

**NATIONAL GEOSPATIAL ADVISORY COMMITTEE MEETING**  
**September 1-2, 2015**  
**Minutes**

The National Geospatial Advisory Committee (NGAC) held a public meeting from 8:30 a.m. to 5:30 p.m. on September 1, 2015 and from 8:30 a.m. to 4:00 p.m. on September 2, 2015. The meeting was held at the National Conservation Training Center, in Shepherdstown, WV. In accordance with the requirements of the Federal Advisory Committee Act, the meeting was open to the public.

**NGAC Members present:**

Robert Austin (NGAC Chair)  
Julie Sweetkind-Singer (NGAC vice Chair)  
Talbot Brooks  
Keith Clarke  
Dan Cotter  
Patricia Cummins  
Joanne Gabrynowicz  
Matt Gentile  
Bert Granberg  
Frank Harjo  
Jack Hild  
Jeff Lovin  
Jack Maguire  
Keith Masback  
Roger Mitchell  
Kevin Pomfret  
Gen. William Reddel III  
Douglas Richardson  
Tony Spicci  
Gary Thompson  
Harvey Thorleifson  
Molly Vogt  
Jason Warzinik  
David Wyatt

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

**NGAC Members not in attendance:**

Dave DiSera  
Steve Coast  
Steve Emanuel  
Michael Jones

**Other Attendees:**

Michelle Austin, David Beddoe (Intergraph Government Solutions), John Byrd (MAPPS), Ray Byrnes (USGS), Lucia Foulkes (FGDC), Brett Gaines (CGI Federal), Dennis Klein (Boundary Solutions, Inc.), Roxanne Lamb (FDGC), Steve Lewis (DOT), Stephen Lowe (USDA), Vicki Lukas (USGS), Al Rea (USGS), Peter Sforza (Virginia Tech), Ken Shaffer (FGDC), Jim Stokes (Digital Globe), Joshua Sweetkind-Singer, Tim Trainor (DOC), Stephanie Williams (FGDC), Amy Wings (FWS)

**Tuesday, September 1, 2015 Public Meeting****Welcome & Introductions**

Dr. Robert Austin, NGAC Chair, called the public meeting to order at 8:30 a.m. and welcomed NGAC members and attendees. Dr. Austin provided an overview of the purpose and objectives of the meeting.

**Review and Adoption of June 2015 NGAC Minutes**

Dr. Austin reviewed the draft minutes of the June 9-10 NGAC meeting and called for approval.

**DECISION:** Then NGAC adopted the minutes of the June 9-10 NGAC meeting.

**Leadership Dialogue**

Jennifer Gimbel, Chair of the FGDC, recognized Dr. Austin and thanked him for his contributions and leadership as the Chair of the NGAC.

Ms. Gimbel provided an overview of the FGDC activities and Administration priorities. The Government Accountability Office (GAO) notified FGDC that it has closed its ongoing review of FGDC recommendations from the 2012 GAO report on Federal geospatial activities. GAO continues to track the recommendations from its follow-up report from 2014, and the FGDC Steering Committee is working to coordinate efforts to address the recommendations. Ms. Gimbel briefed NGAC members about her recent visit to Alaska, including efforts to coordinate mapping activities.

Ms. Gimbel and Ivan DeLoatch recognized NGAC members whose appointments will expire at the end of 2015 and provided certificates of appreciation. Special recognition was given to Bob Austin and Dave DiSera, who are completing their second terms on the committee.

**Open Water Data Initiative**

Al Rea, USGS, provided an update of the Open Water Data Initiative (OWDI). There has been significant progress since the initiative began in 2014. Mr. Rea explained the challenges in accessing water data as the information is maintained across many organizations without a unifying structure. Although progress has been made in making spatial water data more easily accessible, additional coordination is needed. Understanding connections between water networks and their components requires a geospatial framework. The Open Water Web was briefly discussed. A diagram of the Open Water Web summarized the components of water data, processing, and cataloging services.

**3D Elevation Program (3DEP) Subcommittee**

Vicki Lukas, USGS, provided an update on the 3D Elevation Program (3DEP). The preliminary results of the 2015 Interagency Elevation Inventory were discussed. These results will be published in the FY 2015 3DEP Annual Report. The Alaska IFSAR Skybreaking II Celebration took place in Anchorage, Alaska on August 18. A status report on Alaska 3DEP IFSAR Acquisition status was provided. The Alaska Mapping

Executive Committee held a meeting in conjunction with Skybreaking II to discuss strategies for the next 18 months.

