

**National Geospatial Advisory Committee Meeting
December 4-5, 2019
Minutes**

The National Geospatial Advisory Committee (NGAC) held a public meeting from 8:30 a.m. to 5:00 p.m. on December 4 and from 8:30 a.m. to 5:00 p.m. on December 5, 2019. The meeting was held at the offices of the Bureau of Land Management in Washington, DC. In accordance with the requirements of the Federal Advisory Committee Act, the meeting was open to the public.

NGAC Members present:

Keith Masback, NGAC Chair
Mark Reichardt, NGAC Vice Chair
Frank Avila
Byron Bluehorse
Gar Clarke
Garet Couch
Pat Cummins
Sanjay Kumar
Tony LaVoi
Robert Lenczowski
Amber Shultz
Cy Smith
Rebecca Somers
Christine Stinchcomb
Julie Sweetkind-Singer
Gary Thompson
Harvey Thorleifson
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 present:

Sarah Battersby
Mike Hussey
Xavier Irias
Kevin Pomfret
Jennie Stapp
Jason Warzinik

Other attendees:

Deirdre Bishop (Census Bureau), John Byrd (National Society of Professional Surveyors), Melissa Chiu (Department of Veterans Affairs), Tod Dabolt (Department of the Interior), Eric Doornbos (Department of State), Terry Forline (General Services Administration), Doug Gevert (Department of Education), Tricia Gibbons (LEAD Alliance), Leonard Gore (Bureau of Land Management), Shirley Hall (US Department of Agriculture), Pamela Isom (Department of Energy), Yoshi Koizumi (Japan Aerospace Exploration Agency), Butch Lazorchak (Library of Congress), Steve Lewis (US Department of Transportation), Lynda Liptrap (Census Bureau), Amy Nelson (US Department of Transportation), Eliana

Perlmutter (Lewis-Burke Associates), Tim Petty (Department of the Interior), Steve Rosenberg (Federal Communication Commission), Robert Schill (HERE Technologies), Lorna Schmid (FGDC), Ken Shaffer (FGDC), June Shoemaker (Bureau of Land Management), Carrie Stokes (Agency for International Development)

Wednesday, December 4, 2019 NGAC Public Meeting

Welcome & Introductions

Keith Masback, NGAC Chair, called the public meeting to order at 8:30 a.m. and welcomed members and attendees. Member and attendee introductions were made. The Chair provided an overview of the agenda for the first day. June Shoemaker, Acting Director of Resources & Planning for the Bureau of Land Management (BLM), welcomed the NGAC to the BLM offices and thanked the group for the work they do and noted her appreciation for BLM's partnership with the FGDC for the last 25 years.

Review and Adoption of Minutes

The draft minutes of the September 2019 NGAC meeting were reviewed, and the Chair called for approval.

DECISION: The NGAC adopted the minutes of the September 4-5, 2019 NGAC meeting.

FGDC Report

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

Federal Data Strategy

Summary of FGDC-related actions in FDS:

- Integrate Geospatial Practices into the Federal Data Enterprise
- Establish and manage an authoritative list of unique agency IDs and supporting API

Also discussed FGDC Pilot Project:

- Survey to identify high-value Geospatial Data Act investment requirements and incentives to prioritize and advance the Nation's Spatial Data Infrastructure

A-16 Revision Release Update

- Draft revised version of OMB Circular A-16 Guidance developed by interagency FGDC team
- Draft A-16 Guidance is still under review within OMB. Will be released first for agency review and comment.
- For some GDA elements, additional FGDC technical guidance will be developed that can be updated outside of the Circular update process

GeoPlatform/Data.gov Metadata Project

- Supports an FGDC action in the draft Federal Data Strategy Action Plan for 2019-2020
- Will test a representative sampling of geospatial metadata to improve the publishing workflows of federal geospatial metadata, build a more complete understanding of metadata transformations and available formats, and identify failing processes

International Programs

Updates on the Group on Earth Observation Ministerial and the UNGGIM April Meeting, and the Integrated Geospatial Information Framework (IGIF)

