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The National Map Pilot Projects

The U.S. Geological Survey (USGS) is developing ***The National Map*** to be a seamless, continuously maintained, and nationally consistent set of online, public domain, geographic base information. ***The National Map*** will serve as a foundation for integrating, sharing, and using other government and private sector data easily and consistently.

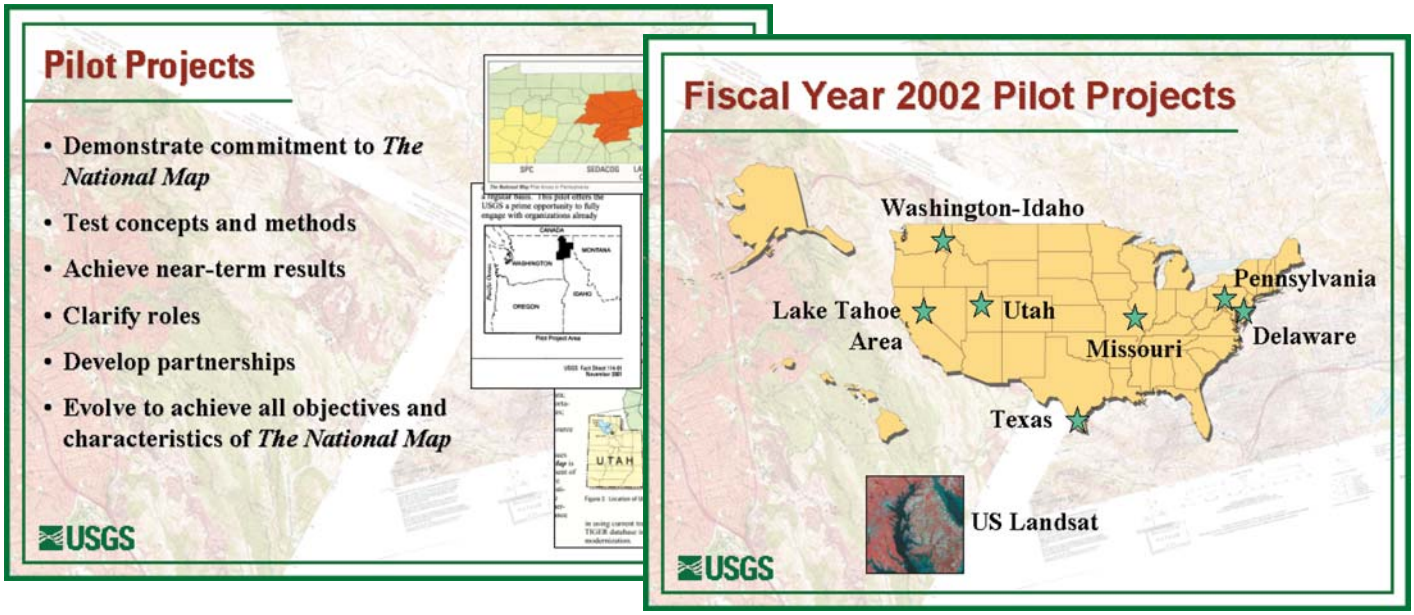
The National Map will include digital orthorectified imagery, elevation data, vector data for hydrography, transportation, boundary, and structure features, geographic names, and land cover information. The data will be the source of revised paper topographic maps.

Partnerships between Federal, State, and local government agencies and the private sector are the key to implementation of ***The National Map***. The USGS will guarantee the national completeness and availability of base geographic information and will organize nationwide efforts to create and sustain partnerships to build ***The National Map*** from the best available data from government and commercial sources. When no other source exists, the USGS will provide data through contract and limited in-house production.

Many technical and institutional issues must be resolved as ***The National Map*** is implemented. Pilot projects are being conducted to identify issues and develop business processes and technical solutions to refine the vision of a national synthesis of base geographic information. These pilots are the foundation upon which future partnerships for data sharing and maintenance will be built.

Delaware

The Delaware pilot will provide current, seamless base geographic datasets for the entire State through partnerships with multiple Delaware agencies. The project has implemented a Web-based mapping site (www.datamil.udel.edu/nationalmappilot/) to address data integration issues for combining data, including geographic names, from multiple sources and to incorporate the graphic product-generation functionality developed within the USGS-ESRI Cooperative Research and Development Agreement. Capabilities will include selection of geographic area and content defined by the user and provision for



obtaining user feedback to help maintain data currentness.