The preliminary results of the USGS Broad Agency Announcement (BAA) for FY15/16 proposals were provided. There were 38 pre-proposals received for projects in 26 states requesting coverage of 132,000 square miles. The next 3DEP Executive Forum meeting will be held on September 29. The 3D Nation Elevation Subcommittee charter has also been submitted to FGDC for review and approval.

Gary Thompson, Chair of the 3D Elevation Program Subcommittee, provided an overview of current subcommittee activities, and reported on the outcomes of the 3DEP study questions that address the following topics:

- NAPA report recommendation
- 3DEP Acquisition
- Emerging LiDAR Technology

Mr. Thompson and Jason Warzinik provided an overview of the draft subcommittee paper on the 3DEP acquisition coordination process, which was developed to address one of the study questions in the 2015 FGDC guidance to the NGAC. The NGAC agreed on the following action:

**ACTION:** NGAC Members will provide comments to the 3DEP Subcommittee on the draft paper, “3DEP Data Acquisition Coordination” by Friday, September 18. The subcommittee will revise the paper based upon the comments and provide a final draft prior to the December 2015 NGAC webinar meeting.

#### **Crowdsourced Data Subcommittee**

Molly Vogt, Crowdsourced Data Subcommittee Chair, provided an update on the activities of the Federal Community of Practice for Crowdsourcing and Citizen Science, and a report on the subcommittee’s activities. Ms. Vogt noted that the subcommittee is developing a set of use cases that may be linked to the new Crowdsourcing and Citizen Science Toolkit.

Stephen Lowe, USDA, provided a presentation on the development of the Crowdsourcing and Citizen Science Toolkit. Following this presentation, NGAC members engaged in a discussion based on the following questions:

- What public, market, and research trends drive crowdsourcing and citizen science opportunities?
- How may geospatial thinking and technologies enable innovation, adoption, diffusion, etc.?
- Where is NGAC contribution most needed? Why?
- Who are the thought leaders from whom to learn?
- What has not been addressed, which could revolutionize participatory government?

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

**ACTION:** The Crowd-sourced Data Subcommittee will finalize a set of use cases for use by the Federal Community of Practice for Crowdsourcing and Citizen Science (COP) in the COP’s Open Innovation Toolkit.

**ACTION:** NGAC members will review the Federal Community of Practice for Crowdsourcing and Citizen Science’s Open Innovation Toolkit when it is released and provide comments and suggestions through the NGAC Crowd-sourced Data Subcommittee. The Toolkit is scheduled to be released in September 2015.

### **National Address Database**

Steve Lewis, DOT, reported on the status of National Address Database pilot project efforts. He noted that DOT has initiated its pilot project. Several other governments will be involved in the pilot, including the states of Arizona, New York, and Utah; Washington, D.C., and possibly others. Workflows, how addresses are created and updated, and data schemas will be analyzed. DOT will host a challenge to develop two crowdsourced apps for address information. This effort will be a mechanism to obtain data for States and counties that currently don’t have data. NGAC members may participate as judges of the challenge.

Tim Trainor, U.S. Census Bureau, discussed the Community Tiger pilot project. This project will allow governments that currently don’t have tools to create addresses to create them. The tool is cloud-based. The state of Arizona requested training to learn about the tool. Three governments have registered their data in the public cloud: Washington County of Maryland, the Town of Westwood in Massachusetts, and Washington DC. The states of Colorado and New York are scheduled for WebEx training in September. The next step is to continue acquiring address data and testing this tool. Once sufficient data is collected by DOT and the Census Bureau, comparisons can be performed to identify best practices, analyze the benefits, and determine next steps.

### **Geospatial Privacy Subcommittee Privacy Report**

Doug Richardson provided an update on Privacy Subcommittee activities. Dr. Richardson reported ongoing dialog with the CIO Council on privacy issues related to drones and other technologies. The CIO Council is planning a Privacy Summit meeting in late 2015 that will draw a large Federal audience interested in privacy issues. The FGDC and NGAC have been invited to organize a breakout session on geospatial privacy issues. Members brainstormed on ideas for conducting the breakout session, and discussed different approaches to convey key messages. The subcommittee will design the session with input from the NGAC. The NGAC agreed on the following actions:

**ACTION:** The subcommittee will work with FGDC staff to plan a panel session on geospatial privacy at the CIO Council’s Privacy Summit meeting, which is tentatively planned for November 2015. NGAC members should contact Kevin Pomfret, Doug Richardson, and John Mahoney with suggestions for the panel presentation (speakers, content, etc.).

