at the forefront of modern science. He has combined his research career here at the University of California, Berkeley, with a distinguished career in teaching and administration. As a young man in his late 30's, he served as Chairman of the Department of Chemistry and then immediately thereafter, as Associate Director and Head of the Materials and Molecular Research Division of the Lawrence Berkeley Laboratory. He has the unique ability to carry on these demanding administrative duties without noticeably reducing his prodigious research output.

Just last month, David Shirley was appointed Director of the Lawrence Berkeley Laboratory; this is an extraordinary level of accomplishment for such a young man.

He is a member of the National Academy of Science. He has received a number of prestigious awards including the California Section Award of the American Chemical Society in 1970 and the Ernest O. Lawrence Award of the U.S. Atomic Energy Commission in 1972.

He is serving, or has served, as the Associate Editor of the Journal of Chemical Physics, on the Editorial Board of the Journal of Electron Spectroscopy, the Editorial Board of Hyperfine Interactions, and the Editorial Advisory Board of the Magnetic Resonance Review.

April 22, 1980

He is the author or co-author of more than 200 research papers published in scientific journals.

David Shirley is a well-rounded individual and an interesting conversationalist. His wife, Virginia, is also a scientist (a chemist) and is a delightful person.

I feel that I can recommend without reservation David A. Shirley for membership in the Cosmos Club.

Sincerely yours,

Glenn T. Seaborg

GTS/kv

Steve called, from San Diego, before dinner. Everything is fine with him.

Helen prepared a special birthday dinner for Dave, which the three of us had in the kitchen. Our birthday gifts to him consists of some of his favorite foods.

Wednesday, April 23, 1980 - Berkeley

Dr. Benson called to advise that he is the Centennial Chairman for 1981 for Bethany College. He was asked by the science department if he would contact me and ask me to be a guest speaker for two days in February/March or September/November of 1981, or whatever dates would be convenient for my schedule. Dr. Benson said that Linsborg is about 75 miles north of Wichita, Kansas, and that there are many other small colleges within 60 or 70 miles of Bethany College. Linsborg has a population of about 2,700 and Bethany College has a student body of approximately 850. Benson also asked that in addition to my giving a speech, would I be willing to interact with the students, have dinner with the faculty, etc. I replied that a visit to Bethany College is a possibility but also mentioned that I have a busy schedule and could not give my visit two days. I suggested that Benson write a letter giving the full details including dates for this speaking invitation.

I wrote to Michael Moravcsik concerning his manuscript. I thought his book is excellent and concise in covering the sociology of science on an international basis and written with an aim towards non-scientists and students of science-related courses. I thought it would also appeal to people interested in science policy and management, and to scientists concerned with public acceptance of their work. I then wrote to Dr. Marcus Wallenberg for attending and speaking at the SCA dinner on April 9, and to Curtis Carlson including a copy of the thank you letter to Dr. Wallenberg.

At 11:45 a.m. I tried to call Jane Olson (Editor of American Scientist) magazine, after reading her letter I received today and looking closely at the article, "The New Elements", since they wished to print it. I learned from Michelle Press (Managing Editor) that Jane Olson was on vacation. Ms. Press put me in touch with Sandy Ackerman, who was in charge of my article, and I informed her of the mistakes I had found in the figures which had been sent to me. Sandy Ackerman said that Figures 1 and 2 have been changed back and have just been received from the printer so she will send them on to me soon for my approval. I then carefully went over the corrections that needed to be made in Figure 3. I told her that Figure 3 needs to go back to my original--the numbers in boxes 97 to 103 should be deleted because that was not how it was published in 1945. I told her that the blank boxes should then be tinted because they were as yet undiscovered elements. The elements up in the body of the table should remain out of alignment because that was done for a reason. Also, the boxes that were tinted for elements 43, 61, 85, 87, 95 and 96, should not be tinted because those elements were discovered but just unnamed. Only 7 vacant squares should be tinted from 97 through 103. I said that the asterisks and daggers made no difference. For Figure 4 the 106 that was tinted on my copy was not tinted when it went to the printer so that is OK. Figure 8 was the same way. Ms. Ackerman said that the topographical figure will be done in blues and greys with black outlines. She will send

me copies of all the figures for my approval.

After lunch at my desk, I attended the regular biweekly actinide seminar in Room 191/70. Present were Norman Edelstein, Andrew Streitwieser, Kenneth Raymond, George Shalimoff, David Templeton, Allan Zalkin, Jerome Bucher, Frederick Weitzl, Vincent Pecoraro, Charles Eigenbrot, Helena Ruben, and others. Vincent Pecoraro spoke on the complexes of thorium with tyrosine and transferrin.

I attended a meeting of the LBL 50th Anniversary Organizing Committee from 2:40 p.m. to about 3:50 p.m. in Bldg. 70, Room 191. Present were: Luis Alvarez, Leo Brewer, Joe Cerny, Vikie Davis, John Feack, Robert M. Glaeser, J. David Jackson, Theodore Kirksey, Ed McMillan, Louise Millard, Will Siri and me. The agenda (attached) was followed and the next meeting is scheduled for 9 a.m. on Tuesday, May 13.

At 4 p.m. I attended a special seminar in room 120, Latimer Hall, where Jens Kratz spoke on "Chemical Separations Applied to Nuclear Problems: Decay and Reaction Studies."

Helen and I had dinner in the playroom.

After dinner Mel Smothers returned my call. We learned that the purchase of our house on Margaret Drive in Strawberry Heights seems to be going ahead on schedule.

Norman Tuttle dropped by at about 7:45 p.m. to sign the HikaNation scroll as mayor of Lafayette (on April 15, his last day as mayor, when the hike came through Lafayette).

Helen and I talked by phone to Bonnie Madsen. The possible sale of Strawberry we talked about on April 5, is not progressing very fast. She told us there is a possibility that Highway 50 will be closed for repairs during June and July.

Thursday, April 24, 1980 - Berkeley

At 9:15 a.m. Heinz Heinemann called me from the MMRD Division to tell me about a Catalysis conference which will be held from July 16-18. He asked me if I could give a talk on the energy situation at the dinner on July 16. I asked him to send me the announcement and I will check my schedule.

At 9:30 a.m. I called Ranger Fred Bell at Camino to discuss his progress in clearing the trail from Pacific House to Strawberry. Fred Bell was out of town in a training session so I talked for quite a long time with Bob Lewin who I had met with Malcolm McFarland last summer when I was scouting the route. We discussed the portion from Wright's Lake Road to just west of Pyramid Campground. He said that 4" x 4" posts with XP (for the Pony Express Trail) have been mounted in certain places along the route where it might be difficult to decide on the route. Bob Lewin also said that they have done a bit of flagging to help the HikaNation group, and have cleared

April 18, 1980

MEMO

TO: Distribution

FROM: Edward Lofgren

SUBJECT: 50th ANNIVERSARY ORGANIZING COMMITTEE

This is to remind you that the second meeting of the 50th Anniversary Organizing Committee will be:

Wed. April 23, 1980

2:00- 4:00

Bldg. 70, Rm. 191 (Please note change of room)

AGENDA

1. Report by chairman on a discussion with the Director.
2. Reports by Ted Kirksey and John Feack on some of the suggestions made at the last meeting.
3. Report by Joe Cerny and Dave Jackson on the possibility of topical symposia.
4. Report by the chairman on a conversation with John Heilbron Director of the Center for the History of Science and Technology.
5. Other topics.
6. Next Meeting.

I hope that you can attend this meeting, but if you cannot and if you have any suggestions or comments would you please send me a note (Bldg. 47), or call me at 6372.

several paths of large debris. He said that the route from Fred's Place to Wright's Lake Road will be easy to follow now. He informed me that the staking beyond Cleveland Corral, which I had thought was private property, marked a pipeline. I asked Bob Lewin if he would be able to accompany us to show the group the way and he said that he or Fred Bell have planned to be with us from Pacific House to Pyramid Campground. I told him that he should try to be at Pacific House about 8 a.m. on April 30 and asked him to introduce himself to Monty Montgomery and Jeannie Harmon. I then asked him if it would be possible to hike up to Lover's Leap from Camp Sacramento and he said there would be too much snow. He told me that Fred Bell will be in Tuesday and either Fred Bell or Bob Lewin will be with the HikaNation group Wednesday and Thursday.

At 9:50 a.m. I called Wanda Lynch in Mayor Philip Eisenberg's office in Sacramento to ask if Mayor Eisenberg would be available to sign the HikaNation scroll on Saturday morning. She said he would not be in and I told her that Monty Montgomery will bring the scroll in sometime next week for him to sign.

At 10:15 a.m. Mike McReynolds called to talk about this weekend. I said that I wasn't sure yet and asked him to contact me on Friday concerning our driving up to Rescue together. He asked about the scroll and I told him that we had received it and had gotten the Oakland and Berkeley mayors' signatures and would be getting the Antioch, Clayton, Lafayette, and Walnut Creek mayors' signatures before this weekend. I told him that Monty Montgomery would have to get the Mayor of Sacramento's signature next week. We talked about seeing HikaNation coverage on Channel 10 TV from Sacramento. Mike said that he would try to get a more permanent container for the scroll before this weekend.

John Anderson announced his candidacy for president as an independent this morning. I sent letters to Dr. E. Hagebö, Dr. E. Gabathuler, Dr. Robert Klapisch with copies of all to Walter Loveland, Pat McGaughey, Gösta Rudstam, and Kjell Aleklett concerning our proposed experiment this summer at CERN. I also wrote to Professor Liu informing him that his visit has been approved. I also replied to Dr. Gupta's letter of April 3, 1980 (copies of both attached). I received a nice letter from Oscar Lundin thanking me for the letter I wrote to him on April 14th and informing me that he will be unable to meet me due to his business interests elsewhere when I go out to visit the Detroit Swedish Council.

At 10:35 a.m. I called Gordon Bixler; I told him that the letters to the U.S.S.R. about Yuri Yarim-Agaev are fine. Gordon will turn them over to Rod Hader for presentation to the ACS Board on June 6th. Regarding John Wotiz' letter of April 21st, I suggested that Gordon send out a ballot on the matter (Wotiz attending the First Asian & Pacific Chemistry Congress in Singapore, April 1981, as an official delegate of the ACS Committee on International Activities). He will do so. I told Gordon about my telephone conversation last Monday with Sherman Thomas who had just returned from the meeting of the Executive Committee of the Study Committee on the Formation of an International Chemical Society. A report from that committee will be forthcoming. Gordon has sent out draft Minutes of our meeting in Houston and we will talk again after I have received them.

=====
486-5661

April 24, 1980

Dr. S. P. K. Gupta
Ella's Cottage
B-108 Gulmohar Park
New Delhi, India 110 049

Dear Dr. Gupta:

This is in reply to your letter of April 3, 1980.

I believe that Bhabha's bitterness toward U.S. support of Eklund's election as IAEA Director General was softened in the main by Eklund's even-handed performance as the Director General; this and Eklund's friendliness toward Bhabha led him to forget, rather quickly, his initial disappointment with Eklund's selection.

I believe that General Electric won the contract for the Tarapur reactors because they presented a more attractive bid than any of their competitors.

I do not believe that Bhabha's death had very much effect on the U.S. government's attitude toward the Tarapur project.

I am enclosing glossy prints of the pictures which appear in my chapter on India for your use in the Bhabha biography.

Sincerely yours,

Glenn T. Seaborg

GTS:pj
Enclosures

300
S.P. 4/14/80
Ella's Cottage
B-108 Gulmohar Park
New Delhi, India 110 049
April 3, 1980

Dear Doctor Seaborg:

I am most grateful to you for your kind letter of February 20 and for sending me so generously the India chapter of your AEC Memoirs.

I now have a fuller idea of the Tarapur negotiations and can better appreciate your role in pushing the agreement through a hesitant U.S. government. How one wishes the present day problems disappear and the Power Station resumes full production not only to meet the power hunger of the region but to serve the cause of friendship between two great peoples.

More than this, I have been fascinated by your India story itself and quotations from the journal of your visit to India made delightful reading. I wish it is possible for me to read all of your book.

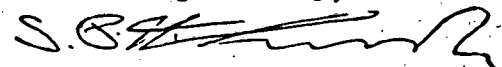
I apologise to you for this delayed acknowledgement. My first plan was to develop a detailed questionnaire on the basis of your document. But thought it is not fair. I must come and seek a detailed interview in Berkeley although I do not see how this can be arranged. With so many of his friends and former colleagues in USA, I cannot think of doing any justice to the biography without personal interviews.

While I continue efforts for a visit to USA, could I seek clarifications on two points. Would I be right in assuming that the "gift" (as the disappointed French call it because of the liberal U.S. credit terms on Tarapur) of the nuclear power station softened Bhabha's bitterness over US support to Eklund's election as IAEA Director General. Secondly, would it be right to presume that the terms of US Government's fuel guarantee had something to do with the choice of General Electric over Westinghouse which sold the idea of light water reactors to Bhabha.

There is also this question whether the US government had second thoughts after Bhabha's death. For the sales contract for enriched uranium was signed only in May 1966.

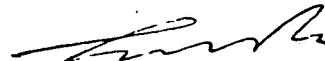
Let me once again say how very much I am obliged to you for the rich material you have provided for the Bhabha biography.

Yours respectfully,



S. P. K. Gupta

I would like to use the photos reproduced in your Memoirs and request you to send me glossy prints and permission to publish them in the Bhabha biography.



At 11:30 a.m. Monty Montgomery called to ask Lin to make 50 copies of the short version of the itinerary because he has been getting many requests for them. The group is still on schedule and Monty said that there were 50+ tents at Sacramento last night so he expects that at least 75 people are still planning to go the whole way. I told Monty that Helen, Mike McReynolds and I will be coming up to join them somewhere along Green Valley Road this Saturday. I also told Monty that toilets have been arranged for Rescue, that we are getting all the mayors' signatures until Sacramento (which Monty will have to arrange next week), that Rangers Fred Bell and/or Bob Lewin will assist in leading the hikers on the segment from Pacific House to Strawberry Lodge. I also asked Monty to tell Don Lindberg that the swimming pool in the City Park in Placerville is down for repairs and will not be available for the hikers. Monty reported the good news that morale seems to be getting better and that some people have rested for a few days and the group seems to be getting in shape.

I had lunch at my desk.

At about 1:30 p.m. I went by Building 70 to talk to Rose Marie McFarland about a schedule for her thesis problem--Transfer Reactions of Heavy Ions on High-Z Targets.

At about 2:30 p.m. I walked down to campus to pick up my mail.

From 3:30 p.m. to 4:00 p.m. I attended a champagne birthday party for Joe Cerny in his office, along with Howel Pugh, Dick Diamond, Hermann Grunder, Bernard Harvey, Earl Hyde, Lee Davenport, Olivia Austria, Wanda Smith-Burnett, Crystal Llewellyn, Eileen Eiland, Pat Johnson, Kathy Van Der Haeghen and Frances Mann.

I attended, in the Building 50 Auditorium, the LBL Colloquium at which Howel Pugh and Tommy Elioff spoke on "The VENUS Project". At 5:30 p.m. I went by Building 70 to talk to Diana Lee and Yoshi Morita.

Lin Lorenz gathered the signatures of the Mayors Of Walnut Creek, Clayton and Antioch on the HikaNation scroll this afternoon.

I took a walk to the water tank (Glen Reservoir) with Moses (his first for this walk).

Jeannie Harmon called from Folsom to report that HikaNation is on schedule and going well.

Helen and I had dinner in the playroom and I worked in the study after dinner.

Friday, April 25, 1980 - Berkeley

This morning we learned of an abortive attempt by U.S. Forces to rescue the hostages in Tehran, Iran.

I went by Building 70 at 8 a.m. and found that Diana Lee, aided by Luo Cheng and Ken Moody, was doing the chemical separations following a successful ^{248}Cm plus ^{22}Ne bombardment at the 88-inch cyclotron on the owl shift this morning.

I rode with Bruce Garguilo to Kevex headquarters in Foster City to preside over the quarterly meeting of the Board of Directors. Present were Directors Dick Frankel, Richard J. Cushing, Gary W. Kramer, W. Hunter Simpson and also Paul Baker (the Controller). We followed the agenda (attached). Kevex is having some trouble meeting their large backlog of orders because of a bottleneck in Si (Li) detector production, x-ray tube production and high voltage supply purchase; these problems are being overcome. The meeting lasted from 9:20 a.m. to 11:40 a.m., after which I rode back to LBL with Bruce Garguilo.

Pat Johnson, Kathy Van Der Haeghen, and Lin Lorenz went out to lunch to observe National Secretaries Week.

I had lunch at my desk.

At 1:15 p.m. I went by Building 70 and found that Diana Lee made a successful chemical separation this morning, is now following the decay. I also talked to Michael Perry and Robert Welch about the treatment of their data, and to Yoshi Morita about the CERN-Studsvik-Berkeley experiment.

At 2:30 p.m. Rusty Schweikert called me from Sacramento to say that Governor Brown would be leaving for the Bay Area today and would not be back in the Sacramento area until Tuesday so could not greet the hikers. I suggested the Nevada border or Strawberry Lodge as other alternative places but it is unlikely.

I called Ed Nafus at Kyburz to remind him that the HikaNation group will be stopping there on Wednesday night, April 30. He said he could arrange for his store to be open but couldn't guarantee that it would have everything the hikers needed because it wasn't officially opened yet. I thanked him and said that would be good. Camping facilities, water and toilets will be available.

At 3 p.m. Dee Keuseff (Manager of Pacific House) returned my earlier call and I reminded him that the HikaNation group will be there for the night of Tuesday, April 29. He said that that would be fine.

At 3:10 p.m. Don Pearson returned my earlier call and we discussed arrangements for toilet facilities at Rescue tomorrow. Don Pearson said that Mrs. Lillian Dixon (the same Mrs. Dixon who lives in Pleasant Grove House on Green Valley Road) has volunteered her time to come and open the community center for the hikers to use the facilities. The Center is right next to the Fire House. Don Pearson also said that there were about a half dozen hikers from HikaNation already in Placerville saying that they were going to wait for the group there. He said they have been staying in the City Park. Don Pearson also said that they have had a number of inquiries from people who want to join the hike and one man said that he saw one of the hikers on TV who is

KEVEX BOARD MEETING

April 25, 1980

Agenda

- I. Approval of January 28, 1980 Minutes
- II. Major Event Schedule (see Calendar section of Director's Notebook)
 - A. Board Meeting Dates
 - B. Financial Information Release Dates
 - C. Audit Schedule Dates
 - D. Planning Cycle Dates
- III. Financial Summary (Mr. R. S. Frankel)
 - A. Review of current month and quarter's results
 - B. Current estimate for FY 1980
- IV. Discussion of current production process conditions (Mr. R. S. Frankel)
 - A. Detectors
 - B. Tubes and power supplies

a friend he hasn't seen since he was married.

At 3:15 p.m. Sheila Berg (UC Press, UCLA) called, to tell me that they have received one reviewer's report of our book "Kennedy, Khrushchev and the Test Ban...", which was very favorable, The reviewer had one comment to make regarding Chapter II. She will send me a copy. Another report is due by the end of April, thus they will make the May 9th Editorial Committee meeting.

Immediately after talking with Sheila Berg I called Ben Loeb and gave him the good news about the reception the reviewer has given our book. I will send him a copy of the reviewer's comments as soon as they are received regarding Chapter II.

At 3:20 p.m. Professor Joseph Pask brought Professor Tung-sheng Yen, here visiting from the Institute of Ceramic Chemistry and Technology, Shanghai, PRC, in to visit me. They visited for about 20 minutes and I attempted to make an appointment for him to meet David Shirley and Earl Hyde later today.

At 3:40 p.m. Carl Sagan called from Los Angeles to apologize for his slowness in responding to the invitation to receive the Glenn T. Seaborg science media award from the IPA. He explained his busy schedule, the TV series he is involved in, etc. He asked for a deadline by which to respond one way or another. He feels his schedule may preclude his traveling to Washington D.C. in August to accept the Award in person. If it does turn out that he can make the trip he would prefer to travel on Sunday, have the ceremony on Monday afternoon in time to return to the West Coast that evening. I told him I would check with Dan Tyler Moore to see if this could be worked out and will get word back to him.

I talked to Betty Moore, Dan Tyler Moore's wife, at 3:55 p.m. and told her about my conversation with Carl Sagan. She will check with Dan who is attending a meeting today and they will get back to me about the schedule for presenting this Award on Monday afternoon.

At 4 p.m. Jens Kratz dropped in to say goodbye. He will go to Washington, D.C., to attend the American Physical Society meeting then return home to Germany.

At 4:15 p.m. I took Professor Yen over to meet David Shirley and also Dr. Hyde, who talked to him about LBL programs.

I wrote two letters to Werner Muller today; the first to accept his invitation for membership on the International Programme Advisory Committee for "Actinides 1981", and the second to ask if he would write a chapter on the metallic properties for the Katz-Seaborg revision of The Chemistry of the Actinide Elements. I also wrote a letter in support of the nomination of Kenneth D. Nichols to be an honorary member of The American Society of Mechanical Engineers and to support the reappointment of David Ridgway as Specialist III (copy attached). I also wrote a letter of introduction for David Ridgway to Professor Hsia Yen (Deputy Chairman, Academic Affairs Committee, Shanghai Normal University) for David's trip to the PRC in May.

4/25/80

486-5661

Dr. William M. Laetsch
Director
Lawrence Hall of Science
University of California
Berkeley, California 94720

Dear Dr. Laetsch:

I would like to request that Mr. David Ridgway be reappointed for the academic year 1980-81 as Specialist III. I understand that his appointment at an 80.5% allocation is entirely supported from GHEM Study funds which also provide for the support of some administrative and technical activities of the Lawrence Hall of Science.

Mr. Ridgway's long and devoted service to CHEM Study continues to be productive. In the past year his activities have included the transfer of rental activities for CHEM Study films from Modern Talking Pictures to Wards Natural Science Establishment, negotiations with the National Science Foundation for the introduction of CHEM Study films and materials into Romania, continuing French translations of films, and public information efforts with many foreign countries such as Israel, Philippines, Malaysia, Indonesia, Singapore, and The Netherlands. He is presently negotiating with the West German Institut fur den Wissenschaftlichen Film Company in Gottingen for the adaptation and use of CHEM Study materials in Munich and Tubingen, and is about to embark on a trip to China where he will meet with the audio-visual head of the Ministry of Education in an attempt to introduce CHEM Study to the People's Republic of China.

I believe that Mr. Ridgway's reappointment for another year would be beneficial to the project.

Sincerely yours,

Glenn T. Seaborg

GTS/kv

Helen and I had dinner in the playroom.

Saturday, April 26, 1980 - Folsom/Rescue

Helen and I picked up Mike McReynolds at the Lafayette BART station, then drove to Folsom to join the HikaNation hikers for today's hike from Negro Bar Park in Folsom to Rescue. After hiking a while Monty Montgomery sought me out because he was having trouble arranging for toilet facilities at our overnight stop in Rescue.

I rode with Monty Montgomery to Pleasant Grove House where we picked up Lillian Dixon and went on to Rescue. Here I convinced Ed Cortese of the nearby Baptist Church to allow us to use the church's facilities.

I joined the group which included Helen (who drove our car) and Jeannie Harmon for the lunch stop (along Green Valley Road).

I continued hiking on to Pleasant Grove House, where I arrived at about 2:30 p.m. A considerable number of the hikers stopped here for a rest. Lillian Dixon talked to the group describing the history of Pleasant Grove House, a Pony Express horse change station. I also talked to the group, describing the HikaNation route from here to the Nevada border. Helen and I then had a cup of tea, with homemade banana cake, with Lillian Dixon and her friend. Helen and I then drove to the overnight stop area in Rescue (adjoining the fire station), talked with the hikers already there and those arriving.

At about 5 p.m. Helen and I drove to Placerville, checked into room 9 of the Gold Trail Motor Lodge (1970 Broadway). We then drove back toward Placerville and had dinner in Sambo's.

Sunday, April 27, 1980 - Rescue/Placerville

Helen and I had breakfast at Sambo's, then drove to the Rescue camp area for HikaNation where I joined the hikers for the day's hike. I hiked to Bennett Park in Placerville, going along Green Valley Road until it reached the outskirts of Placerville. Helen spent the time with our car helping hikers find the way and directing them to assemble at Bennett Park. About 50 of the hikers left Bennett Park at about 3:30 p.m. and arrived at City Park in Placerville at about 4 p.m. Here we were met by Don Pearson, but Mayor Jim McIntyre didn't appear as he was scheduled to do. However, the mayor until last week, Carl Borelli, presented me with a resolution of support for HikaNation, adopted by the Placerville City Council on April 8, 1980.

We started home at about 5 p.m. with Lin Lorenz and Jim Stack riding with us as far as Rescue where their car was parked and Mike McReynolds as far as the Lafayette BART station. We arrived home at about 7:20 p.m.

Helen, Dave and I had dinner in the playroom.

I called Mel Smothers to discuss details of our purchase of the home in Strawberry Heights (on Margaret Drive). I also talked to Mike McGrath at Strawberry Lodge to have him prepare for the HikaNation hikers arriving next Thursday night and staying until Saturday morning (camping in the meadow). I also called Rose Mary Sheldon at Strawberry Meadows to discuss HikaNation plans.



Seaborg with hikers on Green Valley Road, enroute to Placerville
HikaNation, April 27, 1980

Monday, April 28, 1980 - Berkeley

At 8:25 a.m. I called Dan Tyler Moore to tell him that Carl Sagan wants a little more time (until May 8th) to give us an answer on his willingness to travel to Washington next August to receive the "Glenn T. Seaborg Science" award. Dan said that Sagan's secretary had told him that Sagan could not accept the award due to his TV film schedule so Dan asked our second choice which was Walter Sullivan, the science editor of the New York Times, who accepted. I said I would call Sagan and tell him this.

At 8:30 a.m. I reached Sagan at his home in Los Angeles and told him that since his secretary had regretted this invitation for him, Dan Moore had made other arrangements, but we hoped he might be available in another year. He said he understood completely but felt there must have been some misunderstanding between his secretary and Dan Tyler Moore.

A few minutes later, Dan Moore called back and suggested we ask Sagan for another year. I told him I made that option to Sagan but suggested he wait for a few months before approaching Sagan again because of his TV film schedule.

At 9:05 a.m. I called Jean Beam in Las Vegas to inform him that the HikaNation group was on schedule and to discuss with him the route through Nevada. I asked him if he had a pathfinder through Nevada and he said that he hopes Roy Johnston (from Reno who is supposed to have started with the group in San Francisco and go all the way) will be the pathfinder. Jean Beam will call Mt. Danaher Ranger station tonight and talk with Roy about it. (Mt. Danaher has a P.A. system.) I asked Jean Beam if he would be able to join us at the Nevada border on May 6th and he said he didn't know if he could since it is a 480 mile drive.

I asked about the trails and he said that the group would be walking much of the way on dirt roads. He said that one of the trails that he wished to use which would cut off 15-20 miles hadn't been touched by the Forest Service in over 20 years. He said that he hadn't made a definite stopping place for each day because he didn't know the weather conditions or the condition of the hikers so it will be largely up to them to pick their campsites. Jean Beam recommended that the group stay near Tonopah because that would be the closest to civilization for a long time. They will be going close to only three cities--Tonopah, Mina, and Panaca. He said that Panaca has a lot of historical landmarks but is a very conservative Mormon town. Through the Toiyabe National Forest the group will be hiking on dirt forest service roads.

Jean Beam also told me that, since Nevada is a high desert, the group could be walking in 90° weather during the day and might wake up covered with snow, especially near Tonopah (6,000 ft. elevation) and through the 8,000 foot pass on the eastern end of Nevada.

At 9:30 a.m. I called Frank Barton at Little Norway to inform him that the HikaNation group is on schedule and will be coming to Little Norway on Saturday, May 3. He said they will get ready for us and told me that they have 6-8 feet of snow but there are some brown patches behind the resort. I told them that the group will probably arrive in the middle of the afternoon and that I will be with them.

Norman Edelstein came in at about 10:15 a.m. to discuss the possible representative from the USSR for membership on the International Advisory Committee on "Actinides 81". I suggested as my first choice Vitalii Goldanskii, second choice, Boris Myasoyedov, and third, Nikolai Krot.

At 10:45 a.m. I called Gordon Bixler to discuss a few points in his letter of April 22, 1980.

- A. Regarding the appointment of a subcommittee to work with Fred Rust on making effective use of the new Science in Developing Countries Program, we will ask Marjorie Gardner and Harry Szmant.

- B. Regarding Polly Newman's idea (for possible role of U.S. companies in developing countries) we will appoint Polly Newman and Al Zettlemoyer to a sub-committee.
- C. We will refer to Ellis Field's subcommittee the Clayton Callis matter (Chairman, Board Committee on Public Affairs and Public Relations) to recommend ACS policies for dealing with U.S.S.R. agencies and scientists.
- D. Regarding the proposed joint meeting between the IAC and the M&E Committee, since Bob Parry will meet with the M&E Committee this Friday, we can handle this by setting up a joint meeting at the ACS meeting in San Francisco. We will hold off on this one pending the outcome of Friday's meeting.

I told Gordon that the Minutes of the Houston meeting were just fine and he will now distribute them.

At 11 a.m. I went by Building 70 to talk to Pat McGaughey about his calculations using the Firestreak Model.

At 11:20 a.m. I talked with Heinz Heinemann and agreed to give a talk on Wednesday, July 16th at the banquet scheduled for the MMRD Catalysis Conference at the Lawrence Hall of Science. I will speak on the energy problem after the banquet. I told him that I will need a slide projector for regular 2"x2" slides.

At 11:45 a.m. Roy Heath, Northern Michigan University, called on behalf of Professor Wolf Niessen (a Professor of Art at NMW) who wants to do a bronze bust of Helen and me. This might be done when we visit Ishpeming in August or Professor Niessen could travel to Lafayette/Berkeley. This would be done at no cost to us and after one casting is made, we could make replicas. I said I would be interested in doing this but cannot say right now if we could spend the extra time while attending the 50th High School Reunion of my class in Ishpeming. I asked Roy to have Professor Niessen write me a letter with more details.

I declined an invitation for membership to the "Friends of the Institute of Logotherapy" today (from Joseph Fabry). I wrote to Mr. M. V. Padhye of India informing him that his field was very different from that being studied by my research group and I could not offer him a post-doctoral position because of this and budgetary restrictions. I sent three of my books--Man and Atom, Nuclear Milestones, and Elements of the Universe--to Martha Athens of the American Academy of Arts and Sciences for inclusion in the "Fellow's Library". I also wrote to Dr. Fritz Weigel thanking him for the enclosure of Subsection 5.5 of the plutonium chapter. I noted that we might have a problem with the length, and mentioned that I am not planning to attend the 10th Jour d'Actinides to be held in Stockholm in May, but that Norm Edelstein is planning to attend.

At noon I attended the regular luncheon for Chemistry faculty members in the Lewis-Latimer Room of the Faculty Club.

I walked back up the hill to my LBL office.

At 2:22 p.m. this afternoon Officer Malcolm McFarland returned my earlier call. I told him that the HikaNation group was on schedule and would be arriving at Strawberry Lodge on May 1 and would be spending a day of rest there on Friday. I told him that I would be at Strawberry from Wednesday night to Friday night. I asked him how the roads would be from Strawberry to Little Norway and he told me that the group would need snowshoes to get across the snow. I said then that it might be unavoidable and we would have to go on Highway 50. I asked him if he could escort us if we did this. He said that was above his territory and I should contact Sergeant Robinson of the Lake Valley Highway Patrol. He said that he would call and inform Robinson about the hike and ask for his help and I will call Robinson tomorrow and confirm. Malcolm McFarland asked if we were going over the Brockliss Bridge and I told him that we were in order to avoid Highway 50. I told him that Bob Lewin or Fred Bell would be accompanying the group from Pacific House until the Pyramid Campground. Malcolm McFarland will meet me at Strawberry Lodge sometime between May 1st and 3rd.

At 2:45 p.m. I called Arthur Hall and told him that the HikaNation group was on schedule and would be arriving at Ace Hereford Ranch on Monday, May 5 and then continue into Nevada on Tuesday, May 6. I told him that I would be with them and he asked if I would stay at Ace Hereford with them on May 5. I told him that I would and that Helen would be with me. Arthur Hall told me that one of the Board of Supervisors planned to have a cake for the group and that he (Arthur Hall) had built a fire pit so the group could have a fire. He said that the river was running very strong and that the cottonwoods should be at their best at that time. I asked if he would join us in the hike on May 5 and Arthur told me that he would see. He expected to join for part of it. We talked a bit about the campground at Sorensen's Resort and he said that the lower one at Snowshoe Springs should be dry.

At 3:30 p.m. Rose M. McFarland dropped in to discuss her thesis problem-- ^{97}Au plus ^{18}O to determine yields of transfer products.

At 4 p.m. in room 3377/70A I attended the regular NSD seminar, at which Gianluca Rattazzi spoke on "A Study of the Magnitude and Direction of Fragment Spin Orientation for the Systems Xe + Au and Ho + Ho at 8.5 MeV/A" and Roger Parry spoke on "Mass Measurements of Neutron Deficient Indium Isotopes".

Helen and I had dinner in the playroom and I worked in the study during the evening.

Tuesday, April 29, 1980 - Berkeley

Darleane Hoffman is here and I had a long talk with her the first thing this morning about the status of our research program. We then went to room 213/70 to continue our discussion with Diana Lee.

At 9:35 a.m. June Bartlett called to thank me for the letter in support of the California Chapter of the American Scandinavian Foundation. I wrote at the time I regretted my inability to attend many of their meetings but urged the chapter continue. She also asked if the \$500 contribution was a personal contribution from me or from the Swedish Council of America. Since the group hoping to form the Association of Swedish Language Teachers wishes to acknowledge the gift, I had to tell her that the contribution was a personal one from me.

At 10:40 a.m. Bob Udall from Nature magazine called regarding an obituary for George Watt. He asked if I would be interested in writing one or if I could suggest someone. I suggested that he contact Leon Morgan, Department of Chemistry, University of Texas in Austin.

At 11:10 a.m. Ben Loeb called to tell me that he sent the material regarding Averell Harriman's contributions to the LTBT to Adrian Fisher; this consists of about 55 pages, all of one chapter and a few pages in the previous chapter. We agreed it was best not to send it to Harriman first. Ben is sending me copies too as well as a copy of his letter to Fisher. We talked about his coming out to Berkeley this summer and I suggested he begin thinking about sometime around July 20th when Joe Katz will also be here. It is possible that by that time he can begin working with an editor from UC Press.

At 11:30 a.m. Lena Biorck-Kaplan called to say that the drafts of my letters to attendees, and to those who did not attend, the SCA dinner on April 9th were fine. I told her that I would also check with Roland Erickson today by telephone so the letters could go out soon. She said that John La Grua did not make the dinner. I told her again what a good job she did on the New York SCA meeting and dinner.

I had lunch in the cafeteria with Darleane Hoffman, Diana Lee and Albert Ghiorso. They are scheduled to have a ^{248}Cm plus ^{18}O bombardment at the 88-inch cyclotron this afternoon to study further the properties of the approximately 1 second SF activity ^{259}Fm .

After lunch I had a talk with Ken Moody about his Ph.D. thesis program--determination of yields of actinides from heavy ion (Kr, Xe, perhaps U) on heavy actinide targets.

I received a nice letter from Barbara Jacak.

At 1:20 p.m. we finally contacted Roland Erickson at his home in or near Worcester, Massachusetts, through an unlisted number. Since he had not received my letter with the drafts yet, I read them to him. His only suggestion will be incorporated

"requestered" in the letter and that is to identify the contributions as "Corporate Sponsorship." He agreed to be the person identified to receive the contributions in the letter.

At 2:10 p.m. I reached officer Malcolm McFarland who said that Sergeant Robinson or Sergeant McDonald will escort the hikers along that portion of Highway 50 they will be hiking the next few days. He does plan to introduce himself to Monty Montgomery and Jeannie Harmon early this evening at their campsite at Pacific House. On Thursday he will ask the on-duty sergeant to escort the hikers over another small stretch of Highway 50.

I sent Craig Evans the resolution from the City Council of Placerville in support of HikaNation and gave him an update on the progress of HikaNation. I wrote Ed Cortese to thank him for allowing the HikaNation group to use the facilities of the Baptist church next to the Rescue Fire Station on April 27-28. I sent letters to all the people who were invited to attend and who did attend the SCA dinner at the home of Consul General Bengt Friedman on April 9. I also wrote to Professor John Gladysz at UCLA thanking him for the UCLA Chemistry Dept. genealogy and correcting a mistake he had made about my Ph.D. (copy attached).

At 2:30 p.m. I walked down to Latimer Hall to pick up my mail and then walked back up the hill to my LBL office.

I went by Building 88, found Darleane Hoffman, Diana Lee and Al Ghiorso getting ready for their experiment.

From 5:15 p.m. to 6:30 p.m. I talked on the energy problem to the Alumni Session of the Business School Executive Program in the Lipman Room of Barrows Hall. I was introduced by Professor Raymond Miles and illustrated my talk with 11 slides. I defined and described our energy situation and then covered the six future energy sources (along the lines of my Bohemian Grove talk of last July). I left about 30 minutes for questions which were mostly friendly, but there was some emphasis on the Three Mile Island accident.

Helen and I had dinner in the playroom after which I worked in the study.

Wednesday, April 30, 1980 - Riverton/Kyburz

Helen and I left home at about 7:20 a.m. to drive to the Sierra to join the HikaNation hikers. We joined them on White Meadows Road above Riverton. I continued with them on the route as outlined and Helen helped the stragglers find the way. Fred Bell and Robert Smart, Jr. (District Rangers at the Placerville Ranger Station at Camino) accompanied the hikers the whole way to Kyburz.

We had our backpack lunches at the El Dorado National Forest Recreation-Information Center; there were about 30 of the 65 or so hikers with us at this point (the others were behind to various degrees). While hiking along Webber Mill Road we met

=====
=====
486-5661

April 29, 1980

Professor John Gladysz
Department of Chemistry
University of California
Los Angeles, California 90024

Dear John:

Thank you for the copy of the UCLA Chemistry Department genealogy.

You might add Ralph A. James who served as a member of the UCLA Chemistry Department faculty in the late 1940's and early 1950's and who obtained his Ph.D. with me at Berkeley in June 1948.

I obtained my Ph.D. in 1937 (as you indicated) with G. E. Gibson, not W. M. Latimer.

With best regards,

Cordially,

Glenn T. Seaborg

GTS:pj

Note: 5/2/80 I reached Professor Gladysz and gave him the information about Professor Wm. Crowell Bray, born in 1879, came to UC from Toronto, Canada; received his Ph.D. in 1905 in Leipzig under Professor R. Luther who was a faculty member in Ostwald's laboratory. He first taught at MIT, came to UC in 1918 where he remained until his death in 1960's, was chairman of UCB Chemistry Dept. 1943-45.

pj

Helen about 3 miles from the end. About 15 of the hikers (including Rangers Fred Bell and Robert Smart, Jr.) accompanied us on our off Highway 50 route between Webber Mill Road and Kyburz. We arrived at Kyburz at about 7 p.m. Some others were already there and others were still to arrive. Malcolm McFarland was there to greet us. He talked to Helen and me regarding finding a better route from Webber Mill Road to Kyburz.

Helen and I drove to Strawberry Lodge, checked into room 101 (the largest room), had dinner in the dining room. We talked to Mike McGrath and Drago.

Thursday, May 1, 1980--Kyburz/Strawberry Lodge

Helen and I had breakfast at Strawberry Lodge, then drove back to Kyburz. Here I joined the HikaNation hikers. Helen drove back to our Lafayette home; she will return tomorrow at about dinner time, with Mike McReynolds and Pat McGaughey. We started from Kyburz at 9:30 a.m., following the route that I had laid out, with some modifications connected with staying off Highway 50. Ranger Mike Reeves from the Placerville Ranger Station in Camino led us over the route, much of which he had worked on and had previously marked. The group I found myself with at the end (which followed the off-Highway 50 route), numbering about 10 (including Reeves), arrived at Strawberry Lodge at about 4:45 p.m.

I called my office, in answer to a message, to be brought up to date on correspondence, etc.

I had dinner in the Lodge dining room with Jeannie Harmon and Monty Montgomery. A number of HikaNation hikers were eating dinner there. Cindy Bain, perhaps others, took rooms in the Lodge for tonight and tomorrow night.

