

The Natural Hazards Data Resources Directory

**A Resource for the Disaster and Hazard Management
Community of Practitioners and Research Scholars**

**Leaura M. Hennig
Compiler and Editor**

**NHRAIC Special Publication No. 21
NGDC Key to Geophysical Records Documentation No. 23**



**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE
National Geophysical Data Center
Boulder, Colorado**

March 1990

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Introduction

A natural hazard is a rare or extreme event in nature that adversely impacts human life, property, or activity. No human settlements are free from the risk of natural hazards, therefore it is vital that researchers and decision-makers have access to all available hazards information.

Information needs are especially acute as we enter the 1990s, and we contemplate rising tolls from natural hazards worldwide. In response to this threat, the United Nations General Assembly designated the 1990s the Decade for Natural Disaster Reduction--a 10-year period devoted to improved efforts to reduce losses from natural extremes. The challenge to the hazards community is to halt or reverse the trend of rising impacts. Experience suggests that enough knowledge already exists, if properly applied, to substantially reduce both human and property losses from natural disasters.

The United Nations called upon all countries to: establish national Decade programs which examine their capabilities for reducing the toll of natural hazards; assess the particular requirements of their respective countries in order to improve those capabilities; and develop a strategy for attaining these goals. An important first step in this process is identifying available information resources that address hazards management and mitigation activities. This directory was compiled to take that step as a contribution to the United States Decade program.

The directory was prepared by the Natural Hazards Research and Applications Information Center at the University of Colorado at Boulder, in conjunction with the National Oceanic and Atmospheric Administration's National Geophysical Data Center in Boulder. Financial support was provided by the National Science Foundation through grant # CES-8717115 to the Program on Environment and Behavior of the Institute of Behavioral Science at the University of Colorado. Special thanks to Dr. Eleonora Sabadell of NSF's Natural and Manmade Hazards Mitigation Program for this grant. NOAA's National Geophysical Data Center funded the publication of this directory.

How this Directory was Compiled

Data resource surveys were mailed to nearly 1400 potential sources of natural hazards data in the winter of 1988-89. These sources were identified from existing data bases at the Natural Hazards Center as well as through a wide-ranging search for other appropriate data resources. Following the mail survey, the responses were screened and sorted, including those which provided data, technical assistance, or services related to hazards on a regional or national basis. In addition, a follow-up telephone survey was conducted of all non-respondents believed to be maintaining valuable data resources. Those not included were primarily private for-profit firms, and state agencies with data pertaining only to a specific state.

Usefulness

Despite efforts to be complete and thorough in the preparation of this directory, there may be sources of information which are not included. Additionally, information contained herein may contain minor inaccuracies, especially because prices, data, content, format, contact people, and offices are ever-changing. It is intended that the directory be updated periodically, and therefore we ask you to send any comments about its usefulness, as well as corrections or additions, to:

Natural Hazards Center
University of Colorado
Campus Box 482
Boulder, CO 80309-0482 USA

How to Use this Directory

The directory includes two types of information: 1) data resources organized by natural hazard topic, and 2) lists of hazard-related organizations.

Each data resource listed includes the following:

	Data Resource Title
Organization	The Organization indicates which administrative group is maintaining the data.
Contact	The Contact provides the person to call or write for further information.
Description	The Description of the data resource may include the topic, level of aggregation, geographic area covered, time period of record, and source of data.
Format	The Format describes the structure of the data, e.g. hard copy (printed matter); computer copy (disks, tapes, on-line); audio-visual materials; and/or technical assistance.
Availability	The Availability informs the user of costs for acquiring the data, restrictions on access (if any), location of the data if different from the contact, frequency of updating the data, and related services.
Additional Related Information	The Additional Related Information lists any pertinent information such as reports, articles, pamphlets, and users' guides which describe the data.

The hazard-related organizations located in the Appendix include numerous state and federal institutions, as well as US and international programs. When appropriate, general functions of these organizations are described. In addition, one appendix includes other directories on natural hazards.

The directory has three indices: agency, subject, and geographic. Many data resources apply to more than one hazard (e.g. earthquake and fire); therefore, through cross-referencing in the subject index, the user may locate multi-hazard data resources.

To use this directory, simply look for a data resource by topic in the Table of Contents or Subject Index, and turn to the appropriate page.

GEOLOGICAL HAZARDS

Avalanche Information

Organization	Colorado Avalanche Information Center
Contact	Knox Williams, Director Colorado Avalanche Information Center c/o Rocky Mountain Forest and Range Experiment Station Forest Service US Department of Agriculture 240 West Prospect Street Fort Collins, CO 80526 Telephone: (303) 498-1847 FTS: 323-1847
Description	The Westwide Avalanche Network consists of 40 observing stations in the Western United States and Alaska. The Network maintains daily avalanche, snow cover, and weather data. Each month the network receives data from the observing stations. The Network contains data for the last twenty to thirty-five years. The Colorado Avalanche Information Center also operates the Colorado Avalanche Warning Service, and publishes articles on avalanche accidents.
Format	The Center stores data on computer cards and magnetic tape. The Center provides data listings or punched cards at no cost, except for large requests. The Center updates data annually, during the summer.
Availability	Contact the Rocky Mountain Forest and Range Experiment Station.

Avalanche Information

Organization	Northwest Avalanche Center
Contact	Sue Ferguson, Meteorologist 7600 Sandpoint Way NE Box C-15700 Seattle, WA 98115 Telephone: (206) 526-6164
Description	The Northwest Avalanche Center, NWAC, collects data on mountain weather, snow and avalanche fatalities, snow stability, avalanche hazard forecasts, as well as snow and avalanches occurrences. Specifically, NWAC collects data from several elevations and geographic locations within the Olympics and Cascades of Washington and Northern Oregon from November through April. These data include: hourly temperature, wind, precipitation, and relative humidity from remote automated sensors; and daily observations of weather, snow, and avalanches from field observers.

AVALANCHE

NWAC also prepares daily forecasts from November through April. These forecasts include: summaries with micro- and meso-scale forecasts, snowpack analysis, avalanche forecast advisory, and hazard assessment.

Format

Archival data and forecasts are available on-line as requested. Current forecasts are available on-line through a computerized bulletin board.

Availability

Cooperators of NWAC's program have free access to all data and forecasts. Other users may be charged a minimal fee depending upon the expense of the request.

**Additional
Information**

Contact NWAC for an extensive list of publications.

See also the following appendices:

- State Climatologists
- NOAA Regional Climate Centers
- National Weather Service

EARTHQUAKE: SOCIAL DATA

Earthquake Consortium

Organization	Central United States Earthquake Consortium
Contact	Harvey Ryland, Executive Director Central United States Earthquake Consortium 2630 Holmes Road East Memphis, TN 38118 Telephone: (901) 345-0932
Description	The Central United States Earthquake Consortium (CUSEC) protects the citizens of Missouri, Mississippi, Illinois, Arkansas, Tennessee, Kentucky, and Indiana from earthquakes. CUSEC maintains a mitigation strategy plan, and provides public awareness programs. CUSEC also participates in resource inventories and multi-state exercises.
Format	Hard copy and videos.
Availability	CUSEC distributes all of the earthquake related Federal Emergency Management Agency publications, as well as state published resources from the seven CUSEC states.
Additional Information	CUSEC Monographs and list of publications.

Earthquake Consortium

Organization	Western States Seismic Policy Council
Contact	Roy Breckenridge, Chair Western States Seismic Policy Council University of Idaho Morill Hall, Room 332 Moscow, ID 83843 Telephone: (208) 885-7991
Description	The Western States Seismic Policy Council, WSSPC, formed in 1979 and the early 1980s. WSSPC improves understanding about earthquake preparedness, and formulates policy to lessen the impacts of earthquakes. The Council provides a cooperative forum for enhancing the development of comprehensive local, state, and national seismic safety policies and programs. WSSPC's fourteen member states include: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Texas, Utah, Washington and Wyoming. Each year WSSPC sponsors a conference. The location of the conference rotates among the member states annually.

EARTHQUAKE: SOCIAL DATA

Format Annual conference.
Availability Contact Roy Breckenridge.

Earthquake Education & Preparedness

Agency Association of Bay Area Governments

Contact Jeanne Perkins, Program Manager
Association of Bay Area Governments
Earthquake Program
PO Box 2050
Oakland, CA 94604-2050
Telephone: (415) 464-7900
Telex: (415) 464-7979

Description The Association of Bay Area Governments, ABAG, helps solve problems that cross city and county boundaries. ABAG conducts research and forecasts population, housing and employment trends in order to plan for the future. ABAG's Earthquake Program examines the Bay area's existing building stock and the liability of both local governments and businesses and industries for earthquake hazards and losses. ABAG also produces an earthquake hazards map for the Bay area.

Format Hard copy, floppy disks, dBASE III files, maps, and technical assistance.

Availability Contact ABAG for publication information.

Earthquake Education & Preparedness

Organization Bay Area Regional Earthquake Preparedness Project

Contact Sarah Nathe, Resource & Publications Coordinator
Bay Area Regional Earthquake Preparedness Project
Metro Center
101 8th Street, Suite 152
Oakland, CA 94607-4756
Telephone: (415) 540-2713

Description The Bay Area Regional Earthquake Preparedness Project, BAREPP, is specifically charged with assisting local governments in the California Bay Area in reducing their structural and non-structural vulnerability to earthquakes. The resources maintained are documents and audio-visual

EARTHQUAKE: SOCIAL DATA

	materials on building retrofit, public awareness, emergency planning, and disaster response.
Format	Hard copy, videotapes, slides, and audiotapes.
Availability	Publications are for sale through the Association of Bay Area Governments (ABAG), PO Box 2050, Oakland, CA 94604. All other materials are available only to public and private organizations in the 10 county Bay Area.
Additional Information	Contact ABAG for a list of BAREPP publications.

Earthquake Education & Preparedness

Organization	California Seismic Safety Commission
Contact	Ed Hensley, Information Officer California Seismic Safety Commission 1900 K Street, Suite 100 Sacramento, CA 95814 Telephone: (916) 327-0669
Description	The California Seismic Safety Commission maintains documents and audio-visual materials that translate seismic research, engineering, and architectural information into practical guide books for local officials.
Format	Hard copy (guide books). Compliance data, earthquake safety legislation, are available on Macintosh computer files.
Availability	Send for guide books which are free of charge. The computer information may be received in printed or diskette form.
Additional Information	<u>Guidebook: To Identify and Mitigate Seismic Hazards in Buildings.</u> Report No. SSC 87-03. December, 1987. California Seismic Safety Commission. Sacramento, CA. <u>California at Risk: Steps to Earthquake Safety for Local Government.</u> Report No. SSC 88-01, Jan. 1988. California Seismic Safety Commission. Sacramento, CA.

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Earthquake Education & Preparedness

Organization	Earthquake Education Center
Contact	Joyce Bagwell, Director Baptist College at Charleston Earthquake Education Center PO Box 10087 Charleston, SC 29411 Telephone: (803) 797-4208
Description	The Earthquake Education Center maintains educational materials on earthquake history, causes and effects, and preparedness in the form of pamphlets, audio-visual aids, monographs, and bibliographic materials for schools (K-12 and post-secondary), hospitals, businesses, industries, life-line facilities, and special-needs groups (girl scouts, senior citizens, handicapped, and youth). The Center provides data on South Carolina's seismic activity from the US Geological Survey network located on the Baptist College campus.
Format	Hard copy monographs, teachers' packages, pamphlets, bibliographic materials are available. Audio-visual materials include: films, slides, slide shows, photographs, and video and audio cassettes.
Availability	Available upon request. Contact the Earthquake Education Center.

Earthquake Education & Preparedness

Organization	Southern California Earthquake Preparedness Project
Contact	Pamela Broadous, Public Information Officer Southern California Earthquake Preparedness Project 600 South Commonwealth Avenue, Suite 1100 Los Angeles, CA 90005 Telephone: (213) 739-6695
Description	The Southern California Earthquake Preparedness Project, SCEPP, maintains earthquake preparedness guidelines, reports, and a newsletter. SCEPP has a small library, as well as an Information Network Resource System and audio-visual materials.
Format	Hard and computer copy, as well as audio-visuals.
Availability	Call or write to request a listing of available resources. Books, brochures, data bases, videos, slide and tape programs are also available.

EARTHQUAKE: SOCIAL DATA

**Additional
Information**

The Southern California Earthquake Preparedness Project. Brochure.

"Preparedness Planning Guides and Public Information Materials of the SCEPP." Product List.

Earthquake Education & Preparedness

Organization

Ventura County Office of Emergency Services

Contact

Karen Guidi
Ventura County Office of Emergency Services
800 South Victoria Ave.
Ventura, CA 93009
Telephone: (805) 654-2551

Description

Earthquake preparedness is encouraged for everyone in California, yet information on earthquake safety is not widely available in a medium for the hearing-impaired. In 1987 the Ventura County Office of Emergency Services produced a special video on household-level preparedness, after researchers discovered that 11% of Ventura County residents are either deaf or have some form of hearing impairment. Silent Quake (1987, 42 minutes long) is a signed, captioned, and narrated videotape of a deaf family's visit with a neighbor to discuss earthquake preparedness. It provides carefully presented, easily understood information on stocking a safety kit and food supplies for survival after an earthquake; securing heavy interior objects and a building's foundation; arranging with neighbors for communication and assistance after an earthquake; taking protective measures during an earthquake; handling damage to water, electrical, and gas lines; and assisting the injured.

Format

Videotape.

Availability

Cost is \$30.

**Additional
Information**

For further information regarding the production of Silent Quake contact Karen Guidi.

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Earthquake Research & Information

Organization	Earthquake Engineering Research Center
Contact	Vitelmo Bertero, Director Earthquake Engineering Research Center National Information Service for Earthquake Engineering University of California at Berkeley 1301 South 46th Street Richmond, CA 94804 Telephone: (415) 231-9403
Description	<p>The Earthquake Engineering Research Center's, EERC, program develops methods and procedures for the management of earthquake hazards through economically feasible design, construction, and land use planning. Projects also analyze physical, legal, social, and economic policy alternatives for risk control. The program includes the National Information Service for Earthquake Engineering, NISEE, at the University of California at Berkeley and at the California Institute of Technology which:</p> <ol style="list-style-type: none">1) develop and maintain an earthquake engineering library of over 35,500 items,2) collect and distribute computer software and programs (over 72 available),3) publish <u>Abstract Journal in Earthquake Engineering</u>, "NISEE/EERC News," and EERC reports.
Format	Hard and computer copy.
Availability	Bibliographies of earthquake engineering reports and NISEE activities are available. The National Technical Information Service or NISEE provides copies of reports.
Additional Information	<p><u>Bibliography of Earthquake Engineering</u>, compiled by Edward Hollis, Earthquake Engineering Research Institute, Pasadena, CA 1971.</p> <p><u>Abstract Journal in Earthquake Engineering</u>, annual review of over 2,400 abstracts with subject and author indices. NISEE. University of California at Berkeley. Richmond, CA.</p> <p><u>NISEE/EERC News</u>, quarterly report of current earthquake engineering research. NISEE. University of California at Berkeley. Richmond, CA.</p>

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Earthquake Research & Information

Organization	Center for Earthquake Studies
Contact	David Stewart, Director Center for Earthquake Studies One University Plaza Cape Girardeau, MO 63701-4799 Telephone: (314) 651-2000
Description	<p>Because over 3 million Missourians, as well as more than 12 million midwesterners, are at risk from earthquakes originating in the New Madrid Seismic Zone, a Center for Earthquake Studies opened at the Department of Earth Sciences, Southeast Missouri State University. The center is a cooperative endeavor of the university and the Missouri State Emergency Management Agency. Its purpose is to protect people from earthquake hazards by a variety of mitigation activities, including applied research, that will prevent or reduce casualties, injuries, and property loss.</p> <p>The founders of the center recognize that relatively small investments in seismic hazard mitigation yield significant savings in reduced damages. Therefore, they plan to undertake a wide range of activities including the development of public awareness campaigns; publication of books and videos; assessment of risk in specific regions; promotion of safe building practices, especially in schools; organization of conferences, seminars, courses, and training workshops; and the initiation of other activities with the Missouri State Emergency Agency.</p>
Format	Hard copy, technical assistance, audio-visual materials.
Availability	For further information contact the Center.

See also the following appendices:

- Emergency Management
- Army Corps of Engineers
- FEMA
- Small Business Administration
- World Health Organization

EARTHQUAKE: TECHNICAL DATA

Computational Seismology

Organization	Center for Computational Seismology
Contact	Ernest Majer, Group Leader Division of Geophysics and Geomechanics Center for Computational Seismology Lawrence Berkeley Labs 50 East #1 Cyclotron Road Berkeley, CA 94720 Telephone: (415) 486-6709 Telex: 910-366-2037 Telefax: (415) 486-5686
Description	The Center for Computational Seismology, CCS, offers a wide variety of state-of-the-art software and hardware to conduct seismic research. CCS analyzes seismic data; develops seismic exploration and monitoring techniques; conducts hydrofracture detection, propagation and monitoring research, and generates seismic data bases. CCS is the data processing center for CALCRUST a consortium of four universities conducting research on crustal structural analysis. CCS also is a computational support base for the development of seismic monitoring via computers.
Format	On-line.
Availability	Arpa net Mil net 128.3.254.11 CCS@LBL.

Earthquake Data Base: Australia

Organization	Australian Seismological Center
Contact	Kevin McCue, Manager Information Section Australian Seismological Center Bureau of Mineral Resources GPO Box 378 Canberra ACT 2605 Australia Telephone: [61] (62) 499675 Telex: 62229 BMRCOM Telefax: [61] (62) 480913
Description	The Australian Seismological Center maintains an earthquake data file. This file contains epicenter data: time, latitude, longitude, depth, magnitude, number of stations, and source. The time period of the

EARTHQUAKE: TECHNICAL DATA

earthquake data file is 1873 through 1988; the range of the file is 0-90 degrees South by 131-163 degrees East.

Format Information is available on ASCII files, floppy discs, or tapes.

Availability The cost per tape is \$50. Working hours are Monday to Friday, 8am - 5pm.

Earthquake Data Base: California

Organization California Department of Conservation

Contact Joseph Ziony, Assistant Director
California Department of Conservation
Division of Mines & Geology
1416 Ninth Street, Room 1341
Sacramento, CA 95814-5576
Telephone: (916) 445-1825

Description The California Department of Conservation is California's Geological Survey. Its publications on geology and seismology span from 1880 to the present and include: bulletins, special reports, special publications, preliminary reports, county reports, geologic maps, gravity maps, fault maps, map sheets, annual report of the State Geologist, Strong-Motion Instrumentation Program reports, earthquake planning scenarios, and California Geology magazine.

Format On-line and hard copy.

Availability Their computer bulletin board lists: all current publications for sale with prices, earthquakes in California with magnitudes greater than 3, other geohazard events, current state legislation affecting geology, telephone numbers of regional division offices, and a calendar of upcoming professional geology and seismology meetings.

Additional Information Write for free "List of Available Publications" booklet to Division of Mines & Geology, 660 Bercut Drive, Sacramento, CA 95814-0131; telephone (916) 445-5716 for publication sales information. Prepayment is required. California Geology magazine subscription is \$7 per year. Computer bulletin board is named "CDMG ON-LINE", telephone (916) 327-1208, 8 bits, no parity, one stop.

EARTHQUAKE: TECHNICAL DATA

Earthquake Data Base: Peru

Organization	Centro Regional de Sismologia para America del Sor
Contact	Alberto Giesecke, Director Centro Regional de Sismologia para America del Sor Apartado 14-0363 Lima Peru Telephone: [51] (14) 247421 Telex: [51] 20053PE PB LIMTC
Description	The Centro Regional de Sismologia para America del Sor maintains seismological bulletins from most South American countries over a variety of time spans.
Format	Hard copy.
Availability	Requests should be made by letter.

Earthquake Data Base: Southeastern US

Organization	Seismological Observatory
Contact	G. Bollinger, Director Seismological Observatory Virginia Tech Blacksburg, VA 24061 Telephone: (703) 231-6729
Description	Virginia Tech's Seismological Observatory maintains an earthquake catalog for the Southeastern United States for all occurrences in the region from 1977 to the present.
Format	Hard copy and magnetic tape.
Availability	Handled on an ad hoc basis.

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Earthquake Data Base: Switzerland

Organization	Swiss Seismological Service
Contact	D. Mayer-Rosa, Chief Seismologist Swiss Seismological Service ETH-Honggerberg CH-8093 Zurich Switzerland Telephone: [41] (1) 377-2602 Telex: 823480 EHEB CH Telefax: [41] (1) 371-1864
Description	The Swiss Seismological Service maintains the Earthquake Data Base, EDB. EDB contains about 5,000 epicenters in Switzerland from 1300 to 1989.
Format	Computer based off-line data bank.
Availability	Selections of data are available on request.
Additional Information	The Swiss Seismological Service produces a monthly seismological bulletin.

Earthquake Data Base: Turkey

Organization	Earthquake Research Institute
Contact	Oktay Ergunay, Head Earthquake Research Institute Eskisehir Yolu Lo ncu Km Lodumlu Mevkii Ankara Turkey Telephone: (90) 4-2873640 Telex: 42477 afet tr Telefax: 213 76 58
Description	The Earthquake Research Institute of Ankara, Turkey maintains a computer catalog of earthquakes for the period 1880-1986, and reports of Turkish earthquakes since 1940.
Format	Hard copy and computer copy.
Availability	Information is available upon written request.

EARTHQUAKE: TECHNICAL DATA

Earthquake Data Bases: US & Worldwide

Organization	National Geophysical Data Center
Contact	NOAA/NESDIS National Geophysical Data Center 325 Broadway Boulder, CO 80303-3328
Description	Earthquake Data Base: The National Geophysical Data Center's Earthquake Data Base contains information on over 500,000 earthquakes and associated phenomena, including dates and times of occurrences, latitude and longitude locations, magnitudes, depths of focus, and some related data on effects. Data are worldwide. The time span is B.C. to near present, but mostly since 1900. Sources are the US Geological Survey, university programs, historical catalogs.
Format	Magnetic-tape copies, hard copies, searches, plots, maps.
Availability	Magnetic tape copies, searches, plots, maps, and lists are available at cost of copying (\$351 for tape copies, \$126 for search lists and page-size maps). Searches usually cover a specific geographic area or data within specified limits, e.g. date, magnitude, depth of focus.
Additional Information	<p><u>Summary of Earthquake Data Base</u>, Wilbur Rinehart, Herbert Meyers, and Carl von Hake, Key to Geophysical Records Documentation No. 21, NOAA, National Geophysical Data Center, Boulder, CO, October 1985.</p> <p><u>Preliminary Determination of Epicenters: Monthly Listing</u>. US Geological Survey. Available from US Government Printing Office, Washington, DC 20402 (a 1 year subscription is \$14.00 domestic and \$17.50 foreign).</p> <p>For additional information, contact: Ray Habermann, Geophysicist Telephone: (303) 497-6472 FTS: 323-6472</p>
Description	Earthquake Effect File: The National Geophysical Data Center's Earthquake Effect File contains data on earthquake effects measured on the Modified Mercalli Intensity Scale for over 22,000 earthquakes in the United States between 1928 and 1982. Information includes: the source of the earthquake, the latitude and longitude of the nearest city or town, and the calculated distance between the two points. The source of data is principally the <u>US Earthquakes Series</u> and <u>Abstracts of Earthquake Reports for the US</u> .

EARTHQUAKE: TECHNICAL DATA

Format	Magnetic tape copies, plots, maps, lists, searches, and technical assistance.
Availability	Magnetic tape copies, searches, plots, maps, and lists are available at cost of copying (\$192 for tape copies, 1988 price). Searches usually cover a specific geographic area.
Additional Information	<p><u>Earthquake Intensity Data</u>. Announcement/SE-0201. NOAA. National Geophysical Data Center. Boulder, CO 80303. 1988.</p> <p><u>US Earthquakes Series</u>. US Geological Survey. Open File Services Section, Box 25425, Federal Center, Denver, CO 80225.</p> <p><u>Earthquake History of the US</u>. No. 41-1, Revised Edition through 1970. NOAA. National Geophysical Data Center. Boulder, CO 80303. 1973.</p> <p>For additional information, contact: Patricia Lockridge, Geophysicist Telephone: (303) 497-6337 FTS: 320-6967</p>

Description	<p>Earthquake Slides:</p> <p>The Geological Hazards Slide Set consists of eight unique sets of 35mm slides that depict geologic hazards throughout the world from 1811 to present. Each slide set includes 20 illustrations covering the following subjects:</p> <ul style="list-style-type: none">Earthquake Damage - General (Color)Earthquake Damage, San Francisco, California, April 18, 1906 (B&W)Earthquake Damage, Mexico City, Mexico, September 1985 (Color)Earthquake Damage to Transportation Systems (B&W, Color)Earthquake Damage to Schools (B&W, Color)Volcanoes in Eruption (B&W, Color)Volcanic Rocks and Features (color)Tsunami - General (B&W, Color)
Format	Color and black and white slides. Each set includes 20 slides and a list of captions.
Availability	\$20.00 per set (1988 prices).
Additional Information	<p><u>Geologic Hazards Slide Sets</u>, SE-0801. NOAA. Boulder, CO 80303.</p> <p>For additional information, contact: Patricia Lockridge, Geophysicist Telephone: (303) 497-6337 FTS: 320-6337</p>

EARTHQUAKE: TECHNICAL DATA

Description

Significant Earthquake Data Base:

The Significant Earthquake Data Base contains nearly 3,000 records of earthquake events worldwide from 2,000 B.C. to the present. Events included meet these criteria: one million dollars in damage, 10 deaths, or magnitude of 7.5 or greater. The following parameters are included for each event: time, date, latitude, longitude, focal depth, magnitude, number of deaths, information on damage, and references.

Format

Magnetic tape, diskette, maps, and catalogs.

Availability

The magnetic tape copy of an entire file is \$90. An entire file on IBM-PC compatible 5 1/4" high density floppy diskette is \$30. Retrievals are \$115. Catalogs (\$10), wall maps (\$5-10) are also available (1988 prices).

Additional Information

All non-federal orders must be prepaid.

For additional information, contact:
Patricia Lockridge, Geophysicist
Telephone: (303) 6337
FTS: 320-6337

Description

Strong-Motion Data Archive:

The Strong-Motion Data Archive is a continuously updated archive. It is a worldwide collection of digitized strong-motion accelerograms. The archive includes over 12,000 records from Australia, Canada, Chile, El Salvador, Fiji, India, Italy, Japan, Mexico, New Zealand, Nicaragua, New Guinea, Peru, Romania, Taiwan, the US, and the USSR. Types of data available include raw, filtered, and response spectra records obtained from a wide variety of recording environments such as buildings, dams, and bridges.

Format

Copies of records are available on 9 track magnetic tape and IBM compatible diskettes.

Availability

Data are furnished at cost of duplication.

Additional Information

Comprehensive Catalog of Digitized Strong-Motion Data, L.W. Row, Report SE-45, National Geophysical Data Center and World Data Center-A for Solid Earth Geophysics, Boulder, CO, 1989.

For additional information, contact:
Lee Row, III
Telephone: (303) 497-6764
FTS: 320-6764

EARTHQUAKE: TECHNICAL DATA

Earthquake Data Base: West Germany

Organization	Institute of Geophysics
Contact	G. Schneider, Professor Richard Wagner Strasse Institute of Geophysics 44 D 7000 Stuttgart 1 West Germany Telephone: [49] (711) 121-3592 Telex: [49] (07) 23563 Unig-d
Description	The Institute of Geophysics maintains seismological data from 1905 to the present, from seismological stations in the Southwest of Germany. The Institute also maintains macro-seismic data from 1800 to the present, and accelerograph data since 1976 for the Southwest of Germany.
Format	Data are available on-line via GRF at the Central Seismological Observatory. Seismograms and other information are available in hard copy.
Availability	Information is available upon request.
Additional Information	<u>Earthquakes in the Territory of the Federal Republic of Germany.</u> <u>Data Catalogue of Earthquakes in the Federal Republic of Germany and Adjacent Areas.</u> These publications are available from: BGR, Stilleweg 2, D-3000 Hanover 5r, West Germany.

Earthquake Data Base: Worldwide

Organization	International Seismological Center
Contact	The Director International Seismological Center Pipers Lane Thatcham, Newbury, Berks RG13 4NS United Kingdom Telephone: [44] (635) 61022
Description	The International Seismological Center, ISC, a non-governmental organization, undertakes the final collection, analysis, and publication of standard earthquake information from all over the world. Earthquake

EARTHQUAKE: TECHNICAL DATA

readings are received from some 1,500 seismograph stations representing every part of the globe, from Greenland to the South Pole.

The ISC produces four publications, as well as provides technical searches. The ISC Bulletin contains comprehensive lists of earthquake hypocenters and station observation reports. The Regional Catalog of Earthquakes and the Felt & Damaging Earthquakes Inventory are geographic sorts of the hypocenters. The Bibliography of Seismology contains references from 1250 current scientific journals.

Format

Hard copy or magnetic tape.

**Availability
Additional
Information**

Prices for all publications and magnetic tapes are available from the ISC.

Data searches are available for hypocentral data and bibliographic information.

Earthquake Data Base: Worldwide

Organization

Office of Earthquakes, Volcanoes & Engineering

Contact

Kaye Shedlock, Branch Chief
Branch of Geologic Risk Assessment
Office of Earthquakes, Volcanoes & Engineering
USGS
MS 966, Box 25046
Denver Federal Center
Denver, CO 80225
Telephone: (303) 236-1586
FTS: 776-1586 & 776-1519
Telex: 5106014123 ESL UD
Telefax: (303) 236-1519

Description

The Office of Earthquakes, Volcanoes & Engineering maintains field data: seismograph readings; earthquake intensity information; and geologic, geophysical, and engineering data from sites and regions in the US and abroad. The field data covers thousands of years of past earth history up to and including recent geophysical events. Geologic risk assessment scientists, with specialization in geomechanics, geology, geography, geophysics, structural and civil engineering, and hazard and risk assessment, collect, map, and analyze the field data.

EARTHQUAKE: TECHNICAL DATA

Format	Geographic information system programs for earthquake hazard evaluations are available. In addition, information is also available from maps, scientific and technical reports, digital form, photographic records, and microfilm.
Availability	<p>As a federal government mission agency, the US Geological Survey provides state-of-the-art earth science information to the public, universities, state and local governments, and the private sector to enhance public and private knowledge of scientific and technological information necessary for the effective management of the nation's resources and the health and welfare of the public. This information is available for a nominal fee. It can be obtained from all US repository libraries or from the Public Inquiries Offices of the US Geological Survey.</p> <p>Data from geologic trenching, seismograph networks, and risk assessments are available in digital form and hard copy. Technical assistance in the areas of geophysics, geology, geomechanics, structural engineering, and hazards and risk assessment is also available.</p>
Additional Information	<u>Guide to Obtaining USGS Information.</u> 1986. US Geological Survey Circular 900. Free upon request from: Books and Open-File Reports Section, USGS, Federal Center, Box 25425, Denver, CO 80222.

Earthquake Data Base: Worldwide

Organization	National Earthquake Information Center
Contact	James Taggart, Geophysicist US Geological Survey National Earthquake Information Center MS 967, DFC Box 25046 Denver, CO 80225 Telephone: (303) 236-1506 Telex: (WUTCO) 5106014123ESL UD Telefax: (303) 236-1519
Description	The National Earthquake Information Center, NEIC, maintains an extensive data base of earthquake locations (hypocenters) covering the period from ancient times to the present. Filmed analog seismograms from the 100+ station Worldwide Standardized Seismography Network are available for the period from 1962 to the present. Digital seismograph data are available for various stations and networks from 1977 to the present.
Format	Hypocenters are available in hard copy, on magnetic tape, and on CD ROM. Analog seismograms are available on microfiche. Digital seismograph data are available on magnetic tape and CD ROM. All data

EARTHQUAKE: TECHNICAL DATA

are furnished at cost.

Availability

Hypocenter files are the most accessible data although other data are also available.

**Additional
Information**

24-hour Earthquake Information (303) 236-1500.

Quick Epicenter Determinations, Preliminary Determination of Epicenters, Earthquake Data Report (monthly), and Preliminary Determination of Epicenters Monthly Listing are all available. Contact the NEIC for further information.

Earthquake Engineering

Organization

Earthquake Engineering Research Institute

Contact

Earthquake Engineering Research Institute
6431 Fairmount Ave., Suite 7
El Cerrito, CA 94530-3624
Telephone: (415) 525-3668

Description

The Earthquake Engineering Research Institute, EERI, produces slides sets and video tapes on earthquake hazards. EERI provides slide sets on a variety of earthquake topics: Armenia Earthquake, Earthquake Resistant Design, Dynamics of Structures, and Nonstructural Damage.

Format

Slide sets and video tapes.

Availability

All orders must be prepaid. Orders within California should include a 7% sales tax; those outside the US should include a 5% shipping charge.

EARTHQUAKE: TECHNICAL DATA

Earthquake Engineering

Organization	National Information Service for Earthquake Engineering
Contact	Ruth Denton, Editor National Information Service for Earthquake Engineering Building 451, Richmond Field Station University of California at Berkeley 1301 South 46th Street Richmond, CA 94804 Telephone: (415) 231-9413
Description	<u>Earthquake Engineering Abstracts</u> distributes the only comprehensive annual collection of abstracts and citations of current world literature pertinent to the fields of earthquake engineering and earthquake hazard mitigation. The abstracts are available in printed form, on magnetic media, as well as on-line. Each year more than 2,000 new items are added. Abstracts of technical papers, research reports, books, codes and conference proceedings are obtained from 140 technical journals and publications in 24 countries.
Format	Hard copy (twice yearly) and on-line data base.
Availability	Contact Ruth Denton.
Additional Information	<u>Abstract Journal in Earthquake Engineering</u> . NISEE. University of California at Berkeley. Richmond, CA.

Earthquake Engineering

Organization	National Center for Earthquake Engineering Research
Contact	Patricia Coty, Manager Information Services Division National Center for Earthquake Engineering Research c/o Science and Engineering Library SUNY-Buffalo 342 Capen Hall Buffalo, NY 14260 Telephone (716) 636-3377 Telex: (716) 636-3379
Description	The National Center for Earthquake Engineering Research, NCEER, supports and enhances earthquake hazard reduction research of more than 80 experts from various disciplines. Specifically, the Center undertakes

EARTHQUAKE: TECHNICAL DATA

studies to improve basic knowledge about earthquakes, engineering practices, and the implementation of seismic hazard mitigation procedures. Since its inception in 1986, NCEER developed a broad program that includes: conducting research; hosting conferences, workshops and seminars; and publishing technical reports and a quarterly newsletter. In addition, NCEER maintains an Information Service that provides a variety of specialized services: computer searches through BRS, Dialog, Accusearch, and the USGS data bases; interlibrary lending and borrowing; microfiche printing and photoduplications; literature compilations and surveys; special reference services upon request; on-demand acquisition of books, periodicals, reports, slide sets, videocassettes, and other publications; and document delivery by courier, postal, electronic mail, Federal Express, UPS, and telefax.

QUAKELINE is NCEER's on-line bibliographic data base. The Information Services Division of the National Center for Earthquake Engineering Research offers bibliographic support for those seeking information on earthquake engineering, earthquake hazards mitigation, disaster preparedness, and related topics.

Format

NCEER's Information Services Division has a large collection of books, journals, technical reports, and audio-visual materials. They also maintain the on-line QUAKELINE bibliographic data base.

Availability

Services are available by telephone, mail, or at NCEER. QUAKELINE is available by application to the NCEER, Information Services Division. The cost is approximately \$20-30 per connect hour.

Additional Information

Quakeline: A Guide to Searching. NCEER. Buffalo, NY.

A Guide to the Information Center. NCEER. Buffalo, NY.

Both are available free of charge

Earthquake Research and Information

Organization

Center for Earthquake Research and Information

Contact

Jill Stevens, Manager
Seismic Resources Center
Center for Earthquake Research and Information
Memphis State University
Memphis, TN 38152
Telephone: (901) 678-2007

Description

The Center for Earthquake Research and Information, CERI, produces the CERI Quarterly Seismological Bulletin and manages the Seismic Resource

EARTHQUAKE: TECHNICAL DATA

Center. Data are available on seismic activity from two regional seismic networks, the Memphis Area Regional Seismic Network and the Southern Appalachian Regional Seismic Network. Information is also available on the New Madrid seismic zone, earthquake hazard mitigation. CERI also maintains an earthquake education library and speakers' bureau.

Format

Hard copy and audio-visual materials.

Availability

The bulletin is available free of charge. CERI's Seismic Resource Center loans select materials free-of-charge upon request, such as: books, slides, films, video-tapes, models. The center is open Monday-Friday from 8:30 am to 5:00 pm (CST).

Additional Information

CERI Reports. Contact the center for a current listing.

Earthquake, Volcano, and Landslide Hazards Data

Organization

Office of Earthquake Studies

Contact

Robert Wesson, Chief
Office of Earthquake Studies
US Geological Survey
905 National Center
Reston, VA 22092
Telephone: (703) 860-6472
FTS: 928-6472

Description

The Office of Earthquake Studies conducts a program of basic and applied research on earthquakes, volcanoes, and landslides which emphasizes:

- 1) Fundamental Studies designed to acquire and disseminate information on worldwide occurrences of earthquakes, volcanoes, and landslides;
- 2) Alerts, Warnings, Forecasts, and Predictions designed to develop an understanding of the physical processes of earthquakes, volcanoes, and landslides in order to warn the populace of the location, size, time, and probability of impending events;
- 3) Hazard Maps which delineate the spatial and temporal variations of the primary and secondary physical phenomena generated in an earthquake, volcanic eruption, or landslide;
- 4) Risk Assessment for economic losses and loss of life associated with events; and
- 5) Research Applications which foster the application of research results to preparedness and mitigation strategies of state and local governments.

Format

Hard copy reports, instrumental data, microfilm seismograms.

EARTHQUAKE: TECHNICAL DATA

Availability

Hard copy reports, professional papers, bulletins, circulars, maps, and open-file reports, and scientific and technical journals are available. Instrumental data may be obtained through individual investigators, who will generally release it in the Open-File series. Microfilm copies of seismograms are available through the Environmental Data and Information Service of the National Oceanic and Atmospheric Administration in Boulder, CO (see listing in the directory).

Additional Information

Facing Geologic and Hydrologic Hazards: Earth Science Considerations. Walter Hays, Editor, USGS Professional Paper 1240 B, Reston, VA, 1981.

Summaries of Technical Reports Submitted to National Earthquake Hazards Reduction Program. USGS, Office of Earthquake Studies, Menlo Park, CA. Semi-annual progress reports from USGS on grants and contracts projects.

Earthquake Information Bulletin, USGS, Reston, VA. Bi-monthly. \$7.00 per yr. subscription from US Government Printing Office, Washington, DC.

National Earthquake Hazards Reduction Program

Organization

Federal Emergency Management Agency
Geological Survey
National Science Foundation
National Institute of Standards and Technology

Contact

Dennis Kwiatkowski
Federal Emergency Management Agency
500 C Street, SW
Washington, DC 20472
Telephone: (202) 646-2871

Richard Wright
National Institute of Standards and Technology
Building 226, Room 250
Gaithersburg, MD 20899
Telephone: (301) 975-5900

Robert Hanson
National Science Foundation
1800 G Street, NW
Washington, DC 20550
Telephone: (202) 357-9545

EARTHQUAKE: TECHNICAL DATA

Robert Wesson, Chief
Office of Earthquakes, Volcanoes, and Engineering
US Geological Survey
905 National Center
Reston, VA 22092
Telephone: (703) 648-6714
Telex: 160 443 USGS UT
Telefax: (703) 648-6717

Description	<p>The National Earthquake Hazards Reduction Program (NEHRP) was initiated by Congress on October 1, 1977 in order to reduce the risks to life and property within the US from future earthquakes. The program is designed to:</p> <ol style="list-style-type: none">1) Conduct earthquake hazard identification and vulnerability analyses;2) Develop seismic design and construction standards;3) Develop an earthquake prediction capability;4) Prepare plans for mitigation, preparedness, and response activities;5) Conduct fundamental and applied research into the causes and implications of earthquake hazards;6) Educate the public about earthquake hazards.
Format	On-line, hard copy, audio-visuals, technical assistance.
Availability	The USGS libraries in Reston, VA, Denver, CO, and Menlo Park, CA have copies of all maps and reports.
Additional Information	Contact NEHRP agencies for publications lists on geologic hazards.

Seismic Hazards at Naval Facilities

Organization	Department of Navy
Contact	Joe Tyrrell, Deputy Chief Engineer NFACENCOM Department of Navy Code 04B0 200 Stovall Drive Alexandria, VA 22332 Telephone: (202) 325-0047
Description	The Navy began a seismic hazards research project in 1970. Through this project the Navy assesses natural hazards at naval facilities. Assessments are carried out in three stages: preliminary evaluation, detailed analysis, and hazard-reduction construction. Twenty-six installations have been

EARTHQUAKE: TECHNICAL DATA

surveyed, including 11,000 buildings, of which 1,300 are being evaluated in greater detail. Studies concentrate on earthquake and tsunami hazards and, to a lesser degree, on site hazards including soil liquefaction.

Format

Hard copy reports of completed studies.

Availability

Reports are available from the Naval Facilities Engineering Command for cost of duplication (about five cents per page). Twenty studies have been completed.

See also the following appendix:

- Geological Survey

GEOTECHNICAL DATA

Geotechnical Information

Organization	British Geological Survey
Contact	Richard Haworth, Chief Geophysicist British Geological Survey Nicker Hill, Keyworth Nottingham NG12 5GG United Kingdom Telephone: [44] (60) 77 6111 Telex: 378173 BGSKEY G Telefax: [44] (60) 77 6602
Description	The British Geological Survey maintains the National Geoscience Information Service, NGIS. NGIS is a comprehensive information service based on geological, geophysical, and geochemical data both in the United Kingdom and overseas. Some of the data dates back to 1850. Long term international data sets are principally restricted to the British Commonwealth countries. More recent data sets are worldwide.
Format	Hard copy and digital files contain NGIS on-line information.
Availability	Digital files extracted from NGIS can be transmitted internationally via the UK JANET computer network. On-line access is not yet available.
Additional Information	<u>IGS Consultants in Applied Geology</u> . 1982. Institute of Geological Sciences. Natural Environment Research Council. London.

Geotechnical Information

Organization	National Geophysical Data Center
Contact	Allen Hittleman, Supervisory Geophysicist National Geophysical Data Center NOAA, Code E/GC1 325 Broadway Boulder, CO 80303 Telephone: (303) 497-6591 FTS: 320-6591
Description	This collection of North American data includes information on the following topics: earthquake seismology, thermal aspect and austral stress, topography, magnetics, gravity and satellite imagery.

GEOTECHNICAL DATA

Format Data are available on compact disc, standard magnetic tape, and diskette.

Availability Call for prices.

Geotechnical Information

Organization New Zealand Geological Survey

Contact I. Speden, Director
New Zealand Geological Survey, DSIR
PO Box 30368
Lower Hutt
New Zealand

Description The New Zealand Geological Survey maintains 125 years of geological data, including 30 years of geodetic data for specialist earth information studies, volcanology, erosion, landslides, sea level change.

