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Cicerone, Ralph J

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Ralph J. Cicerone is president of the U.S. National Academy of Sciences, Washington, DC. E-mail: naspresident@nas.edu.

An Important Anniversary

ONE HUNDRED FIFTY YEARS AGO, ON 22 APRIL 1863, THE U.S. NATIONAL ACADEMY OF SCIENCES (NAS) held its first meeting. The founding of the academy was but one of an impressive array of federal actions that would prepare the United States of America for a bright future. During the dark days of 1862 and 1863, mired in a bloody and intense Civil War, Congress passed, and President Lincoln signed, the Morrill Act, creating a system of Land Grant Colleges. The Act greatly enhanced access to higher education for Americans and promoted scientific and technical research in the coming generations. In the same period, Congress authorized the completion of the Transcontinental Railroad, and President Lincoln issued the Emancipation Proclamation. Only a few months later, President Lincoln and Congress took another major step to advance the young nation by creating NAS, a bold way to elevate American science and to incorporate science into the U.S. future. This was a remarkable set of government actions during very tough times.

NAS was created as a private nonprofit organization, and yet it was directed to provide scientific analysis and advice to the U.S. government* and to plan new federal agencies whose capabilities would be needed by the government. It is rare for any government to create and respect such an external organization that is independent and not subject to government control. NAS works closely with the National Academy of Engineering (NAE, created in 1964) and the Institute of Medicine (IOM, created in 1970), and their responses to government requests are provided through the jointly governed National Research Council (NRC, created in 1916). These organizations are nonpartisan, and their reports are subjected to rigorous peer review. Receiving no annual appropriations from the federal government, the costs of each project conducted for the federal government are reimbursed one by one. NAS has a very broad mission that includes validating scientific excellence, enhancing the vitality of the scientific enterprise, guiding public policy with science, and communicating the nature, values, and judgments of science to government and the public.† In addition, there are increasingly global roles for the NAS and other science academies.*

The close partnership of NAS, NAE, IOM, and NRC provides a large positive advantage in providing advice and analysis for the government, inasmuch as many questions of public policy require expertise that is much broader than that provided by individual scientific disciplines. In many other nations, the academies of science, engineering, and medicine are completely separate, which makes it more difficult for them to collaborate in addressing critical national issues.

Academy members contribute greatly to the writing of NRC reports, and they also help to identify other excellent researchers to work on these projects. Over 5000 such individuals, most of whom are not members of NAS, NAE, and IOM, serve in these important roles, pro bono, each year. Additionally, nearly 2000 individuals from across science and engineering disciplines serve as independent peer reviewers for the more than 200 reports produced annually. This enormous volunteer resource derives from the creation of NAS in 1863, and these generous contributions of thousands of experts enable and energize the entire enterprise. Looking ahead, I can foresee many further roles for such efforts, as the world confronts and solves science-based problems that involve multiple disciplines.

Today, science and engineering enable society to select major goals and provide the collective wherewithal to achieve them. Sustained efforts are often required to select and achieve such goals. The pro bono contributions of thousands of researchers to NAS's projects deserve great appreciation and respect, as do the parallel efforts of scientists on behalf of many other scientific organizations and educational institutions.

Let us salute the contributions of these individuals and institutions to progress through science.

– Ralph J. Cicerone

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An Important Anniversary

Ralph J. Cicerone (April 11, 2013)

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Editor's Summary

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