

National Geospatial Advisory Committee Webinar Meeting
April 27-28, 2021
Minutes

The National Geospatial Advisory Committee (NGAC) held a public meeting on April 27-28, 2021 from 1:00 p.m. to 5:00 p.m. each day. The meeting was held via webinar and teleconference. In accordance with the requirements of the Federal Advisory Committee Act, the meeting was open to the public.

NGAC members present:

Mark Reichardt, NGAC Chair
Sarah Battersby, NGAC Vice Chair
Douglas Adams
Frank Avila
Chad Baker
Byron Bluehorse
Gar Clarke
Garet Couch
Jack Dangermond
William Haneberg
Mike Hussey
Sanjay Kumar
Tony LaVoi
Roberta Lenczowski
Mark Meade
Siva Ravada
Felicia Retiz
Vasit Sagan
Amber Shultz
Cy Smith
Gary Thompson
Tim Trainor

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:

May Yuan

Other Attendees:

Nadine Alameh (OGC), América Álvarez (FGDC Intern), Dierdre Bevington-Attardi (Census Bureau), Dierdre Bishop (Census Bureau), Matthew Bobo (Bureau of Land Management), Mariel Borowitz (Georgia Tech), John Byrd (NSPS), Pat Cummins (Esri), Tod Dabolt (DOI), Julie Eckert (FGDC Support), Robert Farnsworth (GEOINT SME), Erin Fashoway (Montana State Library), Doug Gevertz (Department of Education), Noah Goodman (ArdentMC), Travis Hardy (FGDC Support), David Herring (NOAA), Jim Irvine (ArdentMC), Alan Leidner (NYC Geospatial Information Systems and

Mapping Organization), Steve Lewis (Department of Transportation), Fred Lipschultz (US Global Change Research Program), Vicki Lukas (USGS), Keith Masback (Plum Run, LLC), Anne Miglarese (Saildrone, Inc.), Amy Nelson (DOT), Tim Newman (USGS), Anna Normand (Congressional Research Service), Edward O'Brien (Green International Affiliates, Inc.), Glenn O'Grady (URISA), Justin Reed (Booz Allen Hamilton), Amy Rose (Oak Ridge National Lab), Johnny Sawyer (Defense Intelligence Agency), Robbie Schingler (Planet), Joel Schlagel (DOI), Ken Shaffer (FGDC), Vaishal Sheth (FGDC Support), Tim Stiles (San Bernadino County, CA), Tim Stryker (USGS), Anna Thielen (Western Governors' Association), Alexandra Thompson (Resources for the Future), Hayley Thompson (FGDC Support), Mike Tischler (USGS), Nicole Toigo (Ursa Space Systems Inc.), Mike Toman (Resources for the Future), Tanya Trujillo (DOI), Kim Valentine (NOAA), Betsy Weatherhead (NOAA), Silvia Wilson (USGS), Ian Wosiski (Intermap Technologies, Inc.)

Tuesday, April 27, 2021 NGAC Public Meeting:

Welcome & Brief Introductions:

NGAC Chair, Mark Reichardt, called the meeting to order at 1:00 p.m. and welcomed members and public attendees. Member introductions were made. The Chair introduced Dr. Sarah Battersby, the NGAC Vice Chair. An overview of the agenda was provided.

Review and Adoption of Minutes from December NGAC meeting

The draft minutes of the December 2020 NGAC meeting were reviewed, and the Chair called for approval.

DECISION: The NGAC adopted the minutes of the December 9-10, 2020 NGAC meeting.

Leadership Dialogue:

Tanya Trujillo, the Acting Assistant Secretary for Water and Science at Interior, discussed current and upcoming FGDC and Administration activities. Key points included:

- COVID-19 and the response of the geospatial community:
 - The John Hopkins COVID-19 Dashboard has been an important geospatial tool to respond to the pandemic.
 - These types of innovative geospatial tools will continue to play a key role in response efforts.
- Administration priorities and the work of the FGDC have many synergies and opportunities for alignment.

Ms. Trujillo discussed her role in working with the Office of Management and Budget (OMB), stating that there are FGDC-related working groups to which she can contribute. Ms. Trujillo requested that the NGAC continue to provide input on key issues related to the GDA.

