

**National Geospatial Advisory Committee Meeting**  
**March 21-22, 2017**  
**Meeting Minutes**

The National Geospatial Advisory Committee (NGAC) held a public meeting from 1:00 p.m. to 5:00 p.m. on March 21, and from 8:30 a.m. to 4:00 p.m. on March 22, 2017. The meeting was held at the Department of the 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  
Sarah Battersby  
Talbot Brooks  
Gar Clarke  
Garet Couch  
Patricia Cummins  
Frank Harjo  
Xavier Irias  
Roberta Lenczowski  
Roger Mitchell  
Rebecca Moore  
Kevin Pomfret  
Laxmi Ramasubramanian  
Major General William Reddel  
Carl Reed  
Amber Reynolds  
Douglas Richardson  
Cy Smith  
Rebecca Somers  
Harvey Thorleifson  
Jason Warzinik  
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:**

Frank Avila  
Stuart Davis  
Matthew Gentile  
Jennie Stapp

**Other Attendees:**

John Byrd (MAPPS), Ashley Chappell (NOAA), Mike Donnelly (Department of Homeland Security), Peter Doucette (USGS), Monique Eleby (Census Bureau), Rod Erickson (ESRI), Lucia Foulkes (USGS), Tricia Gibbons (USGS Contractor), Travis Hardy (Arden), Rebecca Harned (National Alliance for Public Safety GIS Foundation), Mark Lange (Census Bureau), Steve Lewis (Department of Transportation), Lynda Liptrap (Census Bureau), John Mahoney (USGS), Ryan Nichols (DOI), Michael Piscotti (National Geospatial-Intelligence Agency), Kerry Rae (DOI), Peter Sforza (Virginia Tech), Ken Shaffer (USGS), Mike Tischler (USGS), Tim Trainor (Census Bureau), Matthew Zimolzak (Census Bureau)

**Tuesday, March 21, 2017 NGAC Public Meeting**

Julie Sweetkind-Singer, NGAC Chair, called the public meeting to order at 1:00 p.m. and welcomed members and attendees. Ms. Sweetkind-Singer noted that DOI appointed 14 new members to serve on the NGAC this year. NGAC members provided brief self-introductions.

**Review and Adoption of December 2016 Meeting Minutes**

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

**DECISION:** The NGAC adopted the minutes of the December 14, 2016 NGAC meeting.

**Welcoming Remarks**

Kerry Rae (DOI), Acting Principal Deputy Assistant Secretary for Water and Science, welcomed attendees and congratulated the new members. She expressed gratitude for the service of NGAC members and their contributions to DOI. Ms. Rae reported on DOI transition activities and noted that DOI's new Secretary, Ryan Zinke, had been confirmed. Ms. Rae looks forward to continued engagement with the NGAC.

**Federal Geospatial Highlights**

Ivan DeLoatch, FGDC Executive Director, welcomed NGAC members and reported on FGDC activities:

FGDC Leadership Changes: The acting FGDC Chair is Kerry Rae, Acting Principal Deputy Assistant Secretary for Water and Science at DOI. Tod Dabolt, DOI GIO, is the new chair of the of the Homeland Infrastructure Foundation-Level Database (HIFLD) subcommittee.

Overview of Administration Transition Activities: FGDC briefed the DOI landing team on OMB Circular A-16 Supplemental Guidance progress and other topics. The transition documents developed by FGDC and the NGAC were shared with the landing team, and were very helpful. The transition infographic developed by the NGAC has been very useful in showing the impact of geospatial data and technology.

NSDI Strategic Framework and Planning Update: The NSDI Strategic Framework document was approved by the FGDC Steering Committee in December 2016. The document was endorsed by the NGAC. The final Framework document is posted at: <https://www.fgdc.gov/nsdi-plan/2017/nsdi-strategic-framework.pdf> Mr. DeLoatch talked about an interim implementation approach, noting that it will focus on a priorities for 2017.

#### Recent and Upcoming FGDC Engagement Events:

- Esri Federal GIS Conference: FGDC held a session on National Geospatial Data Asset (NGDA), Portfolio Management and the Geospatial Platform.
- National States Geographic Information Council (NSGIC) Mid-year meeting: Update on FGDC activities.
- Coalition of Geospatial Organizations (COGO): FGDC is working with COGO to coordinate activities for the next COGO Report Card.
- MAPPS Winter Conference: FGDC provided an update on national parcel data activities.
- Arctic Spatial Data (SDI) Pilot Demonstration: OGC, USGS, and Natural Resources Canada demonstrated the value of standardized spatial data infrastructures in the Arctic.
- 2017 ISO Metadata Summit: FGDC is organizing this meeting on May 24 at the USGS in Reston.
- FGDC API Concept Development Study: The FGDC is sponsoring an API Concept Development Study through OGC to support long term planning. A request for information went out on March 7 and is due March 31. There will be an API Plugfest on May 15 followed by a workshop and a formal report in June 2017. USGS, NASA, and OGC will identify areas of improvement and opportunities to leverage existing resources.