**ACTION:** NGAC members and FGDC representatives will continue to participate in the National Telecommunications and Information Administration’s multi-stakeholder engagement process regarding domestic use of Unmanned Aircraft Systems. The next stakeholder meetings are scheduled for September 24, October 21, and November 20, 2015

### **FGDC Report**

Ivan DeLoatch provided an update on current FGDC business activities. Highlights included the following:

- GAO Engagement: The U.S. Government Accountability Office (GAO) notified FGDC that it has officially closed the remaining two FGDC actions from the 2012 GAO report on geospatial activities.

- Geospatial Interoperability Reference Architecture (GIRA): The FGDC Steering Committee voted unanimously to endorse the GIRA and support its adoption as an interactive collaboration resource to be hosted on the Geospatial Platform.
- National Spatial Data Infrastructure (NSDI) Strategic Plan: FGDC is developing a FY 2015 status report that summarizes FY 2015 performance and updates goals and targets for FY 2016.
- National Geospatial Data Asset (NGDA) Management: A major accomplishment in NGDA Management Plan activities is the recent completion of the metadata registration. The A-16 NGDA Community, Theme Lead Collaboration Community, and individual Theme community pages are established on the Geospatial Platform.
- NGAC Appointments: An interagency review panel is evaluating the nominations for 2015 appointments to the committee. The new appointments are expected to be announced in December 2015.
- FGDC Steering Committee: The Steering Committee will hold a meeting on Thursday, September 3. Agenda Topics include: The Open Water Data Initiative, Geospatial Platform, GAO recommendations, and the results of the September NGAC meeting.
- The Geospatial Platform: New features are now available at the “preview” release site. New features include:
  - New homepage and overall responsive site design
  - Interactive browse / view / mashup of geospatial web services
  - Geoplatform.gov catalog with service quality indicators
  - Map saving and sharing
  - A-16 portfolio management dashboard

**ACTION:** FGDC leadership and staff will work with the Office of the Secretary of the Interior to complete the next round of appointments to the NGAC. The appointments are expected to be Completed by December 2015.

**ACTION:** NGAC members may provide comments on the preview release of the next version of the Geospatial Platform website. The preview release is available at: <https://portal.geoplatform.us>

### **Lightning Session 1**

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

#### Jack Maguire – Hurdles to NG-911

Mr. Maguire discussed Next Generation 911. He noted that a National Address Database will be very helpful in the integration of GIS and NG911.

#### Frank Harjo – Tribal Emergency Response Project

Mr. Harjo discussed the Tribal Emergency Response Project that will enable more effective preparation and response to emergency incidents.

#### Gary Thompson – North Carolina/Georgia Boundary

Mr. Thompson provided a presentation on the history, development, and refinement of the North Carolina - Georgia boundary.

Joanne Gabrynowicz – Legal Aspects of Obtaining and Using Remotely Sensed Data Under U.S. Law.  
Ms. Gabrynowicz briefed NGAC members about her recent trip to Bosnia-Herzegovina and her presentation on best practices for cultural property protection in NATO-led missions.

Keith Clarke – Ideas For The Next National Map

Dr. Clarke provided a presentation on ideas and approaches for the development of the next generation of the National Map.

### **Adjournment of Day 1**

The Chair adjourned the meeting at 5:30 pm.

### **Wednesday, September 2, 2015 NGAC Public Meeting**

Dr. Austin welcomed NGAC members and attendees and provided an overview of the agenda for the day.

### **History of Federal Geospatial Coordination, FGDC, and the NGAC**

Bob Austin provided a presentation about mapping coordination efforts through various administrations. Dr. Austin discussed the history and mission of the FGDC, and the NGAC, and highlighted past and current contributions of the NGAC.

### **Changing Geospatial Landscape**

Ivan DeLoatch provided a presentation on the NGAC's focus areas, topics, and products since its creation in 2008 to this date. He noted that the NGAC has provided invaluable advice and recommendations to the Federal community, and has helped to foster more effective collaboration among sectors.

