

FGDC Annual Report to OMB

Format for Agency Reports – FY 2004

The following outline should be used by FGDC Member Agencies (or Bureaus) for their Annual Spatial Data Reports, which will be consolidated by the FGDC and submitted to OMB. Reports **should be brief, using bullets where possible**. Please provide only the information that will be useful for OMB to assess the agencies' achievements and for establishing future direction.

Part A

GENERAL FEDERAL AGENCY RESPONSIBILITIES REPORT (All Agencies)

1. Agency or Bureau: **USDA Forest Service**
2. Name of Contact for Report: **Betsy Kanalley** Email: bkanalley@fs.fed.us Phone #: 703-605-4575
3. Steering Committee Member: **Mack Gray** Email: mack.gray@usda.gov Phone #: 202-720-7173
4. Coordination Group Participant(s):
Ralph Crawford Email: rcrawford@fs.fed.us Phone #: 703-605-5253
Rich Guldin Email: rguldin@fs.fed.us Phone #: 703-605-4177
Betsy Kanalley Email: bkanalley@fs.fed.us Phone #: 703-605-4575
5. Subcommittee or Working Group Participation (Subcommittees or Working Groups your agency is involved with, but does not lead).

<u>Subcommittees</u> Vegetation Spatial Water	<u>Working Groups</u> Clearinghouse Sustainable Forest Data – Co-Lead Homeland Security Historical Records Civilian Remote Sensing Ad hoc Metadata Ad hoc
--	--

6. Strategy: Has your agency prepared a detailed strategy for integrating geographic information and spatial data activities into your business process - in coordination with the FGDC strategy, pursuant to OMB Circular A-16? If yes, briefly describe.

The Forest Service has developed a Strategy for advancing the use of geospatial data to better support the agency mission. It is currently in draft form. It is anticipated that the FS Geospatial Strategy will be signed and implemented by 3rd quarter FY05. The goals and objectives of the draft strategy are as follows:

The geospatial vision for the Forest Service is:

Quality Forest Service geospatial information is current, adheres to agency standards, is developed collaboratively, and is routinely available for use by internal and external customers.

The following goals will help the agency achieve this geospatial vision:

- Goal 1** Standardized geospatial data are acquired to meet agency business requirements and data quality is assured by responsible stewardship and administration.
- Goal 2** Geospatial applications work together so that users can easily access, update, query and analyze the data within them.
- Goal 3** Forest Service geospatial data are easily located and used by internal and external customers.
- Goal 4** Quality standard map products are easily produced and can be customized to meet the needs of internal and external customers.
- Goal 5** The Forest Service is proactively engaged with partners in the development of geospatial data and information sharing.

Achievement of these goals and objectives will assist the agency in addressing existing and future key business needs such as forest plan revisions, wild land urban interface, fuels and fires, invasive species, unmanaged recreation, and habitat fragmentation, the *Healthy Forests Restoration Act of 2003*, and homeland security. Each of these key business needs has requirements for the collection, use and dissemination of consistent geospatial information for the agency, partners, and the public.

7. Compliance: How are your spatial data holdings compliant with FGDC Standards? How is your agency involved in Framework Standards development and adoption? Also, please list the FGDC Standards you are using or plan to use in your organization.

A. Not all Forest Service spatial data holdings are compliant with FGDC standards. The Forest Service's, large, widely dispersed, decentralized organizational structure poses many challenges for the assurance of total compliance with FGDC standards. Over the past 2 years much work has been done to develop a management framework to support, encourage and verify that spatial data is FGDC compliant, and is accompanied by FGDC compliant metadata.