2017 Doug D. Nebert Award Nominations: The nomination for the Doug Nebert NSDI Champion of the Year Award is open. Nominations will be accepted until May 5. Details are posted at:

<https://www.fgdc.gov/nebertaward>

FGDC 2016 Annual Report: 2016 FGDC Annual Report print copies are available. Contact Lucia Foulkes at [lfoulkes@usgs.gov](mailto:lfoulkes@usgs.gov) to obtain a copy. High-resolution and low-resolution digital (pdf) file formats are available on the FGDC website at <https://www.fgdc.gov/resources/whitepapers-reports/annual%20reports/2016>

#### **National Geospatial Data Asset (NGDA) Portfolio Management**

Ken Shaffer (FGDC) provided an update on the National Geospatial Data Asset (NGDA) portfolio management process. He noted that the OMB Circular A-16 Supplemental Guidance was released in 2010. There were formerly 34 Data Themes, which were reorganized into 17. The Address Theme is the latest addition to the portfolio.

Mr. Shaffer discussed the NGDA Themes and the Lifecycle Maturity Assessments (LMA). The LMA provides a consistent approach for characterizing the maturity of each of the 177 NGDA datasets. The 2017 LMA assessment is currently in progress. In addition, the FGDC conducted an evaluation of the NGDA process in 2016. Mr. Shaffer discussed the findings and outcomes of these evaluations.

Next steps on NGDA Portfolio Management:

- Complete the 2017 LMA and update performance dashboards.
- Use portfolio management to improve NGDA maturity, quality, usage, and access to web services.
- Discuss geospatial investment approach and develop Theme Implementation Plans based on Theme Strategic Plans.

NGAC members were presented with the following questions for discussion:

- FGDC is currently developing an overall portfolio summary. What types of information does NGAC find important to show in an overall aggregated Portfolio Summary?
- How can the NGDA portfolio management process be more usable to external groups or your communities?

NGAC comments included the following:

- Process should be formalized
- Overall goals and metrics for the portfolio management process are needed
- What is the cost of the life cycle?

### **Geospatial Platform Report/Demo**

On behalf of Tod Dabolt, Ken Shaffer provided an update on the Geospatial Platform and reported on new capabilities and enhancements. A GeoPlatform demo will be scheduled for NGAC members.

The Geospatial Platform supports the NSDI Strategic Plan and is a consistent, reliable portal to our nation's vast ecosystem of distributed geospatial data and services. In 2017, the plan is to improve Portfolio Management and shared resources, and to enhance collaboration capabilities through the Platform.

**ACTION:** FGDC will schedule a webinar demonstration of the GeoPlatform website for NGAC members. NGAC members are encouraged to register for accounts on the Geospatial Platform ([www.geoplatform.gov](http://www.geoplatform.gov)) prior to the webinar.

### **Perspectives – Key Issues Facing the Geospatial Community**

NGAC members broke into groups to discuss the following questions related to issues facing the geospatial community:

- What are the key issues facing the organizations and communities you represent?
- What is the role of government in helping to address those issues?
- What's the relationship to FGDC priorities?

The NGAC reported the outcomes of their discussions as follows:

- Need to define what success looks like
- Incorporate crowd-sourced data providers
- Data ownership redundancy
- Improve accessibility, such as access to health care data
- Effective controls are needed
- How do we evaluate the quality of the data? Competency models, certifications. Does it relate to FGDC?
- Data and usability elements are key
- Address data needs authoritative sources
- Align with priorities and the need for identification of authoritative sources
- Examine possible conflicts between HILFD and NGA. Functionally may have two competing or duplicative datasets. They have different requirements and communities of interest
- Roles are changing in how data are collected. How do we develop effective partnerships in light of the ongoing changes?
- Interagency data sharing at local level is limited
- Encourage adoption of open source software

- Look into Return on Investment (ROI) with the framework data layers
- Importance of continuing open data policies

### **Lightning Session 1**

An opportunity for brief announcements was given to NGAC members.

#### Harvey Thorleifson – Strategic Plan for Geologic Mapping in the U.S.

Dr. Thorleifson reported on the progress made in the U.S. geological mapping community and discussed a strategic plan currently under development for geologic mapping.