Keith Masback provided comments on the geospatial revolution that is taking place with the economy and in society. He noted that a number of factors are driving the explosive growth of geospatial data availability and use. These factors include precise location data, a vast sensor web through handheld devices, small satellite development, outstanding open source software, broadband availability, vast processing power, storage in the cloud, data analytics, and the emerging Internet of Things.

Following the presentations from Dr. Austin, Mr. DeLoatch and Mr. Masback, members broke into table groups to address the following questions:

- How has the geospatial landscape changed in the last 8 years?
- What are the impacts on industry, data, or technology?
- What are the current or emerging trends, issues, or concerns?

Following the breakout-outs, each group reported on their discussion. Key points included the following:

#### **Group 1:**

- Issues:
  - Privacy is a critical issue
  - The government may not be ready to address privacy issues
  - The Department of Commerce should be the driving force for addresses
  - Privacy is an idea and it has rights

- Opportunities identified with data and technology:
  - Increase interest for geospatial data
  - Higher accuracy, real time data and data analytics

#### **Group 2:**

- Issues:
  - Impacts of real time data, like 911 and crowdsourcing
- Opportunities
  - Access to data has a collective impact, it improves quality of lives
  - Healthcare industry will benefit in using GIS
  - Real time and data integration enabling GIS- moving to other applications of the data
  - Adaptive design to be less intrusive
  - Articulating principles: best use, discoverability, access, beneficial use
  - 80% of the data has a location component
  - Access to data help address societal needs
  - Role of government in collecting data and distributing e.g. remote sensing
  - Data management is needed for all sources of data
  - Identify standards and best practices
  - Legal policy framework

#### **Group 3:**

- Issues:
  - “Do it yourself” trend has replaced the need for subject matter experts
  - Geospatial identity crisis
  - Undefined boundaries; difficult to quantify
- Opportunities:
  - Articulate value proposition
  - Help built a lead agency that can convene in national and international conferences. Assist to secure funding for the lead agency
  - Look for global issues that need to be addressed e.g. sustainability
  - Geospatial as a participant/member as a means moving forward

Following the table group reports, the NGAC agreed on the following action:

**ACTION:** Bob Austin, Dave DiSera, and Julie Sweetkind-Singer will compile the notes from the NGAC’s discussion on the Changing Geospatial Landscape and develop a draft summary paper prior to the December 2015 NGAC webinar meeting.

#### **Public Comment Period**

An opportunity for members of the public to provide comments to the committee as provided.

Denis Klein, Boundary Solutions, Inc.

Mr. Klein provided a presentation about the use of parcel maps and its benefits to communities seeking smart growth practices that emphasize transit-centric development.

### David Beddoe

Mr. Beddoe discussed the acquisition of geospatial capability, and the changes in the industry that provide better access to these technologies.

### Tim Trainor, Census Bureau

Mr. Trainor announced that Laura Waggoner will be recognized by the Department of Commerce for her extensive work with FGDC in creating the National Boundaries Group.

### **Landsat Advisory Group**

Ray Byrnes, USGS, provided an update on the Land Remote Sensing Program. He discussed the performance of Landsat 7 and Landsat 8, and also discussed the planning for Landsat 9.

Jack Hild, Landsat Advisory Group (LAG) Chair, discussed the 2015 LAG study questions and reported on the subcommittee activities. Next steps include:

- Task 1: Non-Federal land imaging user requirements
  - USGS is currently addressing data analysis questions.
- Task 2: Sentinel data access
  - Draft paper to be developed prior to December 2015 NGAC meeting. Continue monitoring agreements and policies; Landsat and possibly other commercial sensors; new applications resulting from Sentinel 2 resolution and band improvements.
- Task 3: Follow-up on previous LAG recommendations
  - Review of 2013 paper on product improvement: Draft recommendations under review by team.
  - Review of 2013 paper on cloud implementation: Recommendation is to postpone action on any updates to the paper at this time.

**ACTION:** The Landsat Advisory Group (LAG) will prepare draft responses addressing the topics in the 2015 LAG guidance prior to the December 2015 NGAC webinar meeting.

