

The National Geospatial Data Clearinghouse

August 2004

More than 4 billion dollars are estimated to be spent annually by the U.S. Federal Government on the production, management, and dissemination of geospatial data. Many of these funds are used to collect and manage data that may be useful to many organizations. The National Geospatial Data Clearinghouse is a means of publishing descriptions of geospatial data from a variety of governmental and non-governmental sources, helping users determine their fitness for use, and providing tools to access, visualize, or order data as efficiently as possible.

WHAT IS THE CLEARINGHOUSE?

The Clearinghouse is a distributed, electronically connected network of geospatial data producers, managers and users. It is neither a central repository where data sets are stored nor a set of web sites referencing spatial data. It is a federated system of compatible geospatial data catalogs that can be searched through a common interface – the geodata.gov portal.

Government, academic, commercial, and non-profit organizations make information about spatial data, called metadata, available on the Internet in support of the National Spatial Data Infrastructure (NSDI).

Executive Order 12906, signed by President Clinton in 1994, and reaffirmed in 2003, requires all Federal agencies that produce geospatial data to document new data sets produced after January 1995 using the Content Standards for Digital Geospatial Metadata (Version 2.0, 1998) adopted by the Federal Geographic Data Committee. The Executive Order also requires that metadata be made available through the Clearinghouse so that the government and the public can determine what geospatial data exist, the condition of these data, and how to access them. Although the Executive Order applies only to Federal agencies, a wide variety of data producers and users throughout the nation and in other countries are participating in the Clearinghouse through adoption of common practices.

HOW DOES THE CLEARINGHOUSE WORK?

The Clearinghouse is a federation of metadata collections made searchable through common protocols. Each data producer or maintainer describes available data in electronic form and prepares these descriptions (the metadata) for Clearinghouse access using a variety of free and commercially supported software.

One of the essential requirements of the Clearinghouse is to support search for spatial data over the Internet. Metadata are managed in collections maintained by each organization, and are made searchable through official catalog service protocols over the Internet. These metadata are joined into a single, virtual catalog at geodata.gov. Users can then build simple or complex queries to search the metadata – for example, geographic location, date of creation, or title. Users only need a common Web browser to search the Clearinghouse through the geodata.gov portal.

Based on evaluation of the metadata via the search interface, a user can decide if the data or maps appear suitable to their needs and identify how the data producer provides access to the data: via order form, shopping cart, direct hyperlink download, or links to online mapping services. If online mapping services are available, the geodata.gov portal displays these map datasets together with other data, without the need for special GIS client software.

BENEFITS

The abilities to search for spatial data and to determine their relevance are critical skills in a knowledge-driven economy. The use of geographic information systems technology is spreading, and along with it the demands for more and better geospatial data.

HOW TO PARTICIPATE?

The FGDC is the primary contact organization for prospective participants in the Clearinghouse and Geospatial One-Stop's geodata.gov portal activities.

you are interested in advertising your spatial data through the Clearinghouse or Geospatial One-Stop:

- Learn and use the FGDC metadata standard on data you wish to publish.
- Provide public access to your collection of metadata on the Internet using *ONE* of the following methods:
 - a server (Clearinghouse Node) that supports the Z39.50 “GEO” Profile,
 - a service that supports the Open Archive Initiative, Protocol for Metadata Harvesting (OAI-PMH),
 - a Web-accessible, browseable directory on your Web server that contains only FGDC metadata as XML
- Use the latest version of your GIS or metadata software to manage and publish your metadata into your metadata collection.
- Register your metadata collection as a publisher at the the Geospatial One-Stop Portal.

If you are a data user:

- Provide feedback to data producers on what information about data is important to you.
- Learn the basics of FGDC metadata to meet your needs
- Use the Clearinghouse and the Geospatial One-Stop Portal at geodata.gov to find spatial data.

ADDITIONAL INFORMATION

More information about the Clearinghouse and the Geospatial One-Stop Initiative and the geodata.gov portal can be obtained from the <http://geodata.gov> and <http://www.fgdc.gov/clearinghouse> websites.

FGDC Clearinghouse Coordinator: Douglas Nebert
Phone 703-648-4151

E-mail: dnebert@fgdc.gov