

**NATIONAL GEOSPATIAL ADVISORY COMMITTEE MEETING**  
**April 1-2, 2014**  
**Minutes**

The National Geospatial Advisory Committee (NGAC) held a public meeting from 1:00 p.m. to 5:30 p.m. on April 1, 2014 and from 8:30 a.m. to 4:00 p.m. on April 2, 2014. The meeting was held at the South 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:**

Robert Austin, Chair  
Daniel Cotter, Vice Chair  
Talbot Brooks  
Keith Clarke  
Steve Coast  
Patricia Cummins  
David DiSera  
Steve Emanuel  
Joanne Irene Gabrynowicz  
Matthew Gentile  
Bert Granberg  
Frank Harjo  
Jack Hild  
Michael Jones  
Jeff Lovin  
Jack Maguire  
Keith Masback  
Carolyn Merry  
Roger Mitchell  
Michele Motsko  
Kevin Pomfret  
William N. Reddel III  
Douglas Richardson  
Anthony Spicci  
Julie Sweetkind-Singer  
Gary Thompson  
Harvey Thorleifson  
Molly Vogt  
Jason Warzinik  
David Wyatt

Anne Castle, Chair of the Federal Geographic Data Committee, 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.

**Other Attendees:**

Wendy Blake-Coleman (Environmental Protection Agency), Kaile Bower (Census Bureau), Nancy Brelos (Intergraph), Jerry Johnston (DOI), Shaída Johnston (Independent Consultant), Dennis Klein (Boundary Solutions), Butch Lazorchak (Library of Congress), Stephen Lowe (U.S. Department of Agriculture), Arista Maher (Federal Geographic Data Committee), Tim Newman (USGS), Ken Shaffer (Federal Geographic Data Committee),

Harvey Simon (Environmental Protection Agency), Jon Sperling (HUD), John Steffenson (Esri), Tom Terry (USMC), John Tibbits (Intergraph), Tina Torabi (U.S. Government Accountability Office), Tim Trainor (Census Bureau).

## **TUESDAY, APRIL 1:**

### **Call to Order and Welcome**

Dr. Robert Austin (NGAC Chair) called the public meeting to order at 1:00 p.m. and welcomed the NGAC members and audience to the meeting. Dr. Austin provided an overview of the purpose, objectives, and logistics of the meeting. NGAC members and observers provided brief introductions.

### **Perspectives from the Chair – History of Federal Mapping**

Bob Austin gave a presentation on the history of Federal mapping as it relates to the Federal Geographic Data Committee (FGDC) and NGAC. The Board of Survey and Maps was formed in 1920 to provide advice on mapping activities for the Federal government. In 1942, the Bureau of Budget (later to become the Office of Management and Budget) replaced the Board and Advisory Committee. In 1953, the Bureau of the Budget issued Circular A-16, encompassing national mapping activities. OMB Circular A-16 remains the primary policy document for geospatial coordination in the U.S. Established in 1992 under the authority of OMB Circular A-16 (revised), the Federal Geographic Data Committee (FGDC) promotes the coordinated development, use, sharing, and dissemination of geospatial data. The National Geospatial Advisory Committee (NGAC) was created in 2008 to provide external advice and recommendations to the FGDC. The recent history of NGAC was reviewed, including the committee's input on the NSDI Strategic Plan, the Geospatial Platform, the National Address Database, the Landsat Subcommittee, the 3D Elevation Program (3DEP), Geospatial Workforce Development, and Geospatial Privacy.

### **Leadership Dialogue**

Anne Castle, FGDC Chair, provided an update on the recent activities of the FGDC, along with perspectives on Department of Interior (DOI) and Administration priorities. The NGAC has provided excellent advice to the FGDC and the Secretary of the Interior on the management of geospatial assets. Regarding the NGAC guidance, FGDC leadership has identified areas where the FGDC can most benefit from the advice of the NGAC. The guidance includes ongoing feedback on critical ongoing FGDC initiatives, including the NSDI Strategic Plan, the National Geospatial Data Asset Management Plan, and the Geospatial Platform.

