
National Geospatial Advisory Committee Overview

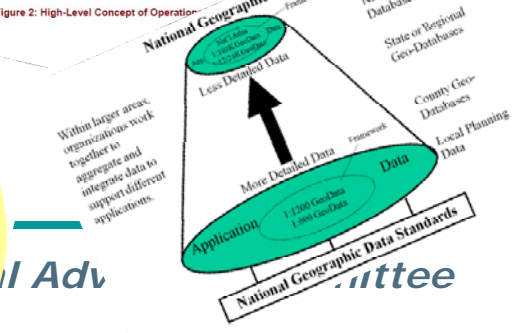
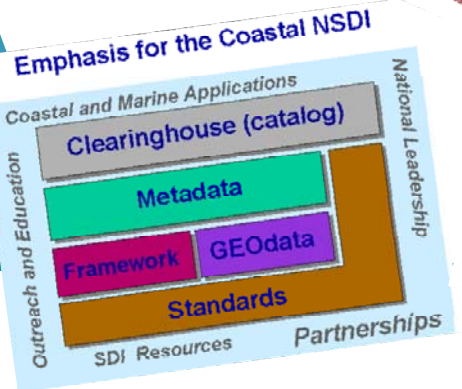
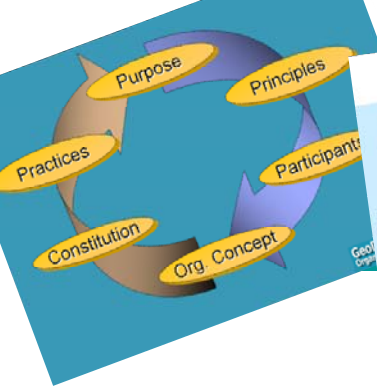
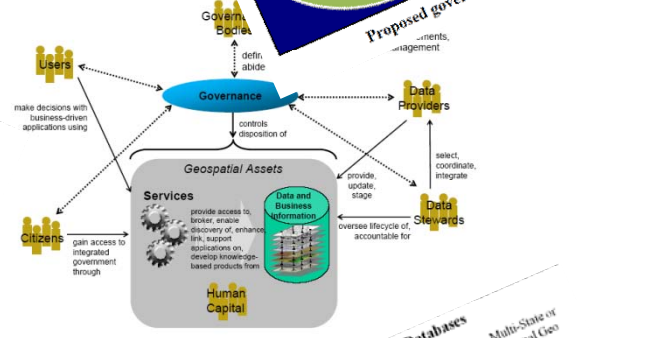
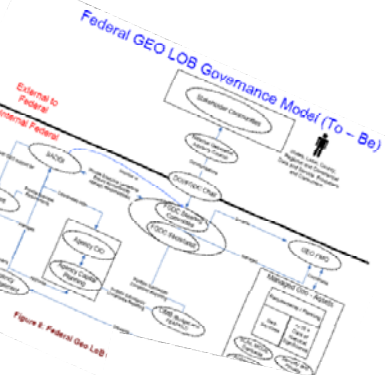
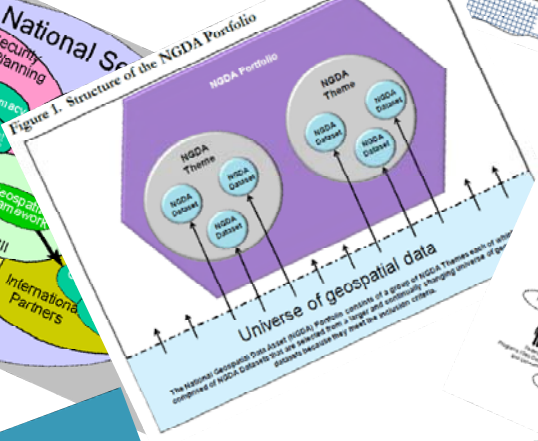
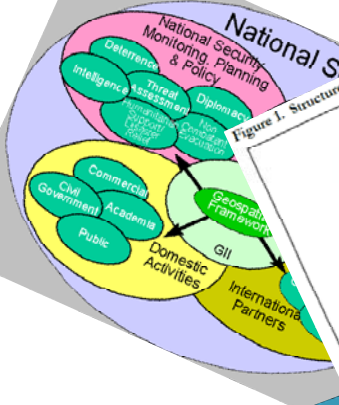
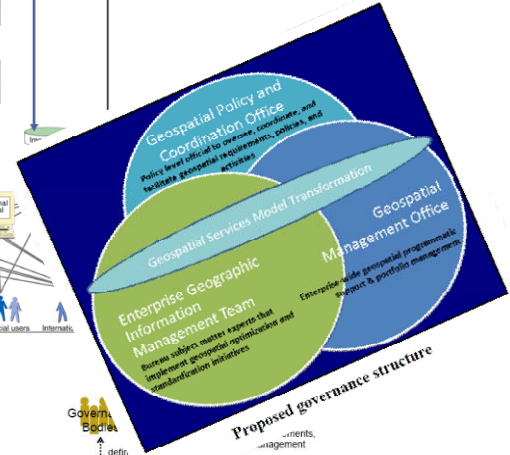
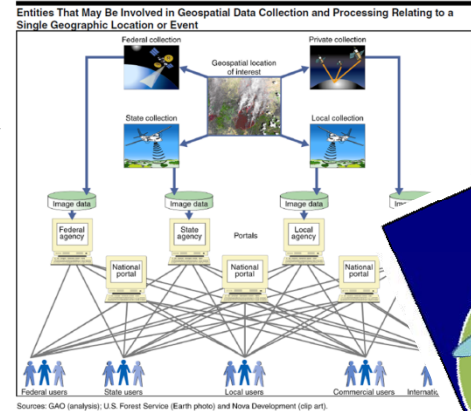
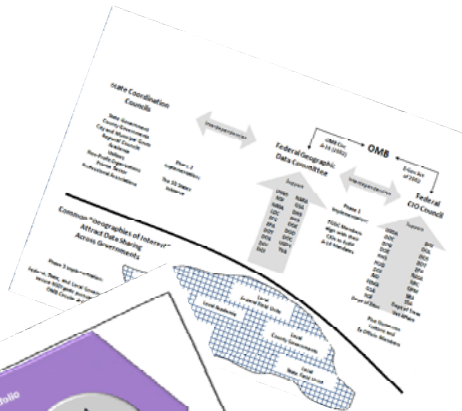
Dr. David Cowen, NGAC Chair