#### Xavier Irias – GNSS and RFID for Underground Asset Management

Mr. Irias discussed the potential of Global Navigation Satellite System (GNSS) and Radio Frequency Identification Device (RFID) technologies to enable substantial efficiencies in the management of subsurface infrastructures.

#### Pat Cummins – Beyond Open Data

Ms. Cummins spoke about how the use of open data is growing across all levels of government. She spoke about the Los Angeles GeoHub launched in the spring of 2016 and discussed this model as an example of a platform for initiatives and search tools for location based open data.

#### Talbot Brooks – Training the Geospatial Workforce

Mr. Brooks discussed approaches for preparing students for the workforce and noted that a balance through cooperative education (which includes Geospatial core curriculum) could be valuable to students' preparation for finding geospatial jobs.

#### Doug Richardson- Announcement on Survey on Higher Education for Geospatial Information

David Cowen is conducting a survey on higher education in geospatial information. The survey link will be distributed to NGAC members.

### **Wrap-up**

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

### **Wednesday, March 22, 2017 NGAC Public Meeting**

Julie Sweetkind-Singer (Chair) and Keith Masback (Vice Chair) welcomed NGAC members to the second day of the meeting and provided brief overview of the agenda.

### **Morning Session: Spotlight on Federal Programs**

#### **National Address Database**

Tim Trainor (US Census Bureau) and Steve Lewis (DOT) reported on the status on the NGDA Address Theme and National Address Database (NAD) activities. The FGDC established the Address Theme in 2016. The Address Theme Leads are the Department of Commerce and the Department of Transportation. The Address Subcommittee was recently established and it includes federal and non-federal partners. The Address Theme Definition has been developed and approved by the FGDC Coordination Group. The subcommittee is in the process of finalizing the subcommittee charter and establishing its presence on Geoplatform.gov

Steve Lewis (DOT) reported on the status of the NAD Pilot. NAD Pilot findings include:

- Data sharing agreements to make data publically available may be a challenge
- Tribal participation may be a challenge
- Aggregating existing statewide collections was straight forward
- The schema will likely evolve, but needs to remain consistent with existing address schemas to allow for streamlined extract, transfer and load (ETL)
- NAD Pilot currently has 22.3 million addresses.

Next steps include:

- Choose platforms for development and production
- Identify funding for continued development
- Make the data available

#### **National Address Database (NAD) Federal User Requirement Workshop**

Tim Trainor (US Census Bureau) reported on the outcomes of NAD Federal User Requirement Workshop held in February. Key take-away points included:

- Federal agencies identified additional requirements
- NAD pilot minimum content met the needs of many federal agencies
- Additional content requirements - alternate street names, unit type, postal/state abbreviation, multi-unit structure flag, geocode confidence and accuracy
- Metadata requirements - address coordinate reference system, coordinate reference system authority, indicator of quality, unique IDs, address lifecycle
- Functional requirements - feedback mechanism, download tools, access to the cloud, ability to feed updates to classified systems

Next steps include:

- Resources to host the Pilot NAD
- Need funding strategies for NAD development and support beginning in FY19

#### **USGS National Geospatial Program**

Dr. Mike Tischler (USGS) provided an overview of the National Geospatial Program (NGP) and reported on recent activities on the 3D Elevation Program (3DEP), Hydrography, and the Alaska Mapping Initiative. NGP provides data to the public that is authoritative, accurate, accessible, and available.

### 3D Elevation Program (3DEP)

One of the key goals of 3DEP is to complete lidar coverage with ifSAR in Alaska in 8 years. Dr. Tischler highlighted key activities as follows:

- NEEA Refresh is underway in partnership with NOAA.
- Working hard to push message about importance of 3DEP for the nation's infrastructure.
- Geologic mapping and lidar applications: There are higher spatial resolution base maps and better demarcation of geological features.
- FY17 Broad Agency Announcement: Received 41 proposals. Awards to date are 33 projects. Currently reaching out for new partners, obtained 20 new and 13 repeat partners.
- 3DEP Funding: more funding is needed.
- 3DEP Multiyear Plan: Develop a plan to move from opportunistic process to a unified multi-year plan and implement a phased approach beginning in FY18.

### USGS Alaska Mapping Initiative

Dr. Tischler noted that some Topo maps of Alaska are older than 50 years and do not meet modern accuracy standards. Energy production, mineral extraction, and aviation safety require modern mapping. Alaska ifSAR Elevation data is 77% available or in-process.

