



EARTHQUAKE INFORMATION SOURCES ON THE INTERNET

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ABSTRACT

As a service to members of the international earthquake community, the author has compiled this directory of earthquake sources on the Internet. It is a selected world-wide list, providing e-mail, telnet, finger, anonymous ftp, gopher, or world-wide web listings for organizations considered most relevant to the earthquake engineering community. Due to limitations of space, organizations with a more seismological orientation have been omitted, however, most of the sites listed below provide links to seismological sites. This list is accurate as of January 1, 1996.

This paper does not attempt to provide technical information on how to access the Internet or use the various utilities such as finger or telnet. Access is very dependent on local conditions, and there are many books available which describe the use of these utilities. Since internet addresses can change without warning, an e-mail address is provided wherever possible. The user should know that Internet utilities are upwardly compatible, thus from the World Wide Web one can access anonymous ftp sites, finger sites, and gopher sites without any special knowledge or information. Most of the Web sites listed provide transparent links to gopher, ftp, and finger sites.

Many earthquake organizations do not yet have World Wide Web or gopher sites, but routinely do business by electronic mail. Those organizations are listed at the end with their e-mail addresses.

KEYWORDS

Internet, World Wide Web, Telnet, Gopher, Information Sources, finger, ftp.

GATEWAY SYSTEMS

The Internet in its current state is analogous to the United States highway system without any roadmaps. Gateway systems are springing up which either impose a hierarchical organization on Internet sites (Yahoo) or which search words or terms within Internet sites (Inktomi).

Yahoo

web site: http://www.yahoo.com/Science/Earth_Sciences/Geology_and_Geophysics/Seismology

Yahoo provides hierarchical subject access to the Internet world. It is well organized and updated continuously. The following alternate path in Yahoo provides access to the same directory of earthquake information as is found under Geology & Geophysics:

http://www.yahoo.com/environment_and_nature/disasters

Inktomi

web site: <http://inktom.berkeley.edu>

e-mail: brewer@cs.berkeley.edu

Inktomi provides keyword access to the World Wide Web. Inktomi ranks results by relevance. However, a non-specific search on a word like "earthquake" will result in thousands of hits, most of them not useful. Inktomi is best used if searching for a particular organization or person. It is not useful to search for a specific engineering term on Inktomi (such as "shear walls").

Surfing the InterNet for Earthquake Data

web site: <http://www.geophys.washington.edu/seismosurfing.html>

e-mail: steve@geophys.washington.edu

Steve Malone, seismologist at the University of Washington, maintains an up-to-date listing (with links) to organizations with earthquake data. This is the most complete site for links to earthquake and seismological organizations in various parts of the world.

HazardNet

web site: <http://hoshi.cic.sfu.ca:80/~hazard/IMFORMAT/quake.html>

e-mail: anderson@sfu.ca

HazardNet is a prototype natural and technological hazard information sharing network under development as a collaborative demonstration project of the International Decade for Natural Disaster Reduction. It is based at the Centre for Policy Research on Science and Technology, Simon Fraser University, Vancouver, Canada. The earthquake section provides access to many international sites and organizations.

DISCUSSION LISTS

Bigquake

Send e-mail to: bigquake-request@neis.cr.usgs.gov. In the body of your message, type *subscribe bigquake*. The National Earthquake Information Center (NEIC) is mandated to put out news releases on all earthquakes larger than 6.5 worldwide, thus, all such quakes should appear on Bigquake fairly quickly. NEIC tries to include as many 5.5 or greater earthquakes as possible worldwide. NEIC does not attempt to release the smaller California earthquakes due to their frequency and because USGS offices in Menlo Park and Pasadena have better capabilities for locating and computing their magnitudes. With the exception of those occurring in California and Alaska, the vast majority of quakes generating felt reports in the U.S. are included on Bigquake.

Qedpost

Send e-mail to: qedpost-request@neis.cr.usgs.gov. In the body of your message, type *subscribe qedpost*. Qedpost stands for Quick Epicenter Determinations from the National Earthquake Information Center. This list provides notification of all earthquakes processed by the National Earthquake Information Center.

Disaster Research Electronic Newsletter

Send e-mail to: listproc@lists.colorado.edu. In the message body type, *subscribe Hazards yourname*. This moderated newsletter is issued approximately twice a month by the Natural Hazards Research and Applications Information Center at the University of Colorado, Boulder, and covers all hazards. Back

issues of Disaster Research are archived at the NHRAIC home page (<http://adder.colorado.edu/~hazctr/intro.html>). Disaster Research serves as an informal communication tool among persons interested in hazards research and disaster management.