FGDC Update:

FGDC Executive Director Ivan DeLoatch provided a brief overview of recent activities within the FGDC. Highlights included the following:

Circular A-16 and NSDI Strategic Plan

- Circular A-16:
 - OMB is working on its internal review of the A-16 Circular.
 - OMB formed an internal ad-hoc team of offices with interest, touchpoints, or relationships to the GDA and is projecting a June 2021 release.
- NSDI Strategic Plan:
 - Implementation activities are paused while new leadership is established.
 - The path forward will be a topic at the next FGDC committee meeting.

Federal Data Strategy (FDS)

- FGDC has established an ex-officio liaison member role on the Chief Data Officers Council (CDOC); Tony LaVoi (Department of Commerce, NOAA) agreed to serve in this liaison role.
 - A pilot is being established to investigate high value Geospatial Data Act investment areas to advance the nation's spatial data infrastructure.
 - This pilot will be carried out through will be a Federal government survey in FY 2021.
 - Currently in initial review of survey structure and content.

FGDC-related statutes (National Broadband Act and the Digital Coast Act)

- National Broadband Act
 - The Act requires FCC to consult with FGDC on the National Broadband Availability Map. FCC is developing their overall plan and requested quarterly communications—the next call is later this week.
 - FGDC has coordinated with Bureau of Land Management, which manages a DOI Broadband Infrastructure Map of public lands that could potentially be used to extend the broadband services network.
- Digital Coast Act
 - Department of Commerce (DOC) is working to coordinate activities with FGDC.

NGAC appointments

- The call for nominations was issued January 2021 with a 45 day response period. Great response with many highly qualified nominees. An interagency review panel will evaluate the nominees and make recommendations. The final decisions on appointments will be made by the Secretary of the Interior's office. FGDC is anticipating two rounds of appointments: mid-2021 and early 2022.

Tony LaVoi provided a brief update of the Department of Commerce's activities and priorities.

- Census Bureau has completed data processing for the first 2020 Census results: State population counts used to apportion seats in the US House of Representatives (US population – 331,108,434).
- NOAA Digital Coast Act was signed into law December 2020 with strong multi-sector support.
 - Digital Coast is a platform that integrates geospatial data, decision-support tools, training, and best practices for addressing coastal management issues and needs.
 - Enables coastal leaders to make well-informed decisions about the resilience and

future of the nation's coasts; advances priorities for filling data gaps, particularly in underserved areas.

- The Act requires Digital Coast-FGDC coordination and that data is FGDC standards-compliant.
- Federal CDO Council:
 - Strong interest in outreach to other Federal bodies; created ex-officio position to the FGDC.
 - Need to discuss opportunities for coordination in 2021-2022; for example, inventory and standards.

Frank Avila provided a brief update on the National Geospatial-Intelligence Agency's (NGA's) activities and priorities.

- Climate change initiatives in support of the climate change Executive Order
 - The Climate Security Advisory Council exists to support Climate Change initiatives directly related to the recent Climate EO from the administration.
 - Awareness of GeoPlatform data and capacity is being raised.
- Neurodiversity pilot program with Mitre to support recruitment and selection of neurodiverse candidates.
 - The pilot will run for 6 months with 4 external interns who have received conditional offers from NGA. Lessons learned are being captured to make the neurodiversity program more inclusive.

ACTION: The Office of Management and Budget (OMB) is expected to issue the revised version of OMB Circular A-16 by June 2021. FGDC staff will keep NGAC members apprised of the status of this action.

ACTION: The FGDC is convening a review panel to evaluate nominations to serve on the NGAC. The nominations received from the recent Call for Nominations will be used to fill NGAC vacancies in 2021 and 2022. Final decisions on appointment will be made by the Office of the Secretary of the Interior. The tentative schedule for two next rounds of appointments is mid 2021, and early 2022.