Friday, May 2, 1980--Strawberry Lodge

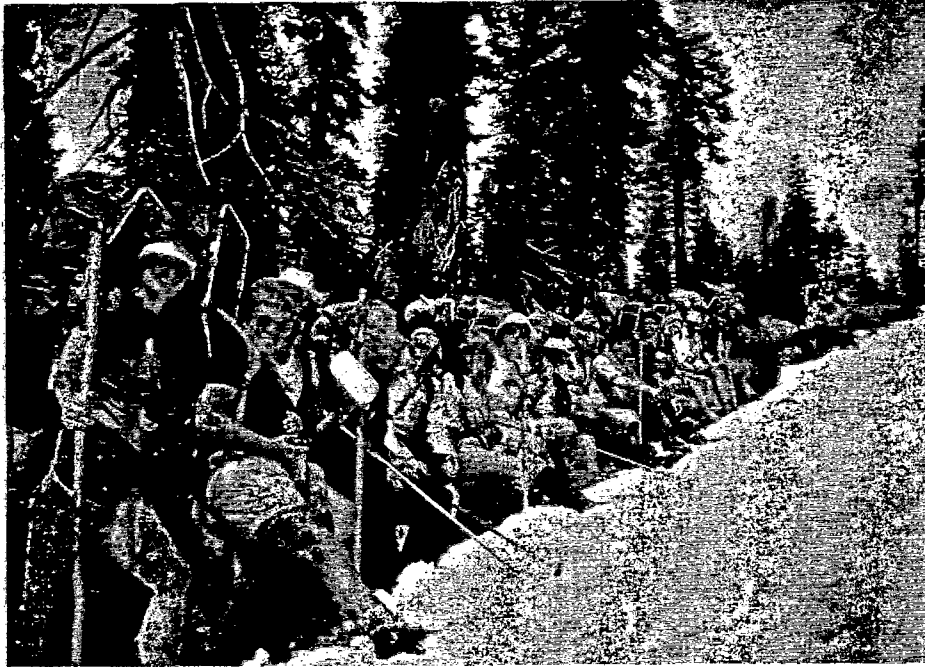
I had breakfast in the Lodge with Jeannie Harmon and Monty Montgomery. Before breakfast I talked by phone with Connie Becchio, a reporter with the Tahoe Tribune, about HikaNation, its route across the Sierra, etc. She plans to come to Strawberry this afternoon to talk to hikers.

I talked to a number of the hikers, then attended a meeting of the hikers (about 45 of them) in the lounge of Strawberry Lodge. I described to them the routes for tomorrow, Sunday, Monday and Tuesday and answered questions. After this they elected members of their Steering Committee.

I talked by phone to Larry Kuhl of the Alpine County's Sheriff's office. He said that his friend, Sandy Bryson, and possibly he himself will help guide us down Hawley's Grade, etc. on Sunday. I also talked to Helen Hultin at Sorensen's Resort; she said she will scout for dry spots for camping on Sunday night. I also met Chuck Gleghorn of the CHP at Lake Tahoe, who said he will help us if needed.

I went by Mel Smothers Realty Co. and he gave me the key to 58 Margaret Drive, Strawberry Heights. It has cleared escrow and now belongs to Helen and me.

Jeannie Harmon, Barry Rhodes, Jack Ingram, Joyce Dekker (Ingram's friend) and I hiked up to Slippery Ford (it is not possible to ford it), then scouted part of the route over the snow to Camp Sacramento. (Ingram had earlier walked down from Camp Sacramento to Slippery Ford.) We then hiked back to Strawberry Lodge. Jack Ingram, Jeannie Harmon and I then rode in Jack Ingram's car to Camp Sacramento to explore part of the route in the snow east of there, and to Pow Wow to explore the part of the route in the snow east of there.



Hikers between Pow Wow and Little Norway
May 3, 1980

We drove back to Strawberry Lodge. I talked to Helen Hultin at Sorensen's Resort; she said all sites are wet but she will find us some places to camp.

I returned a call from Bruce Robinson (KRLT radio station, FM-100), told him about HikaNation, its progress, etc., which he recorded for radio broadcast.

Bill Kemsley arrived about 6 p.m. with Bill Kemsley, his father, and they checked into Strawberry Lodge. I took Bill around to see Monty Montgomery and the campsite. (The hikers are camping among the trees near the bank of the South Fork of the American River.)

Helen arrived, with Mike McReynolds and Pat McGaughey, at about 7:30 p.m. Mike and Pat set up their tents in the area near the river. Bill Kemsley and his father, Mike McReynolds, Monty Montgomery, Bob Rowe (a HikaNation hiker), Pat McGaughey, Helen and I had dinner in the Lodge dining room. Jeannie Harmon had dinner with Bob and Rose Mary Sheldon at their home, and joined us later for coffee.

Dennis Smith, our singer with guitar, entertained many of the HikaNation hikers during the evening. Many also were in the lounge room of the Lodge during the evening.

Saturday, May 3, 1980--Strawberry Lodge/Little Norway

Helen and I had breakfast in the Lodge restaurant with Dr. and Mrs. John McGee. We and other HikaNation hikers had French toast, the only item available because the cook was out sick.

The HikaNation group assembled at about 9:30 a.m. I described today's off Highway 50 route. About 30 hikers chose the off Highway 50 route, which involves walking through much snow, and the other hikers chose to follow Highway 50. Helen hiked with the former group a little beyond Slippery Ford, then came back and visited our house at 58 Margaret Drive before driving to Pow Wow with Mrs. John (Priscilla) McGee.

The off Highway 50 group (including me) was led by Jack Ingram with help from Bob Sheldon. Pat McGaughey and John McGee were in this group. We went to the area above Slippery Ford, then followed, in snow, along the south bank of the South Fork of the American River to Camp Sacramento. We came out to Highway 50 to avoid crossing Sayles Canyon Creek, then proceeded along the various tract roads, trails, etc. in the snow, to Pow Wow. Here I met Helen and Priscilla McGee. Most of us had cold drinks, sandwiches, etc. at the restaurant at Pow Wow. We met Bob Eldredge, the proprietor.

About 20 continued on the off-Highway 50 route (the others continued on Highway 50), stopped to talk to Alice Lyons at her cabin, then proceeded on the south side, and near the River, then up a hill (Ted Ellsworth's land), then to the right of Derringer (or Audrian) Meadow (Bud Wykoff's land--the Meadow is owned by Darrell Pierce of the Placerville Intercounty Title Co.), then along the microwave and radio repeater station service road (all this in snow) to a point opposite Little Norway. Jay Goldsmith of Heritage Recreation and Conservation Service, took movies during portions of the Pow Wow-Little Norway hike. We met Bob Lewin (Ranger from Placerville Ranger Station) at a few points along the way. At Little Norway we met Ranger Mike Artemieff of the Tahoe Office of the Forest Service. Ralph King came by and gave Helen and me two bottles of his honey.

The HikaNation hikers set up their tents in the area to the side of and behind Little Norway. Bob Sheldon, Jack Ingram and Joyce Dekker rode back to Strawberry Lodge with Helen and me. Jeannie Harmon rode to Strawberry Lodge with the McGees, then returned to Little Norway. Bill Kemsley, his father Bill, Jeannie Harmon, Mike McReynolds, Jack Ingram, Joyce Dekker, Helen and I had dinner at Strawberry Lodge. (Bob and Rose Mary Sheldon joined us for drinks before dinner.)

Helen and I spent the rest of the evening in our room before retiring.

Sunday, May 4, 1980--Strawberry Lodge/Little Norway/ Sorensen's Resort

Helen and I had breakfast in Strawberry Lodge with John and Priscilla McGee. The four of us rode in our Phoenix to Little Norway for the start of today's HikaNation leg. Larry Kuhl, Sandy Bryson, Helen Hultin, Bill Kemsley, Jack Ingram, Joyce Dekker (who drove Jack Ingram's car today), Pat McGaughey, Mike McReynolds, John Olmsted and his aid Clark Shraeder, Emery Martin (Helen Hultin's friend), Jay Goldsmith of HRCS and his fiancé and helper Diane Caraccido were among those present. I introduced Larry Kuhl and Helen Hultin to the hikers. Sandy Bryson was introduced as the day's hike leader.



Little Norway at the start of Sunday's hike, May 4, 1980
L to R: Jack Ingram, Glenn and Helen Seaborg, Sandy Bryson with Thunder,
Undersheriff Larry Kuhl, (unidentified)

Helen did the hike today while I drove our Phoenix, helped Jay Goldsmith and Diane Caraccido find places to cover the hike with their color videotape. John Olmsted and Clark Shraeder also took movies

The hikers left Little Norway at about 10 a.m. Since Hawley Grade was impassable due to heavy water runoff, the hikers went on Echo Lake Road, Old Highway 50 and Upper Truckee Road to Alpine Campground for lunch. They then continued to Highway 89, walked on Highway 89 and, in the case of many of them, walked on the old road along Grass Lake and from Luther Pass, on the old road to the right of Highway 89 to Highway 88, then on to Sorensen's Resort. Helen arrived at Sorensen's Resort at about 5 p.m. Pat McGaughey and Mike McReynolds returned to the Bay Area with the McGees.

Helen and I had dinner, at their home in Sorensen Tract across from Sorensen's Resort, with Undersheriff Larry Kuhl, Sandy Bryson and Larry's three daughters--Tracy (14), Kathy (12) and Susie (7). (Archie Wood is sheriff of Alpine County.)

Helen and I then drove back to Strawberry Lodge to spend the night.

Monday, May 5, 1980--Strawberry Lodge/Sorensen's Resort/Ace Hereford

Helen and I checked out of Strawberry Lodge and drove to Sorensen's Resort to join the HikaNation hikers for the day's hike to Ace Hereford Ranch. We had breakfast with Larry Kuhl and Sandy Bryson in their home. We started at about 9:45 a.m. (Helen Hultin told me that her Swedish husband, Johan, has met me.) I hiked with a group that followed the route I had laid out mostly along side roads paralleling Highway 88-89. Helen drove our Phoenix to help transport people, joined our group for lunch at a spot on Carson River Road. I arrived at the campsite at Ace Hereford Ranch, along with Jack Ingram and Jeannie Harmon at about 3 p.m.

There I joined Helen and Arthur and JoAnn Hall. We were greeted by Alpine County Supervisor Harold Duarte and Alpine County Fire Marshal Bill Colescott. In a ceremony Duarte presented me with a copy of the resolution of the Alpine County Board of Supervisors supporting HikaNation. After this the entire group was served pieces of a large cake that had been baked by Colescott's 17-year-old daughter.

Jack Ingram and I rode with Arthur and JoAnn Hall to scout tomorrow's route to Washoe Reservation Campground, the camping site tomorrow.

Helen and I had dinner in their home with Arthur and JoAnn Hall and their children, Whitney and Kimberly, along with Jack Ingram and Joyce Dekker. Helen and I and Jack Ingram and Joyce Dekker spent the night at the Hall home.

Tuesday, May 6, 1980--Ace Hereford/Washoe Reservation/Lafayette

Helen and I had breakfast with Arthur and JoAnn Hall, along with Jack Ingram and Joyce Dekker.

I hiked with the HikaNation hikers today to Washoe Reservation Campground on Highway 395 (a total of about 9 miles). Helen and Joyce Dekker drove our Phoenix and Jack Ingram's car to our destination, with an intermediate stop at Dressler Lane where the group had a rest stop. Among the hiking group were Jean Beam (who arrived with Monty Montgomery from Nevada yesterday), JoAnn Hall, Jack Ingram, Pat O'Driscoll (reporter from the Reno State Journal and Reno Evening Gazette), John Olmsted and his friend Sally Murray (taking movies).

The group started at about 9 a.m. I (with JoAnn Hall, Jack Ingram, Jeannie Harmon, others) arrived at Washoe Reservation Campground at 12:40 p.m. The route

was along Dressler Path, Dressler Lane past the Dressler Ranch (where we met Fred Dressler, Senior, who was on horseback), then generally northeast on a dirt road to the gated entrance to the area of the Washoe Reservation Campground. As usual I took a number of slide pictures with my Olympus camera.



Staff handed to Nevada Chairman from California Chairman at Washoe Campground
L to R: Monty Montgomery, Jean Beam, Barry Rhodes, Marcy Guerin, Jeanne Harmon,
JoAnne Hall, Glenn Seaborg

May 6, 1980

At about 2 p.m. at the bridge over the East Fork of the Carson River, with about 4 inches of water flowing over the top, we held a ceremony in which Jeannie Harmon (California pathfinder) and I handed over the hiking staff to Nevada representative Jean Beam (Nevada route finder) and Barry Rhodes (Nevada pathfinder). John Olmsted took movies. Pictures were taken with Barry Rhodes' camera for Backpacker magazine. Doug Dill took pictures for the two Reno newspapers. Many others, including Helen (with our Olympus camera) took pictures.

Just before we left the hikers formed in a circle around Helen and me for a goodbye ceremony. I told them Helen and I plan to invite them to a reunion in Lafayette in the summer of 1982. They can then camp on our field. Helen and I then started our drive home (Helen at the wheel) at about 2:30 p.m., dropping JoAnn Hall off at the Hall's condominium in Minden, Nevada, en route. Here we said hello to Arthur Hall. We drove over Kingsbury Grade, by Lake Tahoe, then via Highway 50, stopping to check our house in Strawberry Heights en route. We arrived home at about 7:10 p.m.

Helen, Dave (who had stayed in our house during our absence) and I had dinner in the playroom. After dinner I worked on the stack of mail and papers that had accumulated during my absence.

Wednesday, May 7, 1980--Berkeley

John Rasmussen dropped in at 9 a.m. to discuss the difficulties we are having with DOE regarding our paying some support for our visiting scientists from the PRC.

I went over my accumulated mail with Pat and Lin. Among my heavy correspondence today I wrote to the following: Mr. and Mrs. Norman Pease to thank them for their generous challenge offer for the Lawrence Hall of Science fundraising drive; Howard Stein in his capacity as Chairman of the Board of The Dreyfus Corporation in which I resigned as a member of the Board of Directors of the Dreyfus Third Century Fund; Edward Lindell giving my suggestions for the winner of the SCA Nobel Travel Award; Wang Dexi to thank him for the copy of Journal of Nuclear and Radiochemistry which contains the Chinese translation of my Priestley Medal Address; the Chairman, the Energy Research Advisory Board--a letter in support of the nomination of Yuan T. Lee as a candidate for the 1980 Ernest Orlando Lawrence Memorial Award (attached). I also wrote to Wolfram Niessen, the man who wants to do a bronze bust of me and Helen, giving him my schedule for the week of July 14th (the time during which he wants to get started on this project in Berkeley); I answered a letter from Gary Ginder telling him that I would be delighted to see John A. Nejedly as a member of the Walnut Creek Open Space Foundation Advisory Committee and I wrote to Ben Loeb to thank him for the draft of the add-on Chapter 18 and Chapter 19 of our book.

At 10:05 a.m. Walter Loveland called to tell me that he has heard from a former graduate student of his who will be spending a sabbatical leave at Berkeley next academic year. His name is Hugo Groening from Simone Bolivar University, Caracas, Venezuela. Walter will write to him and suggest he get in touch with me upon his arrival in Berkeley. I also told Walter that I received his outline for our Benchmark book.

At 10:10 a.m. I talked to Sandra Ackerman, an editor with American Scientist. I clarified with her some mutual misunderstandings regarding the manner in which Figures 1 and 2 are to be reproduced for the publication of my article "The New Elements."

At 10:30 a.m. Consul General of Sweden Bengt Friedman called from New York to ask me to intercede on behalf of his daughter, Ursula, in her application to UCB. She did not do too well in high school in Sweden, but has worked hard and brought her grades up a lot since that time. She wants to transfer to Berkeley from Hunter College. I said I would talk to Simone Scioberetti on her behalf.

I then called Ms. Scioberetti at 10:40 a.m. who was very familiar with the



Chron

Lawrence Berkeley Laboratory

University of California
Berkeley, California 94720
Telephone 415/843-2740
486-5661

May 7, 1980

Chairman
Energy Research Advisory Board
Mail Stop GE-216
U.S. Department of Energy
Washington, D.C. 10585

Gentlemen:

I am writing in support of the nomination of Yuan T. Lee as a candidate for the 1980 Ernest Orlando Lawrence Memorial Award.

I have known Professor Lee since he joined the Department of Chemistry at the University of California in 1974; however, I knew him by reputation during his days as a brilliant graduate student at Berkeley from which he received a Ph.D. in Chemistry in 1965. I followed his scientific career with interest during the intervening years and am gratified that I was able to help persuade him to return to Berkeley as a faculty member in 1974.

Dr. Lee's career and scientific accomplishments since that time are astounding for a man of his years. His research has been at the forefront in the advancement of knowledge in the field of chemical dynamics using the crossed molecular beams method. He has considerably broadened the scope of worldwide investigations of reaction dynamics, molecular interactions and energy transfer processes. He is considered the world's leading expert in the field of molecular beam research.

Yuan Lee was a member with me of the Delegation of Pure and Applied Chemistry to the People's Republic of China during May-June, 1978. It was amazing to observe his extraordinary reception in the People's Republic of China. His worldwide reputation was evident from the demand for lectures and consultations that pursued him in every laboratory and city that we visited.

It gives me great pleasure to support the nomination of Yuan T. Lee. He is a brilliant, productive scientist of broad dimensions and he is richly deserving of the 1980 Ernest O. Lawrence Award.

Sincerely yours,

Glenn T. Seaborg

application of Ursula Friedman. She will determine if anything can be done to admit Ursula as a "special action" because she comes highly qualified from Hunter College.

I then called Bengt Friedman back and told him that there was a good possibility that Ursula would be accepted at Berkeley.

At 11:20 a.m. I returned a call from Rudolph Peterson. He was rather unhappy about the ballot for Swedish Council of America award candidates. He felt that there were too many awards, too many candidates to choose from, and that the caliber of the candidates who would receive awards posthumously far exceeded those others. He questioned the advisability of having so many people on the ballot and bestowing such a large number of awards. He said, however, that he will vote as requested.

At 11:30 a.m. I called Mark Jacobs (Dreyfus Third Century Fund). He told me that Ken Oberman has resigned and will take a position with Oppenheimer, another investment firm in New York. He gave me the background on Ken's resignation and wanted to assure me that the investment portfolio manager to take Oberman's place would be a good one, Jeff Friedman, who will be nominated to take over the Fund at the next Board meeting (May 21st).

Rose McFarland dropped in at 11:40 a.m. to go over her chemical procedures (for ^{97}Au plus ^{18}O) with me.

At noon Ken Oberman called to tell me of his resignation himself, his reasons for it, etc. I wished him well in his new position and expressed my regret at his decision. He offered to help me in any way he can and I said I may get in touch with him on one of my visits to New York.

I had lunch at my desk in order to conserve time.

At 4:30 p.m. I went by Building 70 to talk to Luo Cheng and Michael Perry.

Helen and I had dinner in the playroom. After dinner I worked in the study.

Thursday, May 8, 1980--Berkeley/St. Paul

Helen drove me to my LBL office, waited there until it was time to leave for the San Francisco Airport.

I went over and talked to Diana Lee in Building 70, and called Al Ghiorso and Darleane Hoffman to tell them about the reprint from Dubna by Buklanov, et al, in which they find a 1-2 s SF activity from $^{249}\text{Bk} + ^{22}\text{Ne}$ which they assign to $^{267}107$. This, of course, is absurd because it is undoubtedly the same activity observed by Al Ghiorso, Darleane Hoffman, Diana Lee, et al, produced from $^{248}\text{Cm} + ^{18}\text{O}$ which cannot produce element 107.

I also talked to Ken Moody in Building 70 who told me he had a successful ^{137}Cs

+ ^{22}Ne run at the 88-inch Cyclotron last night. I talked to Joe Cerny about the problem of getting DOE permission to pay living costs for Dr. Zhou Zong-Yuan (of Professor Sze Shih-Yuan's laboratory at the University of Nanking), who wants to spend two years at LBL, possibly working with Cerny. We will discuss this further next week.

I rode with Helen to the San Francisco International Airport where I boarded Western Airlines flight #528, which left at about noon and arrived at Minneapolis/St. Paul Airport at about 5:15 p.m. I was met by Dr. Ralph A. Heasley (3M Riker Laboratories), who drove me to the Saint Paul Radisson Hotel (11 E. Kellogg Blvd.) where I into checked room 1402.

I rode with Gus Benz (Chicago General Motors representative), John Krug (General Motors, who took the place of Willard Cheek), and Ted Sherburne to the White Bear Lake Yacht Club to attend the dinner hosted by Robert Adams (Vice President for Research and Development, 3M Company and Chairman, Host Committee, 31st Annual ISEF). During the pre-dinner drinks, I sat next to Mrs. Robert (Carol) Adams, who is Swedish. At dinner, I sat at a table with Robert Adams, Curtis Carlson, Ted Sherburne, Sharon Abraham (whose husband, Dick Abraham, works at the Minnesota Zoological Garden), Robert Knox (Vice President, Alexander and Alexander, and Chairman, ISEF Host Committee, Finance Committee), John Haaland (Vice President, Pillsbury Company and Assistant Chairman, ISEF, Host Committee), John Krug, Gus Benz, and Mrs. Tage Pousette (wife of the Swedish Consul General in Minneapolis). Among those at the other table were Carol Adams, Arleen Carlson, Dick Abraham, Mrs. Haaland, Bill Spreitzer (General Motors), Cohen (Minnesota Zoological Garden), and Swedish Consul General in Minneapolis, Tage Pousette.

I rode back to the Saint Paul Radisson Hotel with Benz, Krug and Sherburne.

Friday, May 9, 1980--Minneapolis/Saint Paul

I had breakfast in the Greenery Coffee Shop in the Hotel.

I went to the Civic Center to visit the 31st International Science and Engineering Fair. At 11 a.m. I rode with Ralph Heasley (Chairman of the 3M Technical Forum's Special Programs Committee) and Albert Seaver to the 3M headquarters in the outskirts of Saint Paul. Here in the new administration building (No. 220) in Dining Room D on the top (15th) floor, I had lunch with 3M representatives and invited guests (names on attached guest list). I sat between Hugh G. Bryce and James Johnson (Johnson is part-time in the Department of Chemical Engineering faculty at the University of Minnesota).

After lunch I went to the Universe Room, in the neighboring building, to address the 3M Technical Forum, other people from 3M and guests of 3M from neighboring Minnesota universities and colleges. The room was filled to capacity with some people standing (a total of about 1,050) I met Raymond Herzog (Chairman of the Board of 3M) and John M. Pitblado (President, US Operations of 3M), who attended my talk. Bob Adams also attended.

Technical Forum/3M

3M Center
St. Paul, Minnesota 55101
612/733 1110



Technical Forum Special Programs
Glenn T. Seaborg Luncheon

MAY 9, 1980 - Building 220-15, Dining Room "D"

GUEST LIST

Mr. E. Wayne Bollmeier	Group V.P., Electrical Products
Dr. Hugh G. Bryce	Staff V.P., Central Research Labs
Dr. Craig A. Burton	Chemist, Comm'l. Chem. Div.
Dr. Ralph A. Heasley	Pharmacologist, Riker Labs
Dr. James R. Johnson	Consultant
Mr. Donald W. Larson	Civic Affairs Dept. Mgr.
Mr. Gerald G. Mueller	V.P. Engineering
Dr. Dale C. Perry	Prod. Dev. Mgr., Industrial Specialties Div.
Dr. Glenn T. Seaborg	
Dr. Albert E. Seaver	Program Chairman; Chemist, Cent. Res. Lab.
Dr. Joseph W. Shepard	Tech. Director, Micrographic Prods. Div.
Mr. Thomas W. Zosel	Chairman, Tech Forum
Carl Dahlquist	Corporate Scientist, Retired

I was introduced by Albert Seaver, gave my talk on "Energy in the 80's" (part of the "Visions of the 80's" series). This was illustrated by 11 slides. I used the Herb Caen story on children's comments on the energy problem as an opener. I talked about 50 minutes, followed by about 15 minutes of informed questions, which I answered.

After my talk I went to the VIP room back in the main administration building where I met for about 40 minutes with faculty from neighboring universities and colleges who came to hear my talk. (A list sent by Ralph Heasley of those invited to attend is attached.) We discussed various aspects of the energy problem.

I rode back to the Saint Paul Radisson Hotel with Ralph Heasley, soon went to the nearby Civic Center to visit the 31st ISEF. I visited with some of the student exhibitors, signed some autographs, had my picture taken under the auspices of the official ISEF photographer (L. K. Doc Swenson) in front of the exhibits of the winners of the Glenn T. Seaborg Nobel Prize Visit Award which are Karen Kathleen Kegarise, 17, Bettendorf High School, Bettendorf, IA, for "The Relationship of Protective Overcoats on Corrosion of Aluminum Substrates", and Kenneth N. Weaver, Jr., 17, Cocoa Beach High School, Cocoa Beach, FL, for "Formation and Repair of Orthodontically Stimulated Root Resorption".



Roger B. Smith, Kenneth N. Weaver, Karen Kathleen Kegarise, Seaborg
31st International Science and Engineering Fair, May 9, 1980

I went back to the St. Paul Radisson Hotel for a while, then went to the nearby Minnesota Club for the pre-dinner reception. Here I met Roger Smith (Executive Vice President of General Motors and the person who is expected next January, to replace

COLLEGE OF ST. CATHERINE
St. Paul, MN.

1. Marquita Barnard
2. Terry Flower
3. Patricia Fish
4. Wm. Gleason
5. Charles Bennett

HAMLIN UNIVERSITY
St. Paul, MN.

6. Jerry Artz
7. Richard Pontinen
8. Al Kaske

ST. CLOUD STATE COLLEGE
St. Cloud, MN.

9. Keith Kennedy
10. Dave Sorenson
11. Mike Moore
12. John Erickson

AUGSBURG COLLEGE
Minneapolis, MN.

13. Daniel Peterson
14. Kermit Paulson

ST. OLAF COLLEGE
Northfield, MN.

15. Jim Cederberg
16. David Aas
17. Steve Neubauer
18. David Sperry
19. Duane Olson

UNIVERSITY OF WISCONSIN
River Falls, Wisc.

20. Rich Langley
21. Maureen Langley
22. Peter Muto
23. Joe Conrad
24. Bruce Murray
25. Sharon Bergquist
26. Barb Clements
27. Dennis Wolfe
28. Charles Jones
29. Lou Greub
30. John Shepard
31. Kurt Larson
32. Neal Procknow
33. Ron Wilson

UNIVERSITY OF WISCONSIN
Eau Claire, Wisc.

34. Gerard Anderson
35. Keith Daniels
36. James Merkel
37. Chester Olson
38. Allen Page
39. Frederick Schultz

WINONA STATE UNIVERSITY
Winona, MN.

40. M. J. McCauley

UNIVERSITY OF WISCONSIN - STOUT
Menomonie, Wisc.

41. Dr. Wm. Mueller
42. Dr. Martin Ondrus
43. Ms. Mary Orfield
44. Dr. Wm. Owen
45. Dr. Gerald Zimmerman

COLLEGE OF ST. THOMAS
St. Paul, MN.

46. Bruce Eaton
47. Paul Lane
48. Thomas Tommet

Murphy as Chief Executive Officer). At the reception I had my picture taken by the ISEF photographer with Bob and Carol Adams and Dr. and Mrs. John Haaland. I also met Robert L. McGinn (Vice President for Research and Development), and A. O. Smith (Corporation and General Chairman for next year's ISEF--the 32nd ISEF, to be held in Milwaukee). Dorothy Schriver told me that John Najarian talked at the opening session on Tuesday evening and did a very good job.

We walked to the nearby Civic Center to attend in the sports pavilion, the ISEF Grand Awards Banquet. About 1000 people--the 458 student scientists, teachers, science fair directors, students' parents, etc.--were present. I entered with the head table guests. We were introduced individually as we entered. Seated at the head table were: David Bender, Robert Campbell, Lawrence E. Controy, Robert L. McGinn, Robert M. Adams, Roger B. Smith, Edward G. Sherburne, Jr., myself, John W. McNulty, Dorothy Schriver, John E. Haaland, Wayne Wolsey, and Reverend William C. Hunt. I sat next to John McNulty; he was a speech writer for President Lyndon Johnson from 1966-68 and we reminisced a good deal about the Johnson Administration.

We followed the program (attached). Ted Sherburne served as Master of Ceremonies, called on Reverend William C. Hunt for the Invocation. After dinner Sherburne presented a plaque, in recognition of his service as Chairman of the 31st ISEF, to Dr. Robert Adams and two others. Adams made a few remarks in response, expressing thanks and welcome to the audience. Sherburne then introduced me. I greeted those present on behalf of the Board of Trustees of Science Service, expressed appreciation to Robert Adams for his excellent performance as Chairman of the St. Paul ISEF Host Committee, and to General Motors Corporation for sponsoring the ISEF Awards, mentioning John McNulty and Roger Smith in particular. I referred to the 458 student scientists and their exhibits, said these originated from some 25,000 science fairs involving about 1,000,000 student scientists. I commented on the excellence of the exhibits, said these have given me some ideas for my own research. I said our country's and the world's future depends on contributions of science and technology to our problems in the areas of food, energy, water, health and nutrition, clothing and housing. I said I hope many of the student scientists present will choose science, medicine or engineering for their careers because our country needs them. I then said that although the student scientists are all winners, soon about 100 (or slightly more) will receive special recognition through ISEF Awards. This was followed by remarks by John McNulty who introduced Roger Smith for his remarks. (Stig Ramel didn't attend.)

Participants in the following Awards Ceremony then went to the end of the sports pavilion where we sat in our chairs in front of the large stage where the award winners assembled as their names were called. They were greeted by Roger Smith as they came on stage. Carrie Levandowski handed them their ribbons as they came on stage. Dorothy Schriver opened the program by announcing the winners of the fourth place awards (signed letter from the Chairman of the General Motors Board, certificate and \$50 each). The approximately 60 winners lined up in four rows on the stage as they appeared, then returned to their tables at the end.

Robert L. Campbell (1980 Chairman, ISEF Advisory Committee and whom I met in Honolulu last spring) announced the third place winners (letter, certificate and \$100

SCIENCE SERVICE STAFF

Edward G. Sherburne, Jr., Director
Dorothy Schriver, Assistant Director, Science Service and
Coordinator ISEF
Donald Harless, Business Manager
Carrie Levandoski, Administrative Assistant
Teresa Waters, Secretary
Laurie Clevenger, Secretary
Peter Schriver, Business Office

ST. PAUL INTERNATIONAL SCIENCE & ENGINEERING FAIR HOST COMMITTEE

Chairman: Dr. Robert Adams, Vice President for Research and
Development, 3M Company
Assistant Chairman: Dr. John Haaland, Vice President, Pillsbury
Company
Operating Manager: David Bender, Visual Arts Manager,
Minnesota Zoological Garden
Finance Committee: Chairman, Robert Knox, Vice President,
Alexander & Alexander
Treasurer: Dr. John Wilson, Senior Vice President (ret.),
Economics Laboratory
Administrative Assistance: William Bell, Economics Laboratory;
M. I. Harrigan, Executive Director, Minnesota Academy of
Science
Housing and Registration: Richard Abraham, Minnesota
Zoological Garden
Judging Committee: Dr. Lawrence Conroy, University of
Minnesota; Dr. Wayne Wolsey, Macalester College
Legal Advisory: Lloyd Shervheim; William Hay; Richard Wollin,
The Saint Paul Companies
Operations Committee: E. William Anderson, Mound Tonka
H.S.; John Bell, University of Minnesota; Dr. Ronald
Ofstead, 3M Company
Public Relations: Paul Brown; Willard Shapira, 3M Company
School Visitations: Keith MacKenzie, Massachusetts Mutual Life
Insurance Company
Special Events: Vickie Uchida, National Multiple Sclerosis
Society, Minnesota Northstar Chapter
Tours Committee: Linda Aasen, 3M Company; Dorothy Coté,
Minnesota Zoological Garden; Dr. L. D. Frenzel, University
of Minnesota

GENERAL MOTORS ISEF GRAND AWARDS BANQUET

Organ	James T. Brakke, D.M.A., St. Paul
Greetings	Edward G. Sherburne, Jr., Director, Science Service
Invocation	Rev. William C. Hunt, S.T.D., Director, Newman Center, University of Minnesota

DINNER

Welcome	Dr. Robert Adams, Vice President, Research and Development, 3M Company
Remarks	Glenn T. Seaborg, Ph.D., President, Science Service and University Professor of Chemistry, University of California, Berkeley Baron Stig Ramel, President, Nobel Foundation, Stockholm, Sweden John W. McNulty, Vice President, Public Relations Staff, General Motors Roger B. Smith, Executive Vice President, General Motors

GENERAL MOTORS ISEF GRAND AWARDS PRESENTATION

Fourth Place	Dorothy M. Schriver, Assistant Director, Science Service and Coordinator ISEF
Third Place	Robert L. Campbell, 1980 Chairman, ISEF Advisory Council
Second Place	Wayne C. Wolsey, Ph.D., Co-Chairman of Judging, St. Paul ISEF
First Place	Lawrence E. Conroy, Ph.D., Co-Chairman of Judging, St. Paul ISEF
Glenn T. Seaborg Nobel Prize Visit Awards	Roger B. Smith Baron Stig Ramel Dr. Glenn T. Seaborg

each), and they came on stage. Similarly Wayne C. Wolsey (Co-Chairman of Judging, St. Paul ISEF) announced the second place winners (letter, certificate, \$175 each) and Lawrence E. Conroy (Co-Chairman of Judging, St. Paul ISEF) announced the first place winners (letter, certificate and \$250 each). The first place winners remained on stage and I joined Roger Smith on stage, after which Dorothy Schriver announced the winners of the Glenn T. Seaborg Nobel Prize Visit Awards. The winners were Karen Kathleen Kegaris (17 years old) of Bettendorf High School, Bettendorf, Iowa, whose project in the Engineering category was "The Relationship of Protective Overcoats on Corrosion of Aluminum Substrates," and Kenneth N. Weaver, Jr., (17 years old) of Cocoa Beach High School, Cocoa Beach, Florida, whose project was "Formation and Repair of Orthodontically Stimulated Root Resorption." Roger Smith and I greeted the winners of this award. I signed a number of autographs for ISEF participants, their teachers and science fair leaders, then went to a nearby room where photographs were taken of the award winners. I had my picture taken along with Roger Smith, with Karen Kegaris and Kenneth Weaver. I also had my picture taken, along with Roger Smith, with Karen Kegaris and her parents.

Ted Sherburne and I then took a walk through the ISEF exhibition area to talk to the ISEF participants, their teachers and science fair leaders, as they were taking down their exhibits. I signed a number of autographs and had my picture taken with many participants, teachers and science fair leaders.

I walked back to the St. Paul Radisson Hotel and soon retired.

Saturday, May 10, 1980--St. Paul/Lafayette

I had breakfast in the Greenery Coffee Shop and a little later I checked out (bill paid by Science Service), took a taxi to the Minneapolis/St. Paul Airport. I boarded Northwest Airlines flight #159, which left at about 11:15 a.m. and I arrived at San Francisco International Airport at about 1 p.m. Helen met me and drove me home.

Helen and I had lunch in the playroom, then took a hike to Lafayette Ridge and back. I spent the rest of the afternoon in the study reading my accumulated correspondence and papers.

An unusual rain and hail storm, with thunder and lightning, struck at about 5:30 p.m.

Helen and I had dinner in the playroom. Later in the evening I worked in the study.

Sunday, May 11, 1980--Lafayette

I took a hike to and along Lafayette Ridge in the morning.

Helen and I had lunch in the playroom. I spent much of the day reading papers,

etc. Eric and Steve called to wish Helen a Happy Mother's Day. Eric will be leaving his job at the Student Press Service at the end of this month. Both Eric and Steve have been suffering from a virus infection (flu). Dianne has also been afflicted; her condition has been so bad that she has dropped out of school at Davis this quarter.

Dave ran in the Tilden Park Mother's Day Race this morning, under the auspices of the Berkeley Jaycees. He won a medal for third place in the Submaster's class (age 30-39) with a time of 56 minutes for the 15 kilometer run. He also received a T shirt and won 2 luncheon tickets in a raffle there.

Helen, Dave and I had dinner in the playroom, while watching "60 Minutes" on CBS TV.

At about 9 p.m. Helen and I called Ken and Bonnie Madsen to talk about the status of Strawberry Lodge. It has been necessary to cut back on staff and hours of operation to keep it viable during this off season.

Monday, May 12, 1980--Berkeley

The first good news of the day was that the Advisory Committee of University Press approved my book, "Kennedy, Khrushchev and the Test Ban: An Eyewitness Account," for publication.

At 8:40 a.m. I called Sandra Ackerman (Editor, American Scientist) regarding Figure 2 for which I told her to keep the color shading on element 61 and remove it from elements 43, 85 and 87. She said that is how it stands right now and the manuscript has gone to the printer. She will send me a copy of the article as soon as it comes from the presses in about two weeks.

At 8:45 a.m. I returned a call from David Eckroth of John Wiley & Sons. He asked for suggestions of authors for three articles--1) radioactive elements (I suggested Truman Kohman of Carnegie-Mellon University), 2) radioactive isotopes (I suggested Mike Lederer), and 3) rare earth elements (I suggested Frank Spedding at Iowa State University). In each case I told Eckroth that these people may not be able to write the articles themselves but they might suggest other possibilities to him.

I went by Building 70 at 10 a.m. to talk to Diana Lee. We discussed a possible switch to an investigation of products from ^{244}Pu plus ^{18}O and ^{22}Ne for Rose McFarland's thesis problem. I also talked to Pat McGaughey--he would like a Bevalac bombardment this summer for which we are not scheduled. I also discussed schedules for several coming visitors from the PRC with Luo Cheng.

I wrote to Walter Loveland regarding our Benchmark book, to Samuel Hessel (and included an abstract on "Energy"), and to Guillermo M. Chaverri regarding the XIV Congress in Latin America. I also responded to the Freshman Cluster Program office that I would serve as a faculty mentor for 1980-81.

At 9:15 a.m. Walter Loveland called me. We briefly discussed the outlines for our proposed Benchmark book and I asked if he was coming down soon. He told me that he was calling about arranging a trip for Professor Y. -F. Liu at Tsing-hua University in Peking. Professor Liu will be in Berkeley on June 23 and would like to talk to someone about removing Am and Cm from nuclear waste. I told him that he should talk to Bob Silva about that.

Walt then told me that he is having foot surgery at the end of this week but planned to make it down for the weekend of the 23, 24, 25. I told him I would be out of town for that weekend and asked if he could come later. He will come the last weekend in May so that we will get a chance to talk and so he can attend the meeting of the Bevalac people on May 29 and 30 to try and schedule some week night runs in July.

At 10:50 a.m. Lew Keller called to ask if I would accept an invitation to give the "Lind Lectureship" sponsored by the Eastern Tennessee Section of ACS. This is a special year as the Eastern Tennessee Section will celebrate its fiftieth year as an ACS section. This lectureship is composed of two lectures, one at the University of Tennessee and one at Oak Ridge National Laboratory. He suggested the dates of November 17-18, but the date is negotiable. I suggested that I plan to arrive in Knoxville on Sunday November 9, give one lecture at Oak Ridge on Monday evening, November 10, and give the University of Tennessee lecture on either Monday morning or afternoon or Tuesday morning or afternoon, as long as I could catch a plane back to Houston for the banquet for the Welch Foundation Scientific Advisory Board on Tuesday night. Lew will check with the planning committee and get back to me. I could give one lecture on the discovery of the transuranium elements and a second on my own perceptions and involvement regarding nuclear power--this subject would be good for the lecture at ORNL.

At 11:40 a.m. I called Harlan Kessel in response to the message he left for me on Friday that the UC Press Advisory Committee accepted my book ("Kennedy, Khrushchev and the Test Ban...") for publication. Sheila Berg will be the editor assigned to my book and she is the person with whom Ben Loeb will be working. Harlan said it might be possible for Sheila to come up to Berkeley during the time Ben will be here this July. Susan Peters will probably be the "managing editor" but Sheila will be the sponsor of the book. Harlan said the manuscript is in very good form; I told him there will be many changes because of our new material from Harriman's records. Of the two reviewers, one of whom is an expert, the reports were very enthusiastic (i.e., .."should be published just as it is."), in response to the suggestion that some editing and rewriting be done. The reviewers names are confidential unless the reviewer gives permission for his identity to be made known. Harlan said that Sheila Berg will be in contact with me shortly.

I walked down to the Faculty Club where I attended the regularly scheduled Chemistry Faculty luncheon. I attended the meeting of the LBL Professional Awards Committee in Building 50B, Room 4205, from 1:30 p.m. to 2 p.m. Present were Bruce Cork, Stan Klainer, Roy Kerth, Dick Lemmon, John Magee, Roland Otto (for Sam Berman), Arlene Spurlock and me. We followed the agenda attached.