Lake Tahoe, California-Nevada, Area

The Lake Tahoe Area pilot involves the challenges and opportunities of integrating data across two States, eight counties, and several cities. The pilot builds on the Federal coordination and research being done under an Executive Order following the 1997 Lake Tahoe Presidential Forum. Issues to be explored include the integration of Federal and local data, the use of volunteer groups for updating datasets, the establishment of data stewards, and collaboration with California on its statewide vision for framework data development and distribution. The USGS is working with the Tahoe Regional Planning Agency to apply the pilot as the geographic underpinning to the Tahoe Integrated Information Management System, which will provide public access to a range of area environmental information. This project will demonstrate the application of ***The National Map*** as a foundation for integrating, sharing, and using other data easily and consistently.

Missouri

The Missouri pilot is a collaborative effort between the USGS's Cooperative Topographic Mapping and National Cooperative Geologic Mapping Programs to provide geospatial and geologic data for multihazards risk assessment, mitigation, and emergency planning in southeast Missouri. The primary objective is to investigate methods for the dissemination of geospatial and geologic data over the Web to scientists, managers, policy makers, emergency planners, and the general public. Activities include working with local agencies and groups to incorporate the best available data in the Cape Girardeau area into ***The National Map*** and to integrate geologic data with ***The National Map*** content.

Pennsylvania

This pilot uses high-resolution county source data for orthoimagery and elevation data. The frequency of updates for orthoimagery at the county level will demonstrate data currentness, archive, and maintenance functions for ***The National Map*** and the utility of legacy data for large-scale land use applications.

Hydrography information using National Hydrography Dataset enhancements that provide greater feature centerline and coastline detail is being coordinated with local sources. These data will be used to update the SPARROW regression model to identify nutrient (nitrogen, phosphorus) source areas for the USGS Chesapeake Bay Focus Area, they will be used by the Susquehanna River Basin Commission to monitor and report water quality and water quantity changes. Land cover data are also being coordinated with county and State agencies.

Texas

This pilot expands on the USGS relationship with the Texas Natural Resource Information System (TNRIS) to use its statewide geographic database, StratMap, as the primary data source for ***The National Map*** in Texas. Specific pilot activities include an innovative partnership with TNRIS in the Brownsville area, in which the USGS will develop a Web interface between StratMap and ***The National Map*** to serve prototype output digital and map products for ***The National Map***. The pilot also includes an inter-agency agreement with the Department of Housing and Urban Development in the Eagle Pass area for monitoring colonias, in which the USGS will refine local data linkage and integration techniques in cooperation with TNRIS. Future pilot developments will focus on automated updating techniques using local datasets.

Utah

The Utah project will test USGS capabilities to support critical transportation data needed in emergency response, census requirements, and other Federal, State, and local government functions for an urban county and a rural county. Pilot objectives are to develop and integrate transportation datasets, develop and test a process for updating and maintaining transportation data, and develop and test software for interfacing and serving transportation information over the Web, including the development of derivative products and capabilities. This pilot project will directly benefit Utah by fostering improvements in the accuracy of census data, improving the quantity and quality of USGS data, encouraging the use of locally generated data that are the best available, and providing a model that relies on increased coordination between Federal and local agencies.

Washington-Idaho

This pilot covers Spokane and Pend Oreille Counties in Washington State and Kootenai and Bonner Counties in Idaho. The population and commerce corridor between Spokane and Coeur d'Alene is important to the overall economic health of this region and provides a solid test platform for ***The National Map***. Relationships that the USGS has established over time with other Federal, State, and local agencies in this region will be enhanced by the pilot effort, providing a model for advancing ***The***

National Map model across the Pacific Northwest. The pilot also is an opportunity to create new partnerships in rural areas traditionally lacking solid geospatial information. Representatives from Pend Oreille and Bonner Counties are anxious to work with the USGS to fill data gaps. All pilot work will be coordinated with GIS councils from the three Pacific Northwest States to promote long-term partnerships.

U.S. Landsat

The U.S. Landsat pilot project will provide access to Landsat satellite imagery as a reference layer for ***The National Map***. Landsat can provide multispectral orthoimagery at a resolution of 30 meters, with a revisit cycle of as few as 8 days (using Landsat 5 and Landsat 7). As the Landsat scenes are acquired and loaded into a "seamless database," they will provide a full-coverage orthoimagery layer for the entire United States. As scenes are replaced, they will not be deleted but will be relegated to a near-line archive or be returned to the long-term Landsat archive. Over time, the archive will provide a valuable historical reference to determine landscape baseline conditions and to measure change.

Information

Further information about each pilot project is available from the USGS pilot project lead:

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We welcome your comments on ***The National Map*** mission and strategies. You can view and download further information at nationalmap.usgs.gov. Please share your thoughts with the USGS by e-mail at nationalmap@usgs.gov or by mail to USGS-***The National Map***, MS-511 National Center, 12201 Sunrise Valley Drive, Reston, VA 20192.

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