

National Geospatial Advisory Committee Meeting
September 6-7, 2017
Minutes

The National Geospatial Advisory Committee (NGAC) held a public meeting from 8:30 a.m. to 5:30 p.m. on September 6 and from 8:30 a.m. to 4:00 p.m. on September 7, 2017. 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:

Julie Sweetkind-Singer, NGAC Chair
Keith Masback, NGAC Vice-Chair
David Alexander
Frank Avila
Sarah Battersby
Talbot Brooks
Gar Clarke
Garet Couch
Patricia Cummins
Frank Harjo
Xavier Irias
Roberta Lenczowski
Roger Mitchell
Rebecca Moore
Laxmi Ramasubramanian
Major General William Reddel
Carl Reed
Amber Reynolds
Douglas Richardson
Cy Smith
Rebecca Somers
Jennie Stapp
Harvey Thorleifson
Jason Warzinik

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:

Stuart Davis
Matthew Gentile
May Yuan
Kevin Pomfret

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:

David Beddoe (Carto Inc.), John Byrd (MAPPS), Tod Dabolt (DOI), Peter Doucette (USGS), Rod Erickson (Carto Inc.), Lucia Foulkes (FGDC), Eldrich Frazier (FGDC), Steve Lewis (DOT), Vicki Lukas (USGS), John Mahoney (FGDC), Adam Martin (ESRI), Deidre McCarthy (NPS), Kerry Rae (DOI), Ken Shaffer (FGDC), Tim Trainor (U.S. Census Bureau).

Wednesday, September 6, 2017**Welcome & Introductions**

Julie Sweetkind-Singer, NGAC Chair, called the public meeting at 8:30 a.m. and welcomed members and attendees. All meeting attendees introduced themselves. The chair provided an overview of the agenda for the first day.

Review and Adoption of March 2017 Minutes

The draft minutes of the March NGAC meeting were reviewed and the chair called for approval.

DECISION: The NGAC adopted the minutes of the March 21-22, 2017 NGAC meeting (pending minor edits).

Start-up Conversation

NGAC members discussed current challenges, trends, and opportunities in the geospatial environment. Key comments included the following:

- Many senior officials do not fully understand and appreciate the power of GIS to address issues including emergencies. (Gen. Reddel)
- New Mexico – should have most of the state flown Lidar through collaborative effort. Also, Census count is critical for states – to help ensure population is not undercounted since many federal funds/grants are based on population formulas. (Clarke)
- Underground geology is a critical component for understanding infrastructure, underground utilities, etc. (Thorleifson)
- Need to go beyond just producing the data to ensure accessibility and usability. (Cummings)
- Partnerships – with Hurricane Harvey (for example) how do we better connect all parties to support key efforts including private firms? (Battersby)
- Certification and credentialing, especially for proper use and interpretation for national response/events, are important issues. (Brooks)
- Need to promote recognition of geospatial industry and be aware of potential threats to profession in Geo Data Act. (Somers)
- Concern about Congress defunding projects that collect geo information and key GIS data becoming unavailable. (Reed)
- Need to ensure that the community supports academic fields of geosciences, in addition to GIS. (Lenczowski)
- Need to move beyond just response in emergencies, also need to ensure recovery and response get appropriate and needed focus. (Reddel & Anderson)
- These are similar issue that came out after 9/11 – why do we need to keep relearning lessons? (Reed)

- Cycle of new officials resets the “knowledge” of GIS applicability regularly. Regardless of which government level, it is important to train and educate new officials about GIS and geospatial technologies. (Couch)
- It’s not just about educating on GIS, it is how to use GIS to present information in easily understood and accessible formats – “Here is how you can understand the data.” (Cummins)
- Need to focus on the groups working in K-12 education to minimize having these same discussions on “what is GIS” in 25 years. (Smith)
- Need to push geosciences as a STEM discipline and curricula. Need to establish a distinct identity. (Brooks)
- In Canada, Geomatics is a recognized educational stream and discipline. (Reed)
- On the positive side, we do live in a time of rapidly escalating geo knowledge and capabilities – let’s not forget this. (Thorleifson)
- Also need to build the applied side of geospatial tools into many majors – business, economics, etc. (Cummins)
- Also need to focus on training educators to use geospatial tools with their students and add geospatial to their tool set. (Battersby)
- In the construction and engineering fields, data acquisition with laser scanning right into design specs is being successful, seems like we are pushing on an open door now and see continuing progress in geo use. Showing how geo tools and technology cut cost helps move things forward. (Irias)
- Need to push geospatial as a component of Data Science and Data Analytics, which are rapidly expanding fields in great demand. This will build geo use and application of geo understanding. (Moore)
- Have been working to get historic offline data digitized and made available online so it can be accessed and used, and need to continue the search for this type of data that are useful for long-term use and analysis. (Sweetkind-Singer)
- Need to continue to emphasize “Smart” ... cities, internet, etc. (Cummins)
- Data with bad metadata and services is a detriment to use and we need improved approaches. Efficient access and use requires more than just technology. (Dabolt)
- The sense of community and coordination stands out during emergencies, and the way it comes together during disasters across disciplines is improving – so it is showing progress. (Dabolt)
- Smart and IT – other countries have developed national policies related to smart infrastructure and are going full forward, but in U.S. there is no policy. Other countries are seeing these approaches as an economic plus. (Reed & Cummins)

