

NATIONAL GEOSPATIAL ADVISORY COMMITTEE MEETING
April 6-7, 2016
Minutes

The National Geospatial Advisory Committee (NGAC) held a public meeting from 1:00 p.m. to 5:30 p.m. on April 6, and from 8:30 a.m. to 4:00 p.m. on April 7, 2016. The meeting was held at the Main Interior Building in Washington, DC. In accordance with the requirements of the Federal Advisory Committee Act, the meeting was open to the public.

NGAC Members present:

Julie Sweetkind-Singer, NGAC Chair
Keith Masback, NGAC Vice-Chair
David Alexander
Frank Avila
Sarah Battersby
Talbot Brooks
Patricia Cummins
Bert Granberg
Frank Harjo
Jack Hild
Xavier Irias
Jeff Lovin
Roger Mitchell
Rebecca Moore
Kevin Pomfret
Laxmi Ramasubramanian
Gen. William Reddel III
Carl Reed
Amber Reynolds
Douglas Richardson
Anthony Spicci
Gary Thompson
Harvey Thorleifson
Molly Vogt
Jason Warzinik
David Wyatt
May Yuan

Ivan DeLoatch, Executive Director of the Federal Geographic Data Committee and Designated Federal Officer (DFO) for the NGAC, and John Mahoney, Alternate DFO, were also in attendance.

NGAC Members not in attendance:

Joanne Gabrynowicz
Matthew Gentile

Other Attendees:

David Alexander (DHS), John Byrd (MAPPs), Lucia Foulkes (FGDC), Tricia Gibbons (Lead Alliance), Jennifer Gimbel (DOI), Jerry Johnston (DOI), Dennis Klein (Boundary Solutions), Tony LaVoi (NOAA), Tim Newman (USGS), Mark Reichardt (OGC), Maria Roat (DOT), Ken Shaffer (FGDC), Harvey Simon (EPA), George Southard (Trimble Navigation Limited), Jon Sperling (HUD), Tim Trainor (DOC), Shayne Urbanowski (USGS), Chris Vaughan (FEMA).

Wednesday, April 6 Public Meeting**Welcome, Objectives and Introductions**

Julie Sweetkind-Singer, NGAC Chair, called the public meeting at 1:00 PM and welcomed members and attendees. NGAC members and attendees provided brief introductions.

Review and Adoption of December 2015 NGAC Minutes

The draft minutes of the December 4, 2015 NGAC meeting were reviewed and the Chair called for approval.

DECISION: The NGAC adopted the minutes of the December 4, 2015 NGAC meeting.

Welcoming Remarks

Ivan DeLoatch, Designated Federal Officer, welcomed NGAC members and provided a brief overview of the 2016 FGDC Guidance to the NGAC. The key issues identified in the guidance included the following:

- NSDI Strategic Framework
- Standards Coordination
- Landsat Advisory Group
- Transition Planning
- Input on Ongoing Initiatives

Mr. DeLoatch indicated that FGDC is looking for recommendations and strategic approaches to address these topics.

NSDI Strategic Framework

Ken Shaffer (FGDC) discussed the process for developing the 2017 NSDI Strategic Framework. FGDC will seek input from NGAC members regarding the vision and the desired future state of the NSDI.

John Mahoney (FGDC) provided an overview of the current 2014-2016 NSDI Strategic Plan. The plan is focused on three strategic goals, with associated objectives:

1. Develop capabilities for National Shared Services.
 - **Objective 1.1.** Develop geospatial interoperability reference architecture.
 - **Objective 1.2.** Establish the Geospatial Platform as the Federal geospatial data, services, and applications Web-based service environment.
 - **Objective 1.3.** Expand the use of cloud computing.
 - **Objective 1.4.** Promote the use of geospatial multiagency acquisition vehicles for interagency and intergovernmental purchases.