FGDC Steering Committee Meeting
June 7, 2011

Outline

- Relationship between NGAC and FGDC
- Who are we?
- How are we organized?
- What have we accomplished?
- How can we help?
- Suggestions
- Q & A

Lots of Proposed Governance Models



Current Model

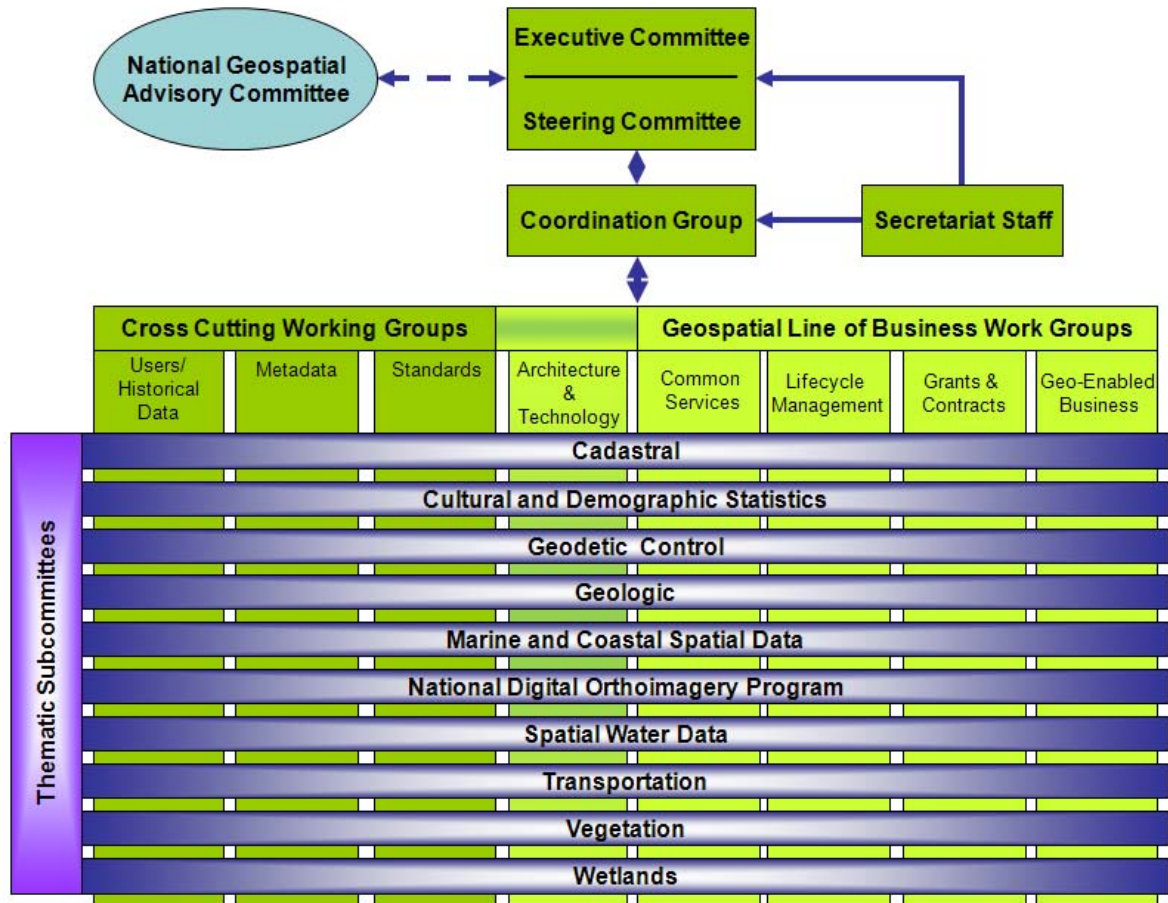


Figure: Overview of the structure of the various components of the FGDC

National Geospatial Advisory Committee

David Cowen, Chair
University of South Carolina

Jerry Johnston, Vice Chair
Environmental Protection Agency

Robert Austin
City of Tampa, FL

Richard Clark
State of Montana

Jack Dangermond
ESRI

David DiSera
EMA, Inc.