April 29, 1980

TO: LBL Professional Awards Committee

FROM: R. M. Lemmon *RML*

SUBJECT: Meeting, Monday, May 12, 1:30-3:00 PM.
Place: Bldg. 50B, Room 4205

Agenda

1. Divisional reports on successes and problems in the use of LBL file. *Extra person in NSD*
2. Accumulation of confidential information on LBL nominations. *send copies of names to Lemmon*
3. Input of information from award-granting societies and institutions.
4. Formats for reminders on award nomination dates. Is once per quarter enough?

Notes

1. Everyone has received copies of the data on the Fermi and Lawrence Awards. Nominations are due in Washington by May 15.
2. Monday, May 12 is our best day; only one committee member is unable to come on that date.

Lemmon, ch.
McFee
Kleinert, sp.
Cork
Adkins (x5403)
Strook
Orto

I attended a meeting of the Nuclear Science Division Staff Committee from 2 p.m.--4 p.m. in Building 70 Conference Room. Those present were Norman Glendenning, Chairman, Joe Cerny, D. J. Clark, Luciano Moretto, Al Ghiorso, Richard Diamond, Frank Stephens, Matti Nurmi, John Rasmussen, Bernard Harvey, Homer Conzett, W. D. Myers, Howell Pugh, Earl Hyde and Robert Stokstad. First Bernard Harvey told us about the unprecedented action of the House Appropriations Committee in cutting \$1M out of the heavy ion physics budget for FY80. If this is effected this could correspond to as much as \$400,000 at LBL. The rest of the meeting was devoted to the question of whether Stephens and Diamond could replace Don Lebeck (a technician who is leaving their group through retirement) by a Ph.D. scientist at the staff level who presumably would not become a senior scientist. The final secret ballot vote was 8 for, 6 against and 1 abstention.

I went by Building 70 at about 4:30 p.m. I talked to Rose McFarland about her plans to study the products from ^{244}Pu plus ^{18}O . She has found that the products from ^{197}Au plus ^{16}O have already been investigated.

At 5 p.m. Sheila Berg called to go over a few items connected with UC Press' publication of my book, "Kennedy, Khrushchev and the Test Ban...." She will send me a copy of their standard contract to look over after which we can finalize a contract. The terms are:

- 10% of the list price on first 5,000 copies
- 12 1/2% of the list price on next 5,000 copies
- 15% of the list price for all copies over 10,000
- 5% of list price for all paperbacks sold
- 50% on subsidiary rights, translations, serial rights, etc.
- 85% on dramatizations

The book will be put out in hardback for the first two years, after which it will go to paperback. She said that royalty amounts are negotiable, particularly mentioning going to 7% on paperback. I told her that I have made a separate agreement for Ben Loeb.

Regarding editing, Shirley Warren will be in charge of copy editing and will begin her work with us after the final manuscript is in their hands, which I indicated would be by July 1. She can travel to Berkeley to confer with Ben Loeb and me in July. Regarding their readers of our manuscript, one is an historian, the other one is also in Department of History but is an expert on arms control. She can ask their permission for name disclosure; I told her this would help us determine if we wished them to review it further or get someone else more expert in the areas covered. She will send copies of their reviews. We then discussed arrangements to get photos, particularly the Life magazine photos we may wish to use. UC Press will do the negotiating on photo permissions for the book. She talked of using the photos as an insert rather than scattered throughout the text.

Helen and I had dinner in the playroom. She then went to the Pleasant Hill bus station to pick up Dianne, who will spend a few days at home with us.

I read final proof on April 1946 of my Met Lab Sec. C-I history during the evening.

Tuesday, May 13, 1980--Berkeley

At 8:30 a.m. I talked with Harry Compton (administrative assistant to Congressman Clair Burgener) about the \$1 million cut in operating funds in DOE's FY80 budget, which may result in a cut of \$400,000 in operating funds for heavy ion nuclear physics at LBL. I told him the disastrous results of this at LBL, the shutting down of the SuperHILAC, the Bevalac and the 88-inch Cyclotron, the termination of cancer treatment for 20 patients mid-way in their treatment at the Bevatron, etc. He was not encouraging about their ability to do anything about this at this time because the bill has left the committee. He also said he doubted very much that Congress would allow any amendments to the bill. We discussed the chances of this being reinstated in Conference, but he was not optimistic about this either. He will convey my concerns to the Congressman.

At 8:45 a.m. Senator Harrison Schmidt (Jack) returned my call of earlier this morning. I gave him the background for my call, explained the action of the House Appropriations Committee, the unprecedented action of cutting FY80 operating funds and the resulting shut-down of accelerators at LBL (pointing out this is a national laboratory used by people all over the country), the interruption in cancer research and treatment, etc. He will contact Bennett Johnson, Chairman of the Senate Energy Subcommittee. He said he will do what he can to rectify this and will begin to look into it today.

At 8:55 a.m. I called Ezra Heitowitt in Mike McCormack's office. He knew about the House cut in heavy ion nuclear physics, etc., and was dismayed by this action. He said Mike will do what he can to have someone take action when this reaches the floor of the House on Thursday afternoon.

I attended the 50th Anniversary Organizing Committee meeting in Building 50B, Room 4205, from 9:25 a.m. until 10:40 a.m. In attendance were Ed Lofgren, Chairman, Luis Alvarez, Leo Brewer, Robert Glaeser, Edwin McMillan, Will Siri, Marilyn Taylor (for Melvin Calvin), Harold Wollenberg, Victoria Davis, John Feack, Theodore Kirksey, Louise Millard and me. We followed the agenda attached (minutes attached).

From about 10:45 a.m. until 11:10 a.m. I met with Joseph E. Brown, a writer from Science Digest, who was accompanied by his wife, Ann. He asked me questions about nuclear power with emphasis on Three Mile Island, my trips to the People's Republic of China, the motivation for teaching freshman chemistry, etc. I told him about my role in Science Service, the annual Science Talent Search, the International Science and Engineering Fair, etc. When he left I gave him a copy of my narrative form biography, the abstract from my recent talk, "Energy", in St. Paul/Minneapolis, and a copy of the statistics used from my Bohemian Grove talk on energy.

I wrote to W. O. Milligan to tell him that in my opinion Stephen J. Benkovic is satisfactory for inclusion on the approved list of candidates for Baylor's Robert A.

May 9, 1980

MEMO

TO: Distribution

FROM: Edward Lofgren

SUBJECT: 50th ANNIVERSARY ORGANIZING COMMITTEE

This is to remind you that the third meeting of the 50th Anniversary Organizing Committee will be:

Tuesday, May 13, 1980

9:00 - 11:00 A.M.

Bldg. 50B, Rm. 4205

AGENDA

1. Discussion of a draft proposal for the observance of the 50th Anniversary.
2. Other topics and reports.
3. Next meeting.

I hope that you can attend this meeting, but if you cannot and if you have any suggestions or comments would you please send me a note (Bldg. 47), or call me at 6372.

Edward Lofgren

EL:gd

Dist: Luis Alvarez
Leo Brewer
Melvin Calvin
Joseph Cerny
Viki Davis
John Feack
Robert M. Glaeser
J. David Jackson
Theodore Kirksey

John H. Lawrence
Edwin McMillan
Louise Millard
✓ Glenn T. Seaborg
Emilio Segre
Will Siri
Donald W. Stallings
Harold Wollenberg, Jr. ✓

MAY 16 1980

May 15, 1980

5-1 5116/80

TO: 50th Anniversary Organizing Committee

SUBJECT: Minutes of May 13, 1980 Meeting

The May 13th meeting of the 50th Anniversary Organizing Committee was held in Bldg. 50B, Rm. 4205 from 9:00-11:00 A.M. Those present were: Ed Lofgren, Chairman; Luis Alvarez; Leo Brewer; Robert Glaeser; Edwin McMillan; Glenn Seaborg; Will Siri; Marilyn Taylor (for Melvin Calvin); Harold Wollenberg; Victoria Davis; John Feack; Theodore Kirksey; and Louise Millard, recording secretary.

Lofgren presented a draft proposal of celebration events to the committee for discussion.

The Committee agreed the year would be 1981. The week, September 14-19 and Anniversary Days Thursday, Friday, Saturday September 17, 18, 19 were discussed. It was felt the length of time was good; however, it was questionable that classes would be in session yet. In fact, that would probably be registration week, which would mean the students would be around. Later in the discussion, the Committee agreed that the week of September 28-October 3 and Thursday, Friday, Saturday, October 1, 2, 3 as Anniversary Days would be better so that classes would be in session and students could be encouraged to attend the Saturday symposium.

Feack reported a letter had been written for Dr. Shirley's signature to the Committee on commemorative stamp selection and stressed that it must get to the Committee before their June meeting. The letter is now with Dr. Shirley.

Glaeser and McMillan felt an observance at Charter Day would be more appropriate in April 1982 than April 1981.

The Committee agreed a special session at the APS meeting in San Francisco in January 1982 would be appropriate.

It was agreed the special issue of the Newsmagazine would be released during the Anniversary week.

Glaeser suggested a 50 mile hike-a-thon with proceeds to go to the American Cancer Society, and that a project to plant 50 trees around the Lab be pursued. Siri suggested a hike-a-thon and tree planting be done as another event during the Anniversary Year. Committee felt planting 50 trees would be a good idea.

Siri asked about TV/radio/newspaper coverage for the event. Feack said he would get good coverage from the media. Kirksey said the media had given good coverage at the 45th Anniversary.

Lofgren suggested dropping the pursuit of a TV production by Nova. The Committee agreed that while most Nova productions were responsible and well done, occasionally they are not and that it would probably be best not to take that chance.

Glaeser felt that the symposium program should be expanded to include workshops. Siri reported that the consensus of discussion at an E & E staff meeting was that they would like to have the topics of the symposia geared toward the present and future status of Lab projects by LBL researchers (as opposed to past history) on Thursday and Friday, and have popular invited speakers from outside LBL on Saturday.

The Committee felt Division/Department lunches to be held on either Thursday or Friday was good.

Discussion followed on a location for a multi-media show to run continuously on Thursday and Friday. McMillan said he felt Bldg. 6 would not be appropriate for the show, he discussed a location in the Bevatron. Lofgren mentioned renting a tent but that would still have a space problem. Davis suggested using the Lawrence Hall of Science auditorium, that seemed to be a good solution.

Glaeser enthusiastically felt that LHS should be involved. Seaborg said he would discuss it at the next LHS Advisory Committee meeting. Glaeser suggested a cocktail party be held Friday evening at LHS for key speakers and invited guests.

Lofgren passed copies of a memo from David Jackson to the Committee about a suggested location and design of a display case/marker at the site of the Old Radiation Laboratory. The suggestion was received favorably. McMillan felt an artistic statue of some sort as well as a display case would be appropriate.

Alvarez felt it was important to critique the Saturday symposium held for the 45th Anniversary so as not to make the same mistakes and repeat the poor attendance. It was felt it would be as important to have good topics and titles as to have good speakers. Kirksey said we had good media coverage for the 45th symposium but the people just didn't come. Seaborg said that by changing the date to October 3, Professors could be urged to encourage their students to attend. He also mentioned that we might want to have Lee Davenport publicize it to high school science teachers and encourage high school students to attend. All agreed more publicity was needed to get better attendance. Glaeser suggested we provide box lunches for the symposium on Saturday. Members felt the logistics of planning and ordering would be too large. Kirksey said a pass out sheet listing places within the area had been made up for the 45th and suggested the same be done again.

Lofgren said Dr. Shirley was to meet with John Heilbron on May 14 to discuss writing a history of the Lab. The Committee felt a pamphlet giving a brief history to be passed out at the celebration would be good.

Lofgren said space is being sought, perhaps in Bldg. 6 or 51, for a collection of scientific artifacts. Davis said the display will probably not be ready in time for the Celebration. However, she is in the process of photographing various artifacts and making up a catalog which should be completed and available for display by that time.

Lofgren asked for response to commemorative plates. Kirksey, Feack, and Davis said the people they had talked to were very positive about the idea. Taylor suggested the supply should be large enough that they would be available for the following year so that new employees would have the opportunity to purchase them. Feack said the cost would depend on the art work and ask if it would be done by one of the Lab's artists or by holding a contest for all Lab employees with final selection by the Committee. Alvarez suggested asking the Employees' Art Council to hold a contest for all employees and then to submit 10 or 12 designs to the Committee for its final selection.

The suggestion was made that perhaps the Committee should turn over selling T-shirts to the 184 Club.

Millard reported she had written a letter to David Goines asking for information on commissioning him to do a poster for the event. In talking to him, he said he gets many more requests than he can fill but he would consider the project. His fee is \$7500 for the design and first 3,000 copies. He gets 50% deposit to do one design which can be accepted or rejected, if rejected he keeps the deposit. The Committee felt it might be difficult for the Lab to put up the deposit.

The next meeting will be held Thursday, June 12 from 9:00-11:00 in Bldg. 50B, Room 4205.



Louise Millard
Recording Secretary

LM/cm

Distribution

Luis Alvarez
Leo Brewer
Melvin Calvin
Joseph Cerny*
Viki Davis
John Feack
Robert M. Glaeser
J. David Jackson*
Theodore Kirksey

John H. Lawrence*
Ed Lofgren
Edwin McMillan
Glen T. Seaborg
Emilio Segrè*
Will Siri
Donald W. Stallings*
Harold W. Wollenberg, Jr.

*with copies of memos passed out at meeting

Welch Chair in Biochemistry. I wrote to Russell Palmer and declined his invitation to attend the International Directors' Seminar in Geneva, Switzerland on October 1-3, 1980. I wrote to Juliette K. Dunham, retiring teacher of chemistry at Skyline High School on the occasion of her retirement dinner. I received an interesting letter from Robert Parry about his meeting with the Program Planning Conference, a letter from Y. F. Liu in response to his receiving the material from LBL Visitors Center; and I sent a telegram of congratulations to Richard G. Hewlett on the occasion of his retirement.

I had lunch in the cafeteria with Iz Perlman. We discussed his writing program for his archeological papers and Rose McFarland's new research program.

I spent a good part of the afternoon dictating to Lin Lorenz letters of appreciation for their help with HikaNation to Walter Goggin, Mary Lee Jefferds, Christian Nelson, Supervisor Valerie Raymond, Mac Laetsch, Assemblyman Art Agnos, Dick Trudeau, Joanne Dean, Nan Wallace, Bob Pond, Supervisor Nancy Fahden, Supervisor Wallace Brazelton, Mayor Gus Newport, Mayor Helen Allen, Mayor Dick Hildebrand, Mayor Vern Roberts, Dale Dorn, Preston French, Wally Curtis, Mayor Philip Eisenberg, Phil McCoy, Phil Corson, Garth Tanner, Donald Nance, Lillian Dixon, Don Pearson, Fred Bell, ex-Mayor Carl Borelli, Supervisor Arliene Todd, Ed Berger, Robert Smart, Jr., Malcolm "Mac" McFarland, Clyde Carter, Dmitri "Dee" Keuseff, Ed Nafus, Frank Barton, Helen Hultin, and Supervisor Harold Duarte and Fire Marshall Bill Colescott.

At 3:20 p.m. Peter Goldschmidt (Vice Chairman, Washington Office) called from Washington to discuss with me the situation regarding the House bill rescinding funds in DOE's budget for FY80--an unprecedented action as far as we know. The amounts to be cut total \$16M and are broken down as follows: \$2M--magnetic fusion operating expense, \$5M, basic energy science operating expense, \$2M, material sciences, \$1M chemical science, \$1M, mathematical, geophysical, etc. \$1M advanced energy projects and \$4M, basic energy sciences plant (thinks that is the Regents' item, the Chemical and Material Sciences Laboratory). This bill is HR-7325. It means a reduction in FY80 operating funds of from \$400,000 to \$500,000 for the laboratory. Peter asked for my help in trying to reverse this cut and I told him about the calls I made earlier today (to Jack Schmidt, Ezra Heitowitt, Harry Compton in Burgener's office, Howard Baker). He is pessimistic about the appropriations for FY81, said that it would hit the universities pretty hard, for example, he has heard there will be a cut of \$8M in plasma physics which will affect UCLA's program run by Bert Fried.

At 3:50 p.m. Senator Howard Baker returned my call of earlier today. I told him about the unprecedented action of the House Appropriations Committee and the background and effects of HR-7325. I explained the ramifications of this action for the laboratory, and for the good of the nation's research efforts as a whole, emphasizing the loss to graduate student research, the shutting down of our accelerators, etc. He said he will try to work on it and asked for a letter from me as soon as possible giving all the details of the effects this bill would have.

At 3:35 p.m. I was able to reach Walter Loveland and gave him the background and information on HR-7325. He will make a phone call to Senator Mark Hatfield

(member of the Senate Appropriations Committee) or his assistant.

I then called Earl Hyde with the news of my conversation with Peter Goldschmidt and Howard Baker. Earl will draft a letter for my signature which will be telecopied to Baker late today or early tomorrow morning.

At 4 p.m. I went by Building 70 to have a talk with Ken Moody and Pat McGaughey. Moody and I agreed that we will bombard Cm with Kr at the SuperHILAC on our June 15-16 time allotment.

At 5 p.m. I went to Earl Hyde's office to work with Hyde and George Pappas on a telecopier message to send to Senator Howard Baker tomorrow regarding the House Appropriations Committee's bill rescinding a number of DOE FY1980 programs (including a \$1M cut in Heavy Ion Nuclear Physics operating budget).

At 5:30 p.m. I walked down to the campus (Latimer Hall) and back to pick up my mail. I drove down to Berkeley to pick up Helen at the BART station. We then drove to Narsai's restaurant on Colusa Avenue in Kensington to attend a dinner given by Mrs. Jameson for Chin Pei-yuan. Also present were Mrs. Albert Bowker and Walter and Virginia Hoadley (he is a Senior Vice President and the chief economist of the Bank of America; she is of 100% Swedish descent). We spent the evening in conversation about our mutual connections with the PRC, the relations between the Soviet Union and the PRC, etc. Chin Pei-yuan will be joined this weekend by Mrs. Chin and they will spend about three more months in the U.S. (at M.I.T.) and Canada.

Helen and I drove home, arrived at about 10:15 p.m.

Wednesday, May 14, 1980--Berkeley

At 8:30 a.m. I called Gordon Bixler to cover a few items. Regarding the seminar in India this coming December sponsored by AAAS to discuss the role of scientific and engineering societies in science and technology transfer, I will call Bob Parry and ask if he is interested in attending. I thanked Gordon for his excellent summary of the "blow by blow" action of the various Divisions at the meeting of the ad hoc committee on the Honolulu meeting, and in this respect Bob Parry's suggestion that I get in touch with the Division of Physical Chemistry. Gordon said that Bill Lester at LBL is the Chairman of this Division so I will contact him soon. I could meet with them prior to the August San Francisco meeting (the Division meetings are usually held on the Saturday and Sunday prior to the general meeting so this would be August 23-24). Gordon will take care of preparing the summary of the IAC for Rodney Hader; he has already taken care of room assignments, etc. for the August meeting. We will do nothing further regarding the Wotiz vote; the only negative vote received was from Jesse Hwa. We will do nothing further at this time regarding the AICHEMA trade fair. Polly Newman decided not to take on the job as chairman of the subcommittee to think about new ways to handle science and ACS Board's technology transfer because she is still chairman of the Budget and Finance Committee. Gordon suggested Harry Szmant be approached and I agreed. Polly will serve as a member of the subcommittee. Gordon

will travel to Sri Lanka with Cyril Ponnampereuma from June 27 to July 6, to set up the contacts for possible workshops there. He will meet with people in the National Science Council there and prepare to go to NSF for workshop money. He has received permission from Rodney Hader to use \$3000 out of committee money for this purpose. Cyril's expenses are paid from other sources. I said this was fine with me.

I called Bob Parry at 9:10 a.m. to tell him what a terrific job he did at the meeting of the Program Planning Conference and to thank him for the detailed report. I told him that I will contact Bill Lester, here at LBL, who is Chairman of the Division of Physical Chemistry. He believes we could enlist the aid of the Divisions of Inorganic, Organic, Nuclear Chemistry, Polymer, Analytical and Chem Education, without any trouble. Further, if the Divisions do not want to plan this meeting we could appoint a program committee for this special meeting and go ahead with plans anyway. I asked Bob if he would like to attend the AAAS Global Seminar on the Role of Scientific and Engineering Societies in Development to be held in New Delhi, India, December 1-5, 1980. The ACS has been invited to nominate a representative to participate in the conference. Although Bob will be in Germany on Sabbatical from October 1, 1980 until July 15, 1981, he will give it serious consideration and will call me back soon.

The letter from me to Howard Baker went out about noon today (copy attached).

I held the regular biweekly luncheon meeting of my heavy ion radiochemistry group. Present were Al Ghiorso, Pat McGaughey, Michael Perry, Rollie Otto, Rose McFarland, Yoshi Morita, Won Mok Jae, Luo Cheng, Marty Schulman, Diana Lee, Robert Welch and Ken Moody. Moody described plans for our ^{86}Kr plus ^{248}Cm bombardment on June 15-16. Al Ghiorso described some of his target support problems at SASSY. We also discussed other problems and results in general.

I drove to the Lawrence Hall of Science, leaving my LBL office a little after 3 p.m., met with Mac Laetsch for a while in his office to go over the agenda, etc., and went to the Conference Room where I presided over the meeting of the LHS Advisory Committee. Present were William Berry, Marian Diamond, Earl Hyde, Leonard Kuhi, Eugene Lee, Sheldon Margen, Robert Ornduff, David Schlegel, James Spaulding, Mildred Bennett, Tony Heinz (student committee member), Richard Merrill and Edward Morris. LHS staff present were Director Mac Laetsch, Bill Davis and Moira Kinney. Mac Laetsch announced the appointment of Bob Knott as Assistant Director of LHS replacing George Moynihan who has accepted the directorship of the Pacific Science Center in Seattle. We decided to write a letter to the Chancellor describing the need to repair Centennial Drive and the continuing need for Humphrey Go-Bart, etc. I am to prepare the letter and then have all the members of the Advisory Committee sign it. Mildred Bennett gave a report on the activities of the LHS Members Committee. We chose as the E.O. Lawrence Memorial Lecturer, Tuzo Wilson, a geophysicist from Toronto and a pioneer in advancing the concept of plate tectonics. The lecture will be given in the fall, probably in Wheeler Hall.

After the meeting we went down to the loading dock to see a demonstration of the traveling Health Fair, a major exhibit program developed by LHS and sponsored



Lawrence Berkeley Laboratory

University of California
Berkeley, California 94720
Telephone: (415) 486-5111
FTS: 451-5111

May 14, 1980

Senator Howard H. Baker, Jr.
4123 Dirksen New Senate Office Building
The United States Senate
Washington, DC 20510

Dear Howard,

I have recently learned of actions taken by the Subcommittee on Energy and Water Development of the House Committee on Appropriations which will cause very severe cuts in the Department of Energy Budget for this fiscal year (FY 1980). I enclose copies of a few pages of the Congressional Record which describe these actions.

The Subcommittee was responding to proposals from the Department of Energy on supplemental funding for critical projects and on suggested rescissions and deferrals. The Subcommittee responded favorably to many of the proposed supplementals but recommended rescissions and deferrals far in excess of the DOE recommendations. My incomplete information suggests that something approaching a quarter of a billion dollars is being taken from the DOE in midyear.

Rescissions of funding in the course of a fiscal year may be necessary in some cases for valid national objectives but these recommendations seem to me to be unprecedented and excessive. Midyear cuts in funding are very disruptive and damaging to program objectives and in the long run add appreciably to the cost of achieving these objectives. When the cuts come unexpectedly and suddenly, they invalidate the results of months or years of careful planning.

In the research area the cuts may seem small in the overall totals, but as we know, our research efforts in the basic fields are not meeting national needs and are severely impacted by inflation so that the unexpected cuts will be quite damaging.

For example, 5 million dollars is removed from Basic Energy Sciences (see page 64 of the Cong. Record) distributed as follows: Materials Sciences 2 M\$, Chemical Sciences 1 M\$, Engineering, Mathematical and Geosciences 1 M\$, and Advanced Energy Projects 1 M\$. The deficiencies in funding in these important scientific areas, which underly all our new energy technologies, were recognized in 1979 and an effort was made in the 1980 budget to restore the funding to a more suitable level. This mid-year rescission of 5 M\$ from the national program will be a

May 14, 1980

severe blow to our progress in these fundamental areas.

On page 65 of the Record, there is an unexpected rescission of \$4,000,000 in high energy physics and of \$1,000,000 in heavy ion physics. Of the latter, the statement is made that "the reduction of 1 M\$ in heavy ion physics for FY 1980 should have only minor impact on the program's long-range objectives." This is hardly an accurate assessment. This cut will almost certainly result in the immediate shutdown for the remainder of the fiscal year of the Superhilac, the Bevalac, and the 88-inch isochronous cyclotron which are the nation's leading particle accelerators in heavy ion physics. These accelerators are used by groups from all over the country and from Germany and Japan. The national effort in heavy ion physics will be brought to a standstill. Furthermore, the Bevalac is a critical accelerator in the national medical research effort. The National Cancer Institute is sponsoring a multi-year test of high energy heavy ion particles on a modality for treatment of cancer. The carefully selected stream of patients includes 20 to 30 scheduled for treatment in the next 5 months. These patients will not be treated and the progress toward a proper statistical assessment of the efficiency of the treatment method will be placed in jeopardy.

There are several other instances of programmatic rescissions and construction cuts or deferrals which seem very ill advised to me. For example, on pages 68-69, a 4 M\$ rescission is suggested in the Chemical and Material Science Laboratory project. This rescission would prevent the acquisition of the new Atomic Resolution Electron Microscope, a unique instrument that will enable the visualization at the atomic scale of materials and catalysts of great importance in the energy program. The stated reason for this rescission, "...consolidate existing activities...", is factually incorrect, as it applies to a construction item in the following year of the project.

I hope that the deliberations on the Senate side will be sufficiently careful to determine the harmful effects of midyear cuts of this large magnitude and to agree only to those which are clearly in the national interest.

Yours sincerely,



Glenn T. Seaborg

GTS:mg
Enclosure

by the American Cancer Society, which was explained to us by Ginny White.

Helen, Dianne and I had dinner in the playroom after which I worked in the study.

Thursday, May 15, 1980--Berkeley

At 9 a.m. Mark Jacobs called from Dreyfus Third Century Fund to express regret over my resignation. He asked if he could advise the Accounting Office that my resignation will be effective May 31, rather than with the last meeting I will attend which will be Wednesday, May 21. I said that was fine. He will send the agenda and other materials by Monday.

At 9:30 a.m. Gary Reeves (Backpacker Magazine) called for information regarding the hike across the California border into Nevada. I told him I passed on the staff at Washoe Reservation Campground, at the bridge there over the East Fork of the Carson River, right next to Highway 395 in Nevada and on Wednesday, May 7, the hikers with HikaNation headed South through Nevada.

At 10:30 a.m. I went by Building 70, talked to Diana Lee and Pat McGaughey and agreed we should buy a beam integrator and microcomputer with our equipment funds. I also talked to Rose McFarland, Marty Schulman and Luo Cheng.

I had lunch at my desk.

Pat Somerville called, told me Marilyn Rodder worked for him only one day, then left. We also discussed the problem of the cost of preparing the figures for his thesis and his request for the further help of Linda England.

I signed 37 letters of thanks to people along the route through California who were of help with HikaNation.

We received in the mail today the ACS catalog of Audio Courses which begins with a quote from me.

From 1:30 p.m. to a little before 2 p.m., I attended the Scientific Program Council meeting in the LBL Director's Conference Room. Present were David Shirley, Frank Stephens, Art Rosenfeld, Jack Hollander, A. B. Galtiere, K. H. Berkner, N. E. Goldstein, J. A. Kadyk, F. A. Robben, and H. Heinemann. The two items on the agenda were: 1) Activities of the Fossil Energy Task Force presented by H. Heinemann and 2) Discussion of the Institutional Plan presented by David Shirley. I left after the presentation of H. Heinemann.

I then walked down to Etcheverry Hall where in Room 6153 I attended the oral qualifying examination for the Ph.D. for Yoshimitsu Morita. Members of the committee were all present, Professor L. Ruby, Chairman, L. Grossman, A. Searcy, J. Rasmussen and me. Yoshi did not do very well on the examination. He was not able to

explain how the yield of a gamma ray emitter could be converted into the cross section for its production. He also had problems with transformation from center of mass to laboratory coordinates for relativistic nuclear reactions and range energy relations for heavy ions. He did pretty well on a question from Searcy on the relative thermodynamics of uranium, aluminum and gold with respect to their oxides. Yoshi received a passing grade which will be reported to the Graduate Division but for our own satisfaction, we asked him to submit a paper to us describing how to convert the yield of gamma ray emitters to corresponding cross sections and how this relates to the end objective of his research problem.

After the examination, I walked back up to the hill office. I went by Building 70 at 5 p.m. to talk to Diana Lee, who had just finished talking to Darleane Hoffman about the writing of their paper on the 1.5 second symmetric S.F. activity.

Dianne and I had dinner in the playroom (Helen was attending a dinner meeting of the YWCA Board). I worked in the study during the evening.

Friday, May 16, 1980--Berkeley

At 9 a.m. I gave my lecture ("The Periodic Table"), illustrated with 37 slides before Professor Alex Pines Chemistry IV class. I was introduced by Professor Pines. Shortly after 10 a.m. I walked back up to my LBL office.

I wrote to Dan Reynolds (Director and Curator of the Pony Express Stables Museum in St. Joseph, Missouri) to ask for a print of the Strawberry Station which was taken in 1962 when there were some remains still standing.

At 10:25 a.m. I talked to Carl Anderson; I told him that he had been chosen to receive a Swedish Council of America award for excellence in science. I gave him background information on the SCA, my role in the organization, and our Awards program. He said he had not been well but he would do all in his power to improve his recovery and make the trip to Minneapolis to receive this Award on Friday, October 24, 1980. We will keep in touch.

I returned a call from Professor Buford Price at 11:05 a.m. He was asking about Samuel Silver's role in the development of the Space Sciences Laboratory, and in particular, the obtaining of the building. I told him that in my opinion, Sam played a central and important role in obtaining the building for the laboratory, that he talked to me when I was Chairman of AEC, talked to Jim Webb and did much to convince Webb that the laboratory should be in Berkeley. I told him that one of the first things I did as Chancellor was to form an advisory committee on a space science laboratory and that Sam was a dedicated worker on this committee.

At 11:50 a.m. Lew Keller called to tell me that the Eastern Tennessee Section program committee for the Lind Lectures, has been canvassed and all contacted have agreed to change the traditional two-day lecture to a one-day affair to coincide with my schedule on November 9-10. Therefore, I will give a talk on "Energy" at ORNL at 3 p.m.

November 10, and a talk on "The History of the Transuranium Elements" at the University of Tennessee at 8 p.m. also on the 10th. Lew will make reservations for me for Sunday and Monday nights at the local Holiday Inn.

I met with Zhang Guangdou (Vice President of Tsinghua [Qinghua] University), Luo Cheng and Shih Shuang-hui (a visiting researcher at LBL in NSD). Zhang presented me with 1) a copy of the Quinghua University publication with the picture taken in my office with Yuan Lee, Luo Cheng and others in my office at LBL on April 3, 1980, 2) a packet of five prints of buildings at Quinghua University, and 3) a rubbing wall print (1 1/2' x 2 1/2') showing a "cloth bagged" monk of the 5th century who later turned into Maitreya, the future Buddha (picture made in the Ching Dynasty). Zhang expressed the regrets of Lui Dan (phonetic spelling) President of Quinghua University, who had an appointment in San Francisco today. I mentioned to them that Wang Chia-ting of the Chemical Engineering Department of Quinghua University and Lui Ing-zung, head of the reactor in the outlying campus of the University, will be here next month. Zhang told me that he was out of business for ten years (1966-76) during the Cultural Revolution although he managed to do something productive as a consultant to one of the Government agencies. He expressed himself emotionally as a great admirer of Chou En-lai when he saw the picture on my wall. He also told me that my many friends in the PRC said they hoped I would visit there again.

I had lunch at my desk.

At 12:10 I reached Mrs. Edgar Bergen and told her that Edgar had been among those Swedish Americans chosen for honors. I told her that the presentation would be on Friday, October 24 and that I hoped either she or Candice and preferably both, would be able to attend the ceremony in Minneapolis. She said that it was hard to commit herself to something that far in advance but she would definitely try to be there. I told her that we would keep her informed as things became more finalized.

At 2 p.m. I went by Building 70 to talk to Yoshi Morita (about his exam yesterday). I also talked to Ken Moody and Robert Welch about their treatment of their yield data, and Diana Lee about computer charges.

At 2:30 p.m. I called Herbert York (Chairman of the U.S. delegation to the Comprehensive Test Ban negotiations). I told Herb about the book that Ben Loeb and I are writing and asked him about the status of the Comprehensive Test Ban negotiations. He told me, confidentially, that they were "zilch." He said that the main problem is that the Chiefs of Staff are opposed and one of their chief concerns is the supposed need to test nuclear weapons stock pile reliability. In order to try to bring them around, President Carter, characteristically, acceded to their request that the CTB have an effective period of three years at which time everything would have to start over again (approval by Congress, etc.). The problem of on-site inspections seems to be manageable. They had agreed with the Soviets on a system of voluntary on-site inspections instead of mandatory which are probably just as good because neither side would ever actually allow an inspection following an actual violation--either system would reveal that something was amiss and, therefore, bring it to the attention of the National Security Council. The negotiations have reached agreement on a moratorium

on peaceful nuclear explosions. The Soviets have shown great interest in this and indicated that in the renegotiations after the three-year period, they would want some accommodation for this. Herb said he will send me a copy of an article he has written with an historian friend on the CTB.

Ms. S. V. Shu, a friend of Jennie Liu from the Institute of Environmental Chemistry in Beijing, dropped in to see me from 3 p.m. until 3:30 p.m. She is the head of the Organic and Analytical Laboratory of the Institute and she is working here for one or two years with Eddie Wei and a group of biomedical researchers working in Warren Hall. She is working on mutagens in diesel exhaust. She gave me a note from Jennie Liu for Helen and me and also a present from Jennie Liu. She wanted information on activities related to her work in the Department of Chemistry and I suggested that she see Chairman Tinoco. To provide her with some information on research programs in the Department of Chemistry and LBL, I gave her two publications--1980 LBL Overview and Graduate Chemistry at Berkeley.

Sheila Saxby came by for a long talk (about 4:30 p.m. to 5:30 p.m.) about her possible future plans. She wants to terminate her position in the Astronomy Department. Eventually she wants to go back to the Regents Office as Secretary which is a possibility. We discussed some more immediate possibilities.

At 5:30 p.m. Ken Moody and Robert Welch came by with some interesting results--their calculation of Am isotopic yields from the recent ^{248}Cm plus ^{136}Xe bombardment.

Helen, Dianne and I had dinner in the playroom. We watched on TV the final NBA Championship game between the Los Angeles Lakers and Philadelphia 76ers played in Philadelphia (the sixth game in the Championship series); the Lakers won.

At about 8 p.m. Helen left to drive Dianne back to Davis.

Saturday, May 17, 1980--Lafayette

I led a Sierra Club hike (Mt. Diablo Regional Group) to the top of Mt. Diablo. Helen hiked a portion at the beginning, then met us at Juniper campground and at the top. There were 22 hikers, including me: Francis Bonner, Daisy Mashell, Christie Heller, Flo Richmond, Betty Goldstein, Joe Goldstein, M.L. Andrus, Ted Maza, Charles Goodman, Reuben J. Bolger, Nancy Menke, Clarence, Q.J. McMahon, W.H. Lea, Scott Griesa, Henry Montague, Bob Passaro, Art Gould, Tom Foote, Ed Stephens, and Ken Jack.

We started at Mitchell Canyon parking lot at about 9:45 a.m., went up Mitchell Canyon, Deer Flat fire road, past Juniper campground, then on the trail straight to the top. Ralph Wright joined us for portions of the hike, dropping out at Juniper to continue on to Danville, etc. Nineteen hikers reached the top (two, Christie Heller and her friend, well ahead of the group). Two dropped out at Juniper campground. The main group of about 17 hikers arrived at the top at about 1:05 p.m. Scott Griesa told us he participated in Days 5 and 6 of HikaNation. We had our back-pack lunches

augmented by cold drinks, etc. from the Snack Bar, at the top.

After lunch I asked Joe and Betty Goldstein to lead the hikers back down. They chose to go via Devils Elbow Trail over Prospector's Gap and on down past Big Spring, etc.

Helen and I drove back home, dropping Scott Griesa off at the Walnut Creek BART station. We arrived home about 3:30 p.m.

Dave hosted a party for a number of his friends, starting at about 5 p.m. including pot luck dinner. His guests were as follows: Barbara Kalin, Jim Vandershoot and wife, Dione Sandrow, Sandy (Dione's friend), Frank Summerfield, Bob Joost, Dave Bartholomew, Jon Bell, Andy Burgess and his girlfriend. One of the participants, Sue Graul, was a member of my Cluster Freshman Chemistry Advisory Group a couple of years ago; she is still a chemistry major.

Helen and I had dinner in the playroom. Later we drove to the Lawrence Hall of Science to attend a retirement party (dessert and dancing) for Carl and Betty Helmholtz given by Professor Summer Davis and his wife, Grace.

Sunday, May 18, 1980--Lafayette

Helen and I watched on TV the Bay To Breakers Run in San Francisco. Craig Virgin won in record breaking time--35 min., 10 sec. Dave ran and came in 124th--a remarkable performance!

Helen, Dave and I had lunch in the playroom.

I worked in the study during the day.

Jeannie Harmon called at about 5 p.m. from Mina, Nevada, to give a report on the progress of HikaNation. They have had long mileage days and about five days of bad weather (cold, rain, even snow). However, they are persevering. They had to expel several younger hikers from the group. About 45 remain. Jean Beam didn't hike with them; he left them after a few days. Barry Rhodes is doing well as pathfinder. She will call on Saturday night from Tonopah. Helen called her back at about 6 p.m. to talk further with her and to tell her that the Contra Costa Times and Lafayette Sun would like to receive news pieces from her.

Helen and I had dinner in the playroom, then watched on TV "60 Minutes" on CBS (Channel 5) and "Odyssey" on Channel 9 (which featured the archeological dig at Somersville.

Bonnie Madsen called at 9 p.m. to give us a report on Strawberry Lodge. Among other things, Gil, the cook, has quit; he has been drunk quite a lot recently. They are filling the swimming pool for the summer season.

Monday, May 19, 1980--Berkeley

I received the revised, full manuscript of "Kennedy, Khrushchev, and the Test Ban: An Eyewitness Account," from Ben Loeb. Lin Lorenz began to make the indicated changes on the master copy on the Wang typewriter.

From 11 a.m. to 12:15 p.m. in Room 1/91/70, I attended the special NSD seminar by Dr. Teng. L. Khoo, of Argonne National Laboratory, who spoke on "Feeding of Very High Spin Yrast States." He is under consideration for a position in the Diamond-Stephens group.

At about noon I walked down to attend the regularly scheduled Chemistry Department Faculty luncheon. I talked to Rollie Myers and Wayne Hubbell about shifting chemical thermodynamics from Chemistry 1C to Chemistry 1B. Myers may do this. He is writing a textbook guide to go with Mahan's book, for Chemistry 1A and 1B.

At a little before 1:30 p.m. I went to Room 444, Latimer Hall, to attend the qualifying examination for Carolyn R. Albiston. The committee members present were John O. Rasmussen (Chairman), Joseph Cerny, Robert A. Harris, Owen Chamberlain and me. Carolyn passed an average examination. There is some concern about her ability to proceed as a theorist. She had some trouble answering an elementary question on the calculation of cross section reactions that I posed to her.

I returned the manuscript "Target Residue Recoil Properties in the Interaction of 8.0 GeV ^{20}Ne with ^{181}Ta ," to Walter Loveland with a few minor corrections and suggestions.

I declined an invitation received from Min Swan-Shik (President of the Korean Federation of Scientific & Technological Societies) to visit Korea to give a lecture there in November 1980. I responded to Bill Kemsley (Editor, Backpacker magazine), and listed some prints I would like to have from the several pages of negatives he sent to me. He plans to use a picture of me with others from HikaNation on the cover of Backpacker magazine for the August issue.

I wrote to Barbara Jacak in answer to her letter to me of April 24th. Barbara wrote to thank me for my recommendations for graduate school. She indicated in her letter that after careful consideration, she had decided to attend Michigan State University where there should be some exciting new possibilities with their new machine. She described some of her work at GSI on fast actinide chemistry and was also looking forward to an opportunity to take part in a bombardment. She mentioned that she had been in contact with Kjell Aleklett and hopes to visit Studsvik in June, and I wrote her that I will be going to Europe in September to work with Kjell on a joint experiment at CERN.

