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Geophysical Research Letters: New Policies Improve Top-Cited Geosciences Journal

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scientists fully understand how these currents map under various magnetic configurations, ionospheric observations cannot be properly linked to magnetospheric phenomena. Other areas of interest include force balance and pressure distribution of the inner magnetosphere during the growth phase; energization processes including instabilities, particle heating, and particle transportation; and ionospheric convection, current systems, and conductivity within auroral arcs.

Richard A. Wolf of Rice University described a metaphor that became popular at the meeting. He portrayed substorm theories as "islands" floating in an "ocean" of data, with substorm researchers subscribing to the different islands. The true nature of substorms—the "mainland"—is what all aspire to reach. At the end of the meeting, researchers agreed that by sharing data, effectively communicating among groups, and developing a common language, critical "bridges" will be built to quantitatively study the magnetospheric substorm.

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Space Geodetic Data Improve Seismic Hazard Assessment in California

Workshop on Incorporating Geodetic Surface Deformation Data Into UCERF3; Pomona, California, 1–2 April 2010

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A workshop was held to begin scientific consideration of how to incorporate space geodetic constraints on strain rates and fault slip rates into the next generation Uniform California Earthquake Rupture Forecast, version 3 (UCERF3), due to be completed in mid-2012. Principal outcomes of the meeting were (1) an assessment of secure science ready for UCERF3 applications within the next year, and (2) an agenda of new research objectives for the Southern California Earthquake Center (SCEC), the U.S. Geological Survey (USGS), and others in support of UCERF3 and related probabilistic seismic hazard assessments (PSHA).

A number of goals potentially achievable within a year were identified, including (1) slip rate and fault locking depth estimates, with uncertainties or ranges, for all major and some minor faults of the extended San Andreas system; (2) strain rate estimates or bounds on rates for selected regions lying off the major faults of the San Andreas system; and (3) corrections or bounds on perturbing effects of postseismic deformation and elastic modulus heterogeneities on the observed Global Positioning System (GPS) velocity field (needed as input to models for estimating fault slip and strain rates in goals 1 and 2 above).

Longer-term research priorities for improving fundamental understanding and better contributing to PSHA objectives of the USGS, SCEC, and the international earthquake community were also identified. These include (1) new observations and modeling of earthquake cycle deformation, focusing especially on better constraining the duration and spatial distribution of postseismic transient deformation; (2) more refined block models that consider uncertainties in fault slip and intrablock strain rates due to variations in block geometry, long-term postseismic transients, and lower crust/upper mantle rheological heterogeneities; and (3) improved strain rate mapping methodologies and space geodetic measurements that better capture the spatial heterogeneity of the surface strain rate field.

Immediate follow-on activities were identified to begin implementing the short- and long-term goals identified at the Pomona workshop. These include tightly focused small workshops of approximately 5–20 participants each that would be oriented along the same niche specialist lines as the three main Pomona workshop sessions: (1) strain rate mapping methodologies, (2) fault slip rate estimation, and (3) earthquake cycle and other effects on interseismic deformation. A principal goal of these small topical workshops would be to zero in on consensus space geodetic results that could be delivered to UCERF3 within a year. Concurrently, longer-term scientific and applications-oriented research should be encouraged and facilitated through ongoing projects within USGS and SCEC, as well as in other earthquake science groups in the United States and worldwide.

The workshop had 43 attendees and was jointly funded by the California Earthquake Authority, SCEC, and USGS. A complete report can be accessed at the workshop Web site (http://www.scec.org/workshops/2010/gps-ucerf3/index.html).

For more details on the UCERF process and results of a previous study, see the Working Group on California Earthquake Probabilities Web site (http://www.wgcep.org) and the UCERF2 report (http://pubs.usgs.gov/of/2007/1437/).

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ABOUT AGU

Geophysical Research Letters: New Policies Improve Top-Cited Geosciences Journal

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Geophysical Research Letters (*GRL*) is the American Geophysical Union's premier journal of fast, groundbreaking communication. It rapidly publishes high-impact, letter-length articles, and it is the top-cited multidisciplinary geosciences journal over the past 10 years, with an impact factor that increased again in 2009, to 3.204. For manuscripts submitted to *GRL*, the median time to first and final decision is 23 and 27 days, respectively—a 35% improvement since 2007—and the median time from submission to publication is 13 weeks for 90% of *GRL* papers—a 25% improvement since 2007. Among high-impact publications in the geosciences, *GRL* has the fastest turnaround.

GRL's mission is to disseminate high-impact, broad-implication, innovative, and timely research on major scientific advances in all AGU disciplines. *GRL*'s status and service continue to improve, due to an outstanding pool of authors and reviewers, a dedicated editorial board that covers all of the major geoscience disciplines, and a highly efficient staff in the AGU publications office. The board is committed to ensuring the publication of top-quality papers in a timely manner, through a fair and efficient evaluation process.