Joanne Irene Gabrynowicz
University of Mississippi

Kass Green
Kass Green & Associates

Randy Johnson
Hennepin County, Minnesota

Barney Krucoff
District of Columbia

Laurie Kurilla
Ventura County, CA

Xavier Lopez
Oracle USA

E. Donald McKay
State of Illinois

Anne Hale Miglarese
Booz Allen Hamilton

Kimberly Nelson
Microsoft Corporation

Timothy Nyerges
University of Washington

Matthew O'Connell
GeoEye

Ivan DeLoatch
NGAC Designated Federal Officer (DFO)
Federal Geographic Data Committee

Patrick Olson
Aero-Metric, Inc.

Jack Pellicci
Intergraph Corporation

Mark Reichardt
Open Geospatial Consortium

Cynthia Salas
CenterPoint Energy

Eugene Schiller
S.W. Florida Water Management District

Anthony Spicci
State of Missouri

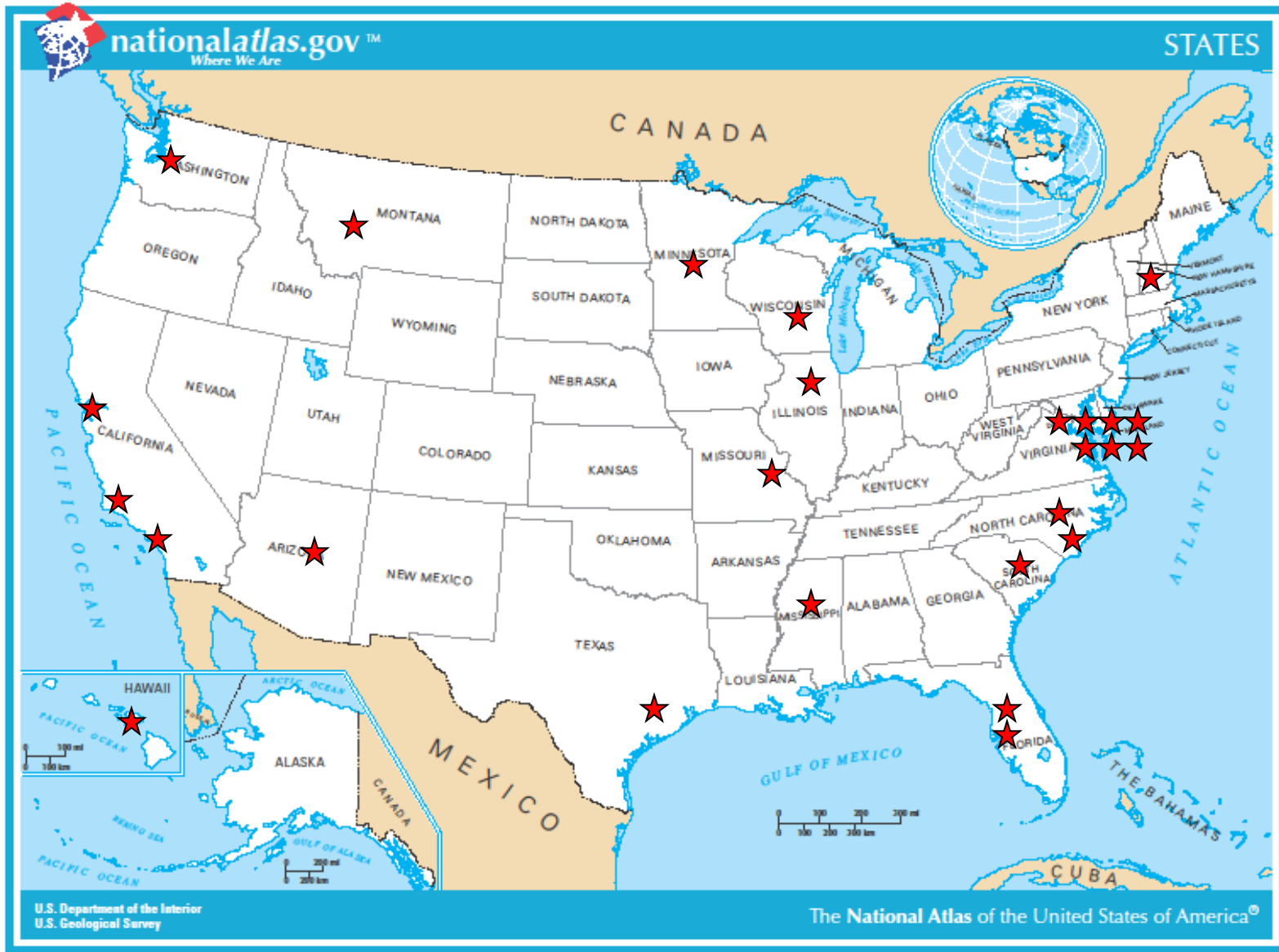
Gary Thompson
State of North Carolina

Gene Trobia
State of Arizona

David Wyatt
Eastern Band of Cherokee Indians

June 2011

Distribution of NGAC Members - 2011



NGAC Purpose

- The Committee will provide advice and recommendations on federal geospatial policy and management issues and provide a forum to convey views representative of partners in the geospatial community
- Under Federal Advisory Committee Act rules, will function solely as an advisory body, providing recommendations on effective management of Federal geospatial programs. In particular, it will provide advice on the development of the National Spatial Data Infrastructure (NSDI).