Landsat Advisory Group:

Frank Avila (LAG Chair) and Bobbi Lenczowski (LAG Vice Chair) provided an update on the recent activities of the LAG including mission, tasks, membership, and published reports. Anne Miglarese (Saildrone, Inc.) provided a presentation on the final report of the Task 2 LAG Paper, which covered the investigation of the formulation of a Big Data Science Government Challenge to incentivize exploration into the utility and efficacy of ML/DNNs methods for purposes of exploiting Landsat ARD for time-series analysis and land change forces to augment those developments. Ms. Miglarese discussed the paper's contributors and recommendations. Other discussion points included:

- From a procurement standpoint, it was clarified that the government is equipped to manage the Challenge process. The team also recommended that USGS consider utilizing consultants to help manage the process.
- USGS is particularly interested in mining archives for changes through time and ensuring spectral fidelity.

Keith Masback (Plum Run, LLC) and Dr. Mariel Borowitz (Georgia Institute of Technology) provided a presentation on the final report of the Task 3 LAG Paper. USGS requested that the LAG provide a modernized interpretation of the Land Remote Sensing Policy Act (P.L. 102-555). Factors considered included technology trends in space and ground mission segments, public-private partnerships opportunities, and evolving user needs.

Tim Newman (Program Coordinator of the National Land Imaging Program of the US Geological Survey) provided a program update which included the following highlights:

Landsat Operations & Development Status:

Landsat 7 will be decommissioned; Landsat 8 is operating normally; Landsat 9 will be launched in 2021; Landsat Next is currently in design phase.

Upcoming Events:

- The 2nd National Imagery Summit is scheduled for 2021 from August 31 to September 2 and will be held virtually.
- The Pecora-22 conference will be held in 2022 from October 23 to 28 and will be held in Denver, Colorado.

Ms. Lenczowski presented potential LAG study topics for 2021:

- Determining Commercial Non-Federal use and needs for Landsat data;
- Landsat in the Cloud Era;
 - Walter Scott and Mariel Borowitz will contribute to this effort.
- Performance Metrics;
- Mission Focus: Where is the Water's Edge of NLI Scope?
 - Robbie Schingler, May Yuan, and Keith Masback will contribute to this effort.

Following discussion of the two LAG papers, the NGAC adopted the Task 2 and Task 3 papers.

DECISION: The NGAC adopted the paper: "Formulating a Big Data Science Challenge for Land Imaging Time-Series Data," developed by the LAG Subcommittee.

DECISION: The NGAC adopted the paper: "Revisiting the Land Remote Sensing Policy Act of 1992," developed by the LAG subcommittee.

ACTION: The LAG Subcommittee will work with the USGS National Land Imaging Program staff to refine the LAG study topics for 2021.

Geospatial Shared Services Discussion

Ivan DeLoatch provided introductory remarks for the session on geospatial shared services and the FGDC climate mapping requirement under Executive Order 14008 ("Tackling the Climate Crisis at Home and Abroad"). David Herring (NOAA Climate Program Office) and Dr. Fred Lipschultz (US Global Change Research Program) presented information on the topic of Climate Science Information for the Resilience Ecosystem. Highlights included:

- Problem Summary:
 - Poor, disadvantaged, & communities of colors are more at risk;
 - Resilience building is local, making need for services & funding massively concurrent; and
 - Pace & scale of climate impacts are outpacing response.
- The FARG (Federal Adaptation and Resilience Group) and the “Resilience Ecosystem” have a collaborative relationship and support the value chain from science to services to taking action.
 - Collaborators include the Federal science and data community; cloud hosting service providers; designers of GIS & data analytics; last-mile service providers; and local decision makers.
 - Five steps to resilience include: exploring hazards; assessing vulnerability and risk; listing options for risk reduction; prioritizing and planning options; and taking action.
 - The goals and objectives of decision-makers at municipal, regional/tribal, state, and national/Federal levels must be aligned.
 - Collaborative co-investment context, rather than the typical competitive siloed context, will allow a faster and more efficient response.