- **The agency has established a GIS Data Dictionary, which is undergoing continuous evolution and expansion. An operational principle governing the Change Management process for this GIS Data Dictionary is that its standards will be FGDC compliant for all areas covered by an FGDC standard and that elsewhere the standards will strive to represent the broadest consensus achievable.**
- **The agency has established a Geospatial Data Clearinghouse which is an NDSI node. In order for data to be posted to the Clearinghouse, it must be to FGDC geospatial data standards and accompanied by FGDC compliant metadata.**

- The Forest Service Geospatial Executive Board (GEB) sponsored the development and implementation of the Resource Mapping Evaluation Toolset (RMET), which has been used to assess Forest Service spatial data holdings and determine compliance. The tool has been very helpful in determining where data compliance is lacking, so that efforts to correct this can be made.
- The Forest Service has developed an agency-wide Metadata Policy Directive, which provides guidelines and requirements for providing FGDC compliant metadata. This policy is outlined in Forest Service Handbook 6609.15 Chapter 40, Geospatial Metadata Standards and can be viewed at http://www.fs.fed.us/cgi-bin/Directives/get_dirs/fsh?6609.15!
- Through the FS FGDC Coordinating Committee, every effort is made to be involved in the FGDC Standards Development process to ensure these standards meet our business needs.

B. The Forest Service uses the following FGDC Standards:

Content Standard for Digital Orthoimagery
 Content Standard for Framework Land Elevation Data
 Geospatial Positioning Accuracy Standard, Part 3: National Standard for Spatial Data Accuracy
 Cadastral Data Content Standard
 NSDI Framework Transportation Identification Standard
 Federal Standards for Delineation of Hydrologic Unit Boundaries
 National Hydrography Framework Geospatial Data Content Standard
 Vegetation Classification Standard
 Content Standard for Digital Geospatial Metadata: Extensions for Remote Sensing Metadata
 Content Standard for Remote Sensing Swath Data

The Forest Service intends to use any required, existing FGDC standards for any geospatial information we generate and/or share.

8. Performance Measures: Does your agency have performance measures for spatial data activities? If so, please list the measures and target and describe how they contribute to development of the NSDI.

The Forest Service has developed Performance Accountability System (PAS) which includes measures and targets for geospatial data. The PAS Key Outcome Measures for Geospatial Activities are:

- % of corporate geospatial data and applications available for use by customers [as identified within the Inventory Monitoring Program Planning (IMPP) system, a planning

and tracking tool, including: DOQ, DEM, GIS, National Applications, aerial photography, and remotely sensed data].

• % of Federal Geographic Data Committee (FGDC) framework data layers (such as transportation, elevation, hydrography, digital ortho-imagery, geodetic control, cadastral information, boundaries, vegetation) published and available on the web via the FGDC clearinghouse hosted at the Geospatial Services Technology.

9. Reducing Redundancy of Planned Acquisitions Do you use the Geospatial One-Stop portal, geodata.gov, to ensure that the data are not already available?

The Geospatial One-Stop portal is not yet widely used to verify that data does not already exist. While the portal is monitored, until it is fully operational, other methods of verifying data availability are more widely utilized. Such methods involve regular meetings and calls to federal, state and local partners with whom the FS is currently engaged.

10. Collection: Do your agency contracts and grants involving data collection include costs for NSDI standards?

National contracts include costs to cover collecting data to NSDI standards. Our National GIS Data Services Contract deals primarily with contracting work to convert legacy data to conform to NSDI standards, rather than actual collection of data. Contracts for actual data collection exist at the Region and Forest level and should contain provisions for NSDI standards. The agency has established a GIS Data Dictionary, which is undergoing continuous evolution and expansion. An operational principle governing the Change Management process for this GIS Data Dictionary is that its standards will be FGDC compliant for all areas covered by an FGDC standard and that elsewhere the standards will strive to represent the broadest consensus achievable.

11. Clearinghouse for Existing Data: Is all the data and/or metadata that your agency is able to share with the public published on the NSDI Clearinghouse? If not, please cite barriers encountered.

Currently, all Forest Service National Base Cartographic Data Sets are published on a public NSDI Clearinghouse, FS Geodata <http://fsgeodata.fs.fed.us>. MODIS Fire Maps, raster images of scanned topographic maps and other GIS data are also available through the clearinghouse. As more data becomes compliant and are accompanied with FGDC Compliant metadata, they will be made available through the Clearinghouse.