Format Data are available in manual and computer-based files, record field sheets, reports, and via technical assistance.

Availability Cost information is available for general use or research.

Additional Information Bibliographies of geology and Natural Hazards in New Zealand. 1984. National Commission on Natural Hazards. UNESCO. I. Speden, M.

Geotechnical Information

Organization Pan American Institute of Geography & History

Contact J. Tanner, President
Pan American Institute of Geography & History
RR #1
Union, Ontario NOL 2L0
Canada
Telephone: (519) 631-3190
Telefax: 633-4997

Description The Pan American Institute of Geography & History maintains general geophysical information on solid earth geophysics, oceans and atmosphere, and solar terrestrial physics. The institute supports ongoing activities throughout all of the Americas and the Caribbean. Current interests

GEOTECHNICAL DATA

include geophysical maps and hazards-related research. Within five years, the institute plans to have continental scale maps available for Latin America and the Caribbean in gravity, magnetics, and seismic risk.

Format

Hard copy publications including Revista Geofisica, a journal appearing 2-3 times yearly.

Availability

Information is available through:
Secretary General Paigh
Apartado Postal 18879
11870 Mexico City
Mexico

**Additional
Information**

An index of publications is available through the secretary general.

See also the following appendix:

- Geological Survey

LANDSLIDE & MASS EARTH MOVEMENTS

Landslide Hazards Reduction Program

Organization	Office of Earthquakes, Volcanoes, and Engineering
Contact	Gerald Wieczorek, Manager Landslide Hazards Reduction Program Office of Earthquakes, Volcanoes, and Engineering US Geological Survey 905 National Center Reston, VA 22092 Telephone: (703) 648-6713 FTS: 959-6713
Description	The Office of Earthquakes, Volcanoes, and Engineering is an information source for landslide studies within the USGS. There are currently 18 active projects which examine landslides. Landslide studies are currently concentrated in the Rocky Mountain region, California, and the Appalachian region. Specifically, these projects include one study which examines landslides caused by earthquakes.
Format	Results of completed studies are published as USGS publications or may be published in journals of various professional societies.
Availability	These study results are available for purchase through the US Government Printing Office, Washington, DC or the Publications Division, US Geological Survey, Reston, VA. Publications include maps at a variety of scales and bulletins or professional papers that describe specific areas or processes. Bibliographic data for many landslide publications are maintained in the Landslide Information Center, USGS, MS 966 Box 25046, Denver, CO.
Additional Information	<p><u>Bibliography of US Landslide Maps and Reports.</u> C. Alger and E. Brabb. USGS. Open-File Report 85-585. 1985.</p> <p><u>Goals and Tasks of the Landslide Part of a Ground-Failure Hazards Reduction Program.</u> USGS. USGS Circular 880. 1982.</p> <p><u>Landslides--Analysis and Control: Transportation Research Board Special Report 176.</u> R. Schuster, and R. Krizek, Eds. National Academy of Sciences. Washington, DC. 1978.</p>

LANDSLIDE & MASS EARTH MOVEMENTS

Landslide Information

Organization	Bureau of Reclamation
Contact	Ferne Studer, Operations & Maintenance Technician US Bureau of Reclamation Denver Federal Center, Code D-5210 PO Box 25007 Denver, CO 80225 Telephone: (303) 236-8087 FTS: 776-8087
Description	The Landslide Register contains data on significant landslides located at or near Bureau of Reclamation dam and reservoir sites. Data include slide characteristics, activity, and risk upon failure. Bureau of Reclamation personnel are the primary sources of the data. The Register covers the 17 Western States.
Format	Hard and computer copy.
Availability	All information is available from the Bureau of Reclamation Regional Offices and the Denver Office at the Denver Federal Center.
Additional Information	The Register is updated annually.

LANDSLIDE & MASS EARTH MOVEMENTS

Landslide Research

Organization	International Landslide Research Group
Contact	Earl Brabb, Geologist International Landslide Research Group 3262 Ross Road Palo Alto, CA 94303 Telephone: (415) 329-5140
Description	The International Landslide Research Group publishes a worldwide newsletter, <u>Landslide News</u> , about people conducting landslide research.
Format	Hard copy.
Availability	The newsletter is published at irregular intervals. The price for three issues is \$2 in the US and \$4 for all other countries.

Landslide Research

Organization	Victoria Geological Survey
Contact	J. Neilson, Principal Geologist Department of Industry, Technology and Resources Victoria Geological Survey 228 Victoria Parade East Melbourne, Victoria 3002 Australia Telephone: [61] (3) 665-0576 & 665-0600 Telefax: [61] (3) 663-6325
Description	The Victoria Geological Survey performs studies of slope stability having to do with landslides and other related hazards. It also provides advice on subsidence over former mining areas.
Format	Hard copy, microfiche, and technical assistance.
Availability	Information is available on a written or telephone request basis.

LANDSLIDE & MASS EARTH MOVEMENTS

Sinkhole Research

Organization	Florida Sinkhole Research Institute
Contact	Barry Beck, Director Florida Sinkhole Research Institute Research Building A University of Central Florida Orlando, FL 32816 Telephone: (407) 281-5644
Description	The Florida Sinkhole Research Institute was founded in 1982 at the University of Central Florida in Orlando following the catastrophic impact of the Winter Park sinkhole. The Institute maintains data on more than 1,500 collapses in Florida; provides educational materials; and publishes research reports.
Format	Hard copy reports, computer based inventory of sinkholes in Florida, and audio-visual materials.
Availability	Contact the Institute at the above address.
Additional Information	<u>Sinkholes in Florida: An Introduction.</u> B. Beck, R. Kersten, and T. Colburn. 1986. Orlando, FL: The Florida Sinkhole Research Institute at the University of Central Florida. Report No. 85-86-4.

See also the following appendix:

- Geological Survey

RADON

Radon Data

Organization	Environmental Protection Agency
Contact	Radon Division Office of Radiation Programs US Environmental Protection Agency 401 M Street, SW Washington, DC 20460 Telephone: (202) 475-9600
Description	Most of the regulatory responsibilities and program activities for which the Environmental Protection Agency, EPA, has jurisdiction do not come under the category of natural hazards. An exception is radon. The Radon Division of the EPA has developed publications on radon facts, radon reduction in homes, measurement protocols, reference manuals, and survey results.
Format	Hard copy reports.
Availability	Call or write the Radon Division for further information.
Additional Information	<u>Radon Reference Manual</u> . September 1987. Publication: 520/1-87-20. US EPA. Washington, DC 20460.

See also the following appendix:

- EPA

Tsunami Data

Organization	National Geophysical Data Center
Contact	Patricia Lockridge, Geophysicist National Geophysical Data Center NOAA, Code E/GC 4 325 Broadway Boulder, CO 80303 Telephone: (303) 497-6337 FTS: 320-6337 Telex: 592811 NOAA MASC BDR
Description	Tsunami Data: The National Geophysical Data Center maintains a variety of tsunami data. Historic tsunami data consist of about 6,600 records from 49 BC to present on wave heights, damage, travel times, arrival times, and number of deaths, plus earthquake epicenters, magnitudes, and depths. The center also maintains tsunami maps, photographs and slide sets, tsunami catalogs, tide gage records and bathymetric data.
Format	Hard copy publications, magnetic tapes, diskettes, maps, photographs, slides, and microfiches.
Availability	Contact the center for a list of available products and data.
Description	Tsunami Digital Data Base: The Tsunami Digital Data Base contains data on about 2,000 tsunami events worldwide including date of occurrence, earthquake latitude, longitude and magnitude, depth of focus, tsunami magnitude, intensity, affected areas, wave heights, damage and deaths.
Format	Magnetic tape, diskette, technical assistance, maps, publications.
Availability	A magnetic tape copy of an entire file is \$90. The entire file on IBM-PC compatible 5 1/4" high density floppy diskette is \$30. Retrievals (\$115), wall maps (\$5-10), publication prices vary (1988 prices).
Description	Tsunami Mareograms: The Tsunami Mareograms or tsunamigrams contain tide gage records of tsunamis recorded at US tide stations including Alaska, Hawaii, South Pacific islands, and the coastal US. They contain a 5 day span of wave data with adequate gage quiet time.
Format	35mm microfiche

TSUMANI

Availability Copies of records on 35mm microfiche are \$4 plus \$10 handling charge (1988 price).

Additional Information Tsunami Data. DE-1201. NOAA. National Geophysical Data Center. Boulder, CO 80303. 1988.

Tsunami Information

Organization International Tsunami Information Center

Contact George Pararas-Carayannis, Director
International Tsunami Information Center
PO Box 50027
Honolulu, HI 96850-4993
Telephone: (808) 541-1658
Telex: 984624 (ITIC UD)
Telefax: (808) 541-1657

Description The International Tsunami Information Center maintains an extensive library of tsunami publications: bibliographies, historical tsunami data, maps, photograph files, newspaper articles, and early warning system technology materials.

Format Hard copy, audio-visuals, and computerized data files.

Availability Resources are available to visiting scientists. Because the Center's staff is small, a visit to the center is required. The Center is open during normal working hours.

Additional Information Bibliographies and a newsletter are available.

Tsunami Research

Organization	Pacific Marine Environmental Laboratory
Contact	Eddie Bernard, Director Pacific Marine Environmental Laboratory 7600 Sand Point Way NE, Building 3 Seattle, WA 98115-0070 Telephone: (206) 526-6800 Telex: 326005
Description	The Pacific Marine Environmental Laboratory has been a world leader in tsunami research for over 20 years. The Laboratory provides technical assistance on tsunami physical behavior and warning systems. The Laboratory has recorded deep ocean tsunamis measurements with bottom pressure instruments.
Format	Tsunami data, technical reports, journal articles.
Availability	Data and reports available upon request.

See also the following appendices:

- Coastal Zone Management
- National Weather Service
- Sea Grant Programs

VOLCANO

Volcano Data Base: US

Organization	Geological Survey
Contact	Dwight Crandell US Geological Survey Volcano Hazards Assessment Program Denver Federal Center PO Box 25046, MS 903 Denver, CO 80225 Telephone: (303) 236-1024 FTS: 776-1024
Description	The Volcanic Hazards Assessment Program of the US Geological Survey, USGS, examines active volcanoes in the Cascade Range of Washington, Oregon, California, Alaska, and Hawaii. Studies include down-slope hazards (mudflows, floods, avalanches, etc.), basic stratigraphy, and ash deposition. The program includes the Hawaii Volcano Observatory, which monitors volcanic activity in Hawaii.
Format	Printed reports, open-file information, professional papers, bulletins and maps are available from the USGS retail outlets in Reston, VA, Denver, CO, and Menlo Park, CA.
Availability	Cost varies depending upon material.
Additional Information	<u>Selected Bibliography: Volcano Hazards Project.</u> D. Crandell. USGS. Denver, CO. Hawaii Volcano Observatory: Thomas Wright, Head Geologist Hawaii Volcano Observatory Hawaii National Park, HI 96718 Telephone: (808) 967-8819

Volcano Data Base: Middle America

Organization	Instituto Costarricense de Electricidad
Contact	Sergio Mora C., Chair Department of Geology Instituto Costarricense de Electricidad Apdo. 10032-1000 San Jose Costa Rica Telephone: [506] 207141 Telex: [506] 314737
Description	The Instituto Costarricense de Electricidad has wide experience in the assessment of natural hazards in Costa Rica. This experience is aided by the Institute's relationship with the Comision Nacional de Emergencias and the Organization of the American States. Research reports are available on earthquake and volcano hazards in Middle America.
Format	Hard copy.
Availability	Contact Sergio Mora C. There are three conditions for provision of research reports: 1. cover the cost of photocopies and mail, 2. respect the credits of the publication, 3. engage in a mutual sharing of research reports.
Additional Information	Publications list of the Institute.

Volcano Data Base: Worldwide

Organization	Smithsonian Institution
Contact	Lindsey McClelland, Museum Specialist SEAN, NHB MRC 129 Smithsonian Institution Washington, DC 20560 Telephone: (202) 357-1511 FTS: 357-1511 Telex: 89599 (SCINET WSH) Telefax: (202) 357-2476
Description	The Smithsonian Institution maintains descriptive reports on current volcanic activity, large and/or damaging earthquakes, and meteorites from 1968 to 1975 (Smithsonian Center for Short-Lived Phenomena). Since 1975 the Smithsonian Institution has maintained the Scientific Event Alert

VOLCANO

Network, SEAN. Data are abstracted from SEAN for the Bulletin of Volcanology, Geotimes, and EOS (American Geophysical Union). The primary sources of information are SEAN correspondents, most of whom are research scientists and public officials.

The Smithsonian Institution also maintains two electronic bulletin boards:

- 1) KOSMOS -- the electronic bulletin board for SEAN, and
- 2) OMNET -- the electronic bulletin board for VOLCANOES.ETC.

Format

Hard copy bulletins, computer volcano data, technical services.

Availability

Monthly bulletins summarize events, and are sent to more than 1,000 correspondents who participate in SEAN. Bulletins are available through the American Geophysical Union, 2000 Florida Avenue NW, Washington, DC 20009. The subscription fee is \$18 per year in the US and \$24 per year outside of the US. News of events may be telephoned or cabled to scientists likely to study the event. Volcano data are archived on computer; documents are filed in the Department of Mineral Sciences. The two electronic bulletin boards may be accessed by contacting: KOSMOS, American Geophysical Union, 2000 Florida Avenue, NW, Washington, DC 20009, (800) 424-2488 & (202) 462-6903; OMNET, 70 Tonawanda Street, Boston, MA 02124, (617) 265-9230.

Additional Information

Scientific Event Alert Network Bulletin. Smithsonian Institution. Washington, DC. Monthly.

See also the following appendix:

- Geological Survey

METEOROLOGICAL HAZARDS

CLIMATOLOGICAL DATA

Climatological Data

Organization	Climate Analysis Center
Contact	Jim Laver, Meteorologist Climate Analysis Center Room 805, World Weather Building Washington, DC 20233 Telephone: (301) 763-8071 Telefax: (301) 763-8381
Description	<p>The National Oceanic and Atmospheric's, NOAA, Climate Analysis Center, CAC, maintains the Climate Assessment Data Base which contains daily summary meteorological and climatological parameters for over 6,000 global locations spanning the most recent 1,000 days. The Center produces the <u>Weekly Climate Bulletin</u>, a free publication indicating current surface climate conditions in the US and around the world. The bulletin's primary focus is anomalies of precipitation and temperature, which are defined from summarized preliminary operational data received via the Global Telecommunication System.</p> <p>The CAC also provides a climate dial-up computer system. This system includes a number of data sets and other products to aid users working in such areas as agriculture, energy, water resources, forestry, and climate research. The system is menu driven, and a user can choose information selectively. Users must have a receiving device--anything from a simple terminal to a computer.</p> <p>In addition, CAC offers information on severe short-term US climate anomalies through the NOAA <u>Drought Advisory</u>. This series of special advisories are updated weekly, and other agencies contribute to them (e.g., National Weather Service, National Climatic Data Centers, and state climatologists).</p>
Format	Data are on-line, hard copy, audio-visual, and technical assistance.
Availability	The <u>Weekly Climate Bulletin</u> is free. The Climate Dial-Up Service costs \$48-\$600, depending on usage and is available 24 hours.
Additional Information	<p><u>Drought Advisory Series, Weekly Climate Bulletin, Weekly Weather and Crop Bulletin</u>, and Special Advisories.</p> <p>Requests for copies of the <u>Drought Advisory</u> should be directed to the National Weather Service, Public Affairs Office, 8060 13th Street, Room 618, Silver Spring, MD 20910, (301) 427-7622.</p>

CLIMATOLOGICAL DATA

Climatological Data

Organization	Climate Impact Assessment Division
Contact	Larson Lambert, Chief Climate Impact Assessment Division Assessment and Information Services Center National Oceanic and Atmospheric Administration 1825 Connecticut Avenue NW, Suite 512 Washington, DC 20235 Telephone: (202) 673-5381 FTS: 673-5381
Description	The Climatic Impact Assessment Division provides tailored assessment services and products. These services address the impact of climatic change on national, social, and economic programs and policies.
Format	Hard copy and technical assistance.
Availability	Contact the Climatic Impact Assessment Division for further information.

Climatological Data

Organization	High Plains Climate Center
Contact	Kenneth Hubbard, Director High Plains Climate Center 237 Chase Hall University of Nebraska Lincoln, NE 68583 Telephone: (402) 472-6706 Telefax: (402) 472-2410
Description	The Automated Weather Data Network, AWDN, provides hourly and daily weather measurements from about 70 stations in 7 states. The earliest data are from 1981. The High Plains Climate Center also maintains WEATHER data base (Weather Effects Analyzed for Tracking Heat, Evapotranspiration, and Rainfall). WEATHER is a dial-up system for retrieving all types of weather and climate-related information.
Format	On-line.
Availability	Hourly and daily weather data are furnished on diskette at a minimal charge for AWDN. WEATHER can be accessed at (402) 472-6615 via 300 or 1200 dial-up.

CLIMATOLOGICAL DATA

**Additional
Information**

Hubbard, K.G., N.J. Rosenberg and D.C. Nielsen. 1983. "An Automated Weather Data Network in Support of Agricultural Operations." Journal of Water Resources Planning and Management. 109: 213-222.

Climatological Data

Organization

International Institute for Applied Systems Analysis

Contact

A. Solomon, Manager
Biosphere Project
International Institute for Applied Systems Analysis
A-2361 Laxenburg
Austria
Telephone: [43] 2236-715210
Telex: 079137 iiasaa

Description

The Biosphere Project designs, generates, and applies models of biosphere functioning in order to determine the human impact on the biosphere.

Format

On-line for in-house use. Output is available in hard copy and interactive CRT.

Availability

Requires a trained technician.

Climatological Data

Organization

National Center for Atmospheric Research

Contact

Roy Jenne, Manager of Data Support
National Center for Atmospheric Research
PO Box 3000
Boulder, CO 80307
(303) 497-1215
Telex: 989-764
Telefax: (303) 497-1137

Description

The Data Support Section of the National Center for Atmospheric Research, NCAR, maintains a large, organized archive of computer-accessible research data which is available to scientists around the world. The archive, which contains more than 300 distinct data bases, provides information to major national and international atmospheric and oceanic research projects. Sample data bases include information on: surface,

CLIMATOLOGICAL DATA

upper air, and climatological data, precipitation and water data, geophysical data, satellite data, and global analyses. These data span long periods of record in both analyses and observations and come as single reports, monthly averages, and digital data.

Format

On-line use for select users. Others can obtain data at cost.

Availability

There is a fee to copy tapes. NCAR concentrates on the needs of the research community and not the general public.

Additional Information

"Data Availability at NCAR." Roy Jenne. Updated each 12-24 months.

"Data Sets for Meteorological Research." Roy Jenne. NCAR TN/IA-111, 1975.

Institutional Directory: Climate-Related Impacts Network. 1989. National Center for Atmospheric Research. Boulder, CO.

Climatological Data

Organization

United Nations Environment Program

Contact

P.E.O. Usher
Environmental Assessment Service
United Nations Environment Program
PO Box 30552
Nairobi, Kenya

Description

The United Nations Environment Program provides a catalog of on-going and planned national or international research programs on climate impacts. Part of the World Climate Impact Study Programme of the World Climate Programme, the catalog enhances international cooperation and communication among researchers.

Format

Hard copy.

Availability

Contact P.E.O. Usher.

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Meteorological Data

Organization	Department of Army
Contact	Richard Himebrook, Technology Transfer Coordinator, SLCAS-DP-P Commander/Director US Army Atmospheric Sciences Laboratory White Sands Missile Range, NM 88002-5501
Description	The US Army Atmospheric Sciences Laboratory maintains various meteorological parameters associated with research and development. The parameters span the fields of climatology, test specific meteorological data, and technical reports. Information is available on hazard assessments, meteorological sensors, meteorological data, atmospheric motion, atmospheric sciences, atmospheric modeling, climatology, ice forecasting, satellite meteorology, physical meteorology, seismic detection, and air pollution sampling.
Format	Hard copy.
Availability	Most data is restricted to government agencies and their contractors. For more information contact the above address.

Meteorological Data

Organization	National Weather Service
Contact	E. Hansen, Chief Water Management Information Division National Oceanic and Atmospheric Administration National Weather Service Office of Hydrology Silver Spring, MD 20910 Telephone: (301) 427-7543 FTS: 427-7543
Description	The Office of Hydrology provides a variety of data on precipitation frequencies and amounts, mostly for the US. These data include: depth, area, duration, and greatest known storm rainfall for 6, 12, 24, and 48 hours. Data also include: areal and temporal precipitation distributions, excessive and maximum observed rainfall for specific regions, and precipitation probabilities and frequencies.

CLIMATOLOGICAL DATA

Format	Hard copy.
Availability	Printed reports are available from the National Technical Information Service, Springfield, VA, or NOAA. Some reports are out of print.

Meteorological Data

Organization	Oklahoma Climatological Survey
Contact	Ellen Cooter, Assistant State Climatologist Oklahoma Climatological Survey 710 Asp St, Suite 8 Norman, OK 73019 Telephone: (405) 325-2541
Description	The Oklahoma Climatological Survey maintains a wide variety of meteorological, hydrological and related data series which support climate impact studies throughout the US. The Cooperative Meteorological Network, a complete series of cooperative network observations for the entire US period of record, provides data which are available as time-series, space arrays, or statistically interpolated to create uninterrupted, continuous data time series of maximum temperature, minimum temperature, and precipitation.
Format	All data are digitized and are available in standard IBM format tapes at 1600 or 6250 BPI density. Data may be remotely accessed via the University of Oklahoma IBM mainframe.
Availability	Data may be accessed directly by the client via the University of Oklahoma's IBM mainframe, by Oklahoma Climatological Survey personnel at the client's request, or the client can purchase all or part of the data set. Time and space data cost \$100/reel. On the average, at 6250 BPI there are two tape reels per state. Interpolated data cost approximately \$200/state at one reel per state.
Additional Information	Sladewski, T. May 1986. <u>Data Archives of the Oklahoma Climatological Survey</u> . Oklahoma Climatological Survey.

CLIMATOLOGICAL DATA

Meteorological Data

Organization	Tennessee Valley Authority
Contact	Wayne Hamberger, Meteorologist Tennessee Valley Authority Data Systems 524 Union Ave (EB 3W 307A) Knoxville, TN 37902 Telephone: (615) 632-4222
Description	<p>The Tennessee Valley Authority's, TVA, obtains meteorological data from tall towers with multiple levels of wind and air temperatures, located at power plants throughout the Tennessee Valley Region. Dewpoint, solar radiation, precipitation, and atmospheric pressure data are also available. Length of record varies according to location, and parameter type ranges from 1966 to present. Data frequency are averaged hourly.</p> <p>TVA obtains precipitation data from standard 8-inch and tipping bucket rain gauges located throughout the Tennessee Valley watersheds. Length of record ranges from 1934 to the present, and the number of gages ranges from 200 to over 600. Data frequency includes hourly, six-hourly, daily, and monthly totals depending upon location.</p>
Format	<p>The TVA mainframe computer data base or the Environmental Protection Agency's Aerometric Information Retrieval System archives meteorological data, depending on time and location. Magnetic, microfiche and hard copy formats are available.</p> <p>Precipitation data are published daily, monthly, and annually as well as in summarized data in hard copy from 1934 to 1980. Unpublished daily totals from May 1980 to June 1982 are available in hard copy. Data are archived on TVA mainframe computer data base from June 1982 to September 1986, with magnetic or hard copy formats available. Daily precipitation totals from 1934 to present are available in hard copy. Six-hourly and daily precipitation totals from October 1986 to present are available on the departmental minicomputer data base and are available in magnetic or hard copy formats.</p>
Availability	All data bases are accessible by TVA Data Systems personnel during normal business hours. Nonprofit cost recovery program is charged to clients for materials and labor.

CLIMATOLOGICAL DATA

Additional Information

"Precipitation in the Tennessee River Basin," published monthly from 1934 to April 1980 by the Tennessee Valley Authority.

See also the following appendices:

- State Climatologists
- NOAA Climate Centers

COASTAL MANAGEMENT

Coastal Management Data

Organization	Army Corps of Engineers
Contact	John Housley Planning Division, Civil Works Directorate Office of the Chief of Engineers US Army Corps of Engineers Washington, DC 20314 Telephone: (202) 272-0169
Description	In 1970 the US Army Corps of Engineers conducted the National Shoreline Study. This Study examined damage to shorelines. The Corps produced a final report of the Study, useful to researchers, and a series of three guidebooks for private property owners, engineers and contractors, and local government officials.
Format	Hard copy and microfiche.
Availability	Hard copies and microfiche of the National Shoreline Study and the Low Cost Shore Protection Study are available from the National Technical Information Service, Springfield, VA 22161. Prices are approximately \$1.00 for microfiche and \$3.00 to \$6.00 for hard copies.
Additional Information	<u>Report of the National Shoreline Study</u> , Corps of Engineers, Department of the Army, Washington, DC, 1971. Summary volume and 11 supporting documents. Out of print. <u>Low-Cost Shore Protection</u> , Corps of Engineers, Department of the Army, Washington, DC 1981. Final Report and 3 guidebooks. Out of print.

Coastal Management Information

Organization	Coastal Zone Management Information Center
Contact	Sallie Cauchon, Director Office of Ocean and Coastal Resource Management Coastal Zone Management Information Center 1825 Connecticut Avenue, NW, Room 729 Washington, DC 20235 Telephone: (202) 673-5115 FTS: (202) 673-5115

COASTAL MANAGEMENT

Description	The Coastal Zone Management Information Center collects and publishes information relating to coastal problems in the thirty-four coastal states and the Great Lakes region. Under the Coastal Zone Management Act of 1972, the government gives aid to states that prepare an approved plan for coastal areas management. The Center provides plans and supporting documents of the twenty-nine states that have submitted approved plans. The Center also maintains a photocopy file of magazine and newspaper articles on natural hazards.
Format	Printed reports and miscellaneous documents are available for reference in the Information Center.
Availability	Contact the Coastal Zone Management Information Center for further details.

Coastal Management Information: Great Lakes Region

Organization	Center for the Great Lakes
Contact	Ann Lindsay, Information Specialist Center for the Great Lakes 435 North Michigan Avenue, Suite 1408 Chicago, IL 60611 Telephone: (312) 645-0901
Description	<p>The Center for the Great Lakes views the Great Lakes as an irreplaceable asset which forms the foundation of a strong regional economy and quality of life. That potential can be realized only through a vigorous commitment to protecting and developing this unique natural resource. Therefore, the Center works to:</p> <ol style="list-style-type: none">1) Foster regional cooperation among political, business, and environmental leaders on both sides of the US/Canadian border;2) Identify critical natural resource and economic issues;3) Conduct objective, concise analysis of these issues to bring about informed action by decision makers;4) Promote public understanding and awareness of opportunities for action.
Format	Library resources in hard copy and technical assistance via workshops and conferences.
Availability	Contact Ann Lindsay for further information.

COASTAL MANAGEMENT

Coastal Management Information: Navy

Organization	Department of Navy
Contact	Larry Gadbois, Oceanographer US Naval Ocean Systems Center Marine Environmental Support Office Code 522 San Diego, CA 92152-5000 Telephone: (619) 533-2804 & 533-5330 Telex: (619) 553-2667
Description	The Marine Environmental Support Office is available to provide consultation, referrals, data and information, documentation and field support in the areas of environmental impact, hazardous waste, and the Navy.
Format	Request information via phone, letter or electronic mail (MILnet: gadbois@NOSC.mil).
Availability	Confine phone calls to normal working hours.

Coastal Management Information: Red Tide

Organization	International Red Tide Information and Assistance Service
Contact	Alan White, Marine Science Advisor International Red Tide Information and Assistance Service Sea Grant Program Woods Hole Oceanographic Institution Woods Hole, MA 02543 Telephone: (508) 548-1400, ext. 2289 Telex: 951679 Telefax: (508) 548-1400, ext. 6208
Description	The International Red Tide Information and Assistance Service, IRITAS, maintains an international data base on red tide and toxic algal bloom researchers and managers. This data base expedites international information and assistance with red tide emergencies, particularly in developing countries.
Format	Hard copy.
Availability	Contact Alan White for further information.

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Marine Education

Organization	New Jersey Marine Sciences Consortium
Contact	William Gordon, Vice President for Programs New Jersey Marine Sciences Consortium Sandy Hook Field Station Building 22 Fort Hancock, NJ 07732 Telephone: (201) 872-1300
Description	The New Jersey Marine Sciences Consortium strives to make New Jersey a marine-literate society. The consortium comprises colleges in the New Jersey, New York, and Pennsylvania area, and operates two field stations at Sandy Hook and Seaville. Each is equipped to do a variety of estuarine and coastal sampling and survey work. The consortium's functions are: undergraduate college education, precollege education, provision of facilities and equipment to member institutions for research and education, grants and contract brokerage, public awareness, alliance for a larger voice in the affairs of the State of New Jersey, with particular reference to its coastal and estuarine areas.
Format	Technical and educational services, including classes.
Availability	Contact the consortium for further information.
Additional Information	<u>Annual Report</u> . 1988. New Jersey Marine Sciences Consortium. Fort Hancock, New Jersey.

Wetlands Information

Organization	Center for the Environment and Natural Resources
Contact	Steven Brown, Director Center for the Environment and Natural Resources Council of State Governments PO Box 11910 Lexington, KY 40578 Telephone: (606) 231-1866
Description	WETLANDS is a data base established by the Center for the Environment and Natural Resources with support from the US Environmental Protection Agency's Office of Wetlands Protection. This national data base lists state wetland protection programs and contacts. The data base contains a directory of 475 state wetland officials as well as information regarding over

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350 state programs affecting wetlands. The programs are catalogued according to 13 program types (acquisition, permits, taxation, etc.) and 21 attributes (name, legal authority, values protected, etc.). Users may retrieve data using any combination of these characteristics.

Format	On-line.
Availability	This electronic record is available to anyone interested in state wetland protection efforts who has access to a computer and modem.
Additional Information	To obtain a user name, password, and a <u>Wetlands User Manual</u> , contact Steven Brown.

Wetlands Information

Organization	Fish and Wildlife Service
Contact	1-800-USA-MAPS
Description	<p>The US Fish and Wildlife Service and the US Geological Survey provide a toll-free number to call for wetlands data. Compliments of Fish and Wildlife's National Wetlands Inventory and USGS's National Cartographic Information Center, users can now dial 1-800-USA-MAPS to order any of over 10,000 highly detailed wetlands maps. Maps cover 45% of the lower 48 states, including 85% of their coastal zones, and 12% of Alaska. Customers provide the name of the state or town for which they seek information, and if possible, the name of the USGS quadrangle map that covers the area in question. The caller is then told whether the request can be filled, and how to order the map.</p>
Format	Telephone map service.
Availability	Maps are mailed within five working days of the call.
Additional Information	Call 1-800-USA-MAPS for further information.

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Wetlands Information

Organization	Washington Department of Ecology
Contact	Director Wetlands Section Shorelands and CZM Program Washington Department of Ecology Mail Stop PV-11 Olympia, WA 98504 Telephone: (206) 459-6774
Description	Following a 1986 wetlands conference, the Washington Department of Ecology established a data base of wetland experts and literature. <u>The Resource Guide</u> identifies more than 200 experts who may be consulted by planners, land use managers, public officials, and scientists in related fields. The <u>Wetlands Bibliography of Technical Literature</u> lists more than 750 citations of wetland literature pertaining to the Pacific Northwest.
Format	Hard copy.
Availability	Contact the Wetlands Section.
Additional Information	The Department of Ecology also is interested in updating its guide with names of additional experts in matters related to Pacific Northwest wetlands. Contact the Wetlands Section to add information to the guide.

See also the following appendices:

- Coastal Zone Management

Agricultural Data: US

Organization	Federal Crop Insurance Corporation
Contact	Beth Huffman, Coordinator Actuarial Information Center Actuarial Statistics Division Federal Crop Insurance Corporation 9435 Holmes Kansas City, MO 64131 Telephone: (816) 926-7861 FTS: (816) 926-7861
Description	The Federal Crop Insurance Corporation maintains information on the amount of assistance issued by state and county for crop loss. Crop loss conditions include drought, freeze, insects, and disease. The data cover regions eligible for insurance in the US from 1948 to present.
Format	Computerized tape copies for current data, computer printouts, diskettes, and/or hard copy summaries are available at cost of processing and/or duplication.
Availability	Contact: Vondie O'Connor, Jr., Director Actuarial Statistics Division Federal Crop Insurance Corporation US Department of Agriculture PO Box 419293 Kansas City, MO 64141 Telephone: (816) 926-7910 FTS: (816) 926-7910
Additional Information	<p><u>Cause of Loss Data</u>, Federal Crop Insurance Corporation, US Department of Agriculture, Kansas City, MO. This document lists causes of crop damage at various levels. Summaries of these data may be received upon request.</p> <p><u>Federal Crop Insurance Corporation: Information Products Catalog</u>. Actuarial Statistics Division. Federal Crop Insurance Corporation. This catalog lists relevant reports on the Federal Crop Insurance Corporation.</p>

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Agricultural Data: Worldwide

Organization	World Agricultural Outlook Board
Contact	Norton Strummen, Chief Meteorologist Room 5133 S. Building US Department of Agriculture Washington, DC 20250 Telephone: (202) 447-9805 Telex: (202) 472-5805
Description	The World Agricultural Outlook Board maintains crop-related data, such as crop yields and climate profiles. It produces two publications: <u>Major Crop Areas</u> and <u>Climate Profiles</u> .
Format	Hard copy.
Availability	One copy of a publication will be sent upon request. Additional copies may be purchased from the Government Printing Office.

Drought Index

Organization	Climate Analysis Center
Contact	Thomas Heddinghaus, Meteorologist Agricultural Weather Station Climate Analysis Center NOAA/USDA Agricultural Weather Facility USDA South Building, Room 5844 Washington, DC 20250
Description	The Palmer Drought Severity Index relates climate and weather to prolonged and abnormal soil moisture deficiencies affecting water sensitive economies in the US. The index is useful in delineating disaster areas and indicating the availability of irrigation water supplies, reservoir levels, range conditions, amount of stock water, and potential intensity of forest fires. The index is disseminated in the <u>Weekly Weather and Crop Bulletin</u> , which is published by the NOAA/USDA Joint Agricultural Weather Facility and through the Climate Analysis Center's Climate Dial-Up System. Historical values are computed and archived by NOAA's National Climatic Data Center in Asheville, NC.
Format	Maps of historical Palmer Drought Severity Indices are available from NCDC on a monthly basis across the US in two atlases for 1895-1983. Seven categories of drought are delineated by various thresholds of dryness and wetness. The maps illustrate the spatial and temporal variability of

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drought, and prove useful to water resource managers, economists, hydrologists, meteorologists, climatologists, and geographers.

Availability

Copies of the atlas for the period 1895-1930 are \$12.50 and the cost is \$17.50 for the period 1931-1983. The two atlases and four related drought atlases are available in a set for \$75. There is a \$5 handling fee. The data used in constructing these maps are also available in digital form by writing to the: National Climatic Data Center, Federal Building, Asheville, NC 28801-2695, (704) 259-0682 and requesting: Historical Climatology Series 3-10, Atlas of Monthly Palmer Drought Severity Indices (1895-1930) for the Contiguous US, and/or Historical Climatology Series 3-11, Atlas of Monthly Palmer Drought Severity Indices (1931-1983) for the Contiguous US.

Computerized tapes are also available.

Additional Information

Maps of near-real time Palmer Drought Severity Indices are published in the Weekly Weather and Crop Bulletin which can be obtained at a cost of \$35 (domestic), \$50 (foreign) payable to US Department of Commerce, NOAA. Send check and address to: Weekly Weather and Crop Bulletin, USDA South Building, Room 5844, Washington, DC 20250, or call (202) 477-7017

The index and related parameters in tabular form are available in near-real time on CAC's Climate Dial-Up System. The system is menu driven and password accessed. Telephone access requires a modem and relatively simple user terminals (e.g. personal computers) capable of receiving at 300, 1200, or 2400 baud. For information call (301) 763-8071.

References: Technical Procedures Bulletin, Series No. 358, Drought Severity (Palmer) Index, National Weather Service, NOAA, Silver Spring, MD, 1985.

Meteorological Drought, Weather Bureau Paper No. 45, National Weather Service, NOAA, Silver Spring, 1965.

Drought Information

Organization

School of Renewable Natural Resources

Contact

Pamela Hathaway
School of Renewable Natural Resources
Biological Sciences East 325
University of Arizona
Tucson, AZ 85721
Telephone: (602) 621-5647

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Description	The Severe Sustained Drought Project, SSD, provides baseline information on the probability, frequency, and severity of drought. The project also examines the capability of existing infrastructural and institutional systems to respond to drought. The project outlines alternative drought management options. The project also highlights priorities and opportunities for additional drought-related research.
Format	Technical assistance.
Availability	The SSD project corresponds with researchers and other interested parties about drought in general and the SSD project.
Additional Information	Contact Pamela Hathaway for further information.

Drought Information: International

Organization	International Drought Information Center
Contact	Jan Schinstock International Drought Information Center Center for Agricultural Meteorology and Climatology 236 L.W. Chase Hall University of Nebraska Lincoln, NE 68583-0728 Telephone: (402) 472-3679
Description	<p>The University of Nebraska at Lincoln established the International Drought Information Center, IDIC, to better understand the problem of drought. The Center strives to improve communication about prediction, monitoring, impact assessment, adjustment and adaptation, and planning and response to drought. The specific objectives of the IDIC are to:</p> <ol style="list-style-type: none">1) Collect, analyze, and disseminate information on current episodes of drought and its impacts; response, mitigation, and planning activities of governments and international organizations; research results and the development and application of new technologies to manage drought; and publications and conferences;2) Train persons from developed and developing countries in the science of drought planning and management; and3) Stimulate and coordinate drought-related activities, including information flow about current drought conditions and impacts, between the Regional Climate Centers in the US. <p>The IDIC publishes <u>Drought Network News</u>, a free newsletter that summarizes drought conditions in various parts of the globe, discusses drought impacts, and reviews planning/response activities worldwide. The</p>

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Center also offers a series of regional training seminars on drought management and planning techniques to be carried out in various developing nations.

Format

Workshops, newsletter.

Availability

Contact Jan Schinstock.

See also the following indices:

- Soil Conservation
- Land Grant Extension Services

FLOOD

Dams, Dikes and Reservoirs

Organization	Bureau of Reclamation
Contact	Mary Laird US Bureau of Reclamation Denver Federal Center, Code D-5442 PO Box 25007 Denver, CO 80225 Telephone: (303) 236-8318 FTS: 776-8318
Description	This data base is a compilation of all Bureau of Reclamation storage dams, diversion dams, dikes, and reservoirs. It contains data on size of dam and reservoir and the date completed.
Format	Hard copy and computer tapes.
Availability	Call or write the Bureau of Reclamation.

Flood Damage Analysis

Organization	Flood Hazard Research Center
Contact	E. Penning-Rowsell, Director Flood Hazard Research Center Middlesex Polytechnic Queensway, Enfield EN3 4SF United Kingdom Telephone: [44] (1) 368-1299 ext. 2248 Telex: 8954762 Telefax: [44] (1) 805-0702
Description	The Flood Damage Analysis Package, ESTDAM, is a tool for interactive, flexible benefit/cost analysis of urban flood protection schemes. ESTDAM helps evaluate flood alleviation schemes in the United Kingdom and Europe.
Format	ESTDAM is currently available as a mainframe application. A version for personal computer use is being developed.
Availability	Available via special arrangement.
Additional Information	Publications list.

Flood Data & Floodplain Management

Organization	Army Corps of Engineers
Contact	Jerome Peterson HQUSACE (CECW-PF) Chief, Flood Plain Management Services & Coastal Resources Branch 20 Massachusetts Avenue, NW Washington, DC 20314 Telephone: (202) 272-0169
Description	The Corps of Engineers acquire and compile hydrologic and hydraulic data for both river and coastal flooding and data on flood loss. General Investigations and Flood Plain Management Services, FPMS, carry out this mission. The FPMS unit in each of the 38 Corps offices nationwide serves as a point of contact. Data cover areas within district boundaries and may contain several different sources as well as several decades of flood experience.
Format	Data are not standardized but arranged to meet study requirements. Some are stored in computer-compatible format.
Availability	Cost, if any, depends on ease of access and volume of reproduction required.

Flood Data

Organization	Soil Conservation Service
Contact	Soil Conservation Service US Department of Agriculture PO Box 2890 Washington, DC 20013
Description	Dams, Dikes and Reservoirs: The Earth (soil or rock) Spillway Flows data base contains reports of hydrologic and hydraulic and erosion analyses of the performance of earth spillways on dams constructed with assistance from the Soil Conservation Service. The Engineering Division initiates studies when spillway flow exceeds 3 feet (1 foot for early studies), or flows for 7 days or longer. Reports span from about 1972 to present.
Format	Printed reports are available through the National Technical Information Service, NTIS. See the NTIS listing in this directory under Information and

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Research Centers. Reports currently available are: PB85-186856/AS Arkansas, Dec. 1982; PB89-114227/AS Mississippi, Dec. 1982; PB89-114235/AS Mississippi, May 1983; PB89-114730/AS Kentucky, May 1984; PB89-114748/AS Michigan, Sept. 1985.

Availability

Contact the Soil Conservation Service for detailed information on specific spillway flows.

Additional Information

For further information, contact:
Donald Basinger, Director
Engineering Division
Telephone: (202) 447-2520
FTS: 447-2520

Description

Flood Data:

The Division of Basin and Area Planning of the SCS maintains Flood Hazard Studies which provide reference data on approximately 600 studies performed by SCS. Information includes: name of the study, SCS project number, location, stream miles studied, US Geological Survey hydrologic code, one percent (100-year) flood plain acreage, date of study, and cost of study. The studies were performed throughout the United States from 1969 to the present. Contact state SCS offices with questions about specific studies, final reports, and supporting documents.

Format

Computerized printouts.

Availability

Computerized printouts are available at cost of computer services.

Additional Information

For further information contact:
Edward Riekert, Director
Basin and Area Planning Division
Telephone: (202) 447-2847
FTS: 447-2847

Flood Data

Organization

Susquehanna River Basin Commission

Contact

Robert Bielo, Executive Director
Susquehanna River Basin Commission
1721 North Front Street
Harrisburg, PA 17102-2391
Telephone: (717) 238-0422

Description	The Susquehanna River Basin Commission gathers data on flooding in the basin, hydraulics, water quality, and census material. Some of this data has been reproduced in hard copy reports and some has been stored on the Commission's UNISYS computer system. The Commission maintains reports and publications, flood maps, and computerized hydraulic and other data.
Format	Hard copy, maps, computerized data.
Availability	Contact George Lazorchick, SRBC Staff, 8am-4pm (EST) weekdays, (717) 238-0425.
Additional Information	Publications list.

Floodplain Management

Organization	Flood Studies Center
Contact	William van Eck, Professor Flood Studies Center West Virginia University Morgantown, WV 26506-6108 Telephone: (304) 293-2219
Description	The Flood Studies Center of West Virginia University provides a training, resource, and reference facility in support of the statewide integrated flood warning system--IFLOWS. The Center provides technical assistance and bibliographies on a variety of flood-related topics, including flood emergency preparedness, flood mitigation, and floodplain management.
Format	Hard copy reports, books, bulletins, and bibliographies, complete file of floodplain maps for West Virginia communities, on-line model IFLOWS.
Availability	Contact the Center for details.
Additional Information	IFLOWS System Fact Sheet.