FGDC/OGC Disasters Pilot Project Meeting

Phase 1 pilots complete

- Provided valuable lessons learned to address gaps and user needs
- Use cases covered local to global examples - 7 countries were included in the 15 examples
- Results were presented at AmeriGEO and GEO Weeks with favorable responses

2019 NGAC Appointments

Call for Nominations issued July 2019. Nominations will be used to fill NGAC vacancies in 2019 and 2020. An interagency review panel has evaluated nominations and developed recommendations. Final decisions on appointments to be made by Secretary of the Interior's office.

NGAC Charter

The current NGAC Charter expires February 8, 2020, The new draft charter, with updates to reflect GDA changes, is currently under review at DOI. The new charter will be finalized in early 2020.

ACTION: The FGDC expects to finalize the next set of appointments to the NGAC in December 2019, including the designation of a new chair and vice-chair. Final decisions on appointments will be made by the Secretary of the Interior.

ACTION: The FGDC expects to finalize the updated charter for the NGAC in January 2020. The charter is in final review at the Department of the Interior (DOI). DOI is also reviewing the draft NGAC bylaws, which were developed by the NGAC Operations Subcommittee. DOI comments on the bylaws are expected in January 2020.

IGIF Follow-up

Mark Reichardt, NGAC Vice Chair, provided additional details on the UNGGIM's Integrated Geospatial Information Framework (IGIF). The IGIF Implementation Guide being developed for governments. The framework builds on the NSDI, there are more data types now that (unstructured, analytics) that build on the traditional concept of an NSDI. The IGIF includes 9 strategic pathways. These pathways expand the required elements of NSDIs to meet emerging requirements. Strategy document is available from the UNGGIM site. The follow-on chapters are under development and being released as they are completed.

NGAC Subcommittees – Brief Status Reports

Landsat Advisory Group

Keith Masback provided an update on the Landsat Advisory Group membership. The LAG includes both NGAC members and other members with subject matter expertise in remote sensing programs. He remarked on the high expertise level of the LAG membership, and recognized the tremendous work the group has done. He noted that the LAG membership is being updated, and thanked the LAG members whose terms are ending: Peter Becker, Joanne Gabrynowicz, Kass Green, Kevin Pomfret, and Tony Willardson. He noted that both Kass and Joanne served as Chairs of the LAG, and thanked them in particular. Mr. Masback also noted that USGS staff is developing the next set of study questions for the LAG.

ACTION: FGDC will schedule a meeting of the Landsat Advisory Group (LAG) in January 2020. The USGS National Land Imaging Program staff will present the next set of study questions for the LAG.

Cultural & Historical Geospatial Resources Subcommittee

Garet Couch provided an update on the subcommittee's activities. He noted that he is working with FGDC staff to schedule briefings for NPS leadership and the FGDC Cultural Resources Subcommittee on the recommendations in the subcommittee's report, which was adopted by the NGAC in September. He also provided a brief update on the Advisory Council on Historic Preservation's (ACHP's) Digital Information Task Force, which is developing a report and recommendations on how access to digital and geospatial information can be improved to inform federal project planning. He noted that the draft report includes multiple references to the NGAC paper.

ACTION: The subcommittee chair will work with FGDC staff to plan briefings and dialogue on the paper for the NPS, the FGDC Cultural Resources Subcommittee agencies and other key stakeholders.

Public-Private Partnerships Subcommittee

Mark Reichardt provided an update on the subcommittee's activities. He noted that the subcommittee's purpose is to identify potential areas of PPP engagement for the NSDI, and to articulate the value proposition / benefits necessary to establish and sustain PPPs. Next steps include:

- The subcommittee is developing PPP use cases, so if members have exemplars to share, please do. Examples may include CRADAs, infrastructure projects like toll roads, etc.
- The subcommittee members plan to participate in upcoming conferences to increase understanding of PPPs (GeoBiz, ESRI Federal User Conference, GeoWeek, etc.)