2. Ensure accountability and effective development and management of federal geospatial resources.
 - **Objective 2.1.** Advance the portfolio management process for National Geospatial Data Assets (NGDA).
 - **Objective 2.2.** Identify potentially duplicative investments and opportunities for collaborative investments.
3. Convene leadership of the National Geospatial Community.
 - **Objective 3.1.** Lead and participate in the development and coordination of national and international standards applicable to the geospatial community.

The FGDC is conducting evaluations of the National Geospatial Data Asset (NGDA) Management Plan and the NSDI Strategic Plan as part of the planning process. Part of the evaluation process is seek feedback from both the Federal sector and other national leaders in geospatial technology.

The FGDC organized a Federal NSDI Strategic Planning Workshop on March 22 to obtain input from the Federal sector. Key outcomes of the workshop included:

- Increasing participation across the board.
- Define future state.
- Refining roles and responsibilities: need to have more time FTE to do the job better.
- Enhance Performance measures.
- Promote Values.

Following the overview of the NSDI Strategic Plan, NGAC members broke into groups to discuss the following questions:

1. Refining the desired future state of the NSDI – What do you envision, how do we measure progress?
2. New and Emerging Technologies.

NGAC members reported the outcomes of their discussion as follows:

- The NSDI includes technology and human resources. Need leadership with resources and authority.
- Develop metrics so geospatial activities can be evaluated and resources adjusted.
- The NSDI should be integrated in people's lives (privacy and security). It should be citizen centered, not just Federal.
- Need to develop guidance on emerging topics like UAVs and crowdsourcing.
- The NSDI should include indoor and outdoor location.
- Autonomous transportation (get partnership with systems).
- Consider how technology affects the future state based on where technology is going.
- Internet of things and role of cloud/big data.
- Consider the app revolution, and bring creators into the community.
- The NSDI should have the best available data that can be easily discovered for intended uses.
- Emerging new technology: sensor that offers specific applications.
- Real time content – how do we use and manage data that is constantly being updated?
- Concerns on the NSDI: The protection of critical geospatial assets.
- Privacy and confidentiality continues to be an issue.

- Need clear definition of the NSDI. Need methods to quantify it, accounting codes, occupation codes, and understanding of certifications. Currently no GIO driving enterprise.
- Unable to distinguish present and future states.
- Difficult to measure without more specificity.
- Consider sponsoring idea of GIO - equal to the CIO. “Geospatial” is not subset of data or IT.

Greetings from the FGDC Chair

Jennifer Gimbel welcomed NGAC members and discussed the FGDC Priorities of 2016. Ms. Gimbel noted that FGDC needs input to help develop transition strategies for the next administration, and highlighted that the NGAC can assist in the continuing development of communication and outreach strategies.

FGDC Executive Committee Roundtable Discussion

Executive Committee members participated in a roundtable discussion about the NSDI and Federal initiatives. Participants in the panel included Tim Trainor (DOC/Census), David Alexander (DHS), Harvey Simon (EPA), Jerry Johnston (DOI), Maria Roat (DOT), Ivan DeLoatch (FGDC), and Chris Vaughan (FEMA).

NGAC members actively engaged in this discussion, which addressed the 2016 FGDC priorities, standards, policy implementation, and the NSDI Strategic Framework. Members had an opportunity to provide advice to help inform the next version of the plan.

Lightning Session 1

An opportunity for brief announcements was given to NGAC members and the audience.

Minnesota Geological Survey Information Systems – Harvey Thorleifson

Mr. Thorleifson discussed the Minnesota Geological Survey, including background, mission, and current initiatives. He highlighted that Geological Mapping is an essential service in society. The Survey provides basic public information on the geology of the state.

North Carolina Lidar Acquisition Program – Gary Thompson

Mr. Thompson discussed the Lidar Acquisition Program in North Carolina.