Much of NGAC's work is completed in its subcommittees, including the Landsat Advisory Group (LAG). NGAC members' help is critical in ensuring a sustainable Landsat program for the long term. She also noted that NGAC subcommittees on Education and Workforce, Addressing, and Geolocation Privacy had also provided helpful input and recommendations to the FGDC.

In 2011, a GAO review began which focused on the three major areas identified in this year's NGAC guidance to FGDC. While these issues were being addressed prior to the GAO review, that review has catalyzed the efforts around the NSDI Strategic Plan, the A-16 Implementation Plan, and the Geospatial Platform. GAO has begun a second review, and Ms. Castle indicated that FGDC would keep the NGAC members apprised of the status of this review.

### **Introduction to the NGAC Guidance**

Ivan DeLoatch provided an overview of the 2014 guidance to the NGAC, including the background on development of the guidance, as well as the focus areas for 2014 and the expectations for the Committee and members. He noted that the guidance was developed based on suggestions from NGAC members, the FGDC Executive Committee (ExCom), the FGDC Coordination Group (CG), as well as FGDC leadership. The guidance was informed by NGAC subcommittee recommendations, where several priority issues emerged within three major areas: ongoing FGDC initiatives, NGAC subcommittee activities, and other emerging topics.

Ongoing FGDC initiatives to be addressed in the NGAC guidance include the NSDI Strategic Plan, the National Geospatial Data Asset Management Plan, and the Geospatial Platform. Additional NGAC subcommittee focus areas will include Landsat, Geolocation Privacy, Geospatial Education and Workforce Development, and the National Address Database. Finally, emerging topics that have been identified for future NGAC consideration include NSDI sustainability and continuity, Tribal geospatial issues, and Administration/Departmental priorities.

The implementation approach for addressing the guidance was discussed. NGAC liaisons will be designated to serve as the primary NGAC points-of-contact on the ongoing FGDC initiatives. On the NGAC subcommittee activities, subcommittee chairs, co-chairs, and teams will be reviewing and addressing guidance questions and will develop products for review and adoption by the Committee as a whole. Regarding the emerging topics, Liaisons and discussion leaders will begin to frame possible study topics. Action teams will also be established to address time-sensitive issues. Dr. Austin reviewed the proposed Liaisons/Subcommittee Chairs list with the members.

### **FGDC Initiatives Briefing**

#### NSDI Strategic Plan – Dan Cotter

Dan Cotter provided an overview of the background and current status of the NSDI Strategic Plan. Mr. Cotter thanked the NGAC members for their extensive input into the plan. The plan has three major strategic goals, with a set of objectives and actions supporting each strategic goal: 1) Developing capabilities for national shared services; 2) Ensuring accountability and effective development and management of Federal geospatial resources; and 3) Convening leadership of the national geospatial community.

The roles and responsibilities for the implementation phase of the strategic plan were reviewed. The timeline for implementation was also reviewed, and it was noted that the implementation action plans would be distributed to the NGAC prior to the June NGAC meeting. The FGDC will continue to seek feedback from NGAC and others on the implementation of the strategic plan.

**ACTION:** FGDC will provide draft NSDI implementation action plans to NGAC for feedback prior to June 2014 NGAC meeting.

#### National Geospatial Data Asset (NGDA) Management Plan – Ivan DeLoatch

Ivan DeLoatch briefed the NGAC members on the National Geospatial Data Asset Management Plan (formerly known as the A-16 Implementation Plan). The Executive Champions for the NGDA Management Plan are Mr. DeLoatch and Adrian Gardner (FEMA). Jennifer Carlino (FGDC Secretariat) has been serving as the writing team lead for the document, and a Core Team has also been engaged in developing the document.

Mr. DeLoatch briefly reviewed the purpose of the OMB Circular A-16 Supplemental Guidance, provided an update on the status of the NGDA plan, and discussed next steps on the implementation of the portfolio management process. He noted that the NGDA plan was formally approved by the FGDC Steering Committee in March 2014, and indicated that the FGDC will keep the NGAC apprised on the implementation process for the plan.

#### Geospatial Platform – Jerry Johnston

Jerry Johnston (DOI) provided an update and brief demonstration of the Geospatial Platform, including an overview of recent enhancements to the site. The Geospatial Platform is a component of the Administration's Open Data initiative. The Platform team is currently working on an award of a new IDIQ support contract for the Geospatial Platform's technical development and PMO. A geospatial hosting offering is also being finalized.