FLOOD

Floodplain Management

Organization	Floodplain Management Resource Center
Contact	Dave Morton, Librarian Floodplain Management Resource Center Natural Hazards Research and Applications Information Center University of Colorado Campus Box 482 Boulder, CO 80309 Telephone: (303) 492-6818 Telefax: (303) 492-6924
Description	The Association of State Floodplain Managers established the Floodplain Management Resource Center at the Natural Hazards Research and Applications Information Center at the University of Colorado at Boulder. The Floodplain Management Resources Center is both a library and a referral service for floodplain management publications. The library consists of regional and national publications related to floodplain hydrology and hydraulics, planning, disaster preparedness, floodproofing, flood control, and regulations.
Format	Hard copy and computer copy.
Availability	Anyone may use the services of the Center at no cost by calling (303) 492-6818 from 9 am-4 pm weekdays, MST.

Floodplain Management

Organization	Tennessee Valley Authority
Contact	James Wright, Senior Technical Specialist Floodplain Management Division Tennessee Valley Authority 200 Liberty Building 415 Walnut Street Knoxville, TN 37902 Telephone: (615) 632-4455
Description	The Tennessee Valley Authority maintains the Flood Information Management System, a flood data base on streams in the Tennessee region. The data base includes information on: watershed and stream change conditions, intense storms, historic floods, dam and reservoir data, community floodplain regulations, and previous flood hazard information, flood insurance, and comprehensive flood damage reduction. The data base also has graphic capabilities.

The Tennessee Valley also helps reduce flood damage by providing communities with technical expertise on assessment issues, interpreting data, enacting effective local floodplain ordinances, assessing flood insurance eligibility, and providing information on warning and forecasting systems.

Format	Hard copy, computer copy, and audio-visual materials.
Availability	Contact the Floodplain Management Division for further information.
Additional Information	<u>TVA's Floodplain Management Program: How It Benefits You,</u> <u>Pathways for Floods, Floodplain Management: The TVA Experience.</u>

National Flood Insurance Program

Organization	Federal Emergency Management Agency
Contact	Edward Pasterick, Assistant Administrator Federal Insurance Administration National Flood Insurance Program Federal Emergency Management Agency Washington, DC 20472 Telephone: (202) 646-3443
Description	<p>The National Flood Insurance Program Management Information System, MIS, contains data on nearly 18,000 communities participating in the National Flood Insurance Program, NFIP, and on 4,000 nonparticipating communities that have been identified at some point as flood-prone. MIS includes information on the community's status in the NFIP, available flood hazard area maps, demographic data on the community and its flood hazard areas, and flood insurance policy and claims data.</p> <p>Flood Hazard Boundary Maps or Flood Insurance Rate Maps are available for most communities. Approximately 10,000 of these maps include 100-year flood elevations for one or more flooding sources. Maps were developed for the Federal Emergency Management Agency, FEMA, by private consulting firms and other Federal agencies.</p>
Format	Computerized. Tape copies are available. A hard copy community status book is published periodically. FEMA plans to convert this file to FOXBASE for use on a personal computer. Data are updated regularly.
Availability	For small requests there is generally no charge.

FLOOD

Additional Information

For information on MIS contact the above individual. For information on maps contact: Federal Emergency Management Agency, Flood Map Distribution Center, 6930 (A-F) San Thomas Road, Baltimore, MD 21227-6227, Telephone: (800) 333-1364. For general information about the National Flood Insurance Program contact: David Cobb, Federal Insurance Administration, Federal Emergency Management Agency, Washington, DC 20472, Telephone: (202) 646-2774.

See also the following appendices:

- Coastal Zone Management
- Army Corps of Engineers
- Sea Grant Programs

Hurricane Data

Organization	National Hurricane Center
Contact	Robert Sheets, Director National Hurricane Center 1320 South Dixie Highway, Room 631 Coral Gables, FL 33146 Telephone: (305) 666-4612
Description	The National Hurricane Center provides a record of hurricanes from 1871 to the present, containing position and strength estimates at 6-hour intervals.
Format	Hard copy and on-line. Booklet, computer listing, floppy diskette, and magnetic tape are available.
Availability	Contact the Center. Costs vary depending on requests.

Hurricane Research

Organization	Hurricane Research Center
Contact	Howard Friedman, Meteorologist Hurricane Research Center Atlantic Oceanographic and Meteorological Laboratory 4301 Rickenbacker Causeway Miami, FL 33149 Telephone: (305) 361-4319 Telex: 600 510-3049
Description	The Hurricane Research Center provides damage maps for selected landfalling tropical cyclones. Also available are maps developed by Professor T.T. Fujita, University of Chicago.
Format	Hard copy.
Availability	Contact the center.

HURRICANE

Hurricane Research

Organization	University of Puerto Rico
Contact	Aurelio Mercado, Assistant Professor Department of Marine Sciences University of Puerto Rico PO Box 5000 Mayaguez 00709-5000 Puerto Rico Telephone: (809) 834-4040, ext. 3439, 3443, 3447
Description	University of Puerto Rico's Marine Sciences Department conducts hurricane research focusing on hazard and vulnerability analyses in the Caribbean Sea region. Since Puerto Rico has not been struck by a full-blown hurricane since 1932, field data is scarce; however, the Department does conduct computer simulations of hurricanes striking Puerto Rico. The computer model adapted and tested is SLOSH (Sea, Land, and Overland Surges from Hurricanes) developed by the National Oceanic and Atmospheric Administration.
Format	Hard copy reports available upon request.
Availability	Call or write the University of Puerto Rico.
Additional Information	<u>Storm Surge Modelling in Puerto Rico and the US Virgin Islands.</u> 1987. Mercado, A. University of Puerto Rico. Mayaguez, Puerto Rico.

Tropical Cyclone Data: Worldwide

Organization	National Climatic Data Center
Contact	Joe Elms National Climatic Data Center National Oceanic and Atmospheric Administration Federal Building Asheville, NC 28801 Telephone: (704) 259-0344 FTS: 672-0344
Description	The National Climatic Data Center shows position and stage for tropical cyclones (including hurricanes). Data are organized by ocean basin: North Atlantic, Eastern North Pacific, Western North Pacific, North Indian, Southwest Indian, and Southwest Pacific and Australian Region. Period covered varies with geographic area and is generally the late 1800s to 1986

HURRICANE

(1871-1986 for North Atlantic). The source of data for the North Atlantic and Eastern North Pacific Ocean is the National Hurricane Center. Other basins include Foreign Meteorological Services and the Joint Typhoon Warning Center, Guam.

Format On magnetic tape. Copies, plots, searches and analyses are available at cost.

Availability Contact the National Climatic Data Center for further information.

Tropical Cyclone Information: Worldwide

Organization World Meteorological Organization

Contact T. Potter, Director
World Weather Watch Department
World Meteorological Organization
41, Giuseppe-Motta
Case Postale No. 5
CH-1211 Geneva 20
Switzerland
Telephone: [41] (22) 34 64 00
Telex: 23 260 OMM CH
Telefax: [41] (22) 34 23 26

Description The World Meteorological Organization, WMO, includes the Tropical Cyclone Program, the World Climate Program, and the Hydrology and Water Resources Program. The programs assist members of WMO in their efforts to minimize loss of life, disruption of economic activity, and damage caused by meteorological and hydrological phenomena. By establishing national, regional, and globally coordinated systems, the WMO helps their national meteorological and hydrological services provide better and more effective warnings. The WMO Congress defines the programs' activities at four-year intervals. They are implemented by the national services under the coordination and with the support of the WMO and its secretariat.

Format Hard copy publications and audio-visuals including films and video tapes.

HURRICANE

Availability

Publications, films, and video tapes may be purchased. Some technical reports may be obtained free of charge.

Additional Information

Catalogues of Publications of WMO, Meteorological Training Publications and Audio-visual Aids, and Tropical Cyclone Programme Reports.

See also the following appendices:

- Coastal Zone Management
- National Weather Service

SEVERE STORMS

Severe Storm Data

Organization	National Climatic Data Center
Contact	Henry Vigansky National Climatic Data Center National Oceanic and Atmospheric Administration Federal Building Asheville, NC 28801 Telephone: (704) 259-0448 FTS: 672-0448
Description	The National Oceanic and Atmospheric Administration provides data detailing storm location, date, damages, injuries, and death for the US from 1959 to the present. Data are updated annually. Data sources include: <u>Storm Data</u> , news media, technical reports, and publications of the American Meteorological Society.
Format	Hard copy, computer copy, slides, films, and searches.
Availability	Phone, write or visit the laboratory.

Severe Storms Education

Organization	National Severe Storms Laboratory
Contact	Mary Meacham, Librarian National Severe Storms Laboratory 1313 Halley Circle Norman, OK 73069 Telephone: (405) 366-0421 FTS: 736-3421
Description	The National severe Storms Laboratory, NSSL, provides posters, pamphlets, slides, and films on severe weather and related safety measures. Posters and pamphlets are available at no cost. Films and slides are loaned; slides and non-copyright films may be duplicated. The laboratory loans books via inter-library loan originated at the local library. All services are free.
Format	Hard copy, slides, and films.
Availability	Patrons may call, write, or come in person.
Additional Information	Many NSSL technical memoranda are still available; for those not still in print, NTIS ordering data is provided.

SEVERE STORMS

Severe Storms Education

Organization	American Red Cross
Contact	Rocky Lopez Disaster Services National Headquarters American Red Cross 431 18th St., NW Washington, DC 20006-5399 Telephone: (202) 639-3400
Description	The Weather Education and Awareness Project aims to reduce property damage, injuries, and loss of life from weather-related disasters. The project is a cooperative venture of the American Red Cross and the Weather Channel. The two organizations are developing several different media materials that are made available through local Red Cross chapters and the network's local cable television affiliates. As a result of these efforts, the project produces publications and videotapes, e.g., <u>Weather Times</u> , a newspaper, <u>Calm to Catastrophe</u> a videotape, and Weather Guidebooks.
Format	Newspaper, audio-visual materials, guidebooks.
Availability	For further information contact a local chapter of the American Red Cross or Rocky Lopez.

Severe Storm Information

Organization	National Weather Wire Service
Contact	R. Morris Contel ASC-Government Networks Division National Weather Wire Service 7916 Westpark Drive McLean, VA 22102-9922 Telephone: (800) 633-2340
Description	The National Weather Wire Service, NWWS, provides broad, fast, reliable, and accessible weather forecasts and data via a direct broadcast satellite system. The service also issues timely warnings of severe weather and floods. Subscribers equipped with the appropriate satellite receiver system can collect weather information, warnings, and forecasts transmitted to the satellite from Weather Service Forecast Offices throughout the US. Users

SEVERE STORMS

of the Weather Wire can specify exactly which NWWS reports they wish to receive and can display the information using a variety of devices including printers, video displays, and personal or mainframe computers.

Format

Satellite communications.

Availability

Fixed rate regardless of location.

**Additional
Information**

Contact R. Morris for further information.

See also the following appendix:

- National Weather Service

SNOW & ICE

Ice Data: Great Lakes Region

Organization	Great Lakes Environmental Research Laboratory
Contact	Frank Quinn, Head Lake Hydrology Department Great Lakes Environmental Research Laboratory 2205 Commonwealth Boulevard Ann Arbor, MI 48105 Telephone: (313) 668-2255
Description	The Great Lakes Environmental Research Laboratory, GLERL, provides a 20-winter computerized ice concentration data base established for the Great Lakes. Some 2800 historic ice charts spanning the years 1960-79 were digitized on a 5 x 5 cm grid resolution. GLERL provides maximum, median, minimum, and average mode ice concentrations for each grid square for nine half-month periods.
Format	Magnetic tape. Address inquiries to National Snow and Ice Data Center, NSIDC, CIRES, Campus Box 449, University of Colorado, Boulder, CO 80309. Telephone: (303) 492-1834; FTS: 320-5311.
Availability	Contact the Laboratory for further information.

Snow & Ice Data: Worldwide

Organization	National Snow and Ice Data Center
Contact	Ronald Weaver, Scientific Manager World Data Center A for Glaciology National Snow and Ice Data Center Cooperative Institute for Research in Environmental Sciences Campus Box 449 University of Colorado Boulder, CO 80309 Telephone: (303) 492-5171 Telex: 257673 WDCA UR Telefax: (303) 492-1149
Description	The World Data Center A for Glaciology, National Snow and Ice Data Center, WDC/NSIDC, archives analog and digital data on numerous areas of snow and ice research. The majority of the data sets describe snow cover and sea ice, but also include data relating to glacial geophysics and satellite microwave research. The Center archives published material on snow and ice, with a collection of approximately 10,000 aerial and terrestrial glacier photographs dating from the late 19th century to the 1960s. In addition,

SNOW & ICE

NSIDC archives data from the US Air Force Defense Meteorological Satellite Program, DMSP. The center holds over 1 million pieces of satellite imagery with worldwide coverage.

Format	Hard copy and on-line. Most of the data sets are digital. The DMSP data is a hard copy transparency product. The library holdings are in an on-line data base, CITATION.
Availability	Data sets are available to the public. Prices and accessibility varies.

Snow & Ice Research

Organization	Army Cold Regions Research and Engineering Laboratory
Contact	Nancy Lisbon, Librarian US Army Cold Regions Research and Engineering Laboratory 72 Lane Road Hanover, NH 03755 Telephone: (603) 646-4221
Description	The US Army Cold Regions Research and Engineering Laboratory provides the on-line Bibliography on Cold Regions Science and Technology, which contains 135,000 references dating to 1951. This international bibliography covers engineering, hydrology, climatology, snow, ice, and permafrost.
Format	On-line and hard copy. Engineering information is available from technical experts.
Availability	On-line access is available 24 hours a day, \$80 per connect hour from Orbit Search Service, Westpark Drive, McLean, VA 22022, 1-800-45-ORBIT.
Additional Information	Hard copy of the bibliography is available from NTIS, Springfield, VA.

SNOW & ICE

Snow Information

Organization

Snow Survey and Water Supply Forecasting Program

Contact

David Johnson
US Department of Agriculture
Soil Conservation Service
Snow Survey Program
SNOTEL
511 NW Broadway, Room 248
Portland, OR 97209-3489
Telephone: (503) 221-2843

Description

The Snow Survey and Water Supply Forecasting Program forecasters determine the relationship between mountain snowpack and the subsequent snowmelt runoff. The program collects data from about 1600 snow courses several times each winter. Surveyors determine the depth and water content of the snowpack, and estimate the amount of runoff from mountain watersheds.

SNOTEL is a network of automated radio-telemetry data sites that provide daily data on streamflow potential. This information is especially valuable during periods of drought or flood. The data collected by both snow surveyors and SNOTEL are translated into water supply forecasts that the Soil Conservation Service, SCS, state offices issue monthly from January to June in cooperation with the National Weather Service.

The Centralized Forecasting System is a free dial-up menu-driven computer system. It makes snow survey and related planning information available to local conservation districts and the SCS offices, the National Weather Service, numerous government agencies, and private entities.

Format

Hard copy and on-line services.

Availability

For further information contact David Johnson.

See also the following appendix:

- Water Resources

TORNADO & SEVERE WINDS

Severe Wind Information

Organization	National Climatic Data Center
Contact	User Services Branch National Climatic Data Center NOAA Federal Building Asheville, NC 28801 Telephone: (704) 259-0682 FTS: 672-0683
Description	The Tornado and Natural Hazards Files at the National Climatic Data Center include statistical information on tornadoes, tropical storms and hurricanes, and lightning. The Center also maintains standard temperature and precipitation records.
Format	Hard and computerized tape copies.
Availability	Call or write the National Climatic Data Center for details.
Additional Information	<u>Storm Data</u> . National Climatic Data Center. NOAA. Asheville, NC. Published monthly. <u>Storm Data</u> contains state listings of storms and unusual weather including date and time of storm, deaths, injuries, property damage, crop losses, and storm characteristics. <u>Storm Data</u> serves as a source for several of the files.

Severe Wind Information

Organization	Soil Conservation Service
Contact	Tommy George, Director Resources Inventory Division Soil Conservation Service US Department of Agriculture PO Box 2890 Washington, DC 20013 Telephone: (202) 447-5424 FTS: 447-5424
Description	The Resources Inventory Division of the Soil conservation Service, SCS, files wind erosion reports three times a year during the November to May wind erosion season. Data include: estimates of land and crops damaged, contributing factors to wind erosion, social and environmental effects of soil blowing, and erosion control plans for the ten Great Plains states from the

TORNADO & SEVERE WINDS

1950s to the present. Reports are based on observations by SCS field office staff. National headquarters collects only state summaries. Field office data are available at SCS state offices.

Format Hard copy, unpublished.

Availability Copies are free. Reports are filed three times per year in January, March and June.

Additional Information Wind Erosion Conditions Inventory. National Inventory and Monitoring Manual. 290-V. Issue 1. Part 505.02. Soil Conservation Service. US Department of Agriculture. Washington, DC. May 1981.

Severe Wind Research

Organization Institute for Disaster Research

Contact Jim McDonald, Director
Institute for Disaster Research
Texas Tech University
PO Box 4089
Lubbock, TX 79409-4089
Telephone: (806) 742-3476
Telefax: (806) 742-1900

Description The Institute for Disaster Research, IDR, program focuses on extreme winds and their effects on the built environment. Studies explore tornadoes, hurricanes and other extreme winds. The IDR program performs wind engineering research on the interaction between wind and structures, and disseminates the information for professional use.

The IDR maintains a wind damage data base of slides and photographs of windstorm damage from more than sixty windstorms, dating from 1970 to the present.

Format Hard copy reports, photographs, and slides.

Availability Call or write the Institute at the above address.

Additional Information Contact the Institute for a list of publications.

Research Capabilities of the Institute for Disaster Research. August 1988. James McDonald. Lubbock, Texas. Texas Tech University.

TORNADO & SEVERE WINDS

Tornado Data

Organization	National Climatic Data Center
Contact	Henry Vigansky National Climatic Data Center National Oceanic and Atmospheric Administration Federal Building Asheville, NC 28801 Telephone: (704) 259-0448 FTS: 672-0448
Description	The National Climatic Data Center maintains tornado statistics on the location, movement, Fujita Index, damage, deaths, and injuries for each tornado. The tornado statistics cover the United States from 1951 to 1987. The National Severe Storms Forecast Center developed the file from NOAA <u>Storm Data</u> .
Format	On magnetic tape. Updated annually.
Availability	Searches, plots, and analyses are available at cost.
Additional Information	<u>Climatological Data National Summary, Annual Tornado Summary.</u> National Climatic Data Center. Asheville, NC. <u>Storm Data.</u> National Climatic Data Center. Asheville, NC.

See also the following appendices:

- Soil Conservation
- National Weather Service

WATER RESOURCES DATA

Hydrological Data

Organization	Australian Water Research Advisory Council
Contact	The Secretary Australian Water Research Advisory Council Department of Primary Industries and Energy GPO Box 858 Canberra ACT 2601 Australia Telephone: [61] (62) 72 3933
Description	The Australian Water Research Advisory Council, AWRAC, sponsors STREAMLINE, a national computerized data base covering all aspects of water and wastewater information produced by Australians or about Australia. Subject categories include: water quantity, aquatic environments, water resource investigation, and urban water utilities. STREAMLINE includes bibliographic and research and progress reports.
Format	On-line. The STREAMLINE Coordination Unit produces hard copy publications as well.
Availability	STREAMLINE is available seven days a week. An annual account maintenance fee is charged on all accounts.

Hydrological Data

Organization	Soil Conservation Service
Contact	Howard Tankersley, Director Watershed Projects Division Soil Conservation Service US Department of Agriculture P.O. Box 2890 Washington, DC 20013 Telephone: (202) 447-3527 FTS: 447-3527
Description	The Soil Conservation Service, SCS, provides reference data on approximately 1400 projects carried out under the 1954 Watershed Act (Public Law 83-566). Projects serve a number of functions including flood prevention, water supply, drainage and irrigation, water quality, conservation, and fish and wildlife for small watersheds under 250,000 acres. Data include name, location, purpose, cost, and milestone dates. Projects include structural and nonstructural approaches.

WATER RESOURCES DATA

Format	On-line and hard copy.
Availability	Computerized tape copies and printouts are available at cost of duplication. An annual status report is available free of charge.

Hydrological Data & Information

Organization	Geological Survey
Contact	Owen Williams US Geological Survey 421 National Center Reston, VA 22092 Telephone: (703) 648-5684 FTS: 959-5684
Description	<p>National Water Data Exchange:</p> <p>The National Water Data Exchange, NAWDEX, is an indexing and reference service for water data users. NAWDEX assists users in identifying, locating, and acquiring needed data on the US and Canada. NAWDEX accesses two files: the Water Data Sources Directory and the Master Water Data Index.</p> <p>The Water Data Sources Directory provides information on over 2000 organizations which generate water data, as well as the type of data maintained and the geographic area of data collection. These organizations are members of the National Water Data Exchange.</p> <p>The Master Water Data Index consists of data from over 460,000 collection sites. The data include the: collection agency, type of data, period of record, parameters measured, frequency of measurements, data media, and site locations.</p> <p>NAWDEX also accesses several other computerized data bases, including STORET of the Environmental Protection Agency and ENDEX/OASIS of the National Oceanic and Atmospheric Administration.</p>
Format	Hard copy and on-line data searches.
Availability	Cost estimates are provided upon request. Contact the USGS at the above address for more information.

WATER RESOURCES DATA

Additional Information

"Guide to Obtaining US Geological Survey Information." Circular 900. 1986. Free upon request from:
Books & Open-File Reports Section
US Geological Survey
Federal Center
Box 25425
Denver, CO 80225

Description

Water Data Storage and Retrieval System:

In 1971 the US Geological Survey, USGS, established WATSTORE, the National Water Data Storage and Retrieval System. WATSTORE modernized the USGS's existing water-data processing procedures and techniques and provided for more effective and efficient management of its data-releasing activities. Data may be obtained from WATSTORE through any of the Water Resources Division's district offices.

WATSTORE maintains data from approximately 16,000 gaging stations, 1,000 lakes and reservoirs, 5,200 surface water quality stations, 1,020 sediment stations, 30,000 water-level observation wells, and 12,500 ground water quality wells. WATSTORE indexes daily values, peak flow, water-quality, and unit values for each site when possible.

Format

Hard copy and magnetic tape.

Availability

Cost estimates for these products may be obtained from USGS district offices.

Additional Information

For further information, contact:
Chief Hydrologist
US Geological Survey
437 National Center
Reston, VA 22092

Description

Urban Geology and Hydrology Projects:

The US Geological Survey conducts mapping of basic and interpretive geology within urban areas. These maps include definition of hazards associated with floods, earthquakes, landslides, subsidence and poor foundation materials. The USGS mapped urban areas with increasing water resources and land demands. These urban areas include: Baltimore-Washington, Connecticut Valley, greater Pittsburgh, San Francisco Bay region, Tucson-Phoenix, Puget Sound, WA, Front Range Urban Corridor, CO, and Fairfax County, VA.

Format

Hard copy maps and reports.

WATER RESOURCES DATA

Availability For further information, contact:
Director
Engineering Geology Division
US Geological Survey
106 National Center
Reston, VA 22092
Telephone: (703) 648-4425
FTS: 959-4425

Hydrological Engineering

Organization Hydrologic Engineering Center

Contact Vern Bonner, Chief
Training Division
US Army Corps of Engineers
Hydrologic Engineering Center
Water Resources Support Center
609 Second Street
Davis, CA 95616-4687
Telephone: (916) 551-1748

Description The Hydrologic Engineering Center, HEC, provides technical support in hydrologic engineering. Products include training courses, videotapes of lectures, computer programs, and technical documents.

Format Hard copy reports, videotapes in 1/2" VHS, and computer programs in MSDOS diskettes.

Availability Contact HEC for a copy of their Publications Catalog, Videotape Sales Library, and Computer Program Catalog.

Additional Information Contact HEC for a copy of their annual report.

WATER RESOURCES DATA

Hydrometeorological Data

Organization	National Weather Service
Contact	E. Hansen, Chief Water Management Information Division National Oceanic and Atmospheric Administration National Weather Service Office of Hydrology Silver Spring, MD 20910 Telephone: (301) 427-7543 FTS: 427-7543
Description	The Office of Hydrology provides a bibliography of studies of hydrometeorological interest published by NOAA during the past 30 years. Topics relevant to natural hazards are: Drought (Department of Agriculture) Floods (NWS, Office of Hydrology) Tropical cyclones (NOAA National Climatic Center) Precipitation (NWS, Office of Hydrology) Snow (cover, water content, frequency and intensity of snow fall, and Blizzards on north-central Plains, forecasting, snowline variations, runoff) Severe storms (number, structure, movement, meteorology, and related effects)
Format	Hard copy. Printed individual reports are available from National Technical Information Service, Springfield, VA., US Government Printing Office, Washington, DC, or the appropriate NOAA offices. Prices vary with publications.
Availability	Contact the Office for more details.

Hydrometeorological Data

Organization	World Meteorological Organization
Contact	Director World Meteorological Organization PO Box 5 CH-1211 Geneva 20 Switzerland
Description	The World Meteorological Organization, WMO, is a specialized agency of the United Nations of which 154 states and territories are members. It was created to:

WATER RESOURCES DATA

- 1) Facilitate worldwide cooperation in the establishment of meteorological observation station networks and the rapid exchange of information;
- 2) Promote standardization of meteorological observations;
- 3) Further the application of meteorology to aviation, shipping, water problems, agriculture, and other human activities;
- 4) Encourage research and training in meteorology and coordinate international aspects of such research and training.

Format

Hard copy and technical assistance.

Availability

Data are available on request. Some data are available according to the agreement of the country concerned.

**Additional
Information**

To obtain information from the World Meteorological Organization's six regional offices in Africa, Asia, South America, North and Central America, South-West Pacific, and Europe, contact the WMO at the above address.

See also the following appendices:

- Water Resources
- Geological Survey: Water Resources
- Water Resources Research Institutes

WILDFIRE & FORESTRY

Forestry Data: Insects & Diseases

Organization	Forest Service
Contact	James Space, Director Forest Insect and Disease Management Division Forest Service US Department of Agriculture PO Box 2417 Washington, DC 20013 Telephone: (703) 235-1560 FTS: 235-1560
Description	The Forest Service Regional and Area Forest Insect and Disease Management Division annually conducts aerial and ground surveys to monitor the status of destructive insect and disease pests on Forest Service lands. State forestry organizations monitor insect and disease conditions on state and private lands. Archival data are available at regional or area headquarters for about the last 20 years. Tabular summaries of acres infested by causal agents and intensity of damage are available from regional or area offices. In addition, maps are available showing location of infestation. Annual Regional and National Forest Insect and Disease Condition reports are also available.
Format	Hard copy and on-line computer services.
Availability	Contact the Service for further information.

Forestry Information

Organization	Department of Agriculture
Contact	Seung Sinatra, Network Coordinator Forestry On-line Forest Service Information Network US Department of Agriculture 10301 Baltimore Boulevard Beltsville, MD 20705 Telephone: (301) 344-2507
Description	The Forest Service Information Network, FS INFO, contains 50,000 bibliographic citations. New citations to journal articles, Forest Service publications, books, and chapters in books are added each month. The Network also adds subject-oriented data bases such as FIREBASE. Future efforts will be made to incorporate all Forest Service publications and 10 INFO Center library holdings.

WILDFIRE & FORESTRY

Format	On-line and microfiche.
Availability	Contact FS INFO for a microfiche catalog and brochure.

Wildfire Data

Organization	Boise Interagency Fire Center
Contact	Roger Bradshaw Boise Interagency Fire Center 3905 Vista Avenue Boise, ID 83705 Telephone: (208) 389-2603 FTS: 554-2603
Description	The Boise Interagency Fire Center collects fire data from over 800 Forest Service weather stations for estimating the severity of fire danger and forest management planning. These data include: the number of fires, acres burned, dollar damage or net value change, fire size class, and major causes. These data cover fires in national forests and are catalogued by forest, region, and state.
Format	Hard and computer copy.
Availability	Contact the Boise Interagency Fire Center.
Additional Information	<u>1987 National Forest Fire Report</u> , prepared by Aviation and Fire Management Staff. Forest Service. US Department of Agriculture. Washington, DC 1988. Annual Report. <u>The National Fire Weather Data Library: What It Is and How to Use It</u> , R. William Furman and Glen E. Brink, General Technical Report RM-19, Rocky Mountain Forest and Range Experiment Station, Forest Service, US Department of Agriculture, Ft. Collins, CO, 1975.

WILDFIRE & FORESTRY

Wildfire and Natural Hazards Information: Australia

Organization	Macquarie University
Contact	Russell Blong, Professor School of Earth Sciences Macquarie University AA 122377 Macuni New South Wales 2109 Australia
Description	Macquarie keeps a data base on the effects of natural hazards in Australia from 1788-1988, and in Papua, New Guinea from 1880-1988. Hazards covered include fire, earthquake, tropical cyclone, drought, and flooding.
Format	Computer-based in Notebook II and dBXL.
Availability	Contact the University for further information.

Wildfire & Natural Hazards Information: US

Organization	Intermountain Research Station
Contact	Richard Klade, Leader Research Information Group Intermountain Research Station 324 25th Street Ogden, UT 84404 Telephone: (801) 625-5436
Description	The Intermountain Research Station, INT, provides quarterly announcements listing 40 to 80 new publications, and several hundred journal articles by INT scientists and cooperators. Subjects include all phases of natural resource research and wildfire, landslides, erosion, pollution, and other hazards.
Format	Hard copies.
Availability	Write INT to receive the quarterly mailing list.

<p><i>See also</i> the following appendix:</p> <ul style="list-style-type: none">• National Weather Service

SOCIETAL RESPONSE

BUILDING TECHNOLOGY & TRANSPORTATION

Building Technology

Organization	Applied Technology Council
Contact	Christopher Rojahn, Executive Director Applied Technology Council 3 Twin Dolphin Drive, Suite 275 Redwood City, CA 94065 Telephone: (415) 595-1542
Description	The Applied Technology Council is a nonprofit corporation which conducts projects, workshops, and seminars in support of the structural engineering profession. The Council publishes structural engineering reports which result from their research projects and workshops.
Format	Publications are available in hard copy.
Availability	Call for publication prices; mail payment with order.

Building Technology

Organization	Building Seismic Safety Council
Contact	James Smith, Executive Director Building Seismic Safety Council 1015 15th Street, NW, Suite 700 Washington, DC 20005 Telephone: (202) 347-5710
Description	The Building Seismic Safety Council provides information, data, and technical assistance on seismic regulations for new buildings. The Council's efforts respond to requests posited by the National Earthquake Hazards Reduction Program.
Format	Hard copy.
Availability	All reports are available in limited quantities at no cost.
Additional Information	The Building Seismic Safety Council maintains a publications list which spans the categories of: seismic regulations for new buildings and existing buildings, societal implications, abatement of seismic hazards to lifelines, and seismic design and construction considerations.

BUILDING TECHNOLOGY & TRANSPORTATION

Building Technology

Organization	Center for Building Technology
Contact	National Institute of Standards and Technology National Engineering Laboratory Center for Building Technology Gaithersburg, MD 20899 Telephone: (301) 975-5904 Telefax: (301) 975-2128
Description	The Disaster Mitigation Program at the Center for Building Technology focuses on developing improved building practices which reduce the damage caused by floods, hurricanes, tornadoes, earthquakes, and other extreme natural forces. Major thrusts of this program include: safety evaluation of existing buildings, improved design criteria and standards, post-disaster investigations, and more reliable measures of effects of natural and human-made forces on buildings.
Format	Data are released in hard-copy periodicals and reports.
Availability	Publications of the National Institute of Standards and Technology are available from the US Government Printing Office, Washington, DC 20402, and the National Technical Information Service, Springfield, VA 22161.

Transportation Research

Organization	National Transportation Safety Board
Contact	Stan Smith (SP-30) National Transportation Safety Board 800 Independence Avenue, SW Washington, DC 20594 Telephone: (202) 382-6672
Description	The National Transportation Safety Board, NTSB, investigates and maintains records of aircraft accidents. Records date from 1964 to present, and describe approximately 3,000 accidents per year. Records include: the cause of the accident, number of injuries and deaths, type of aircraft, accident location, type of accident, and the weather at time of the accident.
Format	Information is available in hard copy, on computer tape, and via technical services.

BUILDING TECHNOLOGY & TRANSPORTATION

Availability	Hard-copy reports which summarize the records are available.
Additional Information	<p><u>NTSB Publications</u>. National Transportation Safety Board. Publications Unit. Washington, DC.</p> <p><u>Aircraft Accident Reports--Brief Format, US Civil Aviation</u>. National Transportation Safety Board, Washington, DC, 6 issues per year. Available from the National Technical Information Service.</p> <p><u>Annual Review of Aircraft Accident Data--US Air Carrier Operations</u>, National Transportation Safety Board, Washington, DC. Annual Report. Available from the National Technical Information Service.</p> <p><u>Annual Review of Aircraft Accident Data--US General Aviation</u>, National Transportation Safety Board, Washington, DC. Annual report. Available from National Technical Information Service.</p> <p><u>Aviation Special Safety Studies</u>, National Transportation Safety Board, Washington, DC. Irregular. Available from the National Technical Information Service.</p>

Transportation Research

Organization	Transportation Research Board
Contact	Jerome Maddock, Director of Information Services Transportation Research Board 2101 Constitution Avenue, NW Washington, DC 20418 Telephone: (202) 334-3250 Telex: 248664 NASWUR Cable: NARECO
Description	Transportation Research Information Services, TRIS, is an on-line transportation data base. TRIS consists of abstracts of published articles, reports, and recently completed research projects which examine transportation system planning, development, operation, and performance. TRIS follows developments in air, highway, rail, maritime, and waterborne transport, as well as developments in mass transit. Users may search the entire TRIS data base or any combination of record types.
Format	On-line.
Availability	Contact the Transportation Research Board regarding questions concerning the TRIS data base.

DEMOGRAPHIC DATA

Census, Health, Socio-Economic: US

Organization	Lawrence Berkeley Laboratory
Contact	Deane Merrill, Computer Scientist Computer Science Research Department Lawrence Berkeley Laboratory University of California Building 50B, Room 3238 Berkeley, CA 94720 Telephone: (415) 486-5033
Description	The Social, Economic, Environmental, Demographic Information System, SEEDIS, provides on-line access to 200 data bases which emphasize public health applications. SEEDIS spans 1940-1990 and includes the 1970 census, 1980 census, vital statistics, cancer incidences, and socioeconomic data. SEEDIS contains 10 gigabytes or 10 billion characters.
Format	Machine-readable data files are archived on magnetic disk and tape. Files are accessible through an interactive dial-up system as well.
Availability	SEEDIS is available to the general public for a consulting fee of \$50 per hour plus computing costs which are usually negligible. Qualified government collaborators may use SEEDIS for computing costs only.
Additional Information	<u>The SEEDIS Project: A Summary Overview of the Social, Economic, Environmental, Demographic Information System.</u> McCarthy, J. May 1982. PUB-424/250. Lawrence Berkeley Laboratory. Berkeley: University of California.

Census: US

Organization	Bureau of the Census
Contact	Customer Services US Bureau of the Census Washington, DC 20233 Telephone: (301) 763-4100
Description	The Census Bureau collects and publishes statistics on: population, transportation, housing, retail trade, agriculture, wholesale trade, mineral industries, selected service industries, construction industries, governments, manufacturers, and foreign trade, to mention a few topics.

DEMOGRAPHIC DATA

The Census Bureau compiles data through censuses, surveys, administrative records, and estimate programs. Data may be obtained for many aggregate levels from a city block to the entire US.

Format

Census data comes in: printed reports, machine-readable data files on tape, on-line via CENDATA, diskettes, compact disks and computer programs (e.g., the upcoming TIGER/line file for computer mapping of the 1990 census), maps, microfiche, microfilm, and file printouts. Costs vary from \$5 for reports to \$175 for magnetic tapes. A variety of consultation, training, and special services are available. Files are updated at intervals from 1 day to 10 years.

Availability

Available free from Customer Services is the Monthly Product Announcement.

The US Government Printing Office, State and Regional Census Data Centers, and select libraries have:

Census Catalog and Guide (annual)

Census and You (a monthly newsletter)

Health: Europe

Organization

World Health Organization

Contact

Eva Nielsen, Librarian, Information Scientist
World Health Organization
Regional Office for Europe
Scherfigvej 8
2100 Copenhagen Ø
Denmark
Telephone: [45] (1) 290 111
Telex: 15348 WHO dk
Telefax: [45] (1) 181 120

Description

The World Health Organization's, WHO, Europe Office provides technical assistance, and maintains a statistical data base--Health for All, HFA, as well as a bibliographic data base--EURODOC. EURODOC contains: EURO documents and publications, consultant reports on country missions, travel reports of staff members, library acquisitions including HFA documentation from member states, and reports on health activities carried out by other organizations. EURODOC's contents are comprehensive as of January 1, 1988 and include material recorded during the development phase, 1986-1987. Access to disaster information is via the medical subject headings, MeSH and NLM.

Format

Hard copy and on-line.

Availability

See User's Guide.

DEMOGRAPHIC DATA

Additional Information

"EURO DOcumentation." World Health Organization. Regional Office for Europe. Copenhagen.

EURODOC: Documentation Retrieval Data Base. A "Hands On" User Guide. World Health Organization. Regional Office for Europe. Copenhagen. 1988.

Health: US

Organization

National Center for Health Statistics

Contact

Harry Rosenberg, Chief
Mortality Statistics Branch
National Center for Health Statistics
Room 1-44 Center Building
3700 East-West Highway
Hyattsville, MD 20782
Telephone: (301) 436-8884
FTS: (301) 436-8884

Description

The National Center for Health Statistics collects a wide range of statistics on marriage, divorce, families, health, and mortality. Mortality statistics in the US are classified using the International Classification of Diseases categories. Causes of mortality include accidents resulting from natural and environmental factors, excessive heat or cold, high and low air pressure, lightning, flood, hurricanes, cataclysm, and others. Individual mortality records also include: place of occurrence and residence (state and county), age, sex, and race. Mortality data covers the US and select foreign countries from 1933 to the present. Mortality data are compiled from annual death certificates.

Format

Printed reports, computer tapes, and special unpublished tabulations are available. Data are updated annually.

Availability

Contact the National Center for Health Statistics

Additional Information

Catalog of Publications, 1980-87, National Center for Health Statistics, Public Health Service, Hyattsville, MD June 1988.

Catalog of Public Use Tapes, National Center for Health Statistics, Hyattsville, MD, July 1988.

Series of annual volumes:
Vital Statistics of the United States
Monthly Vital Statistics Report

DEMOGRAPHIC DATA

Socio-Economic: Eastern Caribbean

Organization	Organization of Eastern Caribbean States
Contact	Sandra John, Network Manager Organization of Eastern Caribbean States Central Secretariat PO Box 179 The Morne, Castries St. Lucia Telephone: (809) 452-2537
Description	INFONET is the information network of the Organization of Eastern Caribbean States, OECS. The network includes primarily socio-economic information produced in or relevant to OECS member states. Member states include: Antigua and Barbados, Bermuda, Dominica, Grenada, British Virgin Islands, Montserrat, St. Kitts and Nevis, Street Lucia, Street Vincent and the Grenadines. OECS compiled information from 1980 onward, and the subject coverage is general, with a bias toward socio-economic literature.
Format	Hard copy.
Availability	OECS provides printed output upon request.
Additional Information	<u>INFONET Current Awareness Bulletin</u> . Monthly. July 1987 to present. <u>INFONET News</u> . Monthly. July 1987 to present.

See also the following appendices:

- Emergency Management
- Army Corps of Engineers
- FEMA
- Small Business Administration
- World Health Organization

DISASTER RELIEF

Disaster Assistance

Organization	Agricultural Stabilization and Conservation Service
Contact	Director Kansas City Management Office Agricultural Stabilization and Conservation Service US Department of Agriculture PO Box 419205 Kansas City, MO 64141-0205 Telephone: (816) 926-6502 FTS: 926-6502
Description	In the event of a Presidentially declared disaster, the Agricultural Stabilization and Conservation Service, ASCS, may provide assistance, such as feed grains, grazing and haying privileges, emergency conservation aid, wildlife feeding assistance, distress donations for Native Americans, and disaster payments. ASCS maintains records of disaster payments for low yields; these records include the type of disaster and the dollars spent.
Format	Hard copy and computer copy.
Availability	Hard copy and magnetic tape copy are available for the cost of duplication.
Additional Information	Further information is available from the US Department of Agriculture's county offices.

Disaster Assistance

Organization	Federal Emergency Management Agency
Contact	Joseph Russell Federal Emergency Management Agency SL-DA-PC, Room 705 Washington, DC 20472 Telephone: (202) 646-3069
Description	The Federal Emergency Management Agency, FEMA, operates the Automated Disaster Assistance Management System, ADAMS. ADAMS is a personal computer-network designed to expedite the management of grants and assistance programs in Presidentially declared disasters. ADAMS has four modules: public assistance, grants to government entities; individual assistance, temporary housing, cash grants, and other assistance to families or individuals; hazard mitigation; and program support, administrative functions.

DISASTER RELIEF

FEMA also maintains the Disaster Accountability Management System, DAMAGES. DAMAGES, as a part of FEMA's accounting system, records payments, refunds, and other financial data on disaster-assistance grants and programs.

Format Hard copy and magnetic tape.

Availability Printouts are available for the cost of copying, and are subject to the provisions of Federal laws and regulations regarding the protection of individual privacy.

Disaster Information: Canada

Organization Emergency Canada Research Unit

Contact Joseph Scanlon
Emergency Canada Research Unit
Carleton University
Ottawa, Canada K1S 5B6
Telephone: (613) 231-5532

Description The Emergency Canada Research Unit of Carleton University is developing a computerized data base of Canadian disasters. The data base includes information on: agency involvement, type of incident, and location.

Format Computerized data.

Availability Contact Joseph Scalon.

Disaster Information: Developing World

Organization Relief and Development Institute

Contact Edward Clay, Director
1 Ferdinand Place
London, NW1 8EE
United Kingdom
Telephone: [44] (01) 485-0944
Telex: [44] 21879 Disinst
Telefax: [44] (01) 284-0244

Description The Relief and Development Institute, RDI, carries out research and evaluations, organizes workshops, and maintains its own document

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	collection and bibliographic data base on relief and development issues in the developing world.
Format	Hard copy.
Availability	Contact the Relief and Development Institute.
Additional Information	RDI may also be contacted by electronic mail. UK Telecom Gold/DIALCOM Network 72:MAG35771.

