

21 October 2004

Honorable Gayle Norton
Secretary, Department of the Interior
1849 C Street NW, MS 7229-MIB
Washington, DC 20240

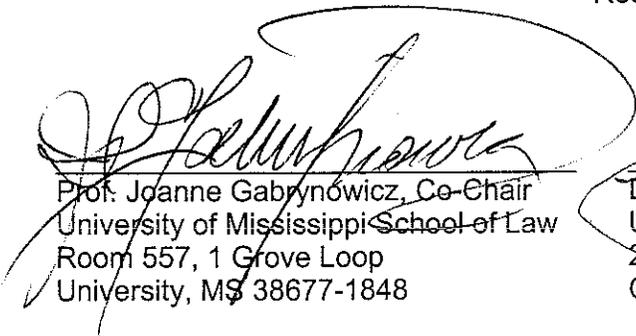
Re: Recommendation from the Advisory Committee for the U.S. Department
of the Interior, National Satellite Land Remote Sensing Data Archive
(NSLRSDA); FACA Committee File No. 216019

Dear Secretary Norton:

On October 18, 2004, the National Satellite Land Remote Sensing Data Archive Advisory Committee (Committee) convened its first meeting under a two-year Charter. The Committee was established, consistent with the Federal Advisory Committee Act and other applicable laws, to assist the Office of the Secretary, Department of the Interior, in coordination with the USGS Earth Resources Observation Systems Data Center, Sioux Falls, South Dakota, in carrying out responsibilities under the Land Remote Sensing Policy Act of 1992 (P.L. 102-555). This Act directs the Secretary of the Interior to consult with and seek advice from users and producers of remote sensing data and data products in determining the initial content of, or in upgrading, NSLRSDA's basic data set.

The Committee submits, herein, its recommendations for a Landsat Data Continuity Program (LDCP).

Respectfully,



Prof. Joanne Gabrynowicz, Co-Chair
University of Mississippi School of Law
Room 557, 1 Grove Loop
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Dr. Samuel Goward, Co-Chair
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cc: John Faundeen, Federal Designated Officer
R. J. Thompson, Chief, EROS Data Center
Tom Weimer, Assistant Secretary – Water and Science

**Recommendations for Landsat Data Continuity Program
from the
National Satellite Land Remote Sensing Data Archive Advisory Committee**

Recognizing that the Office of Science and Technology Policy has identified a critical, national need for a “sustained operational program and ... a long-term plan for the continuity of Landsat data observations.”¹

Supporting the position taken by the Secretary of the Interior that “[w]hile our sister agencies are responsible for the atmosphere, weather, the oceans and space exploration, Interior monitors the land.”²

Recognizing the position taken by the USGS that EROS Data Center “will be elevated to the status of ... national capability.”³

Therefore the National Satellite Land Remote Sensing Data Archive Advisory Committee (hereafter referred to as the Committee) **recommends** that the Secretary of the Interior establish adequate funding for a Landsat Data Continuity Program (LDCP) with responsibilities for:

- Long term land remote sensing archive.
- Landsat 5 and 7 missions.
- Landsat Data Continuity Mission (LDCM).

The Committee believes that the future of the Landsat Data Continuity Program is best managed by the department of the government that has strategic responsibility for land monitoring and management, the Committee **recommends** that the Landsat Data Continuity Program be managed by the DOI as part of its land monitoring and management mandate.

Agreeing with OSTP’s characterization that “Landsat is a national asset and its data have made – and continue to make – important contributions to U.S. economic, environmental, and national security interests.” the Committee **recommends** that the LDCP manager report directly to the Office of the Secretary of the Interior.

¹ Memorandum for the Secretaries of State, Defense, the Interior, Agriculture, Commerce Health and Human Services, Transportation, Homeland Security; Administrators of EPA, NASA; Directors of OMB, Central Intelligence, National Science Foundation; and Assistant to the President for National Security Affairs from the Director of the Office of Science and Technology Policy, Washington, D.C., August 13, 2004.

² Remarks by the Secretary of the Interior, Earth Observation Summit, Washington, D.C., July 31, 2003.

³ Memorandum to All USGS Employees from Chip Groat, Director, Subject: Changes to USGS Geospatial Programs and Services, August 17, 2004.