Additionally, twelve different public layers from the Homeland Security Infrastructure Protection (HSIP) critical infrastructure data have been released in support of the Climate Data Initiative, a partnership with Data.gov.

#### **Roundtable Discussion with FGDC Executive Committee**

FGDC Executive Committee members participated in a dialogue with NGAC members. ExCom members included Ivan DeLoatch (FGDC), Stephen Lowe (USDA), Jerry Johnston (DOI), Harvey Simon (EPA), Michele Motsko (NGA), Tim Trainor (Census Bureau), and Dan Cotter (DHS). The ExCom members introduced themselves and briefly described key geospatial issues within their organizations. The ExCom members participated in a wide-ranging discussion with the NGAC members.

#### **Lightning Session 1**

An opportunity for brief announcements was provided to NGAC members.

Gary Thompson – Mr. Thompson discussed the coordination of military overflights with State governments. He indicated that North Carolina has found it difficult to identify and coordinate with the appropriate offices within the Department of Defense. Mr. Thompson and Michele Motsko agreed to facilitate a discussion on the coordination of aerial imagery projects with military installations and report back to the NGAC.

Bob Austin – Dr. Austin discussed the FirstNet initiative as an emerging issue that could merit further consideration by the NGAC. He noted that Scott Bernard, FGDC Vice Chair, had identified FirstNet as a possible topic for NGAC consideration. Dr. Austin asked Dan Cotter to organize a briefing for the NGAC members on the FirstNet initiative at the upcoming June 2014 NGAC meeting.

#### **Day 1 Wrap-Up/Planning for Day 2**

The Chair made announcements regarding logistics and the next day's meeting.

#### **Adjournment for Day 1**

The Chair adjourned the meeting at 5:30 p.m.

## **WEDNESDAY, APRIL 2:**

### **Welcome, Summary of Day 1, Overview of Agenda**

Dan Cotter provided a summary of the previous day's events, as well as an overview of the agenda for Day 2. Bob Austin provided a brief presentation on his recent activities, including travel in Antarctica.

### **Approval of December Meeting Minutes**

Dr. Austin reviewed the draft minutes of the December 11, 2013 NGAC meeting and called for approval.

**DECISION:** The NGAC adopted the minutes of the December 11, 2013 NGAC webinar meeting.

### **Guidance Study Topics – Discussions**

The current issues and study topics related to the 2014 NGAC Guidance were discussed, including: the Landsat Advisory Group, Geolocation Privacy, Geospatial Education and Workforce Development, and the National Address Database.

#### **Landsat Advisory Group**

Roger Mitchell presented on the LAG's recent activities and its response to NGAC guidance from previous years. In 2012, the LAG prepared two papers: *The Value Proposition for Ten Landsat Applications* and *Statement on Landsat Data Use and Charges*. In 2013, the NGAC adopted three of the LAG's papers: *Landsat Product Improvement Paper*, *Landsat Cloud Computing Paper*, *NGAC Comments on the National Research Council Landsat Report*. The 2014 NGAC guidance to the LAG includes reviewing and updating the *Value Proposition for Ten Landsat Applications* paper. The 2012 paper documented an estimated \$178 million to \$235 million in annual cost savings by Federal and state agencies within ten categories of Landsat data use. The LAG will update and supplement this paper with additional depth and examples.

Tim Newman (USGS) presented an update on Landsat activities. Landsat 8 was launched last year, and is currently collecting 550 new scenes per day. This number may increase soon, depending on technical capabilities. USGS and NASA were tasked to come up with a 25-year plan for Landsat; this process is critical to defining the scope of the next Landsat missions.

#### **Geolocation Privacy**

Joanne Gabrynowicz discussed the Geolocation Privacy subcommittee's recent activities and actions to be taken under the 2014 guidance to NGAC. She noted that geolocation privacy is a complicated and broad issue that impacts many different policy areas (public health, land use, legal, etc.). Thus, communities with vested interests need to be engaged. In the 2014 guidance to NGAC, approaches to addressing geolocation policy include inventorying communities with an interest in privacy issues in order to help address privacy concerns, and examining administrative policies, technical approaches and solutions, as well as legislative and statutory changes.