Travis Hardy facilitated a discussion on geospatial shared services. Key points included the following:

- Users have trouble finding authoritative data that is local enough for the questions they have. How will search and discovery be localized in this platform?
- Through the climate resilience toolkit, there are a number of engagements with practitioners. We have several pathways for enhancing search and discovery, from a semantic search tool to live interactive trainings.
- Adaptation and resilience professionals are leading communities through the resiliency process.
- As more information is being generated, it is being purposefully knitted together.
- A common complaint is that there is too much information available, and it is challenging to find an authoritative, vetted, central location to find QC-ed datasets—this is something that must be provided.
- Is the data that is brought in disaggregated? If so, what is the approach and methodology? Is it peer reviewed?
- Downscaling is the climate term for disaggregation. A tested approach is used. The data will be QC-ed. The nation’s weather station data is put on a regular geographic grid so that downscaling approaches can translate climate model predictions.
- Older datasets are also a problem.
- There are sweet spots where we can coinvest in larger ecosystem efforts so that “all boats are lifted.”
- There are approx. 40,000 functioning governments in the US—a large number. All different governments—State, local, and Tribal—must be collaborated with. Many of these will likely not have mapping services—how do you bring into the fold governments that have small populations but large geographic areas that don’t currently have a way to be online? Does the current effort include a plan to reach out to and collaborate with these communities?
- Is it possible to approach the GeoPlatform such that it meets goals other than the climate executive order? Can the approach be more holistic?
- The GeoPlatform effort has been attempted by the international community. How can we bring these things together to be an integrative solution with the international community? Ireland’s

GeoHive initiative is a potential example.

- It is important to remember that silos are an intentional and fundamental structure of government. GIS can be a tool to build connections across permeable silos.
- Public-Private Partnerships are necessary to move this initiative forward. Addressing climate impacts and equity & social justice is crucial.
- How do we make sure that the service meets the need of the people who are contributing data and models, such that they can rely on the service on a day-to-day basis?
- There is tremendous value in comprehensive collaboration on this initiative. A pressing need is communicating to different governments the importance of various climate impacts, even if the climate impact does not directly touch the particular government.
- Climate data is at a different scale—it is massive and real time and requires a lot of computation and modelling power. This will require a specialized, complex architecture.
- A scaffold, rather than a whole building, is the intended structure.
- The focus on analysis-ready data and other requirements will be key. The authoritative data must be ready to deploy and consume.
- The research industry must be in partnership with government.
- It will not be one portal—there should not be an emphasis on “consolidated” data.
- Knowledge sharing and storage sharing should happen in all directions.
- From a tribal perspective, the resources, tools, capacities, needs, and impacts vary greatly between tribes. Under Federal law, it is difficult-to-impossible to move communities—this is an important consideration in planning/adapting to climate change for tribal communities. Geographic mobility is not a viable solution in these scenarios. Also, the size of tribal communities varies greatly, with some larger than eastern states.
- Engagement from top-down and collaborative communication are both critical.
- What resources can we share in assessing what we know?
- How can we bring the strengths and capabilities of the NGAC to move this effort forward? P3 and Stakeholder Engagement are preliminary approaches.
- Existing NGAC recommendations—in particular, case studies—could be put in a consolidated document. Data should be provided in an open way.
- People must be in place who can bring recommendations to leadership—there is some of this now, but it must be more robust. A more robust and nimble governance structure must be put in place.
- The CDO Council has a data inventory working group. Data must be open, discoverable, and reusable. Each community has different preferences and needs when considering types of data.
- There are two user communities: those that want to pull data into a data cube; the other wants to do big data science. People are looking for actionable intelligence.

ACTION: The summary of NGAC feedback from the Geospatial Shared Services Session will be posted as part of the records of the meeting. The NGAC feedback will also be provided to the FGDC interagency team developing the report on climate mapping required under Executive Order 14008.

ACTION: The FGDC will provide a draft outline of the report on climate mapping required under Executive Order 14008 to the NGAC for review and feedback.

Adjourn

Mr. Reichardt made closing remarks and provided an overview of the Day 2 agenda.

Wednesday, April 28, 2021

NGAC Vice-Chair Sarah Battersby called the meeting to order at 1:00 p.m. and welcomed members and public attendees and provided the day's agenda.

