

# SEISMOLOGICAL RESEARCH LETTERS

Volume 88, Number 6, November/December 2017

## Editor in Chief

ZHIGANG PENG

## Eastern Section Editor

MARTIN C. CHAPMAN

## Associate Editors

BRENDAN CROWELL

SUSAN E. HOUGH

EROL KALKAN

ERIC M. THOMPSON

## Data Mine Editor

TAKA'AKI TAIRA

## EduQuakes Editor

ALAN KAFKA

## Electronic Seismologist Editor

HUAIJIAN 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](mailto: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](mailto: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, [mcc@vt.edu](mailto:mcc@vt.edu). Appropriate review articles and tutorials are encouraged, as well as news pertaining to the Eastern Section of SSA. Upload submissions via *SRL*'s electronic submission system at <http://srl.edmgr.com>.

## On the Cover

**Front:** The first stage of the Korean Earthquake Early Warning System began operations in January 2015, with the goal of issuing a warning within 50 seconds of detecting an earthquake of magnitude 5.0 or more. Since operations began, all local earthquakes of magnitude 3.0 or greater have been detected with sufficient accuracy. In the two years since operations started, three warnings have been issued, all for earthquakes greater than magnitude 5.0. "The First Stage of an Earthquake Early Warning System in South Korea," by Sheen *et al.* (this issue), reviews the system's performance and reports on its responses for recent offshore and inland earthquakes.

**Back:** "The McAdam, New Brunswick, Earthquake Swarms of 2012 and 2015–16: Extremely Shallow, Natural Events," by Bent *et al.* (this issue), reports on the many recent earthquakes that have occurred within a 1–2 km<sup>2</sup> area of this village in eastern Canada, as well as the instrumentation and data collected to investigate the seismic activity. The authors report that no faults are mapped close to McAdam, but that events might have occurred on a NW–SE splay of the Fredericton fault. They also report that there was no human activity that could have induced or triggered the swarm, and that the cause remains unexplained.

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.