*NGAC Charter

NGAC Mission

To provide strategies regarding the creation, management and dissemination of cohesive geospatial data, information and knowledge to enable commercial, academic, and nonprofit organizations and all levels of government to more effectively:

- ❑ ***empower and serve the public***
- ❑ ***protect our homeland***
- ❑ ***foster economic growth***
- ❑ ***advance science***
- ❑ ***manage our resources***
- ❑ ***prepare for and respond to emergencies***
- ❑ ***govern our nation***

* Adopted by NGAC, June 2008

Strategic Vision

"The Nation and its citizens value and are empowered by geospatial resources"

* Adopted by NGAC, January 2009

NGAC Actions & Activities 2008-2010

- Focused on...
 - Building a community with a strong foundation and commitment to make a difference
 - Establishing subcommittees and task teams to address the guidance & issues
 - Taking action on key issues impacting the geospatial community
 - Creating products to proactively address concerns & issues

NGAC Actions & Activities 2008-2010

- Endorsed recommendations in National Research Council report, “National Land Parcel Data: A Vision for the Future” and identified comments related to recommendations
- Endorsed FGDC Executive Committee Record of Decision (ROD) on Imagery for the Nation (IFTN)
- Made Recommendations to FGDC on Economic Stimulus
- Provided on-going feedback and advice to The National Map
- Drafted Economic Recovery: Lessons Learned for the Geospatial Community
- Reviewed and commented on OMB Circular A-16 Draft Supplemental Guidance

NRC Parcel Recommendations

1. A panel should decide whether the Bureau of Land Management can be the lead federal agency.
2. The Federal Geographic Data Committee should consider the parcel as a basic resource for various OMB A-16 mandated data themes.
3. A Federal Land Parcel Coordinator should be empowered to develop and maintain a single database of land parcels owned or managed by the federal government.
4. A National Land Parcel Coordinator should be established to develop and oversee a land parcel data business plan for the nation including federal, local, state, and tribal partners.

NRC Parcel Recommendations

5. An Indian Lands Parcel Coordinator should be established by the Office of Special Trustee for Tribal Lands.
6. Congress and the Census Bureau should explore modifying Title 13 so that building addresses and coordinates can be made public.
7. State Coordinators should be established in each state to develop plans and relationships with local government.
8. The National Land Parcel Coordinator should develop an intergovernmental funding program for the development and maintenance of parcel data, including incentives to participate for those counties with fully-developed systems and financial support for those who do not.
9. Local government is expected to put into the public domain both parcel geometry and a very limited set of attributes. This should become a minimum requirement to receive federal funds directly associated with property, such as disaster relief.

NGAC Actions & Activities 2008-2010

- Built a strong foundation for the NGAC
 - Adopted the NGAC Bylaws
 - Created the NGAC Mission Statement
 - Crafted and approved NGAC Strategic Vision
- Featured Spotlight Sessions to Understand Critical Issues impacting the Geospatial Community
 - Metrics
 - Geospatial Platform
 - Geospatial Workforce Development
 - Interagency Data Sharing & Collaboration

Key NGAC Products

A NATIONAL GEOSPATIAL STRATEGY

Recommendations for the 2008-2009 Presidential Transition Team

From the

National Geospatial Advisory Committee

October 2008

The National Geospatial Advisory Committee (NGAC) is a Federal Advisory Committee established to provide advice and recommendations related to management of Federal and national geospatial programs, the development of the National Spatial Data Infrastructure, and the implementation of Office of Management and Budget Circular A-16 and Executive Order 12906. The NGAC reviews and comments upon geospatial policy and management issues and provides a forum to convey views representative of non-federal stakeholders in the geospatial community. The NGAC reports to the Chair of the Federal Geographic Data Committee. The recommendations in this paper were approved at the October 15-16, 2008 meeting of the NGAC.

The Members of the NGAC:

- Ms. Anne Hale Miglarese (NGAC Chair)
Booz Allen Hamilton
- Mr. Steven P. Wallach (NGAC Vice-Chair)
National Geospatial-Intelligence Agency
- Dr. Sean Ahearn
Hunter College – City University of New York
- Dr. Timothy M. Bull Bennett
North Dakota Association of Tribal Colleges
- Mr. Michael Byrne
State of California
- Mr. Allen Carroll
National Geographic Society
- Mr. Richard B. Clark
State of Montana
- Dr. David J. Cowen
University of South Carolina
- Mr. Jack Dangermond
ESRI
- Mr. Donald G. Dittmar
Waukesha County, Wisconsin
- Mr. Dennis B. Goreham
State of Utah
- Ms. Kass Green
The Alta Vista Company
- Hon. Randy Johnson
Hennepin County, Minnesota
- Mr. Randall L. Johnson
Metropolitan Council, St. Paul, MN
- Dr. Jerry J. Johnston
U.S. Environmental Protection Agency
- Mr. Barney Krucoff
District of Columbia
- Hon. Timothy Lowenstein
Buffalo County, Nebraska
- Dr. David F. Maune
Dewberry
- Mr. Charles Mondello
Pictometry International
- Mr. Zsolt Nagy
State of North Carolina
- Ms. Kim Nelson
Microsoft Corporation
- Mr. Matthew O'Connell
GeoEye
- Mr. John M. Palatiello
MAPPs
- Dr. Jay Parrish
State of Pennsylvania
- Mr. G. Michael Ritchie
Photo Science
- Mr. David Schell
Open Geospatial Consortium
- Mr. Eugene A. Schlier
S.W. Florida Water Management District
- Dr. Christopher Tucker
Erdas

NGAC Transition
Recommendations



The Changing Geospatial Landscape

A Report of the
National Geospatial Advisory Committee
January 2009

Changing Geospatial Landscape
White Paper

Key NGAC Products

WHY THE UNITED STATES NEEDS A NATIONAL GEOSPATIAL POLICY

America's ability to confront and develop solutions on major issues including climate change, healthcare, homeland security, pandemics, energy, resilient and sustainable communities, and the mortgage crisis depend, in part, on our ability to map, understand, analyze, and then act on information using geospatial resources.

