ESIC NEWS

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NDGS ESIC Coordinator

The NDGS is an affiliate of the Earth Science Information Center (ESIC) network. The U.S. Geological Survey coordinates the nationwide ESIC network, which provides information about geology, hydrology, topography, and land use in the form of maps, books, reports, and aerial, satellite, and radar images, and related products. ESIC also publishes and distributes earth-science data in digital form. As an ESIC office, the NDGS can assist the public in locating earth-science materials dealing with North Dakota. For more information, contact Fred Anderson, Donna Bauer, or Elroy Kadrmas by phone at (701) 328-8000.

GENERAL INFORMATION

The North Dakota Geological Survey continues to make the following maps available through our publications office:

Iraq Planning Map (1:2,000,000) $10.00
The Middle East Graphic (1:4,500,000) $15.00
Iraq (1:1,250,000) $10.00
Baghdad (1:40,000) $10.00
Tikrit, Al Basrah, Al Mawsil, Karkuk $15.00 each.
Lewis and Clark: A Legacy of Science $10.00
National Wildlife Refuge System Map $7.00

MAPS and RECENT PUBLICATIONS

This Dynamic Planet

A view of the Earth's volcanoes, earthquakes, impact craters and plate tectonics is portrayed on the highly popular, recently reprinted map entitled: This Dynamic Planet. This map shows numerous features that have shaped and continue to shape our dynamic planet. The delineation of plate boundaries by earthquakes and volcanoes can be seen on this map, in addition to impact structures, created from extraterrestrial objects that have punctuated Earth history. The back side of this two-sided map zooms in on specific fundamental features of interest, including explanatory text, time-lines, references and other valuable resources illustrating the expansive recent growth in our knowledge of the planet.

Title: This Dynamic Planet
Scale: 1:30,000,000 (equatorial)
Item No.: 206335
Publication ID: I-2800
Size: 58" x 43.5"
Price: $14.00 for the map, plus a $5.00 handling charge.
Also available in digital format as PDF documents in the featured products section of the USGS Store website located at http://store.usgs.gov

Tongass National Forest

America's largest and wildest national forest covering 26,000 square miles of Alaska's southeastern panhandle is covered by this two-sided colorful map. A detailed map explanation is included which highlights facility locations for cabins, RV hookups, pay telephones, showers, boat moorings and activities including: bear viewing, camping, fishing, hunting, hiking, and swimming. In addition, 32 local communities are also depicted including Ketchikan, Sitka, Juneau, Skagway, Haines and Craig. Information and colorful pictures about Native Culture, European influences to the area, archaeology and the gold rush are also highlighted on the reverse side of this map.

Title: Tongass National Forest, Alaska
Scale: 1:760,320
Item No.: 205450
Size: 36" x 36"
Price: $7.50 for the map, plus a $5.00 handling charge (available as a paper map only).

EDUCATIONAL MATERIALS

USGS Science Resources for Primary Grades (K-6)

There are many outstanding teaching resources available directly from the USGS's Educational Resources website for K-6 educators including complete teaching modules dealing with Global Change and the Solar System. There are also many structured classroom activities that consist of hands-on, lab type activities, dealing with topics such as biodiversity and finding your way with a map and compass as well as many others. There are many additional interesting topics in this resource series including: Topographic Maps, Satellite Images, Thematic Maps, Land Use History, Astronomy and Astrogeology, Plate Tectonics, Rocks and Minerals, Weathering and Erosion, Fossils and Paleontology, Geology of National Parks, Caves, and Natural Hazards. Access to these resources can be gained by linking directly to the USGS Educational Resources website at: http://education.usgs.gov/common/primary.htm

USGS Educational Resources of Secondary Grades (7-12)