Doug Richardson noted that he would like to gather information from NGAC members on privacy concerns in each of their domains. A global policy or universal set of principles might first need to be developed, along with an inventory of approaches that NGAC members' organizations have taken towards geolocation privacy. Existing laws and policies regarding geospatial privacy should be explored to help determine fair uses of geospatial data. Current regulatory and legislative proposals should also be examined, along with NGAC's feedback on these approaches.

#### **Geospatial Education and Workforce Development**

Dave DiSera provided a brief presentation on the past activities of the Geospatial Education and Workforce Development Subcommittee. The National Science and Technology Council on STEM Education's *5-Year*

*Strategic Plan*, along with an NRC Report on *The Future of US Workforce for Geospatial Intelligence*, played a role in the subcommittee's background research on the topic. The subcommittee also developed a white paper on "Geospatial Workforce Development" that was adopted by the NGAC in 2012.

Carolyn Merry discussed the 2014 NGAC guidance and noted that a key activity for the subcommittee will be exploring opportunities to leverage ongoing GIS certification initiatives to improve and expand professional certification opportunities. The subcommittee will also explore opportunities to collaborate with the Department of Labor and others to enhance the Standard Occupational Classifications (SOCs) to more accurately document the geospatial professions.

#### National Address Database

Tony Spicci discussed the past activities of the National Address Database Subcommittee, as well as upcoming challenges related to the 2014 NGAC guidance. The subcommittee developed a paper in 2012 assessing the need for the development of a National Address Database (NAD). NGAC has endorsed the inclusion of Address Data into the FGDC A-16 data layers and portfolio. In 2014, the subcommittee will focus on documenting compelling use cases describing the need for a NAD.

Tim Trainor (Census Bureau) noted that the development of the NAD paper was critical to identifying issues, needs, and general next steps. He also discussed the status of addressing within the Census Bureau and with partner agencies.

#### **Study Topics Discussion**

Bob Austin discussed possible future study topics, and the NGAC members participated in small group discussions regarding the guidance study topics.

#### **Public Comment Period**

An opportunity for members of the public to provide comments to the Committee was provided. The following comments were provided:

##### Dennis Klein (Boundary Solutions, Inc.)

Mr. Klein provided comments on the utility of geospatial technology to help address the challenges of climate change and sustainability. He discussed the city of Mill Valley, CA's 4MAPS initiative, which is a parcel-level GIS statute adopted last year by the city of Mill Valley as part of its new Housing Element. Mr. Klein also discussed the need for a Sustainable Communities National Parcel Layer.

##### Butch Lazorchak (Library of Congress)

Mr. Lazorchak spoke about the current initiatives of the Library of Congress' National Digital Information Infrastructure and Preservation Program (NDIIPP). The Library of Congress works with all levels of government to collect, preserve, and make available digital content. Another of the Library's initiatives is the National Digital Stewardship Alliance (NSDA), a consortium of organizations which works to advance long-term preservation of data. In addition, the Library is involved in the NGDA Geospatial Content Working Group, which builds on the Geomap project as well as Stanford and UCSB projects; they also released two reports last year. Along with Ms. Jacqueline Nolan, Mr. Lazorchak serves as Co-Chair of the Users/Historical Data Work Group within the FGDC structure. This group recently produced a draft on the *Guidance and Appraisal of Geospatial Content of Enduring Value*. They have also held excellent discussions regarding their role in the NGDA management plan. The Library of Congress is eager to work with FGDC to include guidance on preservation into the process. In addition, the preservation community is leveraging ways to incorporate the Geospatial Platform into their data preservation efforts.

## Lightning Session 2

Members were given additional opportunity to provide brief announcements and updates.

Harvey Thorleifson – Dr. Thorleifson gave a talk on groundwater-related geological mapping, including information to support management and protection of drinking water from wells. 44% of drinking water comes from wells. Maps of drinking water in areas like North Dakota were initially scarce; now, digital maps are more prevalent, as well as drilling models, but there is still more to be done. The British have a comprehensive national strategy for mapping groundwater, and Denmark, the Netherlands, Germany, and Canada are moving forward with those efforts as well. USGS is leading mapping efforts in the U.S., and states like Minnesota are focusing on water sustainability and mapping as well. USGS funding plays a role in the statewide mapping program.