I sent a note to Professor Hans Frauenfelder asking him if he wished to initiate a joint nomination (Physics and Chemistry) for Vitalii Goldanskii for Foreign Associate

membership in the National Academy of Sciences this year. I received a letter and an agreement from Sheila Berg (UC Press) for my book, "Kennedy, Khrushchev and the Test Ban....," (letter attached), which also included copies (attached) of the reviews sent in by readers of the manuscript (before the additions recently made by Ben Loeb stemming from the Harriman material).

I attended the NSD seminar in Building 70A Conference Room, at which B. Muller (of Frankfurt, Germany) spoke on "Atomic Clock for Nuclear Collisions." Ken Moody and Robert Welch dropped in to show me the points for ^{246}Am and ^{247}Am from ^{248}Cm plus ^{136}Xe .

Helen and I had dinner in the playroom.

I read proof on the draft, with handwritten corrections in it, of "Kennedy, Khrushchev and the Test Ban...."

Eric called at about 9 p.m. to inquire about the AAAS publication Science 80 with the thought he might apply for a position with them.

Tuesday, May 20, 1980--Berkeley/New York

At 9:15 a.m. I talked to Teddy Nikos (Orville Chapman's secretary, Department of Chemistry, UCLA), who told me that my talk on June 2, is scheduled for 5:30 p.m. The Saul Winstein Symposium is on June 3. I told her I will arrive in Angeles on Monday afternoon.

I wrote to Philip Gordon (Academy of Independent Scholars, Boulder, Colorado) to decline his invitation to participate in their "Roving Scholars" program.

I received an interesting letter from A. Hunter Dupree in response to my letter to him of April 3rd in which I commented on his manuscript (attached).

Rose McFarland came by at about 10 a.m. to discuss the purchase of items for her proposed high temperature ion exchange column.

At 10:15 a.m. I went by Building 70 to talk to Diana Lee, Marty Schulman and Cheng Luo.

Helen drove me to the San Francisco International Airport where I boarded TWA flight #806 which left at about noon and arrived at New York, Kennedy Airport, at about 8:45 p.m. I took a taxi to the Chemists' Club where I checked into room 625.

I had dinner at the nearby Howard Johnsons (on 42nd St.) then took a walk before retiring.

MAY 19 1980

UNIVERSITY OF CALIFORNIA PRESS

BERKELEY • LOS ANGELES • NEW YORK

405 Hilgard Avenue

Los Angeles, California 90024

(213) 825-3018

14 May 1980

Dr. Glenn T. Seaborg
Associate Director
Lawrence Berkeley Laboratory
University of California
Berkeley, California 94720

Dear Dr. Seaborg:

I am very pleased to enclose the Agreement for your work, Kennedy, Khrushchev and the Test Ban: An Eyewitness Account. Please let me know if you have any questions about the terms of the Agreement. If everything looks in order, please sign all copies and return four to me. One copy is for your files.

Enclosed also are a form (2 copies) we will need in connection with the royalties and a questionnaire that is very helpful to us in planning our promotional campaign. You may hold the questionnaire and return it with the final manuscript if that would be more convenient.

As I mentioned, we will be very happy to help you in any way we can. It will be no problem to assist in looking for photographs or writing for permission if you know of photographs you wish to use.

Regarding your request for another review of the manuscript, perhaps it would be useful if the Press offered to pay a reasonable fee to a person of your choice. I am sending herewith copies of our reviewers' comments. The statements are briefer than usual because we asked for a very fast reading in order to bring your volume to the Editorial Committee in May. I hope they are useful, however.

I spoke to Shirley Warren about editing the manuscript and she is delighted to have the opportunity to work with you. She is planning to be out of the office the second half of July--as am I--so it would be very nice if Dr. Loeb could schedule his trip during the first two weeks of that month.

I look forward to hearing from you.

Sincerely yours,



Sheila Berg
Editor

SUB:cd
Encl.

Dear Ms. Berg:

I have read Glenn Seaborg's "Kennedy, Krushchev, and the Test Ban: An Eyewitness Account", and I warmly recommend publication.

Seaborg's book is a highly valuable memoir which will interest historians, political scientists, arms control experts, and members of the general public who remain fascinated with the Kennedy era. Aside from an opening background chapter and an epilogue, the book is a first-hand account of how the Kennedy Administration made the Test Ban agreement with the Soviet Union. It provides a fascinating inside view of how the Kennedy Administration operated and of the negotiations with the Soviets. Seaborg has made good use of other existing sources to supplement his own journals and recollections, and the result is an important addition to our knowledge about what happened and how it happened. While one hopes that Dr. Seaborg will one day make his entire journal available to historians by placing it in the Kennedy Library or some other appropriate archive, this book will become an important published source of information on Seaborg's experiences as head of the Atomic Energy Commission.

I have only one minor suggestion for an addition. Seaborg might do well to expand his second chapter on the Eisenhower period to include additional information about the general Soviet effort after Stalin's death to improve relations with the United States. This would put his discussion of arms control negotiations in a more understandable context. Beyond this, however, I see little more than editorial or copyediting changes to be made on the manuscript. Again, the book will be snatched up by historians and others as a highly valuable contribution to our knowledge of the Kennedy years in general and the Test Ban treaty in particular.

I had expected, frankly, to find the Seaborg manuscript very interesting and very illuminating, and I was somewhat disappointed on both counts. It is publishable, and it should be published, but it still needs considerable work and reconsideration about focus and perspective.

Part of the problem is that the material from his journal, usually written in a clear, comfortable, unselfconscious style, is more interesting and generally superior in style to much of the later material. The later prose—even in "A Note on Sources," which speaks of "optimum phraseology"—often has problems. The journal is fresh and frequently tells us about splits, meetings, and difficulties that the published sources neglect or skim past. But large parts of the rest of the manuscript cover more familiar ground in familiar ways. (In fact, Sorenson and Schlesinger seem to be favorite sources for the details and judgment.)

I think much of the difficulty lies in the original conception: Is this an account about the test ban with the emphasis on the eyewitness' role and involvement, or is it a kind of history of the ban informed by some additional information unique to the eyewitness? At present, the manuscript roams between these two strategies or conceptions.

Personally, I would prefer more on Seaborg, his participation, the issues at meetings, etc., and less drawn from other sources to try to provide a more rounded history. I think that much of the detail for this "rounded history" could be compressed. And I think that the JFK speeches, despite Seaborg's great admiration for JFK, might be substantially cut.

Why can't the first three chapters be greatly compressed?

The final reflections on Khrushchev seem strained, really tacked on. And while I don't want to get into a significant discussion about the Cuban missile crisis, I suspect that Seaborg's judgment of the second letter (Oct. 27, 1962, urging the ante to include withdrawal of US Jupiters in Turkey) might be viewed differently if he knew that many American advisers and JFK himself had from almost the start of the missile crisis been flirting with the possibility of such a trade to end the crisis.

In summary, I think that this is a useful book but that it needs work before it can become a strong, very valuable book. As presently constituted, it is too often dull, lifeless, and derivative. What Seaborg has to contribute is his own experience, and there should be more drawn directly from that experience—as both participant and observer.

B-1 5/20/80



BROWN UNIVERSITY Providence, Rhode Island • 02912

DEPARTMENT OF HISTORY

14 May 1980

Glenn T. Seaborg
Lawrence Berkeley Laboratory
University of California
Berkeley, California 94720

Dear Glenn:

It was very kind of you to write your letter of April 3rd, giving me some insight into the events which I had sketched in my personal account. I have come more and more to the feeling that it is too soon to write good history of the events so close to us and hence I was experimenting with a more personal style, which is of course risky in terms of absolute accuracy. If this experiment had no other function, it has been worth it to elicit your remarks.

I waited some time to try to answer the letter in order to see if there were other reactions from other points of view. Since very few have been forthcoming, I wish to take up some of the points you make in your letter and make counter-comments.

1) The authorship of the Seaborg Report. I am an admirer of that report and note that in another part of Bill Golden's volume (p. 56) Edward E. David, Jr. points specifically to its enduring influence. My remarks about the authorship were not intended to question your role but rather to point out a thing which was very impressive to me as a newcomer to those circles, that is that the authorship of such reports is not by any one person in the fashion of old-fashioned history but rather a very complicated process of consultation and interaction. I believe that historians of the future must understand this point in judging the documents coming from the post-World-War-II period. My remark about George Kistiakowsky was perhaps too lighthearted and masked the reality of the situation, which was that he was a great admirer of that report and wished to model the successor report, The National Academy of Sciences: Federal Support of Basic Research in Institutions of Higher Learning (1964), directly on it. It was from the period that I was involved in preparing that report that discussions of the title "Kistiakowsky Report" were bandied about. There was something wistful in George's attitude on this subject, which had to do with the unfamiliarity of his name in the flow of American discourse which militated against its ever becoming a household word.

2) The divergence of our memory of the science advice to the Nixon campaign of 1960 is fascinating to me. I remember the discussions of the news magazine story, but the point I missed was the fact that it was incorrect. This as well as the point about Sargent

Shriver and also the impression about your becoming Nixon's science adviser if he were elected emphasizes to me how far on the periphery my viewpoint actually was. During that fall of 1960, from my point of view, you were disappearing to Washington with great regularity and when you returned to Berkeley, we were actually pushing an immense amount of business through the Chancellor's Office. There was little time for anyone to reflect at length on large and distant events.

It was not my intention to leave the impression that Kistiakowsky usurped the role of science adviser from Wiesner. The basis of my statement had to do with the report which I mentioned above and which, to be blunt about it, I largely wrote. If one conceives of the Seaborg Report as starting a tradition of commenting on the principles which govern the relationship of federal research to the universities, its true successor, the next in line in the tradition, was the report in which I was involved. I do not believe that in the Wiesner period a major report was written which dealt with these continuing themes. I believe that both Kistiakowsky and the whole of COSPUP had a broader view of that report than just a document advisory to the Academy.

The kind of attitude which produced Federal Support of Basic Research in Institutions of Higher Learning was quickly dissipated by the events of 1964-65. The COSPUP moved to replace it with the report, Basic Research and National Goals, and in general COSPUP's role gradually became institutionalized at a somewhat lower level. A postscript to this story is a fleeting event. In April or May 1979, just a year ago, the chairman of COSPUP, a mathematician named Singer, was going through the old and forgotten literature emanating from the committee and came upon that report. He professed to find in it an effective statement of what he felt should be reiterated in 1979. I went to Washington in the middle of a snowstorm and talked to him briefly about the possibility of preparing another report for COSPUP. In the end I decided that my own career at Brown has taken me so far from the sources of information which would allow me to do a competent job that I felt bound to decline the invitation. Nevertheless, I shall always treasure the memory of Professor Singer's opinion of my work, and while it will never appear in my bibliography, it is a contribution to the stream of discussion in which I take great satisfaction.

You are of course not alone in your opinion of my treatment of Lee Du Bridge, even though I had toned it down very considerably in the public version and had discussed with Bill Golden whether it should appear at all. The situation points up my dilemma as being an outsider who cannot know what the great difficulties on the inside actually are. For the many years that I stayed close to the makers of science policy I had a tendency to give them every benefit of the doubt and to put in a heavy discount for my sense that there were huge issues, particularly inside the military, of

which I was only very dimly aware. The special thing about the summer of 1970, however, was that these issues had so far transcended the relatively closed world of research policy that they impinged on me as a citizen and a human being in such a way that I judged the same people and the same type of events from a slightly different perspective.

It is perhaps symbolic that since that time I have become so pessimistic about doing real history on contemporary science policy that I have gone with the inevitable drift out of science policy circles occasioned by my move from Berkeley to Brown. I feel myself very fortunate that I have a sufficient number of interests that I can go back in time to where I can again perform as a historian. In the end my biography of Darwin will no doubt lead me back into contemporary policy but on another level.

Thank you for taking the trouble to write the letter and for bearing with this response. With kindest personal regards both to you and to your wife,

Sincerely,



A. Hunter Dupree

Wednesday, May 21, 1980--New York/Detroit

I had breakfast in the Club restaurant, checked out, then took a taxi to the General Motors Building (767 5th Ave.). Here I attended a meeting of the Board of Directors of the Dreyfus Third Century Fund. Present were Directors Howard Stein, Alice Jones, John McCloy, J. Harrar and me, plus Jeff Friedman, M. Gordon, L. Greene, M. Jacobs, M. Amato, J. Pyburn, S. Grant, L. Leiman, and R. Guglielmino. The meeting started at 10 a.m. and ended at about 11:15 a.m., followed by about 15 minutes of discussion, led by Howard Stein, of the general economic and market situation. The meeting followed the agenda (attached). We accepted the resignation of Ken Oberman as President and elected Jeff Friedman as his successor. The Directors also accepted my resignation as Director and elected Lucy Benson as my successor. Howard Stein made a statement expressing regret at my leaving. I responded by saying, in response to his earlier statement that the time to leave is when you are at the top of success, that I am not leaving because this is the crest of the Third Century Fund's success but solely because of the size of our country and therefore the difficulty of traveling so far to the Board meetings. During the meeting there was a discussion of the political situation in Washington and its effect worldwide. McCloy expressed disappointment at the way Ex-Secretary of State Cyrus Vance was treated by President Carter. McCloy said he was invited to a meeting with President Carter at the time of the recent unpleasantness with Cuba. As the result of his criticizing the Carter Administration's handling of that situation, he was cut off the invitation list for the White House dinner given for West German Chancellor Helmut Schmidt and also was removed (at the Carter Administration's request) from the guest list for Chancellor Schmidt's return dinner. McCloy was quite disgusted with this show of pettiness by the Carter Administration. I bade farewell to all the Directors and to staff members of the Dreyfus Third Century Fund. In talking to Howard Stein I suggested we keep in touch and he suggested I call him when I visit New York.

Since the meeting ended so early I took a taxi to LaGuardia Airport, boarded an earlier flight, American Airlines flight 537, which left at about 1 p.m. and arrived at Detroit Metropolitan Airport at about 2:40 p.m.

I phoned Ata Berker at the Ford Motor Company Research and Development Laboratory and he came by to pick me up. He is from Turkey and married to the daughter of Boris Hagelin, Swedish inventor, who lived and worked in Russia as a part of the Alfred Nobel organization. Berker drove me to the Bloomfield Hills Country Club where I was shown to room 6.

A little later I rode with Berker to the Cranbrook Institute of Science. Here I attended the annual meeting of the Detroit Swedish Council in the auditorium. I sat with Margareta Berker. The agenda (attached) was followed as the meeting was presided over by President Wesley Johnson. He called on me for a report on the Swedish Council of America. I mentioned the three events on my present trip which are connected with Swedish American organizations (Detroit Swedish Council, American Swedish Historical Foundation and Museum, Augustana College), then briefly described the history of the SCA and its program, mentioning especially the Nobel Visit Award and the Swedish Heritage Awards and the banquet scheduled for

PROPOSED
AGENDA

THE DREYFUS THIRD CENTURY FUND, INC.

BOARD OF DIRECTORS MEETING

WEDNESDAY, MAY 21, 1980

10:00 A.M.

- I. Approval of Minutes of Previous Board of Directors Meeting

- II. Legal Matters
 - A. Changes in Officers and Directors
 1. Resignation of Kenneth J. Oberman as President
 2. Election of Jeffrey F. Friedman as President
 3. Resignation of Glenn T. Seaborg as a Director
 4. Election of Lucy Wilson Benson as a Director

 - B. Annual Approval of Non-Audit Services Performed by Ernst & Whinney

 - C. Approval of Increase in Fidelity Bond Coverage

 - D. Amendment of Fidelity Bonds and Fidelity Bond Agreement

- III. Investment Matters
 - A. Apparel

 - B. Valuation of Securities

- IV. Portfolio Review and General Business Discussion

DETROIT-SWEDISH COUNCIL - ANNUAL MEETING May 21, 1980

at the Cranbrook Institute of Science

1. Welcome by the President
2. Approval of the minutes - annual meeting May 22, 1980
(minutes mailed to the members)
3. Report by the Secretary - Mrs. Karlstrom
4. Report by the Treasurer - Mr. Hoglund
5. Report by the President - Mr. Johnson
- Introductions
6. Swedish Council of America
7. Annual Smorgasbord
8. Carl and Olga Milles Scholarship at Cranbrook Academy of Art
9. Awards
10. Report of the Nominating Committee - Mr. Hartmann
11. Presentation of Officers - Directors - Mr. Johnson
12. Other business
13. Adjournment
14. Refreshments and buffet supper
15. Dr. Glenn T. Seaborg-program at 8 p.m. in the auditorium

Minneapolis on October 24th.

My cousin Jean Walsh, and her husband, Bill, were there for the meeting and subsequent events and I had several opportunities to talk to them about our families, etc. Their son, Tommy, now married, has gone back to finish a degree in Business Administration; his wife has also gone back to school. Their daughter Marilyn is doing well in her career as is her husband.

During the meeting Wesley Johnson presented two 1980 Detroit Swedish Council awards in the form of plaques. One went to Ernest Jones, Chairman of McManus-Darez (an advertising firm) with an interest in music, and the other to Oscar (Ozzie) Olson, Chairman of the Olsonite Company and a sports enthusiast (former part owner of the Detroit Lions). Wesley Johnson, at the meeting, also took note of the award to Signe Karlstrom this year of Swedish American of the Year of the Vasa Order. He presented her with a book, took note of the presence of her sons, Olaf and Carl Gunnar, and read a congratulatory letter to her from Michigan Governor William Millikan.

At the end of the meeting, officers for the next two-year period were announced, including Margareta Berker as President. Margareta pledged to me cooperation between the Detroit Swedish Council and the Swedish Council of America.

During the reception after the meeting I met Robert Bowen (Director of the Cranbrook Institute of Science). I suggested some corrections for the placement of the transactinide elements in the large Periodic Table on the wall. He will send me a diagram of the proposed corrected Periodic Table for me to comment on.

I also met John Parsons (Signe Karlstrom's cousin), who is connected with the Society of Manufacturing Engineers and who will write me about this organization.

Sally Wells gave me a folder of prints of pictures taken in Stockholm last December by her husband, Hugh.

A buffet dinner was served in the main room of the Institute of Science. I sat at a table with Margareta Berker, Ozzie and Jean Olson, Robert and Lee Bowen and Wesley and Doris Johnson.

After dinner we went back to the auditorium where I was introduced by Wesley Johnson for my talk on "Our Energy Problem." (Chris Singer, a reporter for the Detroit News, was present for my talk.) I opened with my Ishpeming-Negaunee joke, mentioned my forthcoming 50th anniversary reunion in Ishpeming next August and read the children's comments (from Herb Caen's column) on the solution to our energy problem. I then described the dimensions of our energy problem and its solution through the development of the six energy sources of the future. My talk was illustrated with eight slides (A221, A259, A260, A263, A266, A258, A257, A94). I talked for about 50 minutes, followed by about 15 minutes of questions and answers (quite friendly). The rather full auditorium included Mr. Stanford and Mrs. Iris Ovinchinski; he is the person who claims he is developing amorphous silicon for the conversion of sunlight to electricity.

Signe Karlstrom drove me back to the Bloomfield Hills Country Club where I spent the night.

Thursday, May 22, 1980--Detroit/Washington, D.C.

Ata Berker drove me to the Detroit Metropolitan Airport where I boarded Northwest Airlines flight 316 which left at about 8:10 a.m. and arrived at Washington National Airport at about 9:30 a.m.

I took a taxi to the University Club where I checked into room 408. I soon walked to the Science Service headquarters (1719 N. St. N.W.) to attend the meeting of the Board of Trustees of Science Service. Present for the meeting were Trustees Edward Bliss, Jr., Milton Harris, Deborah P. Wolfe, Allen V. Astin, Julius Duscha, O. W. Riegel, John Troan, Bowen C. Dees (who arrived late), plus Ted Sherburne, Dorothy Schriver, Donald Harless and Robert Trotter. The meeting, over which I presided, began a little after 11 a.m. and lasted until a little after noon. The agenda (attached) was followed. Ted Sherburne told us about some interest in translating Science News into Arabic (possibly in Egypt). Dorothy Schriver told me about a phone call she had from Baron Stig Ramel on May 19, to discuss the problems existing between Unga Forskare, General Motors and Science Service (copy of notes of phone conversation attached). Dorothy and Ted will go to Stockholm in July to talk to Ramel about this. During the Executive Session Allen Astin raised the question of exploring again whether AAAS would be interested in taking over Science Service, but none of the other Trustees was in favor of this.

After the meeting I returned a call from Pat Johnson to be brought up to date on my mail, messages, etc.

I participated in a buffet (sandwich) lunch at Science Service, then walked back to the University Club to spend some time in my room.

I called Gordon Bixler at ACS to discuss International Activities Committee business.

I took a walk down to the Mall, visited the Hirschorn Museum of Sculpture and Art, the Air and Space Museum and the 1976 Centennial Exhibition (in the old, central Castle building).

I had dinner in the University Club dining room with Pete and Eric. Pete told us about his plans to sell Civil War relics, possibly through a corporation he will form. Eric said he may have an offer of a temporary job from Ed Cornish to help make preparations for the world conference of the World Future Society in Toronto in July.

AGENDA

MEETING OF THE BOARD OF TRUSTEES OF SCIENCE SERVICE

Thursday, May 22, 1980, 11:00 a.m.

Science Service Building

1. Approval of Minutes of February 26, 1980
2. Report of Finance Committee
 - a. Year-end report, Fiscal Year 79-80
 - b. Revised Science News revenue figures for 80-81
 - c. Limitation on funds invested in Savings and Loans
 - d. Problems involving permission to invest when no members of the Finance Committee are in town.
 - e. Government Investors Trust account
3. Science News reports
 - a. Reader Profile study
 - b. Intern program
4. Status of termination of THINGS of science
5. Status of proposed Olympiads program
6. Status of proposed CONOCO science youth program
7. New business
8. Date of next meeting
9. Executive session

Conversation with Baron Stig Ramel 5/19/80

1. Apologized for not coming to the ISEF - regretted deeply. All due to Swedish strike.
2. Could we talk about some of the problems existing between UNGA FORSKARE General Motors and Science Service?
 - a. GM and UNGA FORSKARE are not speaking "the same language"
 - b. UNGA FORSKARE feels that GM is involved only for publicity
 - c. The Nobel "testament" dictates that its program create scientific understanding -
 1. With the U.S. students living at the Grand and the Stockholm International Youth Science Seminar students living in a hostel, it appears the two groups are living in different worlds
 2. The Swedish students have now agreed that the U.S. students should go to the U.S. Embassy luncheon -- but not to a luncheon at Dag Bladett unless all the SIYSS students are also invited.
3. If Ramel and Schriver can get together, Ramel feels we can work out a satisfactory compromise.
4. Schriver mentioned the involvement of Philips in UNGA FORSKARE. Ramel said he was not aware of such involvement and "if so, it is very low key."
5. Schriver will go to Stockholm and meet with Ramel July 17 or 18 to discuss differences and try to work out some mutually agreeable arrangement.
 - a. Schriver will meet with GM Nordiska to get their side of the situation, and to see whether they are still interested in sponsoring the two Swedish students to next year's ISEF.

Do 5/20/80

Friday, May 23, 1980--Washington/Philadelphia, Iowa City

Bryant Rossiter called at about 7:45 a.m. to tell me about a meeting he attended of the U.S. National Committee of IUPAC in Washington, D.C. last Saturday. Also attending were Jim D'Ianni (ACS President), Mary Good (Chairman of the Board of ACS), and Ray Mariella (Executive Director of ACS). Rossiter told me that Charlie Overberger told him he received a favorable letter from Tom West, Chairman of the IUPAC Committee to study ways of improving IUPAC to achieve the positive aims of international science. Rossiter also told me the U.S. National Committee decided to promote (1) the concept of having ACS members given the option of contributing when they pay their dues, some \$1 to \$5 to be used for the promotion of international activities in chemistry and (2) the creation of an international activities section in Chemical and Engineering News. For the latter, there will be consultation with the Advisory Committee for C&E News. These initiatives will be written up in the form of a proposal and this will be sent to me for my comment. Rossiter also told me it will be necessary to raise \$1.2 million for Chemrawn II and they are having difficulties doing this in today's inflationary climate. It will be necessary to ask for contributions from government agencies, like the Department of Agriculture, as well as industries. He wants my advice and also suggestions as to people who might help and he will get in touch with me within a few weeks.

I had breakfast in the Club Dining Room with Eric. He told me he has talked to and sent in his resume to Allen Hammond regarding a possible writing position with Science 80, and also has talked to a man operating a new publication on Political Profiles regarding a writing position with his enterprise.

I took a taxi to the Washington National Airport, where I boarded Allegheny (U.S. Air) flight 909, which left at 10:45 a.m. and arrived at Philadelphia Airport at 11:30 a.m. I was met by Lynn Malmgren, the new Director of the American Swedish Historical Foundation and Museum, who drove me to the Museum. Here I met Penelope Batcheler, who gave me a tour of the Museum, including the Kalm-Seaborg Room which has been converted to other purposes. Penny told me it will be converted back to include the exhibit of my work again, as well as the work of Linnaeus and Kalm. We then went downstairs where the exhibit on my work (a periodic table and panels on the transuranium elements, the cyclotron, reactors, etc., on the periphery of a cylinder plus individual blocks containing the symbols of the transuranium elements) is being stored. I explained to her the corrections in the explanatory text that must be made in order to update the exhibit. Penny will send me a copy of the corrected text for me to check and a list of my books and publications they now have (that used to be in the Kalm-Seaborg Room) so that I can send them additional books and publications to update this collection.

I then attended the luncheon in the same basement room with members of the Board of Governors of the American Swedish Historical Foundation and Museum. I sat at a table with Edwin Broden, Chairman, former Governor of Vermont Joseph B. Johnson (about 25 years ago, now 87 years old), and his grandsons, Donald and Peter Welch (in their 20's) and J. Rodman Steele, Jr. (a Governor of the Foundation and Museum and a former basketball player). We then went up to the ground floor

**ANNUAL MEETING
OF THE
AMERICAN SWEDISH HISTORICAL FOUNDATION AND MUSEUM
FRIDAY, MAY 23, 1980 AT 2:00 PM
1900 PATTISON AVENUE
PHILADELPHIA, PA**

Introductory Remarks

**Edwin Broden, Chairperson,
Board of Governors**

**Program: "1758 Swedish Ship's Bell"
Gift to Museum by Joseph Johnson**

**Penelope Batcheler, Chairperson,
Museum Committee**

Business Agenda:

**Report of Executive Committee
Reports of Standing Committees
Women's Auxiliary
Friends of the Museum
Midsommar Klubben
Report of the Nominating Committee
Election to Board of Governors
Adjournment**

QUARTERLY MEETING OF THE BOARD OF GOVERNORS

**Election of Officers
Election of Executive Committee
Other Business
Adjournment**

meeting room to attend the Annual Meeting of the American Swedish Historical Foundation and Museum. This ran from 2 p.m. to 3:30 p.m. and the agenda (attached) was followed. Joseph Johnson presented a 1758 Fahlsten Bell, made in Stockholm, from the ship "Habile" to the Museum with participation by his grandsons. Broden called on me for some remarks and I mentioned the planned reconstitution of the Kalm-Seaborg Room, then described the history, aims and planned program of the Swedish Council of America, mentioning the Nobel visit award and the planned Swedish Heritage Awards to be given at a banquet in Minneapolis on October 24. The Governors and Lynn Malmgren then went back down to the basement room to attend the Quarterly Meeting of the Board of Governors from 3:30 p.m. to 4 p.m. Present were E. Broden, A. Bailey, P. Batcheler, S. Borei, R. Gato, I. Greenspan, H. Hammarskjold, R. Holm, L. Jones, W. Nyborg, S. Pfaff, W. Sachs, E. Tornqvist, B. Wilson, L. Malmgren, A. Sterud, and me. The following officers were elected for the coming year: Edwin R. Broden (Chairperson), Ragnihild Holm (Secretary), Agneta Bailey (Treasurer), Robert Erickson & Joseph Rambo (Vice Chairpersons), and Gosta Baeckstrom, Penelope Batcheler, Bengt Jansson, Leonard Lilyers, Ethel Mos and Jussi Saukkonen (Members-at Large).

I talked to member Ann Kristen Sterud, from the American Institute of Archeologists in New York, who has a special interest in the Museum. (She was a leading contender for the directorship when Lynn Malmgren was chosen). She will probably be involved in a sought-after grant from the federal government (Humanities Endowment) to be used to study and plan the potentials of the Museum.

Lynn Malmgren, who told me she is a lawyer and is married to a lawyer (she was born in Sweden, came to the U.S. with her parents at the age of 2), drove me back to the Philadelphia Airport. She told me she hopes to be one of the two Foundation and Museum representatives on the Board of Directors of the SCA (Ed Broden is the other one) and she hopes to effect a greater cooperation between the SCA and the American Swedish Historical Foundation and Museum.

I boarded TWA flight 431, which left at about 5:15 p.m. and arrived at Chicago (O'Hare) Airport at about 6:15 p.m. I walked to the Butler Air Terminal and after waiting in line under chaotic conditions finally managed to board Mississippi Valley Airlines flight 355, which left at about 8 p.m. and arrived at Cedar Rapids Airport at about 9 p.m.

Lynne and Bill met me and drove me (about 20 miles) to their home in Iowa City (914 Dewey Street) where I spent the night.

Saturday, May 24, 1980--Iowa City

John Holzrichter of LLNL called to invite me to give a talk on energy to the LLNL Fusion Group on Thursday; I accepted.

I had breakfast at their home with Lynne and Bill. After breakfast I called Eleanor Jared (in Golden, Colorado) to arrange to have dinner with her at the Denver Airport tomorrow night.

I took a long walk with Lynne and Bill. We walked to the University of Iowa (situated on the banks of the Iowa River). We visited the University of Iowa Hospital, where Bill works, and the Hospital School and Pediatric Department where Lynne is doing her postdoctoral work on infants with Professor Dennis Harper. Lynne told me she could have a position as an Assistant Professor here a year from now if she should want it; it is doubtful that she wants it.

We walked on to the downtown section of Iowa City where we had lunch at Bushnell's Turtle. We then continued our walk, returned to their home at about 3 p.m. Lynne and Bill then went out to do some shopping, etc., while I remained at home reading.

I had dinner (charcoal grilled steak) with Lynne and Bill. Lynne called Helen who told her about her trip with Dianne to our house in Strawberry Heights to clean it up, etc.

Sunday, May 25, 1980 -Iowa City/Rock Island/Denver/San Francisco

I rode with Lynne and Bill to Moline to Bill's mother's home (Lucile Beling) at 3601 7th St., where we had breakfast, then took a walk around the 11-acre grounds to see the various trees and plantings. We loaded into Lynne and Bill's Volvo about 30 stepping stones for use at their home in Iowa City.

Lynne, Bill, Lucile and I rode in Lucile's car to Augustana College in nearby Rock Island. Here we went to the College Center for the pre-Commencement luncheon. We met Professor and Mrs. M. A. Eliasson (Ellen's parents--he is a professor of chemistry and incoming chairman of the six member Department of Chemistry). The Eliasson's walked with Lynne and me across the quad to Wallberg Hall where we visited Room 102, the lecture room where I talked when I visited Augustana College in December 1945. (Wallberg Hall was built in 1936, Professor J. P. Magnusson taught at Augustana College from 1907 to 1946, when he died during a chemistry lecture.)

At lunch in the dining room of College Center Lynne, Bill, Lucile and I sat at a table with the Eliasson's and Professor and Mrs. Robert Berntsen (he is a professor of chemistry at Augustana College). I talked to President Thomas Tredway, Frank F. Telleen, Director of Information Services (he received the copy of my Commencement Address I sent him) and former President Conrad Bergendoff. Bergendoff recalled that he introduced me when I spoke on "Science and Liberal Education in the Space Age" my Centennial Lecture at Augustana College in 1959. Eliasson also met me at that time.

After lunch I was interviewed by Dave Schechter of the Quad City Times on the status of nuclear power and on my Commencement Address. Then Lynne, Bill and I took a walk to the nearby house where Bill lived during the first 4 1/2 years of his life (807 41st St.). We also visited the nearby park where he used to play.

Lynne, Bill and I then returned to the Augustana College campus. I went to

Centennial Hall to robe for the Commencement (the One-Hundred-Twentieth Annual Convocation). Here I gave to Mel Peterson (professor of chemistry) a copy of my Commencement Address "Knowledge for Survival" to pass on to Dr. Anne Boaden, Editor of the Augustana Bulletin (college magazine) for publication.

I donned a cap and gown, marched in procession with faculty, officers and graduating students to Carver Physical Education Center, where the Convocation (Commencement) was to be held. Early in the program I was given a two or three sentence introduction by President Thomas Tredway, after which I gave my address "Knowledge for Survival." I began with references to my visit to Augustana College more than 33 years ago, at the invitation of the grand old man of chemistry, Professor J. P. Magnusson, to give a talk in Wallberg Hall, my participation in the Centennial program of Augustana College about 20 years ago, and the pleasant role of Mrs. Seaborg and me in serving as escorts for Ellen Eliasson, winner of the Nobel Visit Award, for her visit to Stockholm last December to witness the Nobel Ceremony. I spoke for about 15 minutes and it seemed to be well received.

The program, which started a little after 3 p.m. was finished a little before 5 p.m. Lynne walked with me to the Eliassons' car, we said goodbye, then I rode with the Eliassons to the Moline Airport. Here I boarded United Airlines flight 991, which left at about 6 p.m. and arrived at Denver Airport at about 7:20 p.m. I had dinner in the Airport restaurant with Eleanor Jared, then boarded United Airlines flight 179, which left at about 9:30 p.m. and arrived at San Francisco Airport at about 10:45 p.m. Helen met me and drove me home.

Monday, May 26, 1980--Lafayette

I spent much of the day reading the mail, papers, articles, etc., that accumulated during my absence.

Helen, Dianne and I had lunch in the playroom.

In the late afternoon I took a hike to and along Lafayette Ridge and back.

Helen, Dianne and I had dinner in the playroom, while watching television news.

I returned a call from Algo Henderson declining his invitation to give a talk to his group.

I worked in the study on my accumulated mail, etc., during the evening.

Tuesday, May 27, 1980--Berkeley

At 8:45 a.m. I met with Robert Poe who serves as an Administrative Assistant to Congressman George Brown. He is here to explore possible ways in which Congressman Brown can be of help to LBL.

At 9 a.m. I rode with Dick Faria (Assistant Controller of Kevex) to the Kevex Corporation headquarters in Foster City to attend the meeting of the Audit Committee. Present at the meeting were: Hunter Simpson, who served as Chairman, Michael Hayes, a partner, Coopers & Lybrand, Richard Moranda, Victor Young (both also from C&L), Dick Frankel and Paul Baker. We followed the agenda (attached). Everything seemed to be in order. The meeting which started at 10 a.m. concluded at 11:15 a.m.

After the meeting I met with Hunter Simpson and Dick Frankel to discuss the need to add additional members to the Board of Directors of Kevex. We agreed that I should call Bill Hewlett of Hewlett-Packard, to explore with him the possibility of his accepting a position as Director on the Board of Directors of Kevex. The data on the earnings of Kevex for the current fiscal year will be released on September 19, 1980 and the Annual Report will be released on October 3, 1980. The next meeting of the Audit Committee will be at 10 a.m. on Thursday, September 18, 1980.

I then rode back to my LBL office with Faria, arriving at about 12:15 p.m.

David Shirley sent a LBL Administrative Memo to LBL personnel reporting that Andrew Sessler's recent operation for a non-malignant brain tumor was entirely successful and he is on the road to recovery.

In the mail today was an editorial from Industrial Research & Development, May 1980, which mentions my name (attached); there was also an article from the Hexagon Spring 1980 issue, regarding the Robert A. Welch Foundation Scientific Advisory Board (attached). I returned a form to the Journal of the American Chemical Society indicating that I will review the book: Actinide Separations by Navratil and Schulz. I also prepared a statement to be used in publicity material for the National Conference on Energy Advocacy (attached). I agreed to the use of my name as a supporter of the American Nuclear and Education fundraising program for Public Information.

I had lunch in the cafeteria along with Bernie Harvey and other NSD members, with the members of the Nuclear Physics Delegation from the People's Republic of China: Li Shounan (Head of the Delegation, Deputy Director, Institute of Atomic Energy, and whom I met during my visit to his Institute in 1978), Ding Dazhao (Senior Physicist, Institute of Atomic Energy), Hu Jimin (Professor, Department of Technical Physics, Beijing University), Lin Jinlong (Engineer, First Ministry of Machine Building), Xu Wangjin (Engineer and Section Chief, Fifth Bureau), and Cheng Xiaowu (Senior Physicist, Shanghai Institute of Nuclear Research). Their two U.S. escorts were also in attendance: John Allred (LASL) and Peter Fu (ORNL). The Delegation has visited a number of nuclear physics laboratories in the U.S. with the purpose of arranging an agreement for cooperation in nuclear physics.

At about 3:30 p.m. I went by Building 70 to talk to Ken Moody, Pat McGaughey, Diana Lee, Yoshi Morita and Marty Schulman about their work.

I then participated in a photo session with members of the NSD, David Shirley,

5/27/80

KEVEX
AUDIT COMMITTEE
PROPOSED AGENDA

1. INTRODUCTIONS
 - A. Audit Committee Members
 - B. C & L Management, Audit Team
 - C. Management
2. MANAGEMENT'S PRESENTATION OF 3rd QUARTER INTERIM RESULTS
3. OVERVIEW OF THE KEVEX-COOPERS & LYBRAND RELATIONSHIP
4. AUDIT SCOPE
 - A. Planning and Audit Cycle
 - B. Audit Approach and Coverage
 - C. Reporting Deadlines
 - D. Taxes, ABC, BTSC
5. MANAGEMENT LETTER COMMENTS
 - A. Prior Year Accounting Issues
6. RESPONSIBILITIES AND REQUIREMENTS OF AUDIT COMMITTEE
 - A. Reporting Requirements
 - B. Policies & Procedures
7. QUESTIONS & ANSWERS

EDITORIAL

The world loses a friend it never knew

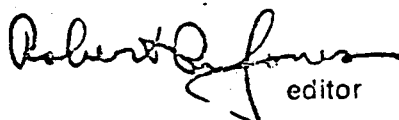
THE INSTITUTE for Scientific and Technological Cooperation (ISTC) is dead. It is dead without ever having lived. Except that it lived in the hearts and minds of people who dreamed of the day when ISTC would be the means of bringing technology and scientific developments to people in the poorer, less-developed countries. Unlike so many earlier, similar-sounding ideas, ISTC was designed to help strengthen the internal capacity of aided countries to apply this information and make its results tangible and lasting.

President Carter proposed ISTC in March of 1978, and in a brief time (by lawmaking standards) it had been passed by the House of Representatives. Passage by the Senate was assumed by many to be a foregone conclusion. And why not? The goals were laudable: "The ISTC will encourage and support cooperative efforts among scientific and technological institutions in the U.S. and developing countries . . ." the administration had said. "It will operate as a catalyst and grant funds in support of organized problem-solving efforts. It will address problems of a global nature—energy alternatives, better resource management, environmental considerations—which affect a broad spectrum of society." How could it fail?

While the United Nations haggled over the controversial code of conduct governing technology transfer through UNCTAD and UNCSTD—two proposals in which the volatile factors of detente, corporate profits, and even national security seemed to be meeting head on—the United States would be setting the example for beneficent technology transfer with passage of ISTC. Nobel laureate and former AEC director Glenn Seaborg, speaking to the joint meeting of the chemical societies of the U.S. and Japan, described ISTC as "an important instrument of cooperation and development," and said, "[By] sharing our knowledge, our resources and our skills in science and technology, it will be a brighter future for all. This is the way we must go. If we do, the best times lie ahead." How could it fail?

It fell victim to a myopic senator from Arizona, Congressional economies, and in-fighting within the administration. The Senate, expected to pass the ISTC provisions in the foreign aid bill approved by the House, instead passed an amendment introduced by Sen. Dennis DeConcini (D-AZ) to eliminate ISTC from the bill. Following that blow, the wounded ISTC embryo was sent to a conference committee where it eventually was given a token \$12-million authorization and placed in the hostile Agency for International Development. "There are those in AID who simply don't want to have it (ISTC) in existence," said a knowledgeable official who requested anonymity. "The original concept simply won't flourish over there," he said. That is partly the reason that the original plan had called for ISTC to be an autonomous agency which would be run by professionals, not by politicians.