NEWSGROUPS

The newsgroup *sci.geo.earthquakes* contains serious technical discussion of recent earthquakes from the geological point of view. Other newsgroups such as *ca.earthquakes*, *alt.disasters.earthquake*, and *fj.misc.earthquake* tend to be less technical.

TELNET SITES

Earthquake Engineering Abstracts

Telnet to: *melvyl.berkeley.edu*

Earthquake Engineering Abstracts is a bibliographic database produced by the National Information Service for Earthquake Engineering, Earthquake Engineering Research Center, University of California at Berkeley. Enter your terminal type (usually vt100). Once in Melvyl, type *use eea* to enter the Earthquake Engineering Abstracts database. Help screens are available.

Quakeline®

Telnet to: *bison.cc.buffalo.edu*

Quakeline® is a bibliographic database produced by the National Center for Earthquake Engineering Research/Information Center at the State University of New York, Buffalo. When asked for terminal emulation, press the <enter> key to get a listing of choices, and enter your response (usually vt100). At the blank screen, press <enter>. Once connected to the DATABASE SELECTION MENU, choose the "INDX" menu option by typing *INDX <enter>* and then type *QKLN <enter>*. Follow screen instructions for searching. To exit, type *STOP <enter>* at any screen.

Quick Epicenter Determinations

Telnet to: *neis.cr.usgs.gov*. Username: QED

The Quick Epicenter Determinations (QED) provides a listing of earthquakes which have occurred during the last three weeks. Events within seven days of real-time are still being revised and republished for the QED as new data are received from contributing observatories. Events older than seven days are no longer revised, but are retained in the database. The event list is revised every morning. In addition to the daily update, any earthquake for which the NEIC has issued a press release is added to the QED list within about one hour of the time of release. Events in the QED database may be searched by date range, magnitude, or geographic location. The Earthquake Lists option provides choices for viewing seven lists: significant earthquakes of the world, significant earthquakes of the United States, most destructive earthquakes in the world, worldwide earthquakes causing 1000 or more deaths, the ten largest earthquakes in the United States, earthquake facts and statistics, and the number of occurrences of magnitude 7 or greater earthquakes each year from 1900 through 1989.

ANONYMOUS FTP SITES

National Center for Earthquake Engineering Research Anonymous ftp

Ftp to: *clark.eng.buffalo.edu*

This anonymous ftp site provides access to over 612 computer search reprints as well as other data files such as the *Information Service News*, the NCEER technical report list, topical bibliographies, and guides. These files can be downloaded and printed freely with no intermediary required.

California Division of Mines and Geology, California Strong Motion Instrumentation Program

Ftp to: *ftp.consrv.ca.gov/pub/dmg/csmip*

This site contains newly processed strong motion data from very recent earthquakes. The data is also available through their Web page (see below).

FINGER

Many seismological stations provide quick access to recent earthquake information via the *finger* utility. By issuing the *finger* command to a particular internet address, a list of recent earthquakes recorded by that particular station is returned. The gateway system Surfing the InterNet for Earthquake Data (see above) provides a directory and automatic links to these finger sites plus many, many others.

finger quake@andreas.wr.usgs.gov

This site provides a quick listing of magnitude 2 or greater earthquakes recorded by the Northern California Seismic Network in Central and Northern California during the last three days.

finger quake@gldfs.cr.usgs.gov

This is a listing of Near-Real-Time Worldwide Earthquake Locations. This site provides a quick listing of reviewed locations for earthquakes worldwide from the U.S. National Seismic Network and corresponding agencies. Within 24 hours, most earthquakes of magnitude 3.5 or greater in the contiguous United States, 4.0 or greater in Alaska, 4.5 or greater in Hawaii, 5.0 or greater in the Aleutian Islands, and 5.5 or greater for the rest of the world will be posted to this list.

GOPHER SITES

Earthquake Information Gopher

gopher to *nisee.ce.berkeley.edu*

Operated by the National Information Service for Earthquake Engineering, this site provides mission statement, publications lists, and other information to organizations active in earthquake studies.

Emergency Preparedness Information Exchange (EPIX)

gopher to *hoshi.cic.sfu.ca:80*

EPIX is the gopher companion to HazardNet, providing gopher access to emergency management, disaster, and earthquake sites around the world.

Federal Emergency Management Agency Gopher

gopher to *www.fema.gov*

Information about FEMA plus an historical list of press releases are provided.

NCEER Gopher

gopher to nceer.eng.buffalo.edu

Included in the Gopher menu selections are the NCEER Anonymous FTP site, access to the QUAKELINE® database, NCEER-produced software programs, and other resources.