Disaster Information: International

Organization	Agency for International Development
Contact	Andrew Natsios, Director Office of US Foreign Disaster Assistance Agency for International Development US Department of State Washington, DC 20523 Telephone: (202) 647-8924
Description	Disaster History File: The Disaster History File contains a quantitative record of all foreign disasters to which the Agency for International Development/Office of US Foreign Disaster Assistance, AID/OFDA, has responded since 1964, plus selected major disasters dating back to 1900. These 2,816 records of foreign, natural and human-made, disasters include: dates; locations; casualties; damages to housing, transportation, communications, and crops; and magnitude of impact. These records are worldwide excluding the US. The Disaster History File provides intervention information for the prediction of disaster patterns and response requirements. The Disaster History File's sources are published reports from the AID/OFDA, international organizations, and voluntary agencies. Detailed information on disasters to which AID/OFDA has responded is recorded in disaster case reports and OFDA's Annual Reports.
Format	The data base is updated quarterly, and data may be retrieved by a variety of selection criteria, including data, region, and disaster type.
Availability	Searches and listings are available free to qualified users. A chronological list of disasters by country is published annually, and is available upon request.

DISASTER RELIEF

Additional Information

"Disaster History, 1900 to Present," US Department of State, Washington, DC 20523, 1988.

Description**Country Profiles:**

The Office of Foreign Disaster Assistance maintains profiles of over forty disaster-prone countries in Africa, Asia, Latin America, the Caribbean, and the Pacific. The profiles are updated every five or six years, and provide background information on specific countries. Each Country Profile has three sections. Section 1 describes general baseline information on the country's geography, population, history, economic and political systems, and health indicators. Section 2 describes the disaster vulnerability of the country, and examines disaster types. Section 3 describes the disaster preparedness and assistance of the country, specifically governmental and non-governmental institutions, and resources. Section 3 also describes past AID/OFDA involvement in the country, and provides addresses and brief descriptions of private voluntary agencies and international organizations active in the country.

Format

Hard copy documents, including maps, charts, and a bibliography.

Availability

Price list available from OFDA. Copies for purchase are available from:
A.I.D. Document and Information Handling Facility
7222 47th Street, Suite 100
Chevy Chase, MD 20815

Description**Disaster Case Reports:**

OFDA produces final summary case reports on foreign disasters, in which the US Government provided assistance. Each case report provides: official statistics on the number of people killed and affected, a description of the disaster, the actions taken by the government and non-governmental organizations, and a detailed accounting of the assistance provided by the US, private voluntary organizations, and the international community.

Format

Hard copy document.

Availability

Individual case reports are available from OFDA, no earlier than one year after the event. Case reports are also compiled for the OFDA Fiscal Year Annual Report.

Additional Information

Oliver Davidson, Assistant Director of Operations Support
Telephone: (202) 647-5916

DISASTER RELIEF

Bill Garvelink, Assistant Director of Africa and Europe
Telephone: (202) 647-8746

Fred Cole, Assistant Director of Asia and Pacific
Telephone: (202) 647-8477

Barry Heyman, Assistant Director of Latin America and the Caribbean
Telephone: (202) 647-7544

Renee Bafalis, Press Officer
Telephone: (202) 647-7539

Paul Krumpke, Science Advisor and Program Officer
Telephone: (202) 647-9758

Disaster Information: US

Organization	Army Corps of Engineers
Contact	Robert Fletcher US Army Corps of Engineers' Headquarters Emergency Management Branch (CECW-OE-D) Operations and Readiness Division Directorate of Civil Works Washington, DC 20314-1000 Telephone: (202) 272-0251
Description	After a disaster, especially a flood disaster, the Army Corps of Engineers issues an After Action Report. This report summarizes the disaster operations and interagency coordination, including: a discussion of the emergency situation, types of assistance provided and the cost, coordination with the Federal Emergency Management Agency and other agencies, effectiveness of the response, strengths and weaknesses of the operation, and specific problems and solutions.
Format	Hard copy.
Availability	Hard copy reports, records, and files are available for review in district offices.
Additional Information	The Army Corps of Engineers also performs a variety of flood prevention measures. Contact Robert Fletcher for further information.

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Financial Assistance

Organization	Department of Education
Contact	Charles Hansen, Director Impact Aid Programs US Department of Education 400 Maryland Avenue, SW Washington, DC 20202-6244 Telephone: (202) 732-3637 FTS: 732-3637
Description	The Department of Education provides disaster aid to schools affected by Presidentially-declared disasters. Administrative records contain the amount of payments to states, counties, and Congressional districts. The Department of Education also produces an annual report which includes information on disaster aid to schools, such as: authorizing legislation, assistance that may be provided, administration of funds, appropriations, and a summary of the disaster assistance.
Format	Printed annual reports and case files.
Availability	Contact the Impact Aid Programs.
Additional Information	<u>Administration of Public Laws 81-874 and 81-815</u> HEW Publication No. (OC) 78-07300, annual report of the Secretary of Education, Department of Education, Washington, DC. The section on disaster aid to schools contains several pages of narrative, and tables of state expenditures. For sale by the US Government Printing Office, Washington, DC 20402.

Financial Assistance

Organization	Farmers Home Administration
Contact	Aimee Fisher Freedom of Information Officer Farmers Home Administration US Department of Agriculture Washington, DC 20250 Telephone: (202) 382-9638 FTS: 382-9638
Description	The Farmers Home Administration, FHA, makes emergency loans to family farmers, ranchers, and aquaculture operators to cover losses resulting from natural disasters. Loan funds may be used for annual farm operating

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expenses, and other essentials for returning disaster victims' farming operations to financially sound bases. The FHA collected, catalogued, and computerized records of loans disbursed over the last 10 to 15 years by date, county, and disaster. Computerized data, from 1973 to present, are available on outstanding loans by county and state, including information on obligations, average size of loans, applications received, active borrowers, and delinquent borrowers. Summaries of emergency loans by state and disaster designation code (M-Presidential, S-Secretarial, N-Administrator's) are available for each fiscal year since 1972.

Format	Computerized records of outstanding loans and hard copy summaries of emergency loans are updated annually.
Availability	Computerized records for outstanding loans and hard copy summaries of emergency loans are available for the cost of duplication.
Additional Information	<p>Farmer Program Statistics, 1939-1975, US Department of Agriculture, Farmers Home Administration, Washington, DC, 1977.</p> <p>Farmer Program Statistics, 1976-1977, US Department of Agriculture, Farmers Home Administration, Washington, DC 1978.</p> <p>Status of Loan and Grant Obligations/Allotments or Distribution, Report 205, US Department of Agriculture, Farmers Home Administration, Finance Office, Washington, DC.</p> <p>Report of Emergency Loans Made Pertaining to Disasters through Month Ending September, 1988. Report 509. US Department of Agriculture. Farmers Home Administration. Finance Office. Washington, DC. Annual summary of emergency loans by state and designation code.</p>

Financial Assistance

Organization	Small Business Administration
Contact	<p>Bernard Kulik, Deputy Associate Administrator for Disaster Assistance US Small Business Administration 1441 L Street, NW, Room 820 Washington, DC 20416 Telephone: (202) 653-6879 Telex: 202-653-2262</p>
Description	<p>The US Small Business Administration, SBA, provides long-term, low-interest loans to disaster victims, which enable them to repair or replace their damaged property. SBA is the primary Federal resource for this type of disaster assistance. SBA provides Home Disaster Loans for homeowners or renters to repair or replace disaster-related damage to homes or</p>

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personal property. SBA provides Business Physical Disaster Loans for businesses to repair or replace disaster-related damaged property, including inventory and supplies. SBA also provides Economic Injury Disaster Loans for small agricultural cooperatives and businesses to assist them through the disaster recovery period. These loans are available only if the business or its owners cannot obtain similar assistance from non-government sources.

Format Loans.

Availability Contact the SBA.

Medical

Organization National Disaster Medical System

Contact Loretta Gainor, Director
National Disaster Medical System
5600 Fishers Lane
Rockville, MD 20857
Telephone: (301) 443-4893

Description The National Disaster Medical System, NDMS, deals with medical care needs in disasters of great magnitude. Based on the concepts of the Civilian Military Contingency Hospital System, NDMS is a cooperative effort of the Department of Health and Human Services, the Department of Defense, the Federal Emergency Management Agency, the Veterans Administration, state and local governments, and the private sector. NDMS comprises 150 disaster medical response units to assist civilian casualties, an evacuation system, and 100,000 pre-committed beds in hospitals throughout the US.

Format Technical assistance and hard copy documents.

Availability Contact NDMS directly.

Additional Information Disaster Medical Response Catalogue of Courses, Media Resources & Information Materials. National Disaster Medical System.

Disaster Medical Assistance Team Organization Guide. National Disaster Medical System.

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Psychological

Organization	Center for the Study of Psychological Response in Disaster Emergencies
Contact	Michael Blumenfield, Director Center for the Study of Psychological Response in Disaster Emergencies New York Medical College Psychiatric Institute, Room B006 Valhalla, NY 10595 Telephone: (914) 285-7618
Description	The Center for the Study of Psychological Response in Disaster Emergencies, PRIDE, consists of multi-disciplinary consultants who deal with the psychological components of disasters and related issues.
Format	Consultants are available depending on the situation.
Availability	By arrangement.

Search & Rescue

Organization	Search and Rescue Dog ALERT
Contact	Judy Graham, Editor Search and Rescue Dog ALERT PO Box 39 Somerset, CA 95684 Telephone: (916) 621-1833
Description	Search and Rescue, SAR, dogs help locate victims of a wide range of hazards such as, avalanches, plane crashes, and urban disasters. ALERT acts as a primary source of information on SAR dogs in the US and worldwide. SAR ALERT publishes its newsletter, <u>ALERT</u> , eight times per year.
Format	SAR ALERT offers a newsletter, as well as technical assistance, such as answering questions and making referrals.

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Availability

A subscription to ALERT is \$6.50 per year in the US, \$8 per year in Mexico and Canada, and \$10 per year in other foreign countries.

**Additional
Information**

Hardy, Marian. National Search and Rescue Dog Directory. 1988. Search and Rescue: Somerset, CA.

See also the following appendices:

- Emergency Management
- Small Business Administration
- World Health Organization

Emergency Preparedness

Disaster Management: Africa

Organization	Panafrican Center for Emergency Preparedness and Response
Contact	Sandro Calvani, Director Panafrican Center for Emergency Preparedness and Response PO Box 3050 Addis Ababa Ethiopia Telephone: 002511-515460 / 002511-514416 Telex: 21548 WHO/EPR Addis Ababa Telefax: 002511-514416 / 002511-514682 (attn: WHO/EPR)
Description	In 1989 the World Health Organization, WHO, opened the Panafrican Center for Emergency Preparedness and Response, EPR. The EPR works to strengthen the emergency preparedness and response of WHO member states in Africa. EPR recognizes that effective disaster mitigation can only be achieved as part of a broader program of national development. EPR publishes disaster reports and The Ark--their newsletter, maintains a library, and conducts training in disaster management. EPR will improve the efficiency of emergency health response, sponsor field research, assess needs, examine policy, and develop emergency plans for hazard-prone areas on the continent.
Format	Technical assistance and hard copy publications.
Availability	To learn more about EPR's program for promoting disaster management in Africa and to obtain the Center's newsletter, contact Sandro Calvani.

Disaster Management: The Americas

Organization	Organization of American States
Contact	Stephen Bender, Project Chief Organization of American States 1889 F Street NW Washington, DC 20006 Telephone: (202) 458-3005 Telex: 64128 Telefax: (202) 458-3967
Description	The Organization of American States, OAS, provides technical assistance and publications on natural hazards, natural resources, population, and infrastructure.

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Format	Hard copy documents and maps, and geographic information systems compatible diskettes.
Availability	Information is available to OAS members. Contact the headquarters listed above for more information.

Disaster Management: Central America

Organization	Center of Coordination for Prevention of Natural Disasters in Central America
Contact	Aristoteles Vergara Munoz, Executive Secretary Center of Coordination for the Prevention of Natural Disasters in Central America 7a Ave. 14-57, Zona 13 01013 Guatemala Telephone: (502) 2-348317 Telex: (502) 2-348318
Description	The Center of Coordination for the Prevention of Natural Disasters in Central America provides financial support for risk analysis on: earthquakes, volcanic eruptions, floods, and landslides in Central America. The Center maintains a catalog of Central American earthquakes from 1904 through 1987.
Format	Hard copy.
Availability	Information is available upon request.
Additional Information	The Center will provide information on Central America's risk-reduction process.

Emergency Preparedness

Disaster Management: International

Organization	CSIRO, Division of Wildlife and Ecology
Contact	John Ive, Manager Division of Wildlife & Ecology CSIRO PO Box 84 Lynearm, ACT 2602 Australia Telephone: [61] (62) 421303 Telex: [61] (62) 413343
Description	CSIRO operates a computer-based, decision support system for rapid definition and profiling of impact zones associated with natural disasters and other catastrophic events. The support system accesses national data sets which can be used for pre- and post-disaster planning.
Format	The computer package is being developed for IBM computers.
Availability	Currently, a demonstration version is available. Packages will be available for sale in 1990.
Additional Information	Contact John Ive for further information.

Disaster Management: International

Organization	United Nations Disaster Relief Coordinator
Contact	John Tomblin, Chief Prevention and Support Services Branch UNDRO: Office of the United Nations Disaster Relief Coordinator Palais des Nations 1211 Geneva 10 Switzerland Telephone: [41] (22) 34.60.11 Telex: [41] 28148 undr ch Telefax: [41] (22) 33.56.23 Philippe Boullé, Director UNDRO United Nations, Room S-2935 New York, NY 10017 Telephone: (212) 963-5705

Emergency Preparedness

Description	<p>The United Nations Disaster Relief Coordinator, UNDRO, maintains a computer information network known as UNIENET, United International Emergency Network. UNIENET links together a network of computers, and contains information from other United Nations bodies, governmental agencies, and nongovernmental groups. The network places members of the worldwide, disaster management community in direct contact with each other, and provides them instantaneously with both background and operational disaster-related information. A computer terminal or personal computer allows access to the network.</p> <p>UNIENET provides electronic mail service which allows you to exchange messages via computer with others having an interest in disaster management. UNIENET offers an electronic Bulletin Board of information on disaster-related subjects, and several data bases of detailed disaster-related information.</p>
Format	On-line.
Availability	Contact UNDRO for costs.
Additional Information	<u>Directory of Training Institutions for Disaster Management.</u> 1989. UNDRO: Geneva.

Disaster Management: US

Organization	Department of Agriculture
Contact	Ted Maher, Program Leader Extension Service US Department of Agriculture 3865 South Building Washington, DC 20250 Telephone: (202) 447-7185
Description	Agricultural extension educators provide local government officials with courses on establishing basic risk management programs for specific risks and natural hazards.
Format	Manuals, handbooks, workbooks, courses, and video tapes.
Availability	Courses and materials are available upon request.

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Disaster Management: US

Organization	Federal Emergency Management Agency
Contact	Project Officer Integrated Emergency Management Information System Federal Emergency Management Agency 500 C Street, SW Mail Stop FCP 626A Washington, DC 20472 Telephone: (202) 646-3923
Description	<p>The Federal Emergency Management Agency, FEMA, created the Integrated Emergency Management Information System, IEMIS. IEMIS is part of a comprehensive National Emergency Management System. IEMIS combines state-of-the-art communications, computer simulations, and color graphics to support decision-making in emergency management. IEMIS integrates conventional emergency response resources with new automated capabilities for single users or coordinated groups. FEMA headquarters in Washington, DC, ten regional FEMA offices, and the National Emergency Training Center, each house IEMIS work stations. FEMA also makes the system accessible to local, state, and other Federal officials for use according to their special needs. Emergency management officials may use a variety of equipment, from personal computers to minicomputers, to interact with IEMIS. IEMIS will give these officials a common basis for sharing data, cooperative planning, and interaction during simulated emergencies. These activities will also pave the way for the use of IEMIS in coordinating operations during real emergencies.</p> <p>The goals of IEMIS are to: apply state-of-the-art automated data processing technology to emergency management; establish a dedicated, interactive computer system for the nation's emergency management community; foster the use and maintenance of integrated data bases among emergency managers and; encourage the use of similar technology for training, planning and emergency operations. IEMIS software includes computer utilities for: text processing, electronic communications, data base development and management, file management, business graphics, access to National Weather Service data; computer models for meteorological conditions, radiological dosage, heat radiation hazard, evacuation dynamics, and the development of expert systems; interactive color display and editing of an extensive national map data base which forms the background images for all model runs.</p>
Format	IEMIS combines of computer hardware and software. The hardware core is located in a central minicomputer at FEMA headquarters in Washington, DC.
Availability	Contact the IEMIS project officer.

Emergency Preparedness

Additional Information

"Integrated Emergency Management Information System: Questions and Answers." Federal Emergency Management Agency. 1987. Washington, DC.

Disaster Management: US

Organization

University Center for Social and Urban Research

Contact

Pamela Snyder, Project Manager
University Center for Social and Urban Research
University of Pittsburgh
1701 Cathedral of Learning
Pittsburgh, PA 15260
Telephone: (412) 624-5524

Description

The Crisis Response Conclusion Retrieval System, CRCRS, is a data base management system that accesses conclusions derived from documents concerning behavior and attitudes associated with emergency management and disaster research. The primary output from CRCRS is conclusions and bibliographic information covering approximately the last twenty years. Conclusions are accompanied by information on--the methodology of the documents from which the conclusions were drawn, and assessments to help one decide how much confidence to place in each conclusion.

Format

CRCRS is available on 18 high density, double sided disks. The DOS command **Backup** was used to copy the system onto the diskettes from the subdirectory CRCRS.

Availability

In order to install CRCRS on your machine, you will need at least 20 megabytes of space on your hard disk and a high density drive. First, you must set up a subdirectory called CRCRS, then use the DOS command **Restore** to copy the files from the diskettes into the subdirectory on your hard disk area. The diskettes are numbered, and must be restored in sequence, 1 to 18. Please refer to your MS-DOS manual for the proper commands. Documentation for CRCRS is provided with the program.

The Federal Emergency Management Agency will make CRCRS available to the research community. For details, contact:

Ralph Swisher
Federal Emergency Management Agency
Room 602
500 C Street, SW
Washington, DC 20472
Telephone: (202) 646-3561

Emergency Preparedness

Additional Information

In addition, searches for conclusions on specific topics may be requested from the Center for Social and Urban Research from 9:00 am to 5:00 pm EST, weekdays. A hard copy of the conclusion printout will be supplied to the individual without charge. For more information contact Pamela Snyder at the Center for Social and Urban Research at the above address.

Emergency Coordinator

Organization

Department of Agriculture

Contact

Leonard Mandrgoc, Emergency Coordinator
Office of Personnel
Emergency Programs
US Department of Agriculture
Room S-302, S Building
Washington, DC 20250-9600
Telephone: (202) 447-5711
FTS: 447-5711

Description

The Emergency Coordinator directs US Department of Agriculture's, USDA, crisis preparedness and response activities for natural and human-made disasters and civil defense. Key functions include maintaining the continuity of government in a national emergency, response, and recovery. Regional, state, and county emergency staffs assist the national office.

Format

The Emergency Coordinator does not collect natural hazards data, but serves as a point of contact for USDA emergency preparedness.

Availability

Contact Leonard Mandrgoc.

Emergency Coordinator

Organization

Department of Commerce

Contact

R. Bruce Pelton, Emergency Coordinator
Office of the Secretary
Emergency Planning and Coordinating Division
14th & Constitution Avenue, Room 683A
US Department of Commerce
Washington, DC 20230
Telephone: (202) 377-3627
FTS: 377-3627

Emergency Preparedness

Description	The Emergency Coordinator provides planning assistance to Department of Commerce offices which are developing emergency preparedness plans and programs. The Emergency Coordinator monitors, reviews, and reports on all such plans and programs. The Coordinator, the primary contact for emergency programs within the Department of Commerce, maintains lists of program supervisors, personnel, and technical experts for emergency preparedness activities at the national and regional levels.
Format	The Emergency Coordinator does not collect natural hazards data, but may be a point of contact.
Availability	Contact Bruce Pelton.
Additional Information	"The Contact Guide: National Security Emergency Preparedness." July 1988. FEMA Doc.FPG6.101.

Emergency Coordinator

Organization	Department of Labor
Contact	William McLoughlin, Emergency Coordinator US Department of Labor 200 Constitution Avenue, NW Washington, DC 20210 Telephone: (202) 523-6414 FTS: 523-6414
Description	The Department of Labor's Emergency Coordinator does not collect or maintain data on natural hazards, but does participate in various emergency preparedness planning functions, including the Earthquake Hazard Reduction Program. The Department, being more oriented toward economic and nuclear crises, has limited responsibilities in natural disasters. The Emergency Coordinator could serve as a point of contact for information.
Format	Individual contact.
Availability	Contact William McLoughlin.

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Emergency Coordinator

Organization	Department of Transportation
Contact	Lloyd Milburn, Emergency Coordinator Office of Emergency Transportation US Department of Transportation 400 Seventh Street, SW Washington, DC 20590 Telephone: (202) 366-5270 FTS: 366-5270
Description	The Emergency Coordinator develops, coordinates, and reviews policies, plans, and programs for attaining and maintaining a high state of civil transportation. Emergency preparedness policies include: all emergencies which affect national defense at a national or regional level, including emergencies caused by natural disasters and other crisis situations. Specifically, the Emergency Coordinator oversees damage assessments to the civil transportation system from military attacks, natural disasters, or other crises, and prepares plans and procedures for its repair.
Format	The Emergency Coordinator does not collect data, but maintains lists of national, regional, and field-level emergency staffs.
Availability	Contact Lloyd Milburn.

Emergency Education: The Americas

Organization	Emergency Preparedness & Disaster Relief Coordination Program
Contact	Claude de Ville de Goyet, Chief Emergency Preparedness & Disaster Relief Coordination Program Pan American Health Organization 525 Twenty-third Street, NW Washington, DC 20037 Telephone: (202) 861-4325 Telex: 201535(PED) Telefax: (202) 775-4578
Description	The Pan American Health Organization's, PAHO, Emergency Preparedness Program produces disaster preparedness training materials for member countries in Latin America and the Caribbean. PAHO also maintains <u>Disaster Preparedness Update: A Computerized Index of Emergency Preparedness and Disaster Relief Bibliography</u> . This computerized guide provides information on documents collected by PAHO's Emergency

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	Preparedness and Disaster Relief Offices. Both published and unpublished books and reports in English, French, and Spanish are available.
Format	Materials are print scientific publications, slide programs, video presentations, and a computerized index.
Availability	Material may be requested directly from PAHO.
Additional Information	Write PAHO for a list of available material.

Emergency Education: The Americas

Organization	Partners of the Americas
Contact	Howard Spielgelman, Director Emergency Preparedness Program 1424 K Street, NW, Suite 700 Washington, DC 20005 Telephone: (202) 628-3300 Telefax: (202) 628-3306 Telex: 64261 NAPAR
Description	Partners of the Americas, a non-profit organization created in 1964, carries out grass-roots, self-help projects, via volunteers, which enhance the economic, social and community development of the Americas. Through Partners of the Americas, US states are paired with Latin American and Caribbean countries to form "partnerships," for developing projects in: agriculture, community development, special education, university linkages, women and youth serving programs, cultural exchanges, and in many other areas. In 1984, Partners of the Americas initiated an Emergency Preparedness Program to promote the exchange and development of emergency preparedness professionals and programs throughout the hemisphere. The program offers the exchange of emergency management professionals and information, small assistance grants, and emergency preparedness training. Partners of the Americas also provides disaster assistance, usually in the form of technical assistance and small projects which focus on rehabilitation and recovery needs.
Format	Partners provides grants which partially cover travel expenses for volunteers to provide technical assistance to designated "partner areas" of Latin America and the Caribbean, and for Latin American and Caribbean emergency management professionals to visit the US.
Availability	Contact Partners at the above address or via computer: TYMNET:(On Tyme)DNA.NAPA.

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Emergency Education: Canada

Organization	Emergency Preparedness Canada
Contact	Mike Theilmann, Information Officer Emergency Preparedness Canada 122 Bank Street Jackson Building, 2nd Floor Ottawa, Ontario K1A 0W6 Canada Telephone: (613) 991-7038
Description	Emergency Preparedness Canada maintains a range of free publications, on various emergency preparedness topics, and a small selection of videos. Publications are available which describe its mandate and activities. Videos on severe storms, earthquakes, and general emergency preparedness are available. Printed materials include: <u>Emergency Preparedness Digest</u> , a quarterly magazine covering the whole spectrum of emergency planning; <u>Self-Help Advice Booklets</u> on earthquakes, floods, severe storms, winter power failures, winter driving, and woods safety tips; and reports on specific disasters or topics.
Format	Hard copy and audio-visuals.
Availability	Publications are available free of charge upon request. Audio-visual material is sent out on a loan basis.

Emergency Education: Canada

Organization	Simon Fraser University
Contact	Peter Anderson Department of Communication and Continuing Studies Simon Fraser University Burnaby, BC V5A 1S6 Canada Telephone: (604) 291-3687 Telefax: (604) 291-4045
Description	Under the sponsorship of Emergency Preparedness Canada, Simon Fraser University, SFU, in Burnaby, British Columbia, established a microcomputer-based electronic bulletin board on emergency preparedness. This newly established, 1989, project intends to stimulate networking and regular exchange of ideas and information among members of the emergency preparedness community. The system's structure will be continually modified to reflect users' needs. Currently, the bulletin board

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encompasses seven areas of interest: hazards/risks, emergency planning, emergency communications, health services, emergency social services, search and rescue, and training/education.

The content of each area will be determined, in part, by user input. However, additional material will be obtained from other sources such as the University of Delaware's Disaster Research Center computer network, SFU research, and conference papers. In addition, it is anticipated that the bulletin board will be used to conduct conferences among persons involved in emergency management who, because of scheduling or financial restrictions, would otherwise be unable to meet.

Format	On-line.
Availability	The bulletin board is free to users, except where long distance telephone charges apply.
Additional Information	For more information on the system and a description of the sign-on procedures, contact Peter Anderson.

Emergency Education: Caribbean

Organization	Pan Caribbean Disaster Preparedness and Prevention Project
Contact	Jennifer Roman, Document Specialist Pan Caribbean Disaster Preparedness and Prevention Project PO Box 1399 America Road St. John's Antigua Telephone: (809) 462-4432/35 Telex: 2195 AK Telefax: (809) 462-4431
Description	The Pan Caribbean Disaster Preparedness and Prevention Project, PCDPPP, maintains a specialized collection of material pertaining to all aspects of disasters with emphasis on the Caribbean. PCDPPP collects material of all formats, and particularly public awareness and education material. PCDPPP's goal of disseminating disaster preparedness information reaches Caribbean countries and territories which are building their own collections of disaster information.
Format	Monographs, periodicals, pamphlets, videotapes, audio-cassettes, slides and 16mm films.
Availability	While data cannot be accessed directly by computer, queries may be sent to PCDPPP by electronic mail through UNIENET. The call sign is UNXO15.

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**Additional
Information**

Natural Hazards of the Caribbean. Diane Bertrand. Pan Caribbean
Disaster Preparedness and Prevention Project. June 1988.

Emergency Education: Pacific Islands

Organization

East-West Center

Contact

Charles Lepani, Director
The Pacific Islands Development Program
Disaster Preparedness and Rehabilitation Project
East-West Center
University of Hawaii
1777 East-West Road
University of Hawaii
Honolulu, HI 96848
Telephone: (808) 944-7745

Description

The Pacific Islands Development Program, PIDP, at the East-West Center helps meet the special development needs of the Pacific Islands through cooperative research, education, and training. A major objective of the Program has been to provide quality in-depth analytical studies on specific priority issues as identified by the Pacific Island leaders and people. The studies aim to provide leaders with detailed information and alternative strategies on policy decisions. The Program publishes books and reports on natural hazards, including, Dealing With Disaster: Hurricane Response in Fiji, Procedures and Guidelines for Disaster Preparedness and Response, and Post-Disaster Assessment: Management.

Format

Hard copy.

Availability

Contact the PIDP at the above address for a publication list. Some publications may be accessed through the interlibrary loan system.

Emergency Education: US

Organization

Federal Emergency Management Agency

Contact

Emergency Education Network
Federal Emergency Management Agency
National Emergency Training Center
Emmitsburg, MD 21727
Telephone: (301) 447-1068

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Description	The Federal Emergency Management Agency's, Emergency Education Network, EENET, presents satellite videoconferences covering topics such as evacuation of the disabled, communicable disease issues, hazardous materials, and fire prevention and response. The broadcasts, which are one-way video, two-way audio, are transmitted on C band via satellite Spacenet 1, transponder 1, 102 degrees W. Viewers need access to a satellite dish receiver--available through colleges, local cable operators, hotels, and private owners, and a telephone with access to toll-free lines. The videoconferences are in the public domain, and continued rebroadcast is encouraged by EENET.
Format	Satellite communications.
Availability	Videotapes and program transcripts of each broadcast are also available for a modest cost.
Additional Information	For more information on these programs, contact EENET.

Emergency Education: Washington

Organization	Mothers for HELP
Contact	Beverly Carter Mothers for Help PO Box 8399 Kirkland, WA 98034 Telephone: (206) 820-6313
Description	<p>Mothers for HELP wants to Help Everyone Learn Preparedness. Volunteers work with local fire departments and community groups in the state of Washington to establish neighborhood command centers and teach household preparedness. They work closely with local school districts to devise evacuation plans, provide I.D. cards for school children, and plan shelter programs to house children whose parents are unavailable after a disaster. Mothers for HELP also trains individuals in first aid, search and rescue skills, and the placement of survival items in schools, churches, and fire departments throughout their neighborhoods.</p> <p>While acknowledging the lack of electronic communication in the aftermath of a major earthquake, Mothers for HELP created a "signal ribbon" method of informing rescue workers of the status of members of each household in a community. "Signal ribbons" save rescue workers time. A family which hangs a green ribbon on the front door indicates that all members are safe. A yellow ribbon signifies the presence of an injured person, and a red ribbon denotes a person in a life-threatening situation.</p>
Format	Community activism.

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Availability

Send a self-addressed stamped envelope for further information.

Health: Europe

Organization

European Center for Disaster Medicine

Contact

S. Gunn, Director
La Panetiere
1261 Bogis Bossey
Switzerland

Description

The European Center for Disaster Medicine, an intergovernmental, international organization, was established in 1986 under the aegis of the Council of Europe. The Center is situated in the Republic of San Marino. The Center promotes the prevention and mitigation of natural and technological disasters. The Center conducts training, supports research, coordinates health assistance, and provides disaster information. The Center works in cooperation with the World Health Organization, Office of the United Nations Disaster Relief Coordinator, universities, and civil protection associations.

Coordination of medical disaster assistance for Europe is a top priority. The Center promotes interdisciplinary and international cooperation in medical assistance and disaster management.

The Center's information program consists of four components:

- 1) collects information and enters it into computerized files;
- 2) maintains a data bank which facilitates quick access to teaching materials and bibliographic information on disaster management;
- 3) maintains a specialized library of disaster literature;
- 4) publishes and distributes teaching materials, manuals, papers, and proceedings which reflect the concerns and activities of the Center.

Format

Technical assistance, hard copy, and computerized materials.

Availability

Interested persons are invited to contact S. Gunn or the Center.

Additional Information

The European Center for Disaster Medicine itself is located at the:
State Hospital
47031 Republic of San Marino
Telephone: 39 (0) 549-994535 / 906244
Telefax: 39 (0) 549-903706

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Health: International

Organization	World Health Organization
Contact	K. Elo, Head Emergency Preparedness and Response World Health Organization 20 Avenue Appia CH 1211 Geneva 27 Switzerland Telephone: [41] (22) 791-2777 Telex: [41] 5416 OMS CH Telefax: [41] (22) 791-07-46
Description	The World Health Organization's Emergency Preparedness and Response Program, EPR, maintains a collection of documents on emergency preparedness and disaster relief, specifically health and disasters.
Format	Hard copy documents, slide sets, videotapes, technical assistance.
Availability	Contact K. Elo of EPR.

Health: US

Organization	National Institute of Mental Health
Contact	Chief Emergency Services Branch National Institute of Mental Health 5600 Fishers Lane, Room 7C-02 Rockville, MD 20857 Telephone: (301) 443-4735
Description	The Emergency Services Branch of the National Institute of Mental Health produces disaster response training materials for human service workers, mental health workers, and emergency managers which prepare them for the psychosocial issues of disasters.
Format	Monographs and audio-visuals.
Availability	Many single copies of monographs are available free of charge, and copies of films may be loaned free of charge.

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**Additional
Information**

Contact the Office of Scientific Information, Public Inquiries, National Institute of Mental Health, 5600 Fishers Lane, Room 15C-05, Rockville, MD 20857 for further information about obtaining a list of monographs, and audio-visuals, as well as ordering details.

Nuclear Reactor Safety Research

Organization

Nuclear Regulatory Commission

Contact

Public Affairs Office
Nuclear Regulatory Commission
Washington, DC 20555
Telephone: (301) 492-0240
FTS: 492-0240

Description

The Nuclear Regulatory Commission, NRC, provides detailed reports on nuclear facility safety, including assessment of natural hazards.

Format

Printed reports, documents, applications. Congressional testimony.

Availability

Materials are available for review in the public documents room of the NRC.

Shelter Data Base

Organization

Federal Emergency Management Agency

Contact

Lida Whitaker
Federal Emergency Management Agency
500 C Street, SW, Room 603
Washington, DC 20472
Telephone: (202) 646-3061
FTS: (202) 646-3061

Description

The Shelter Data Base results from three surveys:

- 1) National Facility Survey: identifies fallout shelters in buildings nationwide.
- 2) Reception and Care Survey: identifies facilities which can provide temporary lodging for evacuees from major disasters including nuclear attack.
- 3) Natural Hazard Vulnerability Survey: identifies the relative vulnerability

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of buildings exposed to earthquakes, high winds, hurricanes, tornadoes, and floods. Essentially all structures nationwide are surveyed with the exception of private residences.

Format	Computerized.
Availability	Costs depend on the nature of the request and user. Requests should be sent to the Federal Emergency Management Agency Computer Center. Eugene Ushinski Federal Support Center 5321 Riggs Road Gaithersburg, MD 20822 Telephone: (301) 926-5305

Warning System

Organization	Geological Survey
Contact	Assistant Director Engineering Geology Department US Geological Survey 106 National Center Reston, VA 22092 Telephone: (703) 648-4422 FTS: 959-4422
Description	The Department of Engineering Geology coordinates the US Geological Survey's warning and preparedness system. This warning system identifies geologic-related hazards. The USGS, under the Disaster Relief Act of 1974 and executive orders in 1975 and 1976, was delegated this responsibility. The warning system coordinates: the identification of hazards through the work of field scientists, the evaluation of the potential severity of hazards, the determination of USGS policy for issuing public notifications concerning hazards, and the coordination of information releases with appropriate state and local governments.
Format	Printed press releases, letters transmitting hazard notices, and supporting documents are available for the cost of duplication from address below. Published reports are available through the US Geological Survey's distribution centers.

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Availability

Contact the Engineering Geology Department.

Additional Information

Federal Register Statement, Vol.42, No.70, pp. 19292 to 19296, April, 1977.
Procedures and definition of USGS responsibilities.
"Revision of Terminology for Geologic Hazard Warnings," Vol. 99, No. 21,
January 31, 1984.

Warning System

Organization

National Weather Service

Contact

Donald Wernly, Chief
Warning and Forecast Branch
National Weather Service
8060 13th Street, Room 1326
Silver Spring, MD 20910
Telephone: (301) 427-8090
FTS: 427-7342

Description

The National Weather Service provides hazard awareness materials such as brochures, films, videotapes, and slide sets for the general public. These materials cover the following hazards: hurricanes, fire weather, heat waves, tornadoes, floods, lightning, severe storms, tsunamis, winter storms, and space forecasts for solar and geomagnetic activity.

Format

Hard copy and audio-visual materials.

Availability

Contact the national logistics supply center for the National Weather Service in Kansas City, MO 64131.

See also the following appendices:

- Emergency Management
- Army Corps of Engineers
- FEMA
- Small Business Administration
- World Health Organization

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Arid Lands

Organization	Arid Lands Information Center
Contact	Manager Arid Lands Information Center Office of Arid Lands Studies University of Arizona 845 North Park Avenue Tucson, AZ 85719 Telephone: (602) 621-7897 Telex: 1561507 ARID UT
Description	The Arid Lands Information Center, ALIC, builds, maintains, and provides public access to their arid lands document collection of 30,000 items. ALIC provides reference services to researchers, US and other governmental agencies, international organizations, and the general public. ALIC disseminates and exchanges information on the nature, development, and management of arid lands. The Center publishes <u>The Arid Lands Newsletter</u> , special bibliographies, conference proceedings, environmental profiles, and organizational directories. In 1988 ALIC prepared <u>Arid Lands Research Institutions: A World Directory</u> .
Format	Hard copy documents and computerized data bases.
Availability	Contact ALIC for a publications list. Office hours are 8 am to noon and 1 pm to 5 pm.

Disaster Management: Australia & Pacific Region

Organization	Disaster Management Studies Center
Contact	Neil Britton, Director Disaster Management Studies Center Cumberland College of Health Sciences East Street PO Box 170 Lidcombe, Sydney NSW 2141 Australia Telephone: [61] (2) 646-6444 Telefax: [61] (2) 646-4853
Description	Cumberland College of Health Sciences in Sydney, Australia established the Disaster Management Studies Center, DMSC, because of a need for

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research and training in disaster management. The Center has seven objectives:

- 1) To promote disaster research and teaching in the southern hemisphere and to generate greater awareness of the need for emergency management;
- 2) To develop curricula and training materials relating to disaster and emergency health management;
- 3) To provide expert advice on matters in these areas;
- 4) To conduct research throughout Australia, the western Pacific, and other regions;
- 5) To collaborate with existing institutions to develop greater expertise in disaster management;
- 6) To collect and disperse pertinent information; and
- 7) To communicate and work with other experts, institutions, and agencies involved in disaster and health emergency programs to promote disaster management throughout the region.

These objectives result in five activities: research, teaching, training, disseminating information, and consulting. Several Cumberland College faculty members are involved in the Center, and the college offers undergraduate courses in disaster management.

Format	Technical assistance, hard copy materials.
Availability	For further information about the DMSC, contact Neil Britton.

Disaster Management: International

Organization	Disaster Management Center
Contact	Don Schramm, Director Disaster Management Center University of Wisconsin at Madison Department of Engineering Professional Development 432 North Lake Street Madison, WI 53706 Telephone: (800) 262-6243 or (608) 262-2061 Telex: 265452
Description	Founded in 1982, the Disaster Management Center, DMC, offers educational programs on the management of international, natural disasters and emergencies that involve refugees and displaced persons. Although the DMC focuses on international disaster management, one may apply findings to domestic emergencies. DMC offers 15 self-study course modules for use in hazard-prone areas outside the United States. Some courses are available in Spanish, and the DMC plans to translate its course modules into other languages.

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Format	Hard copy and a video series.
Availability	Contact DMC at the above address for course descriptions and applications.

Disaster Management: The Netherlands

Organization	Disaster and Emergency Reference Center
Contact	Krisno Nimpuno, Director Disaster and Emergency Reference Center PO Box 5048 2600 GA DELFT The Netherlands Telephone: (015) 78-44-04 Telex: 38151 butud nl for derc Telefax: (015) 76-18-55 for derc
Description	The Disaster and Emergency Reference Center, DERC, studies both human-made and natural disasters in developing countries. Through such studies DERC aims to improve the quality of disaster mitigation efforts. DERC is developing a collection of disaster preparedness, prevention, mitigation, relief, and rehabilitation case studies. Currently, DERC is compiling a directory of Dutch experts and institutions related to disaster mitigation.
Format	Hard copy and technical assistance.
Availability	Please contact Krisno Nimpuno.
Additional Information	"DERC: Disaster & Emergency Reference Center." (Pamphlet).

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Disaster Management: New Zealand

Organization	The National Civil Defense Resource Center
Contact	Doug Bent, Civil Defense Commissioner Ministry of Civil Defense The National Civil Defense Resource Center PO Box 5010 Wellington New Zealand Telephone: [64] (04) 738-699 Telex: [64] CIVDEX NZ3410 Telefax: [64] (04) 712-197
Description	The National Civil Defense Resource Center maintains bibliographic and audio-visual materials on civil defense for research, planning, and educational purposes. Most information held relates to New Zealand although the Center also holds much overseas information. Specifically, the Center maintains publications and periodicals on civil defense, reports on past disasters and civil defense emergencies, civil defense plans, and instructional and public awareness materials. All holdings are currently being catalogued on a personal computer data base.
Format	Hard copy and audio-visual.
Availability	Make requests for information by writing to Doug Bent.
Additional Information	New Zealand Ministry of Civil Defense. "Facts: The Who, Why and How of New Zealand's Civil Defense System." (Pamphlet).

Disaster Research: Australia

Organization	Australian Counter Disaster College
Contact	Australian Natural Disaster Organization Australian Counter Disaster College Mt. Macedon 3441 Victoria Australia Telephone: [61] (054) 261-205
Description	The Australian Natural Disaster Organization, ANDO, publishes <u>The Macedon Digest</u> , a newsletter designed to disseminate recent disaster news and views to practitioners. The quarterly newsletter provides managers, planners, trainers, and researchers working on disaster mitigation and civil

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defense with problems and topics specific to the Australian and southwest Pacific region.

Format

Hard copy newsletter.

Availability

The publication is available free to all interested organizations and individuals.

Additional Information

Persons interested in receiving or contributing to the newsletter should contact The Macedon Digest at the above address.

Disaster Research: International

Organization

Disaster Research Center

Contact

JoAnne Nigg, Director
Disaster Research Center
University of Delaware
Newark, DE 19716
Telephone: (302) 451-6618
BITNET: ACJ00984@UDACSVM.BITNET
INTERNET: ACJ00984@acsvm.acs.udel.edu

Description

The Disaster Research Center, DRC, the first of its kind, was established at Ohio State University in 1963, and moved to the University of Delaware in 1985. The Center engages in a variety of sociological and social science research on group and organizational preparations for, responses to, and recovery from community-wide emergencies, particularly natural and technological disasters. Since the Center's inception, there have been over 490 different field studies. The Center has a number of professionals on its staff, and activities are supported by diverse sources: the National Science Foundation, National Institute of Mental Health, Department of the Interior, and the Federal Emergency Management Agency to name a few.

Format

Hard copy and electronic mail.

Availability

Contact the DRC for availability.

Additional Information

Contact the DRC for a list of publications.

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Disaster Research: Japan

Organization	National Research Center for Disaster Prevention
Contact	Masataka Kominami, Head of Data Section National Research Center for Disaster Prevention Science and Technology Agency 3-1, Tennodai, Tsukuba-shi Ibaraki-ken, 305 Japan
Description	The National Research Center for Disaster Prevention, NRCDP, promotes synthetic research on technology for natural disasters; collects, analyzes and presents documents related to technology for disaster prevention; maintains large-scale earthquake and rainfall simulators; and dispatches cooperative research officers to related organizations in order to cooperate in their studies. The Center's studies span the field of natural disasters from earthquakes to snowfall damages.
Format	Hard copy and technical assistance.
Availability	Contact Masataka Kominami.
Additional Information	National Research Center for Disaster Prevention. <u>Research Activities of the National Research Center for Disaster Prevention.</u> Institute of Snow and Ice Studies National Research Center for Disaster Prevention 187-16, Maeyama, Suyoshi Omachi, Nagaoka-shi Niigata-ken, 940 Japan Telephone: 0258-35-7522 Telefax: 0258-35-0020 Hiratsuka Branch of Oceanographic Studies National Research Center for Disaster Prevention 9-2, Nijigahama, Hiratsuka-shi Kanagawa-ken, 254, Japan Telephone: (81) 0463-32-7159 Telefax: (81) 0463-33-3635

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Disaster Research: US

Organization	National Research Council
Contact	Riley Chung, Director National Research Council Division of Natural Hazard Mitigation Room HA 286 2101 Constitution Avenue Washington, DC 20418 Telephone: (202) 334-3312
Description	The Division of Natural Hazard Mitigation examines various natural hazards, forms of disaster assistance, and related government programs and policies. The Division conducts post-disaster studies worldwide on a variety of natural hazards including: earthquakes, floods, landslides, tornadoes, and hurricanes.
Format	Hard copy reports.
Availability	Contact Riley Chung for a list of publications and costs.