He also noted that the World Bank has a website on PPP that has interesting information to share. The subcommittee plans to have a report for consideration by the NGAC in September 2020.

ACTION: The subcommittee will meet in January 2020 to provide feedback on the WGIC PPP survey and begin drafting a white paper on public-private partnerships. A draft version of the paper is expected by June, and the final paper is expected by October.

NGAC Operations Subcommittee

Cy Smith provided an update on the activities of the NGAC Operations Subcommittee. He noted that the revised draft NGAC Bylaws have been completed and awaiting review from DOI. He also noted that FGDC is working on the new Charter for the NGAC. New NGAC Operating Procedures will be important to capture items that are not covered in Bylaws or Charter, but are important to the work of the NGAC. He also noted that the NGAC would discuss Congressional reporting requirements later in the meeting.

Recognition of NGAC Members

FGDC Chair Dr. Tim Petty provided a brief update on FGDC/Administration priorities and engaged in a dialogue with NGAC members. At the conclusion of his remarks, Dr. Petty and Ivan DeLoatch recognized the NGAC members whose terms end in December 2019. Dr. Petty thanked the following members for their service and contributions:

Members completing first NGAC terms:

Gar Clarke
Garet Couch
Bobbi Lenczowski
Rebecca Summers
Cy Smith
Jennie Stapp

Members completing second NGAC terms:

Pat Cummins
Kevin Pomfret
Harvey Thorleifson
Jason Warzinik

Leadership:

Dr. Petty and Mr. DeLoatch gave particular recognition to Julie Sweetkind-Singer and Keith Masback, who both provided stellar leadership as both Vice Chairs and as Chairs of the NGAC.

Lightning Session 1

An opportunity for brief announcements was given to NGAC members:

2019 Synopsis of 3-D Geological Mapping – Harvey Thorleifson

Dr. Thorleifson provided an update on the 2019 Synopsis of *Three-dimensional Geological Mapping and Modelling in Geological Survey Organizations*, which is available for free download from the Alberta Geological Survey. This is an international effort.

NSDI Strategic Plan Initiative – FGDC/NGAC Joint Visioning Session

The NGAC and representatives from FGDC agencies engaged in a joint strategic visioning session to initiate development of a new strategic plan for the advancement of the National Spatial Data Infrastructure (NSDI). The objectives of the session were to discuss the current status of the NSDI, update the vision for the future, gather initial input on strategies for the new strategic plan, and to discuss stakeholder engagement and communications. Attendees included representatives from 12 FGDC member agencies and NGAC members.

Previous NSDI strategic plans resulted in implementation of many foundational building blocks of the NSDI. The Geospatial Data Act codifies and expands many FGDC and NGAC responsibilities, and requires ongoing development and implementation of a strategic plan for the NSDI. As the FGDC begins the next cycle of strategic planning for 2020 and beyond, NSDI goals and objectives will be advanced by building on recent plans, assessing progress and responding to gaps, and adjusting actions to meet emerging needs and the requirements of the GDA. Keys to informing the future plan will include understanding how past activities and actions have been beneficial, what areas need further focus, and identifying new priorities to meet the needs of the geospatial community and comply with new policy directives.

An NSDI Core Team, comprised of FGDC and NGAC members, will help guide the development of the next NSDI strategic plan, which is expected to be completed by the summer of 2020. Discussions and outcomes from this joint session provided insights and observations regarding the following themes:

1. Current State of the NSDI: Strengths, Weaknesses, and Opportunities

Participants identified strengths of the NSDI which included a focus on interoperability, more organizations are involved, increased data, increased accessibility and reuse of data, and increased use of standards. The participants agreed the NSDI provided a foundation for innovation and that new uses of tools and new technologies have driven innovations. Problems or weaknesses included inadequate funding and communication, the need for more effective collaborative governance approaches, a focus on Federal vs. national activities, and insufficient appreciation for what is behind the data or products. Multiple opportunities were identified such as implementation of the GDA, partnerships at all levels, data-driven laws and policies, geo-

enabling other datasets, looking beyond the geospatial community for partners, and building technical capabilities tied to blending spatial data and non-spatial data.