Geospatial Data Act (GDA) Reporting Subcommittee

Doug Adams, GDA Reporting Subcommittee Chair, provided an update on the recent activities of the Subcommittee including mission, tasks, membership, and draft reports. Mr. Adams provided a presentation on the report of the GDA Reporting Subcommittee, with highlights including:

FY 2020 GDA Annual Reports - Status

- FGDC agencies developed common criteria, reporting templates, and processes for the GDA reporting requirements – including agency self-assessments of performance.
- Agencies used GeoPlatform tools (Survey123) to complete the initial GDA Annual Reports.
- All Annual Reports have been completed and posted on FGDC website, along with covered agency and NGDA dashboards.
- FGDC submitted the draft Summary of FY 2020 GDA Annual Reports to NGAC for review and comment.

GDA Reports – NGAC Review & Comment

- NGAC members provided high-level comments on the FGDC Summary of GDA Reports, under the 3 focus areas below, to the GDA Reporting Subcommittee.
- Three areas of NGAC comments on the GDA Report Summary:
 - Positive Elements: What was successful in the initial GDA report summary?
 - Common Survey Instrument
 - Self-Assessment Rating Criteria
 - GDA Baseline Information
 - Areas Needing Improvement: What areas need improvement?
 - Self-Assessment Approach
 - Table Formatting/Consistency
 - Recommendations for Future Reports: What can the FGDC do to improve future versions of the GDA annual report summaries?
 - Capacity Burdens
 - Reporting Agencies
 - Stakeholder Engagement
 - Survey Instrument
 - Future Results and Visualizations
 - Self-Assessment Measures

Discussion Points related to the GDA Reporting and NGAC GDA Team:

- Lessons learned include providing the GDA Reporting Subcommittee more time to organize and analyze NGAC comments.
- This effort took a significant level of support, and permanent additional support will be required if this process is to be repeated regularly moving forward.
- The process was bottom-up in working with agencies to determine the measurement criteria. The intention with this round was to establish a baseline.
- A more agile reporting process may be necessary moving forward.

On behalf of the GDA Reporting Subcommittee, Dr. Battersby requested approval of the NGAC Comments on FGDC 2020 GDA Report Summaries.

DECISION: The NGAC adopted the paper, “NGAC Comments on the FY 2020 FGDC Summary of GDA Annual Reports”, developed by the GDA Reporting Subcommittee.

ACTION: The FGDC will include the NGAC Comments on the FY 2020 FGDC Summary of GDA Annual Reports as part of the 2020 GDA Report to Congress Phase 2, as required by the Geospatial Data Act. The Phase 2 report is scheduled to be completed in Q3 FY 2021

3D Elevation Program (3DEP) Subcommittee:

Gary Thompson reviewed the purpose, membership requirements, and legislative language related to the new 3DEP subcommittee. John Mahoney discussed next steps, which include:

- Establishment of the subcommittee;
- Appointment of subcommittee membership
- Development of subcommittee operating procedures; and
- Development/approval of subcommittee reports and other products.

Vicki Lukas (USGS) provided a 3DEP program update, included the following highlights:

- The goal of the 3D Elevation Program (3DEP) is to provide the first-ever national baseline of consistent high-resolution elevation data—both bare earth and 3D point clouds—collected in a timeframe of less than a decade.
 - The aim is to create a seamless elevation foundation.
- 3DEP FY20 Summary: Data are available or in progress for approximately 78% of the nation, including lidar and Alaska IfSAR.
- A newer collaboration exists regarding critical minerals and energy.
- The National Landslides Preparedness Act authorizes the 3DEP program and establishes a governance process.
- The results of the program will lead to a completely new approach regarding QLs, refresh frequency by geography, products offered, and other changes.
- The 3D National Topography Model integrates USGS elevation and hydrography datasets to model the nation’s topography in 3D.
 - This will contribute to the next generation of integrated data and will support the nation’s critical applications.

ACTION: FGDC staff is working with DOI offices to establish the new NGAC 3DEP subcommittee and appoint the subcommittee membership. FGDC will also develop an “Operating Procedures” document that describes the roles, responsibilities, and processes of the subcommittee.