Open Waters Data Sharing & Collaboration with Tribal Nations – Frank Harjo

Mr. Harjo discussed the Open Waters project, a water quality solution that will allow tribal organizations to share information for decision-making. Mr. Harjo provided a demonstration of the program.

Wrap-up

The Chair summarized key outcomes of the day and adjourned the meeting.

Thursday, April 7, NGAC Public Meeting

Ms. Sweetkind-Singer welcomed NGAC members and provided an overview of the agenda for the day.

Updates on 2015 NGAC Subcommittee Activities

Crowdsourced Data Subcommittee

Molly Vogt, Crowdsourced Data Subcommittee Chair, reported on subcommittee accomplishments, products, and events, including the following:

- Hosted 6 presentations from nationally recognized subject matter experts at 2 NGAC meetings identified key themes in discussion.
- Co-hosted meeting with Federal Community of Practice (FCoP) and FGDC members, compiled action items.
- Provided NGAC preview and discussion of Federal Toolkit for Crowdsourcing and Citizen Science.
- Provided input to FCoP on beta version and preview of the Toolkit.
- Adopted standard definitions related to crowdsourcing.
- Researched and drafted crowdsourcing case studies that focus on federal agencies.
- Participated in White House Mapathon.

The subcommittee will finalize the case studies for inclusion in the Toolkit for Crowdsourcing and Citizen Science, and will also provide feedback on the toolkit. Will also continue to support and coordinate the Federal Community of Practice.

ACTION: The 2015 NGAC Crowdsourced Geospatial Data subcommittee members will finalize a set of case studies for inclusion in the Federal Crowdsourcing and Citizen Science Toolkit prior to the June 2016 NGAC meeting.

Communications and Outreach Subcommittee

Bert Granberg, Communications and Outreach Subcommittee Chair, noted that the subcommittee's primary task was to provide feedback on the communications planning efforts of the FGDC. The subcommittee provided input into the development of the NSDI communication and outreach strategy, and the subcommittee also provided feedback on FGDC branding and website updates.

Landsat Advisory Group

Julie Sweetkind-Singer reported on the activities of the Landsat Advisory Group (LAG), and noted that the Landsat User Survey Paper had been sent to members for review prior to the meeting.

Tim Newman (USGS) provided an update on the USGS Land Remote Sensing Program. Mr. Newman reported on the operational status of Landsat 7 and Landsat 8, and discussed development plans for Landsat 9.

Mr. Newman identified several potential topics for LAG consideration in 2016, including:

- Revisit of the smallsat investigation from the FY15 NGAC study.
- The feasibility and utility of implementing temporal data cubes to support projection or 'forecast' models of land change trends.
- Data continuity mission enhancements.
- Government and Private Sector roles in a future land remote sensing architecture.

DECISION: The NGAC adopted the paper, “Analysis of Non-Federal Landsat User Requirements,” in principle pending the addition of minor edits.

ACTION: NGAC members provide any final edits to the Non-Federal Landsat User Requirements paper to John Mahoney by Friday, April 15, 2016.

3D Elevation Subcommittee

Jeff Lovin and Jason Warzinik provided a summary of the 3D Elevation Subcommittee activities in 2015.

- On NAPA Report Recommendation: The NGAC endorsed the recommendation “FEMA Flood Mapping: Enhancing Coordination to Maximize Performance Report”
- On 3DEP Acquisition: The NGAC adopted the paper “3DEP Data Acquisition Coordination”. The subcommittee provided recommendations to improve education and outreach.
- On Emerging LiDAR Technology: The NGAC advised USGS to move forward with a pilot.

The next step is to maintain contact with the 3DEP federal contacts at USGS and provide assistance as needed.

Geospatial Privacy Subcommittee

Kevin Pomfret summarized the subcommittee’s accomplishments, products and events in 2015 as follows:

- Prepared Resolution regarding FGDC collaboration with National Telecommunications and Information Administration (NTIA) Multi-stakeholder process regarding drone privacy.
- Collaborated with FGDC to develop a presentation to the CIO Council Privacy Subcommittee on unique aspects of geolocation privacy.
- Collaborated with FGDC to provide a panel presentation at the Federal Privacy Summit on geolocation privacy issues.