WORLD WIDE WEB SITES

Applied Technology Council (ATC)

web site: <http://www.atcouncil.org>

e-mail: atc@atcouncil.org

ATC is a nonprofit corporation involved in earthquake hazard preparedness, response, and mitigation research related to the design and engineering of structures.

Association of Bay Area Governments (ABAG)

web site: <http://www.abag.ca.gov>

e-mail: jeannep@abag.ca.gov

ABAG is the regional planning agency for the San Francisco Bay Area. It offers a number of publications related to earthquake planning, as well as training classes and technical assistance to local government and businesses. A key feature of this site are earthquake hazard maps for scenario earthquakes in the San Francisco Bay Area.

California Division of Mines & Geology, Strong Motion Instrumentation Program

web site: <http://www.consrv.ca.gov/dmg>

e-mail: bkondo@www.consrv.ca.gov

In addition to recently processed strong motion records from California earthquakes, the Division of Mines & Geology publishes seismic hazard zone maps and the Alquist-Priolo earthquake fault zone maps, providing very detailed fault information for the State of California. The maps are not on the web site, but information about them is.

California Office of Emergency Services, Earthquake Program

web site: <http://www.oes.ca.gov:8001>

e-mail: sdm@oes.ca.gov

The goal of the OES Earthquake Program is to support and assist local and state government and the private sector in integrating hazard identification, risk assessment, risk management, and prevention into a comprehensive approach to hazard mitigation, and to maximize the effective use of available public and private sector resources devoted to hazard mitigation.

Center for Earthquake Research and Information (CERI), University of Memphis

web site: <http://www.ceri.memphis.edu>

e-mail: stevens@ceri.memphis.edu

The Center for Earthquake Research and Information (CERI), a research institute of the University of Memphis, provides accurate, immediate reports and information on the occurrence of regional and worldwide earthquakes; research related to the causes and effects of earthquakes originating in the New Madrid seismic zone and the Southern Appalachian seismic zone; studies related to the need for earthquake resistant construction; and advice on the methods, means, and feasibility of reducing

earthquake damage.

Earthquake Engineering Research Center/ National Information Service for Earthquake Engineering/
University of California at Berkeley

web site: <http://nisee.ce.berkeley.edu>

e-mail: eerclib@eerc.berkeley.edu

EERC is dedicated to research, education, and dissemination of technical information in earthquake engineering. The information program supports technology transfer activities in software distribution, bibliographic databases, the EERC Library, and technical reports. A key feature of this site is the Earthquake Image Information System (EqIIS), which has 7000 digitized images of earthquakes and earthquake damage from 1868 to the present. The images can be searched by earthquake name, by photographer, and by keyword/subject.

Earthquake Research Institute, University of Tokyo

web site: <http://www.eri.u-tokyo.ac.jp>

e-mail: webmaster@eri.u-tokyo.ac.jp

Information about the Earthquake Prediction Research Center and the Division of Disaster Mitigation Science is provided.

Earthquake Engineering Research Library, California Institute of Technology
National Information Service for Earthquake Engineering (NISEE/Caltech)

web site: <http://www.cadre.caltech.edu/eerl/eerl.html>

e-mail: eerllib@caltech.edu

This site provides strong-motion accelerogram data, technical reports, slides, and videotapes of earthquake damage and structural engineering topics, as well as conference proceedings and technical serials.

Federal Emergency Management Agency (FEMA)

web site: <http://www.fema.gov>

e-mail: eipa@fema.gov

The primary mission of FEMA is to protect lives and reduce property loss from natural disasters and other emergencies. To accomplish this, FEMA acts as the focal point for all levels of government to develop a national emergency management capability that can deal effectively with any emergency.

Instituto de Ingenieria, Universidad Nacional Autonoma de Mexico

web site: <http://pumas.iingen.unam.mx>

e-mail: mosaic@pumas.iingen.unam.mx

By selecting Actividades del Instituto, announcements and information about the Eleventh World Conference on Earthquake Engineering will be found.

International Center for Disaster-Mitigation Engineering, University of Tokyo

web site: <http://incede.iis.u-tokyo.ac.jp/Incede.html>

e-mail: webmaster@incede.iis.u-tokyo.ac.jp

The INCEDE home page includes general information about this Japanese center, abstracts of all INCEDE reports, back issues of their newsletters, and summaries of INCEDE research. A special feature is KobeNet, providing information and links about the Great Hanshin earthquake.

National Center for Earthquake Engineering Research (NCEER) Information Service, State University of New York at Buffalo

web site: <http://nceer.eng.buffalo.edu>

e-mail: nernceer@ubvms.cc.buffalo.edu

The NCEER Information Service was established to disseminate earthquake engineering and hazard information to researchers, practitioners, and the general public. This site includes information about NCEER produced software programs, the NCEER anonymous ftp site (previously described), and the Quakeline database.