12. Clearinghouse for Planned Investments: Is your agency posting information on planned investments in geospatial information to the Geospatial One-Stop portal to encourage partnerships and leverage investments in the acquisition of geospatial data? If not, please cite when you will begin doing so and what barriers you have encountered that would prevent posting this information.

Acquisition information for Single Edition 1/24,000 scale topographic mapping is being furnished to the Geospatial One Stop portal. Plans for Forest Visitor maps will also be linked to the portal. National Aerial Imagery Program (NAIP) plans over National Forest

System Lands are being furnished to the portal by the Farm Service Agency. Other acquisition plans by individual FS units are not made available through the portal. It is extremely challenging to collect this information in a complete and consistent manner.

13. Geodata.gov: If metadata for your agency's geospatial data/information holdings is on a Clearinghouse Node already, has that Node been registered on geodata.gov for scheduled harvesting visits? If not, when is the Node scheduled to begin regular visits by the geodata.gov harvester?

The FS Geodata Clearinghouse has been registered on Geodata.gov and is scheduled for harvesting.

14. E-Gov: How are you using geospatial data in your mission activities to provide better services? (Please list)

The Forest Service is using geospatial data to enhance the Forest Service mission of managing our Nation's natural resources and providing quality public service in a variety of ways.

- **Forest Service geospatial data are critical to interagency fire fighting efforts and for Burned Area Emergency Rehabilitation (BAER) efforts. Getting these data into the hands of fire crews on the ground can save lives and property and is an essential element of our mission. Geospatial data are needed in BAER rehabilitation work, which is part of our mission of caring for our Nation's natural resources. Internet and other current technologies are utilized to ensure immediate response.**
- **The Forest Service is responsible for the maintenance and update of the Geographic Names Information System (GNIS), the National, on-line database of domestic geographic names. GNIS is utilized by the Forest Service as a resource for updating maps and GIS data.**
- **Geospatial One-Stop – Forest Service Roadless area data and MODIS Fire Maps are currently available through the Geospatial One-Stop Portal. Other FS data holdings will soon be made available.**
- **FGDC Clearinghouse Node (<http://www.geodata.gov>) – Forest Service Geodata Clearinghouse provides access to FS geospatial data holdings.**
- **Recreation.Gov – this e-gov initiative will provide on-line recreation opportunities for the public with a geospatial component.**
- **USGS's *The National Map* – the Forest Service is a partner in *The National Map*. Forest Service is involved in several National Map Pilots. We are one of *The National Map's* major data providers.**

- **e-Permits – as the Forest Service Infra (Infrastructure) National Application data becomes geospatially enabled, the public will have a geospatial reference for completing on-line permits.**
 - **USGS/Forest Service interagency agreement for the sale of Forest Service Maps. The Forest Service engages in a cooperative agreement with the US Geological Survey for the on-line sale of Forest Visitor Maps to the public. This on-line service is accessed by over 1500 vendors, making our maps more available to the public.**
15. Geospatial One-Stop: How is your agency involved in the Geospatial One-Stop (Funding Partner, Channel Stewardship, geospatial framework data interoperability pilots, posting standards based Web Mapping services to the portal, etc)?
The Forest Service as a USDA agency is a funding partner of Geospatial One Stop. The USDA is channel steward for Agriculture data. The Forest Service has been involved in the review of Framework Data Standards developed for Geospatial One Stop.
16. Enterprise Architecture: Is geospatial data a component of your enterprise architecture? Please provide a brief summary of how geospatial data fits into your enterprise architecture.