Disaster Research: US

Organization	Wharton Risk and Decision Processes Center
Contact	Howard Kunreuther, Director Wharton Risk and Decision Processes Center 1303 Steinberg-Dietrich Hall University of Pennsylvania Philadelphia, PA 19104 Telephone: (215) 898-5688
Description	The Wharton Risk and Decision Processes Center increases understanding of disaster potential, and analyzes programs for dealing with them. The Center seeks to discover how people assimilate probabilistic information. The Center's research reaches into the fields of decision sciences, economics, finance, insurance, management, marketing, policy analysis, and psychology.
Format	Hard copy and technical assistance.
Availability	Contact Howard Kunreuther.

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Environmental Research: International

Organization	Datum International
Contact	James Lewis, Director Datum International 101 High Street Marshfield, nr. Chippenham Wiltshire, SN 14 8LT United Kingdom Telephone: [44] (225) 891426 Telex: (44) 46625 WECO G
Description	Datum International examines issues dealing with the environment and human settlements. Datum International analyzes regions, communities, locations, buildings, institutions, and systems in relation to natural environments, in particular hazards, accidents, and risk and vulnerability assessments. Datum International publishes books, reports, monographs, bibliographies, and articles. The group also conducts research and training.
Format	Hard copy and technical assistance.
Availability	All documents carry a nominal charge to cover costs of copying and postage. Overseas payments should be made by check at the prevailing London currency, and should include the equivalent of £5.00 to cover bankers' charges.
Additional Information	Contact Datum International for information on their workshops and seminars. Many of their publications are also available from the Disaster Information Service of the Joint Assistance Center, H-65 South Extension 1, New Delhi 110049 India.

Environmental Research: International

Organization	Environmental Protection Agency
Contact	Head Reference Librarian US Environmental Protection Agency Information Services and Management Division Headquarters Library, PM-211A 401 M Street, SW, Room 2904 WSM Washington, DC 20460 Telephone: (202) 382-5921 FTS: (8) 382-5921

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Description	The INFOTERRA data base, an international environmental network of 135 countries, serves as an environmental referral organization providing sources, documents, and bibliographic information to inquirers. INFOTERRA comes under the auspices of the United Nations Environment Programme, and in 1975 the US Department of State designated the Environmental Protection Agency as the US National Focal Point for INFOTERRA.
Format	Hard copy and technical assistance.
Availability	Contact the Environmental Protection Agency.

Environmental Research: US

Organization	INFORM
Contact	Jerri McDermott, Publications Manager INFORM 381 Park Avenue South New York, NY 10016 Telephone: (212) 689-4040
Description	INFORM, a nonprofit environmental research and educational organization, identifies and reports on practical actions for the preservation and conservation of natural resources and public health. INFORM's current research focuses on such critical environmental issues as hazardous waste reduction, garbage management, urban air pollution, and land and water conservation. <u>INFORM Reports</u> is the group's bimonthly newsletter. In addition, more than 31 reports are available, including <u>Garbage Management in Japan</u> , <u>Tracing a River's Toxic Pollution</u> , and <u>Controlling Acid Rain</u> .
Format	Hard copy.
Availability	Books may be purchased at catalog prices plus \$2.50 for postage and handling. A subscription to <u>INFORM Reports</u> costs \$25 per year.

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Environmental Research: US

Organization	University of Illinois at Urbana-Champaign
Contact	Deanna Glosse, Project Coordinator Environmental Technical Information System University of Illinois at Urbana-Champaign 1003 West Nevada Urbana, IL 61801 Telephone: (217) 244-5359
Description	The Environmental Technical Information System, ETIS, a collection of information systems, assists planners and decision makers in making better and more informed decisions. Their three primary programs are: economic impact forecast system, computer-aided environmental legislative data system, and soils systems. Environmental Information Connection, a data base search service is also available through ETIS. The staff can assemble bibliographies, search environmental topics, or supply contact names of environmental organizations or businesses.
Format	Hard copy and on-line data bases.
Availability	Users pay a one-time \$200 subscription fee, an annual \$20 maintenance fee, and are billed monthly for connect charges at \$90 per hour, pro-rated by the minute. Staff time is billed at \$25 per hour.

Industrial Crisis

Organization	Industrial Crisis Institute
Contact	Paul Shrivastava, Executive Director Industrial Crisis Institute, Inc. 649 East 19th Street Brooklyn, NY 11230 Telephone: (718) 859-3435
Description	The Industrial Crisis Institute is a non-profit research and educational organization. The Institute conducts theoretical and empirical studies of industrial crises, and disseminates information on preventing and coping with crises. The Institute publishes <u>Industrial Crisis Quarterly</u> . In addition, the Institute hosts an international conference on industrial crisis management and sponsors seminars and workshops.
Format	Hard copy, technical assistance, and conferences.
Availability	Contact the Institute at the address above for more information.

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Landslide Information Center

Organization	Landslide Information Center
Contact	Bob Fleming Landslide Information Center US Geological Survey MS 966 Box 25046 Denver, CO 80225 Telephone: (303) 236-1588
Description	<p>In 1981 the US Geological Survey established the Landslide Information Center. The Center gathers information on landslide research and applications to hazard mitigation, and promotes the adoption of engineering techniques and land use planning. The Center's specific tasks include:</p> <ol style="list-style-type: none">1) Providing bibliographic and landslide activities information by using a computerized data management system,2) Developing and maintaining files of photographs, press releases, reports, and legislation (ordinances, land use regulations) on landslides,3) Developing and maintaining a mailing list of researchers and others interested in landslide hazard reduction,4) Answering information requests and contributing to newsletters, and5) Sponsoring workshops designed to promote the implementation of landslide research findings. <p>The Center maintains thousands of reports and maps which are accessible through a computerized bibliographic system, as well as a list of over 750 individuals involved in landslide research or the use of landslide data.</p>
Format	Computerized bibliographic system, hard copy reports and documents, landslide photographs, landslide legislation.
Availability	Materials may be examined at the center, and copies of maps and reports may be obtained for the cost of reproduction.
Additional Information	For more information or to contribute information, contact Bob Fleming.

INFORMATION & RESEARCH CENTERS

Hazards: International

Organization	United Nations Educational, Scientific and Cultural Organization
Contact	M. Hashizume, Programme Specialist United Nations Educational, Scientific and Cultural Organization 7 Place de Fontenoy 75700 Paris France Telephone: [33] (1) 4568 4122 Telex: (33) 43061122
Description	The United Nations Educational, Scientific and Cultural Organization, UNESCO, sponsors a worldwide Natural Hazards Program. Publications are available.
Format	Contact the headquarters listed above for publication format.
Availability	Contact UNESCO for further information.

Hazards: US

Organization	Hazards Assessment Laboratory
Contact	Dennis Mileti, Co-Director Hazards Assessment Laboratory Colorado State University Ft. Collins, CO 80523 Telephone: (303) 491-7347
Description	The Hazards Assessment Laboratory, HAL, at Colorado State University facilitates the interdisciplinary research of geophysical, climatological, and human-made hazards and emergencies. Hazard mitigation, HAL's primary focus, emphasizes planning and preparedness for emergency response. HAL conducts research programs, and offers short courses in hazards management. Projects include: development of a cross-cultural Disaster Impacts Scale, use of microcomputers in flood hazard mitigation, and emergency planning for nuclear power plant accidents.
Format	Hard copy and technical assistance.
Availability	Contact HAL for further information.

INFORMATION & RESEARCH CENTERS

Hazards: US

Organization	Hazards Reduction and Recovery Center
Contact	Dennis Wenger, Director Hazards Reduction and Recovery Center College of Architecture Texas A&M University College Station, TX 77643-3137 Telephone: (409) 845-7813 Telex: 510-892-7689 Telefax: (409) 845-4491
Description	The Hazards Reduction and Recovery Center has an interdisciplinary focus. The Center investigates the development of cost-effective community mitigation, preparedness, and recovery techniques for reducing the impact of disasters, including loss of life, degradation of health, damage to the built environment, and social and economic disruption. The Center sponsors research, offers a graduate course on hazards risk assessment and management, and operates an extension program for consultations with local governments, state agencies, professional groups, and private companies. Current projects include: the use of microcomputers for testing emergency support capabilities for civil defense, reconstruction following Hurricane Gilbert in Jamaica and Mexico, and structural damage prediction modelling from hurricanes.
Format	Hard copy and technical assistance.
Availability	Contact the Center for course and project information and availability.

Hazards: US

Organization	Natural Hazards Research and Applications Information Center
Contact	David Morton, Librarian Natural Hazards Research and Applications Information Center Campus Box 482 University of Colorado Boulder, CO 80309-0482 Telephone: (303) 492-6818 Telefax: (303) 492-6924
Description	Since 1976, the Natural Hazards Research and Applications Information Center, NHRAIC, has served as a national clearinghouse for research dealing with the economic loss, human suffering, and social disruption caused by earthquakes, floods, and other natural disasters. The Center

INFORMATION & RESEARCH CENTERS

maintains a large library and annotated data base in order to respond to requests for information. The Center also publishes monographs, working papers, and bibliographies related to natural hazards and mitigation programs. The Center hosts symposia and workshops on natural hazards and publishes the bimonthly newsletter, Natural Hazards Observer.

Format

Hard copy reports and computerized annotated bibliographic data base.

Availability

Information requests are answered at no charge, and visitors are welcome to use the library on an appointment basis. The newsletter is free; other publication cost from \$1.50 to \$15.00. The Center is open 8:30 am to 4:30 pm.

Hazards: US

Organization

Oak Ridge National Laboratory

Contact

John Sorensen, Group Leader
Hazard Management Group
Oak Ridge National Laboratory
PO Box 2008
Oak Ridge, TN 37831-6206

Description

The Hazard Management Group specializes in research and applied work on natural and technological hazards. The group has an interdisciplinary social science focus, but works with a variety of researchers in the physical sciences and engineering. The group has three professional interests:

- 1) public acceptance of hazardous technology;
- 2) public and private perception and management of risk and associated implications for hazard mitigation and emergency planning;
- 3) human response to natural and technological risks and disasters at both the individual and organizational level.

Format

Hard copy publications by the group and Oak Ridge's civil defense library.

Availability

Contact John Sorensen.

**Additional
Information**

Contact the Hazard Management Group for a list of their recent publications.

INFORMATION & RESEARCH CENTERS

Hazards: US Urban & Regional

Organization	Center for Urban and Regional Studies
Contact	Jonathan Howes, Director Center for Urban and Regional Studies University of North Carolina at Chapel Hill Campus Box 3410 Hickerson House Chapel Hill, NC 27599-3410 Telephone: (919) 962-3074
Description	The Center for Urban and Regional Studies covers a full range of activities from fundamental investigations to applications for policy makers in urban affairs. The Center devotes research efforts to urban growth and development processes, hazards management, and coastal zone management, and publishes reports on these topics. Recent titles include: <u>Cities Under Water: A Comparative Evaluation of Ten Cities' Efforts to Manage Floodplain Land Use</u> ; "Evaluating the Effects of Local Floodplain Management Policies on Property Owner Behavior" in <u>Environmental Management</u> , and "The Anatomy of Losses to State and Local Governments from Natural Disasters."
Format	Hard copy.
Availability	Send publication orders to the Publications Office, 108 Battle Lane Hickerson House, Chapel Hill, North Carolina.

Public Affairs

Organization	Office of Public Affairs
Contact	Federal Emergency Management Agency Office of Public Affairs 500 C Street, SW Washington, DC 20472 Telephone: (202) 287-0307
Description	The Federal Emergency Management Agency's, FEMA, Public Affairs Computer System, PACS, offers prompt, accurate, and current disaster information. State and local, public information officers may have access. The system was originally designed for communication between regional FEMA public affairs offices. The system uses portable computers linked by modems to transmit information among: personnel in Washington, DC, personnel at various regional headquarters, and personnel at disaster sites.

INFORMATION & RESEARCH CENTERS

	PACS also links the White House Press Office and numerous federal agencies and departments to disaster information.
Format	On-line. Upon contracting with ITT/Dialcom, the company managing the PACS data base, state and local public information officers may use PACS to: monitor FEMA press releases, messages, and the other information on the PACS data base; transmit their own messages via electronic mail; and receive news copy from the Associated Press and United Press International wires.
Availability	A potential user need only have a computer terminal with a 300 or 1200 baud modem. The system may be used at almost any location in the country by dialing a local phone number.
Additional Information	Contact FEMA's Public Affairs Office for additional information on utilizing PACS.

Technical Information

Organization	National Technical Information Services
Contact	Director National Technical Information Services US Department of Commerce 5285 Port Royal Road Springfield, VA 22161 Telephone: (703) 487-4640 Telefax: (703) 321-8547
Description	The National Technical Information Service, NTIS, provides more than 130,000 summaries of completed and on-going US and foreign government-sponsored research, development, and engineering activities annually. NTIS also manages the Federal Computer Products Center and the Center for the Utilization of Federal Technology. A sample of NTIS titles includes: <u>Radioactive Waste Management</u> , <u>Transportation Energy Research</u> , and <u>Acid Precipitation</u> .
Format	Hard copy, computer software and data files, and microfiche copies are available for sale. A variety of services, including subscriptions, bibliographies, and summaries are available.
Availability	Contact the NTIS office listed above for further information.

INFORMATION & RESEARCH CENTERS

Additional Information

National Technical Information Service. Search Guide to the NTIS Bibliographic Database: On DIALOG. US Department of Commerce: Springfield, VA. 1988.

National Technical Information Service. Directory of Federal Laboratory and Technology Resources: 1988-1989. US Department of Commerce: Springfield, VA. 1988.

LIBRARIES

Agricultural Library

Organization	National Agricultural Library
Contact	Joseph Howard, Director National Agricultural Library US Department of Agriculture 10301 Baltimore Blvd. Beltsville, MD 20705 Telephone: (301) 344-3726 FTS: 344-3755
Description	The National Agricultural Library, NAL, acquires, organizes, and makes available worldwide literature and data dealing with all aspects of agriculture and related subjects. NAL maintains the AGRICOLA data base of bibliographic entries related to agriculture. NAL provides information through specialized information centers, such as the Food and Nutrition Information Center, and general library services including literature searches, bibliographies, reference services, loan of publications, interlibrary loan, and photocopy of articles.
Format	Hard copy and microform are available.
Availability	NAL's AGRICOLA data base may be acquired as a service on magnetic tape. AGRICOLA is also available on-line through DIALOG Information Services and BRS Information Technologies.

Disaster Exercises Library

Organization	Federal Emergency Management Agency
Contact	Hal Gaut Federal Emergency Management Agency State and Local Programs and Support Washington, DC 20472 Telephone: (202) 287-0170
Description	The Federal Emergency Management Agency, FEMA, maintains a library of disaster exercises for use by state and local governments. Disaster exercises include those on natural hazards--floods, hurricanes, volcanic eruptions, drought, and wildfire, technological hazards, and nuclear preparedness. Upon receiving a request from a local agency for a particular type of exercise, the library will send synopses of those exercises which

LIBRARIES

seem to fit the agency's needs. The agency can then select what it wants and adapt it to its specific site.

Format Hard copy.

Availability There is no charge for the materials.

Additional Information Those wishing to contribute to the collection should send a copy of their materials to a FEMA regional office, which will forward the exercise to headquarters.

Disaster Research Library

Organization Joint Assistance Center

Contact Narendra Kumar Jain
Joint Assistance Center
H-65 South Extension-1
New Delhi 110 048
India
Telephone: [91] (11) 697 986 & 616 940

Description The Joint Assistance Center, JAC, maintains a small library with about 3000 holdings on disaster related subjects. It has materials on training and education for disaster preparedness, directories of voluntary agencies and their disaster efforts, materials on the environment, and information on almost all types of disasters. The center also monitors several leading Indian newspapers on disasters, and has relationships with several resource agencies in the environmental field. The Joint Assistance Center produces Disaster Management, the first journal devoted to disaster prevention in Asia.

Format Hard copy and audio-visuals.

Availability Contact the JAC for a publication and price list.

LIBRARIES

Disaster Response Library

Organization	Australian Overseas Disaster Response Organization
Contact	Lynne Johnson, Information Officer Australian Overseas Disaster Response Organization PO Box K425 Haymarket NSW 2000 Australia Telephone: [61] (2) 264-9544 Telefax: [61] (2) 264-9558
Description	While the Australian Overseas Disaster Response Organization serves as an overseas disaster response organization, AODRO, it provides both practical and theoretical information on hazards through their library. AODRO's computerized bibliographic system allows for easy retrieval of data and reports in their rapidly expanding collection. AODRO's Information Service can furnish current disaster news, reference services, training materials, and research assistance. They also publish a bi-monthly newsletter.
Format	Hard and computerized copy.
Availability	Contact Lynne Johnson.

Earthquake Library

Organization	National Information Service for Earthquake Engineering
Contact	Ken Wong, Development Engineer National Information Service for Earthquake Engineering Computer Applications 404A Davis Hall University of California Berkeley, CA 94720 Telephone: (415) 642-5113
Description	The National Information Service for Earthquake Engineering's, NISEE, Computer Applications Project is a public service project administered by the Earthquake Engineering Research Center of the University of California, Berkeley. Computer software, developed as a result of National Science Foundation funded research, are distributed by NISEE to a worldwide audience including professionals, academic researchers, governmental agencies and the general public. Activities include dissemination of information about available computer programs, distribution of the programs and educational seminars on their use.

LIBRARIES

Format	A variety of magnetic media is available, including magnetic tapes, diskettes, and electronic mail.
Availability	For more information, including a catalog of available software, contact Ken Wong.

Economic and Social Development Library

Organization	United Nations Economic & Social Commission for Western Asia
Contact	Mohammed Wahab, Economic Affairs Officer Environment Coordination Unit Natural Resources, Science & Technology Division United Nations Economic & Social Commission for Western Asia Hay Al-Jihad Quarter 893/27/50 PO Box 27 Baghdad Iraq Telephone: [964] (1) 5564282, ext. 582 Telex: 213303 UNECWA IK Telefax: [964] (1) 213468A/213468B
Description	The United Nations Economic and Social Commission for Western Asia maintains an economic and social development library with holdings in English, Arabic, and French. The collection includes reference books, monographs, journals, special reports, and United Nations publications. A portion of the collection dates back to the late 1950s and early 1960s.
Format	Hard copy and microfiche. The Library expects to have a computerized, bibliographic data base by 1990.
Availability	Contact the Library for information.
Additional Information	Contact the Library for an acquisitions list.

LIBRARIES

Geological Survey Computer Library

Organization	Online Computer Library Center
Contact	Online Computer Library Center Electronic Publishing and Information Delivery Division 6565 Frantz Road Dublin, OH 43017-0702 Telephone: (800) 848-5878 ext. 4388 in Ohio (800) 848-8286 ext. 4388 in Canada (800) 533-8201 in Europe (021) 236-3224
Description	<p>The Online Computer Library Center is a nonprofit membership organization engaged in computer library service and research. It makes available computer-based services, bibliographic data, and other information for libraries, other educational organizations, and individual library users. The newly added data bases are:</p> <ol style="list-style-type: none">1) The US Geological Survey's library catalog, which provides bibliographic references to materials in the USGS library;2) GeoIndex which provides information on more than 15,000 geologic maps of the United States and its territories. These maps are produced by the USGS, other federal agencies, state surveys, professional societies, academic institutions, and commercial organizations;3) The Earth Science Data Directory which is a catalog of approximately 1,900 listings of earth science and natural resources data bases. These data bases are products of governmental agencies, academic institutions, and the private sector.
Format	Compact disc.
Availability	Contact the Online Computer Library Center for prices and membership.

Government Printing Office

Organization	Government Printing Office
Contact	Superintendent of Documents US Government Printing Office . Washington, DC 20402 Telephone: (202) 783-3238 FTS: 783-3238

LIBRARIES

Description	<p>The US Government Printing Office produces more than 270 subject bibliographies on subjects or fields of interest. Bibliographies related to natural hazards are:</p> <p>Accidents, SB 229 Agriculture, SB 162 Agriculture Yearbooks, SB 31 Census of Agriculture, SB 277 Farms and Farming SB 161 Architecture, SB 215, 157 Census of Population, SB 181 Block Statistics, SB 311 Census of Housing, SB 181, SB 311, SB 312 Disaster Preparedness and Civil Defense, SB 241 Conservation, SB 238 Earth Sciences, SB 160 Weather, SB 234 Environmental Education and Protection, SB 88 Fire Prevention and Management, SB 76 Maps, SB 102, 183 Vital and Health Statistics, SB 121</p>
Format	Hard copy.
Availability	Contact the Superintendent of Documents for further publication and bibliographical information.

Library of Congress

Organization	Library of Congress
Contact	<p>Nancy Bush, Information Officer US Library of Congress Washington, DC 20540 Telephone: (202) 707-2905</p>
Description	<p>The Library of Congress, with holdings of over 88 million items, offers reference, bibliographic, and referral services. Although there is no organized natural hazards data resource, information may be obtained from:</p> <p>General Collections: limited reference services in response to written requests (General Reading Rooms Division);</p> <p>Science and Technology Division: computerized catalogs, abstracts and indexing services, bibliographic guides to selected scientific and technical topics;</p>

LIBRARIES

National Referral Center: refers inquiries to appropriate organizations, institutions, research projects or laboratories;

Library of Congress Computerized Catalog: over 10 million books cataloged since 1969. Searches available; standard fee is \$20.00 plus eight cents per record retrieved. (Cataloging Distribution Service, Customer Services Section);

Interlibrary Loan: to supplement resources of other libraries. (Libraries should send requests on standard forms to Loan Division);

Photoduplication Service: for unrestricted documents not under copyright;

Congressional Research Service: available to members and committees of Congress only. Prepares issue briefs on topics of current interest to Congress (e.g., earthquake prediction, emergency preparedness).

Format

Hard and computerized copies.

Availability

If there are any charges, these are available from the divisions listed.

Additional Information

For specific inquiries write:
(division or section name)
Library of Congress
Washington, DC 20540

Medical Library

Organization

National Library of Medicine

Contact

Bruno Vasta, TOXNET Administrator
National Library of Medicine
Division of Specialized Information Services
8600 Rockville Pike
Bethesda, MD 20894
Telephone: (301) 496-6531

Description

The National Library of Medicine publishes TOXNET. This computerized system of data banks and files is oriented toward the toxicology and chemical properties of hazardous substances. Among its component files are: (1) Hazardous Substances Data Bank, a scientifically reviewed and edited data bank containing chemical and toxicological information, environmental fate/exposure, emergency handling procedures, and regulations on approximately 4200 chemicals; (2) Registry of Toxic Effects of Chemical Substances, toxicity data on approximately 91,000 chemicals; (3) Chemical Carcinogenesis Research Information System, data on short and long-term bioassays, mutagenicity and tumor promotion studies; (5) the

LIBRARIES

Environmental Teratology Information Center file, citations from pre-1950 through 1987 on teratology and developmental toxicology. Other data bases in areas such as environmental releases of toxic chemicals, risk assessment, and genetic toxicology are in development.

Format The above mentioned data bases are available through the TOXNET system, an on-line data base.

Availability To obtain further information regarding access and costs, please contact Bruno Vasta.

Natural Disasters Library

Organization INTERTECT

Contact Jean Parker, Projects Coordinator
INTERTECT
PO Box 565502
Dallas, TX 75356
Telephone: (214) 521-8921

Description INTERTECT maintains a library which is open to the public. This library contains books, manuals, field reports, periodicals, slides, and videotapes related to natural disasters and refugee emergencies. INTERTECT also has publications for sale.

Format Published and unpublished hard copies in the library, videos (either VHS or 3/4" Umatic), 35mm slides.

Availability The Library is open to all users. Photocopies of hard copy resources are \$.20 per page. Charges for specific searches are made on a case-by-case basis.

Additional Information Contact INTERTECT for a list of publications and their library classification index.

LIBRARIES

Photographic Library

Organization	Geological Survey
Contact	Librarian Photographic Library US Geological Survey MS 914, Box 25046, Federal Center Denver, CO 80225-0046 Telephone: (303) 236-1010 FTS: 776-1010
Description	The US Geological Survey's Photographic Library contains approximately 300,000 photographs from the US and a few foreign countries. Photographs are cataloged by subject and geographic area, along with captions. The Photographic Library includes photos of: geologic, geomorphologic, and topographic features; natural events; people at work in USGS laboratories, offices, and in the field; historic photos, especially of the Western US, including photos from the pre-1879 Hayden, Powell, Wheeler and King expeditions; and other topics. Material in the Photographic Library dates from the 1860s to the present.
Format	There are about 30,000 color transparencies, and the remainder of the collection is mostly black and white. There is no published catalog. There are manual card catalogs in the library.
Availability	Reproductions are available at cost. A small collection of photos for media use is available through: Visual Information Services US Geological Survey 790 National Center Reston, VA 22092 Telephone: (703) 648-4357 FTS: 959-4357
Additional Information	<u>The US Geological Survey's Photographic Library.</u> U. S. Geological Survey. Reston, VA. 1987. Brochure.

Sea Grant Library

Organization	Pell Library
Contact	Betty Edel, Manager National Sea Grant Depository Pell Library-Bay Campus University of Rhode Island Narragansett, RI 02882
Description	<p>The National Sea Grant Depository, NSGD, is an information and documentation center established by the Office of Sea Grant in 1971 at the University of Rhode Island's Pell Marine Science Library. NSGD aims to ensure that all publications generated by the National Sea Grant Program are available in a single location for loan and archival purposes. NSGD is the only collection of its kind which extends borrowing privileges throughout the world.</p> <p>The collection consists primarily of reprints, technical reports, marine advisory reports, and summaries from conference proceedings. These publications touch on a wide variety of subjects including such areas as: coastal management, aquaculture, fisheries, pollution, ecosystem research, law and socio-economics, and ocean engineering.</p>
Format	Hard copy materials are computer catalogued. The monthly acquisition list provides up-to-date bibliographic information on new acquisitions.
Availability	Materials are available through inter-library loan. The collection may also be used on-site. Packaged literature searches are also conducted on selected topics.
Additional Information	Contact NSGD for a copy of the yearly Sea Grant Publications Index or the monthly Sea Grant Acquisitions List.

Technology, Environment and Development Library

Organization	Center for Technology, Environment and Development
Contact	Jeanne Kasperson, Research Librarian Center for Technology, Environment and Development Clark University Worcester, MA 01610 Telephone: (508) 751-4623

LIBRARIES

Description	The Center for Technology, Environment and Development, CANTED, Library houses a noncirculating research collection, a substantial portion of which deals with risks and hazards. The collection consists of approximately 6000 plus books, 375 journals, data boxes, and computer files.
Format	The Library's catalog is on-line in the OCLC international bibliographic data base. The collection is hard copy; there are specialized computer files as well.
Availability	The library is open M-F from 9am-5pm. While the library is open to the public, the library staff gives priority to CANTED researchers.
Additional Information	Contact the CANTED Library for a list of publications and brochure.

World Hunger Research Library

Organization	Alan Shawn Feinstein World Hunger Program
Contact	Jeanne Kasperon, Senior Research Associate Box 1831 Brown University Providence, RI 02912 Telephone: (401) 863-2797 Telefax: (401) 863-3700
Description	The World Hunger Research Library maintains a multidisciplinary research collection in all aspects of world hunger, from prehistoric times into the future.
Format	The library catalog is on-line in the OCLC, international bibliographic database of library holdings. The collection itself is hard copy.
Availability	Reading room hours are from 9am-5pm, M-F.
Additional Information	Contact the World Hunger Research Library for a list of publications, prospectus, and <u>The Hunger Report: Update</u> .

MAPS, CHARTS, SATELLITE IMAGES

Maps & Photographs

Organization	National Cartographic Information Center
Contact	National Cartographic Information Center US Geological Survey 509 National Center Reston, VA 22092
Description	Aerial Photographs: The National Cartographic Information Center, NCIC, produces the Aerial Photography Summary Record System. The System describes existing aerial photography projects from various federal, state, and commercial sources. The System provides geographic location, date of acquisition, scale, and information about the film and camera, and identifies the holding organization for approximately 500,000 aerial photography projects.
Format	Fifty-three microfiche sets are available for the 50 states, District of Columbia, Pacific Islands, Puerto Rico, and Virgin Islands. Each entry provides a summary record for an aerial photography project that is located by longitude and latitude, and sorted by date. Microfiches and searches are available at cost. The NCIC will assist in locating and ordering aerial photographs.
Availability	Contact the Center at the address listed above, or call the state NCIC office.
Additional Information	For additional information contact NCIC's data base manager at: Telephone: (703) 648-5903 FTS: 959-5903

Description	Digital Elevation Models: The National Cartographic Information Center publishes the <u>Catalog of Cartographic Data</u> . The NCIC also publishes digital representations of terrain elevations produced by the Defense Mapping Agency Topographic Center. The Center plans to make other digital map files available as they are added to the collection.
Format	Computerized maps. Tapes are available for the cost of duplication.
Availability	Write for NCIC's cartographic data catalog.

MAPS, CHARTS, SATELLITE IMAGES

Additional Information

For additional information contact NCIC at:
Telephone: (703) 860-6045
FTS: 959-6045

Description

Mapping:

The National Mapping Division provides information about the US Geological Survey's published topographic maps, topographic maps of other agencies, and nautical charts. These maps and charts cover the US from 1884 to the present.

The National Cartographic Information Center maintains third-order horizontal and vertical geodetic control information established by the US Geological Survey. Vertical control lists are available with descriptions, locations, and elevations of bench marks. Horizontal lists contain descriptions, geodetic and/or geographic positions of transit traverses, triangulations, and electronic traverse stations. These lists cover the US from 1900 to the present.

Format

Hard copy, microfiche, microfilm, and computer printouts.

The NCIC provides diagrams showing the location and order of geodetic control; these are available for \$.50 for each 15 foot block. The National Geodetic Survey is developing a computerized data base of this information.

Availability

Contact NCIC for the Catalog of Cartographic Data.

Additional Information

For additional information contact NCIC at:
Telephone: (703) 860-6045
FTS: 959-6045

Nautical and Aeronautical Charts

Organization

National Oceanic and Atmospheric Administration

Contact

Donald Florwick
National Oceanic and Atmospheric Administration
Charting and Geodetic Services
6001 Executive Boulevard
Rockville, MD 20852
Telephone: (301) 443-8741
FTS: 443-8741

MAPS, CHARTS, SATELLITE IMAGES

Description	National Oceanic and Atmospheric Administration's, NOAA, National Ocean Service produces nautical and aeronautical charts. Nautical charts illustrate the nature and form of the coast, water depths, character of the ocean bottom, aids to navigation such as channel landmarks, navigation hazards, magnetic variations, port and harbor facilities, and cultural details. Nautical charts vary in scale. Aeronautical charts depict communications facilities, navigational charts, airport landing patterns, safe operating procedures, and air traffic rules.
Format	Hard copy.
Availability	Nautical and aeronautical charts are available free of charge from: Distribution Branch, N/CG33 National Ocean Survey National Oceanic and Atmospheric Administration Riverdale, MD 20737-1199

Remote Sensing

Organization	Technology Application Center
Contact	Michael Inglis, Associate Director Technology Application Center University of New Mexico Albuquerque, NM 87131 Telephone: (505) 277-3622 Telefax: (505) 277-3614
Description	The Technology Application Center, TAC, provides digital remote sensing and geographic information system design and development services for natural resources projects and programs. TAC annually holds a four-week, digital-image processing workshop. TAC also engages in several ecological research programs, and provides a photo search service. TAC produces a quarterly review of remote sensing literature.
Format	Hard copy and technical assistance.
Availability	Contact the Center for further information.

MAPS, CHARTS, SATELLITE IMAGES

Remote Sensing

Organization	Wave Propagation Laboratory
Contact	Robert Frost Wave Propagation Laboratory National Oceanic and Atmospheric Administration US Department of Commerce 325 Broadway Boulder, CO 80303 Telephone: (303) 497-6244 Telefax: (303) 497-6750
Description	The Wave Propagation Laboratory, WPL, aims to improve the nation's geophysical research and services through creating and assessing new remote measurement systems. WPL remotely senses lower tropospheric air flows relevant to urban pollution and hazardous emission dispersal. In addition, WPL investigates wave propagation and technical developments, atmospheric and oceanic research, and technology transfer.
Format	Contact WPL for more information.
Availability	Contact WPL for information on current researchers and their research interests.

Satellite Imagery

Organization	National Geophysical Data Center
Contact	National Geophysical Data Center National Oceanic and Atmospheric Administration Code E/GC1 325 Broadway Boulder, CO 80303 Telephone: (303) 497-6729
Description	The National Geophysical Data Center, NGDC, maintains several satellite data sets applicable to Earth studies. The data sets facilitate regional and global levels of analysis. Currently NGDC makes available: GEOSAT, MAGSAT, GEOS-III, and SEASAT.
Format	Write or call NGDC for information and prices on data tapes.
Availability	Contact the NGDC for further information.

MAPS, CHARTS, SATELLITE IMAGES

Satellite Imagery

Organization	National Oceanic and Atmospheric Administration
Contact	Frances Holt, Chief Physical Science Branch National Oceanic and Atmospheric Administration National Environmental Satellite Data and Information Service World Weather Building, Room 601 E/RA 21 Washington, DC 20233 Telephone: (301) 763-8251 FTS: 763-8251
Description	The National Environmental Satellite Data and Information Service maintains a ten year collection of meteorological data and maps, including a browse file of satellite imagery. The Service also offers training films and technical assistance.
Format	Hard copy, computer copy, microfilm, and technical assistance.
Availability	Call to schedule an appointment.

Satellite Imagery

Organization	National Space Science Data Center
Contact	National Aeronautics and Space Administration National Space Science Data Center Code 630.2 Goddard Space Flight Center Greenbelt, MD 20771 Telephone: (301) 286-6695 FTS: 888-6695
Description	The National Space Science Data Center, NSSDC, provides satellite images from Nimbus, geostationary orbital environmental satellites (GOES), synchronous meteorological satellites, SMS, and the heat capacity mapping mission. Data cover the entire world from 1964 to the present.

MAPS, CHARTS, SATELLITE IMAGES

Format

Hard copy, computer tapes, microfilm, microfiche, prints, and positive and negative transparencies.

Availability

Nimbus, GOES, and SMS User's Guides are available from NSSDC.

See also the following appendices:

- Geological Survey
- National Weather Service

PROFESSIONAL ORGANIZATIONS

Avalanche

Organization	American Association of Avalanche Professionals
Contact	Editor American Association of Avalanche Professionals PO Box 510904 Salt Lake City, UT 84151
Description	The American Association of Avalanche Professionals, AAAP, deals with all issues relating to avalanches, and produces <u>The Avalanche Review</u> .
Format	Hard copy.
Availability	Write for a subscription or membership information. The AAAP publishes <u>The Avalanche Review</u> monthly from October through March; a yearly subscription is \$18.00.

Dam Safety

Organization	Association of State Dam Safety Officials
Contact	Lori Spragens, Executive Director Association of State Dam Safety Officials PO Box 55270 Lexington, KY 40555 Telephone: (606) 257-5140
Description	The Association of State Dam Safety Officials, ASDSO, compiles a publication, <u>Bibliography on Dam Safety</u> . The group also makes available its mailing list of dam safety officials.
Format	Hard copy and diskette.
Availability	Write to ASDSO for membership and publication information.

PROFESSIONAL ORGANIZATIONS

Disaster Experts

Organization	Association of International Disaster Experts
Contact	Claire Rubin Association of International Disaster Experts PO Box 2208 Arlington, VA 22202 Telephone: (202) 676-7386
Description	<p>This professional association of emergency and disaster management specialists adheres to the following objectives:</p> <ol style="list-style-type: none">1) To create an association of persons throughout the world who are engaged in projects in the fields of emergency management and disasters;2) To enable members to meet other persons engaged in related work in order to share experience and develop collaborative efforts;3) To provide a directory of members that includes details about expertise and experience; and4) To meet annually to discuss consulting opportunities and other aspects of work in these fields that are of general interest.
Format	Professional association.
Availability	Membership is open to professionals--teachers, researchers, administrators, managers, and consultants--working in the areas of emergency management and disaster response for natural and technological disasters, as well as hostage taking, and terrorism.
Additional Information	For further information or a membership application contact Claire Rubin.

PROFESSIONAL ORGANIZATIONS

Earth Sciences

Organization	The Royal Society of Edinburgh
Contact	Janet Crichton, Assistant to the Publications Secretary The Royal Society of Edinburgh 22/24 George Street Edinburgh EH2 2PQ Scotland United Kingdom Telephone: [44] (31) 225-6057
Description	Publications of the Royal Society of Edinburgh cover all aspects of earth and related planetary sciences. Contributions emphasize principles and worldwide topics.
Format	Hard copy.
Availability	Contact the Royal Society of Edinburgh's headquarters for publication and price information.

Earthquake

Organization	Earthquake Engineering Research Institute
Contact	Susan Tubbesing, Executive Director Earthquake Engineering Research Institute 6431 Fairmount Avenue, Suite 7 El Cerrito, CA 94611 Telephone: (415) 525-3668 Telefax: (415) 524-9577 Email is also available.
Description	The Earthquake Engineering Research Institute is a national, not-for-profit, technical society of engineers, geoscientists, architects, planners, public officials, and social scientists. The Institute offers both membership and technical assistance, including technical monographs, a newsletter, a journal, and a conference.
Format	Hard copy, slides, and technical assistance.
Availability	Contact Susan Tubbesing for membership and publication information.

PROFESSIONAL ORGANIZATIONS

Earthquake

Organization	Seismological Society of America
Contact	Susan Newman, Director Seismological Society of America 201 Plaza Professional Building El Cerrito, CA 94530 Telephone: (415) 525-5474
Description	The Seismological Society of America, SSA, publishes a bi-monthly journal, <u>The Bulletin of the Seismological Society of America</u> , of advanced research in seismology and related fields. The bulletin is available by membership or subscription.
Format	Hard copy. Back issues are available in microform.
Availability	Contact the SSA for membership and subscription information.

Emergency Management

Organization	National Coordinating Council on Emergency Management
Contact	Elizabeth Buzzerd, Executive Manager National Coordinating Council on Emergency Management 7297 Lee Highway, Unit N Falls Church, VA 22042 Telephone: (703) 533-7672 Telex: (703) 241-5603
Description	The National Coordinating Council on Emergency Management, NCCEM, is the only national organization of local emergency managers and civil defense coordinators. Membership is open to any person or organization. Members receive networking opportunities with the other 1,200 members at both an annual and mid-year conference, and at an annual exhibition. Members also receive a monthly newsletter, the <u>NCCEM Bulletin</u> .
Format	Hard copy.
Availability	Membership is \$50 per year for an individual and \$150 per year for an organization.

PROFESSIONAL ORGANIZATIONS

Fire

Organization	National Fire Protection Association
Contact	Martin Henry, Director Public Fire Protection Division National Fire Protection Association Batterymarch Park Quincy, MA 02269 Telephone: (617) 770-3000 Telex: (617) 770-0700
Description	The National Fire Protection Association, NFPA, founded in 1896, addresses virtually every aspect of fire protection. NFPA's mission is to safeguard humans and their environment from fire. Membership totals more than 40,000 fire protection and prevention professionals. NFPA maintains fire data, performs data analysis, develops codes for fire investigations, and provides educational materials.
Format	Hard copy, videos, 16mm movies, and slide-tape sets.
Availability	Call or write NFPA.
Additional Information	<u>Directory of Member Services.</u> NFPA. Quincy, MA 02269. <u>The NFPA Catalog.</u> 1988. NFPA. Quincy, MA 02269.

Flood

Organization	Association of State Floodplain Managers
Contact	Larry Larson, Executive Director Association of State Floodplain Managers, Inc. PO Box 2051 Madison, WI 53701-2051 Telephone: (608) 266-1926 Telefax: (608) 267-3579
Description	The Association of State Floodplain Managers, ASFM, maintains a national resource center on floodplain management. ASFM's computerized indexing system provides quick references for any caller.

PROFESSIONAL ORGANIZATIONS

Format Hard and computer copy.

Availability Write or call AFSPM for user information.

Flood

Organization National Association of Flood and Stormwater Management Agencies

Contact Diane VanDeHei, Assistant Executive Director
National Association of Flood and Stormwater Management Agencies
1225 Eye Street, NW
Washington, DC 20005
Telephone: (202) 682-3761 Ext. 204

Description The National Association of Flood and Stormwater Management Agencies, NAFSMA, informs Congress and Federal policy makers on a broad range of water resources management issues. These issues include: stormwater management, flood prevention, damage mitigation, disaster assistance, flood insurance, and flood control project authorizations. NAFSMA publishes a review of The Federal Register, as well as a monthly newsletter. The organization also hosts an annual meeting and various committees.

Format Hard copy and technical assistance.

Availability Contact NAFSMA for further information.

Geography

Organization American Geographical Society

Contact Mary Lynne Bird, Director
American Geographical Society
156 Fifth Avenue
New York, NY 10010-7002
Telephone: (212) 242-0214

Description The American Geographical Society has produced a scholarly journal, Geographical Review, for 71 years. An index of hazards articles in the Review is also available.

PROFESSIONAL ORGANIZATIONS

Format	Hard copy.
Availability	<u>Geographical Review</u> is available in any academic library and in many public libraries.

Geography

Organization	Association of American Geographers
Contact	Roger Kasperson, Treasurer Hazards Specialty Group CENTED Clark University Worcester, MA 01610 Telephone: (508) 793-7665
Description	<p>In 1987 a group of interested geographers formed the Hazards Specialty Group, HSG, of the Association of American Geographers, AAG. The organization's three-fold mission is to:</p> <ol style="list-style-type: none">1) Promote research, education, and the application of knowledge about natural, technological, and social hazards;2) Strengthen communication and collaborative activities among geographers who share an interests in hazards; and3) Encourage collaboration between geographers and members of other disciplines and professions that share an interest in hazards. <p>The organization is open to all interested AAG members, although other persons who are members of related professional organizations may become HSG affiliates. The organization publishes a newsletter, <u>Hazards</u>, that reports on: research in progress, activities of national and international hazards organizations, the findings and publications of university and government research centers, and publications and theses titles of members and affiliates. The group presents sessions on hazards issues at the national AAG level.</p>
Format	Professional society.
Availability	The group actively seeks additional members. Membership and subscription to <u>Hazards</u> may be obtained by sending a check for \$5 payable to CENTED/HSG, attention-Roger Kasperson.
Additional Information	The group seeks timely information to be included in the newsletter.