Americans embrace a wide range of location-based technologies that make our lives easier and keep the world in a context that can be better understood. We are able to do this because of the \$30 billion per year geospatial technology market.¹ Companies like MapQuest[™] and Google[™] are universally known. What is less well known is that this thriving business owes its very existence to enlightened policy decisions by the United States. There has been an evolution in detailed street data, geospatial software, airborne and satellite sensing and imaging, and global positioning systems. Government has played an important role; however, as geospatial resources continue to evolve at a fast pace, national guidance and policies needed to bring order and efficiency to the development of the National Spatial Data Infrastructure (NSDI)³ will lag behind.

Geospatial resources are critical components for priorities of the Obama Administration. Recent examples are: (1) *Data.gov*, an innovative public access tool championed by the Administration, includes a *geodata catalog* as a prominent feature; and (2) Executive Office of the President Memorandum M-09-28, "Developing Effective Place-Based Policies for the FY2011 Budget," recognizes that much of what government and its citizens need involves place-conscious planning and place-based programming.

With so much at stake, an organized approach to the NSDI utilizing technological advancements guided by a *National Geospatial Policy* is essential.

WHY DOES THE UNITED STATES NEED A NATIONAL GEOSPATIAL POLICY?

Because the United States taxpayers own or back nearly \$6 trillion in real estate mortgages;⁴

A national geospatial policy would enable the tracking of these investments to better understand and manage our economic health, and help prevent another mortgage-based crisis.

Because sea levels are predicted to rise and climate change has the potential of having a significant impact;

A national geospatial policy will ensure current, accurate and detailed information is available to government agencies, academia, and the public to anticipate and adapt to climate change and environmental issues.

Because our geospatial community leads the world;

The global geospatial marketplace is exploding, with emerging regional markets in countries of all sizes. A national policy would ensure that the U.S. geospatial business is competitive and leads the way.

Because there are more than 15 million unemployed Americans, and geospatial is 1 of 13 high-growth industries;

The U.S. Department of Labor targets geospatial as a high-growth sector because it will add substantial numbers of new jobs to the economy or affect the growth of other industries.⁵ A national policy would accelerate innovation and skill set development, and put Americans to work in this growth industry.

Because we know that governments at all levels spend money on geospatial resources, but we don't know how much;

Federal agencies are not required to provide information on how much is spent on geospatial resources. More can be done to coordinate spending among federal agencies and in partnership with state and local government to minimize costs, and avoid creating duplicate or inconsistent geospatial data. A national geospatial policy would provide the necessary guidance and regulation to address this.

Geospatial Policy Benefits Statement

Best Practices For Local Government Geospatial Programs



Local government geospatial programs support a wide variety of government functions and provide the opportunity to minimize costs and maximize benefits for a jurisdiction's investments. A common saying in the geospatial community is "Build it once, use it a bunch." Successful geospatial programs are built on a foundation that includes many of the common elements listed below.

1 Establish a Geospatial Program. Sustained coordination, planning, and execution are critical to working across complex organizations, such as local governments, to manage multiagency investments. Elements of successful programs include

- **Executive sponsorship and support**—Enlightened mayors, county commissioners, city administrators, and tribal leaders don't leave this important function to chance—they use legislation, ordinances, or executive orders to establish geospatial programs.
- **A defined strategic vision/mission**—A vision of the desired future state and a clear mission for the geospatial program guide the direction and investments in the program.
- **Shared governance**—Agencies expected to coordinate activities, share costs, and derive benefits from the geospatial program are engaged in the program's administration through a steering committee or board whose members are drawn from stakeholders in the program.
- **A designated coordinator or manager**—Local communities have an individual assigned with both the responsibility and resources to plan and oversee a geospatial strategy and program. The coordination responsibility is both horizontal (across the locality's departments) and vertical (with federal, state, regional, and neighboring jurisdictions).
- **Use of recognized industry standards**—The geospatial industry has established standards to ensure that data collected for one purpose can be used many times to meet multiple needs. The adoption of standards and specifications published by the Federal Geographic Data Committee (FGDC) and the Open Geospatial Consortium, Inc. (OGC), are recommended.
- **A geospatial strategy or plan**—The plan or road map outlines the jurisdiction's priorities and expected investments in geospatial data and technology. It might also specify what geospatial standards the jurisdiction will adopt to ensure interoperability.

2 Develop and Maintain Data as an Asset. Local government geospatial programs typically create and/or license, maintain, document, and share a variety of datasets.

- **Framework/Base geospatial data**—"Base" geospatial data layers provide the context and means to tie other data to the ground and display it on a map.
- **Transactional/Live geospatial data**—Live data may be 911 and 311 calls, permits issued, inspections conducted, students enrolled, repair and maintenance work orders, and more. All this data can be mapped so it is created, allowing cross-cutting analysis across data sources.
- **Metadata**—Metadata (information about data) is prepared to document the data's origins and limitations.
- **Published data maintenance schedule**—To ensure reliability of the data and avoid duplication of effort and redundancy, effective programs publish maintenance schedules describing when and how the data will be maintained.