Public Comment Period

Opportunity was provided for public comment. The following comments were provided:

Alan Leidner, NYC Geospatial Information Systems and Mapping Organization (GISMO)

Mr. Leidner provided comments, including the following highlights:

- The mapping of underground infrastructure is critical, as evidenced by the events of the 9/11 disaster. Yet, reliable, standardized underground infrastructure mapping data is not available.

- The new infrastructure bill being considered in Congress is an opportunity to require underground infrastructure mapping while the infrastructure is being exposed during construction.

Dierdre Bishop (Census Bureau)

Ms. Bishop provided comments, including the following highlights:

- The Census Bureau has been in contact with the FCC and other organizations to discuss its role in broadband mapping and broadband accessibility.
- Because of Title XIII constraints, the Census Bureau is not restricted in sharing its address data. However, Census is examining options regarding this requirement.

Tim Trainor provided additional context related to Ms. Bishop’s presentation. Mr. Trainor suggested that the NGAC develop strategies as to how the Census Bureau can move forward in supporting broadband mapping and providing address data access. Mr. Trainor volunteered to participate in this effort.

Glenn O’Grady (URISA)

Mr. O’Grady provided public comments, including the following highlights:

- Geospatial is infrastructure for the Nation. Will NGAC propose or recommend providing funding at the NDSI Strategic Plan level?

Geospatial Shared Services Session, Part 2

The NGAC engaged in a second facilitated discussion regarding geospatial shared services and climate mapping. The group summarized the key themes from the first part of the discussion, including the following:

Themes from Day 1:

- Enormous & Complex Challenge – hard to convey climate science to state, local, tribal, and municipal analysts as well as the varied private sector planners and related stakeholders in a way that’s useful, accurate, timely, and actionable to properly drive the solutions needed to address the climate risks and issues we face.
- Data:
 - Need to be Findable Accessible Interoperable & Reusable (FAIR).
 - Authoritative: data should be tagged/described to easily aid users’ understanding for fitness of use.
 - “Raw vs Actionable” – many users will look for raw data for analysis while others will be looking for actionable data.
 - All data is local - Federal climate data can be too coarse or inconsistently maintained and scattered amongst varied Departments/Agencies. A global to local data paradigm is needed if supported by the science.
- Platform(s) & Compute Infrastructure(s):
 - ‘Permeable Silos’ – Technical system of systems approach (Federated, Scalable, Interoperable, Cloud-based).
 - Culturally permeable to support necessary interdisciplinary data sharing and knowledge sharing.
 - Lots of existing shared services today both within and outside government. Need a

- ‘finding aid’ which would help users discover the right service, tool, or app that is a best fit for their use.
 - “No wrong door approach” to finding and contributing data. Fewer RFPs and more APIs to enable open contribution of data, tools, models, especially those originating from local geographies.
 - “Built for Builders” – any new ecosystem of shared services should be constructed in such a way that it meets the needs of organizations that are contributing data, models, and science.
- People & Partnerships
 - Science translators should be at the ready to answer engaged communities’ questions regarding data, patterns, practices, models, results etc.
 - Communication: Essential to stimulate initial and ongoing buy in on partnership models. Need to articulate success stories or case studies to attract and onboard more users, providers through partnership.
 - Collaboration through deeply committed Public-Private Partnerships (P3s) and other innovative relationships is critical.
 - Varied Constituents: There is a wide variety of public and private stakeholders and their technical capabilities. Consistent engagement and communication with these stakeholders at a variety of technical and non-technical levels will be needed. Harnessing the pace of technology change in the private sector and interplays with academia are key elements of success.
 - “Haves & the Have Nots” – Organizations/Localities with resourcing and capability will likely do their own thing and participate only if they see benefit. Organizations/Localities with little to no capability should very much be considered in the creation of any publicly funded shared service.
- Governance & Acquisition Models
 - An opportunity exists to reevaluate existing governance and acquisition models to co-create the needed consolidated federal mapping service.
 - How can the Chief Data Officer (CDO) Council and FGDC work in coordination to not only create but maintain in the long term needed data and shared services.