Leadership Dialogue

Kerry Rae (DOI), Acting FGDC Chair, welcomed attendees and provided an update on FGDC and DOI activities. The review of the Department’s advisory committees is in its final stages. FGDC was able to obtain a waiver to allow the NGAC to resume their work and continue subcommittee activities. The waiver reflects the importance and value that the Department sees in the NGAC. Ms. Rae noted the following recent changes at DOI:

- David Bernhardt was recently confirmed as Deputy Secretary of the Interior.
- Scott Cameron, who was serving as Acting Assistant Secretary for Water and Science, is now with DOI’s Office of Policy, Management, and Budget.
- Dr. Andrea Travnicsek has recently joined DOI as the new Deputy Assistant Secretary for Water and Science. She is also the current Acting Assistant Secretary for Water and Science. She has extensive experience in the areas of natural resources, energy,

agriculture, communications, and public policy. She served as Senior Policy Advisor to Governors Hoeven and Dalrymple in North Dakota. Dr. Travnicek also has experience working for the U.S. Army Corps of Engineers.

Ms. Rae discussed Hurricane Harvey and reported that many DOI organizations are engaged in response efforts. She highlighted that recovery efforts will be lengthy and geospatial resources and geospatial organizations play a vital role in the response and recovery processes.

Ms. Rae noted that the new designation of the FGDC Chair is will be made in the near future. Once the FGDC Chair is in place, the next step is to work with OMB to ask FGDC member agencies to reconfirm the designation of their Senior Agency Officials for Geospatial Information (SAOGIs). The next Steering Committee meeting will be held once the leadership and membership are in place. In the meantime, the FGDC Executive Committee and Coordination Group are continuing to meet regularly.

Ms. Rae discussed the Geospatial Data Act of 2017, and noted that while the administration does not yet have an official position on the bill, the FGDC Executive Committee has had preliminary discussions on the bill. Ms. Rae also reported that the Government Accountability Office (GAO) has now closed all of the FGDC and DOI recommendations from their reports on Geospatial Data and Geospatial Information.

In concluding her remarks, Ms. Rae expressed her gratitude to the NGAC members for their service.

After this update, NGAC members engaged in a dialogue with Ms. Rae and discussed several topics, including DOI's expectations on infrastructure, the direction of the Office of Science and Technology, and how to convey the value of Geospatial Data and Technology to the administration. NGAC members also provided their ideas and suggestions for Federal and non-Federal geospatial partnership efforts:

- National Hydrography Dataset (NHD), and high-resolution elevation into NHD, have been very good things for New Mexico. A \$50K grant enabled NM to make great inroads. These grants and funds are really beneficial. Besides funding, the USGS Geospatial Liaison framework is really important to building and maintaining the stewardship from local/state to the Federal level. This model is a good and effective administrative structure. (Clarke)
- As new Administration appointees come on-board, what are the potential opportunities for effective outreach? The GW Bush Administration identified geospatial as one of the top job growth areas in the economy – how can we convey the importance of these efforts? (Brooks)
- The States see the FCC's broadband mapping program as an excellent partnership model to build a national broadband map. This is an example of building an infrastructure dataset. Utilized seed money from the FCC, and was built from the bottom up. (Smith)
- On FCC Broadband Map – the Federal government provided leadership but the States executed – that is a key to the model. (Stapp)
- Costs are coming down to ensure keeping the data updated. Other key efforts – NHD – need to keep going as they make a big difference and work via a real partnership environment. (Clarke)
- From a Tribal government perspective, there has been progress on government-to-government partnerships, and these individual relationships need to be maintained. Also need improvements on how and when Federal discussions include the Tribes. Tribes often have better data than BIA. Invite the Tribes – consultation is required and likely to provide better data. (Couch)

FGDC Report

Ivan DeLoatch, FGDC Executive Director, welcomed NGAC members and provided an update on current FGDC activities, including the following:

FGDC Leadership. Kerry Rae, Chief of Staff for the Office for Water and Science, is currently serving as Acting FGDC Chair. The designation of FGDC Chair is pending DOI appointments. Once the Chair designation is in place, FGDC member agencies will be asked to reconfirm their Steering Committee members (SAOGIs). The Executive Committee will meet regularly until the appointment process is complete.