National Geophysical Data Center

web site: <http://www.ngdc.noaa.gov>

e-mail: info@mail.ngdc.noaa.gov

The National Geophysical Data Center acquires, processes, and analyzes technical data on earthquake hazards and disseminates it to federal agencies, private industry, academia, and the public. Operating as both a national and a world data center, NGDC holds global data for terrestrial and marine environments. In addition, NGDC and the World Data Center-A for Solid Earth Geophysics help to compile, catalog, and synthesize available information on tsunami sources and effects to support modeling, engineering, planning, and educational purposes.

National Institute of Standards and Technology (NIST), Structures Division

web site: <http://www.nist.gov>

e-mail: hsl@enh.nist.gov

NIST is one of four program agencies of the National Earthquake Hazards Reduction Program (NEHRP). In the enabling legislation, Congress assigns NIST the responsibility for "carrying out research and development to improve building codes and standards and practices for structures and lifelines." NIST conducts applied analytical and experimental research in-house and collaboratively with private sector organizations and universities.

Natural Hazards Research and Applications Information Center, University of Colorado, Boulder

web site: <http://adder.colorado.edu/~hazactr/Home.html>

e-mail: hazctr@colorado.edu

The Natural Hazards Research and Applications Information Center is a national clearinghouse for data relating to the economic loss, social disruption, and human response associated with natural disasters and related technological risks. The main goal of the Center is to strengthen communication between researchers and the individuals, organizations, and agencies responsible for reducing losses from disasters.

Seismographic Station, University of California at Berkeley

web site: <http://www.seismo.berkeley.edu>

e-mail: www.seismo.berkeley.edu

The Seismographic Station has monitored and studied earthquakes in California and the world since 1887. The Northern California Earthquake Data Center (NCEDC) and Rapid Earthquake Data Integration (REDI) Projects are projects of the Seismographic Station.

Southern California Earthquake Center (SCEC), University of Southern California

web site: <http://www.usc.edu/dept/earth/quake>

e-mail: ScecInfo@usc.edu

SCEC's Data Center (SCEC-DC) is the principal archive of seismological and geodetic data associated with seismicity in Southern California. The mission of the Center is to promote earthquake hazard reduction by estimating when and where future damaging earthquakes will occur, calculating the expected ground motion, and disseminating information to the public.

U.S. Geological Survey, National Earthquake Information Center

web site: <http://gldfs.cr.usgs.gov>

e-mail: sedas@gldfs.cr.usgs.gov

See the entry under Telnet: Quick Epicenter Determinations, as this provides Web access to the same information. Also provided are current seismicity maps for the world, definitions of earthquake terms, information about the Center, and **finger** access to other sites.

U.S. Geological Survey, Office of Earthquakes and Volcanoes

web site: <http://quake.wr.usgs.gov> and <http://info.er.usgs.gov>

e-mail: webmaster@www.usgs.gov

The first web address provides basic information about the Menlo Park, California office of the U.S. Geological Survey. The second address provides broader coverage for the entire Office of Earthquakes and Volcanoes within USGS.

Western States Seismic Policy Council (WSSPC)

web site: <http://vishnu.glg.nau.edu/wsspc.html>

e-mail: wsspc@vishnu.glg.nau.edu

WSSPC is a broad regional forum for technology transfer, multi-disciplinary membership, and enhanced emergency management/geoscience partnerships toward earthquake hazard mitigation. The primary aims of the organization have been to improve public understanding of seismic risk, to improve earthquake preparedness, and to provide a cooperative forum to enhance transfer of mitigation technologies at the local, state, interstate, and national levels.

OTHER ORGANIZATIONS

These organizations have e-mail access and are actively developing other Internet services. Contact them by e-mail for further information on their Internet plans.

Building Seismic Safety Council. e-mail: cheider@nibs.org

Central U.S. Earthquake Consortium. e-mail: cusec@ceri.memphis.edu

California Seismic Safety Commission. e-mail: sscbase@aol.com

Earthquake Engineering Research Institute. e-mail: susant@eerc.berkeley.edu

Imperial College, London, Engineering Seismology & Earthquake Engineering Section.

e-mail: d.ryan@ic.ac.uk

Interagency Committee on Seismic Safety in Construction. e-mail: dtodd@enh.nist.gov

Seismological Society of America. e-mail: info@seismoc.org

Tohoku University, Japan, Faculty of Engineering, Disaster Control Research Center.

e-mail: shibata@struct.archi.tohoku.ac.jp