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20502

August 13, 2004

MEMORANDUM FOR THE SECRETARY OF STATE
THE SECRETARY OF DEFENSE
THE SECRETARY OF THE INTERIOR
THE SECRETARY OF AGRICULTURE
THE SECRETARY OF COMMERCE
THE SECRETARY OF HEALTH AND HUMAN SERVICES
THE SECRETARY OF TRANSPORTATION
THE SECRETARY OF HOMELAND SECURITY
ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY
DIRECTOR, OFFICE OF MANAGEMENT AND BUDGET
DIRECTOR OF CENTRAL INTELLIGENCE
ADMINISTRATOR, NATIONAL AERONAUTICS AND SPACE
ADMINISTRATION
DIRECTOR, NATIONAL SCIENCE FOUNDATION
ASSISTANT TO THE PRESIDENT FOR NATIONAL SECURITY
AFFAIRS

From:

John H. Marburger, III, Director



Subject:

Landsat Data Continuity Strategy

This memorandum is to inform you of the outcome of interagency discussions to ensure the continuity of Landsat-type data observations. For over 30 years, the Landsat series of satellites has gathered multi-spectral images of the Earth's land surface and surrounding coastal regions. Landsat is a national asset, and its data have made -- and continue to make -- important contributions to U.S. economic, environmental, and national security interests. Specifically, Landsat images are the principal source of global, medium resolution, spectral data used by Federal, state, and local government agencies, academia, and the private sector in land use/land cover change research, economic forecasting, disaster recovery and relief, and the scientific study of human impacts on the global environment. Additionally, Landsat data are utilized by over 70 countries and are an important part of a global, integrated Earth observation system.

The future availability of imagery from the existing Landsat satellite constellation remains uncertain. Although Landsats 5 and 7 are currently on orbit, Landsat 5 was launched in 1984 and has far exceeded its expected lifetime, and Landsat 7 has developed a technical problem that limits the utility of the data it produces. In addition, the lack of viable commercial markets for Landsat data led to the cancellation of plans to pursue Landsat data continuity as a public-private

partnership. Any disruption in the continuous availability of Landsat imagery, products and value-added services will adversely affect governmental, international, and other users and may limit use of the global data set for certain types of scientific analysis.

In order to maintain Landsat's legacy of continual, comprehensive coverage of the Earth's surface, the United States Government will transition the Landsat program from a series of independently planned missions to a sustained operational program and establish a long-term plan for the continuity of Landsat data observations. In particular, the Departments of Defense, the Interior, and Commerce and the National Aeronautics and Space Administration have agreed to take the following actions:

- Transition Landsat measurements to an operational environment through incorporation of Landsat-type sensors on the National Polar-orbiting Operational Environmental Satellite System (NPOESS) platform, thus ensuring long-term continuity of these high-priority measurements and providing for integrated collection and availability of data from these two critical remote sensing systems;
- Plan to incorporate a Landsat imager on the first NPOESS spacecraft (known as C-1), currently scheduled for launch in late 2009. The specific implementation plan shall be jointly reviewed and approved by the NPOESS Executive Committee and Landsat Program Management; and
- Further assess options to mitigate the risks to data continuity prior to the first NPOESS-Landsat mission, including a "bridge" mission.

This NPOESS-Landsat operational strategy will need to be justified through the normal budget process. Implementation will be subject to the availability of appropriations, other applicable laws, and Presidential guidance. The cost sharing requirements of the baseline NPOESS program do not apply to the integration of Landsat into NPOESS.

These actions will ensure long-term continuity of these high-priority land, oceanic, and atmospheric measurements and will provide integrated collection and availability of data from these critical remote sensing systems for national and global applications.

Remarks Prepared for Delivery
By The Honorable Gale Norton
Secretary of the Interior
July 31, 2003
Earth Observation Summit

Good afternoon ladies and gentlemen. I welcome this opportunity to meet with the representatives of many countries as we discuss the critical issue of scientific data exchange. It is an important element in improving our collective Earth observation capability.

The father of modern science, Galileo, once said, "I render infinite thanks to God for being so kind as to make me alone the first observer of marvels kept hidden in obscurity for all previous centuries."

We continue to search for hidden marvels in our world, but unlike in Galileo's century, today there are very few lone observers. As we circle the heavens, explore the ocean depths, and better understand the land, it is crucial to share our knowledge with all the inhabitants of our world.

I am here today as a strong advocate for full, open and timely exchange of the data that will come from the comprehensive, coordinated, and sustained Earth observation system, whose foundation we are laying today.

In addition, I want to advance a sustained effort to make this observation information useful—not just to scientists—but to a wide range of decision-makers and managers.

I speak to you as a U.S. Cabinet Secretary who is responsible for making management and natural resource decisions that affect a large portion of the United States. My Department of the Interior manages one in five acres of the U.S. including parks, historical sites, wildlife refuges and multiple use public lands.

While our sister agencies are responsible for the atmosphere, weather, the oceans and space exploration, Interior monitors the land. The Department's U.S. Geological Survey maintains an extensive scientific system overseeing land satellite data, stream gauge networks, earthquake monitoring and geospatial infrastructure. We produce border-to-border data that we make available to regional and local collaborators and all interested parties.