2. Define Future State: Vision of a national spatial data infrastructure

The participants generally agreed that the current NSDI vision statement needs revision – it is more a description of the NSDI and not a clearly articulated vision of the future. The updated vision should focus on end goals and help agencies and partners understand the future state, so that operational and budgetary decisions can support clearly defined goals and objectives. Vision themes included: promoting quality, standardization, inclusivity, flexibility, data sharing with tiered use, increased accountability, reporting, and measurement, and holistic integration of data. An action team of NGAC members was established to revise the vision statement and draft a current vision, mission, and guiding principles.

3. Strategies to Further the Development of the NSDI

Participants were asked where the geospatial community needed to focus its energies and develop strategies for the advancement of the NSDI. Themes emerged around collaboration, structure, communication, and funding. There was consensus among the participants around promoting collaborative governance approaches and utilizing national forums for multi-stakeholder dialogue. There was support for developing a communications/outreach strategy to highlight value and identify issues. Developing enterprise planning and reporting processes and establishing baselines aligning with the requirements of the GDA were also discussed. How to best measure performance and how those measures relate to the overall evolution of the NSDI and the implementation of the GDA are important. Other ideas included demonstrating successful problem-solving use cases, building sample dataset(s) from the bottom up, leveraging relationships with Tribes and other key stakeholders, and developing strategies to build champions outside of the geospatial community.

4. Stakeholder Engagement: Outreach & Communications

Ideas and strategies were explored to broaden participation in all phases of the strategic planning process across both Federal government agencies and non-Federal geospatial communities. This is key to understanding requirements and needs, allowing for wider adoption, and result in higher benefits and value to the community. Participants discussed communication and outreach activities for the strategic planning process, and more broadly for the NSDI itself. Value propositions and benefits to the community need to be clearly articulated and socialized across the geospatial community. Development of communication materials and campaigns focused on the benefits and applications to specific, target audiences will increase awareness and result in positive economic and societal impacts.

The joint session provided an effective opportunity to gather feedback and input from stakeholders and the extended NSDI community. Insights gained from this and other feedback sessions will be compiled and analyzed by the FGDC community as the next iteration of the NSDI strategic plan is developed.

Wrap-up – Keith Masback

The Chair summarized the actions for day one of the meeting and provided a brief overview of day two.

Thursday, September 5, 2019 NGAC Public Meeting

Start-up

The Chair welcomed NGAC members to the second day of the meeting. A brief overview of the agenda was provided. One change to the agenda was noted – the first session of the day was modified to focus on preparations for the 2020 GDA Report to Congress.

Joint Session Follow-up Discussion

The NGAC members discussed the outcomes and key messages from the joint FGDC/NGAC session and agreed on the following actions:

ACTION: FGDC staff will summarize the results of the joint FGDC/NGAC strategic visioning session at the December NGAC meeting and distribute to the NGAC and FGDC.

ACTION: The FGDC will convene an NSDI Leaders Forum session in early 2020 to gather input from key stakeholder groups into the development of the new NSDI strategic plan.

ACTION: The NGSC NSDI subcommittee will meet in January 2020 to develop revised drafts of the vision, mission, and guiding principles for the NSDI Strategic Plan.

GDA Reporting Requirements Discussion

Cy Smith and Tony LaVoi led a discussion of the Geospatial Data Act reporting requirements. Mr. Smith discussed a document generated by the Operations Subcommittee that summarized the reporting requirements. The document presented reporting by responsible organization - FGDC, NGAC, Lead Covered Agencies, and Covered Agencies. He noted that the reporting requirements are complex and multi-layered. He suggested that strategies to make the reporting requirements and processes more understandable and accessible will be helpful in the implementation process.