NSDI Strategic Framework and Planning Update. FGDC will engage with the new leadership to refine the NSDI Framework and finalize the next version of the NSDI Strategic Plan.

NGDA Accomplishments and Outcomes. There are significant accomplishments in metadata. The number of available NGDA web services has increased. There are 92 NGDAs with 169 valid working geospatial web services documented in NGDA metadata records published on Data.gov. The NGDA community technology will transition from Drupal to WordPress; this transition will increase available tools and ease management. Another Lifecycle Maturity Assessment (LMA) was completed in August 2017. Results will be available at Geoplatform.gov. The NGDA Theme Implementation Plans are close to completion. Implementation Plans will be posted on the NGDA Theme community space on Geoplatform.gov

Coalition of Geospatial Organizations (COGO) Report Card Collaboration Update. COGO is working on their second NSDI report card. Their first report card on the NSDI was completed in 2015. FGDC has met with COGO leadership to discuss collaboration on the report card, which will review the framework themes including Addresses. FGDC has encouraged COGO to develop consistent metrics for the report card effort, and to incorporate the information available from the NGDA portfolio management process into the review process. FGDC will continue to work with the COGO teams to help inform the review.

FGDC GeoPathways Initiative. FGDC has established a GeoPathways Workforce initiative to connect students with mentors to support development of the next generation of geospatial professionals. This initiative is in alignment with the NSDI Strategic Framework Strategy III- Action 3.3: "Build workforce development strategies." FGDC leveraged the Virtual Student Foreign Service Program (<https://vsfs.state.gov/>) to advertise 3 positions. Currently, 15 students were selected from 13 universities. The next step is to match students with sponsors and expand engagement in the FGDC community.

2017 Doug D. Nebert NSDI Champion of the Year. The award will be announced in the fall.

FGDC 2017 Annual Report. FGDC is currently working on the 2017 Annual Report. The annual report is expected to be completed in December.

Government Accountability Office Engagements. GAO has closed all of the FGDC and DOI recommendations from their Geospatial Data (GAO-15-193) and Geospatial Information (GAO-13-94) reports.

ACTION: FGDC staff will provide additional details to NGAC members about the Virtual Student Federal Service (VSFS) program and FGDC's GeoPathways initiative.

ACTION: FGDC will provide the schedule for 2018 NGAC meetings by October 2017. The September 2018 NGAC meeting is tentatively scheduled for September 5-6, 2018 at the National Conservation Training Center

ACTION: FGDC staff and NGAC leadership will arrange to meet with new senior officials at the Department of the Interior to provide information on upcoming NGAC papers and opportunities for the NGAC.

Federal Program Update 1

Address Theme and National Address Database

Tim Trainor (US Census Bureau) and Steve Lewis (DOT) reported on the status on the National Geospatial Data Asset (NGDA) Address Theme and National Address Database (NAD) activities. The Address Theme was established as an NGDA Theme in December 2016. An FGDC Address Subcommittee has been created to support the National Address Database and Address Theme activities. The subcommittee includes representation from Federal, State, and local organizations. During the summer of 2017, an Address Workflow subgroup was created to investigate, report, and recommend workflows for processing address updates from providers for the NAD and other address datasets under the address theme.

Steve Lewis reported that DOT has provided limited funding to support a new development environment for the NAD. Currently, the NAD pilot has data from seven states, and nine additional states are in progress to be included (16.8m records)., DOT and the U.S. Census Bureau will partner with DOI to leverage the Geospatial Platform to support the NAD.

Following the update, the NGAC members engaged in dialogue, which included the following points:

- Tim Trainor: How do we sustain the NAD? How do we ensure the NAD is kept up to date (input from States to keep it updated? At what level is the engagement needed (State, local, county, etc.)?)
- David Alexander: How does the NAD connect with Next Generation 911 (NG911)? Addresses are a critical component. How do we partner?
- Gar Clarke: The upcoming NSGIC meeting would be a good opportunity to further engage States in developing data for the NAD.
- Other entities to consider for collaboration are NASCIO, National Governors Association, and Homeland Security Committee in the Senate.