Secondary grade educators will also find several engaging teaching resources for middle school and high school classrooms that can be used directly in the classroom or for curriculum development related to biology, geology and water resources. Topics include: On-line Maps of the United States, Historic Exploration in the U.S., Geologic Maps, Coastal Environments, Climate Change, Earthquakes, Tsunamis, Landslides and Ground-water resources. There are also

several 3D activities such as the interactive online viewing of the stereoscopic images of John Wesley Powell's Voyages down the Colorado River, collected during initial exploration of the canyons of the Colorado River and Grand Canyon. These excellent educational resources can be found by visiting the Secondary Grades webpage on the USGS Educational Resources website at: http://education.usgs.gov/common/secondary.htm

Science in our State

Providing students with interesting and exciting real-world examples of current scientific activities and investigations being conducted in North Dakota are of vital importance for demonstrating the daily relevance of scientific inquiry. An exiting and informative website on USGS related science in North Dakota highlights real-time data collection monitoring programs in operation throughout North Dakota such as hydrologic monitoring, information on biological, mineral resource, and recreational information for the State, and links to research and science centers in North Dakota and the upper-Midwest, which highlight current programs and research activities. Access to the Science in Your State website for North Dakota, can be obtained by linking to: http://www.usgs.gov/state/state.asp?State=ND

GEOSCIENCE, MINERALS, AND REMOTE-SENSING RELATED WEBSITES:

USGS Geophysical Data Products

A wealth of geophysical data related to the U.S. and North America can be found on the USGS's Geophysical Data Products website. Geophysical data consisting of regional, state, and quadrangle scale compilations are available in addition to surveys and reports relating to magnetic, gravity, electrical, magnetotelluric and gamma-ray/radiometrics methods. There are also links that include fact sheets on various aspects of geophysical data management such as the creation and compilation of magnetic data databases. Also included are links to geophysical software that is available for free download for use in such areas as interactive picking of S-wave data and for editing and manipulating SEG-2 format files. Image Spectroscopy and Remote Sensing data and programs can also be accessed from this webpage at: http://crustal.usgs.gov/geophysics/index.html

USGS Contributions to Climate Change Science

USGS Global Change Research strives to achieve a whole-system understanding of the interrelationships among earth surface processes, ecological systems, and human activities. Programs focus on documenting, analyzing, and modeling the character of past and present environments and the geological, biological, hydrological, and geochemical processes involved in environmental change anticipating future environmental changes and impacts. Knowledge about changes to the earth's surface and the underlying processes that induce them has an enormous impact on how we as a society respond to these changes and, ultimately, the costs of responding to these changes. Information on the diverse range of ongoing climate change research and contributions to this field of scientific inquiry by the USGS can be found at: http://geochange.er.usgs.gov/

Earthquake Website and Earthquake Notification Service

A new USGS website and Earthquake Notification Service (ENS) designed to distribute the information associated with earthquakes to the public in more timely fashion was completed this spring. The ENS sends out an earthquake alert to subscribers via e-mail and with the new system users have greater control in selecting the options for which email alerts can be generated and received such as: region of interest, magnitude thresholds, aftershock exclusion and the like. The USGS's earthquake website receives over one million hits per day. Information about the largest earthquakes is posted within two minutes for U.S. earthquakes and within 30 minutes for earthquakes that occur outside the U.S. Access to the notification service can be found by clicking on the Information Services link of the Earthquake Hazards Program, Additional Resources web page at: http://earthquake.usgs.gov/resources/

NDGS Earth Science Information Center (ESIC) Affiliate

For assistance in finding and/or ordering a product, or if you have any questions related to earth science data or maps, you may contact the North Dakota Geological Survey's, USGS Earth Science Information Center Coordinator, Mr. Fred J. Anderson, at: (701) 328-8000 or via email at: fjanderson@state.nd.us

USGS Homepage
http://www.usgs.gov

> Nature chose for a tool, not the earthquake or lightning to rend and split asunder, not the stormy torrent or eroding rain, but the tender snow-flowers noiselessly falling through unnumbered centuries.
> *John Muir*