

throughout India to obtain a better estimation of PGA value and attenuation relation; preparing a homogeneous and consistent catalogue of Indian earthquakes; and preparing seismic hazard maps incorporating soil characteristics, liquefaction potential, site response, and better attenuation relationships for corresponding regions.

A panel discussion on the future directions of geology, tectonics, and seismology in India was focused on monitoring seismicity and understanding the geologic context and tectonic history of major earthquakes in that country. Recommendations were made to stimulate comprehensive tectonic and structural model building and testing; initiate workshops on themes related to understanding intra-continental seismicity; establish a working group on intra-plate seismicity to assess the state of knowledge of the Indian shield and its intra-continental tectonic features in associated seismicity; and to conduct a comprehensive study of "associated events" during the earthquakes on the basis of thermal

anomalies associated with the Gujarat earthquake detected by infrared satellite data.

A panel discussion on natural and man-made hazards using space technology and international cooperation formulated different problems and themes related to natural hazards, and focused on India's cooperation with the international community toward disaster management. The panelists represented international agencies, and the following recommendations were made:

- Studies on earthquake "associated phenomena" and climate change need to be initiated at the international level.
- A more transparent system for exchange of satellite data needs to be created.
- Geomagnetic field satellites should be used to detect ionospheric current system fluctuations whose origin is not yet fully understood.
- Weather fluctuations associated with natural hazards need to be investigated.
- A joint Indo-U.S. satellite mission needs to be designed by the international community

in coordination with the current geomagnetic field satellite and those in the planning stages.

The workshop was supported by the ICSU Committee of Space Research and various agencies of the Indian government. Abstracts of the workshop are available online at <http://home.iitk.ac.in/~ramesh/>. Proceedings materials, which are currently being prepared, will include major publications. To reserve a copy, please send an e-mail message to Ramesh Singh (ramesh@iitk.ac.in).

The International Workshop on Earth System Processes Related to Gujarat Earthquake Using Space Technology was held 27–29 January 2003, at the Indian Institute of Technology in Kanpur.

—RAMESH P. SINGH, Indian Institute of Technology, Kanpur; and DIMITAR OUZOUNOV, Science Systems and Applications, Inc., Goddard Space Flight Center, Greenbelt, Md.

FORUM

Anonymous Reviews: Self-serving, Counterproductive, and Unacceptable

PAGE 249

Recently, I became involved in an incident in which a manuscript was rejected on the advice of two anonymous reviewers and an anonymous associate editor. This re-activated my long-standing disgust at the entire system of anonymous reviews and pushed me—finally—into doing something about it. A few weeks or months ago, I read a similar protest, somewhere—one much more persuasive than I am likely to write—but my high-mileage brain has misplaced its provenance. Consider this a "high-five" to that misplaced author.

The system of reviewing is supposed to filter out junk science and provide useful feedback to authors of non-junk science who have submitted work that can be improved. These are honest, commendable endeavors that can be accomplished quite comfortably out in the open. Concealment, on the other hand, permits

and invites all manner of dishonorable motives—not least of which is laziness—to creep in. Off-hand I can think of four reasons for remaining anonymous in a review, none valid.

1. You need to say something negative about a manuscript written by somebody in power over you. If you can't do so openly, you should of course refuse to do the review. Perhaps you should also look for another job. Early in my career I remained anonymous (the only time, I think) for this reason, and I have been ashamed of myself ever since.

2. You have just deep-sixed a paper by a bitter scientific rival and hope to get away with it. Again, obviously, you should have declined the review. A more courageous and useful alternative would be to do the review, suppressing your dislike of the conclusions, then argue politely for a different interpretation. But this is hard, and would take more time.

3. You have agreed to do a review, then find you have no time, or are uninterested in the topic. One way out is to do a slap-dash, superficial, inadequate job, then remain anonymous to protect your reputation. Far better to apologize to the editor and send it back.

4. A friend and/or respected colleague has submitted a paper that, in your judgment, is wrong and should be rejected. Clearly, if your

relationship with the author is such that a friendship would be ended by a negative review, you shouldn't be doing the review. However, having agreed to do it, the easy way out is to lambast the paper, then duck from sight. A far better course of action would be to return the paper to the editor unreviewed, then contact the author and explain your problems with his/her ideas.

The bottom line on reviewing in general is that we should all do it in such a way as to eliminate any incentive to stay anonymous. A good review is hard to do, and takes time. In particular, it takes great effort and ingenuity to write a negative review in such a way that the author is glad to get it. The problem with anonymous reviews is that they afford the opportunity to be rude, vindictive, and/or lazy—especially the latter. In my 40-odd years of writing papers for publication, I have received plenty of negative reviews, most of them ultimately useful. I don't like receiving negative reviews—who does?—but I can swallow my pride and work through a thoughtful negative review to the betterment of the paper. The only reviews I remember that left me permanently angry were anonymous.

There is far too much unpleasantness in the world already to needlessly introduce even a little bit more. Anonymous reviews are unnecessary, unacceptable, and should not be permitted.

—MYRL E. BECK, JR., Professor of Geology, Emeritus, Western Washington University, Bellingham