### Hydrography

Dr. Tischler talked about the surface water layers of the National Map including the National Hydrography Dataset (NHD) and the Watershed Boundary Dataset (WBD). He also talked about NHD Plus High Resolution (NHD+HR). Highlights included:

- The Hydrography Requirements and Benefits study showed future potential benefits of \$602M.
- National Topographic Maps-US Topo: Hardcopies are available through [store.usgs.gov](http://store.usgs.gov).
- US Topo Product on Demand (POD): Working on implementing product on demand feature.
- Mapping in the 21<sup>st</sup> Century: Migration to the cloud. Role of federal government in mapping in changing dramatically. Federal mapping programs are critical to a trillion dollar geoservices industry.

**ACTION:** USGS plans to request NGAC feedback and comments on the 3DEP Multi-year Plan at the June NGAC meeting.

### **Parcel Data**

Mike Donnelly (DHS) and Michael Piscotti (NGA) talked about the Homeland Infrastructure Foundation-Level Data (HILFD) subcommittee and reported on their activities. HILFD is a federal partnership and governance structure delivering mission critical geospatial data required to protect the homeland.

The HILFD subcommittee organized a Parcel Federal Workshop in 2016. Key outcomes:

- Parcel data starts with local data.
- National-level access would be valuable, however, federal requirements fragmented.
- Champion needed for resources, standardization, and assurance that privacy/civil liberties concerns are accounted for.

### 2017 Plan

- Will focus on delivery of data.
- How do we start connecting delivery with [Geoplatform.gov](http://Geoplatform.gov)?

- Outreach, leverage power of partnership (e.g., partnership with the International Association of Fire Chiefs).

NGAC members engaged in a dialogue covering the following topics:

- HIFLD Community is ultimately a “consumer” and not a long-term steward for a National Parcel layer. Who should be a National Steward for this initiative?
- Are existing Federal statutory authorities sufficient to make this initiative a reality?
- Given resource constraints, how can Federal agencies provide normalized and Nation-wide access to parcel information?
- A business plan like the 3DEP NEAA is needed.

### **Public Comment Period**

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

John Byrd – MAPPS

Mr. Byrd reported that MAPPS released a 3D Elevation e-book. The 3DEP 2017 E book link is: <http://bt.editionsbyfry.com/publication/?i=391822#>

### **Standards Coordination Subcommittee**

Carl Reed, Standards Coordination Subcommittee chair, reported on the subcommittee activities. Dr. Reed shared highlights of the subcommittee’s draft paper and noted the recent revisions.

Comments from NGAC members:

- What is the role of the FGDC?
- Some of the FGDC developed standards may need to evolve and revisions may be needed.
- Do we want to look at something more specific to target such as content standard for the framework datasets?
- Is there a programmatic implementation of ISO metadata standards?

Following this discussion, the NGAC agreed on the following actions:

**DECISION:** The NGAC adopted the paper, “Geospatial Standards: A National Asset,” pending minor editorial changes.

**ACTION:** The FGDC will consider asking the NGAC for further input on the potential scope and design for a registry of key standards.

### **Landsat Advisory Group**

Peter Doucette (USGS) provided an update on the USGS Landsat Remote Sensing Program and noted current challenges within the program:

- Synchronizing with incoming administration
- Congressional continuing resolution for FY 2017 budget and anticipating budget cuts for FY18
- Staying the course for a comprehensive NASA/USGS Sustainable Land Imaging Program
- Landsat – Sentinel Harmonization

Mr. Doucette reported on the status on Landsat 9 and Landsat 10. The estimated target launch date of Landsat 9 is late 2020, and Landsat 10 estimated launch is mid-2020s. He also reported that Sentinel 2-b



was launched in March 7, 2017. Sentinel 2 Data is expected to substantially augment Landsat data increasing the possible revisit over any one spot on the Earth's surface to just three days, as long as two Sentinel-2s and two Landsats are in orbit at the same time. Mr. Doucette talked about Landsat-Sentinel 2 harmonization investigations and Analysis Ready Data.

Roger Mitchell reported on Landsat Advisory Group (LAG) activities. Mr. Mitchell noted the tasks assigned to the LAG and reported on their status.

- Task #1: Revisit Smallsats Investigation. This is follow-up from a 2015 study question. USGS asked that the LAG focus on smallsats and look at requirements for future Landsat missions.
- Task #2: Temporal Data Cube Study. Analyze the feasibility to implement temporal cubes and the marketability of these products to support projection or forecast models of land change trends.
- Task 3: Data Continuity Mission Enhancements. To what extent could significant sensor enhancements be made in future Landsat missions, while maintaining acceptable backward compatibility?

**ACTION:** The Landsat Advisory Group will provide draft papers addressing Task 1 (Smallsats) and Task 2 (Temporal Data Cubes) from the 2016 NGAC guidance prior to the June 2017 NGAC meeting.