GIS Best Practices for Local Government

National Geospatial Advisory Committee

Guidance 2011

Focus Areas

- Innovative Strategies for Geospatial Programs and Partnerships
- Geospatial Platform
- Geospatial Workforce Development
- Emerging Technologies
- Geospatial Partnerships with Tribal Governments
- Feedback on Specific Programs/Initiatives

NGAC 2011 Subcommittees

Subcommittees	Members
1. Innovative Strategies for Geospatial Programs and Partnerships	Cowen, Nyerges (Co-Chairs), Austin, Reichardt
2. Geospatial Platform Implementation	Miglarese (Chair), Clark, Johnston, Krucoff, Kurilla, Pellicci, Salas, Schiller, Thompson
3. Geospatial Workforce	DiSera (Chair), Gabrynowicz, Johnson, McKay, O'Connell, Salas, Spicci
4. Emerging Technologies	Lopez, Nelson (Co-Chairs), Clark, Dangermond, Green, Miglarese, O'Connell, Olson, Reichardt, Trobia
5. Geospatial Partnerships with Tribal Governments	Wyatt (Chair), Johnston

NGAC Points of Contact

NGAC has designated Points of Contact (POCs) for several Federal programs and initiatives. In coordination with the NGAC DFO, the POCs will keep the NGAC members updated on key program activities, and notify the NGAC Chair and DFO if the program or initiative would like to solicit feedback or bring an issue to the NGAC for review.

Program/Initiative	NGAC POC	Federal POC
Broadband Mapping	Robert Austin	Mike Byrne, Anne Neville
National Parcel Data	Laurie Kurilla, David Wyatt	Don Buhler, Jon Sperling
Geolocation Privacy	Joanne Gabrynowicz	FTC Staff, John Mahoney
Transportation for the Nation	Gene Trobia	Steve Lewis
The National Map/Elevation	Gary Thompson	Mark DeMulder, Larry Sugarbaker
National Land Imaging/Landsat	Kass Green	Bruce Quirk
Imagery for the Nation	Tony Spicci	Stephen Lowe
National Geologic Mapping	Don McKay	Peter Lyttle, Kevin Gallagher
Addresses	Barney Krucoff	Randy Fusaro, Jon Sperling

We believe it is about data: A-16

*(This is the FG **DATA** Committee)*

- What data does the federal government require to fulfill its missions?
- What is the proper role of the federal government in the production, maintenance and distribution of these data?
- Which federal agency is the proper steward?
- How is the data program funded?
- How can the federal government work with state, local, tribal and private organizations to meet these requirements ?

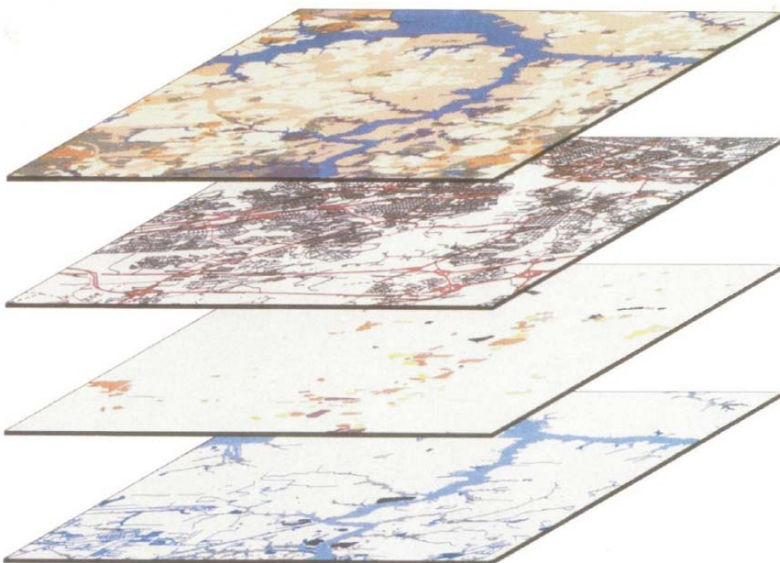
Not a New Problem – 1993

Intended to be an annual assessment

Federal Geographic Data Committee

Manual of Federal Geographic Data Products

Funding for the compilation and editing of the *Manual* was provided by the U.S. Environmental Protection Agency's (EPA) Office of Information Resources Management. The Agency conceived of the *Manual* and initiated a partnership with the FGDC to jointly design, compile, and produce the *Manual*. The *Manual* provides a means of satisfying the EPA's internal need for a comprehensive, standardized description of Federal geographic data products. The *Manual* serves as a data catalog within the EPA's Spatial Data Management Plan — a data life cycle plan for acquiring, preparing, and delivering spatial data to meet the needs of the Agency.