To continue improving its status and service to the community, *GRL* has instituted a number of changes over the past few years. Some of these changes have already been highlighted by previous *GRL* editor in chief James Famiglietti in a 2007 *Eos* editorial (*88*(49), 537; see http://www.agu.org/pubs/pdf/Editorial_GRL.pdf). Here we briefly review the status of these and subsequent changes and how they are helping to increase the journal's relevance, impact, and efficiency.

GRL has significantly increased the number of manuscripts returned without

formal peer review, a process common to most top-tier science journals. These decisions most often concern papers that are too regional or technical in scope, lack sufficiently broad geophysical implications, represent an incremental advance beyond what has already appeared in peer-reviewed literature, or the content of which does not justify rapid publication. These decisions rarely reflect a judgment on the quality of the work—which is often high—but rather that the material is better suited for a journal other than *GRL*. This practice not only provides authors the earliest possible opportunity to submit their work elsewhere but also helps to decrease the intense reviewing pressure placed on the AGU community by *GRL*'s large volume of submissions (between 3000 and 4000 per year over the past 5 years) and the need for rapid review.

In keeping with its mission to be a fast-track and high-impact journal, *GRL* has for more than 3 years executed a policy of rejecting papers for which major revisions are required to meet the *GRL* criteria of impact, innovation, and timeliness. For example, manuscripts are routinely declined if the reviews point to a need for additional analyses, simulations, or other significant changes to support purported high-impact results or implications. However, for those submissions that show promise of reaching *GRL*'s criteria, authors are encouraged to resubmit following necessary revisions. While "resetting the clock" on manuscripts that require major revisions reduces the time-to-publication dates, the policy is motivated not by a desire to make the *GRL* editorial process appear as rapid as possible but rather by a desire to make the process be as rapid as possible. While the policy of rejecting manuscripts that require major revisions is potentially controversial, experience over the past decade shows that this results in a more rapid, high-impact publication experience for authors as well as for readers, thereby improving the editorial board's ability to serve *GRL*'s unique mission within the AGU body of publications.

A more recent development is that *GRL*'s editorial board unanimously proposed abolishing comments and replies, a proposal that was approved by the AGU Publications Committee late in 2009. In the absence of a formal comment and reply process, the board encourages authors to present their critique of a paper that has been published in *GRL* as a regular, stand-alone manuscript. In this way, the scientific debate can be enhanced through the rapid publication of explicit scientific evidence that supports an author's criticisms. Since removing comments and replies, *GRL* has published a number of papers that have directly critiqued work recently published in the journal. The review and ultimate publication of these papers have been far more rapid than for the comments and replies that were previously handled by *GRL*. In addition, the scientific content has been substantive, with the papers standing on their own as scientific contributions.

GRL has also recently begun to publish a limited number of "frontier" articles, by invitation from the editors. Frontier articles are 50% longer than regular *GRL* papers and are freely available via open access for the first 6 months after publication. They present a perspective on recent cutting-edge advances in a leading scientific field that is at the forefront of one or several AGU disciplines. They may also deliver a visionary but strongly scientifically grounded statement about a particularly promising up-and-coming field of research that has potential for high impact and broad implications.

Finally, in addition to *GRL*'s emphasis on rapid publication, the editorial board is working hard to increase the value of publishing in *GRL* for its authors. Approximately 15% of *GRL* articles are spotlighted in *Eos* and on the *GRL* Web site and are brought to the attention of the press. In addition to these spotlights, the editorial board is also working with the AGU press office to increase the visibility of top papers and authors via press releases, press conferences, AGU blogs, and social networking sites such as Twitter and Facebook. As a result, *GRL* articles are being more and more frequently featured in major print, broadcast, and Web media, as well as in perspectives and news articles in high-profile magazines such as *Science* and *Nature*.

All of the above policies and practices have been enacted to better serve the long-established mission of *GRL* to publish significant geophysical advances that will have immediate impact on the research of others. While these policies and practices are not without controversy, experience and quantitative evidence suggest that they are in fact improving *GRL*'s achievement of its mission, and therefore its service to the AGU community.

None of this progress would be possible without the commitment of authors and reviewers to the larger AGU mission of "promoting discovery in Earth and space science for the benefit of humanity." *GRL*'s editorial board serves the community by promoting the journal's attractiveness and increasing its selectivity and publication speed, but authors and reviewers are essential to *GRL*'s success in rapidly communicating top-quality and timely science to the AGU community and the world beyond. We are grateful for all of the effort that authors, reviewers, and previous editors have expended to make *GRL* the top choice for rapid publication of today's highest-impact geoscience, and we look forward to further strides in the months and years to come.

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