

SEISMOLOGICAL RESEARCH LETTERS

Volume 88, Number 2B, March/April 2017

Editor in Chief

ZHIGANG PENG

Eastern Section Editor

MARTIN C. CHAPMAN

Associate Editors

SUSAN E. HOUGH

EROL KALKAN

ERIC M. THOMPSON

Data Mine Editor

TAKA'AKI TAIRA

EduQuakes Editor

ALAN KAFKA

Electronic Seismologist Editor

HUAJIAN YAO

Historical Seismologist Editor

JOHN EBEL

Electronic Supplements Editor

KIM OLSEN

Managing Editor

MARY GEORGE

Compositor

LUMINA DATAMATICS

Subscriptions to *Seismological Research Letters (SRL)*: Information regarding institutional subscriptions can be found at <https://www.seismosoc.org/publications/institutional-subscribers/>. Members of the Seismological Society of America receive online access to *SRL*. Individuals may apply for membership by visiting <https://www.seismosoc.org/>.

Single copies: Many back issues of *SRL* are available from SSA Headquarters.

Seismological Research Letters (ISSN 0895-0695) is published bimonthly in January, March, May, July, September, and November by the Seismological Society of America, 400 Evelyn Avenue, Suite 201, Albany, CA 94706. Periodicals postage paid at Berkeley, California and at additional mailing offices.

Seismological Research Letters was formerly published as *Earthquake Notes* (ISSN 0012-8287) from 1929–1986.

Postmaster: Send address changes to *Seismological Research Letters (SRL)*, 400 Evelyn Avenue, Suite 201, Albany, California 94706.

Communications regarding publications, apart from submission of manuscripts, should be addressed to the Seismological Society of America, 400 Evelyn Avenue, Suite 201, Albany, CA 94706.

© 2017 by the Seismological Society of America. Printed in the U.S.A. by The Sheridan Press, Hanover, Pennsylvania.



THE SEISMOLOGICAL SOCIETY OF AMERICA
400 Evelyn Avenue, Suite 201
Albany, California 94706
+1-510-525-5474; Fax +1-510-525-7204
<http://www.seismosoc.org>

Seismological Research Letters—Submissions

Seismological Research Letters (SRL) contains articles and items of broad appeal in seismology and earthquake engineering. Articles should be informational in nature and of current interest to a cross-section of SSA membership. Articles expressing some particular view about seismology or seismological research also will be accepted. Articles that contain original research results should be submitted to the *Bulletin of the Seismological Society of America (BSSA)*. News and notes, special reports on particular earthquakes, seismic network summaries, information on computer hardware or software pertinent to seismology, seismological equipment information, book reviews, and letters to the editor also are solicited for *SRL*.

Consult the *SRL Information for Authors* at <http://www.seismosoc.org/publications/srl/srl-authorsinfo.php> for details about making submissions. In general, articles should not exceed 20 pages of double-spaced text (excluding figures) unless approved by the editor. Electronic supplements can be considered for *SRL*; the electronic supplement policy is posted at <http://www.seismosoc.org/publications/esupps.php>. The *SRL* Editor in Chief is Zhigang Peng, srled@seismosoc.org. Upload submissions via *SRL*'s electronic submission system at <http://srl.edmgr.com>. Direct questions about the system to the managing editor at srl@seismosoc.org.

Submissions to the Eastern Section of the SSA (ES-SSA) Section of *SRL*

The ES-SSA Section of *SRL* is devoted to the seismology of continental interiors. Articles pertaining to eastern North American earthquakes, intraplate seismotectonics, and earthquake engineering are particularly encouraged. The ES-SSA editor is Martin C. Chapman, e-mail mcc@vt.edu. Appropriate review articles and tutorials are encouraged, as well as news and notes pertaining to the Eastern Section of SSA. Page charges for articles in the ES-SSA Section are \$25 for each printed page; the editor may allow exceptions under certain circumstances. Upload submissions via *SRL*'s electronic submission system at <http://srl.edmgr.com>.

On the Cover

Contrasting the old and the new: As recently as 50 years ago, earthquake locations were computed manually using paper records of seismograms and the physical globe of the Earth that still resides today at the U.S. Geological Survey National Earthquake Information Center in Golden, Colorado (front). Now, seismograms are digital like the ones on the monitors behind the globe; and more-sophisticated association, location, and magnitude algorithms require cluster and cloud computing (back cover). For more on how modern earthquake response has evolved, see Benz (this issue), "Building a National Seismic Monitoring Center: NEIC from 2000 to Present." (*Photo front by Rich Briggs; photo back by Gavin Hayes*)

Authorization to photocopy items for internal or personal use, or for the internal or personal use of specific clients, is granted by the Seismological Society of America provided that the appropriate fee of \$3 per copy is paid directly to Copyright Clearance Center, ISSN 0895-0695, 222 Rosewood Drive, Danvers, MA 01923, USA; telephone 978-750-8400. Prior to photocopying items for educational classroom use, please contact Copyright Clearance Center at the above address. Consent for reproduction as described above does not extend to other types of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. For permission to reprint material, please read "Permission to Reproduce Material from *SRL*" near the back of this issue.