The FS utilizes 11 Domains to represent its current and target Enterprise Architectures: 1) External Influences, 2) Organizations 3) Strategic Intent, 4) Processes, 5) Information Resources, 6) Human Resources, 7) Other Resources, 8) Finances, 9) Performance, 10) Governance, and 11) Transformation Projects. Information about these domains and their inter-relationships is collected using standard techniques and protocols and store in a web-based repository utilizing the Adaptive EA repository commercial product. The agency is in the process of planning for collecting and managing information about FS geospatial components in each of the 11 domains. Examples include: 1) Citizen, business, and other governmental requirements for FS geospatial data will be captured as business requirements in the External Influences domain; 2) Agency geospatial vision, goals, and objectives as identified in the FS Geospatial Strategy will be captured in the Strategic Intent domain as well as the linkage between the goals and objectives and the business requirements; 3) An inventory of FS geospatial data (e.g., the data assets managed in the agency standard GIS on a specific National Forest) will be captured in the Data sub-domain of the Information Resources (IR) domain; 4) An inventory of geospatial facilities (e.g., the FS FGDC Clearinghouse node) will be captured in the IT sub-domain of the IR domain as will, geospatial equipment (e.g., field data recording GPS devices); 5) Identification and complete description of geospatial analysis techniques will be kept in the Process domain along with information about dependencies of these techniques on equipment, specific kinds/formats of data assets, and required analyst skill levels; 6) FS GIS Data Standards, Metadata Standards, and Collection Protocols will be kept or referenced in the Governance domain; 7) FS expenditures, both planned and actual, for geospatial data and geospatial processing will be kept in the Finances domain; 8) Information regarding FS geospatial staffs, governance boards, advisory committees, development teams and so forth will be kept in the Organizations domain; and 9) Information about FS geospatial skill needs, skills available, training requirements, training courses, and so forth will be kept in the Human Resources domain with appropriate cross-references to the Process domain.

It is also important to note that, in the FS, geospatial processes and associated data, applications and systems require further development as integrated components in the Forest Service Enterprise Architecture Design. To address this need the Forest Service has initiated the design and implementation of an Enterprise GIS (EGIS) solution. A significant challenge will be to minimize impacts on geospatial activities, which are essential to many FS business areas, while EGIS implementation advances. An EGIS strike team has been established to review and prioritize EGIS issues. The team will begin its work in early January 2005. The team will address issues that can be immediately resolved, and identify additional steps needed to resolve residual issues. A complete geospatial businesses needs assessment will be conducted. Input from agency resource specialists will be gathered; and a transition plan will be developed. A Phase II team will be established to guide the implementation of the EGIS as the Forest Service moves to the new over arching enterprise model.

17. Partnerships: What efforts are being taken to coordinate data and build partnerships at the field level for data collection and standards development? Identify partnerships and data sharing activities with other federal agencies, state, local, and tribal governments and other entities. Does your agency have any formal agreements or MOU's concerning data sharing and integration?

The GEB has directed the field to continue and increase their level of involvement in cooperative agreements with federal agencies, state and local governments and tribes. A letter from the GEB chair to Regional Foresters and Station Directors was signed encouraging this effort and highlighting the benefits of cooperative partnerships. The Forest Service is active in I-Teams in Utah, Montana and other regions where I-Teams are at work. Additionally, the Forest Service is working with the FGDC Tribal Liaison to establish an MOU for NSDI training at our Geospatial Service and Technology Center (GSTC) which will facilitate training for Tribal partners. Other National Cooperative Partnerships Include:

Geospatial One Stop

Federal Geographic Data Coordination Group/Subcommittees and Working Groups

National Digital Elevation Program (NDEP)

National Digital Orthophoto Program (NDOP)

US Board On Geographic Names (BGN)

Lewis and Clarke Bicentennial Commemoration Committee/Mapping Subcommittee

National Atlas

Civil Applications Committee (CAC)

National Aerial Photography Program (NAPP)

National States Geographic Information Council (NSGIC)

USGS/FS Single Edition Program

USDA GeoData Committee

Ecological Society of America

NatureServe

Concerns or Lessons Learned: Are there areas or issues regarding spatial data that require attention, or lessons learned that you would like to share with others? Please describe.

The outcome of the EGIS Strike Team efforts to incorporate geospatial business needs

into the agency's Information Resource Solutions structure will be shared with the FGDC community.