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**NGAC**

**3DEP Subcommittee  
Status Report**

**Gary Thompson, Chair**

**June 9-10, 2015**

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# Session Agenda

- April 3DEP Stakeholder Meeting Update
- Program Update
- Review of Guidance & Study Questions
- Discussion
- Next Steps

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# Subcommittee Membership

- Chair: Gary Thompson
- Co-Chair: Harvey Thorleifson
- Members:
  - Jeff Lovin
  - Jason Warzinik
  - David Wyatt
- Federal Contacts: Vicki Lukas, Larry Sugarbaker (USGS)

# Study Questions

## 1. NAPA Report Recommendation:

- Advice on: Advancing the NAPA recommendation to coordinate among federal agencies
- Lead: Harvey Thorleifson

## 2. 3DEP Acquisition:

- Advice on: Improving coordination and communication on 3DEP partnerships among community stakeholders
- Lead: Jason Warzinik

## 3. Emerging LiDAR Technology:

- Advice on: Enhancing the coordination and outreach and for commercializing emerging LiDAR technologies
- Lead: Jeff Lovin

# #2 - 3DEP Acquisition

- Advice for improving coordination and communication on 3DEP partnerships among community stakeholders
- Building interest between Federal, State, and Local governments and agencies to expand project areas
- Evaluating
  - USGS BAA Webinars ([www.geoplatform.gov/elevation/3DEP/PublicMeetings](http://www.geoplatform.gov/elevation/3DEP/PublicMeetings))
  - Local Workshops ([www.geoplatform.gov/elevation/3DEP/PublicMeetings/StateRegionalWorkshops](http://www.geoplatform.gov/elevation/3DEP/PublicMeetings/StateRegionalWorkshops))
- Gathering Outreach and Educational Resources
  - [www.geoplatform.gov/elevation/3DEP/](http://www.geoplatform.gov/elevation/3DEP/)
  - [www.3dep4america.com/](http://www.3dep4america.com/)

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# #3 – Emerging LiDAR Technology

\* Concept for this task is to make recommendations regarding the use and implementation of new LiDAR technologies in regards to the 3DEP program

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# #3 – Emerging LiDAR Technology

There are new LiDAR sensors that have been developed for the military utilizing photon counting and geiger mode technologies that allow for high altitude collection combined with very high point densities. In theory these sensors can provide value through efficiency.

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# #3 – Emerging LiDAR Technology

The challenge is “WHEN?” As with any new technology there are many limiting factors to successful deployment. USGS has to weigh these factors before recommending or allowing such technology to be used on 3DEP.