We strongly support better access to and sharing of remotely sensed and other earth science data from throughout the world. An improved Earth observation system is needed and will be critical for gathering knowledge of environmental conditions.

The free and open sharing of scientific data is a necessity for ensuring success in many arenas. We want to work together toward achievable goals through agricultural technologies and practices, including biotechnology. We share the goals of preventing famine and disease, enhancing nutrition, conserving water and natural resources and improving human health and biodiversity.

We recognize the need to support the exchange of observations recorded from actual field sites and from aircraft and satellite networks in a full and open manner with minimum time delay and minimum cost.

Since 1879, the U.S. Geological Survey has collected data about the Earth and its processes. For more than 30 years, the Landsat system, now managed by our Geological Survey, has been the only source for an extended record of moderate-resolution space-based observations of the landmass of our planet. It has been a major responsibility of the Geological Survey to make those data available to users worldwide without restriction and at the cost of filling customer orders.

There is a program within the U.S. Geological Survey that illustrates the value of shared information on a global scale, and puts into practice the principles offered in the Earth Observation Summit declaration.

The Sahel [*sah HAIL*] region of West Africa has a highly diverse, yet fragile environment. It is a transition zone between the hyper-arid Sahara to the north and the more humid savannas and woodlands to the south. For decades the desert has been encroaching on formerly productive farming areas in a nine-country band across Africa. To add insult to injury there has been a declining rainfall level—something we deal with also in our American West.

The nine countries have experienced major population growth and a rapid expansion of agriculture into new regions in order to feed the population in an area with limited soil, water and vegetation resources. Forest and woodland areas are declining by an estimated 1 % per year, while population grows at almost 3 % per year and now stands at more than 57 million people.

This is an immense area, nearly the size of the United States. While the people and governments of the region are very cognizant of the issues, their ability to monitor and quantify the trends of recent decades has been limited.

An international partnership was formed to provide the science needed to evaluate solutions. Members of that partnership include the nine Sahel countries, the United States Agency for International Development, the United Nations Environmental Programme, the World Bank, our sister departments at Commerce and the National Aeronautics and Space Administration, and the Institut du Sahel.

Some 30 years of imagery from U.S. satellites have allowed the partners to compare and contrast trends in land cover change. Meteorological data, soils information, stream gauge monitoring and observations in the field have helped us understand the socioeconomic and biophysical factors driving the trends.

The public domain principle of open access to U.S. holdings helps make the analysis a success. Our experienced scientists have evaluated the data, trained local scientists in the region in data analysis, and worked by their side to develop land use practices that deal with the issue. The solutions are many and varied. They include recommendations to change crop procedures, develop crops that better support life in the area, change irrigation practices, and in some cases, try to relocate population segments.

We believe the Sahel partnership is illustrative of the necessity for sharing data for effective decision making, from national to regional to local scales.

What are the key elements of a full and open data sharing policy?

As in the Sahel, users must have full access to the widest range of information from many sources: satellite and aerial remote sensing, and the vast networks of ground-based measurements and observations made by scientists and land managers.

National and international standards should be used to the greatest extent possible for archiving, processing, communicating and distributing data.

The information must be global in coverage and available to users worldwide. Countries with advanced observing and data collection systems and networks should be prepared to provide technical assistance to countries that seek those capabilities.

The entire U.S. government subscribes to the “public domain” policy. We recommend that this be the hallmark of archives of Earth observation system data. Those who study environmental issues must not be constrained by political, cultural or economic boundaries.

Timely use of the data can mitigate catastrophe. Desperate situations can call for extreme efforts for cooperation and quick response. For example, in the U.S. our Advanced National Seismic System allows us to post a map on the internet within a few minutes of an earthquake. Emergency response teams don’t waste time looking for the areas most seriously affected—we pinpoint where they need to be.

We face many serious challenges in our world. In closing, let me again endorse the concept and the practice of full and open sharing of Earth observation data as an important means to address those challenges.



Charles G Groat
Sent by: USGS
Template Development

To: Lotus Mail Postmaster/OPS/USGS/DOI@USGS
cc: (bcc: Rita F Tornow/NMD/USGS/DOI)
Subject: All Employee Email (All -- All USGS Employees: Changes to USGS Geospatial programs and services)

08/17/2004 02:44 PM

August 17, 2004

Memorandum

To: All USGS Employees
From: Chip Groat, Director
Subject: Changes to USGS Geospatial programs and services

When the USGS Geographic Information Office (GIO) was established in late 2000, my vision was that it serve as the Bureau focal point for science data integration, synthesis and delivery, particularly geospatial data. The GIO also performs the functions of a CIO and has been guiding USGS through myriad legislative and policy mandates related to Information Technology, However, the stimulating and compelling potential of the GIO is to provide leadership in unifying the major elements of our geospatial programs and services. As the number and scope of our geospatial activities have increased over the last few years, I want to better integrate our geospatial programs. This will be accomplished through a bold and forward-looking program realignment.