Next steps:

- Continue to engage with Federal privacy community on geolocation privacy issues.
- Explore opportunities for research on the privacy implications of aggregating open geospatial data sets in an NSDI.
- Increase awareness within the geospatial community on the potential impact of Federal privacy initiatives.

Geospatial Platform Update

Jerry Johnston (DOI) reported on recent developments of the Geospatial Platform. Enhancements included:

- New look and feel.
- Additional map viewer functionality.
- Create and import maps from Esri’s ArcGIS On-Line.
- Create and embed Map Galleries into external sites.
- Portfolio management capabilities to measure and manage national geospatial data assets.
- Enriched geospatial marketplace.
- Secure scalable Amazon Web Service infrastructure.

Release 3 developments included:

- Web Map Viewer Phase II: Map saving and sharing and Map Knowledge Graph prototype.
- Map Manager, Phase II with AGOL Harvester.
- Performance Dashboard, Phase II: Service Checker, NGDA Metadata Viewer, Batch Selections, Registry prototype and Mobile Observation Services.

The team is currently working on:

- Map Knowledge Graph and enhanced Registry services.
- More NGDAs available via reliable services.
- Additional Marketplace functionality.
- APIs for Developers.

Information Sharing Environment (ISE) Standards Coordinating Council Update

Mark Reichardt (OGC) spoke about the Information Sharing Environment (ISE) Standards Coordinating Council. The Standards Coordinating Council (SCC) is an advisory group that provides advice to the Program Manager of Information Sharing Environment (PM-ISE) by addressing the need for information sharing standards, enablers, and other issues related to information sharing. Mr. Reichardt also discussed current SCC initiatives.

Federal Geospatial Highlights

Ivan DeLoatch provided an update on recent FGDC activities, including the following:

- GAO Engagements
- National Geospatial Data Asset (NGDA) Management Plan Update
- NGAC Appointments
- 2015 FGDC Annual Report
- New FGDC Website
- Doug D. Nebert NSDI Champion of the Year Award
- FGDC Steering Committee Meeting Overview

Public Comment Period

An opportunity was given to members of the public to provide comments to the NGAC.

Dennis Klein – Boundary Solutions, Inc.

Mr. Klein spoke about 2MAPS; a parcel-mapping system that provides a transit-centric walkable solution to address traffic congestion.

Overview of 2016 Guidance

Ivan DeLoatch and John Mahoney provided an overview of the 2016 FGDC Guidance to the NGAC. Each year the guidance is developed based on suggestions from NGAC members, FGDC agencies, and FGDC leadership. Topic areas in the 2016 guidance include the following:

- NSDI Strategic Plan Framework
- Standards Coordination
- Landsat Advisory Group
- Transition Planning
- Ongoing Initiatives

Following discussion of the guidance, the NGAC agreed on the following approach:

ACTIONS:

The NGAC agreed to form two short-term work groups to provide high-level feedback prior to the June NGAC meeting:

- 2014-2016 NSDI Strategic Plan Work Group
- Federal Management of Geospatial Assets Work Group

The NGAC also agreed to form four longer-term subcommittees to address components of the 2016 guidance:

- New and Emerging Technologies Subcommittee
- Policy Framework Subcommittee
- Standards Coordination Subcommittee
- Landsat Advisory Group

The NGAC will organize a Transition work group later in 2016, after initial work has been completed on the NSDI strategic plan.

In addition, the NGAC will designate Points of Contact (POCs) to monitor the following ongoing issues and report back to the NGAC on developments of interest:

- Geospatial Platform
- Crowdsourced Geospatial Data
- Geospatial Privacy
- National Address Data
- NSDI Outreach and Communication
- Tribal Geospatial Activities
- 3D Elevation Program
- Open Water Data Initiative

Addressing the Guidance

NGAC members developed a plan to address the guidance and agreed on the following actions:

ACTION: NGAC members will identify first and second choices for 2016 NGAC subcommittee and work group assignments (April 2016).