International Activities

Ivan DeLoatch and Tim Trainor reported on international activities:

Group on Earth Observations (US-GEO): Ivan DeLoatch discussed the Group on Earth Observations (GEO) and reported on current activities. GEO is an intergovernmental organization working to improve access to data and information about the earth for the benefits of society. There are 104 national governments and a large number of participating organizations involved. A key goal of GEO has been to create a Global Earth Observation System of Systems (GEOSS) that can be accessed by multiple users. GEOSS is a set of coordinated, independent and open earth observation, information and processing systems. Currently GEOSS is focused on understanding earth processes and how to develop capabilities for sound

decision-making. Mr. DeLoatch reported that there will be a GEO plenary meeting on October 25-26 in Washington DC.

AmeriGEOSS: AmeriGEOSS a regional collaboration space for tools and resources available among the 16 GEO member communities in the Americas. The GeoPlatform supports AmeriGEOSS. AmeriGEOSS activities focus on four societal benefit areas including agriculture, disaster risk reduction, water, and biodiversity and ecosystems.

United Nations Committee of Experts on Global Geospatial Information Management (UN-GGIM): Tim Trainor discussed the UN-GGIM, a committee of experts on global geospatial information systems that was established in 2011. The UN-GGIM is a formal intergovernmental United Nations committee of experts established to discuss, enhance, and coordinate global geospatial information management activities by involving member states at the highest level. The United States is the co-chair along with China and the Netherlands. Mr. Trainor reported on the activities of the various workgroups within the UN-GGIM and summarized the status of the Sustainable Development Goals.

Overview of NGAC Guidance/ Subcommittee Work Session

John Mahoney provided a brief overview of the NGAC guidance and discussed the work of the subcommittees in addressing the guidance topics. The NGAC members then broke into subcommittee breakout groups to discuss 2017 assignments, identify tasks and deliverables, and refine their work plans. Subcommittees were asked to provide summaries of their breakout sessions on Day 2 of the meeting.

Geospatial Platform Update/Demo

Tod Dabolt, DOI Geospatial Information Officer (GIO) provided a demonstration of recent GeoPlatform enhancements and capabilities. Mr. Dabolt discussed challenges to finding data, and highlighted the value of search and discovery tools for decision making. He noted that a Geospatial Platform workshop will be held at USGS headquarters in Reston on October 24-25.

Lightning Session 1

An opportunity for brief announcements was given to NGAC members.

Jason Warzinik – Government & Public Safety sUAS Commercial Pilot Program

Mr. Warzinik spoke about a Public Safety Pilot program for Small Unmanned Aerial Systems (sUAS). He discussed State, local, and Federal government participation and discussed the activities performed during the pilot.

Harvey Thorleifson –National Geological Mapping

Dr. Thorleifson provided an update on planning levels of resolution content in the National Geological Mapping Database.

Xavier Irias – Geospatial Aspects of Emergency Response – Oroville Dam Spillway

Mr. Irias spoke about the Oroville Dam spillway breach in February of 2017 and discussed its impacts and related emergency response efforts. He also discussed past dam failures and disasters that have led to the creation of regulations and safety programs.

David Alexander – DHS First Responder Group (FRG)

Dr. Alexander discussed the Department of Homeland Security's First Responder Group (FRG), which supports a variety of public safety activities. The First Responders Group's main goal is to support first responders by providing tools needed for safe and effective response to disasters.

ADJOURN

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

Thursday, September 7, 2017

Start-up & Recap of Day 1

The Chair and Vice Chair welcomed NGAC members to the second day of the meeting and provided a brief overview of the agenda.

Subcommittee Sessions and Reports

NGAC members continued discussions within their respective subcommittees regarding their assignments and work plans. Following the subcommittee breakout sessions, NGAC members reported on the outcomes of their discussions.

Geospatial Technology & Infrastructure Subcommittee

Cy Smith reported on outcomes of the subcommittee discussions regarding their work plan and noted the following:

- Task: Focus on role and importance of geospatial technology to support infrastructure activities. Communicate to non-geospatial professionals the critical role of geospatial to support smart decision-making and effective infrastructure investments.
- Deliverables
 - 2-3 page paper, with infographic
- Audience: Senior agency officials, OMB
- Timeframe: December 2017

Following this report, the NGAC agreed on the following action:

ACTION: Subcommittee will draft infrastructure document, to be submitted to NGAC prior to December NGAC webinar meeting

Landsat Program Update

Peter Doucette (USGS) provided a status update on the USGS Landsat Remote Sensing (LRS) program. Mr. Doucette discussed the 2018 President's budget and reported that the program received expected levels of funding. He spoke about the collaboration between USGS and NASA to launch Landsat 9 in 2020. The program is continuing to explore options for future Landsat missions, and appreciates the LAG's input.