### **Outreach and Communications**

Ivan DeLoatch provided an update on recent NSDI/Geospatial Platform communications and outreach efforts. Mr. DeLoatch noted that the NSDI communication strategy has been streamlined to clearly identify and advocate the core values of the NSDI. He discussed the implementation plan approach and related communications activities and products such as the NSDI brochure/E-book, the FGDC website redesign, and the FGDC annual report. Next steps include:

- Finalize communication strategy and implementation plan
- Identify key communication opportunities
- Promote communications and outreach products, including NSDI brochure
- Finalize FGDC website redesign
- FGDC FY 15 Annual Report will feature story on NGAC role and accomplishments

Bert Granberg discussed recent activities of the NGAC Communications Subcommittee, and noted that the subcommittee was ready to provide additional feedback on the communications products as they are developed. Members discussed key messages, the NSDI brochure, the value proposition of the NSDI, and details about the FGDC website redesign. Feedback on these topics will be provided to the subcommittee.



**ACTION:** NGAC members may provide feedback and comments on the draft NSDI brochure by Friday, September 18 to Bert Granberg. The NGAC Communication and Outreach Subcommittee will compile the comments and provide to FGDC. The brochure is posted at: [https://geoplatform.gov/sites/default/files/document\\_library/nsdi---brochure.pdf](https://geoplatform.gov/sites/default/files/document_library/nsdi---brochure.pdf)

**ACTION:** FGDC staff will provide the NSDI Communication and Outreach Implementation Plan to the Subcommittee for review and comment once the plan is completed.

**ACTION:** FGDC will schedule a webinar for NGAC members to provide an overview of the planned changes and updates to the FGDC website.

## **Lightning Sessions 2**

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

### Keith Clarke – Masking for Geospatial Privacy Protection in Location Based Services

Dr. Clarke provided a presentation that discussed masking methods for point geographic data. A method of cartographic masking ensures effective undecipherable, but reversible, encryption of sensitive geographic point locations.

### Harvey Thorleifson – International Coordination of 3D Geological Mapping

Dr. Thorleifson provided a presentation about 3D geological mapping models and discussed the national and international organizations that coordinate geological mapping efforts.

### Pat Cummins – If You Build It... What Next?

Ms. Cummins provided a presentation about the Ecological Land Units Map and discussed the communication strategies to make data accessible and understandable.

### Julie Sweetkind-Singer – Stanford Digital Repository

Ms. Sweetkind-Singer briefed NGAC members about the large collection of international maps from the Hoover Institute that are now available through Stanford Digital Repository. The rich collection includes maps from different countries around the world in multiple languages. She reported on current efforts taking place to make these maps available and understandable to the public.

### Bert Granberg - Beehive State Mapping Update

Mr. Granberg provided a presentation on current mapping efforts in the State of Utah, and discussed the Statewide High Resolution Imagery Contract.

## **Wrap-up**

Action items, decisions and next steps were reviewed, and potential agenda topics for the December NGAC meeting were discussed. The next NGAC meeting will take place on December 4, 2015. The meeting will be held via webinar.

## **ADJOURN**

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.

Dr. Robert Austin, 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 December 4, 2015***

## **September 2015 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/september-2015/index\\_html](http://www.fgdc.gov/ngac/meetings/september-2015/index_html)

### **Open Water Data Initiative**

- Open Water Data Initiative Report
- NHDPlus Report

### **3D Elevation Program (3DEP) Subcommittee**

- 3DEP Subcommittee Report
- 3DEP Program Update
- Draft NGAC Paper-3DEP Data Acquisition Coordination

### **Crowdsourced Geospatial Data**

- Crowdsourced Data Subcommittee Update
- Crowdsourcing and Citizen Science Toolkit Development
- Crowdsourcing Definitions from the Federal Community of Practice

### **Geospatial Privacy Subcommittee**

- Geospatial Privacy Subcommittee Report

### **FGDC Report**

- FGDC Update
- Geospatial Platform Update

### **NGAC History/Changing Landscape**

- FGDC-NGAC History Presentation
- NGAC Changing Landscape

### **Landsat Advisory Group**

- Landsat Advisory Group Status Report
- Landsat Program Update
- 

### **Communication & Outreach Subcommittee**

- Communication & Outreach Update

### **NGAC Member Lighting Sessions**

- Hurdles to NG-911 – Maguire
- Tribal Emergency Response - Harjo
- NC/Georgia Boundary – Thompson
- NATO/SPS Workshop – Gabrynowicz
- Ideas For The Next National Map
- Cartographic Masking – Clarke
- International Coordination of 3D Geological Mapping – Thorleifson
- If You Build It, What Next? – Cummins
- Beehive State Mapping Update - Granberg