ACTION: NGAC Chair and DFO will review and finalize subcommittee and workgroup membership and leadership (April 2016).

ACTION: Subcommittee and work groups will hold initial meetings in April/May 2016.

ACTION: Subcommittee and work groups will provide status reports at June 14-15 NGAC meeting.

Lightning Session 2

An opportunity for brief announcements was provided to NGAC members.

Carl Reed – Open Geospatial Consortium (OGC) Overview

Carl Reed spoke about the OGC and standards related to environment, defense, health, agriculture, meteorology, and more. Mr. Reed discussed the role of OGC as an international not-for-profit organization committed to making quality open standards for the geospatial community.

Bert Granberg – National Address Database

Bert Granberg discussed the National Address Database (NAD) and highlighted the National States Geographic Information Council's (NSGIC) perspectives and recommendations on the NAD initiative.

Doug Richardson – AAG-Esri Geo Mentors Program

Doug Richardson discussed the Geo Mentor Initiative, which is a program sponsored by AAG in partnership with Esri to create a National Geo Mentors Program to enrich K-12 education. Dr. Richardson provided information on becoming a geommentor and encouraged members and attendees to participate in the initiative.

Jack Hild – Landsat Alternative Approaches

Jack Hild provided comments and perspectives on potential alternative approaches for currently planned and future Landsat missions, including opportunities to utilize smallsats and other emerging technologies.

Talbot Brooks – The Future of Spatial Technologies

Talbot Brooks spoke about the growth of geospatial services in the U.S. and their economic impact. Mr. Brooks reported on current academic and workforce challenges related to geospatial technology, and discussed potential actions and recommendations.

Meeting Wrap-up

Julie Sweetkind-Singer reviewed actions, summarized next steps, and noted that the next NGAC meeting will be on June 14-15 at the Department of Transportation Building in Washington, DC. The Chair adjourned the meeting at 4:00 p.m.

Certification

I hereby certify that, to the best of my knowledge, the foregoing minutes are accurate and complete.

Ms. Julie Sweetkind-Singer, Chair, National Geospatial Advisory Committee

Mr. Ivan DeLoatch, Designated Federal Officer, National Geospatial Advisory Committee

These minutes will be formally considered by the Committee at its next meeting, and any corrections or notations will be incorporated in the minutes of that meeting.

Note – These minutes were approved by the NGAC on June 14, 2016

**April 6 – 7, 2016 NGAC Meeting
Summary of Presentations and Handouts**

The following is a list of the presentations and handouts from the meeting. These meeting materials are posted along with the minutes at: <http://www.fgdc.gov/ngac/meetings/april-2016/index.html>

NSDI Strategic Framework

- NSDI Strategic Framework Overview

2015 NGAC Subcommittee Update

- Crowdsourced Data
- 3DEP Program
- Geospatial Privacy

Landsat Advisory Group

- Landsat Advisory Group – 2015 Task 1 Report
- Landsat Program Update

Federal Geospatial Highlights

- FGDC Update
- NSDI Overview

Geospatial Platform

- Geospatial Platform Update

NGAC Guidance

- 2016 NGDAC Guidance
- 2016 NGAC Guidance Overview

ISE Standards Coordination Council

- ISE Standards Coordinating Council Update

Lightning Sessions

- Minnesota Geological Survey Information Systems – Thorleifson
- North Carolina Lidar Acquisition – Thompson
- Open Waters Data Sharing with Tribal Nations – Harjo
- OGC Overview – Reed
- National Address Database – Granberg
- AAG-Esri GeoMentors Program – Richardson
- The Future of Spatial Technology – Brooks