PROFESSIONAL ORGANIZATIONS

Geology

Organization	International Association of Engineering Geology
Contact	L. Primel, Secretary General International Association of Engineering Geology 58 Boulevard Lefebvre 75732 Paris Cedex 15 France Telephone: [33] (1) 40-43-56-43 Telex: (33) LCPARI 200361 F. Telefax: [33] (1) 40-43-54-98
Description	The International Association of Engineering Geology is an international organization devoted to hazards. The Association publishes papers in the semi-annual <u>Bulletin of the IAEG</u> .
Format	Hard copy.
Availability	The secretary general will forward the bulletin number requested.

Geology

Organization	Sociedad Geologica Mexicana
Contact	Ing. Bernardo Martell Andrade, President Sociedad Geologica Mexicana Torres Bodet 176, Sta. Ma. La Rivera C.P. 06400 Mexico City Mexico Telephone: [52] (5) 47-26-66
Description	Sociedad Geologica Mexicana (Mexican Geologic Association) publishes <u>The Mexican Geologic Society Bulletin</u> twice a year. The bulletin contains information about the geologic characteristics of Mexico.
Format	Hard copy.
Availability	It costs \$15 per year for a subscription to the Bulletin.

PROFESSIONAL ORGANIZATIONS

Geology

Organization	Societe Belge de Geologie
Contact	M. Duser, Secretary-General Jenner Str. 13 B 1040 Brussels Belgium Telephone: [32] (2) 6476400 Telefax: [32] (2) 6477359
Description	The Belgian Geological Society produces a scientific bulletin and an informational publication on natural hazards. The <u>Bulletin</u> contains scientific articles on Belgian geological phenomena, as well as studies by Belgians and associated earth scientists. <u>Miscellanea</u> provides information on upcoming events, gives information on student research topics, and relates events and hazards mentioned in the press.
Format	Hard copy. The <u>Bulletin</u> , a scientific periodical, is distributed quarterly, and <u>Miscellanea</u> , an information newsletter, is distributed monthly.
Availability	Subscription to the <u>Bulletin</u> is 1200 Belgian Francs per year. Subscription to <u>Miscellanea</u> is 500 Belgian Francs per year.

Geophysics

Organization	American Geophysical Union
Contact	Director American Geophysical Union 2000 Florida Avenue NW Washington, DC 20009 Telephone: (202) 462-6900
Description	The American Geophysical Union, AGU, has been expanding the frontiers of the geophysical sciences for almost 70 years. The AGU publishes a weekly geophysics newsletter and a monthly magazine, <u>Physics Today</u> . In addition, the AGU publishes numerous journals dealing with atmospheric, oceanic, hydrologic, and space sciences.
Format	Hard copy and microfiche.
Availability	Contact the AGU office for membership information and a publication price list.

PROFESSIONAL ORGANIZATIONS

Geotechnology

Organization	Canadian Geotechnical Society
Contact	A. Stermag, Director General Canadian Geotechnical Society 170 Atwell Drive, Suite 602 Rexdale, Ontario M9W 5Z5 Canada
Description	The Canadian Geotechnical Society, CGS, is a federally incorporated non-profit organization which facilitates information exchange and technology transfer within four divisions: soil mechanics and foundations, engineering geology, rock mechanics, and cold regions technology. The CGS produces a newsletter, <u>Geotechnical News</u> , as well as technical publications. CSG has hosted the Annual Geotechnical Society Conference since 1947, and also offers a lecture tour, workshops and seminars, national and international liaisons, and assistance to developing countries.
Format	Hard copy and technical assistance.
Availability	Contact CGS for membership information.

Hydrology

Organization	American Institute of Hydrology
Contact	Helen Klose, Executive Manager American Institute of Hydrology 3416 University Avenue SE, Suite 200 Minneapolis, MN 55414 Telephone: (612) 379-1030
Description	The American Institute of Hydrology publishes the quarterly journal, <u>Hydrological Science and Technology Journal</u> . The journal communicates new techniques, methods, and summaries of hydrological projects or investigations, including water pollution and hazardous waste issues.
Format	Hard copy.
Availability	Subscription to the Journal is available to members for \$24 annually and \$48 for non-members.

PROFESSIONAL ORGANIZATIONS

Insurance

Organization	National Association of Independent Insurers
Contact	C. Robert Hall, Vice President National Association of Independent Insurers 2600 River Road Des Plaines, IL 60018 Telephone: (312) 297-7800
Description	The National Association of Independent Insurers, NAII, is a trade association which represents over 550 insurance companies. These companies write over 25 percent of property insurance nationally, and represent all aspects of the insurance industry including: legal, actuarial, risk selection, and losses.
Format	Hard copy papers and bulletins relating to property and liability insurance.
Availability	Contact C. Robert Hall.

Insurance

Organization	National Committee on Property Insurance
Contact	Director of Information Services National Committee on Property Insurance Ten Winthrop Square Boston, MA 02110 Telephone: (617) 423-4620 Telex: (617) 423-7633
Description	The National Committee on Property Insurance, NCPI, is the All Industry Insurance Forum for the review and discussion of matters relating to residual and distress property insurance markets. NCPI is also the repository for all Residual Property Insurance Plans, as well as their data and results. In addition, NCPI is the host organization for the Earthquake Project.
Format	Hard copy.
Availability	Contact NCPI.
Additional Information	NCPI provides a list of publications which includes topics from beach and wind plans to guidelines for state property insurance plans.

PROFESSIONAL ORGANIZATIONS

Medical Services

Organization	The National Association of State Emergency Medical Services Directors
Contact	Larry Jordan, President The National Association of State Emergency Medical Services Iron Works Pike PO Box 11910 Lexington, KY 40578-1910 Telephone: (606) 231-1903
Description	The National Association of State Emergency Medical Services Directors, NASEMSD, formed in 1980 to enhance the effectiveness of emergency medical services, EMS, across all states. NASEMSD is a vehicle for state EMS directors to exchange information.
Format	Hard copy reports.
Availability	Contact the NASEMSD.
Additional Information	National EMS Clearinghouse. <u>The EMS Office: Its Structure and Functions</u> . The Council of State Governments: Lexington, KY. 1988. Other available titles include: <u>State Emergency Medical Services Transportation Systems and Available Facilities</u> , <u>State Emergency Medical Services Public Information and Education Systems</u> , <u>State Emergency Medical Services Communications Systems and Disaster Preparedness</u> , and <u>Training and Certification of EMS Personnel</u> . All these publications are available from the Council of State Governments, PO Box 11910, Iron Works Pike, Lexington, KY 40578, (606) 252-2291.

Meteorology

Organization	American Meteorological Society
Contact	Richard Hallgren, Executive Director American Meteorological Society 45 Beacon Street Boston, MA 02108 Telephone: (617) 227-2425 Telefax: (617) 742-8718
Description	The American Meteorological Society, AMS, represents professional meteorologists nationwide.

PROFESSIONAL ORGANIZATIONS

Format	Contact the AMS for format information.
Availability	Call or write the AMS headquarters listed above.
Additional Information	List of publications.

Natural Hazards

Organization	Natural Hazards Society
Contact	M. El-Sabh International Society for the Prevention and Mitigation of Natural Hazards 310 Allee des Ursulines Rimouski, Quebec Canada G5L 3A1
Description	<p>The International Society for the Prevention and Mitigation of Natural Hazards--The Natural Hazards Society, NHS, founded in 1988, is a professional society espousing the following goals:</p> <ol style="list-style-type: none">1) Promotion of research in all aspects of natural hazards;2) Distribution of preparedness and emergency response plans for all countries; and3) Formulation and implementation of educational programs concerning hazard prevention and mitigation. <p>The society will hold at least one international scientific meeting every two years in different parts of the world, with special symposia on topical natural disaster events or natural hazard studies. In addition, the NHS will co-sponsor appropriate scientific meetings, summer school programs, or workshops organized by other bodies. <u>Natural Hazards: An International Journal of Hazards Research and Prevention</u>, published by Kluwer Academic Publishers of the Netherlands, is now the official scientific publication of the society.</p>
Format	Hard copy journal, scientific meetings.
Availability	Membership in the NHS is open to all international scientists and policy makers actively engaged in natural hazard studies or the prevention and mitigation of natural disasters. For 1989, an individual membership costs \$20 (\$5 for students). Members are eligible to receive <u>Natural Hazards</u> at a reduced rate, and can attend the biannual meetings for a reduced fee.
Additional Information	Sections of the NHS may be organized as provided in the bylaws. Sections consist of members of the Society and other concerned persons who reside

PROFESSIONAL ORGANIZATIONS

near one another or share a common interest or problem. For further information about the Society or a membership application, write M. El-Sabh.

Planning

Organization	American Planning Association
Contact	Director American Planning Association 1313 East 60th Street Chicago, IL 60637 Telephone: (312) 955-9100
Description	The American Planning Association, APA, is a national organization of planners and citizens who work for better-planned communities. Through publications, research, and conferences, APA informs members on ways to improve national planning policies. The American Institute of Certified Planners is a part of APA that concentrates on standards and continuing education for the planning profession. APA provides research reports, monthly newsletters, the answer service for ordinance searches, advice, and loan services, as well as a variety of publications including <u>Zoning News</u> , <u>APA Journal</u> , and <u>Planning</u> . In particular, the APA maintains a disaster planning file.
Format	Hard copy and technical assistance.
Availability	Membership for the APA is salary-based; contact the APA for further information.

Planning Systems

Organization	Urban and Regional Information Systems Association
Contact	Bob Alexander US Geological Survey Denver Federal Center Box 25046, MS-516 Denver, CO 80225 Telephone: (303) 236-5838
Description	The Urban and Regional Information Systems Association, URISA, is the oldest and largest professional organization for individuals concerned with

PROFESSIONAL ORGANIZATIONS

the effective use of information systems technology at the state, regional, and local levels. URISA advances interdisciplinary professional approaches to the planning, design, operation, and use of information systems for public management. URISA strives for mutual understanding among managers, technicians, and users of information technology so that integrated systems may be developed which provide information vertically to top management and horizontally among professional disciplines.

URISA organized a public safety special-interest group which relates urban and regional information technology to the fields of emergency management, natural and technological hazards, and public safety.

Format Professional organization.

Availability To become involved in URISA and the new special interest group on hazards and emergency management, contact Bob Alexander.

Public Works

Organization American Public Works Association

Contact Ronald Sears, Director of Education
American Public Works Association
Council on Emergency Management
1313 East Sixteenth Street
Chicago, IL 60637
Telephone: (312) 667-2200

Description The American Public Works Association, APWA, with nearly 27,000 members nationwide, conducts educational workshops, inservice programs, and technical session seminars on public works. APWA produces a quarterly newsletter, as well as a series of manuals directed at public works personnel. The APWA has a Council on Emergency Management.

Format Hard copy and technical assistance.

Availability Contact Ronald Sears.

PROFESSIONAL ORGANIZATIONS

Soil and Water Conservation

Organization	Soil and Water Conservation Society
Contact	Tim Kautza, Program Assistant Soil and Water Conservation Society 7515 NE Ankeny Road Ankeny, IA 50021-9764 Telephone: (515) 289-2331
Description	The Soil and Water Conservation Society, SWCS, a nonprofit, scientific, and educational organization, works to conserve the land, water, and related resources. The SWCS offers annual meetings and conferences as well as a scholarship program. SWCS publications include: the <u>Journal of Soil and Water Conservation</u> , a bimonthly newsletter, and numerous special publications.
Format	Hard copy and technical assistance.
Availability	Contact the SWCS for membership, publication, meeting, or scholarship information.

Testing and Materials

Organization	American Society for Testing and Materials
Contact	Patricia Downey, Manager of Public Relations American Society for Testing and Materials 1916 Race Street Philadelphia, PA 19103 Telephone: (215) 299-5524 Telex: 710-670-1037 Telefax: (215) 977-9679
Description	The American Society for Testing and Materials, ASTM, provides one of the world's largest voluntary standards development systems. The ASTM publishes standard test methods, specifications, practices, guides, classifications, and terminology for materials, construction, and petroleum products. The ASTM publishes annually <u>The Book of ASTM Standards</u> .
Format	Hard copy.
Availability	Contact the ASTM office for publication information.

PROFESSIONAL ORGANIZATIONS

Water Resources

Organization	American Water Resources Association
Contact	Kenneth Reid, Director American Water Resources Association 5410 Grosvenor Lane, Suite 220 Bethesda, MD 20814 Telephone: (301) 493-8600
Description	The American Water Resources Association publishes the <u>Water Resources Bulletin</u> , an interdisciplinary scientific journal of water resources.
Format	Hard copy.
Availability	Contact the American Water Resources Association for further information.

Wetlands

Organization	Association of State Wetlands Managers
Contact	Jon Kusler, Executive Director Association of State Wetlands Managers PO Box 2463 Berne, NY 12023 Telephone: (518) 872-1804
Description	The Association of State Wetlands Managers promotes the exchange and dissemination of information between wetland managers and other interested parties. The Association improves public education by providing state-of-the-art wetland protection information and techniques via workshops, seminars, lectures, and publications. The Association also publishes a newsletter.
Format	Hard copy and technical assistance.
Availability	The newsletter is available to members on a quarterly basis.

PROFESSIONAL ORGANIZATIONS

Wind Engineering

Organization	Wind Engineering Research Council
Contact	Kishor Mehta, President Wind Engineering Research Council, Inc. Box 4089 Texas Tech University Lubbock, TX 79409 Telephone: (806) 742-1900
Description	The Wind Engineering Research Council, WERC, provides primarily engineers with referrals to technical experts on wind-related topics. WERC connects engineers with experts on wind-induced damages, windstorms, hurricanes, tornadoes, and wind engineering research.
Format	Technical referrals.
Availability	Contact Kishor Mehta.

APPENDICES

State Offices

STATE CLIMATOLOGISTS

(Conduct climatological research, provide climatological information, and archive weather records for the state.)

ALABAMA

Richard McNider, State Climatologist
Alabama Office of State Climatology
University of Alabama at Huntsville
Johnson Research Center
Huntsville, AL 35899
(205) 895-6257

ALASKA

James Wise, State Climatologist
AEIDC/University of Alaska
Alaska Climate Center
707 A Street
Anchorage, AK 99501
(907) 279-4523

ARIZONA

Anthony Brazel, State Climatologist
The Laboratory of Climatology
Arizona State University
Tempe, AZ 85287
(602) 965-6265

ARKANSAS

John Hehr, State Climatologist
Dept. of Geography
Carnall Hall 104
University of Arkansas
Fayetteville, AR 72701
(501) 575-3159

CALIFORNIA

William Mork, Director, State Climatologist
California Dept. of Water Resources
Div. of Flood Management
PO Box 388
Sacramento, CA 95802
(916) 445-5800

COLORADO

Thomas McKee, State Climatologist
Colorado Climate Center
Dept. of Atmospheric Science
Colorado State University
Fort Collins, CO 80523
(303) 491-8545

CONNECTICUT

David Miller, State Climatologist
Dept. of Renewable Natural Resources
1376 Storrs Road, Room 308
WBY Building
Box U-87
University of Connecticut
Storrs, CT 06268
(203) 486-2840

DELAWARE

John Mather, State Climatologist
State Climatologist for Delaware
Center for Climatic Research
Dept. of Geography
University of Delaware
Newark, DE 19716
(302) 451-8998

FLORIDA

Thomas Gleeson, State Climatologist
Dept. of Meteorology
Florida State University
Tallahassee, FL 32306
(904) 644-3417

GEORGIA

Gayther Plummer, State Climatologist
Institute of Natural Resources Ecology
Building
University of Georgia
Athens, GA 30602
(404) 542-1555

HAWAII

Manabu Tagomori, State Climatologist
State Dept. of Land & Natural Resources
Div. of Water & Land Development
PO Box 373
Honolulu, HI 96809
(808) 548-7539

IDAHO

Myron Molnau, State Climatologist
Agricultural Engineering Dept.
University of Idaho
Moscow, ID 83843
(208) 885-6182

ILLINOIS

Wayne Wedland, State Climatologist
Illinois State Water Survey
2204 Griffith Dr.
Champaign, IL 61820
(217) 333-0729

INDIANA

Ken Scheeringa, State Climatologist
Agronomy Dept.
Purdue University
West Lafayette, IN 47907-7899
(317) 494-4772

IOWA

Harry Hillaker, Jr., State Climatologist
Iowa Dept. of Agriculture Weather Service
Municipal Airport, Room 10
Des Moines, IA 50321
(515) 281-4062

KANSAS

Dean Bark, State Climatologist
CES Computer System Office
Umberger Hall, Room 211
Kansas State University
Manhattan, KS 66506
(913) 532-6814

KENTUCKY

Glen Conner, State Climatologist
Dept. of Geography & Geology
Western Kentucky University
Bowling Green, KY 42101
(502) 745-4555

LOUISIANA

Robert Muller, State Climatologist
Dept. of Geography & Anthropology
Louisiana State University
Baton Rouge, LA 70803
(504) 388-6184

MAINE

Bernard Dethier, State Climatologist
1 Winslow Hall
University of Maine
Orono, ME 04469-0163
(207) 581-7980

MARYLAND

George Huffman, State Climatologist
1123A Jull Hall
University of Maryland
College Park, MD 20742
(301) 454-3110

MASSACHUSETTS

David Taylor, State Climatologist
Dept. of Environmental Management
Div. of Water Resources
496 Park Street
North Reading, MA 01864
(617) 275-8860, Ext. 138

MICHIGAN

Fred Nurnberger, State Climatologist
MDA/Climatology Div.
417 Natural Science Building
Michigan State University
East Lansing, MI 48824
(517) 373-8338

MINNESOTA

Jim Zandlo, Jr., State Climatologist
Minnesota Dept. of Natural Resources
University of Minnesota
S-325 Borlang Hall
St. Paul, MN 55108
(612) 296-4214

MISSISSIPPI

Charles Wax, State Climatologist
Dept. of Geology & Geography
Mississippi State University
Mississippi State, MS 39762
(601) 325-3915

MISSOURI

Wayne Decker, State Climatologist
Dept. of Atmospheric Science
University of Missouri at Columbia
701 Hitt Street
Columbia, MO 65211
(314) 882-6591

MONTANA

Joseph Caprio, State Climatologist
Plant & Soil Science Dept.
Montana State University
Bozeman, MT 59717
(406) 994-5067

NEBRASKA

Kenneth Hubbard, State Climatologist
CAMAC
237 Chase Hall (0728)
University of Nebraska
Lincoln, NE 68583-0728
(402) 472-6706

NEVADA

John James, State Climatologist
Geography Dept.
College of Arts & Sciences
University of Nevada at Reno
Reno, NV 89557-0048
(702) 784-6995

NEW HAMPSHIRE

Robert Adams, State Climatologist
Dept. of Geography, James Hall
University of New Hampshire
Durham, NH 03824
(603) 862-1719

NEW JERSEY

Mark Shulman, State Climatologist
Dept. of Meteorology &
Physical Oceanography
Cook College, Rutgers University
PO Box 231
New Brunswick, NJ 08903
(201) 932-9318

NEW MEXICO

Office of the State Climatologist
PO Box 5702
New Mexico Dept. of Agriculture
Las Cruces, NM 88003
(505) 646-2642

NEW YORK

Keith Eggleston
Atmospheric Science Unit
Box 21, Bradfield Hall
Cornell University
Ithaca, NY 14853
(607) 255-3034

NORTH CAROLINA

Jerry Davis, State Climatologist
Dept. of Marine, Earth &
Atmospheric Science
Box 8208
North Carolina State University
Raleigh, NC 27695-8208
(919) 737-7243

NORTH DAKOTA

John Enz, State Climatologist
Soils Dept.
North Dakota State University
Fargo, ND 58105
(701) 237-8576

OHIO

Jeffrey Rogers, State Climatologist
Dept. of Geography
Ohio State University
103 Bricker Hall
Columbus, OH 43210-1361
(614) 422-2514

OKLAHOMA

Claude Duchon, State Climatologist
Oklahoma Climatological Survey
University of Oklahoma
710 ASP, Suite 8
Norman, OK 73019
(405) 325-2541

OREGON

Kelly Redmond, State Climatologist
Office of the State Climatologist
Climate Research Institute
Oregon State University
Corvallis, OR 97331
(503) 754-3714

RHODE ISLAND

Robert Wakefield, State Climatologist
Dept. of Plant Sciences
Room 313, Woodward Hall
University of Rhode Island
Kingston, RI 02881
(401) 792-4549

SOUTH CAROLINA

John Purvis, State Climatologist
SC State Climatology Office
1201 Main Street, Suite 1100
Capital Center
Columbia, SC 29201
(803) 737-0811

SOUTH DAKOTA

Harold Werner, State Climatologist
Agricultural Engineering Dept.
South Dakota State University
Brookings, SD 57007
(605) 688-5141

TENNESSEE

Wayne Hamburger, State Climatologist
Tennessee Valley Authority
310 Evans Building
Knoxville, TN 37902
(615) 632-4222

TEXAS

John Griffiths, State Climatologist
Meteorology Dept.
Texas A&M University
College Station, TX 77843
(409) 845-7320

UTAH

Gail Bingham, State Climatologist
Utah State University, UMC-48
Logan, UT 84322
(801) 750-2190

VERMONT

Leonard Perry, State Climatologist
Hills Building
University of Vermont
Burlington, VT 05401
(802) 656-2630

VIRGINIA

Patrick Michaels, State Climatologist
Dept. of Environmental Sciences
Clark Hall
University of Virginia
Charlottesville, VA 22903
(804) 924-0549

WASHINGTON

Mark Albright, State Climatologist
Atmospheric Sciences Dept.
University of Washington, AK-40
Seattle, WA 98195
(206) 543-0448

WEST VIRGINIA

Stanley Tajchman, State Climatologist
Div. of Forestry
337 Perceival Hall
West Virginia University
Morgantown, WV 26505
(304) 293-3411

WISCONSIN

Douglas Clark, State Climatologist
University of Wisconsin Extension
1353 Meteorology & Space Science Building
1224 West Dayton Street
Madison, WI 53706
(608) 263-2374

WYOMING

Victor Hasfurther, State Climatologist
Wyoming Water Research Center
The University of Wyoming
PO Box 3067
Laramie, WY 82071
(307) 766-2143

COASTAL ZONE MANAGEMENT

(Plans and Implements programs for the orderly development of coastal zones.)

ALABAMA

Thomas Savage, Director
Coastal Area Program
Environmental Management Dept.
3263 Demetropolis Road, #10
Mobile, AL 36609
(205) 271-7700

GEORGIA

Duane Harris, Director
Coastal Resources Div.
Dept. of Natural Resources
1200 Glynn Avenue
Brunswick, GA 31523
(912) 264-7221

MARYLAND

Lee Zeni, Administrator
Tidewater Administration
Dept. of Natural Resources
Tawes State Office Building
Annapolis, MD 21401
(301) 974-2926

ALASKA

Thomas Hawkins, Director
Div. of Land & Water Management
Dept. of Natural Resources
PO Box 7005
Anchorage, AK 99510
(907) 762-4355

HAWAII

Tatsuo Fujimoto, Div. Head
Planning Div.
Office of State Planning
PO Box 2359
Honolulu, HI 96804
(808) 548-4610

MASSACHUSETTS

Richard Delaney, Director
Coastal Zone Management
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, MA 02202
(617) 727-9530

CALIFORNIA

Michael Wornum, Chairman
Coastal Commission
631 Howard Street, 4th Floor
San Francisco, CA 94105
(415) 543-8555

ILLINOIS

Daniel Injerd, Section Chief
Lake Michigan Management Section
Div. of Water Resources
310 S. Michigan, Room 1606
Chicago, IL 60604
(312) 793-3123

MICHIGAN

Christopher Shafer, Chief
Great Lakes Shoreland Section
Dept. of Natural Resources
PO Box 30028
Lansing, MI 48909
(517) 373-1950

CONNECTICUT

Arthur Rocque, Director
Planning & Coastal Area Management
Environmental Protection Dept.
165 Capitol Avenue
Hartford, CT 06106
(203) 566-7404

INDIANA

Dick Wawrvyniak, Assistant Director
Div. of Water
Dept. of Natural Resources
2475 Director's Row
Indianapolis, IN 46241
(317) 232-4221

MINNESOTA

Larry Seymour, Director
Water Division
Dept. of Natural Resources
500 Lafayette Road
St. Paul, MN 55155
(612) 296-4810

DELAWARE

Robert Henry II, Manager
Beach Preservation Section
Div. of Soil & Water Conservation
PO Box 1401
89 Kings Hwy.
Dover, DE 19901
(302) 736-4411

LOUISIANA

Chip Groat, Director
Office of Coastal Management
Dept. of Natural Resources
PO Box 44124
Baton Rouge, LA 70804
(504) 342-4503

MISSISSIPPI

Rick Leard, Director
Bureau of Marine Resources
Dept. of Wildlife Conservation
University of Mississippi
Gulfport Campus
Long Beach, MS 39560
(601) 864-4602

FLORIDA

David Worley, Environmental Administrator
Coastal Zone Management
Environmental Regulation Dept.
2600 Blairstone Road
Tallahassee, FL 32301
(904) 488-4805

MAINE

Richard Silkman, Director
State Planning Office
State House Station #38
Augusta, ME 04333
(207) 289-3261

NEW HAMPSHIRE

John Dabalewicz, Director
Office of State Planning
2 1/2 Beacon Street
Concord, NH 03301
(603) 271-2155

NEW JERSEY

John Weingart, Director
Div. of Coastal Resources
Environmental Protection Dept.
John Fitch Plaza, CN402
Trenton, NJ 08625
(609) 292-2795

NEW YORK

Thomas Jorling, Commissioner
Dept. of Environmental Conservation
50 Wolf Road
Albany, NY 12233
(518) 457-3446

NORTH CAROLINA

David Owens, Director
Coastal Management Div.
Natural Resources &
Community Development
512 North Salisbury Street
Raleigh, NC 27611
(919) 733-2293

OHIO

Robert Goettmoeller, Chief
Division of Water
Dept. of Natural Resources
Fountain Square Building E
Columbus, OH 43224
(614) 265-6712

OREGON

James Ross, Director
Policy Division
Dept. of Land Conservation & Development
1175 Court Street, NE
Salem, OR 97310
(503) 378-4928

PENNSYLVANIA

John McSparran, Director
Bureau of Water Resources Management
Dept. of Environmental Resources, Room
208
Evangelical Press Building
Harrisburg, PA 17120
(717) 787-6750

RHODE ISLAND

William Miner, Chairman
Coastal Resources Management Council
60 Davis Street
Providence, RI 02903
(401) 277-2476

SOUTH CAROLINA

H. Wayne Beam, Executive Director
Coastal Council
1116 Bankers Trust Tower
Columbia, SC 29201
(803) 734-1220

TEXAS

Bob Davis, Director
Governor's Office of Budget & Planning
Box 12428, Capitol Station
Austin, TX 78711
(512) 463-1778

VIRGINIA

Keith Buttleman, Administrator
Council on Environment, Room 903
Ninth Street Office Building
Richmond, VA 23219
(804) 786-4500

WASHINGTON

John De Meyer, Manager
Div. of Aquatic Lands
Dept. of Natural Resources
202 John Cherberg Building
Olympia, WA 98504
(206) 753-5326

WISCONSIN

William Brah, Director
Coastal Management Section
Dept. of Administration
PO Box 7864
Madison, WI 53707
(608) 266-3687

AMERICAN SAMOA

Coordinator
Office of Development Planning
Pago Pago, American Samoa 96799
(684) 633-5165

NORTHERN MARIANA ISLANDS

Robert Rudolph, Administrator
Coastal Resources Management Office
Office of the Governor
Saipan, CM 96950
(670) 234-6623

PUERTO RICO

Jose Gonzal Liboy, Sub-Secretary
Coastal Zone Div.
Puerta de Tierra
PO Box 5887
San Juan, PR 00904
(809) 725-2769

VIRGIN ISLANDS

Benjamin Nazario, Director
Coastal Zone Management Commission
#79 Altona & Welgunst
St. Thomas, Virgin Islands 00802
(809) 774-3320

EMERGENCY MANAGEMENT

(Prepares, maintains and implements state disaster plans and coordinates emergency activities.)

ALABAMA

Danny Cooper, Director
Emergency Management
520 S. Court Street
Montgomery, AL 36130
(203) 834-1375

Dan Turner, Director
Emergency Management Agency
64 North Union Street
Montgomery, AL 36130
(205) 261-3318

ALASKA

Ervin Martin, Director
Div. of Emergency Services
Military & Veterans Affairs Dept.
3501 East Bogard Road
Wasilla, AK 99687
(907) 249-1370

ARIZONA

Richard Colson, Director
Office of Emergency Services
Emergency & Military Affairs Dept.
5636 East McDowell Road
Phoenix, AZ 85008
(602) 231-6245

ARKANSAS

Leon McGoogan, Director
Office of Emergency Services
PO Box 758
Conway, AR 72032
(501) 329-5601

CALIFORNIA

William Medigovich, Director
Office of Emergency Services
2800 Meadowview Road
Sacramento, CA 95823
(916) 427-4990

COLORADO

John Byrne, Director
Disaster Emergency Services
DOC, Camp George West
Golden, CO 80401
(303) 273-1624

CONNECTICUT

Frank Mancusco, Director
Office of Civil Preparedness
Dept. of Public Safety
360 Broad Street
Hartford, CT 06105
(203) 566-3180

DELAWARE

Clarke Jester, Director
Div. of Emergency Planning Operations
PO Box C
Delaware City, DE 19706
(302) 834-4531

FLORIDA

Gordon Guthrie, Director
Bureau of Emergency Management
1720 S. Gadsden Street
Tallahassee, FL 32301
(904) 488-1900

GEORGIA

Billy Clack, Director
Emergency Management Agency
PO Box 18055
Atlanta, GA 30316
(404) 656-5500

Joseph Griffin
Adjutant General
Dept. of Defense
PO Box 17965
Atlanta, GA 30316
(404) 656-1700

HAWAII

Alexis Lum, Adjutant General of the
National Guard & Civil Defense
Dept. of Defense
3949 Diamond Head Road
Honolulu, HI 86816
(808) 734-2145

IDAHO

Darrell Waller, Coordinator
Bureau of Disaster Services
Military Division
650 West State Street
Boise, ID 83720
(208) 334-3460

ILLINOIS

Charles Jones, Director
Emergency Services & Disaster Agency
110 East Adams Street
Springfield, IL 62706
(217) 782-2700

INDIANA

William Patterson, Director
Dept. of Civil Defense &
Emergency Management
State Office Building, B-90
100 North Senate Avenue
Indianapolis, IN 46204
(317) 232-3838

IOWA

Ellen Gordon, Director
Disaster Services Div.
Dept. of Public Defense
Hoover State Office Building
Des Moines, IA 50319
(515) 281-3231

KANSAS

Mahlon Weed, Deputy Director
Office of Emergency Preparedness
Adjutant General's Dept.
2800 Topeka Avenue
Topeka, KS 66611
(913) 233-9253

KENTUCKY

Mike Molloy, Executive Director
Disaster & Emergency Services
Dept. of Military Affairs
Boone National Guard Center
Frankfort, KY 40601
(502) 564-8680

LOUISIANA

Thomas Creaghan, Assistant Secretary
Office of Emergency Preparedness
Dept. of Public Safety
PO Box 66536
Audubon Station
Baton Rouge, LA 70896
(505) 342-5470

MAINE

David Brown, Director
Civil Emergency Preparedness
Defense & Veterans Services Dept.
State House Station #72
Augusta, ME 04333
(207) 289-3211

MARYLAND

Edward Murray, Director
Emergency Management &
Civil Defense Agency
Sudbrook Lane & Reisterstown Road
Baltimore, MD 21208
(301) 486-4422

MASSACHUSETTS

Robert Boulay, Director
Massachusetts Civil Defense Agency &
Office of Emergency Preparedness
400 Worcester Road
Farmingham, MA 01701
(617) 237-0200

MICHIGAN

Arlyn Brower, Director
Emergency Management Div.
State Police Dept.
300 S. Washington Square
3rd Floor, Knopps Center
Lansing, MI 48913
(517) 334-7950

MINNESOTA

Thomas Motherway, Director
Div. of Emergency Services
Dept. of Public Safety
State Capitol, B-5
St. Paul, MN 55155
(612) 296-2233

MISSISSIPPI

James Maher, Director
Emergency Management Agency
1410 Riverside Dr.
Jackson, MS 39202
(601) 352-9100

MISSOURI

Richard Ross, Director
State Emergency Management Agency
Dept. of Public Safety
PO Box 116
Jefferson City, MO 65102
(314) 751-9500

MONTANA

George DeWolf, Administrator
Disaster & Emergency Services Div.
Dept. of Military Affairs
1100 North Last Chance Gulch
Helena, MT 59601
(406) 444-6954

NEBRASKA

James Carmona, Director
Civil Defense Agency
Military Dept.
1300 Military Road
Lincoln, NE 68508
(402) 473-1114

NEVADA

James Licklider, Acting Director
Div. of Emergency Management
Dept. of Military
2525 S. Carson Street
Carson City, NV 89710
(702) 885-4240

NEW HAMPSHIRE

Richard Strome, Director
State Civil Defense
State Office Park South
Concord, NH 03301
(603) 271-2231

NEW JERSEY

Clinton Pagano, Sr., Superintendent
Div. of State Police
Dept. of Law & Public Safety
PO Box 7068
West Trenton, NJ 08625
(609) 882-2000

NEW MEXICO

Robert Kemble, Secretary
Dept. of Public Safety
State Police Complex
Santa Fe, NM 87503
(505) 827-9001

Harry Taylor, Deputy Director
Civil Emergency Preparedness Div.
PO Box 4277
Santa Fe, NM 87501
(505) 473-2476

NEW YORK

David Axelrod, Commissioner
Dept. of Health
Empire State Plaza
Corning Tower Building
Albany, NY 12237
(518) 474-2011

Donald DeVito, Director
State Emergency Management Office
Div. of Military & Naval Affairs
Public Security Building
State Campus
Albany, NY 12226
(518) 457-2222

NORTH CAROLINA

Joe Myers, Director
Emergency Management, Crime Control &
Public Safety
116 West Jones Street
Raleigh, NC 27611
(919) 733-3867

NORTH DAKOTA

Ronald Affeldt, Director
Disaster Emergency Services
PO Box 5511
Bismark, ND 58502
(701) 224-2111

OHIO

Richard Lockhart, Deputy Director
Disaster Services Agency
2825 West Granville Road
Worthington, OH 43085
(614) 889-7150

OKLAHOMA

Norris Price, Director
Oklahoma Civil Defense Agency
PO Box 53365
Oklahoma City, OK 73152
(405) 427-8371

OREGON

Myra Lee, Director
Emergency Management Agency
Executive Dept.
43 State Capitol
Salem, OR 97310
(503) 378-4124

PENNSYLVANIA

Joe La Fleur, Director
Emergency Management Agency
B-151 Transportation & Safety Building
Harrisburg, PA 17120
(717) 783-8150

RHODE ISLAND

John Kiely, Adjutant General
National Guard
1051 North Main Street
Providence, RI 02904
(401) 457-4100

Santo Amato, Executive Director
Emergency Management Agency
State House
Providence, RI 02903
(401) 421-7333

SOUTH CAROLINA

Joshua Moore, Director
Emergency Preparedness Div.
Office of the Adjutant General
1429 Senate Street
Columbia, SC 29201
(803) 734-8020

SOUTH DAKOTA

Bob Gunderson, Director
Emergency & Disaster Services
Military & Veterans Affairs Dept.
State Capitol
Pierre, SD 57501
(605) 773-3231

TENNESSEE

Lacy Suiter, Director
Emergency Management Agency
Dept. of Military
3041 Sidco Dr.
Nashville, TN 37204
(615) 252-3311

TEXAS

Robert Lansford, Chief
Div. of Emergency Management
Dept. of Public Safety
PO Box 4087
Austin, TX 78773
(512) 465-2138

UTAH

Lorayne Tempest, Director
Div. of Comprehensive
Emergency Management
Dept. of Public Safety
1543 Sunnyside Avenue
Salt Lake City, UT 84108
(801) 533-5271

VERMONT

George Lowe, Director
Emergency Management Div.
Dept. of Public Safety
103 S. Main Street
Waterbury, VT 05676
(802) 244-5194

VIRGINIA

Addison Slayton, Jr., State Coordinator
Dept. of Emergency Services
310 Turner Road
Richmond, VA 23225
(804) 323-2897

WASHINGTON

Kate Heinbeck, Assistant Director
Emergency Management
Dept. of Commerce &
Economic Development
4220 East Martin Way
M/S PT-11
Olympia, WA 98504
(206) 459-5255

WEST VIRGINIA

Bill Jopling, Deputy Director
Office of Emergency Services
Room EB-80, State Capitol
Charleston, WV 25305
(304) 348-5380

WISCONSIN

Richard Braund, Administrator
Div. of Emergency Government
Dept. of Administration
PO Box 7865
Madison, WI 53707
(608) 266-0199

WYOMING

Ed Usiu, Coordinator
Disaster & Civil Defense Div.
Military Dept.
5500 Bishop Blvd.
Cheyenne, WY 82002
(307) 777-7566

DISTRICT OF COLUMBIA

Joseph Yeldell, Director
Office of Emergency Preparedness
2000 14th Street, NW 8th Floor
Washington, DC 20009
(202) 727-6161

AMERICAN SAMOA

Maiava Hunkin, Director
Emergency Management Coordination
Public Safety Dept.
Pago Pago, American Samoa 96799
(684) 633-4116

Igafo Faigata, Director
Office of Territorial Emergency
Management Coordination
Office of the Governor
PO Box 3296
Pago Pago, American Samoa 96799
(684) 633-2331

GUAM

Francisco Carbullido, Director
Civil Defense, Guam Emergency Services
Territory of Guam
PO Box 2877
Agana, Guam 96910
(671) 477-9841

NORTHERN MARIANA ISLANDS

James Reyes, Officer
Disaster Control Div.
Public Safety Dept.
Office of the Governor
Saipan, Mariana Islands 96950
(670) 322-9274

Jay Lather, Emergency Planner
Office of Planning & Statistics
Office of the High Commissioner
Trust Territory Headquarters
Saipan, Mariana Islands 96950
(670) 011-9333

PANAMA CANAL COMMISSION

Thomas Strider, Chief
Emergency Preparedness Div.
General Services Bureau
Panama Canal Commission
APO Miami, FL
(912) 226-1761

PUERTO RICO

Heriberto Acevedo, Director
Office of Civil Defense
Office of the Governor
PO Box 5127
Puerta de Tierra, Puerto Rico 00906
(809) 724-0124

VIRGIN ISLANDS

Robert Morehead, Adjutant General
V.I. National Guard
Alexander Hamilton Airport
Kingshill
St. Croix, Virgin Islands 00850
(809) 778-4916

Louis Tirell, Director
Civil Defense & Emergency Services
PO Box 1208
St. Thomas, Virgin Islands 00801
(809) 774-2244

GEOLOGICAL SURVEY

(Identifies, collects, and publishes geological information. Inventories and promotes mineral development, and advises governmental agencies on geologic problems.)

ALABAMA

Ernest Mancini, Director
Geological Survey
PO Box 0
Tuscaloosa, AL 35486-9780
(205) 349-2852

ALASKA

Robert Forbes, Director
Geological & Geophysical Surveys
794 University Avenue, Suite 200
Fairbanks, AK 99709
(907) 479-7625

ARIZONA

Larry Fellows, Director
Geological Survey
845 North Park Avenue, Suite 100
Tucson, AZ 85719
(602) 621-7906

ARKANSAS

Norman Williams, Director
Geological Commission
Vardelle Parham Geology Center
3815 West Roosevelt Road
Little Rock, AR 72204
(501) 371-1488

CALIFORNIA

James Davis, Director
Div. of Mines & Geology
1416 Ninth Street, Room 1341
Sacramento, CA 95814
(916) 445-1923

COLORADO

John Rold, Director
Geological Survey
1313 Sherman Street, Room 715
Denver, CO 80203
(303) 866-2611

CONNECTICUT

Hugo Thomas, Director
Geological & Natural History Survey
State Office Building
165 Capitol Avenue, Room 553
Hartford, CT 06106
(203) 566-3540

DELAWARE

Robert Jordan, Director
Geological Survey
University of Delaware
101 Penny Hall
Newark, DE 19716
(302) 451-2833

FLORIDA

Walter Schmidt, Director
Geological Survey
903 West Tennessee Street
Tallahassee, FL 32304-7795
(904) 488-4191

GEORGIA

William McLemore, Director
Geological Survey
Dept. of Natural Resources
19 Martin Luther King, Jr., Dr., Room 400
Atlanta, GA 30334
(404) 656-3214

HAWAII

Manabu Tagomori, Director
Div. of Land & Water Development
PO Box 373
Honolulu, HI 96809
(808) 548-7533

IDAHO

Robert Bartlett, Director
Geological Survey
Morrill Hall, Room 332
University of Idaho
Moscow, ID 83843
(208) 885-6195

ILLINOIS

Morris Leighton, Director
Geological Survey
Natural Resources Building
615 East Peabody Dr.
Champaign, IL 61820
(217) 333-4747

INDIANA

Norman Hester, Director
Geological Survey
611 North Walnut Grove
Bloomington, IN 47405
(812) 855-9350

IOWA

Donald Koch, Director
Geological Bureau
Dept. of Natural Resources
123 North Capitol Street
Iowa City, IA 52242
(319) 335-1575

KANSAS

Lee Gerhard, Director
Geological Survey
1930 Constant Avenue
West Campus
University of Kansas
Lawrence, KS 66046
(913) 864-3965

KENTUCKY

Donald Haney, Director
Geological Survey
Mining & Mineral Resources Building
Room 228
University of Kentucky
Lexington, KY 40506-0107
(606) 257-5500

LOUISIANA

Charles Groat, Director
Geological Survey
Box G, University Station
Baton Rouge, LA 70893
(504) 388-5320

MAINE

Walter Anderson, Director
Geological Survey
Dept. of Conservation
State House Station 22
Augusta, ME 04333
(207) 289-2801

MARYLAND

Walter Anderson, Director
Geological Survey
2300 St. Paul Street
Baltimore, MD 21218
(301) 554-5503

MASSACHUSETTS

Joseph Sinnott, Director
Dept. of Environmental Quality Engineering
Executive Office of Environmental Affairs
100 Cambridge Street, 20th Floor
Boston, MA 02202
(617) 727-9800

MICHIGAN

R. Thomas Segall, Director
Geological Survey Div.
PO Box 30028
Lansing, MI 48909
(517) 334-6923

MINNESOTA

Priscilla Grew, Director
Geological Survey
2642 University Avenue
St. Paul, MN 55114-1057
(612) 627-4780

MISSISSIPPI

Conrad Gazzier, Director
Bureau of Geology
PO Box 5348
Jackson, MS 39216
(601) 354-6228

MISSOURI

James Williams, Director
Div. of Geology & Land Survey
PO Box 250
Rolla, MO 65401
(314) 364-1752

MONTANA

Edward Ruppel, Director
Bureau of Mines & Geology
Montana College of Mineral Science &
Technology
Butte, MT 59701
(406) 496-4180

NEBRASKA

Perry Wigley, Director
Conservation & Survey Div.
113 Nebraska Hall
University of Nebraska
Lincoln, NE 68588-0517
(402) 472-3471

NEVADA

State Geologist
Bureau of Mines & Geology
University of Nevada
Reno, NV 89557-0088
(702) 784-6691

NEW HAMPSHIRE

Eugene Boudette, Director
Dept. of Environmental Services
117 James Hall
University of New Hampshire
Durham, NH 03824
(603) 862-3160

NEW JERSEY

Haig Kasabach, Director
Geological Survey
CN-029
Trenton, NJ 08625
(609) 292-1185

NEW MEXICO

Frank Kottowski, Director
Bureau of Mines & Mineral Resources
Campus Station
Socorro, NM 87801
(505) 835-5420

NEW YORK

Robert Fakundiny, Director
Geological Survey
3136 Cultural Education Center
Empire State Plaza
Albany, NY 12230
(518) 474-5816

NORTH CAROLINA

Stephen Conrad, Director
Dept. of Natural Resources
& Community Development
Div. of Land Resources
PO Box 27687
Raleigh, NC 27611
(919) 733-3833

NORTH DAKOTA

Sidney Anderson, Director
Geological Survey
University Station
Grand Forks, ND 58202-8156
(701) 777-2231

OHIO

State Geologist
Div. of Geological Survey
Fountain Square, Building B
Columbus, OH 43224
(614) 265-6605

OKLAHOMA

Charles Mankin, Director
Geological Survey
830 Van Vleet Oval, Room 163
Norman, OK 73019
(405) 325-3031

OREGON

Donald Hull, Director
Dept. of Geology & Mineral Industries
State Office Building, Room 910
1400 SW 5th Avenue
Portland, OR 97201-5528
(503) 229-5580

PENNSYLVANIA

Donald Hoskins, Director
Bureau of Topographic & Geologic Survey
Dept. of Environmental Resources
PO Box 2357
Harrisburg, PA 17120
(717) 787-2169

RHODE ISLAND

J. Allan Cain, Director
Geological Survey
Dept. of Geology
University of Rhode Island
Kingston, RI 02881
(401) 792-2265

SOUTH CAROLINA

Norman Olson, Director
Geological Survey
5 Geology Road
Columbia, SC 29210
(803) 737-9440

SOUTH DAKOTA

Merlin Tipton, Director
Geological Survey
Science Center
University of South Dakota
Vermillion, SD 57069-2390
(605) 677-5227

TENNESSEE

William Hill, Director
Div. of Geology
Custom's House
701 Broadway
Nashville, TN 37219-5237
(615) 742-6691

TEXAS

William Fisher, Director
Bureau of Economic Geology
University of Texas
Box X, University Station
Austin, TX 78712-7508
(512) 471-1534

UTAH

Genevieve Atwood, Director
Geological & Mineral Survey
606 Black Hawk Way
Salt Lake City, UT 84108-1280
(801) 581-6831

VERMONT

Charles Ratte, Director
Geological Survey
Agency of Natural Resources
103 Main Street
Waterbury, VT 05676
(802) 244-5164

VIRGINIA

Robert Milici, Director
Div. of Mineral Resources
PO Box 3667
Charlottesville, VA 22903
(804) 293-5121

WASHINGTON

Raymond Lasmanis, Director
Div. of Geology & Earth Resources
Dept. of Natural Resources
Olympia, WA 98504
(206) 459-6372

WEST VIRGINIA

Robert Erwin, Director
Geological & Economic Survey
Mont Chateau Research Center
PO Box 879
Morgantown, WV 26507-0879
(304) 594-2331

WISCONSIN

Meredith Ostrom, Director
Geological & Natural History Survey
3817 Mineral Point Road
Madison, WI 53705
(608) 262-1705

WYOMING

Gary Glass, Director
Geological Survey
Box 3008, University Station
University of Wyoming
Laramie, WY 82071
(307) 742-2054

PUERTO RICO

Ramon Alonso, Director
Geological Survey Div.
PO Box 5887
Puerta de Tierra
San Juan, Puerto Rico 00906
(809) 724-8774

NATURAL RESOURCES

(Formulates and coordinates policies to protect, utilize, restore, and enhance the state's natural resources.)