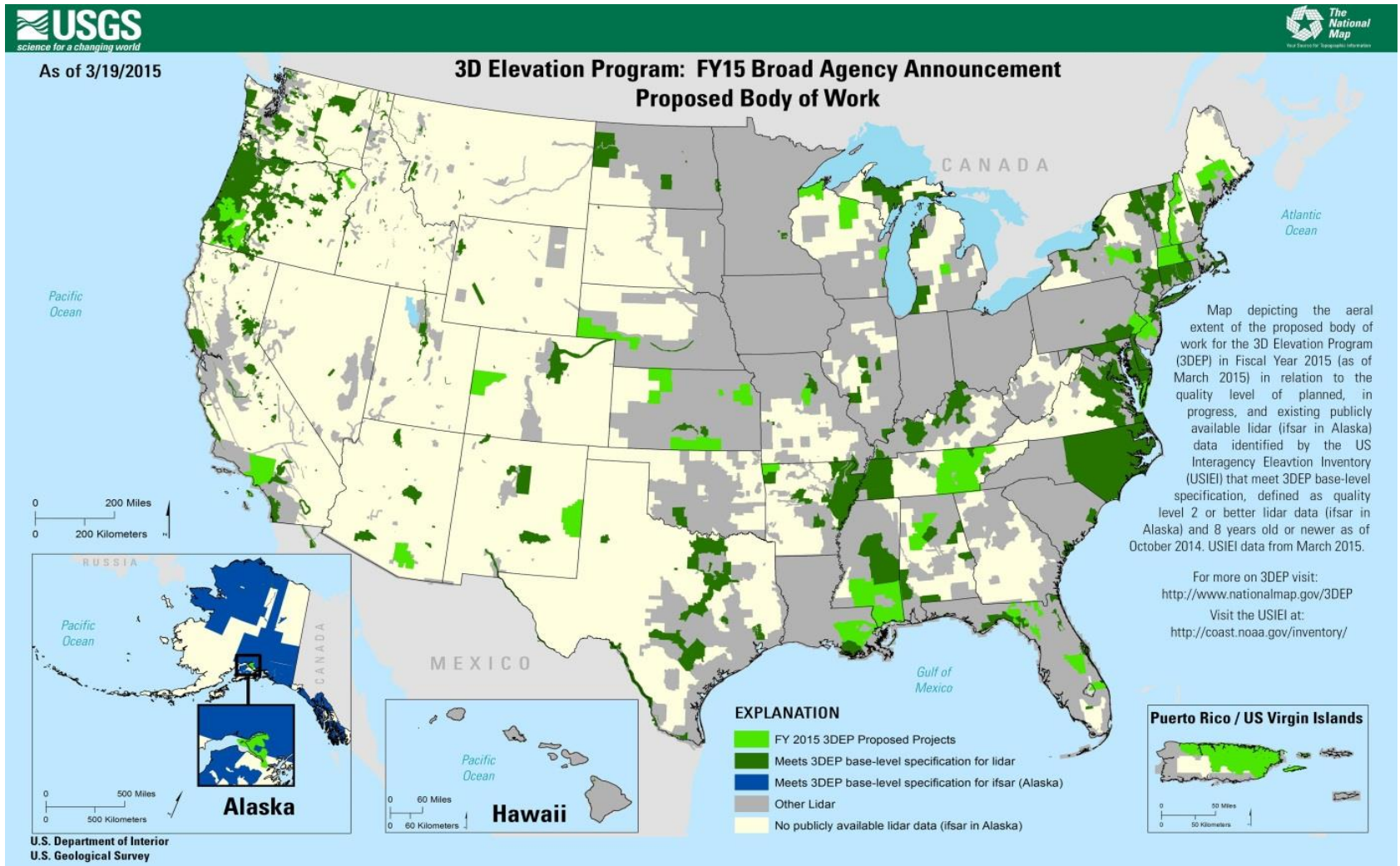


# #3 – Emerging LiDAR Technology

So, our goals are to:

- Provide an overview of photon counting/geiger mode technology
- Highlight both the benefits and risks currently associated with this technology
- Recommend a pilot project to evaluate this technology, inviting all new providers to participate, with USGS evaluating the accuracy results and other considerations

# #1 - NAPA Report Recommendation



# #1 - NAPA Report Recommendation

In 2012, Congress directed the Federal Emergency Management Agency (FEMA) through the Biggert-Waters Flood Insurance Reform Act of 2012 to contract with the National Academy of Public Administration (NAPA) to prepare a report on how FEMA can improve interagency and intergovernmental coordination on flood mapping, including a funding strategy and how FEMA can establish joint funding mechanisms with other federal, state and local governments to share the collection and utilization of data among all governmental users.

# #1 - NAPA Report Recommendation

The resulting NAPA report, *“FEMA Flood Mapping: Enhancing Coordination to Maximize Performance”* included Finding 4d, which stated:

*“The 3DEP plan for a jointly funded program to collect elevation data systematically on a nationwide basis offers a significantly more cost effective alternative to current piecemeal efforts, and will benefit not only FEMA’s flood mapping efforts, but also users across the federal government, as well as states and localities.”*

A Report by a Panel of the  
**NATIONAL ACADEMY OF PUBLIC ADMINISTRATION**  
for the U.S. Congress and the Federal Emergency Management Agency



FEMA Flood Mapping:  
Enhancing Coordination to Maximize Performance



# #1 - NAPA Report Recommendation

In addition to Finding 4d, the report also included Recommendation 15, which stated:

*“The Office of Management and Budget should use the 3DEP implementation plan for nationwide elevation data collection to guide the development of the President’s annual budget request.”*

To implement this recommendation, the report urged OMB to, *“Work with USGS and other agencies to define joint funding mechanisms to support the 3DEP implementation plan.”*

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FEMA Flood Mapping:  
Enhancing Coordination to Maximize Performance



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# #1 - NAPA Report Recommendation

In its guidance to NGAC, FGDC noted that although there is conceptual support for 3DEP among several Federal agencies, coordination across budgets remains a challenge to unifying data acquisition investments into a single, collaboratively funded program.

Therefore, FGDC requested recommendations on advancing the NAPA recommendation.

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# Summary

The objective thus is a collaborative funding mechanism that OMB would incorporate in development of the President's annual budget request, so that unified data acquisition investments will lead to more efficient and effective surveys, and consequently greater benefits for all.

# Considerations

- Recognition of the broad benefits of LiDAR is escalating
- Many agencies are flying LiDAR
- There are broad federal efforts to reduce duplication of effort, which will result in better surveys for all
- Ideally, all surveys are compatible and usable by multiple agencies
- An OMB mechanism is needed to further encourage coordination



# Considerations

- The National Enhanced Elevation Assessment (NEEA) outlined numerous benefits for federal agencies
  - Benefits for agencies include avoidance of costs and a simplified, common process
  - Disadvantage for agencies is loss of control
- Federal acquisition rules & bilateral agreements can play a role
  - National Aerial Photography Program (NAPP) is a potential model
  - Mechanisms need to encompass state agencies
  - Coastal surveys are an example of multiple roles intersecting

# Potential Mechanisms

- Awareness
  - Enhanced awareness of broad benefits of coordination
- OMB Circular A-16 Portfolio Management
  - Coordination of Federal geospatial data assets and investments to most efficiently support national priorities and government missions.
- Budget crosscut
  - Required by the Biggert-Waters Act
- Appropriations language
- Potential legislation

# Draft NGAC Resolution

The NGAC endorses the following recommendation in the National Academy of Public Administration's (NAPA) "*FEMA Flood Mapping: Enhancing Coordination to Maximize Performance*" report:

***Recommendation 15:*** *The Office of Management and Budget should use the 3DEP implementation plan for nationwide elevation data collection to guide the development of the President's annual budget request.*

The NGAC encourages the FGDC agencies and OMB to consider and take action to implement this recommendation.

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***National Geospatial Advisory Committee***

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FEMA Flood Mapping:  
Enhancing Coordination to Maximize Performance