Tony LaVoi provided an overview of the approach the FGDC agencies are taking to implement the GDA reporting requirements. This began with a description of the formation of an FGDC Tiger Team and Working Groups to analyze and evaluate the GDA. He also described the work to generate the draft revision of OMB Circular A-16, which is still under OMB review. Currently, an FGDC Covered Agencies Working Group is working on models and approaches for agency reporting. The group has agreed on the following:

- Strong interest in providing guidance and common templates to agencies to support GDA implementation
- Desire to work with NGAC in alignment with NGAC member expertise and available resources

The NGAC held a wide-ranging discussion of GDA implementation. Issues covered during this discussion included the following:

- What are the defined requirements for NGAC in the GDA? Do we understand the resources it will require to complete?
- What are some ideas from the NGAC that could assist the Federal Agencies in complying with the GDA?
- What do we want to see from these reports? How can NGAC think about what we can say or how we would say it.

- Can NGAC come up with indicators that could be used to measure progress? Examples may include the Geospatial Maturity Assessment used by NSGIC.
- How do we maximize the opportunities/impacts of the reporting requirements to make it more than a bureaucratic exercise [ROI, branding, impact stories, etc.]
- What are the priority GDA next steps for the NGAC?

ACTION: The GDA Reporting Subcommittee will work collaboratively with the FGDC Covered Agencies Work Group to provide input and feedback on a plan for implementing GDA reporting requirements.

Lightning Session 2

An opportunity for brief announcements was given to NGAC members:

Remote Sensing Collaboration for Disaster Response – Bobbi Lenczowski

Ms. Lenczowski provided an overview of the collaborative utilization of remote sensing in emergency response, including the response to Hurricane Dorian in Bahamas.

One aspect of the disaster response is the collaboration between the International Charter Space and Major Disasters consortium and the AmericaView Consortium. During the Dorian response, AmericaView requested volunteer support from StateView partners, resulting in timely data and assistance being provided to responders. Students were used to analyze satellite imagery to create geospatial layers, use imagery interpretation, and other technologies – an example of preparing the next generation of professionals.

Mining Maps and Views – Stanford Libraries- Julie Sweetkind-Singer

Ms. Sweetkind-Singer provided a brief overview of a new resource from the Stanford Libraries featuring historic mining maps and views. The site features the mining maps and accompanying materials from the period of 1849 until the turn of the 19th century. The Comstock Lode is featured in two exhibits; one recounting the history of the lode and of Virginia City's rise, and the second is a Story Map that incorporates geospatial technologies to explore the Comstock in three dimensions demonstrating how numerous sources of information may be combined to open up new avenues of discovery. The website is: <https://exhibits.stanford.edu/mining>

Africa GeoPortal – Pat Cummins

Ms. Cummins provided an overview of the Esri Africa GeoPortal. Esri is working with Geoscience in Australia was working to build a Data Cube in Africa – Digital Earth Africa. Esri offered to help facilitate this work. Esri launched Africa Geoportal – A Free Open Collaboration Platform to Support the People of Africa – with Geospatial Tools, Africa Living Atlas, Learning Resources with Facebook and Google login. Launched apps built by power users for use by non-experts like Vegetation change detection, water observations explorer (from space), Image Rendering, and a mobile app: Distance to Water. Training includes the ArcGIS Imagery Book, and learning lessons. The website is: <https://go.esri.com/africageoportal>.

Stakeholder Engagement

Mark Reichardt led a discussion on strategies for improving stakeholder engagement. The group discussed appropriate engagement and communications strategies moving forward, with a focus on implementing the GDA and building the NSDI. Topics covered during the discussion included the following:

- Consumers, enablers and users of data need to be at the table.

- Take the organizations and the topical areas and create a matrix to ensure all stakeholders are engaged. Due to limited resources there would be shorter and longer term outreach efforts.
- Domains of use - can we define the stakeholder community for the short term?
- FGDC to host NSDI Leaders Forum meetings in 2020 to engage leaders of national geospatial organization in the NSDI planning process and to involve the organizations moving forward.
- NGAC NSDI subcommittee will work to construct the Vision, Mission and Value statements for the NSDI. Next focus should be on the longer-term vision and ensuring mechanisms for understanding the trends and technology changes that will impact changes in the NSDI; enabling organizations to come together to discuss possibilities and requirements for future evolution.
- Consider how to get marketing expertise and insight to ensure the strategy works.
- Consider webinar series and other tools to educate on what we do.
- Utilize FGDC's report to Congress as a key communication opportunity.