ALABAMA

James Martin Commissioner
Dept. of Conservation & Natural Resources
64 North Union Street, Room 702
Montgomery, AL 36130
(205) 261-3486

ALASKA

Judy Brady, Director
Dept. of Natural Resources
PO Box M
Juneau, AK 99811
(907) 465-2400

ARIZONA

Jean Hassell, Director
Land Department
1624 West Adams Street, 4th Floor
Phoenix, AZ 85007
(602) 255-4621

ARKANSAS

Kay Arnold, Director
Dept. of Natural & Cultural Heritage
225 East Markham Street, #200
Little Rock, AR 72201
(501) 371-2761

CALIFORNIA

Randall Ward, Director
Dept. of Conservation
1416 Ninth Street, Room 1320
Sacramento, CA 95814
(916) 322-1080

COLORADO

Dennis Donald, Director
Dept. of Natural Resources
1313 Sherman Street, Room 718
Denver, CO 80203
(303) 866-3311

CONNECTICUT

Leslie Carothers, Commissioner
Div. of Environmental Quality
Environmental Protection Dept.
165 Capitol Avenue, Room 161
Hartford, CT 06106
(203) 566-2110

DELAWARE

John Wilson III, Secretary
Dept. of Natural Resources
& Environmental Control
89 Kings Hwy.
Dover, DE 19901
(302) 736-4403

FLORIDA

Elton Gissendanner, Director
Dept. of Natural Resources
3900 Commonwealth Blvd.
Tallahassee, FL 32303
(904) 488-1554

GEORGIA

J. Leonard Ledbetter, Commissioner
Dept. of Natural Resources
205 Butler Street, SW
Floyd Towers East, Suite 1252
Atlanta, GA 30334
(404) 656-3500

HAWAII

William Paty, Chairman
Board of Land & Natural Resources
1151 Punchbowl Street
Honolulu, HI 96813
(808) 548-6550

ILLINOIS

Don Etchison, Director
Dept. of Energy & Natural Resources
325 West Adams Street
Springfield, IL 62704
(217) 785-2002

INDIANA

James Ridenour, Director
Dept. of Natural Resources
608 State Office Building
Indianapolis, IN 46204
(317) 232-4020

IOWA

Larry Wilson, Director
Dept. of Natural Resources
Wallace State Office Building
Des Moines, IA 50319
(515) 281-5385

KANSAS

Allan Abramson, Director
Div. of Environment
Dept. of Health & Environment
Forbes Field
Topeka, KS 66620
(913) 862-9360

KENTUCKY

Mary Miller, Director
Natural Resources &
Environmental Protection Cabinet
Capital Plaza Tower
Frankfort, KY 40601
(502) 564-3350

LOUISIANA

Jim Porter, Secretary
Dept. of Natural Resources
PO Box 94396
Baton Rouge, LA 70804
(504) 342-4503

MAINE

Dean Marriott, Commissioner
Dept. of Environmental Protection
State House Station #17
Augusta, ME 04333
(207) 289-2811

MARYLAND

Torrey Brown, Secretary
Dept. of Natural Resources
Tawes State Office Building
Annapolis, MD 21401
(301) 974-3041

MASSACHUSETTS

James Gutensohn
Dept. of Environmental Management
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, MA 02202
(617) 727-3163

MICHIGAN

Gordan Guyer, Director
Dept. of Natural Resources
Mason Building
PO Box 30028
Lansing, MI 48909
(517) 373-2329

MINNESOTA

Joseph Alexander, Commissioner
Dept. of Natural Resources
500 Lafayette Road
St. Paul, MN 55146
(612) 296-2549

MISSISSIPPI

Charlie Blalock, Executive Director
Dept. of Natural Resources
Southport Mall
Jackson, MS 39209
(601) 961-5000

MISSOURI

Frederick Brunner, Director
Dept. of Natural Resources
Jefferson State Office Building
205 Jefferson Street
Jefferson City, MO 65102
(314) 751-4422

MONTANA

Larry Fasbender, Director
Dept. of Natural Resources & Conservation
State Capitol
Helena, MT 59620
(406) 444-6699

NEBRASKA

Dayle Williamson, Director
Natural Resources Commission
301 Centennial Mall South
PO Box 94876
Lincoln, NE 68509
(402) 471-2081

NEVADA

Roland Westergard, Director
Dept. of Conservation & Natural Resources
201 S. Fall Street
Carson City, NV 89710
(702) 885-4360

NEW HAMPSHIRE

Commissioner
Dept. of Resources &
Economic Development
PO Box 856
Concord, NH 03301
(603) 271-2411

NEW JERSEY

Helen Fenske, Director
Natural Resources &
Environmental Protection Dept.
John Fitch Plaza, CN 402
Trenton, NJ 08625
(609) 292-3541

NEW MEXICO

Tom Bahr, Director
Energy, Minerals &
Natural Resources Dept.
525 Camino de los Marcos
Santa Fe, NM 87503
(505) 827-7835

NEW YORK

Thomas Jorling, Commissioner
Dept. of Environmental Conservation
50 Wolf Road
Albany, NY 12233
(518) 457-3446

NORTH CAROLINA

Tommy Rhodes, Secretary
Dept. of Natural Resources
& Community Development
512 North Salisbury Street
Raleigh, NC 27611
(919) 733-4984

NORTH DAKOTA

State Engineer
Water Commission
State Office Building
900 East Blvd.
Bismarck, ND 58505
(701) 224-2750

OHIO

Joseph Sommer, Director
Dept. of Natural Resources
Fountain Square, Building D-3
Columbus, OH 43224
(614) 265-6877

OKLAHOMA

Glenn Sullivan, Secretary
Dept. of Natural Resources
500 Will Rogers Building
Oklahoma City, OK 73105
(405) 521-2413

OREGON

Gail Achterman, Director
Dept. of Natural Resources
Office of the Governor
160 State Capitol
Salem, OR 97310
(503) 378-3109

PENNSYLVANIA

Arthur Davis, Secretary
Dept. of Environmental Resources
Fulton Building, 9th Floor
Harrisburg, PA 17120
(717) 787-2814

RHODE ISLAND

Robert Bendick, Director
Dept. of Environmental Management
9 Hayes Street
Providence, RI 02908
(401) 277-2771

SOUTH CAROLINA

John McMillan, Director
Energy, Agriculture &
Natural Resources Div.
Office of the Governor
1205 Pendleton Street
Columbia, SC 29201
(803) 734-0445

SOUTH DAKOTA

John Smith, Secretary
Dept. of Water & Natural Resources
Foss Building, 2nd Floor
Pierre, SD 57501
(605) 773-3151

TENNESSEE

Elbert Gill, Commissioner
Dept. of Conservation
701 Broadway
Nashville, TN 37219
(615) 742-6749

TEXAS

Larry Soward, Executive Director
Water Commission
Box 13087, Capitol Station
Austin, TX 78711
(512) 463-7898

UTAH

Dee Hansen, Executive Director
Dept. of Natural Resources & Energy
1636 West North Temple, Room 316
Salt Lake City, UT 84116
(801) 533-5356

VERMONT

Jonathan Lash, Secretary
Agency of Natural Resources
103 S. Main Street
Waterbury, VT 05676
(802) 244-7347

VIRGINIA

John Daniel III, Secretary
Office of the Secretary of Natural Resources
PO Box 1475
Richmond, VA 23212
(804) 786-0044

WASHINGTON

Brian Boyle, Commissioner of Public Lands
Dept. of Natural Resources
Public Lands Building
Olympia, WA 98504
(206) 753-5317

WEST VIRGINIA

Ronald Potesta, Director
Dept. of Natural Resources
1800 Washington Street East
Building 3, Room 669
Charleston, WV 25305
(304) 348-2754

WISCONSIN

Carroll Besadny, Secretary
Dept. of Natural Resources
101 S. Webster Street
PO Box 7921
Madison, WI 53707
(608) 266-2121

DISTRICT OF COLUMBIA

R. Benjamin Johnson, Administrator
Housing & Environmental Regulations
Dept. of Consumer & Regulatory Affairs
614 H Street, NW
Washington, DC 20001
(202) 727-7395

NORTHERN MARIANA ISLANDS

Nicolas Guerrero, Director
Natural Resources Dept.
Office of the Governor
Saipan, CM 96950
(670) 322-9830

PUERTO RICO

Justo Mendez, Secretary
Dept. of Natural Resources
PO Box 5887
San Juan, Puerto Rico 00906
(809) 724-8774

VIRGIN ISLANDS

Alan Smith, Commissioner
Dept. of Planning & Natural Resources
#79 Altona & Welgunst
St. Thomas, Virgin Islands 00802
(809) 774-3320

SOIL CONSERVATION

(Coordinates programs to conserve and protect the state's soil.)

ALABAMA

James Plaster, Executive Secretary
Soil & Water Conservation Committee
1445 Federal Dr.
PO Box 3336
Montgomery, AL 36193
(205) 261-2620

ALASKA

Dean Brown, Director
Div. of Agriculture
Dept. of Natural Resources
PO Box 949
Palmer, AK 99645
(907) 745-7200

ARKANSAS

Randy Young, Director
Soil & Water Conservation Commission
#1 Capitol Mall, Suite 2D
Little Rock, AR 72201
(501) 371-1611

CALIFORNIA

Steve Oliva, Div. Chief
Lands Resource Protection Div.
Dept. of Conservation
1416 Ninth Street
Sacramento, CA 95814
(916) 324-0859

COLORADO

Steven Horn, Director
Soil Conservation Board
Dept. of Natural Resources
1313 Sherman Street, Room 814
Denver, CO 80203
(303) 866-3351

CONNECTICUT

Leslie Carothers, Commissioner
Div. of Environmental Quality
Environmental Protection Dept.
165 Capitol Avenue, Room 161
Hartford, CT 06106
(203) 566-2110

DELAWARE

John Hughes, Director
Soil & Water Conservation Dev.
Dept. of Natural Resources &
Environmental Control
89 Kings Hwy., Box 1401
Dover, DE 19903
(302) 736-4411

FLORIDA

Glenn Bissett, Chief
Soil & Water Conservation
Agriculture & Consumer Services Dept.
PO Box 1269
Gainesville, FL 32602
(904) 376-1990

GEORGIA

F. Graham Liles, Jr., Executive Director
Soil & Water Conservation Committee
PO Box 8024
Athens, GA 30603
(404) 542-3065

HAWAII

William Paty, Chairman
Board of Land & Natural Resources
1151 Punchbowl Street
Honolulu, HI 96813
(808) 548-6550

IDAHO

Wayne Faude, Administrator
Soil Conservation Commission
Dept. of Lands
801 Capitol Blvd.
Boise, ID 83720
(208) 334-3865

ILLINOIS

Larry Werries, Director
Dept. of Agriculture
State Fairgrounds
Springfield, IL 62706
(217) 782-2172

INDIANA

Charles McKee, Director
Div. of Soil Conservation
AGAD Building, Room 7
West Lafayette, IN 47907
(317) 494-8383

IOWA

James Gulliford, Administrator
Div. of Soil Conservation
Dept. of Agriculture
Wallace State Office Building
Des Moines, IA 50319
(515) 281-5851

KANSAS

Kenneth Kern, Executive Director
Conservation Commission
217 SE Fourth Street, 4th Floor
Topeka, KS 66603
(913) 296-3600

KENTUCKY

H. Stanley Head, Director
Div. of Conservation
Natural Resources & Environmental
Protection Cabinet
605 Teton Trail
Frankfort, KY 40601
(502) 564-3080

LOUISIANA

Michael Mety, Assistant Commissioner
Office of Forestry
Dept. of Agriculture
PO Box 1628
Baton Rouge, LA 70821
(504) 925-4500

MAINE

Frank Ricker, Executive Director
Soil & Water Conservation Commission
Dept. of Agriculture, Food &
Rural Resources
State House Station #28
Augusta, ME 04333
(207) 289-2666

MARYLAND

Richard Wright, Chairman
Soil Conservation Committee
Dept. of Agriculture
50 Harry S. Truman Pkwy.
Annapolis, MD 21401
(301) 841-5863

MASSACHUSETTS

Joel Lerner, Director
Div. of Conservation Services
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, MA 02202
(617) 727-1552

MICHIGAN

Donald Schaner, Chief
Soil Conservation Div.
Dept. of Agriculture
Lewis Cass Building
Lansing, MI 48909
(517) 373-3898

MINNESOTA

Ron Nargang, Director
Soil & Water Conservation Board
Dept. of Agriculture
90 West Plato Blvd.
St. Paul, MN 55107
(612) 296-3767

MISSISSIPPI

Gale Martin, Executive Director
Soil & Water Conservation Commission
410 Robert East Lee Building
Jackson, MS 39201
(601) 359-1281

MISSOURI

Donald Wolfe, Director
Soil & Water Conservation Program
Div. of Environmental Quality
PO Box 176
Jefferson City, MO 65102
(314) 751-4932

MONTANA

Ray Beck, Administrator
Conservation Districts Div.
Natural Resources & Conservation Dept.
25 S. Ewing
Helena, MT 59620
(406) 444-6667

NEBRASKA

Dayle Williamson, Director
Natural Resources Commission
301 Centennial Mall South
PO Box 94876
Lincoln, NE 68509
(402) 471-2081

NEW HAMPSHIRE

Robert Bodwell, Chairman
State Conservation Committee
Sambornton, NH 03269
(603) 286-4986

NEW JERSEY

Samuel Race, Executive Secretary
Soil Conservation Committee
Dept. of Agriculture, CN 330
Trenton, NJ 08625
(609) 292-5540

NEW MEXICO

Walt Hisenberg, Bureau Chief
Conservation Management
Dept. of Natural Resources
Villagra Building
Santa Fe, NM 87503
(505) 827-3988

NEVADA

Pamela Wilcox, Director
Div. of Conservation Districts
Dept. of Conservation & Natural Resources
201 S. Fall Street
Carson City, NV 89710
(702) 885-4363

NEW YORK

Thomas Jorling, Commissioner
Dept. of Environmental Conservation
50 Wolf Road
Albany, NY 12233
(518) 457-3446

NORTH CAROLINA

David Sides, Director
Soil & Water Conservation
Natural Resources & Community
Development Dept.
512 North Salisbury Street
Raleigh, NC 27611
(919) 733-2302

NORTH DAKOTA

Blake Vander Vorst, Executive Secretary
Soil Conservation Committee
Hwy. Building, Capitol Grounds
Bismarck, ND 58505
(701) 224-2650

OHIO

Lawrence Vance, Chief
Soil & Water Conservation Div.
Dept. of Natural Resources
Fountain Square
Columbus, OH 43224
(614) 466-6614

OKLAHOMA

Leonard Solomon, Executive Director
Conservation Commission
20 State Capitol
Oklahoma City, OK 73105
(405) 521-2384

OREGON

Charles Liles, Administrator
Soil & Water Conservation Commission
Dept. of Agriculture
635 Capitol Street, NE
Salem, OR 97310
(503) 378-3810

PENNSYLVANIA

Paul Swartz, Director
Soil & Water Conservation Bureau
Environmental Resources Dept.
PO Box 2357
Harrisburg, PA 17120
(717) 787-5267

RHODE ISLAND

John Lawrence, Chief
Div. of Agriculture & Marketing
Dept. of Environmental Management
22 Hayes Street
Providence, RI 02908
(401) 277-2781

SOUTH CAROLINA

Charles Logan, Deputy Director
Land Resources Conservation Commission
2221 Devine Street, #222
Columbia, SC 29205
(803) 734-9100

SOUTH DAKOTA

Jack Fifield, Director
Div. of Conservation
Dept. of Agriculture, Room 304
Anderson Building
Pierre, SD 57501
(605) 773-3258

TENNESSEE

James Robinson, Director
Soil Conservation
Dept. of Agriculture
Ellington Agricultural Center
Nashville, TN 37204
(615) 360-0108

TEXAS

Harvey Davis, Executive Director
Soil & Water Conservation Board
PO Box 658
Temple, TX 76503
(817) 773-2250

UTAH

James Christensen, Director
Div. of Agricultural Development
Dept. of Agriculture
350 North Redwood Road
Salt Lake City, UT 84116
(801) 533-4103

VERMONT

Patrick Parenteau, Commissioner
Dept. of Environmental Conservation
103 S. Main Street
Waterbury, VT 05676
(802) 244-8755

VIRGINIA

B. C. Leynes, Jr., Director
Dept. of Conservation & Historic Resources
1101 Washington Building
Richmond, VA 23219
(804) 786-2121

WASHINGTON

Wayne Reid, Executive Secretary
Conservation Commission
M/S PV-11
Olympia, WA 98504
(206) 459-6227

WEST VIRGINIA

Edward Bumgarner, Executive Secretary
Soil Conservation Committee
Dept. of Agriculture
State Capitol Complex
Charleston, WV 25305
(304) 348-2204

WISCONSIN

James Johnson, Director
Bureau of Land Resources, Agriculture,
Trade & Consumer Protection
PO Box 8911
Madison, WI 53708
(608) 267-9788

WYOMING

Director
Conservation Commission
Dept. of Agriculture
2219 Carey Avenue
Cheyenne, WY 82008
(307) 777-7321

DISTRICT OF COLUMBIA

R. Benjamin Johnson, Administrator
Housing & Environmental Regulations
Dept. of Consumer & Regulatory Affairs
614 H Street, NW
Washington, DC 20001
(202) 727-7395

AMERICAN SAMOA

Tofu Fia, Director
Dept. of Agriculture
Pago Pago, American Samoa 96799
(684) 633-5276

NORTHERN MARIANA ISLANDS

Joaquin Tenorio, Chief
Plant Industry & Extension Services Div.
Natural Resources Dept.
Saipan, CM 96950
(670) 322-9868

VIRGIN ISLANDS

Eric Dawson, Commissioner
Dept. of Economic Dev. & Agriculture
81 A & B Kronprindsens Gade
St. Croix, Virgin Islands 00802
(809) 774-8784

WATER RESOURCES

(Plans and manages water resource projects dealing with issues such as water supply, flood control, and drought.)

ALABAMA

Director
Water Improvement Commission
Dept. of Public Health
3815 Interstate Court
c/o State Office Building
Montgomery, AL 36130
(205) 277-3630

ARIZONA

Director
Dept. of Water Resources
15 South Fifteenth Avenue
Phoenix, AZ 85007
(602) 542-1541

ARKANSAS

Director
Soil & Water Conservation Commission
Dept. of Commerce
1818 West Capitol Avenue, Building A
Little Rock, AR 72202
(501) 371-1611

CALIFORNIA

Director
Dept. of Water Resources
Resources Building
1416 9th Street
Sacramento, CA 95814
(916) 445-9248

COLORADO

Director
Water Conservation Board
Dept. of Natural Resources
Centennial Building, Room 721
1313 Sherman Street
Denver, CO 80203
(303) 866-3441

CONNECTICUT

Director
Water & Related Resources
Div. of Conservation & Preservation
Dept. of Environmental Protection
State Office Building, Room 215
165 Capitol Avenue
Hartford, CT 06115
(203) 566-2090

DELAWARE

Director
Div. of Soil & Water Conservation
Dept. of Natural Resources &
Environmental Control
Tatnall Building, Capitol Complex
PO Box 1401
Dover, DE 19901
(302) 678-4411

FLORIDA

Chief
Bureau of Water Management
Dept. of Environmental Regulation
Twin Towers Building
2600 Blair Stone Road
Tallahassee, FL 32301
(904) 488-2657

GEORGIA

Director
Geologic & Water Resources Div.
Dept. of Natural Resources
Agriculture Building, Room 400
19 Martin Luther King, Jr., Dr., SW
Atlanta, GA 30334
(404) 656-3214

HAWAII

Manager
Div. of Water & Land Development
Dept. of Land & Natural Resources
Kalanimoku Building
1151 Punchbowl Street
Honolulu, HI 96813
(808) 548-7539

IDAHO

Director
Dept. of Water Resources
373 West Franklin Street
Boise, ID 83720
(208) 384-2215

ILLINOIS

Director
Div. of Water Resources
Dept. of Transportation
2300 S. Dirksen Pkwy.
Springfield, IL 62764
(217) 782-2152

INDIANA

Chief
Div. of Water
Dept. of Natural Resources
2475 Directors' Row
Indianapolis, IN 46241
(317) 232-4160

IOWA

Water Commissioner
Natural Resources Council
Wallace State Office Building
520 East 9th Street
Des Moines, IA 50319
(515) 281-5913

KANSAS

Director
Water Resources Board
503 Kansas Avenue
Topeka, KS 66603
(913) 296-3185

KENTUCKY

Staff Director
Div. of Water Resources
Dept. for Natural Resources &
Environmental Protection
501 Wilkinson Blvd.
Frankfort, KY 40601
(502) 564-3980

LOUISIANA

Chief
Water Resources Branch
Office of Public Works
Dept. of Transportation & Development
State Capitol 900 Riverside North
PO Box 44155
Baton Rouge, LA 70804
(504) 342-7567

MAINE

Commissioner
Dept. of Conservation
Ray Building
Hospital Street
c/o State House
Augusta, ME 04333
(207) 289-2212

MARYLAND

Director
Water Resources Administration
Dept. of Natural Resources
Tawes State Office Building
580 Taylor Avenue
Annapolis, MD 21401
(301) 269-3846

MASSACHUSETTS

Director
Div. of Water Resources
Water Resources Commission
Dept. of Environmental Management
Leverett Saltonstall State Office Building
100 Cambridge Street
Boston, MA 02202
(617) 727-3267

MICHIGAN

Chief
Water Management Div.
Dept. of Natural Resources
Stevens T. Mason Building, 8th Floor
PO Box 30028
Lansing, MI 48909
(517) 373-3930

MINNESOTA

Director
Div. of Waters
Dept. of Natural Resources
Centennial Office Building, Box 32
658 Cedar Street
St. Paul, MN 55155
(612) 296-4810

MISSISSIPPI

Water Engineer
Board of Water Commissioners
Primos Building Room 4
416 North State Street
Jackson, MS 39201
(601) 354-7236

MISSOURI

Staff Director
Soil & Water Conservation Program
Div. of Environmental Quality
Dept. of Natural Resources
2010 Missouri Blvd.
Jefferson City, MO 65101
(314) 751-3241

MONTANA

Director
Water Resources Div.
Dept. of Natural Resources & Conservation
32 S. Ewing Street
Capitol Station
Helena, MT 59601
(406) 449-2872

NEBRASKA

Director
Dept. of Water Resources
State Office Building
301 Centennial Mall, South
PO Box 94676
Lincoln, NE 68509
(402) 471-2363

NEVADA

State Engineer
Div. of Water Resources
Dept. of Conservation & Natural Resources
Nye Building
201 S. Fall Street
Capitol Complex
Carson City, NV 89710
(702) 885-4380

NEW HAMPSHIRE

Chairman
Water Resources Board
37 Pleasant Street
Concord, NH 03301
(603) 271-3406

NEW JERSEY

Director
Div. of Water Resources
Dept. of Environmental Protection
PO Box 2809
Trenton, NJ 08625
(609) 292-1637

NEW MEXICO

Director
Water Resources Div.
Natural Resources Dept.
Bataan Memorial Building
S. Capitol Place
Santa Fe, NM 87503
(505) 827-2127

NEW YORK

Director
Resources Program Development
Div. of Land Resources & Forest
Management
Dept. of Environmental Conservation
50 Wolf Road
Albany, NY 12233
(518) 457-1952

NORTH CAROLINA

Director
Office of Public Works
Dept. of Natural Resources &
Community Development
Archdale Building, 4th Floor
512 North Salisbury Street
PO Box 27687
Raleigh, NC 27611
(919) 733-4064

NORTH DAKOTA

State Engineer
Water Commission
State Office Building
900 East Blvd.
Bismarck, ND 58505
(701) 224-2750

OHIO

Director
Water Resources Development
Dept. of Natural Resources
Fountain Square
Columbus, OH 43224
(614) 466-6020

OKLAHOMA

Director
Water Resources Board
Jim Thorpe Office Building
2101 North Lincoln Blvd.
Oklahoma City, OK 73105
(405) 521-3945

OREGON

Director
Water Resources Dept.
Mill Creek Office Park
555 13th Street, NE
Salem, OR 97310
(503) 378-2982

PENNSYLVANIA

Director
Bureau of Soil & Water Conservation
Office of Resource Management
Dept. of Environmental Resources
Evangelical Press Building, Room 114
3rd and Reilly Streets
Harrisburg, PA 17120
(717) 787-5267

RHODE ISLAND

General Manager
Water Resources Board
265 Melrose Street
PO Box 2772
Providence, RI 02907
(401) 277-2217

SOUTH CAROLINA

Director
Water Resources Commission
3830 Forest Dr.
PO Box 4515
Columbia, SC 29240
(803) 758-2514

SOUTH DAKOTA

Secretary
Dept. of Natural Resources
Joe Foss Building
Pierre, SD 57501
(605) 773-3151

TENNESSEE

Director
Div. of Water Resources
Dept. of Conservation
6213 Charlotte Avenue
Nashville, TN 37209
(615) 741-1281

TEXAS

Director
Dept. of Water Resources
Stephen Austin State Office Building
1700 North Congress Avenue
PO Box 13087
Capitol Station
Austin, TX 78711
(512) 475-3187

UTAH

Director
Div. of Water Resources
Dept. of Natural Resources
435 State Capitol
Salt Lake City, UT 84114
(801) 533-5401

VERMONT

Commissioner
Dept. of Water Resources
Agency of Environmental Conservation
Heritage Complex #2
79 River Street
Montpelier, VT 05602
(802) 828-3361

VIRGINIA

Executive Secretary
State Water Control Board
2111 North Hamilton Street
Richmond, VA 23230
(804) 257-0056

WASHINGTON

Supervisor
Water Resources Management Div.
Office of Water Programs
Dept. of Ecology
St. Martin's College
Olympia, WA 98504
(206) 753-2829

WEST VIRGINIA

Chief
Div. of Water Resources
Dept. of Natural Resources
1201 Greenbrier Street
Charleston, WV 25311
(304) 348-2107

WYOMING

State Engineer
Water Resources
Barrett Building
2301 Central Avenue
Cheyenne, WY 82002
(307) 777-7354

DISTRICT OF COLUMBIA

Director
Water Resources Management
Administration
Dept. of Environmental Services
Presidential Building, Room 307
415 12th Street, NW
Washington, DC 20004
(202) 629-4496

PUERTO RICO

Executive Director
Water Resources Authority
1110 Ponce de Leon Avenue, Stop 16 1/2
GPO Box 4267
San Juan, Puerto Rico 00936
(809) 724-3838

Federal Offices

ARMY CORPS OF ENGINEERS

(Provides technical assistance, expertise, and planning in water resources and emergency management.)

NORTH ATLANTIC

Director
US Army Corps of Engineers
New England Division Office
424 Trapelo Road
Waltham, MA 02154
(617) 894-2400, Ext. 545

Director
US Army Corps of Engineers
North Atlantic Division Office
90 Church Street
New York, NY 10007
(212) 264-7483

Director
US Army Engineer District, Baltimore
PO Box 1715
Baltimore, MD 21203

Director
US Army Engineer District, New York
26 Federal Plaza
New York, NY 10278

Director
US Army Engineer District, Norfolk
803 Front Street
Norfolk, VA 23510

Director
US Army Engineer District, Philadelphia
US Custom House
2nd & Chestnut Street
Philadelphia, PA 19106

OHIO RIVER

Director
US Army Corps of Engineers
Ohio River Division Office
550 Main Street
Cincinnati, OH 45201
(513) 684-3012

Director
US Army Engineer District, Huntington
502 8th Street
Huntington, WV 25701

Director
US Army Engineer District, Louisville
PO Box 59
Louisville, KY 40201

Director
US Army Engineer District, Nashville
PO Box 1070
Nashville, TN 37202

Director
US Army Engineer District, Pittsburgh
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222

SOUTH ATLANTIC

Director
US Army Corps of Engineers
South Atlantic Division Office
510 Title Building
30 Pryor Street, SW
Atlanta, GA 30303
(404) 221-6702

Director
US Army Engineer District, Charleston
PO Box 919
Charleston, SC 29402

Director
US Army Engineer District, Jacksonville
PO Box 4970
Jacksonville, FL 32232

Director
US Army Engineer District, Mobile
PO Box 2288
Mobile, AL 36628

Director
US Army Engineer District, Savannah
PO Box 889
Savannah, GA 31402

Director
US Army Engineer District, Wilmington
PO Box 1890
Wilmington, NC 28402

LOWER MISSISSIPPI VALLEY

Director
US Army Corps of Engineers
Lower Mississippi Valley Division Office
1400 Walnut Street
Vicksburg, MS 39180
(601) 634-5843, Ext. 385

Director
US Army Engineer District, Memphis
B314 Clifford Davis Federal Building
Memphis, TN 38103

Director
US Army Engineer District, New Orleans
PO Box 60267
New Orleans, LA 70160

Director
US Army Engineer District, St. Louis
210 Tucker Blvd. North
St. Louis, MO 63101

Director
US Army Engineer District, Vicksburg
PO Box 60
Vicksburg, MS 39180

MISSOURI RIVER

Director
US Army Corps of Engineers
Missouri River Division Office
12565 West Center Road
Omaha, NE 68101
(402) 221-72701

Director
US Army Engineer District, Kansas City
700 Federal Building
601 East 12th Street
Kansas City, MO 64106

Director
US Army Engineer District, Omaha
6014 USPO & Courthouse
Omaha, NE 68102

NORTH CENTRAL

Director
US Army Corps of Engineers
North Central Division Office
536 S. Clark Street
Chicago, IL 60605
(312) 353-6531

Director
US Army Engineer District, Buffalo
1776 Niagara Street
Buffalo, NY 14207

Director
US Army Engineer District, Chicago
219 S. Dearborn Street
Chicago, IL 60604

Director
US Army Engineer District, Detroit
PO Box 1027
Detroit, MI 48201

Director
US Army Engineer District, Rock Island
Clock Tower Building
Rock Island, IL 61201

Director
US Army Engineer District, St. Paul
1135 USPO & Customhouse
St. Paul, MN 55101

SOUTHWESTERN

Director
US Army Corps of Engineers
Southwestern Division Office
Main Tower Building
1114 Commerce Street
Dallas, TX 75242
(214) 767-2310

Director
US Army Engineer District, Albuquerque
PO Box 1580
Albuquerque, NM 87103

Director
US Army Engineer District, Fort Worth
PO Box 17300
Fort Worth, TX 76102

Director
US Army Engineer District, Galveston
PO Box 1229
Galveston, TX 77553

Director
US Army Engineer District, Little Rock
PO Box 867
Little Rock, AR 72203

Director
US Army Engineer District, Tulsa
PO Box 61
Tulsa, OK 74121

Director
US Army Engineer District, Huntsville
PO Box 1600, West Station
Huntsville, AL 35806

SOUTH PACIFIC

Director
US Army Corps of Engineers
Pacific Ocean Division Office
Building 230
Fort Shafter, HI 96858
(808)438-2883

Director
US Army Corps of Engineers
South Pacific Division Office
630 Sanson Street, Room 1216
San Francisco, CA 94111
(415) 556-0914

Director
US Army Engineer District, Los Angeles
PO Box 2711
Los Angeles, CA 90053

Director
US Army Engineer District, Sacramento
650 Capital Mall
Sacramento, CA 95814

Director
US Army Engineer District, San Francisco
211 Main Street
San Francisco, CA 94105

NORTH PACIFIC

Director
US Army Corps of Engineers
Pacific Ocean Division Office
Building 230
Fort Shafter, HI 96858
(808) 438-2883

Director
US Army Corps of Engineers
North Pacific Division Office
220 NorthWest 8th Avenue
Portland, OR 97208
(503) 221-3823

Director
US Army Engineer District, Alaska
Pouch 878
Anchorage, AK 99506

Director
US Army Engineer District, Portland
PO Box 2946
Portland, OR 97208

Director
US Army Engineer District, Seattle
PO Box C-3755
Seattle, WA 98124

Director
US Army Engineer District, Walla Walla
Building 602, City-County Airport
Walla Walla, WA 99362

ENVIRONMENTAL PROTECTION AGENCY

(Preserves environmental quality by controlling and regulating environmental impacts.)

HEADQUARTERS, WASHINGTON, DC

William Reilly, Administrator
Environmental Protection Agency
401 M Street, SW
Washington, DC 20460
(202) 475-8400

REGION I

Michael Deland, Administrator
Environmental Protection Agency
John F. Kennedy Federal Building
Boston, MA 02203
(617) 565-3715

REGION II

Christopher Daggett, Administrator
Environmental Protection Agency
26 Federal Plaza
New York, NY 10278
(212) 264-2525

REGION III

James Self, Administrator
Environmental Protection Agency
841 Chestnut Street
Philadelphia, PA 19107
(215) 597-9800

REGION IV

Lee DeHihns, Administrator
Environmental Protection Agency
345 Courtland Street NE
Atlanta, GA 30365
(404) 347-4727

REGION V

Valdas Adamkus, Administrator
Environmental Protection Agency
230 S. Dearborn Street
Chicago, IL 60604
(312) 353-2000

REGION VI

Robert Layton, Administrator
Environmental Protection Agency
1201 Elm Street
Dallas, TX 75270
(214) 655-6444

REGION VII

Morris Kay, Administrator
Environmental Protection Agency
726 Minnesota Avenue
Kansas City, KS 66101
(913) 236-2800

REGION VIII

James Scherer, Administrator
Environmental Protection Agency
999 18th Street
Denver, CO 80202
(303) 293-1603

REGION IX

John Wise, Administrator
Environmental Protection Agency
215 Fremont Street
San Francisco, CA 94105
(415) 974-8071

REGION X

Robie Russell, Administrator
Environmental Protection Agency
1200 6th Avenue
Seattle, WA 98101
(206) 442-5810

FEDERAL EMERGENCY MANAGEMENT AGENCY

(Integrates emergency preparedness, mitigation, and response activities at the Federal, state and local levels.)

HEADQUARTERS, WASHINGTON, DC

Administrator
Federal Emergency Management Agency
500 C Street, SW
Washington, DC 20472
(202) 646-4600

REGION I

Henry Vickers, Administrator
Federal Emergency Management Agency
J. West McCormack Building, Room 442
Boston, MA 02109
(617) 223-9540

REGION II

Jack Sable, Administrator
Federal Emergency Management Agency
26 Federal Plaza, Room 1338
New York, NY 10278
(212) 238-8207

REGION III

Paul Giordano, Administrator
Federal Emergency Management Agency
105 S. 7th Street
Philadelphia, PA 19106
(215) 931-5500

REGION IV

Major P. May, Administrator
Federal Emergency Management Agency
1371 Peachtree Street, NE, Suite 700
Atlanta, GA 30309
(404) 853-4200

REGION V

Robert Connor, Administrator
Federal Emergency Management Agency
175 West Jackson Blvd., 4th Floor
Chicago, IL 60606
(312) 431-5500

REGION VI

Edward Hargett, Administrator
Federal Emergency Management Agency
Federal Regional Center, Room 206
Denton, TX 76201
(817) 898-9399

REGION VII

Jerome Overstreet, Administrator
Federal Emergency Management Agency
911 Walnut Street, Room 300
Kansas City, MO 64106
(816) 283-7061

REGION VIII

Marian Olson, Administrator
Federal Emergency Management Agency
Federal Regional Center Building
Building 710
Denver, CO 80225
(303) 235-4811

REGION IX

Robert Vickers, Administrator
Federal Emergency Management Agency
Building 105, Presidio of San Francisco
San Francisco, CA 94129
(415) 923-7100

REGION X

William Mayer, Administrator
Federal Emergency Management Agency
130 228th Street, SW
Bothell, WA 98021
(206) 487-8800

GEOLOGICAL SURVEY

(Studies and maps the nation's natural resources and hazards and disseminates this information.)

EASTERN REGION

HEADQUARTERS, VIRGINIA

Dallas Peck, Director
US Geological Survey
National Center, Mail Stop 101
12201 Sunrise Valley Dr.
Reston, VA 22092
(703) 648-4000

MASSACHUSETTS

Robert Halley, Director
US Geological Survey
Quissett Campus
Woods Hole, MA 02543
(617) 548-8700

CENTRAL REGION

COLORADO

Harry Tourtelot, Director
US Geological Survey
Denver Federal Center, Box 25046
Mail Stop 911
Lakewood, CO 80225
(303) 236-5438

WESTERN REGION

ALASKA

Philip Emery, Director
US Geological Survey
4230 University Dr.
Anchorage, AL 99508-4664
(907) 271-4398

ARIZONA

Edwin Pfeifer, Director
US Geological Survey
2255 North Gemini Dr.
Flagstaff, AZ 86001
(602) 527-7000

CALIFORNIA

George Gryc, Director
US Geological Survey
345 Middlefield Road
Menlo Park, CA 94025
(415) 853-8300

HAWAII

Thomas Wright, Director
US Geological Survey
Hawaiian Volcano Observatory
Box 51
Hawaii National Park, HI 96718
(808) 967-7328

WASHINGTON

Donald Swanson, Director
US Geological Survey
Cascades Volcano Observatory
5400 MacArthur Blvd.
Vancouver, WA 98661
(206) 696-7693

GEOLOGICAL SURVEY WATER RESOURCES

(Provides factual and interpretive information on floods and assists in minimizing flood losses.)