In March, following a series of attacks by DeConcini and others opposed to ISTC, it became apparent that the issue was dead—and the administration, for all intents and purposes, threw in the towel. But more than an issue was dead. A dream had died. The brighter future for all was dark. A friend the world never knew had been aborted at the hands of expediency.


editor

DISTINGUISHED AMERICAN CHEMISTS

Peter J. W. Debye Tau '40

by William O. Baker

INTRODUCTION

Dr. Glenn T. Seaborg: At about this time last year, I had an occasion to ask my secretary to put through a call for me to William O. Baker. A few moments later I heard her exclaim, "Holy smokes!" It turns out that the President of Bell Telephone Laboratories had just answered his own phone. If you've read the biographical statement about him in our program, perhaps someone can explain to me how he can be so short-handed and still get so much done.

I first became well acquainted with Dr. Baker in the 1950's when we served together on the President's Science Advisory Committee. Our paths have crossed in many capacities since that time, but I suppose the one we have enjoyed the most is the Scientific Advisory Board of the Welch Foundation.

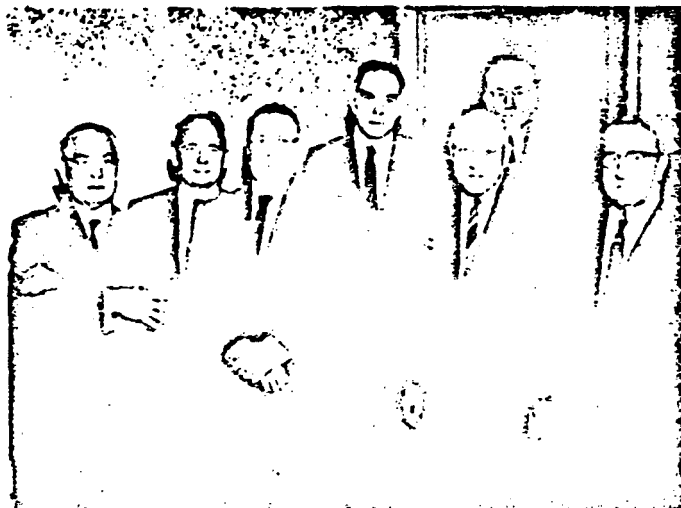
Dr. Baker is a scientist of uncommon breadth and influence. He has been an outstanding physical chemist and telecommunications research leader who has done much to broaden chemistry's industrial applications and practical value to the nation. Furthermore, he has been a persevering, energetic spokesman for the scientific community in advising legislators and federal policy-makers on the measures required to encourage and permit maximum technological progress in the United States.

Throughout his career, he has served in advisory capacities to the Federal Government and national scientific organizations—a few of which are listed in his biographical statement. Among the honors he has received, one that is not mentioned

*EDITOR'S NOTE

*As part of the Bicentennial observance in the United States in 1976, The Robert A. Welch Foundation, created under the will of Robert Alonzo Welch for the purpose of encouragement and support of basic chemical research within the State of Texas, sponsored its XX Conference on Chemical Research, "American Chemistry-Bicentennial." At that Conference, distinguished speakers recounted the contributions of eleven distinguished American contributors to chemistry. Of these eleven, four were members of Alpha Chi Sigma.

Through the gracious cooperation of the Foundation and the authors, permission has been granted to reproduce the presentations of the lives and works of the four brothers, Wallace Hume Carothers, Zeta '26, Gilbert Newton Lewis, Sigma '33, Peter J. W. Debye, Tau '40, and Roger Adams, Omicron '12. The first article, on Wallace Hume Carothers, was published in the Winter 1979 issue of THE HEXAGON, the second, on Gilbert Newton Lewis, in the Spring 1979 issue, the third, on Roger Adams, in the Autumn 1979 issue.



Scientific Advisory Board of The Robert A. Welch Foundation in early years. Left to right: P. J. W. Debye, Henry Eyring, Arthur C. Cope, Glenn T. Seaborg, Wendell M. Stanley, Roger Adams. (Figure 1.)

here is one of the highest in chemical science—namely, the Gold Medal of the American Institute of Chemists in 1975. The Medal is awarded to "stimulate and recognize service to the science of chemistry or the profession of chemist or chemical engineer." I know you will agree with me that Dr. Baker adds distinction to the list of recipients.

I am now pleased to turn the lectern over to him for his discussion of the contributions of "Peter Joseph Wilhelm Debye"—who, by the way was a long-time member of the Welch Foundation's Scientific Advisory Board. Dr. Baker.

The high privilege of speaking about the role of Professor P. J. W. Debye in this anniversary year of America and its chemistry is even enhanced in reference to The Robert A. Welch Foundation because of Debye's long and cherished service as a member of the original Welch Foundation Scientific Advisory Board. In warm fellowship with Drs. Milligan, Eyring, Seaborg and others to be hailed at this meeting, he helped the Welch Foundation trustees begin a new venture in American chemistry. He found the state of Texas appealing, and the famous hospitality of Houston in warm and strong harmony with his own congenial and cosmopolitan ways. So, like so many of us, he came to regard his work with Dr. Milligan and the Welch Foundation as a vital part of his American experience, indeed suitable for a Bicentennial tribute by us here.

While complete recognition of Professor Debye's work would take a vastly longer time than we have, and could be beyond this reporter's reach, there have already been some expert biographical records of his principal work, which we are thankful to have. There is also a volume of 51 papers selected by Debye himself, *The Collected Papers of Peter J. W. Debye*, published in 1954 by Interscience. As to biographical memoirs, they start with those of his colleagues and friends: F. A. Long of Cornell, *Science*, 155, 979 (1967); and H. S. Sack, *Journal of*

Statement of Glenn T. Seaborg
Prepared for 2nd National Conference on Energy Advocacy

We are confronted with a national energy problem so serious that we may never again take our energy supply for granted. The 2nd National Conference on Energy Advocacy offers a much needed means to help the American people understand the seriousness of the problem. Our situation stems from our shortage of domestic supply of oil and gas and our consequent requirement to import these, resulting in a crippling outflow of dollars and a threat to our political autonomy and strategic security. We must develop an energy conservation ethic in the United States but we must also develop new sources of energy supply. Realistic appraisals of the future supply situation leads to the conclusion that nuclear power and coal are the only sources that can make appreciable additional contributions within the next decade or two. We need, as a nation, to evolve a coherent and realistic energy policy necessary for ensuring the continuing and sufficient domestic supply of energy so vital to our well-being and to the very survival of our economy.

Earl Hyde, Hermann Grunder and the PRC Delegation in Bldg. 70A Conference Room and outside the building.

At 4:50 p.m. Kjell Lagerstrom called from the American Association of Swedish Engineers, regarding the John Ericson Medal. He is concerned because of incomplete information on two candidates for the award--John Eric Jonsson and Kenneth Olsen. We discussed what is known about these two people and I gave him some names at Texas Instruments to check for more information on John Eric Jonsson.

On the way home I attended a reception, in room 191, Bldg. 70, for the Chinese nuclear physics group.

Helen and I had dinner in the playroom. After dinner I worked in the study.

Wednesday, May 28, 1980--Berkeley

At 10:20 a.m. I called William R. (Bill) Hewlett, of Hewlett-Packard in Palo Alto, and invited him to become a member of the Board of Directors of Kevex. He thanked me for the invitation, said he was complimented by the offer, but explained that he is semi-retired and has over committed himself. Further, he has recently accepted the chairmanship of the Carnegie Institute in Washington, D.C. Therefore, he declined our offer. He also cited a possible conflict of interest. I then called Dick Frankel and told him of this conversation.

I held the regular biweekly luncheon meeting of my heavy ion radiochemistry group in my office from noon until 1:30 p.m. Present were Al Ghiorso, Pat McGaughey, Ken Moody, Rose McFarland, Robert Welch, Yoshi Morita, Saburo Yashita, Michael Perry, Marty Schulman, Diana Lee (who left early), Pat Somerville. Rose McFarland reported on her recent ^{244}Pu plus ^{18}O bombardment. In the recoil fraction (no chemical separation) she found only a low level of spontaneous fission, setting a 1 nb limit on the yield of ^{256}Es (+ ^{256}Fm). Similarly a low limit was set on the yield of ^{255}Cf . This leads Ghiorso to believe the 1.5 second S.F. activity from ^{248}Cm plus ^{18}O must be assigned to ^{262}Lr (159 neutrons) rather than ^{259}Fm . Pat Somerville reported on the half-life, now set at 23 ± 2 ms, of the S.F. isotope produced in the ^{249}Bk plus ^{15}N reaction. Robert Welch reported on the yields of Am isotopes from ^{248}Cm plus ^{136}Xe : $247, 9.1 \pm 4.0$ mb; 246 (25 min.), 1.7 ± 0.3 mb; 246 (39 min.), 1.9 ± 0.5 mb; 244 , 0.95 ± 0.18 mb. Saburo Yashita reported on negative results in looking for products, with SASSY, from the ^{175}Ln plus ^{40}Ar reaction. Al Ghiorso mentioned the possibility of upgrading the energy of the SuperHILAC beams by adding a simple cryogenic extension. We also discussed means of using the planned U beam without degrading its energy so that it can be effective on heavy actinide targets.

I met from 2:30 p.m. to 3:30 p.m., along with Al Ghiorso and Bernie Harvey, in the Conference Room in Building 88 with Li Shounan, Ding Dazhao, Hu Jimin and Cheng Xiaowu to discuss a possible program in nuclear physics and nuclear chemistry that might be introduced into the People's Republic of China. We described the advantages of people trained in chemistry doing research in nuclear science (i.e., nuclear chemists).

I talked with Ben Loeb who advised that Averell Harriman called the person in the State Department to get clearance on the use of the State Department cables in Chapter 18 of "Kennedy, Khrushchev and the Test Ban, and Eyewitness Account." Harriman could not get clearance. Thus, Ben can paraphrase the cables or on the basis of another conversation with a historian in the State Department, Loeb might be able to get the cables under the Freedom of Information Act. We decided to pursue the latter course and Loeb will put in the request tomorrow.

At 4 p.m. Steve Brown came in to discuss the effect of Proposition 13 on the EBRPD in connection with a paper he is writing. I commented on a number of remedies that he suggested and finally told him that the only viable remedy I know of is for the State of California to give financial support to the EBRPD. He stayed for about 15 minutes.

I returned four signed copies of the Memorandum of Agreement with the University of California Press for publishing my book, "Kennedy, Khrushchev and the Test Ban: An Eyewitness Account." (to Sheila Berg, Editor). I wrote a note of thanks to Robert M. Lynch (President, A. Johnson & Company, New York) for his gift of \$500 to the Swedish Council of America.

At 5:30 p.m. I talked with Paul Phillinger, the person in charge of arrangements for the 40th anniversary of Acalanes High School. The ceremony begins at 7:45 p.m. on Saturday, May 31st. A Master of Ceremonies will begin by introducing alumni, administrators, etc. Dick Hansen, the principal, will present a citation (plaque) to Dick Lord who has been a teacher at Acalanes for 38 years, and then he will introduce me. I will present a commemorative plaque to Margaret Nicholson who has been a teacher at Acalanes since it opened its doors 40 years ago. She is known as "Miss Nick"; according to Phillinger "...hers has been a fantastic example of loyal, dedicated service...a very inspirational person, in acknowledging her we are testifying that she personifies the whole spirit of education in our community." "The school ranks very high scholastically in the State and it all works because of people like Ms. Nick." He said my presentation to her does not need to be very long, a minute or so, and asked me to give any anecdotes I may have about her career. Miss Nick will then respond to my introduction.

I had dinner in the O'Neil Room of the Faculty Club with the members of the PRC Nuclear Physics delegation--Li Shounan, Ding Dazhao, Hu Jimin, Lin Jinlong, Xu Wangjin and Cheng Xiaowu, along with Bernie Harvey, host, Joe Cerny, Dick Diamond, John Rasmussen, Bill Myers, David Clark, Howel Pugh, Tom Elioff and Peter Fu. After dinner Harvey made welcoming remarks and presented each of the six visitors with a picture of the Bay Area and a descriptive book on California; Li Shounan responded with a warm speech. There were many toasts for friendship and cooperation.

I arrived home at about 8:15 p.m. and Helen, who had attended a YMCA dinner meeting, arrived soon thereafter.

Jaime and Blanche Merino called to say they will not be home during our visit to West Los Angeles next week so they cannot play host to us in their home.

Thursday, May 29, 1980--Berkeley

I was picked up by John Holzrichter at my Lafayette home at 8 a.m. and we drove to the Castlewood Country Club where we arrived at about 8:30 a.m. Here I was scheduled to talk to a group of about fifty people working at LLNL on laser fusion. I met before the program started with John Nuckolls, the Associate Director of LLNL in charge of laser fusion, Carl Haussmann, Associate Director at Large at LLNL and John Hunt, the organizer of today's program. John Holzrichter also works in the LLNL laser fusion program.

The program began at about 8:45 a.m. with John Hunt introducing Carl Haussmann who made a few remarks explaining the importance of meetings like this to give the participants in laser fusion research a better view of the overall picture. John Holzrichter then introduced me and I spoke for about 30 minutes on the topic listed on the agenda (attached)--"National and International Fusion Scene". I explained that my talk was more along the lines of a description of the national and international energy scene. I described the dimensions of the energy problem, national and international, and then described the six sources of energy that are needed to make a contribution to the solution of the problem. My talk was followed by about 15 minutes of questions and answers.

After my talk I rode back to my Lafayette home with Loren Gardner where I picked up my car and drove to my LBL office where I arrived at about 11 a.m.

I received a very nice letter from James Clark (Director of University of California Press). He wants to be personally involved so that the Berkeley office can insure that the manuscript can receive all the time and attention it deserves. He also mentioned that I signed his diploma when I was chancellor and therefore anyone who would do that deserves all that he had to offer. I also received an interesting letter from Yugoslavia from the Jovia Vuckovic Museum of Autographs (attached). I wrote to the Pony Express Museum (Don L. Reynolds, Assistant Director) to request a print of a photograph of Strawberry taken many years ago which I viewed during my visit there on March 10th. I responded to a letter received from John Bryan Starr, regarding a reunion meeting of the panel to study US-China Relations of the United Nations Association of the USA.

At 11:20 a.m. I was able to reach Kjell Lagerstrom at his office (SAAB USA, New York) in connection with the John Ericsson Medal Award. He talked with people in public information at Texas Instruments, regarding John Eric Jonsson, as well as Jonsson's secretary who confirmed the fact that Jonsson's parents were both born in Sweden and emigrated to the U.S. where Jonsson was born. He also talked with Frederick Seitz about Jonsson's technical background. Everything points to Jonsson's eminent qualifications to receive the Medal award. Lagerstrom will contact Jonsson to see if he is willing to accept the award which will be presented about noon on August 1,

AGENDA FOR TEAM BUILDING MEETING

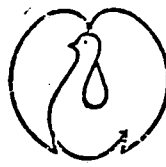
AT CASTLEWOOD COUNTRY CLUB

THURSDAY, MAY 29

- 8:30 Preparation
- 8:45 Introduction - C. Haussmann
- 9:05 National and International Fusion Scene (MFE & ICF)
G. Seaborg (30 min. talk, 15 min. Q & A)
- 9:50 MFE @ LLL - D. Post (30 min. talk, 15 min. Q & A)
- 10:35 Break
- 10:50 Target Design - J. Nuckolls (25 min. talk, 10 min. Q & A)
- 11:25 Fusion Experiments - L. Coleman (25 min. talk, 10 min. Q & A)
- 12:00 Lunch
- 1:30 Group Problem Solving Exercise - K. Barnes
- 4:30 Session Complete

FRIDAY, MAY 30

- 8:30 Fusion Reactor Concepts - M. Monsler
- 9:00 Nova - W. Simmons/R. Godwin (30 min. talk, 15 min. Q & A)
- 9:45 Short Wavelength - M. Campbell (30 min. talk, 15 min. Q & A)
- 10:30 Break
- 10:45 Identify Concerns - K. Barnes
- 12:00 Lunch
- 1:30 Panel Discussion/Q & A - J. Holzrichter, J. Hunt, W. Downard,
S. Egan, and T. Groves or D. Bryson
- 2:30 Group's Develop Recommendations to LLL Management - K. Barnes
- 3:30 Group's Report Recommendations to LLL Management - K. Barnes
- 4:30 Session Complete



Jovica Vučković Museum of Autographs

Cetinjska 1/1 · 35210 Svilajnac · Yugoslavia

May 17th, 1980

PROFESSOR GLENN T. SEABORG,
E.A., PH.D.
U. S. A.

Dear Professor Seaborg,

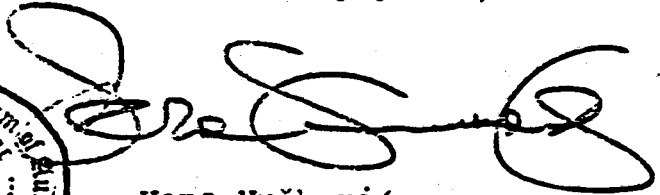
I am writing to you on behalf of the Museum which was established in 1965 as an uncommercial institution for the collecting and preservation of autographed historical documents, literary and musical manuscripts, books, photographs, letters etc. related to distinguished personalities from all times and in every field of human activities.

We should be very glad and honoured if we could have your name included in the Museum. We, therefore, please you to send us a copy of your handwritten autograph, in any form you like, and if it is possible, any available your photograph. We shall appreciate any material you send us.

Hoping that you shall understand our wish and fulfil our request, we send you our warmest regards and look forward to hear from you soon.

Most sincerely yours,




Vera Vučković,
Museum Foundress

at the John Ericsson statue in Manhattan which will be followed by a ceremonial luncheon. I said I will try to arrange my schedule to attend. We also discussed the possibility of Eric Tornquist being a candidate for the Medal at some future time. Since they have been successful in raising \$4000 to cover the cost of this award and ceremony, I will wait and send in a contribution the next time it is needed which may be about two or four years from now.

I had lunch in the lower level of the cafeteria with SEAC Committee members Kenneth Pitzer, Thomas Everhart, Lester Hogan, William F. Ganong, Roderic Park, George Vineyard, John Reynolds, George Masek, and also David Shirley, Earl Hyde and Associate Directors Robert Birge, Joe Cerny, Thomas Eliooff, William Lester, Robert Cairns, Ray Wakerling and George Pappas.

At 1:45 p.m. I attended a meeting of the NSD Program Committee in Building 70A Conference Room. Present were: Joe Cerny, Homer Conzett, Howell Pugh, Richard Diamond, Frank Stephens, David Clark, Matti Nurmia, Bernard Harvey, Robert Stokstad, Janis Dairiki and Michael Zisman. We followed the agenda (attached). Annual Report Editors will be William Myers, Robert Stokstad, Michael Nitschke, and Erwin Friedlander. It may be necessary to shut the SuperHILAC down from August 11 until the end of the fiscal year, October 1. There is also the possibility that there will be a level budget for FY81, that, is no increase in funding. In connection with suggestions for new members of the NSD Visiting Review Committee, I suggested Vic Viola.

At 3:40 p.m. I talked with Kevin Nelson, writer for City Sports magazine. He asked me numerous questions about HikaNation, the background and purpose of the hike, the route through California, my role in coordinating the California portion of the hike, the status of the hike at the present time, etc. He will send me a copy of the story.

I agreed to address High School and College science teachers and students at the time of the ACS Atlanta meeting (March 29, 1981). The Council Committee on Public Relations and the Georgia State Department of Education are co-sponsors. Frank Bigger requested this by telephone today. Joe Teague, Engineering and Technical Services Division, who has been working on the SLACK project, came in at about 4 p.m. to ask me some questions relating to the migrations of ions in water.

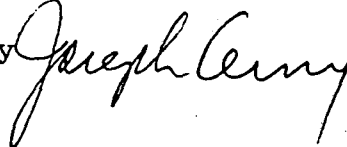
I drove up to the Space Sciences Laboratory at about 4:20 p.m. to attend the program for the dedication of the Laboratory as the Samuel Silver Space Sciences Laboratory. William A. Shack (Dean, Graduate Division) presided over the program. Speakers at the program are P. Buford Price (Director, Space Sciences Laboratory), William B. Fretter (Vice President of the University), John R. Whinnery (Professor, Department of Electrical Engineering and Computer Science), and George J. Maslach (Provost, Professional Schools and Colleges). I arrived somewhat late so that I did not hear Buford Price's talk but I was told he made references to my role as Chancellor in planning for and obtaining NASA approval for the funding for the Laboratory. At the end of the program, Mrs. Samuel Silver unveiled a dedicatory plaque and portrait.

After the meeting I talked to William Shack, Buford Price, John R. Whinnery and George J. Maslach. I thanked Dean Shack for his letter describing his intention to try to

22 May 1980

TO: Program Committee

FROM: Joseph Cerny



The next Program Committee meeting will be Thursday, May 29th, 1:45 p.m., in the Building 70A Conference Room.

AGENDA

- 1) FY'80 & 81 Budgets, Scientific Overhead
- 2) Power *Supplies*
- 3) Physics Department Review Committee
- 4) Select new members for the Visiting Review Committee
- 5) Appointment of Annual Report Editors *Meeting*
- 6) Performance Evaluations *Meeting*
- 7) Wrap up on Chinese visit (B. G. Harvey)

increase the Regents' Opportunity Fund contributions to the LHS. I also told him that I am sending him a letter signed by myself and members of the LHS Advisory Committee asking for an expedited action to repair Centennial Drive to put an end to the serious adverse impact the blockage of this road is having on LHS.. I also talked to Marjory Silver, who earlier had unveiled a dedicatory plaque and portrait of Samuel Silver in the foyer of the Laboratory. I also talked to Dan Silver. Dan, the son of Samuel and Marjory Silver, was editor of the Daily Cal during one of the years while I was Chancellor. He was a rather militant person at that time and gave me some trouble and we recalled those days in our conversation with amusement. Dan told me somewhat sheepishly that he is the General Counsel for the CIA now.

Helen and I had dinner in the playroom and I worked in the study after dinner.

Friday, May 30, 1980--Berkeley

At 8:35 a.m. I called Gordon Bixler to go over some accumulated items pertaining to the IAC and ICS. We discussed Al Zettlemoyer's letter regarding Jesse Hwa; I will respond to Al. I will also mention my hope that Al will attend the XIV Latin American Chemical Congress in February 1981. Gordon will contact Bob Parry today to find out if he will attend the Global Seminar on the Role of Scientific and Engineering Societies in Development in New Delhi in December 1980. If Parry cannot make the trip, then Cyril Ponnampuruma is our second choice and following him, Harry Szmant. We discussed Eneberg's report on the "chemistry center" which is very intriguing as it pertains to an ICS; many of the things they propose are things that I have suggested in connection with the formation of an ICS. I suggested to Gordon that when he distributes this material to IAC membership he bring this fact to their attention. We also discussed the material Polly Newman recently sent from the Tokyo Office of the Office of Naval Research and our desire to keep in contact with Dr. Rudolph Marcus; the status of the Egyptian workshop proposals, the IAC budget which Gordon is now preparing and the report of the IAC for the August ACS meeting, the Niederhauser letter regarding potential problems concerning future international ACS meetings, etc. Gordon will be on vacation next week.

At 9:45 a.m. Sheila Berg (Editor, UC Press, Los Angeles) came in to talk with me about my manuscript, "Kennedy, Khrushchev and the Test Ban: An Eyewitness Account." We went over some details of the publishing of the book and I gave her two copies, one of which she will give to Harlan Kessel.

At about 10:30 a.m. I talked with Pat Anderson (Personnel Office, General Atomic) regarding Marilyn Rodder. Ms. Anderson asked the routine questions, i.e., how long Marilyn worked for me, the nature of her work, technical skills, accuracy, learning ability, attitude, etc. I gave Marilyn a good recommendation, said she had a lot of initiative, was highly motivated and did quite well in her work with my research group. I said I would rate her as a 7 or 8 on a scale of 1-10.

I went by Building 70 to talk to Diana Lee, then had lunch in the cafeteria with Diana Lee, Ken Moody, Pat McGaughey, Rose MacFarland and Yoshi Morita. Diana

and I discussed a problem that Luo Cheng might work on alone--U plus light heavy ions to get yields of Am, Cm, Bk isotopes. I also talked to Bob Silva about Won Mok Jae's inactivity; he will try to get him started again.

At 1:45 p.m. I walked down to Latimer Hall to pick up my mail.

At 2 p.m. Rose McFarland came in to discuss her research program. I urged her to concentrate on the ^{244}Pu plus ^{18}O and ^{22}Ne reactions.

From 3:30 p.m. to 4:30 p.m. I met in Building 70 with Ken Moody, Rose McFarland, Pat McGaughey, Marty Schulman, Michael Perry and Robert Welch for a general discussion. I also talked to Luo Cheng about the experimental program on ^{238}U plus light heavy ions we have planned for him.

In the mail today I received the copy of American Scientist containing my article "The New Elements." I sent a letter to Dr. A. C. Zettlemoyer in answer to his of May 14 suggesting a Vice Chairmanship of the Committee on International Activities for Jesse Hwa; I wrote to Warren Niederhauser in answer to his letter of May 16th regarding international scientific meetings of the ACS; and a letter went out today to Dean William Shack regarding the problems for the Lawrence Hall of Science due to the closure of Centennial Drive. This letter was signed by me as Chairman of the LHS Advisory Committee and also signed by many members of the Committee (attached). I declined an invitation to address the Mark Twain Birthday Banquet on November 30th in Kirkwood, Missouri.

Helen and I had dinner in the playroom. After dinner, in the study, I read proof on the final copy of "Kennedy, Khrushchev and the Test Ban: An Eyewitness Account."

Tonight Helen and I received a call from Jeannie Harmon who is now in Warm Springs, Nevada with the HikaNation hikers. The group had reached Warm Springs on Thursday and were starting out again tomorrow. Jeannie reported that there are 40 definite through hikers and then another 6 or 7 hikers who joined for the Nevada portion. The hikers have now hiked 535 miles up to that point (Warm Springs, Nevada). Jeannie said that the hikers will now be heading for Panaca which is 125 miles as the crow flies. They will be out of touch until they reach Panaca. Jeannie said that they hope to make it in eight days. She told me that the first city in Utah after that will be Cedar City.

Dianne and Kent arrived at about 10 p.m.

Saturday, May 31, 1980--Lafayette

I read proof on "Kennedy, Khrushchev and the Test Ban: An Eyewitness Account," during much of the day.

Helen and I had lunch in the kitchen while Dianne and Kent ate in the playroom.



Lawrence Berkeley Laboratory

University of California
Berkeley, California 94720
Telephone 415/486-4000
FTS: 451-4000

May 27, 1980

Dean William Shack
Graduate Division
1 California Hall
Berkeley Campus

Dear Dean Shack:

The Lawrence Hall of Science Advisory Committee held its spring meeting on May 14, and the members were very pleased to learn via your letter of April 8, of your support and that of Chancellor Heyman for augmentation of the Hall's Regents' Opportunity Fund. However, the difficulty experienced by Committee members in reaching the Hall enriched the discussion of the effect of the closing of Centennial Drive on the LHS and this emboldened the members to write to ask for your further help.

The road has been closed since the first week of March, 1980. This has cut weekend attendance by 47%. It is our understanding that the road will be closed until the end of June, and perhaps even into July. The Summer vacation starts the last half of June, and many special Summer programs start at that time. In addition, large weekday public attendance begins. As a result of this closure, a major public unit of the Campus, and one which has great dependence upon income, will have been isolated from the public for one-third of FY 79/80. This situation is probably without precedence for a Campus unit.

Loss of revenue and public goodwill represent significant costs, but there are other costs as well. The Grizzly Peak Gate of Lawrence Berkeley Laboratory has been kept open from 9:00 - 4:00 p.m. so that Humphrey Go-Bart service to LHS can be maintained. This is essential for the 112 student employees at LHS, as well as for many full-time staff and for the student volunteers of KALX. It is also important for the general public, campus personnel, and the many special visitors to the Hall. It costs \$617.00/week to keep this gate open and, at the beginning of last week, the bill was \$6,100. This bill cannot be paid by LBL, and it shouldn't be paid by LHS. We are aware that LHS has not been presented with this bill, but past events suggest this is a possibility. In this respect, it is interesting to consider the relative costs of temporary repairs to the road during this period and the cost of keeping the LBL gate open.

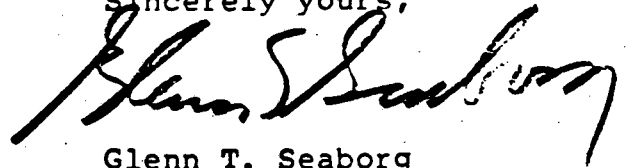
Dean William Shack

-2-

May 27, 1980

We urge you to investigate this problem to insure that repairs are initiated as soon as possible, and that work then progresses rapidly. We are particularly concerned that the ultimate solution to road suitability not be pursued at the expense of LHS.

Sincerely yours,



Glenn T. Seaborg
Chairman,
Lawrence Hall of Science
Advisory Committee

GTS/11

Attachment: Signature sheet of
LHS Advisory Committee Members
available for signature

bcc: Dr. W. M. Laetsch
Sent 5/30/80

Sheldon Margen

Professor Sheldon Margen

Eugene C. Lee

Professor Eugene Lee

Reginald L. Jones

Professor Reginald Jones

Keith Sexton

Dean Keith Sexton

David Schlegel

Professor David Schlegel
Acting Dean

David Gale

Professor David Gale

William B. Berry

Professor William Berry

Luis W. Alvarez

Professor Luis W. Alvarez

Earl K. Hyde

Dr. Earl K. Hyde

John D. Miller

Professor John David Miller

Leonard V. Kuhl

Professor Leonard V. Kuhl

James Spaulding

Mr. James Spaulding

Stuart Lynn

Dr. Stuart Lynn

In the afternoon, I took a hike to and along Lafayette Ridge to Russell Ridge and back.

Helen and I drove to Jack Ingram's on Springhill Road to attend a reunion of Acalanes High School graduates (the 40th Anniversary of the start of the school in 1940). We met, among many others, John Hopkins who was an algebra, chemistry and physics teacher at Acalanes High School in the 1940's.

We drove home to have dinner, then drove to Acalanes High School to attend its 40th Birthday Celebration, presented by students, faculty, alumni, parents. The program was followed. In my remarks presenting the Award of Appreciation to Miss Margaret Nicholson ("Miss Nick"), I emphasized her 40 years of dedicated and extraordinary service as a chemistry teacher (the only teacher who had been at Acalanes all 40 years). I recalled my visits to her classes in the 1950's and my updating her Periodic Table by writing in the symbols for transuranium elements. She responded graciously, made reference to my writing in chemical symbols and said this Periodic Table is still there and in use. Helen and I met many people including Principal and Mrs. Richard Hansen, Superintendent Bill Ross, Marilyn Engelhard Simonson, Bill Summer (Pete's boyhood friend and classmate), Bob Wadman (former security officer at UC and to whom I presented his 25-year service pin when I was Chancellor), Axel and Hannah Olson's niece. Jack Ingram took part in the Celebration in many scenes. Helen and I arrived home at about 10:30 p.m.

Sunday, June 1, 1980--Lafayette

I read proof on "Kennedy, Khrushchev and the Test Ban: An Eyewitness Account."

In the late morning Warren Heckrotte came by to pick up a copy of "Kennedy, Khrushchev..." for reading.

I had lunch in the kitchen with Dianne. Helen is ill today.

At about 1:30 p.m. John D. Hansen of Apache Corporation came by and described to me the advantages of investing in their oil exploration company. I indicated I would start with a \$5,000 investment.

I finished reading my manuscript in the afternoon.

Sylvia Winstein called at about 4 p.m. to express delight at our plans (Helen and I) to attend the Symposium and dinner in honor of Saul Winstein at UCLA on Tuesday.

Helen, Dianne and I had a Colonel Sanders chicken dinner in the playroom while watching the CBS TV show "60 Minutes."

Monday, June 2, 1980--Berkeley/Los Angeles

At 9:10 a.m. I tried to reach John Colby in connection with a telephone request he made a couple of weeks ago regarding x-rays through channeling of crystals at LLNL. I talked to one of his assistants in that department, Dan Bartell, and gave him two references: R. L. Swent, and co-workers, in Physical Review Letters 43, December 3, 1979 and M. J. Alguard and co-workers, in Physical Review Letters 42, April 23, 1979. I then had copies of the articles mailed to Colby's attention at Kevex.

At about 10:30 a.m. I went by Building 70 to talk to Luo Cheng and then Diana Lee, about Luo's research program. Luo will start to study uranium plus light heavy ion reactions as I suggested. I also talked to Pat McGaughey who told me he had good success over the weekend on applying the SAMPO computer program to his data.

I called Walter Loveland at 10:45 a.m. to tell him about McGaughey's success with the computer treatment of his data. Walt said he will come down to Berkeley on Thursday night if he can--he will let me know. He said he has been working on our Benchmark book on "Nuclear Chemistry" and has been compiling the list of papers and assessing their length. He called back a few minutes later to say he will come down to Berkeley on Thursday.

At 11 a.m. I called Professor Paul Seabury in the Political Science Department on campus to ask whether he would like to read my manuscript, "Kennedy, Khrushchev..." and he said he would be delighted to

read it because he is very interested in the subject of the Test Ban Treaty.

I talked to Larry Frank, who will begin his summer volunteer work with my research group on June 25th.

I completed the necessary papers to purchase a one-third unit in Apache Petroleum Partnership 1980-II, Ltd.

I had lunch at my desk, drove to the Oakland International Airport, parked our Phoenix, then soon boarded PSA flight no. 344, which left at about 2 p.m., and arrived at Los Angeles International Airport at about 3 p.m.

I took a taxi to the Holiday Inn-Westwood (10740 Wilshire Blvd.) where I checked into room 1910.

I walked to and through the UCLA campus and on to the Chemistry Building (William G. Young Hall). Here I met a number of old friends including Arthur Cherkin, Nathaniel Smith and Mrs. Smith, Morris Heldman, Julius Heldman, Leonard and Alice Katzln, Francis Blacet, Yoshie Kadota and others.



Celebration of 50 Years of Chemistry at UCLA, Yoshie Kadota and Seaborg
June 3, 1980

I went into the auditorium (Room 2250) then as the last speaker on the program. I was introduced by Chris Foote and spoke on "The Transactinide Elements", illustrated by 32 slides.

I then walked with Eric Heller, son of Walter Heller and winner of the 1980 Glenn T. Seaborg Award, to the Faculty Center. Here I met many friends, including Sylvia and Carolee Winstein, Robert Bargman (a classmate whom I haven't seen since 1934), Dr. and Mrs. Leo Levanas, Dr. and Mrs. John D. Roberts, George Campbell, and most of this years 14 members just initiated into the Beta Gamma Chapter of Alpha Chi Sigma (including Linda Newman, a sophomore chemistry major, perhaps interested in inorganic chemistry and graduate work at Berkeley).

I sat at dinner at a table with Chris Foote, Sylvia Winstein, Eric (Rick) Heller, Alfredo Silva (M.A. of the Beta Gamma chapter and who will attend Boalt Hall Law School in Berkeley), Patricia Lambert (Alfredo's fiancée), John Fulchen. After dinner Alfredo Silva called on me and I presented the Glenn T. Seaborg Award to Eric Heller; I began by saying I met him nearly 20 years ago when his father, Walter Heller, and I were both with the John F. Kennedy Administration. I then read the citation. Eric responded briefly. John McTague, last year's winner, was also introduced. Next Robert B. Merrifield (Rockefeller University) talked on "Solid Phase Peptide Synthesis." Miles Holliman, VMA of the Beta Gamma Chapter, closed the meeting.

I rode back to the Holiday Inn with Eric Heller.

Tuesday, June 3, 1980--Los Angeles

I had breakfast in the Holiday Inn restaurant, then walked to William G. Young Hall to attend the second day of the Symposium Celebrating 50 years of Chemistry at UCLA. I heard Ted Vermeulen's, Bob Ireland's and Hans Reich's papers, then walked over to Powell Library to visit the University of California Press (in room 60).

Here I met and talked to Sheila Berg, Shirley Warren (who will work on copy editing our book), Jim Kubeck (in charge of book design), and Janet Brown (who operates the Compu-writer-2 which prepares the book pages for photocopy and who, I hope, will do our book, rather than send it out for preparation).

I then walked back to Young Hall, then soon walked with Leo Levanas to the Faculty Center for lunch. I sat at a table with Levanas, Tom Jacobs, Francis Blacet, Bob Merrifield, Warren Karnik and Ted Vermuelen. After lunch Leo Levanas and I made a tour of the old chemistry building (now Haines Hall, housing sociology studies). All of the laboratories have been broken up into offices. We also visited the James E. West Center where we saw the signature bricks, including mine.

During the day I met and talked to Sid Rittenberg, Willis Battles, Abe

Lasher, and Lou Spiro. Leonard Katzin said he is available to help on some writing assignments if I have any. Sylvia, Carolee and Bruce Winstein arrived a little after 4 p.m. and I went into room 2250 of William G. Young with them to hear the first Saul Winstein lecture by Vladimir Prelog on "50 Years of Research in Organic Chemistry". He was introduced by Chris Foote a little after 4:30 p.m. and talked a little over an hour. Chris Foote also mentioned plans to raise funds for a Saul Winstein Professorship.

I then rode with the Winsteins to the parking lot next to the James E. West center to attend the "50 Years of Chemistry" dinner. I met and talked to many more friends at the pre-dinner reception, including Mr. and Mrs. Al Aronow, Ann Christopher, Art Prater, Jim McCullough. At the pre-dinner reception, I talked to Dr. Herbert Kaesz (Department of Chemistry), and he said that he is Chairman-elect of the ACS Division of Inorganic Chemistry and that he will support the plans for a Honolulu meeting in 1985 and he believes the Division of Inorganic Chemistry would participate. However, he believes that in view of the problems with the Honolulu meeting last year the meeting in 1985 should be limited in scope.

At dinner I sat at a table with Sylvia, Carolee and Bruce Winstein, John and Edith Roberts, Dr. and Mrs. Donald Cram and Vladimir Prelog. During dinner Chris Foote had members of the UCLA classes from 1932 (McCullough and Prater) to 1983 introduce themselves. After dinner Chris Foote made welcoming remarks, then called on Don Cram who introduced John Roberts who gave a charming talk on "Retrospection on a UCLA Education in Chemistry." He entered as a freshman in the fall of 1936, received his A.B. in chemistry in 1941, and his Ph.D. in chemistry in 1944 (after spending a semester at Penn State University before the U.S. entered the war).

After dinner I talked to Phil Tow, married to Jean Hamilton (daughter of Brutus and Rowena), George Geller, graduate student of Chris Foote and son of 56-year-old Eola (Van Kleef) Geller who says she knew me as a student at Home Gardens School (?), and Kathleen (Kelly) Tandick (who received her M.A. with Dr. William Crowell in 1952, was a member of his last Chemistry 6A-6B class in 1948-49). Kathleen told me that Crowell showed her my laboratory notebook (covering my research work with him) at the time of the announcement of my Nobel Prize in 1951; in response to my expressed hope to locate this notebook she suggested I contact Paul Farrington (Dean, Letters and Sciences, UCLA), who shared an office downstairs in the old chemistry building (now Haines Hall) after Crowell vacated his office and adjoining laboratory (on the second floor), where I worked. Crowell occupied an office and laboratory space in the new chemistry building (now William G. Young Hall) until he became incapacitated in the early 1960's, after which Bill Libby took over this space. Blacet told me that Mrs. William (Madeleine) Crowell is still alive.

I rode with the Winsteins back to the Holiday Inn.

Wednesday, June 4, 1980--Los Angeles/Berkeley

Carolee Winstein came by and drove me to the Los Angeles International Airport. Here I boarded PSA flight #149, which left at about 9 a.m. and arrived at Oakland International Airport at about 10 a.m.

I then drove to my LBL office.

I sent a letter of thanks to T. S. Vanasek for his contribution to the Lawrence Hall of Science fund and I also wrote to Dr. Robert A. Berntsen (Department of Chemistry, Augustana College) to thank him for the information about Dr. Magnusson (attached).

At 11:15 a.m. I went to Building 70 to talk to Pat McGaughey and Diana Lee.

I had lunch at my desk and then attended the regular biweekly actinide chemistry seminar in room 190, building 70. Present were Allan Zalkin, Charles Eigenbrot, Ron Shinamoto, Professor Richard Anderson, Jerry Bucher, Terry Tilley, Steve Simpson and others. Simpson reported on his work on silicon alkyl uranium compounds and Tilley on pentamethylcyclopentane compounds. I talked to Mike Perry about his plans for next year to work in my group. He will apply for a \$1,000 U.C. undergraduate research scholarship.