1993 Score sheet

Data Product Keyword Matrix																									
Section/Chapter	Page Number	Data Category Keywords																							
		Atmospheric	Climate	Radiation	Temperature	Weather	Boundaries	Administrative boundaries	Census geography	County boundaries	International boundaries	Local government boundaries	State boundaries	Socioeconomic	Demographic	Economic	Mortality	Natality	Geodetic	Global Positioning System (GPS)	Horizontal control	Vertical control	Geophysics	Gravity	Magnetics
U.S. DEPARTMENT OF AGRICULTURE																									
Agriculture Stabilization & Conservation Service	1-1																								
Forest Service	1-5						•	•	•																
Soil Conservation Service	1-21																								
U.S. DEPARTMENT OF COMMERCE																									
Bureau of the Census	2-1						•	•	•	•	•	•	•	•	•	•									
Bureau of Economic Analysis	2-31						•			•		•	•	•	•										
Nat'l Environmental Satellite Data & Info. Service	2-35	•	•	•	•	•												•				•	•	•	•
National Ocean Service	2-86																		•	•	•	•			
National Weather Service	2-111	•			•	•																			
U.S. DEPARTMENT OF DEFENSE																									
Defense Mapping Agency	3-1						•			•															
U.S. DEPT. OF HEALTH & HUMAN SERVICES																									
Centers for Disease Control	4-1						•		•		•	•	•	•	•										
U.S. DEPARTMENT OF THE INTERIOR																									
Bureau of Land Management	5-1						•																		
Bureau of Mines	5-29																								
Bureau of Reclamation	5-33																								
Minerals Management Service	5-37						•	•		•		•													
National Park Service	5-45						•	•																	
U.S. Fish & Wildlife Service	5-51																								
U.S. Geological Survey	5-59	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
U.S. DEPT. OF TRANSPORTATION																									
Federal Highway Administration	6-1																								
INDEPENDENT AGENCIES																									
Federal Emergency Management Agency	7-1																								
National Aeronautics & Space Administration	7-5																								
Tennessee Valley Authority	7-13						•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

The situation has changed

Shift from producer to consumer

Future spatial data infrastructures

737

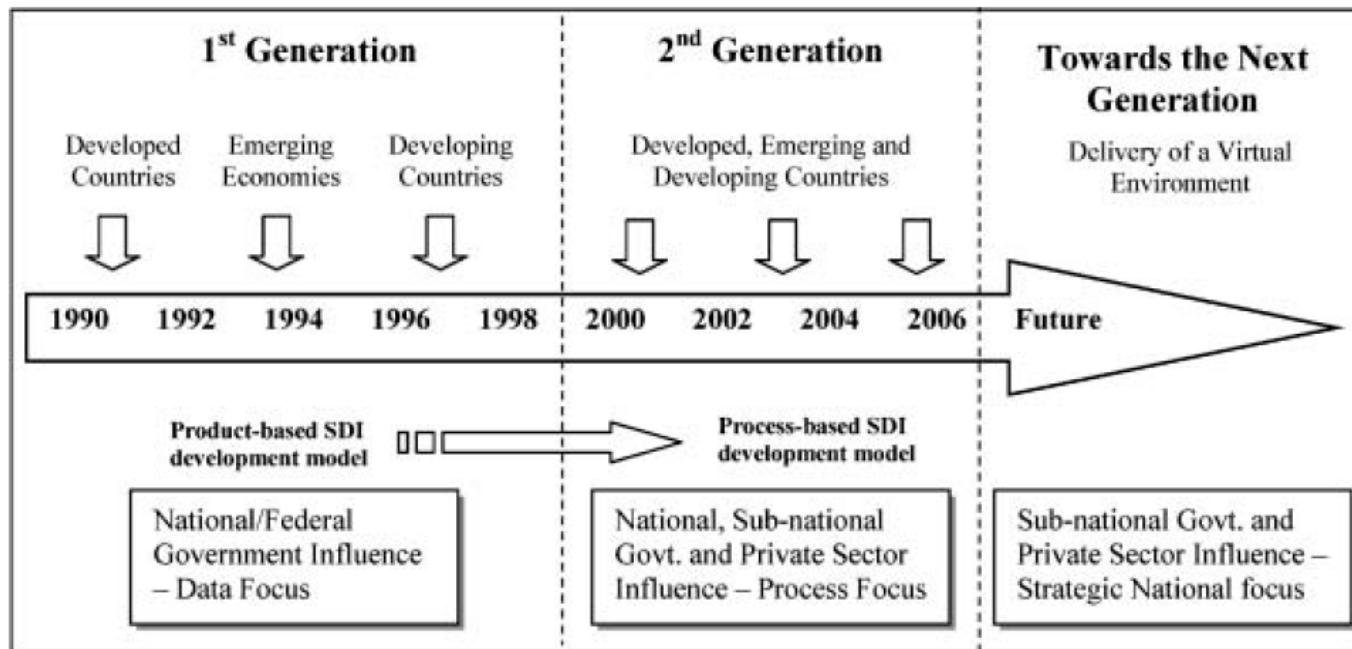


Figure 5. Continuum of SDI Development based on the first and second generations of SDI.

June 8-9 NGAC Meeting

AIA Building, Washington, DC

- Agenda topics:
 - Leadership Dialogue
 - NGAC Plan of Action
 - Transportation for the Nation (TFTN) strategic plan
 - Census Update
 - USGS Update/Report on National Map User Conference
 - Parcel Data spotlight session
 - NGAC Subcommittee reports

My personal Issues and goals?