NATIONAL HEADQUARTERS, VIRGINIA

Director
Water Resources Div.
US Geological Survey
National Center
Reston, VA 22092
(703) 648-5215

NORTHEASTERN REGION

REGIONAL HEADQUARTERS, VIRGINIA

Regional Hydrologist
US Geological Survey
433 National Center
Reston, VA 22092
(703) 648-5817

BRANCH OF REGIONAL RESEARCH

Chief
US Geological Survey
432 National Center
Reston, VA 22092
(703) 648-5833

CONNECTICUT

Hydrologist-in-Charge
Connecticut Office
Water Resources Div.
US Geological Survey
Abraham Ribicoff Federal Building
Room 525
450 Main Street
Hartford, CT 06103
(203) 722-2528

DELAWARE

Hydrologist-in-Charge
Delaware Office
Water Resources Div.
US Geological Survey
Federal Building, Room 1201
300 S. New Street
Dover, DE 19901
(302) 734-2506

ILLINOIS

District Chief
Water Resources Div.
US Geological Survey
Champaign County Bank Plaza
102 East Main Street, 4th Floor
Urbana, IL 61801
(217) 398-5353

INDIANA

District Chief
Water Resources Div.
US Geological Survey
6023 Guion Road, Suite 201
Indianapolis, IN 46254
(317) 927-8640

MAINE

Hydrologist-in-Charge
Maine Office
Water Resources Div.
US Geological Survey
26 Ganneston Dr.
Augusta, ME 04330
(207) 622-8208

MARYLAND

District Chief
Water Resources Div.
US Geological Survey
208 Carroll Building
8600 La Salle Road
Towson, MD 21204
(301) 828-1535

MASSACHUSETTS

District Chief
Water Resources Div.
US Geological Survey
150 Causeway Street, Suite 1309
Boston, MA 02114
(617) 223-2822

MICHIGAN

District Chief
Water Resources Div.
US Geological Survey
6520 Mercantile Way, Suite 5
Lansing, MI 48910
(517) 377-1608

MINNESOTA

District Chief
Water Resources Div.
US Geological Survey
702 Post Office Building
St. Paul, MN 55101
(612) 725-7841

NEW HAMPSHIRE

Hydrologist-in-Charge
New Hampshire Office
Water Resources Div.
US Geological Survey
525 Clinton Street, RFD 2
Bow, NH 03301
(603) 225-4681

NEW JERSEY

District Chief
Water Resources Div.
US Geological Survey
Suite 206, Mountain View Office Park
810 Bear Tavern Road
West Trenton, NJ 08628
(609) 771-0065

NEW YORK

District Chief
Water Resources Div.
US Geological Survey
PO Box 1669
Albany, NY 12201
(518) 472-3107

OHIO

District Chief
Water Resources Div.
US Geological Survey
975 West Third Avenue
Columbus, OH 43212
(614) 469-5553

PENNSYLVANIA

District Chief
Water Resources Div.
US Geological Survey
PO Box 1107
Harrisburg, PA 17108
(717) 782-4514

RHODE ISLAND

Hydrologist-in-Charge
Rhode Island Office
Water Resources Div.
US Geological Survey
John Pastore Federal Building &
US Post Office, Room 224
Providence, RI 02903
(401) 528-5135

VIRGINIA

Hydrologist-in-Charge
Virginia Office
Water Resources Div.
US Geological Survey
3600 West Broad Street, Room 606
Richmond, VA 23230
(804) 771-2427

WEST VIRGINIA

District Chief
Water Resources Div.
US Geological Survey
603 Morris Street
Charleston, WV 25301
(304) 347-5130

WISCONSIN

District Chief
Water Resources Div.
US Geological Survey
1815 University Avenue
Madison, WI 53705-4042
(608) 262-2488

SOUTHEASTERN REGION

REGIONAL HEADQUARTERS, GEORGIA

Regional Hydrologist
US Geological Survey
Richard Russell Federal Building
75 Spring Street, SW, Room 772
Atlanta, GA 30303
(404) 331-5174

BRANCH OF REGIONAL RESEARCH

Chief
US Geological Survey
Gulf Coast Hydrosience Center
Building 1100, Room 301
NSTL Station, MS 39529
(601) 688-3130

ALABAMA

District Chief
Water Resources Div.
US Geological Survey
520 19th Avenue
Tuscaloosa, AL 35401
(205) 752-8104

ARKANSAS

District Chief
Water Resources Div.
US Geological Survey
Federal Office Building, Room 2301
700 West Capitol Avenue
Little Rock, AR 72201
(501) 378-6391

FLORIDA

District Chief
Water Resources Div.
US Geological Survey
227 North Bronough Street, Suite 3015
Tallahassee, FL 32301
(904) 681-7620

GEORGIA

District Chief
Water Resources Div.
US Geological Survey
6481 Peachtree Industrial Blvd., Suite B
Doraville, GA 30360
(404) 331-4858

KENTUCKY

District Chief
Water Resources Div.
US Geological Survey
2301 Bradley Avenue
Louisville, KY 40217
(502) 582-5241

LOUISIANA

District Chief
Water Resources Div.
US Geological Survey
PO Box 66492
Baton Rouge, LA 70896
(504) 389-0281

MISSISSIPPI

District Chief
Water Resources Div.
US Geological Survey
Federal Office Building, Suite 710
100 West Capitol Street
Jackson, MS 39269
(601) 965-4600

NORTH CAROLINA

District Chief
Water Resources Div.
US Geological Survey
PO Box 2857
Raleigh, NC 27602
(919) 856-4510

PUERTO RICO

District Chief
Water Resources Div.
US Geological Survey
GPO Box 4424
San Juan, Puerto Rico 00936
(809) 783-4660

SOUTH CAROLINA

District Chief
Water Resources Div.
US Geological Survey
Suite 658
1835 Assembly Street
Columbia, SC 29201
(803) 765-5966

TENNESSEE

District Chief
Water Resources Div.
US Geological Survey
Federal Building & US Court House
Room A-413
Nashville, TN 37203
(615) 251-5424

CENTRAL REGION

REGIONAL HEADQUARTERS, COLORADO

Regional Hydrologist
US Geological Survey
Mail Stop 406, Box 25046
Denver Federal Center, Building 25
Lakewood, CO 80225
(303) 236-5920

BRANCH OF REGIONAL RESEARCH

Chief
US Geological Survey
Mail Stop 418, Box 25046
Denver Federal Center, Building 25
Lakewood, CO 80225
(303) 236-5021

COLORADO

District Chief
Water Resources Div.
US Geological Survey
Mail Stop 415, Box 25046
Denver Federal Center, Building 25
Lakewood, CO 80225
(303) 236-4882

IOWA

District Chief
Water Resources Div.
US Geological Survey
PO Box 1230
Iowa City, IA 52244-1230
(319) 337-4191

KANSAS

District Chief
Water Resources Div.
US Geological Survey
1950 Constant Avenue, West Campus
University of Kansas
Lawrence, KS 66046
(913) 864-4321

MISSOURI

District Chief
Water Resources Div.
US Geological Survey
1400 Independence Road, Mail Stop 200
Rolla, MO 65401
(314) 341-0824

MONTANA

District Chief
Water Resources Div.
Federal Building, Room 428
301 South Park Avenue
Drawer 10076
Helena, MT 59626-0076
(406) 449-5302

NEBRASKA

District Chief
Water Resources Div.
Federal Building, Room 406
100 Centennial Mall North
Lincoln, NE 68508
(402) 471-5082

NEW MEXICO

District Chief
Water Resources Div.
US Geological Survey
Western Bank Building, Room 720
505 Marquette, NW
Albuquerque, NM 87102
(505) 766-2246

NORTH DAKOTA

District Chief
Water Resources Div.
US Geological Survey
821 East Interstate Avenue
Bismarck, ND 58501
(701) 255-4011

OKLAHOMA

District Chief
Water Resources Div.
US Geological Survey
215 Dean McGee Avenue, Room 621
Oklahoma City, OK 73102
(405) 231-4256

SOUTH DAKOTA

District Chief
Water Resources Div.
US Geological Survey
Federal Building, Room 317
200 4th Street, SW
Huron, SD 57350-2469
(605) 352-8651

TEXAS

District Chief
Water Resources Div.
US Geological Survey
Federal Building, Room 649
300 East 8th Street
Austin, TX 78701
(512) 482-5766

UTAH

District Chief
Water Resources Div.
US Geological Survey
Administration Building, Room 1016
1745 West 1700 south
Salt Lake City, UT 84104
(801) 524-5663

WYOMING

District Chief
Water Resources Div.
US Geological Survey
PO Box 1125
Cheyenne, WY 82003
(307) 772-2153

WESTERN REGION

REGIONAL HEADQUARTERS, CALIFORNIA

Regional Hydrologist
US Geological Survey
345 Middlefield Road, Mail Stop 470
Menlo Park, CA 94025
(415) 323-8111

BRANCH OF REGIONAL RESEARCH

Chief
US Geological Survey
Mail Stop 472
345 Middlefield Road
Menlo Park, CA 94025
(415) 323-8111, Ext. 2339

ALASKA

District Chief
Water Resources Div.
US Geological Survey
4230 University Dr., Suite 210
Anchorage, AK 99508-4664
(907) 271-4138

ARIZONA

District Chief
Water Resources Div.
US Geological Survey
Federal Building
300 West Congress Street, FB-44
Tucson, AZ 85701
(602) 629-6671

CALIFORNIA

District Chief
Water Resources Div.
US Geological Survey
Federal Building, Room W-2235
2800 Cottage Way
Sacramento, CA 95825
(916) 978-4633

GUAM

Hydrologist-in-Charge
Subdistrict Office
Water Resources Div.
US Geological Survey
PO Box 188
FPO San Francisco, CA 96630
(671) 339-5293

HAWAII

District Chief
Water Resources Div.
US Geological Survey
PO Box 50166
Honolulu, HI 96850
(808) 546-8331

IDAHO

District Chief
Water Resources Div.
US Geological Survey
230 Collins Road
Boise, ID 83702
(208) 334-1750

NEVADA

Hydrologist-in-Charge
Nevada Office
Water Resources Div.
US Geological Survey
Federal Building, Room 224
705 North Plaza Street
Carson City, NV 89701
(702) 882-1388

OREGON

Hydrologist-in-Charge
Oregon Office
Water Resources Div.
US Geological Survey
847 NE 19th Ave., Suite 300
Portland, OR 97232
(503) 231-2009

WASHINGTON

District Chief
Water Resources Div.
US Geological Survey
1201 Pacific Avenue, Suite 600
Tacoma, WA 98402
(206) 593-6510

LAND GRANT EXTENSION SERVICES

(Provide information and encourage the application of research-based knowledge to agricultural pursuits at a variety of levels.)

HEADQUARTERS

Janet Poley, Director
Communication, Information, & Technology
US Dept. of Agriculture
Room 3328, South Building
Washington, DC 20250-0900
(202) 447-3029

ALABAMA

West Strain, Head
Information Services
Cooperative Extension Service
Auburn University
Auburn, AL 36849-5623
(205) 826-4970

J. Dawson, Associate Dean
Cooperative Extension Service
Alabama A&M University
Normal, AL 35762
(205) 859-7337

P. Brown, Associate Dean
Cooperative Extension Service
Tuskegee University
Tuskegee, AL 36088
(205) 727-8806

ALASKA

North Newcomer, Acting Editor
Cooperative Extension Service
University of Alaska
Fairbanks, AK 99701
(907) 474-7214

ARIZONA

Jim Chamie, Director
Cooperative Extension Service
College of Agriculture
University of Arizona
Tucson, AZ 85721
(602) 621-7178

ARKANSAS

Charles Johnston, Section Leader
Communications Section
Cooperative Extension Service
University of Arkansas
PO Box 391
Little Rock, AR 72203
(501) 373-2527

Raymond Barclay, Jr., Research Associate
Cooperative Extension Service
University of Arkansas
110 Agriculture
Fayetteville, AR 72701
(501) 575-5647

Debbie Kinsey, Communications Specialist
Cooperative Extension Service
University of Arkansas
PO Box 82
Pine Bluff, AR 71601
(501) 541-6747

CALIFORNIA

Director
Office of Information Services &
Publications
Cooperative Extension Service
Div. of Agriculture & Natural Resources
300 Lakeside, Drive, 6th Floor
University of California
Oakland, CA 94612-3560
(415) 987-0101

Forrest Cress, Communications Specialist
Cooperative Extension Annex
University of California
Riverside, CA 92521
(714) 787-3332

Karen Berke, Communications Specialist
Cooperative Extension Service
Agricultural Communications
University of California
Davis, CA 95616
(916) 752-1935

COLORADO

Paul Wisdom, Vice President for Public
Affairs
Cooperative Extension Service
Colorado State University
Fort Collins, CO 80523
(303) 491-6281

CONNECTICUT

Bruce Wilbur, Head
Cooperative Extension Service
Agricultural Publications
U-35, 1376 Storrs Road
College of Agriculture & Natural Resources
University of Connecticut
Storrs, CT 06268
(203) 486-4129

DELAWARE

Doris Crowley, Coordinator
Cooperative Extension Service
College of Agricultural Sciences
University of Delaware
Newark, DE 19717-1303
(302) 451-1125

Ulysses Washington, Jr., Administrator
Cooperative Extension Service
Delaware State College
Dover, DE 19901
(302) 736-4929

FLORIDA

Don Springer, Professor
Cooperative Extension Service
Institute of Food & Agricultural Sciences
GO22 McCarty Hall
University of Florida
Gainesville, FL 32611
(904) 392-1771

Lawrence Carter, Administrator
Cooperative Extension Service
Florida A&M University
PO Box 339
Tallahassee, FL 32307
(904) 599-3546

GEORGIA

Randall Cofer, Div. Chairman
Cooperative Extension Service
Div. of Agricultural Communications
College of Agriculture
University of Georgia
Athens, GA 30602
(404) 542-2561

GEORGIA

Fred Harrison, Jr., Administrator
Cooperative Extension Service
Fort Valley State College
PO Box 4061
Fort Valley, GA 31030
(912) 825-6296

HAWAII

Charles DeLuca, Director
Cooperative Extension Service
College of Tropical Agriculture &
Human Resources
University of Hawaii
Agricultural Publications &
Information Office
3050 Maile Way, Gilmore Hall, Room 119
Honolulu, HI 96822
(808) 948-7036

IDAHO

Scott Fedale, Head
Cooperative Extension Service
Agricultural Communications Center
College of Agriculture
University of Idaho
Moscow, ID 83843
(208) 885-6436

ILLINOIS

James Evans, Head
Cooperative Extension Service
Office of Agricultural Communications
College of Agriculture
University of Illinois
Urbana, IL 61801
(217) 333-4782

INDIANA

East Fredericks, Head
Cooperative Extension Service
Agricultural Communications Service
Agricultural Administration Building
Purdue University
West Lafayette, IN 47907
(317) 494-8396

IOWA

Barbara Abbott, Communications Specialist
Cooperative Extension Service
Iowa State University
Morrill Hall
Ames, IA 50011
(515) 294-4843

KANSAS

Jack Burke, Head
Cooperative Extension Service
129 Umberger Hall
Kansas State University
Manhattan, KS 66506
(913) 532-5804

KENTUCKY

Douglas Darden, Director
Cooperative Extension Service
Dept. of Agricultural Communications
Room 131 Scovell Hall
College of Agriculture
University of Kentucky
Lexington, KY 40546-0064
(606) 257-4736

Harold Bensen, Administrator
Cooperative Extension Service
Kentucky State University
Box 196
Frankfort, KY 40601
(502) 227-6310

LOUISIANA

Mike Futrell, Div. Leader
Cooperative Extension Service
Communications Div.
128 Knapp Hall
Louisiana State University
Baton Rouge, LA 70803
(504) 388-2263

Leodrey Williams, Administrator
Cooperative Extension Service
Southern University & A&M College
Southern Branch
PO Box 10010
Baton Rouge, LA 70813
(504) 771-2242

MAINE

Melanie Spencer, Publications Specialist
Cooperative Extension Service
Public Information & Central Services
University of Maine
Orono, ME 04669

MARYLAND

Colleen Clark, Head
Cooperative Extension Service
Dept. of Information & Publications
0109 Symons Hall
University of Maryland
College Park, MD 20742
(301) 454-3621

Henry Brooks, Administrator
Cooperative Extension Service
University of Maryland
Eastern Shore
Princess Anne, MD 21853
(301) 651-2200

MASSACHUSETTS

Trish Sacks, Program Leader
Cooperative Extension Service
218 Stockbridge Hall
University of Massachusetts
Amherst, MA 01003
(413) 545-0027

MICHIGAN

Maxine Ferris, Professor
Cooperative Extension Service
ANR Information Services
Morrill Hall
Michigan State University
East Lansing, MI 48824-1036
(517) 355-1758

MINNESOTA

David Nelson, Unit Director
Cooperative Extension Service
Educational Development System
University of Minnesota
405 Coffey Hall
St. Paul, MN 55108
(612) 624-4950

MISSISSIPPI

Ned Browning, Dept. Head
Cooperative Extension Service
Mississippi State University
PO Box 5446
Mississippi State, MS 39762
(601) 325-2262

Samuel Donald, Administrator
Cooperative Extension Service
Alcorn State University
Box 479
Lorman, MS 30996
(601) 877-6528

MISSOURI

Donald Esslinger, Director
Cooperative Extension Service
1-98 Agricultural Building
University of Missouri
Columbia, MO 65211
(314) 892-2480

G. Enlow, Administrator
Cooperative Extension Service
Lincoln University
900 Moreau Drive
Jefferson City, MO 65101
(314) 681-5521

MONTANA

Carol Flaherty, Communications Specialist
Cooperative Extension Service
Agricultural & Extension Communications
111 Hamilton Hall
Montana State University
Bozeman, MT 59717-0017
(406) 994-5136

NEBRASKA

Gary Vacin, Head
Cooperative Extension Service
Institute of Agriculture &
Natural Resources
University of Nebraska
Lincoln, NE 68583-0918
(402) 472-2821

NEVADA

Alice Good, Communications Coordinator
Cooperative Extension Service
Agricultural Information Office
College of Agriculture
University of Nevada
Reno, NV 89557-0103
(702) 784-6731

NEW HAMPSHIRE

Extension Editor
Cooperative Extension Service
Taylor Hall
University of New Hampshire
Durham, NH 03824
(603) 862-1234

NEW JERSEY

Vincent Abbatiello, Communications
Specialist
Cooperative Extension Service
Rutgers, The State University of New Jersey
Alexander Johnston Hall
New Brunswick, NJ 08903
(201) 932-9761

NEW MEXICO

Terry Canup, Dept. Head
Cooperative Extension Service
Agricultural Information
Box 30003, Dept. 3AI
New Mexico State University
Las Cruces, NM 88003
(505) 646-2701

NEW YORK

David Watkins, Director
Cooperative Extension Service
Media Services
Cornell University
Ithaca, NY 14853
(607) 255-5431

NORTH CAROLINA

David Jenkins, Head
Cooperative Extension Service
Dept. of Agricultural Communications
North Carolina State University
Box 7603
Raleigh, NC 27695-7603
(919) 737-2800

Valorie McAlpin, Director
Cooperative Extension Service
North Carolina A&T State University
PO Box 21928
Greensboro, NC 27420
(919) 334-7636

NORTH DAKOTA

Chuck Humphrey, Assistant Director
Cooperative Extension Service
North Dakota State University
7 Morrill Hall, Box 5655
Fargo, ND 58105
(701) 237-7867

OHIO

Larry Whiting, Head
Cooperative Extension Service
Information and Applied Communications
Ohio State University
2021 Coffey Road
Columbus, OH 43210-1400
(614) 292-2011

OKLAHOMA

Kevin Hayes, Head
Cooperative Extension Service
Agricultural Information Services
102 Public Information Building
Oklahoma State University
Stillwater, OK 74078
(405) 624-6886

Gilbert Tampkins, Associate Administrator
Cooperative Extension Service
Langston University
PO Box 970, Room 301
Langston, OK 73050
(405) 466-2311

OREGON

Gwil Evans, Director
Cooperative Extension Service
Agricultural Communications
Administrative Services Building
Oregon State University
Corvallis, OR 97331
(503) 754-3311

PENNSYLVANIA

Art Hussey, Director
Cooperative Extension Service
Agricultural Information Services
Penn State University
401 Agricultural Administration Building
University Park, PA 16802
(814) 863-4678

RHODE ISLAND

Jacqueline McGrath, Public Information
Officer
Cooperative Extension Service
University of Rhode Island
10 Woodward Hall
Kingston, RI 02881
(401) 792-2465

SOUTH CAROLINA

Harry Durham, Director
Cooperative Extension Service
Clemson University
Clemson, SC 29634-5609
(803) 656-2061

Leon Chavous, Director
Cooperative Extension Service
South Carolina State College
PO Box 1765
Orangeburg, SC 29117
(803) 536-8928

SOUTH DAKOTA

Emery Tschetter, Dept. Head
Cooperative Extension Service
South Dakota State University
Agricultural Communications Office
PO Box 2231
Brookings, SD 57007-1897
(605) 688-4643

TENNESSEE

Conrad Reinhardt, Professor
Cooperative Extension Service
Institute of Agriculture
University of Tennessee
PO Box 1071
Knoxville, TN 37901-1071
(615) 974-7141

James Farrell, Administrator
Cooperative Extension Service
Tennessee State University
3500 John East Merrett Blvd.
Nashville, TN 37209-1562
(615) 320-3650

TEXAS

Barry Jones, Dept. Head
Cooperative Extension Service
Dept. of Agricultural Communications
Reed McDonald Building
Texas A&M University
College Station, TX 77843
(409) 845-2211

Hoover Carden, Administrator
Cooperative Extension Service
Prairie View A&M University
Drawer B
Prairie View, TX 77446
(409) 857-2023

UTAH

Director
Cooperative Extension Service
Utah State University
Logan, UT 84322
(801) 750-2656

VERMONT

Meg Genson Ashman, Head
Cooperative Extension Service
Morrill Hall
University of Vermont
Burlington, VT 05405-0106
(802) 656-3024

VIRGINIA

Larry Hincker, Director
Cooperative Extension Service
Educational Communications
Virginia Polytechnic Institute & State
University
Blacksburg, VA 24061
(703) 961-6866

Clinton Turner, Director
Cooperative Extension Service
Virginia State University
PO Box 540
Petersburg, VA 23803
(804) 520-6421

WASHINGTON

Hugh Cameron, Chair
Cooperative Extension Service
401 Hulbert Hall
Washington State University
Pullman, WA 99164-6244
(509) 335-2823

WEST VIRGINIA

Dennis Godfrey, Program Leader
Cooperative Extension Service
508 Knapp Hall
Extension Service
West Virginia University
Morgantown, WV 26506-6031
(304) 293-4221

WISCONSIN

Marion Brown, Dept. Chair
Cooperative Extension Service
Dept. of Agricultural Journalism
University of Wisconsin-Madison
440 Henry Mall
Madison, WI 53706
(608) 263-2775

WYOMING

Patrick Wolfenbarger, Coordinator
Cooperative Extension Service
University of Wyoming
College of Agriculture
PO Box 3354
Laramie, WY 82071
(307) 766-5681

DISTRICT OF COLUMBIA

Thornell Page, Director
Cooperative Extension Service
University of the District of Columbia
901 Newton Street, NE
Washington, DC 20017
(202) 576-6980

GUAM

Ed Gould, Assistant Professor
Cooperative Extension Service
University of Guam
College of Agriculture & Life Sciences
University Station
Mangilao, GU 96932
(671) 734-4404

PUERTO RICO

Jorge Leon, Press Editor
Cooperative Extension Service
University of Puerto Rico
Managuex Campus
College of Agricultural Sciences
Agricultural Extension Service
PO Box 21120
Rio Piedras, PR 00928
(809) 765-8000

VIRGIN ISLANDS

Carrol Fleming, Editor
Cooperative Extension Service
University of the Virgin Islands
RR2, Box 10000, Kingshill
St. Croix, VI 08850
(809) 778-0246

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION CLIMATE CENTERS

(Promotes national and international understanding of climatic processes, natural and human-made, and their implications.)

HEADQUARTERS

Director
National Climate Program Office
Rockwall Building, Room 108
11400 Rockville Pike
Rockville, MD 20852
(301) 443-8981

National Climatic Data Center
Federal Building
Asheville, NC 28801
(704) 259-0682

NORTHEAST REGION

Warren Knaff, Director
Northeast Regional Climate Center
Atmospheric Sciences Unit
1113 Bradfield Hall
Cornell University
Ithaca, NY 14853
(607) 255-1751

SOUTHEASTERN REGION

John Purvis, Director
Southeastern Regional Climate Center
1201 Main Street, Suite 1100
Columbia, SC 29201
(803) 737-0811

MIDWESTERN REGION

Kenneth Kunkel, Director
Midwestern Climate Center
Illinois State Water Survey
2204 Griffith Drive
Champaign, IL 61820
(217) 244-1488

HIGH PLAINS REGION

Kenneth Hubbard, Director
High Plains Regional Climate Center
CAMAC
239 L. West Chase Hall
University of Nebraska
Lincoln, NE 68582-0728
(402) 472-3679

WESTERN REGION

Rick Rinehart, Assistant Director
Western Regional Climate Center
Desert Research Institute
Box 60220
Reno, NV 89506
(702) 677-3103

NATIONAL WEATHER SERVICE

(Observes and reports the weather and issues forecasts and warnings of weather and floods
in the interest of national safety and the economy.)

HEADQUARTERS

Donald Wernly, Director
National Weather Service
8060 13th Street, Room 1326
Silver Spring, MD 20910
(301) 427-8090

CENTRAL REGION

Richard Augulus, Director
National Weather Service
601 East 12th Street
Kansas City, MO 64106
(816) 471-4840

PACIFIC REGION

Richard Hagemeyer, Director
National Weather Service
PO Box 50027
Honolulu, HI 96850-4993
(808) 546-5680

EASTERN REGION

Walter Seibert, Director
National Weather Service
630 Johnston Avenue
Bohemia, NY 11716
(516) 228-5400

WESTERN REGION

Hazen Bedke, Director
National Weather Service
PO Box 1118
Federal Building
Salt Lake City, UT 84147-0188
(801) 524-5122

ALASKAN REGION

Stuart Bigler, Director
National Weather Service
222 West Seventh Avenue, #23
Anchorage, AK 99513
(907) 271-5136

SOUTHERN REGION

Thomas Grayson, Director
National Weather Service
819 Taylor Street, Room 10A26
Fort Worth, TX 76102
(817) 334-2668

SMALL BUSINESS ADMINISTRATION DISASTER ASSISTANCE DIVISIONS

(Provides long-term, low-interest loans to disaster victims, for repairing or replacing their damaged property.)

AREA 1

Connecticut, Maine, Massachusetts,
New Hampshire, New Jersey, New York,
Puerto Rico, Rhode Island, Vermont,
Virgin Islands.

Carl Jordan, Director
US Small Business Administration
15-01 Broadway
Fairlawn, NJ 07410
(202) 794-8195

AREA 2

Alabama, Delaware, District of Columbia,
Florida, Georgia, Illinois, Indiana, Kentucky,
Maryland, Michigan, Minnesota, Mississippi,
North Carolina, Ohio, Pennsylvania,
South Carolina, Tennessee, Virginia,
West Virginia, Wisconsin.

Richard Nash, Sr., Director
US Small Business Administration
2306 Oak Lane, Suite 110
Grand Prairie, TX 75051
(214) 767-7571

AREA 3

Arkansas, Iowa, Kansas, Louisiana, Missouri,
Nebraska, New Mexico, Oklahoma, Texas.

Bob Quackenbush, Director
US Small Business Administration
2306 Oak Land, Suite 110
Grand Prairie, TX 75051
(214) 767-7571

AREA 4

Alaska, Arizona, California, Colorado,
Guam, Hawaii, Idaho, Montana, Nevada,
North Dakota, Oregon, South Dakota, Utah,
Washington, Wyoming.

Robert Belloni, Director
US Small Business Administration
PO Box 13795
Sacramento, CA 95853-4795
(916) 978-4578

Additional Offices

SEA GRANT PROGRAMS

(Inform citizens about important coastal issues including natural hazards.)

ALASKA

Ronald Dearborn, Director
Alaska Sea Grant College Program
University of Alaska
138 Irving II
Fairbanks, AL 99775-5040

CALIFORNIA

Robert Friedheim, Director
Sea Grant Program
Institute for Marine & Coastal Studies
University of Southern California
University Park
Los Angeles, CA 90089

James Sullivan, Director
Sea Grant College Program, A-032
University of California at San Diego
La Jolla, CA 92093

CONNECTICUT

Edward Monahan, Director
Connecticut Sea Grant
University of Connecticut
Avery Point
Groton, CT 06340

DELAWARE

Andrew Manus, Director
Sea Grant Program
Robinson Hall
University of Delaware
Newark, DE 19716

GEORGIA

Mac Rawson, Director
Sea Grant College Program
University of Georgia
Ecology Building
Athens, GA 30602

HAWAII

Jack Davidson, Director
Sea Grant College Program
University of Hawaii
1000 Pope Road, Room 220
Honolulu, HI 96822

INDIANA

Burnell Fischer, Director
Illinois/Indiana Sea Grant
Purdue University
Dept. of Forestry & Natural Resources
West Lafayette, IN 47097

LOUISIANA

Jack Van Lopik, Director
Sea Grant College Program
Center for Wetland Resources
Louisiana State University
Baton Rouge, LA 70803-7505

MARYLAND

John Greer, Director
Maryland Sea Grant College
H.J. Patterson Hall, Room 1222
University of Maryland
College Park, MD 20742

MASSACHUSETTS

Chrysostomos Chrysostomidis, Director
Sea Grant College Program
Massachusetts Institute of Technology
Building E38, Room 330
77 Massachusetts Avenue
Cambridge, MA 02139

David Ross, Director
Sea Grant Coordinator
Woods Hole Oceanographic Institute
Woods Hole, MA 02543

MAINE

Bryan Pearce, Director
UMO/UNH Sea Grant Program
University of Maine
14 Coburn Hall
Orono, ME 04469

MICHIGAN

Michael Parsons, Director
Sea Grant College Program
University of Michigan
2200 Bonisteel Blvd.
Ann Arbor, MI 48109

MINNESOTA

Donald McNaught, Director
Minnesota Sea Grant Program
University of Minnesota
116 Classroom Office Building
1994 Buford Avenue
St. Paul, MN 55108

MISSISSIPPI

James Jones, Director
Mississippi-Alabama Sea Grant Consortium
PO Box 7000
Ocean Springs, MS 39564-7000

NEW HAMPSHIRE

Darrell Grimes, Director
University of New Hampshire
Institute of Marine & Ocean Engineering
Marine Programs Building
Durham, NH 03824

NEW JERSEY

Bill Gordon, Director
Sea Grant Program
New Jersey Marine Science Consortium
Building 22
Ft. Hancock, NJ 07732

NEW YORK

Robert Malouf, Director
New York Sea Grant Institute
Dutchess Hall
SUNY/Stony Brook
Stony Brook, NY 11794-5001

NORTH CAROLINA

B. J. Copeland, Director
UNC Sea Grant Program
Box 8605
North Carolina State University
Raleigh, NC 27695-8605

OHIO

Jeffrey Reutter, Director
Ohio Sea Grant Program
Ohio State University
Research Foundation
1314 Kinnear Road
Columbus, OH 43212

OREGON

William Wick, Director
Sea Grant College Program
Administrative Services Building A-320
Oregon State University
Corvallis, OR 97331

RHODE ISLAND

Scott Nixon, Director
Sea Grant College Program
Marine Resources Building
University of Rhode Island
Narragansett Bay, RI 02882

SOUTH CAROLINA

Margaret Davidson, Director
South Carolina Sea Grant Consortium
287 Meeting Street
Charleston, SC 29401

TEXAS

Thomas Bright, Director
Sea Grant College Program
Texas A&M University
College Station, TX 77843

VIRGINIA

William Rickards, Director
Virginia Sea Grant College Program
Madison House, 170 Rugby Road
University of Virginia
Charlottesville, VA 22903

WASHINGTON

Louie Echols, Director
Sea Grant College Program
University of Washington, HG-30
3716 Brooklyn Avenue, NE
Seattle, Washington 98105

WISCONSIN

Robert Ragotskie, Director
Sea Grant Institute
University of Wisconsin at Madison
1800 University Avenue
Madison, WI 53705

PUERTO RICO

Manuel Hernandez-Avila, Director
Sea Grant Program
Dept. of Marine Science
University of Puerto Rico
Mayaguez, Puerto Rico 00708

WATER RESOURCES RESEARCH INSTITUTES

(Further understanding of basic water-related science.)

ALABAMA

Joseph Judkins, Director
Water Resources Research Institute
Auburn University
202 Hargis Hall
Auburn, AL 36849-5124
(205) 826-5075

ALASKA

Edward Brown, Director
Water Research Center
Institute of Northern Engineering
University of Alaska
Fairbanks, AL 99775-1760
(907) 474-7350

ARIZONA

William Lord, Director
Water Resources Research Center
University of Arizona
Tucson, AZ 85721
(602) 621-7607
BITNET: "billlord@arizrvax"

ARKANSAS

Kenneth Steele, Director
Water Resources Research Center
University of Arkansas
113 Ozark Hall
Payetteville, AR 72701
(501) 575-4403

CALIFORNIA

Henry Vaux, Jr., Director
Water Resources Center
Rubidoux Hall
University of California
Riverside, CA 92521
(714) 787-4327
BITNET: "calwtr@ucrvms"

COLORADO

Neil Grigg, Director
Colorado Water Resources
Research Institute
410 University Services Center
Colorado State University
Fort Collins, CO 80523
(303) 491-6308

CONNECTICUT

David Miller, Director
Institute of Water Resources
University of Connecticut
Room 228, Hall Building, U-18
362 Fairfield Road
Storrs, CT 06269
(203) 486-3534

DELAWARE

Robert Varrin, Director
Water Resources Center
University of Delaware
101 Hulliher Hall
Newark, DE 19716
(302) 451-2136
BITNET: "bnz32766@vdacsvm"

FLORIDA

James Heaney, Director
Water Resources Research Center
University of Florida
424 Black Hall
Gainesville, FL 32611
(904) 392-0840
BITNET: "ufwrrc@nervm"

GEORGIA

Bernard Kahn, Director
Environmental Resources Center
Georgia Institute of Technology
205 Old Civil Engineering Building
Atlanta, GA 30332
(404) 894-3776

HAWAII

Stephen Lau, Director
Water Resources Research Center
University of Hawaii at Manoa
Holmes Hall 283
2540 Dole street
Honolulu, HI 96822
(808) 948-7847

IDAHO

Dale Ralston, Director
Water Resources Research Institute
University of Idaho
Morrill Hall Room 106
Moscow, ID 83843
(208) 885-6429

ILLINOIS

Glenn Stout, Director
Water Resources Center
University of Illinois
205 North Mathews Avenue
Urbana, IL 61801
(217) 333-0536
BITNET: "stout@uiucvmd"

INDIANA

John Cushman, Director
Water Resources Research Center
Purdue University
Lilly Hall
West Lafayette, IN 47907
(317) 494-8041

IOWA

Al Austin, Director
State Water Resources Research Institute
Iowa State University
355 Town Engineering Building
Ames, IA 50011
(515) 294-8921

KANSAS

Hyde Jacobs, Director
Water Resources Research Institute
Kansas State University
144 Waters Hall
Manhattan, KS 66506
(913) 532-5729

KENTUCKY

Billy Barfield, Director
Water Resources Research Institute
University of Kentucky
219 Anderson Hall
Lexington, KY 40506-0046
(606) 257-1299

LOUISIANA

Marty Tittlebaum, Director
Water Resources Research Institute
Louisiana State University
2401-A CEBA Building
Baton Rouge, LA 70803
(504) 388-8508
BITNET: "watitt@lsuvm"

MAINE

Gregory White, Director
Environmental Studies Center
University of Maine
11 Coburn Hall
Orono, ME 04410
(207) 581-1492
BITNET: "umlwrc@maine"

MARYLAND

Robert Menzer, Director
Water Resources Research Center
University of Maryland
0313 Symons Hall
College Park, MD 20742-5595
(301) 454-6406
BITNET: "menzer@umd2.umd.edu"

MASSACHUSETTS

Paul Godfrey, Director
Water Resources Research Center
University of Massachusetts
Blaisdell House
Amherst, MA 01003
(413) 545-2842
BITNET: "wrrc@umass"

MICHIGAN

Jon Bartholic, Director
Institute of Water Research
Michigan State University
334 Natural Resources Building
East Lansing, MI 48824
(517) 353-3742
BITNET: "17872iwr@msu"

MINNESOTA

Patrick Brezonik, Director
Water Resources Research Center
University of Minnesota
866 Bioscience Center
1445 Gortner Avenue
St. Paul, MN 55108
(612) 624-9282

MISSISSIPPI

Marvin Bond, Director
Water Resources Research Institute
PO Drawer AD
Mississippi State University
Mississippi State, MS 39762
(601) 325-3620
BITNET: "bond@msstate"

MISSOURI

Thomas Clevenger, Director
Water Resources Research Center
University of Missouri
Sinclair Road, Route 3
Columbia, MO 65211
(314) 882-3132

MONTANA

Howard Peavy, Director
System Water Resources Center
Montana State University
309 Montana Hall
Bozeman, MN 59717
(406) 994-6690

NEBRASKA

Roger Gold, Director
Nebraska Water Resources Center
University of Nebraska
103 Natural Resources Hall
Lincoln, NE 68583-0844
(402) 472-3305
BITNET: "wrr001@unlvn"

NEVADA

Jack Hess, Director
Water Resources Center
Desert Research Institute
University of Nevada System
PO Box 60220
Reno, NV 89506-0220
(702) 673-7365

NEW HAMPSHIRE

Thomas Ballesterio, Director
Water Resources Research Center
University of New Hampshire
218 Science & Engineering Building
Durham, NH 03824
(603) 862-2144

NEW JERSEY

Alan McIntosh, Director
Div. of Water Resources
Center for Coastal & Environmental Studies
Rutgers State University of New Jersey
Doolittle Hall, Busch Campus
New Brunswick, NJ 08903
(201) 932-3596

NEW MEXICO

Bobby Creel, Director
Water Resources Research Institute
New Mexico State University
Box 30001 Dept. 3167
Las Cruces, NM 88003-0001
(505) 646-4337
BITNET: "wrr003@nmsuvm1"

NEW YORK

Keith Porter, Director
Water Resources Institute
468 Hollister Hall
Cornell University
Ithaca, NY 14853-3501
(607) 255-5941
BITNET: "n65j@cornell"

NORTH CAROLINA

David Moreau, Director
Water Resources Research Institute
North Carolina State University
219 Oberlin Road
Campus Box 7912
Raleigh, NC 27695-7912
(919) 737-2815

NORTH DAKOTA

Craig Schnell, Director
Water Resources Research Institute
North Dakota State University
202 Old Main
Fargo, ND 58105
(701) 237-7034
BITNET: "nu044000@ndsuvml"

OHIO

Robert Stiefel, Director
Water Resources Center
Ohio State University
1791 Neil Avenue
Columbus, OH 43210-1294
(614) 292-2334
BITNET: "ts5588@ohstvm1"

OKLAHOMA

Norman Durham, Director
University Center for Water Research
Oklahoma State University
003 Life Sciences East
Stillwater, OK 74078-0281
(405) 744-9994

OREGON

Peter Klingeman, Director
Water Resources Research Institute
100 Merryfield Hall
Oregon State University
Corvallis, OR 97331-2410
(503) 754-4022

PENNSYLVANIA

Archie McDonnell, Director
Environmental Resources Research Institute
Pennsylvania State University
103 Land & Water Research Building
University Park, PA 16802
(814) 863-0291

RHODE ISLAND

Calvin Poon, Director
Water Resources Center
University of Rhode Island
310 Bliss Hall
Kingston, Rhode Island 02881
(401) 792-2297

SOUTH CAROLINA

Paul Zielinski, Director
Water Resources Research Institute
Clemson University
310 Lowry Hall
Clemson, SC 29634-2900
(803) 656-3273
BITNET: "wrri@clemson"

SOUTH DAKOTA

Alan Bender, Director
Water Resources Institute
South Dakota State University
PO Box 2120
Brookings, SD 57007
(605) 688-4910

TENNESSEE

William Colglazier, Director
Water Resources Research Center
University of Tennessee
428 South Stadium Hall
Knoxville, TN 37996-0750
(615) 974-2151

TEXAS

Wayne Jordan, Director
Texas Water Resources Institute
Texas A&M University
College Station, TX 77843-2118
(409) 845-1851
BITNET: "jensen@tamagen"

UTAH

Douglas James, Director
Center for Water Resources Research
Utah State University
Logan, UT 84322-8200
(801) 750-3168
BITNET: "uwrl@usu"

VERMONT

Alan McIntosh, Director
Water Resources Research Center
University of Vermont
321 George Aiken Center
Burlington, VT 05405
(802) 656-4057

VIRGINIA

William Walker, Director
Water Resources Research Center
Virginia Polytechnic Institute and
State University
617 North Main Street
Blacksburg, VA 24060-3397
(703) 961-5624
BITNET: "walderwr@vtvm1"

VIRGIN ISLANDS

Hari Krishna, Director
Water Resources Research Center
Caribbean Research Institute
University of the Virgin Islands
St. Thomas, VI 00802
(809) 776-9200, ext.1252

WASHINGTON

William Funk, Director
State of Washington Water Research Center
Washington State University
Albrook Lab 202B
Pullman, WA 99164-3002
(509) 335-5531

WEST VIRGINIA

Charles Jenkins, Director
Water Research Institute
West Virginia University
258 Stewart Street
Morgantown, WV 26506-6064
(304) 293-2757
BITNET: "wrri@wvnm"

WISCONSIN

Gordon Chesters, Director
Water Resources Center
University of Wisconsin
1975 Willow Drive, 2nd Floor
Madison, WI 53706
(608) 262-3577
BITNET: chesters@wiscmac"

WYOMING

Steven Gloss, Director
Wyoming Water Research Center
University of Wyoming
PO Box 3067
Laramie, WY 82071
(307) 766-2143
BITNET: "rwrwrc@wyocdcl"

DISTRICT OF COLUMBIA

Mamadou Watt, Director
Water Resources Research Center, MB5004
University of the District of Columbia
4200 Connecticut Avenue, NW
Washington, DC 20008
(202) 673-3442
BITNET: "watt@udcvm"

GUAM

Leroy Heitz, Director
Water and Energy Research
Institute of the Western Pacific
University of Guam
UOG Station
Mangilau, Guam 96923
(671) 734-3132

PUERTO RICO

Rafael Munoz Candelario, Director
Water Resources Research Institute
University of Puerto Rico
PO Box 5000
Mayaguez, PR 00709-5000
(809) 832-4040

WORLD HEALTH ORGANIZATION LOCAL POINTS FOR EMERGENCIES

(Furnishes aid in emergencies and encourages preventive and preparedness measures.)

HEADQUARTERS, SWITZERLAND

Director
Emergency Preparedness & Response
World Health Organization
20 avenue Appia
CH.1211 Geneva 27
SWITZERLAND
Telex: 27821 OMS CH
Telefax: 9107 46
Elecmail: UNC 362
Cable: UNISANTE GENEVA
Tel. Off.: (022) 912777

EUROPE

Director
Regional Office for Europe
Accident Prevention Programme
World Health Organization
8 Scherfigsvej
2100 Copenhagen
DENMARK
Telex: 15348 WHO
Telefax: 181120
Cable: UNISANTE COPENHAGEN
Tel. Off.: 290111

MEDITERRANEAN

Director
Regional Office for the
Eastern Mediterranean
World Health Organization
PO Box 1517
Alexandria, 21511
EGYPT
Telex: 54028/54684
Telefax: 4838916
Cable: UNISANTE ALEXANDRIA
Tel. Off.: 4830090/ 96/ 97

AFRICA

Director
Regional Office for Africa
World Health Organization
PO Box n 6
Brazzaville, CONGO
Telex: 5217/ 5364 UNISANTE
Cable: UNISANTE BRAZZAVILLE
Tel. Off.: 813860-65

AMERICAS

Director
Regional Office for the Americas
Emergency Preparedness &
Disaster Relief Coordination
World Health Organization
Pan American Sanitary Bureau
525 23rd Street NW
Washington, DC 20037
USA
Telex: 248338/ 440057 PASB
Telefax: 7754578
Cable: OPSANPAN WASHINGTON
Tel. Off.: 8613200

WESTERN PACIFIC

Director
Regional Office for the Western Pacific
Health Services, Development & Planning
World Health Organization
PO Box 2932
Manila 2801
PHILIPPINES
Telex: 27652/ 63260/ 40365 WHO
Telefax: 5211036
Cable: UNISANTE MANILA
Tel. Off.: 5218421

SOUTHEAST ASIA

Director
Regional Office for South East Asia
World Health Organization
World Health House
Indraprastha Estate
Mahatma Gandhi Rd
New Delhi, 110002
INDIA
Telex: 3165095/ 3165031 WHO
Telefax: 3318607
Cable: WHO NEW DELHI
Tel. Off.: 3317804-7823

INDICES

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