At 12:15 p.m. I talked with Robert Smerko (head of the Division of Public Affairs, ACS) regarding the budget cuts for DOE involving a lot of chemistry research. This pertains to the U.S. House Appropriations Committee cutting the President's FY81 budget in this area from \$252M to \$216M, which results in almost a budget level the same as FY80. I said there were probably problems in other areas of chemistry budgets under DOE as well and I believed the ACS might want to take a hard look at this situation and perhaps write a letter stating ACS policy, taking a stand, etc. He said he will look into this right away and let me know what develops. He also said that Mary Good has a friend on the House Appropriations Committee and he will contact her.

At 3:15 p.m. Lew Keller called me. He told me the disturbing news that the Welch Award Dinner had been changed to November 10 (which interfered with my scheduled talks at ORNL and the University of Tennessee). He had seen W. O. Milligan last week and Milligan told him that Philip Handler couldn't attend the Awards Dinner any other time but November 10. We discussed the possibilities of having my lectures on the day before or the day after and settled on the latter. I will still speak at ORNL at 3 p.m. and at the University of Tennessee at night but it will be on Tuesday, November 11 now. I will take Delta Airlines from Houston to Memphis (Flight # 1744) at 7:04 a.m. arriving in Memphis at 8:12 a.m. on Tuesday morning, November 11. Then I will take a commuter flight on Republic Airlines, Flight 267, to Knoxville leaving Memphis at 9:05 a.m. and arriving in Knoxville at 11:39 a.m.

=====
486-5661

June 4, 1980

Dr. Robert A. Berntsen
Department of Chemistry
Augustana College
Rock Island, Illinois 61201

Dear Dr. Berntsen:

Thank you for the information about Dr. Magnusson. I found this very interesting. He was seventy-three years old when I met him in December 1945. Apparently Augustana College in those days kept their faculty active for as long as they were productive.

I enjoyed very much my visit to Augustana College and I hope you will pass on this sentiment to some of the people I met there.

With best regards,

Cordially,

Glenn T. Seaborg

GTS:pj

At 3:40 p.m. I talked with Dean Farrington regarding the disposition of Professor Wm. Crowell's papers, journals, etc. He shared an office with Crowell from 1950-52 and was close to him until his retirement in the early 60's when Bill Libby took over his office. However, he did not share office space after 1952 and does not know what disposition, storage or disposal was made of Crowell's papers after he became physically unable to continue research at UCLA. He suggested I contact Mrs. Madeleine Crowell whom he believed still to be living in Hollywood. As far as he knew, no effort was made to keep any of Crowell's papers. (We later learned that Mrs. Crowell is living in Santa Barbara, California.)

At 4:08 p.m. I called Ben Loeb to bring him up to date. I told him about my visit to University Press in Los Angeles and gave him the names of Shirley Warren (editor), Jim Kubeck (design), Janet Brown (operator of Compu-Writer-2). I said that the Press produces about 140-150 books/year and that I hoped Janet Brown would be able to work on our manuscript. I also told Ben that, after some discussion with the Los Angeles people, we decided that he should come out to Berkeley in early August (after Sheila Berg and Shirley Warren return from their vacations) rather than July. Ben said that would be fine with him.

At about 4:30 p.m. I went by Building 70 to talk to Ken Moody about preparations for our forthcoming ^{248}Cm plus ^{86}Kr bombardments and plans for new people coming in this summer.

I had dinner in the playroom with Helen, then worked in the study reading papers accumulated during my absence.

Thursday, June 5, 1980--Berkeley

Ken Moody dropped in at 10:15 a.m. to show me the decay data on ^{254}Cf from ^{248}Cm plus ^{136}Xe .

I called Joe Katz at 10:30 a.m. and had a 30-minute talk with him about our book revision. He will come out for two weeks this summer beginning about July 20th.

I had lunch in the cafeteria with Pat McGaughey and Marty Schulman, joined later by Vic Viola. He is moving from the University of Maryland to Indiana University in August.

At 12:45 p.m. I walked down to Latimer Hall to pick up my mail. I received a letter from Earl F. Cheit today (attached) asking me to serve on a faculty/staff committee to support the Athletic Department's CAL SPORTS 80's program. I accepted. I answered a long rambling letter from John R. Parsons (my answer attached); I responded to Dr. James D'Ianni's invitation to attend the Nobel Prize luncheon in connection with the August ACS meeting in San Francisco; wrote to Professor Hans Frauenfelder agreeing with him to postpone our joint nomination of Vitalii Goldanskii for Foreign Associate in the National Academy of Sciences. Following up on my meeting

JUN 5 1980

EARL F. CHEIT

50 LENOX ROAD

KENSINGTON, CALIFORNIA 94707

May 29, 1980

AS 6/5/80

Dear Glenn:

I am writing to invite you to serve on a faculty/staff committee to support the Athletic Department's CAL SPORTS 80's program, a campaign for funds needed to improve athletic facilities on the Berkeley campus. The program and the needs are explained in the enclosed brochure.

As you probably know, the overall campaign, led by Walter A. Haas, Jr., and Roger W. Heyns, has been underway for several months among alumni and friends of the University. They have already made significant progress toward the goal of \$5 million. The campaign should be completed by year's end.

Wally and Roger are now seeking the support of a campus committee to introduce the program to faculty and staff. Our committee will do this by sending a letter and the campaign information to a list of our colleagues who are supporters of athletic programs. You will not be required to do personal solicitation, nor pressured to be a contributor. The program is sufficiently clear and responsive to Athletic Department needs to motivate support from interested persons in a position to give it.

The first meeting of our committee -- and I am hopeful that it will be the only one we need -- is set for Tuesday, June 10th at 12:00 noon at the Alumni House. Box lunches will be provided and Dave Maggard will be our host. He will speak briefly about the program and answer questions.

I hope you will be able to join the committee. I would greatly appreciate it if you would return the attached card at your earliest convenience.

Sincerely,



Earl F. Cheit

Enclosures

6/5/80
Card accepting appointment
returned, pt.

June 5, 1980

Dr. John T. Parsons
The John T. Parsons Company
205 Wellington
Traverse City, MI 49684

Dear Dr. Parsons:

I appreciate receiving your nice letter of May 26, 1980.

I do not believe that the nuclear waste in the Atlantic poses any serious risk. However, I did not know that the U.S. Army dumped any nuclear waste in the Atlantic as recently as during President Nixon's term. I thought that this was discontinued at an earlier date. I believe that it is present policy not to do this anymore.

My visits to Philadelphia and to Augustana College were satisfying and successful. I had the added bonus of visiting with my daughter and son-in-law in Iowa City where they are presently connected with the University of Iowa.

With warm regards,

Cordially,

Glenn T. Seaborg

GTS:pj

with Lynn Malmgren of the American Swedish Historical Foundation and Museum, I wrote to Bowen C. Dees of the Franklin Institute (attached). I answered a courtesy letter from Professor Hsia Yen (attached).

At 1:50 p.m. Chris Foote (UCLA, Department of Chemistry) returned my call of earlier today. We discussed the proposed "Saul Winstein Chair" to be established at UCLA, and the possible role Professor Henry Bruman might play in an endowment for that Chair. I told Chris I would be happy to make a phone call to Bruman and he also is in the process of contacting him for a luncheon appointment. We agreed that an endowment in the amount of \$500,000 is needed to get this Chair underway; it is unconfirmed that some sort of matching funds from another source can be obtained.

Judy Brodtkin, a student in one of my Chemistry IB laboratory sections this year, came up at 2:30 p.m. to make arrangements for working in my research group this summer and subsequently. She is finishing a Bachelor's degree in history this quarter and is then going on to get another degree in chemistry with emphasis on nuclear chemistry. We agreed that she will work this summer at \$300/month for two months to be paid by me and then after taking the fall quarter at San Francisco State (because she is not eligible yet at Berkeley due to already having one degree), she will start here in the winter quarter. She will take Chemistry 123 at that time and then do undergraduate research work on a volunteer basis. She probably will not take Chemistry H194 or H196 because she will not have the prerequisites. She will go on in subsequent quarters to do undergraduate research with me in Chemistry H194. She hopes to finish her Bachelor's degree in chemistry in about two and one-half years and then go on in graduate work in chemistry. I took her over to Building 70 to meet Pat McGaughey, Marty Schulman, Robert Welch, Yoshi Morita and Diana Lee. I then took her up to the HILAC Building to meet Pat Somerville, Matti Leino, and Mike Nitschke and to show her the HILAC, SASSY, etc. She will begin her work with my group on June 16th. Diana Lee loaned Judy her copy of Harvey's textbook and I gave her a number of reprints.

At 4:10 p.m. I was able to contact Mrs. William Crowell (Madeleine), widow of my Professor from UCLA days, Professor William Crowell, who is now living in Santa Barbara. Mrs. Crowell is bedridden most of the time now, however, she was able to talk on the telephone. I asked her if she had any idea where Bill's papers might be located now--that among his papers there may be a notebook of mine used during my undergraduate days when I worked with him. She could not recall where his papers were now but said she would think about it and took my telephone number to call me in case she comes up with some memory of where his personal papers are.

Helen and I had dinner in the playroom after which I worked in the study.

Friday, June 6, 1980--Berkeley

At 8:50 a.m. I talked with Henry Bruman, as a follow-up to our

June 5, 1980

Mr. Bowen C. Dees
President
The Franklin Institute
Philadelphia, PA 19103

Dear Bowen:

As you may know, I am a member of the Board of Governors of the American Swedish Historical Foundation and Museum situated in Philadelphia. The day following our recent meeting of the Board of Trustees of Science Service, I went to Philadelphia to attend the annual members' meeting and the quarterly meeting of the Board of Governors. At this time I met Ms. Lynn C. Malmgren, the new Director of the American Swedish Historical Foundation and Museum and she told me about some of their future plans. I suggested that she get in touch with you for possible coordination. One of the matters about which Lynn spoke to me was the possible showing of the Royal Institute's Energy Exhibit in Philadelphia.

On my visit to the Museum I was shown their John Ericsson rooms which include some very interesting John Ericsson equipment and memorabilia. I also was shown the Periodic Table and related matters on the transuranium elements which used to be on exhibit in the Kalm-Seaborg room and which they plan to reinstate. I took the liberty of suggesting to Lynn that you and others at the Franklin Institute might have an interest in these exhibits and that she might call on you for advice should she feel the need for help.

I think that a symbiotic relationship between the Franklin Institute and the American Swedish Historical Foundation and Museum might be mutually rewarding.

With best regards,

Cordially,

Glenn T. Seaborg

GTS:pj
cc: Ms. Lynn C. Malmgren

June 5, 1980

Professor Hsia Yen
Vice President for Research
Shanghai Normal University
Shanghai, People's Republic of China

Dear Professor Hsia:

Thank you for your letter of May 27, 1980. David Ridgway has returned to Berkeley and he has told me about his very useful meeting with you and your colleagues during his visit to Shanghai. We appreciate your fine hospitality.

Mr. Ridgway also told me about the encyclopedia that you are sending me and I look forward to receiving it.

With warm regards,

Cordially,

Glenn T. Seaborg

GTS:pj

conversation at the 50th anniversary of the chemistry department. I asked him if he would be interested in making a bequest to UCLA as either the sole supporter or a strong supporter of the "Saul Winstein Chair." He said that he was committed to the Library and had been planning his bequest to the Library for the last 30 years; however, he said he would give \$25,000 of the needed \$500,000 to the chemistry department for the "Saul Winstein Chair." He offered to give it right away, or at any future time. He suggested we get together a group of potential donors--twenty in number--to establish the Chair. I told him that this was a very generous offer and that Christopher Foote will be in touch with him. He asked for a copy of the picture taken at the initiation dinner of the Beta Gamma Chapter at UCLA, March 30, 1935. I said I would get one for him.

I then called Chris Foote at 9:40 a.m. and he was delighted at the good news. He will contact Henry Bruman right away. Foote needs to get formal authorization to establish this Chair, so the money will not be needed right away.

At 9:40 a.m. Vice President Fretter returned my call and I told him that my daughter Lynne was coming out for a visit and that we wanted to retrace the hike that we took from his cottage on Echo Lake in 1959. I asked him for directions to his cottage and he told me the different routes and said that his son Brian and/or daughter Gretchen might be there if we dropped in.

I met with Walter Loveland for a couple of hours to discuss the content of our Benchmark book on "Nuclear Chemistry," our paper writing, etc. We then went to Building 70 to continue our discussion.

Marty Schulman came in to say goodbye for the summer; he will be with me in the fall.

I had lunch in the cafeteria with Walter Loveland, Pat McGaughey and Diana Lee. We discussed research assignments for Gregory Sayle, Judy Bodkin and Larry Frank who will join us this summer. Vic Viola joined us and Walt and I discussed with him possible papers to be included in our Benchmark book.

I received background papers on Eric Tornqvist from Bill Libby which I forwarded on to Kjell Lagerstrom in connection with Tornqvist's candidacy for a future John Ericsson Medal Award.

I signed forms needed for the sale of 6,000 shares of my Kevex Corporation stock in accordance with Rule 144; this matter is being handled for me by Robert P. Mann of Davis, Skaggs and Company.

I attended in Room 444 Latimer Hall from 2:10 p.m. until about 4 p.m. the qualifying examination of Charles Mark Phillips. Also present were all members of the Committee: Leo Brewer, Chairman, Samuel Markowitz, Herbert Strauss, David Lyon and me. Phillips did so poorly that we tentatively agreed to fail him unless his research supervisor, Steve Brown,

can convince Brewer otherwise. He was totally unable to calculate the pH of one molar NaHCO_3 solution and was equally inept in answering questions about fluorescence observed in uranyl carbonate solutions.

At 4:20 p.m. Nils William Olsson called from Minneapolis where he will be until June 22. He is sending some mail that was directed to me at the address of the American Swedish Institute. New stationery is being prepared and when that is received I will send out some letters concerning the SCA Awards (letters now being drafted by Curtis Carlson). We discussed progress of the Awards Committee and plans for the fall Awards Banquet. Ed Lindell will probably take over as Executive Director of SCA on January 1, 1981. At that time his position as President of Gustavus Adolphus College will terminate. We discussed the fund raising program among corporations and Nils Wessell's suggestion that a new name be devised for corporate people giving less than the \$2,000 amount (referred to as a "sponsor's" gift). I will send Nils William a copy of Wessell's letter although I believe he has received one as well. Nils will send information to SCA members regarding a proposed new board member, John Heistein, President of SAS, who lives in New York City. I told Nils about my meeting with the Board of Governors of the American Swedish Historical Foundation and Museum, and my good impression of Lynn Malmgren, the new Director, who expressed her desire to me to become more involved with the SCA. I also told Nils that I spoke to Eric Tornqvist about the Swedish Colonial Society joining the SCA. Nils will follow up with a letter to Tornqvist.

I went by Building 50 to talk to Walter Loveland from 4:45 p.m. to 5:30 p.m.; we talked about our paper writing schedule, research programs and bombardments this summer.

Helen, Dianne, Kent and I had dinner in the playroom. I gave Helen a leather handbag in recognition of our 38th wedding anniversary today.

I called Ken Madsen to discuss the status of Strawberry Lodge. We are surviving but the financial situation is precarious.

Dianne and Kent were home for the night. They will stay until near the end of the week, then join us at Strawberry Heights.

Saturday, June 7, 1980--Lafayette/Strawberry Heights

I rode with Dave in our Phoenix and Helen drove the Bonneville to Sacramento Airport where we met Lynne, Bill and Steve van Norman from United flight #393. Lynne, Dave and I in the Phoenix (stopping at Fresh Pond Ranger Station to get permits (from Dan Hill) to hike in Desolation Valley) and Helen, Steve and Bill in the Phoenix, drove to Strawberry. Lynne, Dave and I stopped at Strawberry Lodge to watch the Belmont horse race on TV and to talk to Mike McGrath, Drago, Nancy Proo, Charmaine and others.

We then drove to our cottage across Highway 50 in Strawberry Heights

(58 Margaret Drive) where we joined Helen, Bill and Steve. Lynne and Bill then drove to South Lake Tahoe to pick up Lynn Joy. After they returned Lynne, Lynn, Bill, Steve and I walked to Strawberry Lodge to look around. (Dave had been at Strawberry Lodge during this time.) All seven of us had dinner in our cottage. At about 10 p.m. and again at 11 p.m. Dave did his stand-up comedy act in the ballroom at Strawberry Lodge. The rest of us retired at about 11 p.m.

Sunday, June 8, 1980--Strawberry Heights

We all had breakfast in our cottage.

Then all, except Dave, took a hike to the top of Lover's Leap, via the trail from Strawberry Canyon. We had our back pack lunches on top. We then hiked down on the Camp Sacramento trail, cut across down to Slippery Ford, then back on the old Pony Express stagecoach trail. Dave got separated from us and did his hike to the top of Lover's Leap separately and came back a couple of hours after us. We all had dinner outside on the deck at our cottage.

Monday, June 9, 1980--Strawberry Heights

We all had breakfast in our cottage.

We all rode in the Bonneville to the Trail head, at the Sayles Tract parking lot across from Camp Sacramento, for the hike to Mt. Ralston. Near the top, Lynne went ahead to scout the route through the heavy snow (the trail was obliterated). When she didn't return Bill set out to find her by following her tracks in the snow. The rest of us stopped to have our back pack lunch.

The five of us (Steve, Helen, Lynn Joy, Dave and I) then hiked, following Lynne and Bill's tracks in the snow, to the top of Mt. Ralston, where we found a marvelous view of Lake Tahoe, Fallen Leaf Lake, Upper and Lower Echo Lake, etc.

Helen, Lynn and Dave returned by the route we came, while Steve and I followed the tracks of Lynne and Bill way off to the west as far as Pyramid Creek canyon, then bushwacked our way back to the lower part of the Mt. Ralston Trail and returned to our car at the parking lot. Here we found Lynne and Bill, learned that Lynne had lost her way and that Bill never caught up with her.

Helen, Dave and Lynn arrived soon (it was now about 6:30 p.m.) and we rode back to our cottage for a late dinner. We had hiked about 10-12 miles with 3,000 feet altitude gain, the last third over deep snow.

Tuesday, June 10, 1980--Strawberry Heights

We all had breakfast in our cottage.

Helen, Lynne, Dave and I hiked in Strawberry Canyon. After we ate our back pack lunch Helen and Lynne returned to our cottage, then went shopping at South Lake Tahoe; they also arranged for our telephone. Bill and Lynn Sumida went fishing in the South Fork of the American River near Camp Sacramento, while Steve stayed at our cottage.

Jeanette and Ray arrived at about 4 p.m. and set up their camper with electrical connection, etc.

We all (nine of us) had a French style chicken dinner prepared by Lynn Sumida.

Wednesday, June 11, 1980--Strawberry Heights

We had breakfast in our cottage, except Jeanette and Ray who ate in their camper.

Helen and I made out a check for \$3,500 to pay two large vendor's bills at Strawberry Lodge.

I called my office, talked to Pat and Lin, found everything in good shape.

We all drove to Fallen Leaf Lake and assembled at the Lodge--Bill, Lynne, Steve, Lynn and Dave in the Bonneville, Helen, Jeanette, Ray and I in the Phoenix. Here we found a fine promontory at the Lake at the Stanford Camp, where we ate our back pack lunches. Bill, Steve and Lynn fished in the Lake while Jeanette and Ray relaxed, then drove to our cottage in the Bonneville. Helen, Lynne, Dave and I took a loop hike to the Angora Lakes--about 5.5 miles and 1200 feet altitude gain. We first took the trail up to Angora Lookout, then hiked on the road to Angora Lakes, then back down on a rocky trail (covered in many places with streams of water), and back to our car at the Lodge.

When we arrived home, after the others, at about 6:30 p.m., we found Lynne's and Bill's friends, Ben Orlov and Mark and Sue Marnocha and their children, Joy (7 years old) and Jesse (1-1/2 years old). Mark is a Purdue classmate of Lynne's and now on the faculty of Luther College in Iowa.

All of us (except Jeanette and Ray who joined us at dessert time) had dinner in our cottage.

Thursday, June 12, 1980--Strawberry Heights

All 14 of us had breakfast in our cottage at various times.

Lynn Sumida, Bill and Steve went on a fishing expedition under the guidance of Larry Kuhl, who they were to meet.

Jeanette and Ray left at about 9 a.m. They will arrive home in Magalia tonight.

Dave and I hiked up Cody Summit Road, couldn't find the trail to Cody Lake in the snow. We had our back pack lunch somewhere at the top, then hiked back down. Our total distance was perhaps eight miles.

Lynne, Ben, and the Marnocha's went to Fallen Leaf Lake and on to the Angora Lakes with various degrees of hiking.

Bill, Lynn Sumida and Steve van Norman went fishing at Red Lake and the Hope Valley region, with no luck.

We all attended at Strawberry Lodge, a pot luck dinner, surprise birthday (60th) for June Depaepe (longtime proprietor of the Twin Bridges Store and postmistress there). Helen and I became acquainted with her. Helen and I talked to the two immediately preceding owners of our cottage at 58 Margaret Drive to get information on operation of various things in the house--the owner (two back)--Adrienne Klovee--(and the immediately previous owner--Pam Schmidt (who lives across the street from us on Margaret Drive). Pam offered to help on a number of items. We also talked to Floyd Poole (who told us that Baumhoff built Strawberry Lodge). We also met Harvey Sheehan, who is interested in buying Strawberry Lodge. Helen and I, Lynne and Ben, Suzanne and David, plus Bob and Rosemarey Sheldon's and Nancy Proo and Bill Gallaher, did some square dancing, called by Dennis Smith. There was a three piece combo in which Mel Smothers played the violin. (We met his wife, Ingrid, and young son, Erik). Helen and I also met Ted Ellsworth and Mr. and Mrs. Anderson of Whitehall (she is a UCB graduate of 1939).

We returned to our cottage at various times. (The Marnochas again spent the night at Strawberry Lodge).

Friday, June 13, 1980--Strawberry Heights

Lynne left early to drive Ben back to Davis and to pick up Steve (Seaborg) at the Sacramento Airport.

I went to Strawberry Lodge to make some phone calls to try to get our telephone operable. (Helen arranged for its installation during her shopping trip to South Lake Tahoe on Tuesday.)

Helen, Bill, Steve van Norman, Dave, and Lynn (Sumida) Joy had breakfast together.

Our phone service began, finally, at about 11 a.m. Dianne called and said she and Kent are driving up in our Pontiac Station Wagon later this

afternoon.

We had lunch in our cottage at about 1:30 p.m., a chili dish.

Lynne, Dave, Steve Seaborg, Steve van Norman, Bill and I took a hike to Horsetail Falls up Pyramid Creek canyon.

Helen and Lynn Joy went shopping in South Lake Tahoe. Dianne and Kent arrived in the station wagon at about 7:15 p.m. They transported our two rollaway beds for use at our cottage. We all had a wedding anniversary (12th for Lynne and Bill two days from now) and a Father's Day (two days from now) dinner in our cottage.

Dianne and Kent spent the night at Strawberry Lodge.

Saturday, June 14, 1980--Strawberry Heights

Helen, Steve, Dave, Lynne, Bill, Lynn, Steve and I had breakfast in our cottage (this is the group that spent the night here, Lynne and Bill still outside in their tent).

Lynne, Bill, Steve, Steve and Dave drove Lynn to the bus station at South Lake Tahoe, then went to the Sahara Casino to do some gambling. Helen, Dianne, Kent and I joined them there in our Phoenix, then we all drove to the Eagle Lake Picnic Area to eat our picnic lunch. We then all hiked to Eagle Lake and back.

We did some shopping, after which Lynne, Bill, Dave and Steve van Norman, drove back to our cottage. The rest of us drove to South Tahoe Airport to meet Paul Lochak who came in, from Los Angeles (and Paris yesterday), on Aspen Airways flight # 716 which arrived at about 6:15 p.m.; we then drove to Strawberry Lodge, where Lochak checked in.

I gave Paul and Steve Seaborg a tour of Strawberry Lodge, after which we joined the others at our cottage. The ten of us had a dinner of steaks and corn-on-the-cob cooked by Bill and Steve van Norman on our outside grill.

Dianne and Kent again spent the night at Strawberry Lodge.

Sunday, June 15, 1980--Strawberry Heights/Lafayette

Lynne, Bill, Dianne and Kent had breakfast at Strawberry Lodge. Lochak had an earlier breakfast there, then joined Helen, Steve, Steve, Dave and me while we had breakfast in our cottage. Lochak called his father and mother in Paris. I took a little walk with Lochak to discuss the relations of Getex with Gemex, which are not good.

I then talked to Nancy Proo at the Lodge about the Lodge's unpaid bills.

Helen, Paul, Dave, Steve van Norman and I left in the Bonneville at about 12:30 p.m., dropping Steve off at the Sacramento Airport en route (he then flew back to Cedar Rapids (Iowa City) via Denver) and we drove on home to Lafayette, dropping Dave off at his place. Dianne and Kent left later in the station wagon; after taking a hike to Slippery Ford, they arrived home in Lafayette at about 8:30 p.m.

Helen, Paul and I had dinner in the patio (it was a hot day in Lafayette) at about 7:30 p.m.

I read the stack of correspondence, papers, etc., accumulated during my absence, brought out by Pat Johnson yesterday.

Paul Lochak spent the night with us.



58 Margaret Drive, Strawberry Heights, CA
Lynne Cobb, Paul Lochak, Bill Cobb, Steve Seaborg, Steve Van Norman

Monday, June 16, 1980--Lafayette/Berkeley

Paul had breakfast with Helen and me, then rode to my LBL office with me where we discussed some Getex and Gemex business and methods to resolve the differences between the two groups. (Lochak memo to me and my response attached.)



Lawrence Berkeley Laboratory

University of California
Berkeley, California 94720
Telephone 415/843-2740

486-5661

June 16, 1980

MM Paul Lochak and Roger Godino
c/o Societe Internationale de Technologie
3 Avenue Hoche
75008 Paris France

Dear Paul and Roger:

This note relates to your June 13, 1980 memorandum regarding Getex finances and your financial relationship to Gemex.

I really was not fully aware of the extent of your financial exposure in your Getex related activities with George Milly and how strongly you, Roger Godino and your associates presently feel about the relationship with George Milly, especially as it pertains to finances.

I feel quite unhappy about this and I hope that George Milly and Gemex will make such arrangements and sacrifices as are required to achieve a resolution that is satisfactory to both you and your associates.

Cordially yours,

Glenn T. Seaborg

GTS/11

MEMORANDUM

June 13, 1980

TO: Glenn T. Seaborg

FROM: Roger Godino, Paul Lochak, et al⁽¹⁾ in TEAM

SUBJECT: Getex finances and TEAM/Gemex financial relations within Getex

Roger Godino, Paul Lochak and their associates in TEAM wish to emphasize that the entire matter, from its inception to its development has been the subject of considerable exaggeration (2) (or misrepresentation?) by George Milly. During the initial negotiations with Godino and Lochak, Dr. Milly emphasized his considerable experience, know-how and extremely promising initial results, and he substantiated these conditions by his having secured extremely promising contracts from major U.S. corporations.

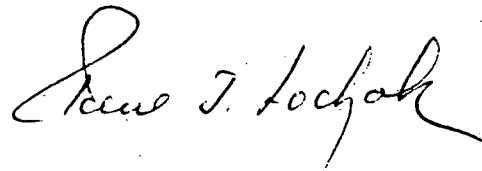
George Milly therefore (i.e., in view of the predicted assurance of positive results) insisted that the entire investment necessary to develop Getex outside the U.S. be made by our group, that is by Roger Godino, Paul Lochak et al. Moreover he insisted that this investment be no less than \$500,000.00. He persistently refused to put up a single dollar, even for the expenses involved in forming the Getex company in Switzerland, even for the share capital of the Swiss Corporation, where the 50% shares in Getex which are owned by Gemex were subscribed by Godino/Lochak.

-
- (1) Includes Olivier Giscard d'Estaing and James Gill.
 - (2) Milly assured us that his technology was fully developed and operational, while other technologies would no longer be able to discover buried uranium. In fact, practically all major companies and practically every country continued to discover uranium deposits, including buried deposits, while Gemex discovered none.

./..

It might have sounded reasonable and fair at the time for Roger Godino and Paul Lochak to make the total investment inasmuch as Dr. Milly promised to contribute his "fully developed" technology, his experience, know-how and management. After five years of operations it turns out that Dr. Milly's promises were just a dream⁽³⁾ and perhaps even constituted a means to make a profit (regardless of the outcome for his associates).

According to our calculations Gemex made a \$300,000 profit⁽⁴⁾ on the AGIP contract and will probably make as much on the Denison contract which Gemex got thanks to Godino/Lochak/Chalendon. During the same period Godino/Lochak lost \$550,000 plus the money they invested in the AGIP contract. This should not be and cannot remain so, and should be settled on a fair basis. A fair basis would be that Milly assume one half of the total investment made by Godino/Lochak et al and also that he share his profits, on the projects he got thanks to us, on the same 50/50 basis.



for Paul Lochak and Roger Godino

-
- (3) For several years B. Lochak and R. Godino saw the possibility of reasonable income from Service Contracts. Godino, Lochak and Glenn Seaborg himself exercised considerable effort (in Spain, Greece and U.K.) and developed possibilities of contracts on a reasonable service basis. Dr. Milly turned these possibilities (even offers) down on the ground that he wanted only joint ventures at the other fellow's expense. This attitude killed possibilities that Getex had. When Milly changed his mind, the harm with possible clients had been done.
 - (4) This has been estimated on the basis that when Milly charges \$30,000 per team month or \$10,000 per man month, at least one third is really profit to his company.

Gregory Sayle started his work with my research group today. He is a CETA employee who will work with us for ten weeks. Judy Brodtkin also started her work today for three months.

I received a long letter from Fritz Weigel today and one from Walt Loveland about our experiment at CERN. Also in the mail was the first "policy" announcement from David Shirley (all attached). I wrote to Richard Hewlett regarding the possibility of his working with me on further publications based on my journals of AEC days; to John F. Holzhrichter and J. T. Hunt of the Fusion Laser Program, LLNL, thanking them for their invitation to be an honorary member of the Laser Operations Group at LLL, to which I agreed); to Carl Djerassi inviting him to spend a few minutes with the ACS International Activities Committee during our meeting on Monday, August 25th to give a firsthand report on the Tenerife meeting and on the proposed chemistry research center in Tenerife. I sent several letters on behalf of the Swedish Council of America, thanking the Nordic American Banking Corporation for their contribution of \$500 and answering Pharmacia, Inc., NIFE, Inc., and Esselte Pendaflex Corporation--all of whom declined to contribute. I thanked Cyril Clemens for his complimentary life subscription to the Mark Twain Journal, wrote to Ted Sherburne, Science Service, regarding setting up a Nomination Committee for a replacement for Aaron Rosenthal who recently resigned from the Board of Trustees. I also returned a data sheet and photograph to Jan Kaczmarek, Scientific Secretary of the Polish Academy of Sciences for their members guide. I wrote to M. Ivanovich, Harwell, England, giving my permission to use a figure from The Nuclear Properties of the Heavy Elements Vol II for use in his forthcoming book Uranium-Series Disequilibrium: Application to Environmental Problems in the Earth Sciences. I wrote a note to Warren Heckrotte to thank him for the time he took to read my manuscript, "Kennedy, Khrushchev...", and for his helpful corrections and suggestions.

I went by Building 70, where I found Diana Lee, Cheng Luo, Ken Moody and Robert Welch hard at work on the chemical separations for the ^{248}Cm target that was bombarded with full energy ^{86}Kr ions last night. Ken told me they had two short (half hour) bombardments yesterday evening, on which they also did their chemical separations.

I returned a call to Ben Loeb at 10:10 a.m. He told me that with regard to the State Department and the Freedom of Information Act, the matter will be investigated and we will have to bear the cost. It should amount to about \$50. Loeb said he was told the chances are very good that he will be able to gain access to the portion of information that we are interested in but he will not get an answer until mid-August. Ben and I also discussed a change in the next to the last sentence of the first paragraph of the author's preface. Ben is now working on the third draft and has some corrections that he will start sending soon. We also talked about keeping the price of our book low and we need to obtain permission to use certain pictures. We will discuss the use of photographs later when Ben arrives here in August.

I had lunch in the cafeteria with Ken Moody, Pat McGaughey, Diana

3. 6. 1980

Professor
Glenn T. Seaborg
Nuclear Science Division
Bldg. 70 A, Rm. 3307
Lawrence Berkeley Laboratory
University of California

BERKELEY Ca. 94720
USA

Dear Glenn:

Thank you very much for your kind letter of March 27, 1980, and for your comments on Section 5.5. of the plutonium chapter. I share your concern with regards to the length of this chapter, but I have done what I could to abridge the text to the utmost, without losing too much important information. But I have no objections, if you or Joe make any further abridgments which you find appropriate.

In the meantime, I have typed up to page Pu - 275 (plutonium carbides), and the draft has progressed to page Pu - 283 (nitrides). I will send you section 6 as a whole, as soon as it is completed, which probably requires another month.

Yesterday we returned after a wonderful week in Sweden, where we attended the 10eme Journees des Actinides. It was a very nice meeting with 55 attendants, all knowing each other from previous meetings. I trust that Norman Edelstein informs you on the subject presented. It is a pity that you could not be there.

At the end of the conference, we made a boat trip to Resarö to visit Ytterby and the famous quarry, from which the first gadolinite was mined. Unfortunately, the old mine shaft is closed, and is used as an underground oil storage, and therefore inaccessible. The countryside in this region is beauti-

ful. Numerous small islands with small houses, pine woods. Extremely restful and very pleasant.

I also had another great experience. With the help of Börje Johansson, a visit to the Berzelius Museum in the building of the Vedenskaps Akademien was arranged. It is a special event, if one is shown the equipment and the samples prepared by a great man like Berzelius. (In the guest book, I found your signature also, so you obviously had visited this museum before). I was also shown the session hall of the academy with numerous portraits on the walls, including these of Berzelius and Arrhenius. I was also given a little book by Professor Jorpes: Jöns Jacob Berzelius, His Life and Work (1970). What I did not know is that no less than 27 elements have been discovered by Swedish chemists (not counting another 13 radioactive elements discovered by another chemist of Swedish descent).

With the family, I spent two days sightseeing in Stockholm. We visited the Royal Castle, the Treasure Chamber, and the Vasa Museum. We also enjoyed the best of Swedish dining at the Smörgasbord of the Operakällaren. So, your prediction that we would like Sweden, has come quite true, and I am now thinking of another excuse to go back for another visit.

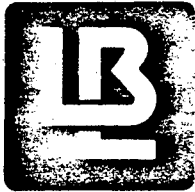
Anne and Matthias greatly enjoyed that visit too. Andreas could not come along, unfortunately, because he was finishing up his high-school diploma. He hopes that he can start as a chemistry major this fall in Munich.

With best regards from all of us to you and to Helen

Cordially



JUN 16 1980



LAWRENCE BERKELEY LABORATORY ADMINISTRATIVE MEMO

PERSONNEL ACTIONS AND ORGANIZATION ACTIVITIES

18

June 13, 1980

During the past ten weeks, I have given a great deal of attention to the administrative structure of LBL, with the intention of optimizing this structure to best serve the Laboratory. I have consulted widely and have received many good suggestions and a lot of insight about LBL. I am grateful for all the advice that has been offered about Laboratory organization. Much of it addresses problems of local optimization, in specific areas, and will be acted upon later by the appropriate Associate Directors. In this memo I shall address the global optimization of the overall LBL administrative structure, to set the stage for further modifications as needs arise.

Let me note first that different organizations have different needs in their organizational structures. While it is an interesting exercise — which I have done — to draw various organization charts for LBL, the configurations that appear to have a good chance of working effectively at LBL are always quite close to our present structure. The appointments described below will in fact constitute a somewhat streamlined version of this structure.

A scientific Deputy Director can enhance the Director's effectiveness in a variety of ways. The Deputy Director doubles the "coverage" of the Director's Office, speaks for the Director in his absence, and specializes in certain areas of concern to LBL. Of equal importance, a Deputy Director provides an instantly-convened forum for discussion of issues. Dr. Earl K. Hyde has rendered exemplary service to LBL in this capacity for over six years. In reviewing this position I realized that Earl Hyde is an ideal candidate for my Deputy Director not only on the bases of scientific distinction, experience, and dedication to LBL, but also because his background complements my own in many ways. I am pleased to announce that Earl has agreed to serve as Deputy Director of LBL and to appoint him to a three-year term through June 30, 1983.

Mr. George L. Pappas brings a rare combination of talents to his position as Head of the Administration Division and Associate Director of LBL. He combines sound management skills with a total understanding of the budget process and a subtle appreciation of the relationships of LBL with other institutions. He provides quick answers to difficult contractual questions and solves difficult administrative problems efficiently. I am re-appointing George L. Pappas for a three-year term through June 30, 1983, with great confidence.

Mr. Walter D. Hartsough manages a large fraction of the Laboratory remarkably well. As Head of the Engineering and Technical Services Division, Walt Hartsough guides a very large and diverse organization through extraordinarily varied assignments. As an Associate Director of LBL, he provides the Director with advice and support on many issues. LBL is lucky to have Walt Hartsough, and I am pleased to re-appoint him for a three-year term through June 30, 1983.

Dr. Raymond K. Wakerling's second three-year term as Associate Director and Head of the Employee and Information Services Division will expire on June 30, 1980. After having served the Laboratory well in a variety of positions for thirty-eight years, Dr. Wakerling has told me of his intention to retire within the next two years. This is a natural time for him to carry a lesser burden of managerial duties rather than continue as Division Head. Dr. Wakerling has agreed to assist me on special assignments which will be described in a later memo.

The association of employee-related functions and information services in one LBL Division was made historically to take advantage of Ray Wakerling's considerable professional experience in both areas. I see little likelihood of selecting a new Division Head with such broad professional interests. Therefore, for this and other reasons I believe that the best interests of the Laboratory would be served in the future if this natural opportunity for restructuring were taken.

I have therefore decided to separate the employee and information services functions, transferring the employee-related components (Personnel, Affirmative Action, and Foreign Personnel and Visitor Arrangements Departments) to the Administration Division, reporting to G.L. Pappas; and transferring the information-related components (Technical Information, Public Information, Library, and IDAD) to the Engineering and Technical Services Division, reporting to W.D. Hartsough. This transfer is effective June 30, 1980. Further modifications of these Departments, as needed to integrate them into their new Divisions, will follow after the transfer. The Employee and Information Services Division has played an important role during the past six years, and I would like to take this opportunity to acknowledge Dr. Wakerling's contributions both as its leader and as a member of the Director's Staff.

Dr. Jack M. Hollander's terms as Associate Director for Planning will continue until November 30, 1980. Dr. Hollander has worked with me in this capacity this Spring in preparing LBL's Institutional Plan Preliminary Data Document and we are currently developing the Institutional Plan itself. His understanding of this process and his familiarity with its details have been very helpful as I have interfaced with the system for the first time, and I look forward to working with Jack through the remainder of the current Institutional Plan cycle. In the longer term, however, it is my intention to bring the planning function into the Director's Office and to involve the scientific Associate Directors more in this activity, rather than assigning the main responsibility to an Associate Director for Planning. On the expiration of his term, Jack will return to full-time status in the Energy and Environment Division, in the energy policy and conservation areas. It is a pleasure to thank Jack for his many contributions to the establishment of Energy and Environment activities in LBL and for his laboratory-wide planning functions. In addition, Jack has established a national and international reputation as an expert on energy supply and demand options. I am confident that we can expect further significant contributions from him in his new activities.

The Associate Directors who are heads of the scientific divisions of LBL will continue their terms, as described in previous memos. The previously arranged change of leadership in the Chemical Biodynamics Division will take place on July 1 when Professor George Pimentel returns to Berkeley to become Head of that Division and Associate Director of LBL.

David A. Shirley

Glenn

6/9/80

We talked to Kjell Aleklett today (and by coincidence Barbara Gacak who was visiting him). The experiment at CERN is scheduled for 15 Oct - 7 Nov. Sufficient time to do the experiment has been allotted by CERN (probably more than the 5 hours mentioned in Kjell's letter). The issue of the collaboration with Brandt and Hagebo remains unclear (to me at least.). Kjell will check with them to find out exactly what they have done with U. (and Pb, for that matter). He seemed to indicate that they planned no mass distribution measurements although that would seem strange if they did measure F/B. I am uneasy about the arrangement with Brandt and Hagebo. If they have done work with U, I don't want to repeat it. If we do a U experiment by ourselves, I am not happy about adding their names to the paper, just for political reasons. I will try to speak to them if they go to the Gordon Conference to see if a meaningful collaboration can be set up.

Kjell also expressed some interest in a long range collaboration with you and me. He wants to set up a heavy ion program in Sweden working at CERN. He feels the CERN machine will accelerate Ar and α studies with low energy ions at CERN can complement Bevalac work.

I will be at the Gordon Conference next week and will contact you upon my return.

Walt Lowland.