GDA Report to Congress

Ivan DeLoatch led a discussion on the FGDC GDA Report to Congress, which is required to be submitted to Congress on a biennial basis. The first report is due in Fall 2020. Mr. DeLoatch described the components that will be included in the report, including the following:

- A summary of the status and evaluation of the progress for each National Geospatial Data Asset (NGDA) data theme based on the report submitted by that theme's lead covered agency(ies).
- A summary and evaluation of the achievements of each covered agency, based on the covered agencies' annual reports to the FGDC.
- Comments from the NGAC on the FGDC summaries and evaluations, and responses of the Committee to the comments.
- Comments of the covered agencies on the FGDC summaries and evaluations, and responses of the FGDC to the comments.

Mr. DeLoatch also noted that the report is a critical opportunity to communicate the importance of geospatial data and its ability to improve government decision making and performance through utilization of geospatial data and technology. The NGAC members discussed the importance of the communications and messaging in the report, and discussed possible approaches and key messages. He indicated that discussions will be taking place with FGDC and DOI leadership, Congressional affairs staff, and OMB about the scope, timing, and review processes for the report. He noted that FGDC staff will keep the NGAC apprised of these plans. Following discussion, the NGAC agreed to establish as Congressional report subcommittee to develop use cases and other communications materials to help support the development of the report.

ACTION: The Congressional Report Subcommittee will meet in January 2020 to begin developing 3-5 geospatial use cases to supplement the 2020 GDA Report to Congress.

Look Ahead to 2020

The NGAC discussed ongoing and new activities, and agreed on the following subcommittee structure for 2020:

Landsat Advisory Group

Purpose: Provide advice on the requirements, objectives and actions of the Landsat Program as they apply to continued delivery of societal benefits for the Nation and the global Earth observation community.

Public-Private Partnerships Subcommittee

Purpose: 1) Examine case studies of successful PPPs, 2) Identify potential areas of collaboration for the NSDI, and 3) Articulate the value proposition / benefits necessary to establish and sustain such arrangements

Cultural and Historical Geospatial Resources Subcommittee

Purpose: To understand the issues and challenges associated with the protection and preservation of cultural and historical geospatial datasets and other derived geospatial information created, maintained, and/or managed by Federal agencies

NSDI Strategic Plan Subcommittee

Purpose: Provide input to and advice for the 2020-2021 NSDI Strategic Plan

Geospatial Data Act (GDA) Reporting Subcommittee

Purpose: Provide input and feedback on GDA reporting requirements in coordination with the FGDC Covered Agencies Work Group.

2020 GDA Congressional Report Subcommittee

Purpose: Develop materials and messages to tell the story of the critical importance of geospatial data, information, and tools to our Nation

Meeting Wrap-up & Next Steps

The Chair reviewed and summarized the meeting actions. Mr. Masback also provided parting thoughts in his last meeting as NGAC chair, and thanked the members for their hard work and dedication to the group. The next NGAC meeting will be held in Spring 2020.

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.

Mr. Mark Reichardt, 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 9, 2020

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/dec-2019/index_html

FGDC Report

- FGDC Update

NSDI Strategic Plan Initiative

- NSDI Strategic Planning Overview
- FGDC-NGAC Joint Planning Session

Geospatial Data Act (GDA) Reporting Requirements

- GDA Reporting Requirements Discussion
- GDA Reporting Language Summary

Lightning Sessions

- Integrated Geospatial Information Framework – Reichardt
- 2019 Synopsis of 3-D Geological Mapping – Thorleifson
- Remote Sensing Collaboration for Disaster Response – Lenczowski
- Africa GeoPortal – Cummins