Additional Discussion Points:

- The group suggested that the references to a “consolidated” mapping service in the Executive Order should more accurately be characterized as “collaborative” or “coordinated”, in recognition of the distributed nature of the geospatial ecosystem.
- There is no need for a new data viewer—an integrated ecosystem is needed to bring together existing resources.
- It is important to find greater specificity regarding the services to be provided through geospatial shared services.
 - What kinds of services make sense?
 - What can be done to make those services easy to access and easy to understand for consumers?

- Two concerns might be the climate and the storytelling surrounding climate concerns. The ability to develop clear stories about the climate is critical; this can bridge the gap and help stop the duality of thinking about the existence of climate change.
 - The NGAC should provide guidance regarding technical specifications.
 - Where the NGAC can add value is in helping identify the quality, availability, and architecture surrounding the data.
- Data integration for climate change applications is crucial, and the integration of information to support information will be challenging.
 - Making open services available and conducting analytics will be a key process.

Stakeholder Engagement Subcommittee:

Cy Smith, Stakeholder Engagement Subcommittee Chair, reviewed the purpose and membership of the subcommittee. The planned activities of the subcommittee were discussed, including the following:

- The Geospatial Data Act calls for partnerships between stakeholders in the public and private sectors, academia, and NGAs to build the NSDI.
- The NSDI is unfamiliar to many stakeholders.
 - Most stakeholders have not been knowingly involved in development or use of the NSDI;
 - Potential value of the NDSI is unknown to most stakeholders; and
 - Most stakeholders do not see themselves as having a stake in the NSDI.
- The work of the subcommittee will:
 - Contribute to the next NDSI Strategic Plan;
 - Contribute to the development of the data theme plans of the GDA Lead Covered Agencies; and
 - Advance specific recommendations from the NGAC P3 report regarding stakeholder engagement and national governance.

Additional Discussion Points:

- Communication with stakeholders should be ongoing.
- An option is to place the responsibility of spreading the word about the NSDI on the stakeholders themselves.

ACTION: The Stakeholder Engagement Subcommittee has developed a scoping paper describing a set of objectives and tasks, and will begin working on implementation in coordination with the FGDC.

Public-Private Partnerships:

Mark Reichardt, Public-Private Partnerships (P3) Subcommittee Chair, reviewed the purpose, membership, and actions of the P3 Subcommittee, including the following next steps:

- Briefing on P3 Paper and Recommendations to FGDC Members and Stakeholders:
 - Thursday, June 3, 1:00-2:30 PM EDT
- Develop additional use cases demonstrating the utility and value of innovative partnerships.
- Engage with the FGDC to promote partnerships and monitor the implementation of the recommendations in the 2020 NGAC P3 paper.
 - Coordinate closely with NGAC Stakeholder Engagement Subcommittee.

ACTION: The Public-Private Partnerships Subcommittee will hold a briefing on the NGAC paper, “Advancing the National Spatial Data Infrastructure through Public-Private Partnerships and other Innovative Partnerships” for the FGDC community and other interested parties on June 3, 2021 at 1:00 pm EDT. Additional details will be provided prior to the briefing.

Next Meeting

The next NGAC meeting is scheduled for June 29-30, 2021. The meeting will be held via webinar. Additional information will be provided prior to the meeting.

Adjourn

Sarah Battersby summarized the results of the meeting, provided closing remarks, and adjourned the meeting.

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 30, 2021

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/april-2021/index_html

FGDC Report

- FGDC Update

Landsat Advisory Group

- Landsat Advisory Group Update
- NGAC Paper: Formulating a Big Data Science Challenge for Land Imaging Time-Series Data
- NGAC Paper: Revisiting the and Remote Sensing Policy Act of 1992

Geospatial Shared Services Session Day 1

- Geospatial Shared Services Session Day 1 Presentation

GDA Report to Congress

- GDA Report to Congress Presentation
- NGAC Comments on FGDC 2021 GDA Report Summaries

3DEP Subcommittee

- 3DEP Update

Geospatial Shared Services Session Day 2

- Geospatial Shared Services Session Day 2 Presentation

Stakeholder Engagement Subcommittee

- Stakeholder Engagement Subcommittee Presentation

Public-Private Partnerships Subcommittee

- Public-Private Partnerships Subcommittee Update