Landsat Advisory Group

Frank Avila reported on Landsat Advisory Group (LAG) activities. Mr. Avila noted changes in the LAG membership, and highlighted updates to the tasks previously assigned.

- Task #1: Architectures for Future Mission: This task combines tasks 1 and 2 from the 2016 guidance. The task is to provide recommendations to USGS in regard to possible architectures for future Landsat missions beyond Landsat 9.
- Task #2: Temporal Data Cube Study: This task is continued from 2016 guidance to LAG to examine the feasibility and utility of implementing temporal data cubes to support projection or forecast models of land change trends.
- Task #3: Fee recovery for Landsat data: DOI leadership has requested that USGS explore possible options for fee recovery for Landsat data.

Following the presentation, the NGAC agreed on the following actions:

- **LAG Task #1 – Architectures for Future Mission**
ACTION: Team will draft paper for LAG review by end of October 2017
ACTION: Team will provide draft paper to NGAC prior to December 2017 NGAC meeting
- **LAG Task #2 – Temporal Data Cube Study**
ACTION: Team will draft report for LAG review by mid-November 2017
ACTION: Team will provide proposed interim report to NGAC prior to December 2017 NGAC meeting
- **LAG Task #3 – Fee Recovery for Landsat data**
ACTION: Team will draft proposed initial report by December 2017

Lightning Session 2

An opportunity for brief announcements was given to NGAC members.

Laxmi Ramasubramanian and Sarah Battersby – TRELIS, Training and Retaining Leaders in STEM-Geospatial Sciences

Dr. Ramasubramanian and Dr. Battersby discussed a grant for professional development for women in the academic sectors of geospatial sciences including GIS science, remote sensing, spatial analysis and mapping. The goal is to build a network of women to lead and mentor future generations of geospatial professionals in academia and industry. In support of this effort, NGAC members were asked to provide feedback, ideas, and suggestions on mentorship, speakers, and topics.

Garet Couch – Tribal GIS Conference

Mr. Couch announced that there will be a National Tribal GIS Conference on November 13-17, 2017 in Albuquerque, NM. More information is available at <https://www.tribalgis.com/>

Julie Sweetkind-Singer – Prime Meridians

Ms. Sweetkind-Singer discussed the history and development of Prime Meridians in different parts of the world.

Public Comment Period

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

David Beddoe and Rod Erickson – Carto

Mr. Beddoe and Mr. Erickson discussed Carto products and services related to location data, including emerging technologies and trends in location intelligence services.

John Byrd – MAPPS

Mr. Byrd provided brief updates on several topics, including the FLAIR Act, the Geospatial Data Act, the CIBORG initiative, and upcoming briefings on the Digital Coast program and the 3D Elevation Program. Mr. Byrd also encouraged the NGAC to continue addressing the issue of national parcel data.

Federal Program Update 2

3D Elevation Program

Vicki Lukas (USGS) provided an update on the 3D Elevation Program. One of the key goals of the program is to complete Lidar coverage with ifSAR in Alaska in 8 years. Ms. Lukas highlighted key activities as follows:

- 3D Nation Elevation: USGS is working with NOAA to refresh the requirements and benefits study to further understand inland, nearshore, and offshore bathymetric data requirements and benefits.
- USGS is working on a plan to develop 3DEP products and services.
- 3DEP Data Acquisition: FY18 Broad Agency Announcement (BAA) was released on August 16, 2017. Proposals are due by October 20.
- 3DEP National Multiyear Plan. The 3DEP Working Group was tasked to develop a plan to move from an annual approach to a systematic multiyear plan using a phased process. Ms. Lukas further talked about the different elements of this plan including funding estimates, cost share considerations, adoption of data acquisition/delivery tiling scheme.