The following changes will become effective on September 1, 2004:

- The Geographic Information Office will be renamed the Geospatial Information Office (GIO).
- The Geographic Information Officer position will be titled Associate Director for Geospatial Information (ADGI) and Chief Information Officer.
- A new National Geospatial Programs Office (NGPO) will be established within the GIO. This office will oversee the entire portfolio of national geospatial programs for which the USGS has responsibility, including the Federal Geographic Data Committee, the Geospatial One Stop project, and the Department of the Interior Enterprise GIM activity.
- *The National Map* and GEODE, will be transferred to the NGPO as the first step in bringing USGS national geospatial data programs under unified leadership and management.
- The Eastern and Central Regional Executives for Geography positions will be transferred to the NGPO and will be titled Regional Executives for Geospatial Information.
- Program oversight for the Geography Discipline's Mapping Partnership Offices will be transferred to the NGPO. They will be renamed National Spatial Data Infrastructure (NSDI) Partnership Offices, expanded in scope, and will support the full suite of programs in the NGPO.
- EROS Data Center (EDC), currently reporting to the Central Regional Director, will be elevated to the status of a "national capability," similar to that of the National Water Quality Lab. The EDC chief will now report to the AD for Geography.

In addition, management of the ESIC's and the Geography Discipline's Branch of Information

Services will be transitioned to the respective Regional Geospatial Information Offices, effective upon completion of implementation plans. This action is the result of long-standing plans to establish a Natural Science Network as the Bureau's focal point for information services.

Transfer of the *The National Map* and GEODE

The National Map and related activities are currently managed within the Geography Discipline by the Cooperative Topographic Mapping (CTM) Program. The Cooperative Topographic Mapping (CTM) budget line and all the program work supported by that funding will be transferred to the NGPO.

Headquarters employees in the Geography Discipline's Cooperative Topographic Mapping Program, Enterprise Engineering section, and Partnerships and External Coordination section will also transfer to the NGPO.

For the time being, administrative servicing of CTM employees in the field will be provided by the Offices of the Regional Executives for Geospatial Information. Program direction, oversight and funding will be provided by the respective program coordinators.

I have asked the ADGI to evaluate the status and future directions of *The National Map* and to develop a plan to ensure that it implements the fundamental responsibility of the USGS to complete basic data layers on a national scale, is fully aligned with the goals of the NSDI, meets customer and stakeholder expectations, and demonstrates management excellence. In addition, I have requested the ADGI to consult with our partners and customers to identify future products and services that might be derived from *The National Map* and from other USGS geospatial assets (e.g., next-generation topographic map series) and to consider the workforce implications of expanding our product line and services.

Staff and resources associated with the creation and management of GIS tools for the GEODE project will be transferred from the Geology Discipline to the GIO. This project will be integrated with the Enterprise GIS activity and incorporated into the NGPO.

The Future of the Geography Discipline

Historically, the Geography Discipline has been less heavily focused on research than the other USGS disciplines. The National Research Council report on Research Opportunities in Geography at the U.S. Geological Survey recommends, "The Geography Discipline should now expand its activities to assume its proper role among the other disciplines at the USGS by engaging in fundamental geographic research... A strong Geography Discipline with a productive research component will ensure recognition of the USGS as scientifically credible, objective, and relevant to society's needs." I envision the Geographic Analysis and Monitoring (GAM), Land Remote Sensing (LRS), and Science Impact (SI) programs becoming the centerpieces of USGS geography research and applications.

The Associate Director for Geography will focus efforts on developing USGS research and applications activities in these programs and will prepare a plan for USGS research in geography that leads to research excellence, leadership, and increased impact. To support the development

of a robust, research-based Geography Discipline, the Western Region Geographer will serve as the Regional Executive for Geographic Science.

Employees in the GAM, LRS, and SI programs will be serviced by the Office of the Regional Executive for Geographic Science. Program direction, oversight and funding will continue to be provided by the program coordinators.

During the transition period, meetings will be held with affected employees to discuss their role in the revised structure and to answer questions. By providing leadership to unify and integrate USGS geospatial work, I believe the NGPO will enhance our relationships with partners and customers in the geospatial data and technology community and advance the mission of the USGS. I appreciate your support in ensuring its successful implementation.