## Lightning Session 2

### Frank Harjo- Exchange Network

Mr. Harjo spoke about Exchange Network, a platform for sharing environmental information managed through partnership and leadership of EPA, States, Territories, and Tribes. The website link is [www.exchangenetwork.net](http://www.exchangenetwork.net).

### Keith Masback – USGIF

Mr. Masback announced that the 2017 GEOINT Symposium will be held in June 4-7 in San Antonio, Texas, and provided a brief overview of program highlights.

### Rebecca Harned – NAPSG Foundation Standards Overview

Gen. William Reddel introduced Rebecca Harned, who provided an overview of the National Alliance for Public Safety GIS and discussed its mission, goals, and standards philosophy.

### Gen. William Reddel – Situational Awareness

Gen. Reddel shared a memorandum released by the Department of Defense in January 2017 regarding Improvements to DoD Unclassified Shared Situation Awareness.

## Discussion – NGAC Member Coordination Approaches & Ideas

Ivan DeLoatch spoke about the process to develop the NGAC Guidance and the FGDC priorities. NGAC members provided the following ideas, comments, and suggestions related to the Guidance and FGDC priorities.

### Geospatial and Infrastructure

- Write a position paper from the NGAC on the importance of geospatial to the nation.
- Use 3DEP as a critical part of infrastructure.

- Transportation is also part of infrastructure.
- Describe role of GIS as critical infrastructure.
- There will be a large infrastructure proposal in Congress, we want to address the geospatial component in the infrastructure for the nation.
  - The NGAC can make recommendation on cost savings through mapping. Before fixing the infrastructure, knowledge of location is needed.
  - Find it, fix it, and map it. Do it right, integrate it to use with infrastructure.
- Connect geospatial to a physical asset to obtain funding. Show the value of geospatial (ROI). Provide examples and case studies.

#### **Workforce and Education (Revisit)**

- Scope of geospatial has grown.
- Related skillsets- data management.
- Visualization and analysis.
- Broader definition.
- What makes a GIS professional?

#### **Risk assessment in Federal agencies**

- How framework datasets will help lessen and help address risks?
- GIS as part of the business enterprise solution

#### **Role of US in broader geospatial community (global, world)**

- What role should the U.S. have today?

#### **Community needs for data as services in open source environment.**

- Push and pull analysis

#### **Cultural and historical assets held in Federal agencies**

- Protection
- Standard processes - FOIA info, how is it released?
- Guidance document
- Other protected datasets

#### **Communication strategy**

- See lessons-learned paper from 2009 for ideas
- Think about ways to engage your community in what we do:
  - Chair's blog
  - Geoblog
  - Use USGS liaisons to get the word out. Use their internal tools
  - FGDC website
  - POCs in professional organizations

## **Meeting Wrap-up/Adjourn**

The Chair reviewed and summarized the meeting actions and noted next steps as follows:

### Short-term Work Groups

The NGAC discussed the possible formation of several short-term work groups to address key topics. The potential work groups included the following:

- Geospatial technology and infrastructure
- Workforce & education
- Address the geospatial community's needs for Data as Services
- Cultural and historical geospatial assets held by Federal agencies

**ACTION:** FGDC and NGAC leadership will work with NGAC members and agency contacts to scope and establish work groups, as appropriate, to address key topics.

### 2017 NGAC Guidance

**ACTION:** FGDC will develop additional guidance for the NGAC, based on FGDC and NGAC inputs, prior to the June 2017 NGAC meeting.

The next meeting is scheduled for June 13-14 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 September 6, 2017***

## **March 2017 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: <https://www.fgdc.gov/ngac/meetings/march-2017/index.html>

### **Federal Geospatial Highlights**

- FGDC Update

### **NGDA Portfolio Management**

- NGDA Portfolio Management Update

### **Geospatial Platform**

- Geospatial Platform Update

### **Spotlight on Federal Programs**

- National Address Database
- USGS National Geospatial Program
- HILFD/Parcel Data

### **Standards Coordination Subcommittee**

- Standards Coordination Subcommittee Report
- NGAC Paper – Geospatial Standards: A National Asset

### **Landsat Advisory Group**

- Landsat Advisory Group Status Report
- Landsat Program Update

### **Lightning Sessions**

- US Geological Mapping Strategic Plan – Thorleifson
- RFID and GNSS for Underground Asset Management – Irias
- Beyond Open Data – Cummins
- Preparing Students for the Workforce – Brooks
- NAPSG Foundation Standards Overview – Reddel/Harned
- DOD Shared Situational Awareness Memorandum – Reddel