Bert Granberg – Mr. Granberg gave a talk on the One-Page GIS Asset Maturity Assessment, which is the State of Utah's effort to establish status baselines, to set dataset-specific goals, and to assess enterprise value. Multiple State agencies are part of the effort. Mr. Granberg briefly touched on several other topics, including the NGA 133 Cities imagery program; the potential of APIs, geocoding & spatial query; incorporating local survey monuments as control for PLSS; commercial imagery as a service; and the increasing importance of local to state to national models (roads, addresses, boundaries, parcels, etc.).

Pat Cummens – Ms. Cummens spoke about climate data and community resilience. Many cities now have active efforts to build resilient communities, and it is becoming a growing trend. Through a partnership with the President's Climate Data Initiative, Esri is using data as a tool to help communities build more resilient communities. Esri has partnered with the White House to focus creative attention to promote and enable better planning. As part of this effort, they have launched an app challenge. This was announced to over 2,500 developers at the Esri Developer Summit and has been announced on the web. Everyone is encouraged to participate in developing climate resilience apps. Cash prizes are available, including a top prize of \$10,000. The challenge is open until June 1, 2014. Winners will be announced at the Esri IUC. Esri is also working on Partnerships for Resilience – an effort to work with communities to understand their challenges and build geo-enabled tools for them. A resource portal has been launched for this initiative to facilitate online collaboration.

Frank Harjo – Mr. Harjo spoke about the Tribal Emergency Response Tool used by the Muscogee (Creek) Nation, located in Oklahoma. Individual trust lands are within jurisdiction of Tribe. A grant proposal was written in collaboration with 3 Tribes and 1 Tribal consortium to develop Tribal emergency management standards that address both incident management and resource management. As part of the scope of the grant, the Muscogee (Creek) Nation was asked to develop: Tribal emergency management standards that address incident management and resource management; a mobile application to allow updates in the field and synchronization capabilities; and a geospatial data viewer to see all resources that they and neighboring Tribes have. Tribes have unique incidents—wildfires, water and power outages, etc.—and specially-focused geospatial tools have the potential to help address these needs quickly and accurately. The tools connect with both tribal emergency management and local authorities. Tribes have a unique variety of resources and can range from critical facilities to personnel/teams. This tool will allow for better inter-Tribal collaboration.

### **Developing a Plan of Action to Address the Guidance – Roundtable Meeting Reports**

The breakout groups discussing the NGAC guidance study topics were asked to report on their outcomes. Highlights included the following:

Roger Mitchell – Landsat Advisory Group (LAG). Mr. Mitchell gave a brief overview of the LAG, including its recent activities and reports. He also encouraged new member participation in the Landsat Advisory Group.

Doug Richardson – Geolocation Privacy. Dr. Richardson spoke about the need to develop a report framing the issues in the geospatial privacy conversation. He noted that there should be discussion about the proper term to use: “geolocation” vs. “geospatial.” The subcommittee will explore the development of a paper synthesizing the significant amount of existing information regarding geospatial privacy.

Carolyn Merry – Geospatial Education & Workforce Development. Dr. Merry discussed the ways in which geospatial education has relevance to various organizations. She noted that the upcoming GEOINT and AAG conferences could be the first step in outreach. She reiterated that the subcommittee should reach out to the U.S. Department of Labor regarding the classification of geospatial disciplines. She noted that the subcommittee will address the guidance topics through a collaborative approach with FGDC and other partner organizations.

Tony Spicci – National Address Database (NAD). Mr. Spicci spoke about the importance of making the case for the value of a National Address Database. One of the subcommittee’s goals is to find and cite specific use cases. The focus of the use cases will be economic value and return on investment. Part of the task is to reduce duplication of effort and identify opportunities for cost savings/efficiencies. The subcommittee will also be looking at relationship between the NAD and parcel data – how they will work together is an issue that needs to be discussed further. The goal is to develop a set of use cases prior to the September NGAC meeting.

Following the presentations, members were asked to identify their preference of subcommittee assignments. Dr. Austin noted that subcommittee assignments would be communicated back to the members following the meeting.