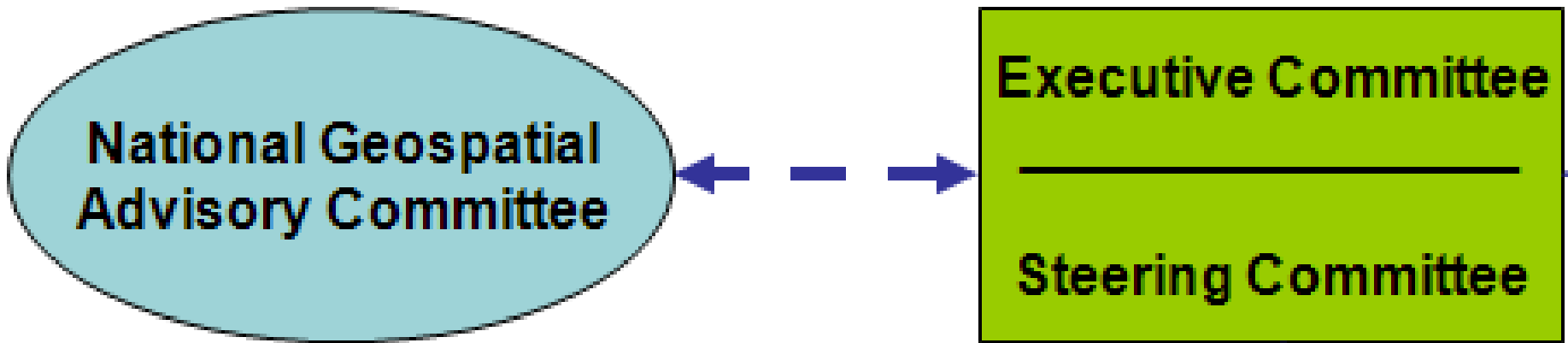
- ▶ **Impatient – My last chance**
- ▶ **This is my “Day Job”**
- ▶ **Resolve tough issues**
 - ▶ **Stewardship, Turf, Priorities, Funding**
- ▶ **Details not diagrams**
- ▶ **Dialog not reports**
- ▶ **Acquire and use most appropriate information from the best sources**
- ▶ **Discover and evaluate the most appropriate and efficient technology**

My Interpretation

- ▶ We don't live in a 1:24,000 world
- ▶ NSDI – Means acquire and use most appropriate data (high resolution and current)
 - ▶ Local & crowd sourced
- ▶ The platform/ cloud provide new technology infrastructure
- ▶ Challenges:
 - ▶ “It's easy to make a decision in the absence of information”
 - ▶ “How do we make geospatial information so accessible that it cannot be ignored?”

Lets make this relationship work

(The Arrows Go Both Directions)





Issues and Challenges for Federal Geospatial Information

Peter Folger
Specialist in Energy and Natural Resources Policy

May 18, 2011

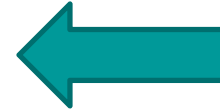
- What is the best way to organize and manage the vast array of geospatial information that is acquired at many levels and that has a variety of potential uses?
- What is the best way to share data, particularly among local, state, and federal stakeholders, each of whom may have a need for the same or similar data?
- What is the best way to coordinate among federal agencies, such as the administration and management by different agencies of all the federal lands in the United States?

NGAC Recommendations to Obama Administration

- establish a geospatial leadership and coordination function immediately within the Executive Office of the President; the geospatial coordination function should be included in the reauthorization of the E-Government Act;
- require OMB and FGDC to strengthen their enforcement of OMB Circular A-16 and EO 12906;
- establish/designate Geographic Information Officers with each department or agency with responsibilities stipulated within OMB Circular A-16;
- establish and oversee an Urgent Path forward for implementation of geospatial programs necessary to support current national priorities and essential government services underpinning the NSDI; and
- continue NGAC.

Suggested Process

Problems identified by FGDC



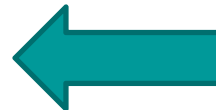
Review by NGAC

Recommendations from NGAC to FGDC



...internal FGDC processes

Feedback from FGDC



Reconsideration if necessary

Secondary Analysis



Actions by FGDC

NSGIC Recommendations

Steps that Need to be Taken

A framework allowing Federal, state and local government agencies to partner on production of Address Points must be encouraged/mandated and funded. Opportunities should also exist for the private sector to participate. The following steps will promote this partnership:

- Congress should remove addresses and address point locations from Federal privacy restrictions in all relevant Titles (e.g. Title 13 and Title 39).
- Congress should instruct Federal agencies to jointly develop a common address point file in cooperation with state and local governments and ensure that this file will be publicly available to promote economic growth and government efficiency.
- Congress should either enact the provisions of HR 235 in Section 11, Mandatory Elimination of Duplicative Government Programs, or step-up its other efforts to stop Federal agency waste.
- If a national address point file can be publicly shareable, the U.S. Census Bureau should become the data steward for this file and adhere to the new Supplemental Guidance in OMB Circular A-16.
- If existing privacy constraints cannot be addressed, another Federal agency without such constraints should become the custodian of address points and all other agencies should obtain their information from this unrestricted source.
- States must coordinate the development of address point files working with local governments.
- In anticipation of the 2020 decennial Census, and to support the American Community Survey, the U.S. Census Bureau should contract with willing States to coordinate state and local government address data activity and to provide pass-through funding to maintain local address point files. These data should be developed locally with local and state agencies acting as data integrators.
- A national business plan for address points must be created and adopted by all Federal, state and local agencies, including a suitable data standard, data model, exchange standard and funding model.

May 4, 2011

Thanks