P.S. The papers we discussed are being held or changed pending the outcome of Pat's new calculations. We are arranging for Bevalac run in mid-late July.

Lee, Judy Brodtkin and Grégory Sayle.

Ken Moody dropped in at 3:30 p.m. to give me the bad news that Luo Cheng lost the transplutonium fraction of our long ^{86}Kr plus ^{248}Cm bombardment due to "bumping" when he was evaporating a fraction to dryness.

At 1:35 p.m. I talked with Martha McEvoy, one of the members of my Freshman Cluster Group this past academic year. She and Sam Behar will help me run (as student assistants) the Freshman Cluster Group in the 1980-81 academic year and Martha will call me about a week before the beginning of classes in the fall quarter (Monday, September 22).

At 4:30 p.m. I went by Building 70, and found that Gregory Sayle and Judy Brodtkin had started work on computer treatment of data with the help of Pat McGaughey. I had a rather long talk with Diana Lee about several aspects of our program and future plans.

Helen, Dianne, Kent and I had dinner in the patio (another warm day), after which I worked in the study.

Tuesday, June 17, 1980--Berkeley

At 8:40 a.m. I went over a few pending items and information materials with Gordon Bixler. Gordon will leave for India next Thursday, June 26th, for two weeks. I told Gordon about the call from Jack Stocker regarding the M&E committee meeting in New Orleans June 27-28 and my inability to be there. We hope that Bob Parry will attend and if he cannot, then my next choice is Polly Newman or Marg Gardner. I told Gordon that Stocker said international activities matters will be taken up on Friday night, June 27th. Regarding relations between U.S.S.R. and the U.S. (Gordon's memo to me of June 10th) I said I would call Richard Lemmon and suggest that the pro-article be written by Val Haensel rather than Stanley Kirschner. Paul Flory might write the con-article. I agreed with Gordon that we should go with Gordon's suggestion "B"--suggest to Clayton Callis that IAC is still interested in having PA&PR discuss the matter and either present a separate recommendation or present a recommendation in cooperation with Ellis Fields and the IAC subcommittee.

Regarding the various memos from Al Plant suggesting that IAC organize and conduct a series of international instrumentation workshops and exhibitions, I agreed with Gordon that this vast undertaking, while it has great merit, is impossible for IAC to do without additional staff assistance. Gordon will continue to work with Moses Passer on the idea that this falls into the "continuing education" category and his division may want to pursue it.

Gordon has prepared the IAC budget request for 1981, including an amount to fund an IAC representative to attend the San Jose, Costa Rica

meeting in February (the XIV Latin American Congress of Chemistry). Probably Al Zettlemoyer will go on the President's budget, Kirschner will attend because he is giving a paper. I said I could not attend unless it became absolutely necessary because of the dates--right in the middle of winter quarter.

I told Gordon that I had written a letter to Carl Djerassi inviting him to talk to the IAC during the August ACS meeting regarding the meeting in Tenerife, Spain and a copy of that letter has been sent to Gordon.

I told him about the letter Herbert Kaesz wrote to indicate support of the Division of Inorganic Chemistry in participating in the 1986 Pacific Basin Conference (Gordon was sent a copy), and my talk with Bill Lester, Chairman-Elect of the Physical Chemistry Division, who also indicated support.

I sent material to Ben Loeb (Sheila Berg's letter, the title pages of Freeman Dyson's book, Disturbing the Universe, etc.). I answered Guillermo M. Chaverri (General Secretary of the XIV Congreso Latinamericano de Quimica, in San Jose, Costa Rica), and Ruth Riecki's recent letter regarding plans for the high school reunion in Ishpeming in August. I wrote a letter in support of the application of Martin (Marty) Schulman for admission to medical school. I received a letter from the American Nuclear Society telling me that the Wick Plutonium Handbook is now out in two volumes, with my forewords (attached).

I completed the evaluation forms for the annual reviews of personnel for Diana Lee and Pat Johnson. Pat completed the forms for Lin Lorenz and Kathy Van Der Haeghen. These forms will be reviewed by Joe Cerny prior to their going to the LBL Personnel Office for further review and action.

I received a letter of reappointment to the Committee on the Clark Kerr Award from the Office of the Berkeley Academic Senate (I will serve on this Committee for another year).

At 10:30 a.m. I went by Building 70 to talk to Judy Brodtkin, Bob Welch, Rose McFarland, Gregory Sayle, Pat McGaughey, Diana Lee and Ken Moody about their work.

At 11:05 a.m. I talked with Louie Rosen (LASL) about his letter requesting support for the nomination of James Tuck for the Maxwell Award of the American Physical Society. Louie said that Jim has cancer, his friends are not too sure how much longer he will live, and many believed that something should be done to recognize his contributions to science, particularly in the plasma physics field. The Maxwell Award has been given to many people in this field in recent years. I said I would be happy to write a letter of support to Dick Post, Chairman of the nominating committee (at LLL).

At 11:30 a.m. Nina McClelland (ACS Department of Chemistry and Public Affairs) called to read a letter which the President of ACS, James

Ukon
Recd 6-26-57

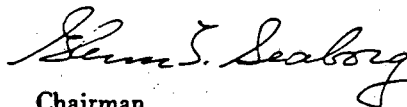
from - Plutonium Handbook, Vol. II

FOREWORD

It was a little more than a quarter of a century ago on the night of February 23, 1941, that A. C. Wahl, J. W. Kennedy and I succeeded in oxidizing a minute quantity of a new synthetic element, Element 94. This was the key step in the discovery of this new element, for which more than a year later we suggested the name plutonium. In the intervening years, there has been an enormous scale-up in the production of plutonium amounting to a factor of more than 10^{18} . In those intervening years we have all gained added appreciation of the potential uses of its various isotopes for the benefit of man.

The most significant impact of the discovery of plutonium may well be its importance in making available the vast energy resources locked in the abundant non-fissionable isotope of uranium, uranium-238. These vast energy resources can be tapped through the intermediary of the fissionable plutonium-239. Other isotopes of plutonium have also come into prominence. In the intervening quarter of a century, plutonium-238 has become a most important source of isotopic power. I am confident that in the next quarter of a century plutonium will bear the fruit of its present promise and that new and important contributions to mankind will be discovered.

As we stand on the threshold of what is likely to be a period of intensive development in the use of plutonium, it is especially valuable to have available this very comprehensive and authoritative treatise. It should provide much assistance to those who will be working to make plutonium fulfill its promise.



Chairman
Atomic Energy Commission

Chron
Rec'd 6-26-20

from - Plutonium Handbook, Vol. I

FOREWORD

It was about forty years ago in Berkeley, on the night of February 23, 1941, that we succeeded in oxidizing a minute quantity of a new synthetic element, Element 94. This was the key step in the proof of the discovery of the new element, for which about a year later we suggested the name plutonium. In the intervening years, there has been extensive investigation of plutonium and an enormous scaleup in its production, amounting to a factor of more than 10^{18} . Even as one who has been continuously associated with plutonium since its discovery, I never fail to be somewhat awed by the amount of knowledge about this synthetic element that has been gained in the 40 years that have elapsed since A. C. Wahl, J. W. Kennedy, E. M. McMillan, and I performed the discovery experiments.

Working with plutonium is not an easy matter because of its radiological toxicity. On the other hand, its radioactivity makes it readily measurable in chemistry research, and safe methods of handling have been devised. Chemical knowledge can contribute to the safe handling and provide means for helping to deal with its toxicity.

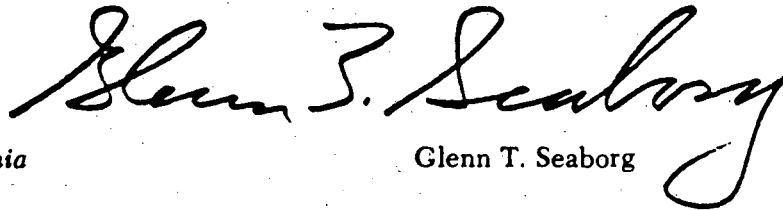
Plutonium-239 is an article of commerce on an international scale because of its potential for use as fuel in fast breeder reactors to produce electricity for an energy-hungry world. However, there are some who so fear its toxicity and potential for the proliferation of nuclear weapons that they would forego its use. I believe that the need for energy will be so severe that these problems will find a satisfactory solution and plutonium-fueled breeder reactors will be used in many parts of the world.

The technical requirements that will be placed on plutonium as a nuclear fuel will become more stringent as the operating temperatures of power reactors are increased to obtain greater thermodynamic efficiency. Thus, there will be a general trend toward increased usage of ceramics and cermets in which plutonium or a mixture of uranium and plutonium will be metallic constituents. This in turn will require the consideration of novel fuel reprocessing methods in which the fissile and fertile isotopes can be separated economically from fission products. Therefore, chemical technology and metallurgy will be as important as ever in making full use of nuclear power to satisfy the worldwide escalating demands for electricity.

Even more exacting chemistry is needed for the preparation of plutonium compounds employed to fuel radioisotope-powered electrical generators and other types of energy sources with plutonium-238. Some of these devices, used on the moon and for the exploration of planets, convert the decay heat of plutonium-238 to electricity, and the heat sources operate at very high temperatures for protracted lengths of time. The heat sources must survive

unusual transient conditions as well. The preparation of ultra-pure plutonium-238 and compounds of the isotope with enriched oxygen-16 (to reduce neutron emission by alpha-n reactions) is being investigated for use as power sources in cardiac pacemakers and for artificial heart pumps. The chemist and metallurgist are at the forefront of this type of work.

As we stand on the threshold of what may be a period of intensive development in the use of plutonium, it is especially valuable to have available this very comprehensive and authoritative treatise. It should provide much assistance to those who will be working to make plutonium fulfill its promise.

A handwritten signature in cursive script that reads "Glenn T. Seaborg". The signature is written in dark ink and is positioned to the right of the typed name.

*University of California
Berkeley, California
February 1980*

Glenn T. Seaborg

D'Ianni, sent in response to my request, to individual members of the House Appropriations Committee protesting the cuts for FY81 and describing the effects such cuts would have on basic research in chemistry, especially in the area of high energy research. She will send a copy.

I had lunch in the cafeteria with Ken Moody, Pat McGaughey, Diana Lee, Judy Brodtkin, Gregory Sayle, Robert Welch, then joined at the outside table at the lower level Earl Hyde, Norman Edelstein, Ron Shinomoto, Jerry Bucher, and others. Norman Edelstein just returned last week from the 10th Journees des Actinides conference in Stockholm.

Yuan Lee dropped in at 2 p.m. to tell me he is leaving tomorrow for a three-week visit to the PRC to give a course and lecture on molecular beams.

At 2:20 p.m. Bernie Harvey called to tell me that the House Appropriations Committee had passed the bill reducing the FY 81 budget for research. We discussed plans of action and I said that I would call Senator Jackson and see if we could stop the bill before it reaches the Senate Appropriations Committee. I told Bernie about the letters from ACS President James D'Ianni which were too late for any effect and Bernie said that they should still be sent to the House but should also go to the Senate members on the Committee. The bill passed will reduce the budget for FY 81 from \$145.3M to \$135.3M. Bernie told me about the help of David Saxon and others in trying to stop this bill. We then discussed the effect that it would have on LBL and other labs. Bernie said that the Bevalac and SuperHILAC would have to go on a four-month operating schedule and the 88" Cyclotron would go from a 7-day week to a 5-day week which would be a drop of 40% due to start-ups and shut-downs. He said that it isn't cost-efficient to do it that way but it's necessary. I asked about the effects on other labs and Bernie checked with LASL and found that LAMPF has been operating on 30 weeks per year for FY 80 and would have to go to 20 weeks with a release of 15 staff people. Pion and heavy ion therapy have to be stopped. Bates, Brookhaven and Oak Ridge would also be affected.

At 5 p.m. I went by to talk to Judy Brodtkin and Gregory Sayle about their progress in getting started and to Diana Lee and Ken Moody.

Helen, Dianne, Kent and I had dinner in the patio, after which I worked in the study. I read proof on the final copy of my Met Lab Sec.C-I history, which will now go out for production within a few days.

Wednesday, June 18, 1980--Berkeley

I stopped at my dentist's office (Kent Kohler) on the way to work to have a filling in a front tooth replaced.

At 9:25 a.m. I talked with Ben Loeb about several matters concerning our book, "Kennedy, Khrushchev..." He was very pleased to receive the Warren Heckrotte letter which I sent him recently. We discussed how to identify Heckrotte in the acknowledgments for the book. I told Ben that

Heckrotte was assigned to me at the time of the disarmament negotiations, and that Heckrotte is still involved in these matters for the government.

We discussed Adlai Stevenson's role in the disarmament talks and particularly his part in the Moscow treaty signing. Ben has found a discrepancy in two accounts (saying that Kennedy kept Stevenson from attending the Moscow signing) and accounts in my journal of 8/2/63. I told Ben that I have a picture taken with my personal camera of Stevenson and me in Copenhagen on our way to Moscow. I also told him about the picture I took of Khrushchev giving his unscheduled speech at the time of the treaty signing that I know has not been published before.

We then discussed the possibility of Ben's visiting the Kennedy Library in Boston. I said I would contact Stephen Smith or someone in his office, about this, and make arrangements for Ben to have access to whatever he needs. It would be good if someone could assist Ben in getting out records, etc. prior to his arrival in Boston.

I wrote a letter of support for the nomination of James Tuck for the Maxwell Award of the American Physical Society; I answered Ingmar Eneberg (UNESCO) regarding the consultative meeting held in Tenerife and commenting on the ICS. A draft outline for a benchmark book on nuclear chemistry, to be edited by Walter Loveland and me, was sent to Joyce Kaufman today; I also wrote a note to Walter regarding this. I sent Henry Bruman (UCLA) a copy of the picture with members of the Beta Gamma Chapter of Alpha Chi Sigma from the mid-1930's, that he requested when I saw him recently at UCLA.

At 11:10 a.m. Mrs. Helen Konapek of the Journal of the American Chemical Society called me from Ann Arbor, Michigan to say that she had received the book we returned by Federal Express yesterday. She asked if they could reimburse me for sending it back and I told her there was no need for that. She apologized for the mix-up, said that the book I was to review was in Dr. Scott's hands at UCLA. She will retrieve it and send it to me shortly.

At 11:45 a.m. I was able to reach Franklin Long at Cornell University. I asked him if he would be interested in reading my manuscript, Kennedy, Khrushchev and the Test Ban: An Eyewitness Account. He said he would be delighted to do so but it would have to be after his return from Europe on July 10th. He asked me a few questions about research funds at the University of California during the days when he (and I) were graduate students in the Department of Chemistry. He is doing a paper on uncompensated costs of R&D activities in US universities and believed that there were no research funds as such at that time. He believes and will state in his paper, that uncompensated research is one of the major contributions of universities to mankind. I told him that I believed that due to Gilbert Lewis' reputation he had a small research budget. He asked that I inquire of Joel Hildebrand and have Joel call him collect.

I called Roger Reeve back at 12:25 p.m. He said that Grizzly Peaks

Estates have received building permits for a number of dwellings on the Oakland Ridge for which they will use water from the emergency water facilities. Tom Bates is demanding that an Environmental Impact Report be prepared but it is doubtful that the building of these dwellings can be prevented. He has written letters on behalf of CUWA of which I will receive copies. He hopes to raise some money to fight the further construction of dwellings on neighboring property.

I had lunch at my desk at about 12:30 p.m.

At 12:45 p.m. Dave Powers from the Kennedy Library returned my call of earlier this morning. I gave him background on the "Kennedy, Khrushchev..." manuscript that Ben Loeb and I are writing. I told him that Ben Loeb may want to come to the Kennedy Library to check out possible illustrations and other material for our book. Dave assured me that everything would be at Ben's disposal and informed me that Ben should call before he comes and he will show him around. Dave told me that Allen Goodrich was the AV materials person, Bill Johnson was Chief of Research and Bill Moss was Chief Archivist in charge of Classified Documents. I thanked him for his help and said that Ben Loeb would be contacting him directly for arrangements.

At 12:45 p.m. I walked down to Room 444 Latimer Hall to meet with the other members of the qualifying examination committee for Mark Phillips. All were in attendance (Samuel S. Markowitz, Herbert L. Strauss, David N. Lyon and Leo Brewer, Chairman). At 1:30 p.m. we joined Mr. Phillips in the Faculty Lounge, 510 Latimer, for a somewhat informal continuation of his qualifying examination. Phillips again did so poorly we did not qualify him for the Ph.D. but agreed to award him a Master's Degree.

I dropped by Joel Hildebrand's office on my way back up to LBL following the Mark Phillips qualifying examination; I told him about my conversation with Franklin Long and gave him the telephone number to call.

I walked back up to my LBL office, arriving at about 4 p.m.

At about 5 p.m. I drove down to the campus and picked up Helen and we drove to the campus of Stanford University and on to the Herbert Hoover Institute main building. Here we attended the buffet reception hosted by Glenn Campbell for the National Science Board of the National Science Foundation which was there to hold the regular June meeting devoted to Long Range Planning. Helen and I sat at a table with Mr. and Mrs. Ted Doan (Dow Chemical), Edward and Mici Teller, Dr. Jewel Cobb (a biochemist and Dean of Douglas College (women) of Rutgers University), Alex Rich (a biophysicist from MIT), Richard Atkinson (outgoing Director of NSF), and Paul Flory.

During the course of the evening Helen and I met and talked to Roger and Esther Heyns, David Saxon, George Pimentel, Don and Sylvia McLaughlin, Lewis Branscomb (incoming Chairman of the National Science Board), Norman Hackerman (outgoing Chairman of the National Science

Board), Dan and Bunny Koshland, Vernice Anderson (Executive Secretary of the NSB), Joe and Florence Pettit (Joe claims he took a course from me as an undergraduate when I was a TA along about 1934 and knew me when he was an instructor in the College of Engineering in 1940-42), George Murray, Lloyd Cook (who said he was in charge of the ACS Regional Meeting at Northwestern University when I talked there on November 16, 1945).

I also talked to Donald Kennedy (incoming President of Stanford University), Dick Lyman (outgoing President of Stanford University), and Dr. Donald N. Langenberg, who is serving as the Deputy Director of the National Science Foundation.

Helen and I drove home arriving a little after 10 p.m. We learned from Dianne and Kent that Britta Isen (whom Eric and I met on September 30, 1977 at the Student Ball at Uppsala University on the occasion of the 500th Anniversary celebration) had arrived in San Francisco and at Eric's invitation was planning to spend the night with us. Helen picked her up at about 10:30 p.m. at the Lafayette BART station.

Thursday, June 19, 1980--Berkeley

At 9:10 a.m. I called Joe Katz to discuss items pertaining to our revision of The Chemistry of the Actinide Elements. Joe met with H. Crosswhite and M. Fred (ANL) and indicated to them where he thought revisions should be made; they will coordinate the two chapters and promised a draft by July 20th. He also met with Bob Penneman who agreed to enrich Joe's edited draft of the chapters on americium and curium. This, too, will be done by July 20th. He suggested Leonard Katzin could check on all publications dealing with the actinide elements (except uranium and thorium) and make up a bibliography. I will check this out with Katzin.

The May-June 1980 copy of Interciencia arrived today with a rather prominent quote of mine from 1973 (attached). I wrote a letter of support for Candace Voelker for admission as a limited student at UC, Berkeley. I agreed to speak at the ACS Student Affiliates meeting in Murfreesboro on April 3, 1981.

Joe Leighly came by at 11:15 a.m. and, after I described to him our research program and he told me his background (just finished his sophomore year as a mathematics major at Harvard) I took him by Building 70 to meet the members of my group. We then went to the cafeteria to have lunch--Leighly, Moody, McGaughey, Diana Lee, Gregory Sayles, Judy Brodtkin, Yoshi Morita, Robert Welch. After lunch I took Leighly up to the HILAC Building to meet Al Ghiorso, Mike Nitschke and Matti Leino. He will work with Nitschke on a mathematical problem and have his office with Matti Nurmia.

At 1:45 p.m. I talked to John Wotiz regarding the History of Chemistry Center and the letter I received from M. Williams, IUPAC Executive Secretary. John confirmed that the Center will emphasize international

establish a world ruled by repression of the many poor by the few rich?

To my mind, there can be no other answer: science must liberate man and woman and by that I do not mean men and women of the advanced societies. We must work for liberation of all men and women everywhere so that science will fulfill its vocation of universality and will become the patrimony of all mankind.

REFERENCES

- Biato, F. A., De Almeida Guimarães, E. A. and Poppe Figuerreiro, M. H. (1971): *Potencial de pesquisa tecnológica no Brasil*, Ministério do Planejamento, Instituto Econômico e Social, Brasília, 1-198.
- Dirac, P. A. M. (1973): Development of the physicist's conception of nature, in *The Physicist's conception of nature*, ed. J. Mehra, 1-14, D. Reidel Publishing Co., Dordrecht, Holland, 1-839.
- Einstein, A. (1973): *Ideas and opinions*, page 272, Souvenir Press, London 1-307.
- Ferreira, R. (1978): As origens da atividade científica no Brasil, *Ciência e Cultura* 30: 1301-1307.

- Giambiagi, M. S. and Giambiagi, M. (1978): *Alcune riflessioni suggerite dal tema: piani di studio per il dottorato in chimica teorica, IX Congresso de Chimici Teorici di Espressione Latina*, Siresa, Italy, September 1978.
- Hoyle, F. (1973): *The ten faces of the universe*, page 78, W. H. Freeman and Co., San Francisco.
- Leite Lopes, J. (1966): Science for Development, a view from Latin America, *Bull. Atomic Scientists*, 22: 7-11.
- Leite Lopes, J. (1972): The evolution of the notions of space and time, *Scientia* (Milano) 107: 411-433.
- Leite Lopes, J. (1977): Science and dependent development, *Interciencia*, 2: 139-142.
- Leites Lopes, (1978): Les transferts de technologies: l'exemple du Brésil, in *Plurisciences. Encyclopedie Universalis*, Paris, 221-224.
- Misner, C. W., Thorne, K. S., Wheeler, J. A. (1973): *Gravitation*, page 753, W. H. Freeman and Co., San Francisco.
- Newton, I^c (1952): *Opticks: Treatise of the reflections, refractions, inflections and colours of light*, page 400, Dover Publications, New York (based on the fourth ed., London 1730).
- Roche, M. (1976): Early history of science in Spanish America, *Science*, 194: 806-810.

Guatemala 1980
Russell, B., (1948): *Human Knowledge, its scope and limits*, page 24, George Allen and Unwin Ltd, London.

Sciama, D. W. (1973): The Universe as a whole, in *The Physicist's conception of nature*, J. Mehra editor, 17-33, D. Reidel Publishing Co., Dordrecht, Holland.

Schilpp, P. A. (ed.) (1949): *Albert Einstein, Philosopher-Scientist* page 19, The Library of living philosophers, Inc., Evanston, Ill.

Velho, O. G. (1976): *Capitalismo autoritário e campesinato*, Difel, São Paulo.

NOTES

1. The difference between the reputation of Aristarchus and that of Copernicus and Galileo lies, according to Russell, in the fact that in ancient Greece, astronomy was an amusement of the idle rich and not an activity integrated in the life of the community. In the 16th century, however, science had made important inventions, the discovery of the Americas had shown the limitations of the ancient knowledge of geography, Catholic orthodoxy had begun to be an obstacle to material progress and the fury of theologians made scientists appear as heroic champions of a new wisdom (ref. 2, page 25).
2. See Eric J. Hobsbawm, *Industry and empire*, page 146, Penguin as quoted by O. G. Velho, 1976, ref. 15.

"Perhaps the next step might be to join our sister national associations of science in Latin America and Canada to create a true AMERICAN Association for the Advancement of Science - an association in which the term AMERICAN would represent its broader and true meaning."

Glenn T. Seaborg

México City, 1973

aspects of the history of chemistry. He was encouraged by the inquiry from IUPAC, said he had received other inquiries which supported the establishment of a center and he asked that this be an item for discussion at the IAC meeting in San Francisco this August. He will send me updated material.

At 2:15 p.m. I returned an earlier call from Glen Rizelli, a former student of mine in Chemistry IB (about three years ago) who is now a graduate student in physiology. He had many questions about the discovery of plutonium, the existence of plutonium in nature, how and where it was first discovered, and especially its physiological effect, etc.

Rose McFarland dropped in at about 2:30 p.m. to tell me she will go on vacation (in Idaho) until about July 6. She gave me a progress report on her research.

At 2:50 p.m. Gregory Keney, a student in Nuclear Engineering, UCB, called to ask me to serve on his thesis committee. Professor Lawrence Ruby is Chairman, and Professor Robert V. Pyle is also a member. He will do a "project" type thesis and plans to finish by December 1980. I will review his thesis, and said that I will serve as a member of his committee.

At 3 p.m. I went by Building 70 to talk to Judy Brodtkin (working on the microcomputer in room 210), Sayles (in room 203), RoseMcFarland, Ken Moody, Pat McGaughey, Bob Welch and Yoshi Morita. I also talked to Diana Lee (in room 213) about ordering equipment on the remainder of this year's budget and on next year's budget.

Leonard Katzin returned my call at about 4:25 p.m. I told him that Katz and I would welcome his help in the revision of the book on The Chemistry of the Actinide Elements. I told him that royalties would not be available but an expense account is possible. Katzin is to work on the actinides and the individual actinides (except Th, U, Pu) and find, xerox, and send to me relevant abstracts from Chemical Abstracts of scientific importance. Katzin said he would be interested in doing this.

Helen, Dianne, Kent and I had dinner in the kitchen after which I worked in the study.

Britta Isen returned from a sightseeing visit to San Francisco and we had a talk with her concerning her impressions of the U.S., our (Eric and my) encounter with her at Uppsala University in September 1977, etc. She spent the night with us.

Friday, June 20, 1980--Berkeley

I had breakfast with Dianne and Kent, joined later by Britta. She is travelling to Los Angeles today by bus, soon will return to Sweden. She has been in the U.S. since last December.

Kent rode with me to Lomas Cantadas Road (at Grizzly Peak Blvd.), near which he is starting his summer job as a carpenter. He is helping Professor Richard M. Karp (Engineering, UCB) build a house on land neighboring Grizzly Stables.

At 11:20 a.m. Phil Abelson (Editor of Science magazine) called to ask my opinion about the possibility of certain nuclear waste disposal methods. He said that a man named Frank von Hippel has written a short paper which has been reviewed negatively by some and very positively by others including Hans Bethe. Phil said that there was no doubt about the calculations but that the results were very surprising. We discussed the feasibility of methods for separating Pu, Am and Cm from nuclear waste, which I said could be done, and then reminisced for a while about family and acquaintances.

I had lunch in the cafeteria with Ken Moody, Pat McGaughey, Rose McFarland, Judy Brodtkin, Gregory Sayles and Bob Welch. After lunch I went by Building 70 to talk to Luo Cheng and Yoshi Morita about their work.

At about 2:30 p.m. I walked up to the HILAC Building (#71) to talk to Al Ghiorso and Saburo Yashita, completing some experiments with SASSY, and to Mike Nitschke, getting ready to test his detection apparatus with the reaction $^{238}\text{U} (160, 6n) ^{248}\text{Fm}$, beginning at 4 p.m. I also went by to talk to Pat Somerville, who was writing on his thesis. I checked on the status of the 3rd injector. Bob Stevenson showed me the parts of the van de Graaf in place, told me the Wideroe accelerator will be delivered on Monday.

I then went to Building 70 to talk to Rose McFarland about her work. Judy Brodtkin is pleased with her progress in learning computer programming. Sayles has been helping set up a new optical bench for our Bevalac bombardments (25 GeV ^{12}C), scheduled for July 15. I also talked to Ken Moody, Pat McGaughey, Yoshi Morita and Bob Welch.

Bob Parry returned my phone call. He said that he would be able to attend on my behalf the meeting of the Meetings and Expositions Committee in New Orleans on Friday and Saturday, June 27-28. I told him I thought it important that we talk with the Chairmen-elect of the Divisions. I mentioned that I have already spoken with Bill Lester of LBL and Herb Kaesz at UCLA.

At about 3:45 p.m. I drove down to Berkeley, met Helen, and we drove to the San Francisco International Airport. She told me that Lynne called, said she and Bill are driving down to Lafayette this afternoon and will have dinner with friends (a couple). Lynne and Bill Cobb will spend the night in our Lafayette home. Dianne (or Helen) will drive them to Sacramento Airport tomorrow, where they will board the 3:15 p.m. plane to Cedar Rapids (Iowa City) to return home.

I boarded National Airlines flight 842, which left at about 5:45 p.m. and arrived at Houston Airport at about 11:15 p.m. I took a taxi to the Shamrock Hilton Hotel, checked into room 404.

Saturday, June 21, 1980--Houston

I had breakfast at the counter in the hotel restaurant, then joined Henry Eyring and W. O. Baker in a taxi to the Bank of the Southwest Building. C. S. Marvel, George Beadle, and E. J. Corey rode in another taxi. At the Welch Foundation headquarters on the 20th floor the six members of the Scientific Advisory Board met in the conference room with W. O. Milligan. Following the agenda, we first considered the progress reports to assign grades and to assign supplemental grants to use extra available money.

From 11 a.m. to noon we met with Trustees Jack S. Josey, E. L. Wehner, Marvin K. Collie, R. P. Doherty, Wolfe, and Treasurer Bob Wise to discuss the choice for the 1980 Robert A. Welch Award. We agreed that the choice might be made from a list consisting of Dr. Joseph Chatt, Paul D. Bartlett, Frank A. Cotton, and Nelson J. Leonard plus Frank Westheimer and Sune Bergstrom. The members of the SAB, Trustees Wolfe and Wehner, Treasurer Wise, Earl F. Engles (Dow Chemical Companies Foundation), and the three girls who serve as our support during the meeting had lunch in the El Paso Room (3rd floor), Sheraton Hotel. After lunch Earl Engles (Program Manager, the Dow Chemical Company Foundation) described to us a plan for Dow to give \$20,000--\$30,000 research grants in chemistry to individual investigators (total of about \$1,000,000 per year to start). He will be in charge and the program will start this year. We suggested that he have an independent, outside advisory board of scientists to choose the grantees from among the applications. He now plans to use Dow Company scientists for this.

The members of the SAB and Milligan returned to the Welch Foundation headquarters to continue our meeting. We decided on invitations for renewal of grants, added some more supplemental money to some grantees, decided on which voluntary proposals to accept. We agreed to recommend to the Trustees as recipient of the Robert A. Welch Award (1) Sune Bergstrom for "his pioneering investigations of the prostaglandins", and as second choice (2) Paul Bartlett and as third choice (3) Frank Westheimer for research in the area of physical organic chemistry. For Paul Bartlett the citation reads "for original investigations of the mechanisms of organic reactions" and for Westheimer it reads "for combining principles of organic and physical chemistry in elucidating reaction mechanisms." We will suggest that Paul Bartlett and Frank Westheimer might be considered as co-winners (as second choice) or perhaps as co-winners (first choice) next year. We are suggesting the Award be given every year in the future. The six members of the SAB, Milligan and the four girls on the supporting staff (including Melba Gibson) had dinner (buffet) in the Plantation Room of the Houston Club.

After dinner we returned to the Welch Foundation headquarters to continue our meeting, mainly to supervise the typing of our report to the Trustees. We finished at about 9:45 p.m., then the members of the SAB returned to the Shamrock Hilton Hotel.

Sunday, June 22, 1980--Houston/Rochester

I had breakfast in my room, checked out of the hotel, then rode in a taxi with W. O. Baker and Henry Eyring to the Bank of the Southwest Building to attend the continuing meeting of the Scientific Advisory Board. All members of the SAB and W. O. Milligan were present. We were soon joined by Trustees Wolfe, Wehner, Doherty and (later) Josey, and Bob Wise. The Trustees voted to present the Welch Award every year and to present the 1980 Award to Sune Bergstrom.

We then had a joint meeting of the SAB and Trustees only (W. O. Milligan and Bob Wise left). We discussed possible ways of effecting the replacement of W. O. Milligan by Norman Hackerman as Director of Research of the Welch Foundation with minimum adverse effect on W. O. Milligan.

W. O. Milligan and Bob Wise rejoined us and we presented our report to the Trustees.

After the meeting Josey spoke to me about the timing, unfortunate in his view, of the dinner hosted by the Welch Foundation (W. O. Milligan) in Stockholm at the time of the Nobel Ceremony (it was held after the Ceremony, rather than before when I could have attended).

George Beadle and I took a taxi to the Houston International Airport, where we boarded American Airlines flight no. 116, which left at about 12:30 p.m. and arrived at Chicago (O'Hare Airport) at about 2:55 p.m. Here I boarded American Airlines flight no. 486, which left at about 4:20 p.m. and arrived at the airport at Rochester, New York at about 6:30 p.m.

I was met by Dr. William Hayles, who drove me by the 6th Biennial Chemical Education Conference registration area on the Rochester Institute of Technology (RIT) campus, then to Hilton Inn on the campus, where I checked into room 402.

I had dinner in the Inn dining room with Hayles, then rode with him to the National Technical Institute for the Deaf (NTID) on the RIT campus. We went to the main auditorium where Dr. Moshe J. Lubin, director of the University of Rochester's Laser Energetics was scheduled to speak on "Fusion--An Energy Technology for Tomorrow." Before the talk I met RIT President Richard Rose, Dr. Bernard Brody (who worked with me at the Met Lab from 1943-1945, whom I recommended for the University of Rochester Medical School and who has lived in Rochester ever since the war except for a couple of years), Moshe J. Lubin, Dr. Earl Krakower (head of the chemistry department at RIT and Conference Chairman), Stanley Kirschner, R. Eisenberg, Joseph Lagowski, and Leonard W. Fine (who plans to publish the introductory talks to my Baker Lecture at Caltech in the Journal of Chemical Education and will get in touch with me about this.)

Krakower, Rose and Fine made some opening remarks, then Lubin gave his talk. His time scale for nuclear fusion as an energy source was

realistic. He estimates break even for three to five years, actual production of electricity on a power grid for 2020 to 2050, said the program could not use much more money efficiently. He doesn't think fusion prototype reactors should be built now. He rates laser and heavy-ion induced inertial confinement fusion as equal contenders for a successful program.

After the talk, which was followed by a question and answer period, I attended a reception given by President Rose in the courtyard area of the building. Here I talked quite a while with Bernie Brody and his wife, reminiscing about Met Lab days. I haven't seen Bernie since 1945. I also talked to Stanley Kirschner about the Bangkok meeting of the Executive Committee of the Study Committee on the Formation of an International Chemical Society.

I rode back to the Hilton Inn on Campus with Bill Hayles, who is a member of the Chemistry Department at RIT and has been for nearly 30 years. He did graduate work at Iowa State.

Monday, June 23, 1980--Rochester/Lafayette

I had breakfast in the Hilton Inn restaurant, checked out, rode with Bill Hayles to the National Technical Institute for the Deaf on the RIT campus. I went to the main auditorium where I was scheduled to give the opening plenary lecture.

I talked to Maurice Dupree (sp) of Montreal who has written a book on the use of ChemStudy films (which Timothy Westbrook may print and of which David Ridgway has a copy of the manuscript). I also talked to Henry Bent (who reminded me that Frank Long introduced us more than 40 years ago); his son Henry Bent, Jr., is now at North Carolina State University. I also talked to Adrian Daane (who worked with Frank Spedding as a graduate student at Iowa State College during World War II, whom I knew at that time, and who now is Dean of the Graduate School, University of Missouri, Rolla, Missouri).

Earl Krakower introduced William Castle (Vice President of RIT in charge of NTID) who described, with slides, the NTID.

Stanley Kirschner then introduced me and I gave my talk "Our Energy Problem", illustrated with 11 slides. I talked for about 50 minutes followed by a 10-minute question and answer period. One question contradicted me by quoting the report of the Harvard Study Group, which says we can solve our energy problem with only conservation and solar energy. Stanley Kirschner, serving as presiding officer, called on R. Eisenberg, himself and E. W. Vitz for their talks (list of attendees attached).

I then walked with Earl Krakower and Stanley Kirschner to the George Eastman Memorial Building (RIT administration building) to attend on the top floor a luncheon in my honor hosted by RIT President M. Richard Rose. I sat at a head table with M. Richard Pose, Earl Krakower, Leonard

Fine, and Moshe Lubin. I talked to my old friend Frank Drake, Chairman of the Rochester Gas and Electric Company.

After lunch I walked back to the NTID with Earl Krakower, Leonard Fine and Stanley Kirschner. Here I was interviewed, in the lobby, by Janet Lomax (TV Channel 10--CBS) and in a press room, by Jackie Walker (TV Channel 8--NBC). Both asked me questions about energy and nuclear power. I rode to the Rochester Airport with Earl Krakower and David Harpp (member of the Chemistry Department at McGill University and hence a colleague of Jim E. Logan). I boarded American Airlines flight no. 301, which left at about 4:15 p.m. and arrived at Chicago (O'Hare Airport) at about 4:45 p.m. Here I boarded American Airlines flight no. 205 which left at about 6 p.m. and arrived at San Francisco International Airport at about 8 p.m.

Helen met me and drove me home to Lafayette. She told me Molly Reeves and her daughter Ulla arrived yesterday to spend a number of weeks with us. I met Molly when we arrived home and spent some time talking to her. She and Harry and their children Wesley and Ulla now live in Quincy. I also talked to Dianne and Kent. Kent is working for Karp in Orinda on the building of his home adjacent to Grizzly Stables.

Tuesday, June 24, 1980--Berkeley

I had breakfast, starting as Molly and Ulla were finishing, then with Kent. Molly brought Ulla to stay with friends in Concord before she went to summer school at U.C. Berkeley. Kent rode in with me as far as his job in Orinda, then I drove on to my LBL office.

At 8:45 a.m. I talked with Paul Baker (KEVEX) regarding extending the time during which an employee of Kevex can trade Kevex stock as related to the publication of quarterly earnings. At the next Board meeting the issue will be discussed in detail: 1) whether or not the time should be increased and a formal resolution be made by the Board (from two weeks), and 2) whether the trading period of two weeks is long enough. Paul has canvassed all the Directors and I agreed to the extension requested by two employees who were on vacation during the recent "window" period. All Directors have agreed.

I wrote to Ellwood Mattson (Committee for the Sam M. Cohodas 85th Birthday Celebration) and said I was pleased to have my name included as a member of the Dinner Committee for the birthday celebration of my friend, Sam Cohodas, even though Helen and I cannot join them on that occasion. I regretted an invitation to speak to the Conference of the New Zealand Institute of Architects at their meeting in May 1981. I received a letter from Kjell Aleklett today with more information on our CERN experiments, and a nice letter from Edward Cornish regarding the forthcoming World Future Society conference in Toronto, with which Eric is helping (both attached).

NATURVETENSKAPLIGA FORSKNINGSLABORATORIET I STUDSVIK

The Studsvik Science Research Laboratory

Studsvik 1980-06

BT 612-180
C. E. 200 700

Dr G T Seaborg
Lawrence Berkeley Laboratory
University of California
BERKELEY, CA 94720
USA

Dear Dr Seaborg,

The experimental period at Studsvik has now ended which means that I have more time for the things that we are doing together. I am working with our article for "Forskning och Framsteg" and started with an English version, but the result was not too good. Now I'm working on a Swedish version, but only parts of it are finished. One problem is the limited number of pages that we have. As an example and as some practice in Swedish I send you the introduction and the end about superheavy elements. I'm also planning a cartoon for the article in which three golfplayers on the main land are trying to reach the superheavy island. F & F will make the drawing and they can also make an English version of the cartoon if you like. I'm thankful to get advices about the English text.

The CERN experiments will not start before October 15. CERN has asked me if we are interested in lower energies than 86 MeV/nucl and beams with Ne. If we say yes, we can get time for that during Spring 1981. As Bevalac is down then it might be interesting for you. I have the opinion that we can have an experimental program at CERN for two, three years if we like. That would mean that my main interest will change to high energy heavy ion physic and I have to get money for such a program from The Swedish Natural Science Research Council (NFR). If I can combine my application with an experimental program at Bevalac I think it will be possible to get the money I need. A collaboration where I'm responsible for the experiments at CERN and you for the one at Berkeley would be practical. That means that I will take part in the experiments at Berkeley with Bevalac II. I then plan to stay at Berkeley for two-three months a year divided into two periods for three years starting then when Bevalac II is ready. If you and Loveland are interested in such a collaboration we can make the final planning at Geneva but I can be helped to have your opinion before that. It is, however, necessary for NFR to have this proposal in January 1981.

Barbara has just been in Sweden and it was nice to talk about Berkeley memories with her. She has a good time at GSI and look forward to work with her Ph.D.