### **Lightning Session 3**

Members were given another opportunity to provide brief announcements and updates.

Tony Spicci – Mr. Spicci provided a summary of issues and stakeholder engagement discussed at the recent National States Geographic Information Council (NSGIC) mid-year conference. The topics included the National Spatial Data Infrastructure, a National Address Point Database, the Transportation for the Nation initiative, and Geospatial Response for Emergency Management. Mr. Spicci summarized the NSGIC recommendations related to each of these topics, and he provided links to papers and resources providing additional details about these issues and recommendations.

Keith Masback – Mr. Masback discussed the upcoming GEOINT Symposium (postponed from the government shutdown last Fall), which will be taking place in Tampa the week of April 7. He noted that the Symposium will be an excellent venue to discuss many of the topics under consideration by the NGAC. Mr. Masback indicated that professional certification is one of the topics that will be addressed. Currently, eight schools accredit GEOINT certificates, and there are 50+ others with interest. USGIF has a cooperative research agreement with the National Geospatial-Intelligence Agency on professional certifications, including a variety of professional qualifications/designations.

## **Agreements and Decisions**

The NGAC agreed on the following actions and decisions related to the NGAC subcommittees and future study topics:

### **NGAC Subcommittees**

**ACTION:** The NGAC Chair, Vice-Chair, and DFO will finalize subcommittee assignments

**ACTION:** Subcommittee chairs will develop project outlines & status reports prior to June NGAC meeting

**ACTION:** FGDC will coordinate with NGAC leadership and USGS on updating the membership of the Landsat Advisory Group

**ACTION:** USGS will brief Landsat Advisory Group members on program activities including Landsat user survey, Landsat-user case studies, and remote sensing user requirements pilot project.

**ACTION:** The Privacy Subcommittee will coordinate with privacy experts on the Census Science Advisory Committee.

**ACTION:** The Education & Workforce Subcommittee will coordinate with AAG staff working on workforce development activities.

**ACTION:** The Education & Workforce Subcommittee will review recent agency workforce development plans.

**ACTION:** The Address Subcommittee will coordinate with Census Bureau staff on recent Commerce/Census addressing activities.

### **Future Study Topics**

**ACTION:** Bob Austin will analyze input gathered from discussions on NSDI sustainability at the April meeting, identify key issues and questions for further consideration and report to the NGAC in June.

**ACTION:** Dan Cotter will arrange a briefing on the FirstNet initiative for the June NGAC meeting

**ACTION:** Frank Harjo and David Wyatt will coordinate with FGDC agencies (DOI, USDA) and the DFO to identify potential NGAC research questions regarding Tribal geospatial issues and report back to the NGAC in June.

**ACTION:** Gary Thompson and Michele Motsko will facilitate a discussion on the coordination of aerial imagery projects with military installations.

### **Meeting Summary/Wrap-Up**

The results and actions from the meeting were briefly summarized. The next NGAC meeting will take place on June 24-25 at the South Interior Building in Washington, DC. The following meeting will be on September 23-24 at the National Conservation Training Center in Shepherdstown, WV.

### **Meeting Adjournment**

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 June 24, 2014***

## **April 2014 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-2014/index\\_html](http://www.fgdc.gov/ngac/meetings/april-2014/index_html)

### **Background**

- NGAC - Origins of U.S. Geospatial Advisory Groups

### **NGAC Guidance**

- 2014 FGDC Guidance to NGAC
- NGAC Guidance Overview

### **FGDC Initiatives**

- NSDI Strategic Plan Update
- National Geospatial Data Asset Management Plan Update
- Geospatial Platform Update

### **Guidance Topics/Subcommittee Reports**

- Landsat Advisory Group Overview
- Landsat Program Update
- Geolocation Privacy Overview
- Geospatial Workforce & Education Overview
- National Address Database Overview
- NGAC - Possible Future Study Topics

### **NGAC Member Lightning Sessions**

- Coordination of Military Overflights – Thompson
- Four Washington Meridians – Clarke
- Groundwater Mapping – Thorleifson
- One-Page GIS Dataset Maturity Assessments – Granberg
- Climate Change/Resilient Communities – Cummins
- Tribal Emergency Response Tool – Harjo
- NSGIC Update – Spicci