USGS Hydrography Program

Vicki Lukas provided an update on the USGS Hydrography program and talked about the National Hydrography Dataset (NHD) and Watershed Boundary Dataset (WBD). She also discussed NHDPlus High Resolution (NHD+HR). Highlights included:

- Hydrography requirements study and benefits study: 420 mission critical business cases were documented. Current annual benefits are estimated at \$538M. Total potential benefits for meeting all needs are estimated at \$1.14B.
- NHDPlus High Resolution: The study revealed that users need NHD but at higher resolution. Currently USGS is working on the NHDPlus High Resolution (HR). NHDPlus HR combines functionality of NHDPlus and resolution of NHD.
- NHDPlus HR Beta: First datasets released in April 2017. A future goal is derived hydrography from Lidar. Pilot projects are underway to determine approaches and associated costs. A longer-term goal is further development of topo bathymetric.

Subcommittee Reports

The NGAC subcommittees continued reporting on their assignments and work plans.

Cultural & Historical Geospatial Resources

Garet Couch reported on the outcomes of the subcommittee discussions and noted the following:

- Topic: Protecting geospatial data assets that have cultural and historical significance.

- Audience: Land holding agencies and/or agencies holding cultural or historical geospatial datasets.
- Tasks
 - Draft a letter to target agencies jointly from NGAC and FGDC.
 - Prepare and administer a survey to be delivered to target audiences.
 - Plan a session in March during the NGAC meeting with key respondents from the survey.
- Deliverables
 - Best practices document.
 - Template policy and appendix of related subdocument examples.
 - Potentially decision tree/infographic.
- Develop Project Outline
 - September – December 2018.

After this briefing, the NGAC agreed on the following action:

ACTION: Subcommittee will develop best practices document to be completed in 2018.

Data as Services Subcommittee

David Alexander and Sarah Battersby reported on the outcomes of the subcommittee discussions and noted the following:

- Task: Develop work plan, partition of work and develop position paper.
- Deliverable: Position paper to include trends, definitions, path forward on Data as Services.
- Audience: NGAC, FGDC, community stakeholders.
- Timeline
 - October-December 2017: Develop outline.
 - January-April: First draft.
 - May-June: Draft feedback.
 - July-August: Develop final draft.
 - September 2018: Final paper.

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

ACTION: Subcommittee will develop draft position paper by April 2018

ACTION: Subcommittee will provide draft final position paper to NGAC by September 2018

Lightning Session 3

An opportunity for brief announcements was given to NGAC members.

Bobbi Lenczowski – America View Inc.

Ms. Lenczowski talked about America View, a Nationwide Consortium for remote sensing education, research, and geospatial applications.

David Alexander – Flood Apex Program

Dr. Alexander provided an overview of the DHS Flood Apex Program. The program was created at the request of FEMA’s administrator to bring new emerging technologies to address flood disasters. The program is sponsored by FEMA and the DHS Science and Technology Directorate.

Meeting Wrap-up

The Chair reviewed and summarized actions and next steps. FGDC and NGAC will reach out Andrea Travnicek, to brief her on the NGAC papers and next steps. The next NGAC meeting will be on December 11, from 1:00 - 4:00 pm EST. The meeting will be held via webinar.

As part of the meeting wrap-up, NGAC members were asked to provide feedback on the meeting. Comments included the following:

- The NCTC is a good venue for the meeting
- “Startup conversation” is a good exercise to kick off the meeting
- Appreciate staying on schedule
- Lighting talks are informative
- Appreciate updates on Federal programs. Could add updates from USDA/FSA (NAIP), BLM, and others
- Consider a panel discussion with Federal GIOs that could focus on infrastructure

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 December 11, 2017

September 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/september-2017/index.html>

FGDC Report

- FGDC Update

Federal Program Update

- National Address Database
- Group on Earth Observations
- UN-GGIM Overview
- USGS 3DEP & NHD Update

Overview of NGAC Guidance

- NGAC Guidance Overview
- 2017-2018 Guidance to NGAC

Landsat Advisory Group

- Landsat Program Update
- Landsat Advisory Group Status Report

Geospatial Technology & Infrastructure Subcommittee

- Geospatial Technology & Infrastructure Subcommittee Report

Cultural and Historical Geospatial Resources Subcommittee

- Cultural and Historical Geospatial Resources Subcommittee Report

Data as Services Subcommittee

- Data as Services Subcommittee Report

Lightning Sessions

- Government & Public Safety UAS – Warzinik
- National Geologic Mapping – Thorleifson
- Geospatial Aspects of Emergency Response - Oroville Dam – Irias
- DHS First Responders Group – Alexander
- TRELIS-GS Program
- Prime Meridians – Sweetkind-Singer
- AmericaView Update – Lenczowski
- DHS Flood APEX Overview – Alexander
- DHS Flood APEX Info Sheet – Alexander