Cordially,

K. G. Eriksson

Postadress - Address	Telefon - Telephone	Telex - Telex
S-611 82 NYKÖPING SWEDEN	0155 - 800 00 260a	64013 studs s

WORLD FUTURE SOCIETY

An Association for the Study of Alternative Futures

Publisher of THE FUTURIST: A Journal of Forecasts,
Trends and Ideas About the Future

DIRECTORS:

ARNOLD BARACH
Senior Editor
CHANGING TIMES MAGAZINE

ORVILLE FREEMAN
President
BUSINESS INTERNATIONAL
CORPORATION
formerly U.S. Secretary
of Agriculture

BARBARA HUBBARD
Organizing Director
COMMITTEE FOR THE FUTURE

SOL M. LINOWITZ
Senior Partner
COUDERT BROTHERS
formerly Ambassador to the
Organization of American
States

CARL H. MADDEN
Professor of Business
AMERICAN UNIVERSITY
formerly Chief Economist,
CHAMBER OF COMMERCE OF
THE U.S.

MICHAEL MICHAELIS
Senior Consultant
ARTHUR D. LITTLE, INC

GLENN T. SEABORG
Professor of Chemistry
UNIVERSITY OF CALIFORNIA
formerly Chairman
U.S. ATOMIC ENERGY
COMMISSION

ROWAN A. WAKEFIELD
Principal
WAKEFIELD WASHINGTON
ASSOCIATES

EDWARD S. CORNISH
President and Editor

FRANK SNOWDEN HOPKINS
Vice President and
Coordinator for Chapter
Services

PETER ZUCKERMAN
Secretary-Treasurer

**CHAPTERS and
LOCAL GROUPS**

CANADA

ONTARIO
Ottawa - Toronto

QUEBEC
Montreal

UNITED KINGDOM

LONDON

UNITED STATES

CALIFORNIA
Los Angeles
San Jose
San Francisco

CONNECTICUT
Hartford-New Haven

DISTRICT OF COLUMBIA
Washington

GEORGIA
Atlanta

HAWAII
Honolulu

ILLINOIS
Chicago

INDIANA
Indianapolis

MASSACHUSETTS
Boston-Cambridge

MINNESOTA
Minneapolis-St. Paul

NEW JERSEY
Madison

NEW YORK
New York City

OHIO
Columbus

OREGON
Portland

PENNSYLVANIA
Philadelphia

TENNESSEE
Memphis

TEXAS
Houston-North Texas

WASHINGTON
Seattle

WISCONSIN
Milwaukee

Am 6-12-80

June 18, 1980

Dr. Glenn T. Seaborg
Lawrence Berkeley Laboratory
University of California
Berkeley, California 94720

Dear Glenn:

We are delighted to have your son Eric here this month and next to help with our forthcoming conference in Toronto. He is currently editing a newspaper FUTURE TIMES which we will be sending to our members and you should get a copy of it within perhaps two weeks depending on the mails.

Enclosed is a copy of the letter indicating there is a possibility of Chinese participation at our meeting in Toronto. I enclose it because of your interest in Chinese affairs.

With all best wishes, I am,

Sincerely yours,

Edward S. Cornish
President

ESC:vak
Enc.

I had lunch in the cafeteria with Pat McGaughey, Ken Moody, Bob Welch, Judy Brodtkin, Gregory Sayles, Diana Lee, Cheng Luo and Yoshi Morita. I learned that Luo had a potentially serious accident (an explosion that endangered the vision of an eye) during a chemistry experiment yesterday. I had a long talk with Diana Lee, who told me that Luo has not learned his required skills very well and has been careless in following directions. As a result, I shall be forced to take him off his proposed uranium-heavy ions chemistry experiment.

I called Rollie Otto at 2 p.m. to ask him if he still needed someone to do data analysis work and suggested Larry Frank, a physics major on campus. Larry is a junior who has volunteered to do some work in my group this summer. Rollie said that he could put Larry to work doing yield distributions on the $^{40}\text{Ar} + \text{Bi}$ data.

At 2:30 p.m. I talked to Luo Cheng in my office, told him I am removing him from his chemistry assignment and will let him know later what I want him to do; he is to study and read in the meantime.

At 3 p.m. I walked up to the HILAC Building to talk to Joe Leighly (who is busy on a mathematical problem for Mike Nitschke), Nitschke, and Pat Somerville. I also talked to Bob Stevenson, learned that the Wideroe accelerator is ready in Building 77, may be delivered to the HILAC Building tomorrow.

At 4 p.m. I walked down to Latimer Hall to pick up my mail. I stopped by my office in Latimer to talk to Art Campbell, who is using my office while teaching Chemistry IB this summer. I picked up Kent in Orinda on my way home.

Helen, Dianne, Kent and I had dinner in the kitchen. (Molly was having dinner with her aunt at H^s Lordships in Berkeley).

After dinner I worked in the study.

Wednesday, June 25, 1980--Berkeley

I had breakfast with Kent and Molly. Then they rode with me, Kent as far as his job in Orinda, Molly as far as LBL, from where she walked down to Tolman Hall for her class.

I talked to Margie Hollander about putting together, from my laboratory notebooks and notes, a journal-like description of my activities from 1935-1940.

Larry Frank arrived at about 8:45 a.m. I described my plans for him. He will start working with Roland Otto on the treatment of data from old HILAC experiments (e.g., from ^{209}Bi plus ^{40}Ar). I brought him to Building 70 where we met Rollie Otto and he started to brief him. He will use the desk in the room 209 laboratory.

At 9:35 a.m. Paul Lochak called from Paris; he had just finished a long session with George Milly and Charlie Judkins regarding SIT/GEMEX/TEAM associations. There was some discussion regarding Paul's memorandum to me regarding problems in this business arrangement and my answer to Paul. George Milly is concerned about possible deterioration in his relationship with me over this matter and will probably call me to justify his actions in this regard. Paul said that his associates are inclined to discontinue dealings with GEMEX. Their discussions will continue tomorrow and Paul will call me again. I gave Paul my permission to mention the fact that I am considering resigning from GEOMET's Board of Directors because of my inability to attend Board meetings the way they are now set up.

I sent an updated statement of my Research Interests as requested by Chairman I. Tinoco, Jr., Department of Chemistry (attached).

At 10 a.m. I walked up to the HILAC Building, talked to Peter Armbruster (visiting LBL today from GSI), along with Mike Nitschke, Saburo Yashita, and Matti Leino. Then at 11 a.m. (to 12:10 p.m.), I attended his talk in the HILAC Building Conference Room describing the work of his SHIP group at GSI. Of special interest is their observation of products from ^{208}Pb plus ^{50}Ti (isotopes of 104) and ^{209}Bi plus ^{50}Ti (possibly $^{257}\text{105}$), that tend to confirm the results from Dubna.

I walked back down with Armbruster and Hyde, who took him to lunch in the cafeteria.

I held the regular biweekly meeting of my heavy ion radiochemistry group in my office from 12:30 p.m. to 1:15 p.m. Present were Al Ghiorso, Pat McGaughey, Ken Moody, Larry Frank, Gregory Sayles, Cheng Luo, Saburo Yashita, Diana Lee, Yoshi Morita, Matti Leino, Joe Leighly, Judy Brodtkin, Robert Welch. Welch reported on the observation of Am isotopes from our recent ^{248}Cm plus ^{86}Kr bombardment, including a new 50-minute activity (557 Kev gamma ray), which could be due to ^{248}Am . Ken Moody reported on the observation of Pu isotopes from this same bombardment, including the possible observation of a new 20-minute ^{247}Pu . Sayles reported on his help in setting up the target array on our new optical bench for our forthcoming July bombardment (hopefully) at the Bevalac.

At 3 p.m. Luo dropped in to discuss further his status (not doing any chemical experiments until I evaluate the situation). I told him not to give up, that I will find a program for him.

At 3:15 p.m. I walked up to the HILAC Building to talk further with Armbruster, along with Mike Nitschke. He said his group may try to find element 108 from ^{208}Pb plus ^{58}Fe or, alternatively, have another look for SHE (down to microsecond half lives) from ^{248}Cm plus ^{48}Ca .

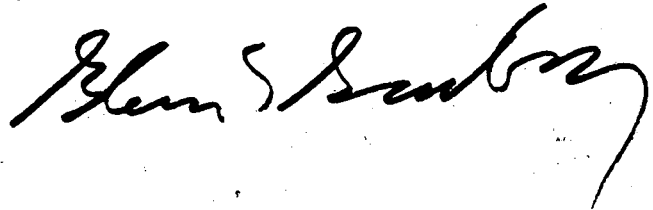
Dianne, Kent and I had dinner in the kitchen. Helen was in Berkeley for a YWCA meeting and Molly had dinner somewhere else.

June 25, 1980

To: Professor I. Tinoco, Jr., Chairman
Department of Chemistry

From: Glenn T. Seaborg

Attached is an updated statement of my Research Interests as requested
in your memorandum of June 3, 1980. Since revisions were necessary,
I have prepared a new Statement.



Attachment

I. Heavy Ion Reactions

The reactions of accelerated heavy ions (usually defined as ions heavier than those of helium) is an area of study of increasing interest and importance. Such interactions differ markedly from those induced by simple projectiles such as protons, deuterons or helium ions because of the larger number of reaction channels open for the heavy ions, and therefore much new information on the collision processes of large nuclei can be obtained. The new Superhilac will be capable of accelerating ions as heavy as uranium to sufficient energies to make them capable of undergoing nuclear reactions with any target nucleus (up to uranium and beyond).

A powerful tool for such investigations is the chemical separation and identification, through their radiations, of the radioactive products from such bombardments. Evidence for this is the fact that the current heavy-ion reaction program utilizes all three heavy-ion accelerators at LBL (Superhilac, Bevalac, 88-inch cyclotron). Current areas of heavy-ion research include:

(a) The study of the production of target residues by reaction of fully relativistic projectiles (^{12}C - ^{40}Ar , up to 2.1 GeV/nucleon kinetic energy) with high mass targets at the Bevalac. The original work focused on the measurement of the production cross sections^{1,2} and understanding these cross sections in terms of simple models of the interaction.³ Continuing work has focused on finer points such as measurement of the recoil momenta imparted to the residues and their angular distribution as well as measurement of the production cross sections as a function of energy.

(b) The study of low energy heavy-ion reaction mechanisms with high mass targets at the Superhilac. An important topic of current interest in these reactions is the role of complete fusion between the projectile and target. A recent study has shown that the products long ascribed to fusion-fission do not have the proper angular distribution for fusion-fission and in fact behave like deep-inelastic reaction products.⁴

(c) The study of multinucleon transfer reactions (or deeply inelastic collisions) between heavy ions and target nuclei at the Superhilac and 88-inch cyclotron. Measurement of the isotope production cross sections for actinide elements in heavy-ion reactions with actinide targets offers a unique opportunity to obtain precise information on the excitation energy and nucleon transfer probabilities in deeply inelastic collisions. Radiochemical techniques can be coupled with

kinematic information from physical measurements and recent theoretical calculations to give great insight into this reaction process. Such studies of nucleon transfer reactions to identify the yield of known and new isotopes in the actinide region will establish whether such reactions might be a route to the production of superheavy elements. Related to this is the program of study of compound nucleus and "direct reactions" with actinide targets and lighter heavy ions at the 88-inch cyclotron.

II. Transactinide and Superheavy Elements

The transactinide elements stand at the edge of the known elements.⁵ Thus, the study of the chemical properties of these elements can test how far the chemical periodic system can be extended and ultimately the underlying electronic properties which allow the periodic system to exist. Deviations from the predictions of the periodic system will provide the basis for appropriate modifications or extensions of the quantum mechanical treatment of atoms.

At the present time, the known elements extend through atomic number 106.⁶ However, recent theoretical predictions of nuclear stability suggest that the man-made elements might be extended to element 114 or possibly beyond.⁷ Thus, a number of new elements may be within our reach through the use of the Super Heavy Ion Linear Accelerator (Superhilac).

The radiochemical study of one of the most promising heavy-ion complete fusion reactions, $^{48}\text{Ca} + ^{248}\text{Cm}$, has been recently completed.⁸ This study has shown that superheavy elements with half-lives between a few hours and a few hundred days were not produced at cross section levels of $\sim 10^{-34}$ cm². Such low cross sections indicate that the search for superheavy elements should proceed in the directions of (a) detection of SHE with much shorter half-lives, and (b) optimization of all parameters to detect the lowest possible cross section levels.

III. Lanthanide and Actinide Chemistry

The purpose of this project is to determine the extent of the interaction of ligands with ions of the lanthanide and actinide series. In order to do this we are studying a variety of ions and complexes by synthetic, structural, magnetic, and optical techniques.

During the past two decades a large number of studies have been directed to the understanding of the optical spectra of the trivalent lanthanide and actinide ions diluted in

single crystals. At this time the experimental spectra can be fitted quite satisfactorily on the basis of a parametric analysis employing free ion, spin-orbit, and crystal field parameters. In cases where the amount and quality of the data warrant, higher order corrections may also be included. Most of the experimental data available are only for the one oxidation state and only in a limited number of crystal systems. The assumption implied in this type of analysis is that the free ion and crystal field theories are adequate. The correlation obtained for the empirical parameters as a function of Z , the atomic number, is quite impressive. However, it has long been recognized that the fitting procedures may give results which are better than the theory warrants because the empirical parameters include other effects (such as covalency) not covered by the theory. Experimentally, the effects of changing the type of ligand on this type of correlation have not been addressed. With the resurgence in the past decade of chemical interest in the two f element series a large number of new types of material are now available for study.

Lanthanide compounds are generally regarded as ionic in character because the $4f$ electron shell does not have a significant spatial extent and is shielded from the ligand environment by the filled $5p^6 6s^2$ shells. The $5f$ electron shell does have a considerable spatial extent, especially at the beginning of the actinide series, and if covalent bonding is important in the f electron series, it should show such effects. It is just such effects that we are trying to describe both experimentally and theoretically.

Specific problems now under way include:

- (1) The synthesis and characterization of actinide (IV) borohydrides.^{9,10}
- (2) Optical and magnetic studies of actinide compounds and actinide ions diluted in various matrices in order to determine their electronic structure.^{11,12,13}
- (3) In collaboration with Professors Streitwieser, Andersen, and Raymond, studies of the chemical, optical, and magnetic properties of complexes and organometallic compounds of the actinide and lanthanide series.

References

1. W. Loveland, R. J. Otto, D. J. Morrissey, and G. T. Seaborg, Phys. Rev. Lett. 39, 320 (1977).
2. W. Loveland, R. J. Otto, D. J. Morrissey, and G. T. Seaborg, Phys. Lett. 69B, 284 (1977).
3. D. J. Morrissey, W. R. Marsh, R. J. Otto, W. Loveland, and G. T. Seaborg, Phys. Rev. C18, 1267 (1978).
4. R. J. Otto, D. J. Morrissey, G. T. Seaborg, and W. D. Loveland, Z. fur Physik A287, 97 (1978).
5. G. T. Seaborg, The New Elements, Am. Sci. 68, 279 (1980).
6. A. Ghiorso, J. M. Nitschke, J. R. Alonso, C. T. Alonso, M. Nurmia, G. T. Seaborg, E. K. Hulet, and R. W. Lougheed, Element 106, Phys. Rev. Lett. 33, 1490 (1974).
7. G. T. Seaborg, W. Loveland, and D. J. Morrissey, Superheavy Elements: A Crossroads, Science 203, 711 (1979).
8. R. J. Otto, D. J. Morrissey, D. Lee, A. Ghiorso, J. M. Nitschke, G. T. Seaborg, M. M. Fowler, and R. J. Silva, J. Inorg. Nucl. Chem. 40, 589 (1978).
9. R. H. Banks, N. M. Edelstein, R. R. Rietz, D. H. Templeton, and A. Zalkin, J. Amer. Chem. Soc. 100, 1957 (1978).
10. R. H. Banks, N. M. Edelstein, B. Spencer, D. H. Templeton, and A. Zalkin, J. Amer. Chem. Soc. 102, 620 (1980).
11. N. Edelstein, W. Kolbe, and J. E. Bray, Phys. Rev. B 21, 338 (1980).
12. G. Thornton, N. Rosch, and N. Edelstein, Inorg. Chem. 19, 1304 (1980).
13. W. T. Carnall, H. Crosswhite, H. M. Crosswhite, J. P. Hessler, N. Edelstein, J. G. Conway, and G. V. Shalimoff, J. Chem. Phys. 72, 5089 (1980).

Thursday, June 26, 1980--Berkeley

Kent rode in to his job with me.

At 9 a.m. I left to attend the 50th Anniversary Organizing Committee meeting in Bldg. 50B, Room 4205. In attendance were Luis Alvarez, Leo Brewer, Joseph Cerny, Viki Davis, John Feack, Ted Kirksey, Edwin McMillan, Louise Millard, Will Siri and one other. We followed the agenda. There was a good deal of discussion whether there would be vandalism if some kind of a memorial monument is constructed in the Plaza between the PSL Lecture Hall and Latimer Hall, but it was decided to go ahead with some kind of sturdy structure. Luis Alvarez made the suggestion that emphasis might be placed on the many contributions to humanity and the saving of lives that have come as a result of the use of radioactive isotopes in nuclear medicine and that emphasis might be placed on this through lectures, appropriate exhibits on the memorial monument, etc. We decided that the next meeting of our committee will be at 9 a.m. on Tuesday, August 12.

At 10:25 a.m. I talked with Fred Bernthal (Senator Howard Baker's office) again regarding the budget for basic energy research and told him that it would be well to consider the \$2M construction expense recission in the DOE FY80 budget the first priority item for restoration (this is the item covering the funds for the MMRD building for the atomic resolution microscope laboratories and office space). I realized there is not much that Baker can do except perhaps talk to Hatfield and Johnston, but Bernthal said Baker would do his best to help us in this connection.

I then talked to David Shirley at about 11:20 a.m. and told him of my conversation with Bernthal.

I had lunch in the cafeteria with Pat McGaughey, Gregory Sayles, Judy Brodtkin and Robert Welch.

At about 1:45 p.m. I talked to Walter Loveland. We discussed our proposed collaborative program for the work at CERN with Hagebø of Oslo and his man, Lund, who is working at Marburg. Walt is concerned about the large amount of manpower devoted by the CERN groups to problems of the kind we are working on, especially their ability to perform fine chemical separations (by Lund). I told him about the four undergraduates we have working with us this summer and their work assignments. He may come down about the middle of July; he is interested in talking to Hans Von Gunten about the use of his counting equipment at CERN in connection with our proposed experiment there.

At 2 p.m. I walked down to the Bancroft Library to order five pictures of President John F. Kennedy taken at the time of his visit to Berkeley to give the Charter Day Address on March 23, 1962 for use in my book Kennedy, Khrushchev and the Test Ban: An Eyewitness Account. I ran into Jim Hart who told me that there will be four candidates for the Director of the History of Science and Technology Project to replace Arthur Norberg,

one of whom he is bringing all the way from England for the interview.

At 4 p.m. I attended the LBL Colloquium where Director David Shirley gave a talk on "LBL in 1980." He did a great job.

I sent in my review of Actinide Separations (Navratil-Schulz, Editors) to the Journal of the American Chemical Society today; answered Dr. M. Williams (Executive Secretary of IUPAC) regarding the proposed History of Chemistry Center (all attached).

I went by Building 70, found Pat McGaughey helping Judy Brodtkin learn her computer programming.

I picked up Kent on my way home.

Helen, Dianne, Kent, Molly, Ulla, and I had dinner in the patio (it being a warm evening). After dinner, I worked in the study, including work on some revisions in "Kennedy, Khrushchev and The Test Ban..."

Friday, June 27, 1980--Berkeley

At 9 a.m. I went by Building 70 to talk to Ken Moody, Gregory Sayles and Diana Lee about their work.

At 10 a.m. I called Ben Loeb to discuss the most recent changes to our manuscript which I received yesterday. These changes reflect Warren Heckrotte's suggestions in his letter to me of June 20, 1980. Ben also told me that he has called Boston (Dave Powers at the Kennedy Library) and has given them a date for his arrival there (July 8) but has not yet received a reply from them. Ben also made the suggestion that we try to contact Jerry Wiesner for his suggestions.

Norman Edelstein dropped in my office at about 10:30 a.m. to discuss a possible person from Japan to be on the "Actinides 1981" International Program Advisory Committee. I promised to write Keijo Naito of Japan and Wang Dexi of the PRC about such membership.

At 10:35 a.m. Bradley Moore called me with a question about the possibility of getting a list from ACS computers of all Berkeley undergraduates and graduate degree students who are members of the ACS. I told him I did not know if the ACS could provide such information but he should call Rodney Hader (Secretary of ACS).

At 11 a.m. Paul Lochak called me from Paris to bring me up to date on his talks with George Milly and Charlie Judkins in Paris which were completed yesterday. Milly and Judkins are still very angry because of the letter that Roger Godino and he wrote to me concerning their problems with GEMEX. George Milly will probably get in touch with me about this. About 15 minutes later Paul called me back to give me the information that TEAM owes SIT about \$100,000 which was accumulated over a period of



Lawrence Berkeley Laboratory

University of California
Berkeley, California 94720
Telephone 415/486-4000
FTS: 451-4000

June 26, 1980

Dr. M. Williams
Executive Secretary
International Union of Pure and Applied Chemistry
Bank Court Chambers
2-3 Pound Way
Cowley Centre
Oxford OX4 3YF
United Kingdom

Dear Dr. Williams:

This is in reply to your welcome letter of May 30, 1980 concerning the proposed History of Chemistry Center.

The intention is that the Center's program would include the investigation of international aspects of American history of chemistry. I would think that cooperation with IUPAC would be essential to the program.

The first order of business, of course, is to make the needed arrangements for the establishment of the Center. The site has not yet been determined; possibilities that have been mentioned include the Edgar Fahs Smith Memorial Collection at the University of Pennsylvania and, on a long range basis, possibly the ACS headquarters in Washington, D.C.

I am including a package of information furnished by Dr. John H. Wotiz which gives the background for the concept and plans.

Cordially,

Glenn T. Seaborg

GTS:pj
Enclosures
cc: Dr. John H. Wotiz
Prof. H. Zollinger
bcc: Mary Good
Gordon Bixler



TELEX: 83147 attn. IUPAC

International Union of Pure and Applied Chemistry

President: Prof. H. Zollinger (Switzerland)
Vice-President: Prof. S. Nagakura (Japan)
Secretary General: Prof. G. Ourisson (France)
Treasurer: Dr. W. Graulich (Federal Republic of Germany)

Secretariat: Bank Court Chambers, 2-3 Pound Way, Cowley Centre, Oxford OX4 3YF, UK
Telephone: 0865-770125 & 772834 Telegrams: IUPAC OXFORD

50/MW/EAC/80

30th May, 1980

Prof. G. T. Seaborg,
c/o Lawrence Berkeley Laboratory,
University of California,
Berkeley, California 94720,
U.S.A.

AD 6/4/80

Dear Prof. Seaborg,

HISTORY OF CHEMISTRY CENTER

At a recent meeting of the IUPAC Executive Committee a letter was considered from Prof. J. H. Wotiz about the History of Chemistry Center which is being established at the Southern Illinois University at Carbondale. The Union understands that this undertaking has the backing of the American Chemical Society and I have been asked to inquire if the Center will work exclusively along (U.S.A.) national lines or whether international considerations can be (or should be) included.

We look forward to receiving your comments on this matter.

Yours sincerely,

M. WILLIAMS (Dr.)
Executive Secretary, IUPAC

cc to: Prof. H. Zollinger

June 26, 1980

Journal of the American Chemical Society
(Drs. Smith and Blinder)
Department of Chemistry
The University of Michigan
Ann Arbor, MI 48109

Gentlemen:

Attached are two copies of my review of ACTINIDE
SEPARATIONS, Navratil-Schulz, Editors, and the publisher's
information slip, per your instructions of May 14, 1980.

Sincerely yours,

Glenn T. Seaborg

GTS:pj
Enclosures

ACTINIDE SEPARATIONS. By James D. Navratil (International Atomic Energy Agency) and Wallace W. Schulz (Rockwell Hanford Operations), Editors. ACS Symposium Series, American Chemical Society, Washington, D.C., 1980, xiii + 609 pages. \$43.50

This book, published with remarkable rapidity, consists of 39 papers presented at a symposium sponsored by the ACS Division of Industrial and Engineering Chemistry at the ACS/CSJ Chemical Congress in Honolulu, Hawaii, April 3-5, 1979. The papers, prepared by investigators presently active in the field, cover new concepts, new systems and new developments in actinide separations methodology based on fundamental actinide chemistry developed since Manhattan Project days.

The broad international complement of authors describe ion exchange, precipitation, solvent extraction, pyrochemical, photochemical and other methods of actinide separations as well as application of these separation methods to power reactor fuel reprocessing and recovery (removal) of actinides from waste solutions.

Following the initial use of the Bismuth Phosphate Process and then the Redox Process for the processing of irradiated nuclear reactor fuels, the Purex Process became and remains the standard process for recovering and purifying uranium, neptunium and plutonium. Papers included here describe various improvements to this process and possible modifications for the removal of actinide elements (especially americium and curium) from the waste solutions in order to improve their disposability. Other papers describe separations methods for the future, such as

pyrochemical and dry processing methods, that have the potential of minimizing volumes and hence aiding in the solution of the waste disposal problem.

Other papers deal with the recovery of transplutonium elements in their production programs, improved recovery of neptunium in chemical separation plants, application of inorganic sorbents in actinide separations processes, improved use of plutonium peroxide for recovery and purification, better solvents for separation of actinides, pyrometallurgical methods for reprocessing thorium fuels, use of photochemical methods in actinide fuel reprocessing, improvements in thorium-uranium separation in the Thorex Process and recovery of by-product actinides for use as heat source isotopes.

This is a valuable compilation of current information in this important field.

Glenn T. Seaborg
University Professor of Chemistry
University of California
Berkeley, California

five years for fees, traveling expenses, etc.

I wrote the letter to Dr. Wang Dexi regarding "Actinides 1981" and responded to Gary Ginder, Walnut Creek Open Space Foundation, that a possible new member of the Advisory Council might be Barclay Simpson who is also a member of the BART Board of Directors. Elizabeth Rauscher sent me a copy of an article from Vestkusten, from the April 12, 1979 issue on my career and covering my talk at the Swedish American Chamber of Commerce, which I made on May 1, 1979 in San Francisco (attached).

I had lunch at the Straw Hat Pizza (on Telegraph Ave. in Oakland) with Pat McGaughey, Ken Moody, Diana Lee, Robert Welch, Judy Brodtkin, Gregory Sayles, Larry Frank, Luo Cheng.

At about 2:30 p.m. I went by to talk to Larry Frank and Rollie Otto. Larry's treatment of the old data from the ^{209}Bi plus ^{40}Ar reaction is going very well. There are several chemical fractions as well as unseparated target. I also talked to Judy Brodtkin, busy at the mini-computer and to Luo Cheng, also starting to analyze some alpha decay data.

At about 4 p.m. I walked up to the HILAC Building. I talked to Al Ghiorso, Matti Leino, Saburo Yashita and Pat Somerville about the new results at GSI--104 and possibly 105 from Pb and Bi plus Ti. Perhaps we can look for 107 from Bi plus Cr.

I talked to Pat Somerville about his thesis and subsequent plans. He may apply for a fellowship to work in Japan. He now hopes to finish writing his thesis by December of this year.

Al Ghiorso and I inspected the Wideroe accelerator now in place.

I came back to my office and checked Lin's output today on additions (Heckrotte's material) to the draft of "Kennedy, Khrushchev..."

Since Kent stopped work early today I did not pick him up on the way home.

Helen, Dianne, Kent and I had dinner in the playroom while watching news on TV. Dianne went to the Shermans' to babysit. Molly and Ulla went out to dinner, then to a movie in Concord.

I worked in the study in the evening.

Saturday, June 28, 1980--Lafayette

Helen, Molly, Ulla and I had breakfast together (Dianne and Kent ate later).

At about 9:30 a.m. Lynne called with the welcome news that she is pregnant. She is due about the middle of February.

Glenn T. Seaborg — A Giant in Science

His roots are Swedish



DR. GLENN T. SEABORG

At their luncheon on May 1st, the Swedish American Chamber of Commerce will hear a lecture about the energy problem. The speaker will be none other than the renown Nobel Prize winner and Swedish American Dr. Glenn T. Seaborg of Lafayette.

At the semi-annual meeting in Chicago last October the Swedish Council of America elected Dr. Seaborg as its Chairman of the Board. Dr. Seaborg was one of the dignitaries that welcomed King Carl Gustaf to the University of California at the King's visit here in 1976 and personally demonstrated the working of the cyclotron at the Berkeley Lawrence Radiation Labora-

the Swedes and things Swedish is no coincidence. His grandparents — the name was Sjöberg then — came over to this country from Sweden in 1866 and settled in Ishpeming, Michigan. His mother Selma is born in Grängesberg-Dalarna. Seaborg himself speaks very good Swedish (with Dalecarlian accent!) When he received his Nobel Prize in 1951 and held his Nobel speech, he did so in Swedish (with his Dalecarlian accent!) to the delight of the then King Gustaf Adolf. Seaborg has been in Sweden several times, often to "seek his roots" and tracing his ancestors. He has many relatives in Sweden.

Glenn E. Seaborg is born in Ishpeming on April 19th, 1912 and will soon have his 67th birthday. When he was ten years old he and his parents moved to Southern California where he went to high school. He received his AB degree in Chemistry in 1934 at the University of California in Los Angeles and his Ph. D. in Chemistry at the University of California in Berkeley. Soon after graduation he began working in his field and became Assistant to the famous Gilbert Newton Lewis. He was also to be affiliated with such men as Ernest O. Lawrence, J. Phillip Oppenheimer and Edwin McMillan.

During World War II he headed the group at the University of Chicago's Metallurgical Laboratory which devised the chemical extraction processes used in production of plutonium for the Manhattan project (the atomic bomb). The bomb was developed and secretly detonated for the first time in a remote area of New Mexico on July 16th, 1945. Less than a month later, on August 6th, the first bomb used in war was dropped on Hiroshima in Japan. Seaborg has said later: "I did not like to use the bomb on civilians, but only as a mean to end the war. Remember, we thought we were in a race with the Nazi Germans to develop the bomb and possibly losing." He says that he favors the use of nuclear weapons "only as a substitute for our being subjected by another power, hopefully not to be used at all."

Dr. Seaborg served as Chancellor (from 1958 to 1961) of the University of California at Berkeley when he in 1961 was called to be the Chairman of United States Atomic Energy Commission by President Kennedy. He was re-appointed to that post by Presidents Johnson and Nixon, and served to 1971. He also served under President Truman as a member of the Atomic Energy Commission's first General Advisory Committee, and under President Eisenhower on the President's Science Advisory Committee.

Seaborg and his colleagues have discovered more than 100 isotopes, many of which have practical applications in research, medicine and industry, such as iodine 131, cobalt 57 and 60, plutonium and uranium 233. He holds over forty patents and his publications include more than a dozen books and some 300 scientific papers and articles as well as papers for the peaceful use of atomic energy. He has visited more than 60 countries, many of them as Chairman of the Atomic Energy Commission.

Naturally, such a giant science has been awarded just about everything there is to be awarded in his field. He holds 45 Honorary Doctoral degrees and more than 15 Gold Medals or other awards, including John Ericson Gold Medal from the American Society of Swedish Engineers, Leif Erikson Award from the Leif Erikson Foundation, and he was elected "Swedish American of the year" in 1962 by the Vasa Order of America's district in Sweden, and of course the Nobel Prize in chemistry in 1951.

During his years in Chicago Seaborg married Helen Griggs, then Secretary to the late Dr. Ernest O. Lawrence, inventor of the cyclotron used in Seaborg's discoveries. They have six children and now resides in Lafayette.

Since his return to UC in Berkeley in 1971 Dr. Seaborg has been an Instructor and Teacher at UC and is continuing his research program at the Lawrence Berkeley Laboratory on heavy ion radiochemistry and transuranian elements. He is also interested in sports and is an ardent conservationist, present being the Chairman of Citizens for Urban Wilderness Area. An area in which he and the King of Sweden have common interest. That is another tie in with the Swedes and things Swedish.

Helen, Molly and I picked up Judy Brodkin at the Lafayette BART Station at 10 a.m. and drove in the Phoenix to the Mitchell Canyon Parking Lot at Mt. Diablo. We then hiked up Mitchell Canyon fire road to Deer Flat where we had our back pack lunch under a huge oak tree.

After lunch we hiked on up as far as the fire road off to the right (just before the entrance to Juniper Campground). We then hiked back down, returned to our car at about 4:30 p.m. We drove back to Lafayette, dropped off Judy at the BART station and drove on home.

Helen and Molly joined Dianne, Kent and Ulla swimming at the Shermans' pool. We all had dinner in the patio (it was a hot day). Ulla left dinner early to go to bed.

Sunday, June 29, 1980--Lafayette

I spent much of the day going over the old school papers, books, news clippings, magazines, etc. that Mother accumulated and which have been turned over to us. I also studied my genealogy papers in preparation for eventually putting them in better order.

I had lunch with Helen in the kitchen. Kent visited his family in Castro Valley. Molly and Ulla spent much of the day away.

Helen, Dianne, Kent, Molly, Ulla and I had dinner in the patio.

Jeannie Harmon called at 8:30 p.m. from Ruby's Inn near Bryce Canyon, Utah. She told us there are 40 of the original starters on HikaNation still going. They will rest two days at Ruby's Inn. She told us who have dropped out. Cindy Bain is still going strong and the Gomer Pyles are still on board.

I read more old letters (the Farrell family--my father's mother's family) during the evening.

Monday, June 30, 1980--Berkeley

I had breakfast with Kent (Molly and Ulla had eaten and gone).

Kent rode with me to Orinda (on my way to LBL).

Pat Johnson took the day off (as on Friday also) to move from Moraga to Oakland.

Janet Burke called to say that she attended my slide lecture for the Detroit Swedish Council meeting at Cranbrook Institute on May 21 and she requested glossy prints of several of my slides for an article she is writing (A221, A259 and A263). I told her that I would order these prints for her.

I met in my office from 9:15 a.m. to 9:45 a.m. with Matti Nurmi and Al Ghiorso to discuss Nurmi's future research plans. He will work half time for two years prior to retiring. He hopes to have his own research budget. If this can include a technician he will build an M.G. detection apparatus for alpha particles and look for new alpha-particle emitting rare earth isotopes.

At 10 a.m. Charles Mays (University of Utah) called to ask me for my suggestions on a single-word name (preferably) for plutonium and the elements above plutonium. I suggested either "transneptunium" or "Plutonium and the transplutonium elements." His suggestion of "plutonides" was misleading I felt. He reminded me that he had met me ten years ago in Utah and that we had climbed a mountain together.

At 11 a.m. I called Aaron Wildavsky to make a luncheon date for noon this coming Thursday, July 3.

At 11:30 a.m. I called Ted Sorensen in Manhattan. I told him about the book that Ben Loeb and I are writing and asked if he would agree to meet with Ben Loeb sometime next week. He said that he could meet with Ben at 4 p.m. on Monday, July 7th. His office is on the 29th floor of 345 Park Avenue, New York. He asked that Ben call his secretary

At 11:35 a.m. I called Arthur M. Schlesinger, Jr.'s secretary in New York. Mr. Schlesinger will be in Europe until August 1. I told his secretary that we would call him another time.

I had lunch in the cafeteria with Pat McGaughey, Ken Moody, Robert Welch, Judy Brodtkin and Gregory Sayles.

I returned the phone call to Ben Loeb. He informed me that his wife fell off her bicycle this morning and has a broken hip. I told Ben that he has an appointment with Ted Sorenson at 4 p.m. on Monday, July 7, but Ben may not be able to make the Boston/New York trip because of the accident. I also told Ben that Ted Sorenson's office is at 345 Park Avenue and he is to call and confirm the appointment early in the day. Ben asked if we have received his revisions and I told him not the ones for Chapters 3 or 4 but they may arrive in the afternoon mail. We also talked about listing the Panel members. Loeb said that for the present he is using a footnote reference.

At 2:15 p.m. I called W. O. Milligan to ask if the Welch Foundation had a copy of the picture of the discoverers of americium and curium in their files (taken in 1969 at the Welch Conference in Houston). He will check and call me tomorrow.

At 2:45 p.m. I called Paul Bendix with a few minor corrections to the story on Dave Morrissey's paper on gold he sent to me today for the LBL News Magazine.

David Ridgway called me. I told him that I had met Maurice Dupre who is writing a book concerning the ChemStudy films. I had met Dupree in my recent visit to Rochester, New York. David told me that Timothy

Westbrook is the Vice President of the organization that distributes the Chem Study films. David also informed me that he had just recently returned from Hollywood where he supervised a film translating Chem Study into French. The producer of the French version was Don Dupree.

At 3 p.m. Yoshi Morita dropped in to discuss his plans. He hopes to schedule time on his own, sharing time and space with other investigators. I told him to check the Bevalac schedule, then come back for further discussion.

I sent a copy of our draft of "Kennedy, Khrushchev..." to Frank Long at Cornell University for him to read and give us his comments.

At 3:25 p.m. I received a call from Dr. Leachman in Mike McCormack's office. He wanted to get my opinion of how to handle the matter of who invented the cyclotron. Dr. Leachman told me that they have an award to present to the inventor of the cyclotron but have received mixed input about who the actual discoverer was. Dr. Leachman was intending to nominate Livingston and I told him that he could not mention Livingston without mentioning E. O. Lawrence. Leachman also said that he received a call from Ed McMillan who claimed to be the inventor. I mentioned Edlefson also but didn't quite know how McMillan fit in. I told Leachman that I would be unable to attend the dinner in July when the award will be presented.

My call from Dr. Leachman was interrupted by Fred Bernthal's call from Senator Howard Baker's office. Fred told me that Senator Baker was not successful in changing Senator Johnston's mind so they could not get the \$2M for FY80 for the MMRD building. He also said that he thinks it possible to get the \$3M of the Fuqua Amendment through the Senate for the FY81 budget.

Winifred Corniea stopped by my office to show me a needlepoint work of the 1976 ACS Centennial stamp. She was employed by Nuclear Chemistry but now works in Energy and Environment.

I sent a letter to Dr. Keijo Naito regarding "Actinides 1981" and to Vitalli Goldanskii in reply to his note of June 23rd (attached).

At 5 p.m. I went by Building 50 to talk to Ken Moody (who was practicing his chemistry for our planned bombardment Cm plus Kr, this Thursday), and Luo Cheng (who was plotting decay data for Diana Lee). (Diana Lee is taking a few days vacation).

Helen, Dianne, Kent and I had dinner in the patio. (Molly and Ulla were having dinner with friends.)

I worked in the study after dinner on "Kennedy, Khrushchev..." and other items.

Paris, June 23, 1930

BS 6/25/80

Dear Glenn,

I am sending to you and Helene Mili's and my best wishes from Paris where we are staying now for one month (until July 12th) being the guests of Dr. Robert Klapisch.

Several questions to you.

First - whether George Bledwin from Los Alamos was in touch with you concerning the possible use of statistical correlation method for the studies of transplutonium isotopes (see our paper in *Nucl. Instr. Meth.* 169 581-83, 1930 and the references therein).

Second - whether you have met recently Stig Claesson and/or Ilya Prigogine and know something about them. I had no more news from Ilya after his first response to my letter concerning the possible subject of the first joint physical + chemical Solvay Congress (I've

sent to you earlier the copy of my and his letters!

I am particularly upset by complete silence of Stig Claesson (even after the rather detailed letter which I've sent him in November '77 via some Swedish scientists which have visited Moscow) and I would appreciate it if you serve as a kind of "messenger" - I am afraid that something wrong has happened to him or to Astrid.

Third - whether you still have some interests in the subject of your ~~topic~~ talk given in August '77 in Moscow - on organic compounds of actinides and whether there are some recent publications and news along this line.

In April I've obtained the Lenin Prize for my works on the polymerization at very low temperatures. This prize was awarded also to my colleagues who have found abundantly fast solid-state polymerization in the vicinity of phase transitions.

It seems to me that I understand now how to describe the whole totality of data on the anomalously fast chemical reactions in solids - both at very low temperatures and near the phase transitions


One has to treat chemical reactions in solids as radiationless electronic transitions in which the rapprochement of the reactants due to intermolecular vibrations is taken into account together with the quantum motion along the reaction coordinate.

In such a way one can connect the reaction rates with the Debye-Waller factors of the medium. We have sent the paper on this subject to Chem. Phys. Letters.

I still try to be optimistic and to believe that the clouds will be scattered and the sun will shine through. However frankly speaking I don't see any real reasons for such hopes at present.

I would be very glad to get your letter
here, in Paris.

Yours, as ever - V. Felix

AAH099

LBL Libraries