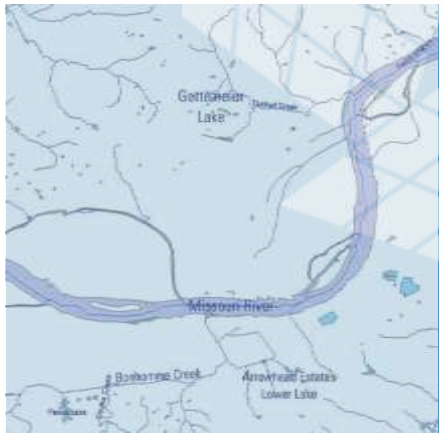
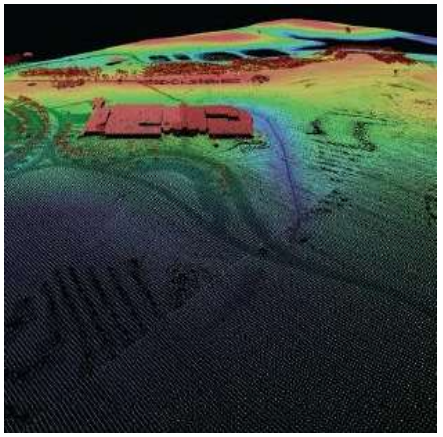
3D Elevation Program (3DEP)





Vicki Lukas

Chief, NGP Topographic Data Services

September 1, 2015

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Geospatial products and services support key priorities

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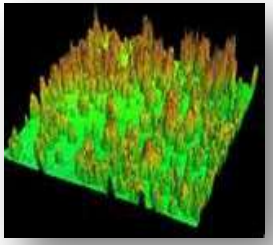


Area of National Leadership	Program Emphasis	DOI/Administration Priorities Supported
A-16 Lead for Terrestrial Elevation	3D Elevation Program (3DEP)	• Climate Action Plan • Building a Landscape-Level Understanding • Ensuring Healthy Watersheds and Sustainable, Secure Water Supplies • Powering Our Future and Responsible Use of Our Resources • Enhancing America's Great Outdoors • Open Water Data Initiative
A-16 Co-Lead for Inland Waters	National Hydrography and Watershed Boundaries Datasets and Open Water Data Initiative	
National Coverage of Topographic Maps	U.S. Topo and Alaska Mapping	

3DEP is a Partnership Program

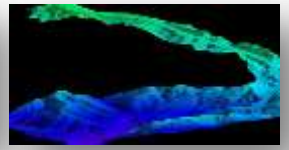
- National lidar coverage with ifsar in Alaska in 8 year
- Address the mission-critical requirements of 34 Federal agencies, 50 states, and other organizations documented in the National Enhanced Elevation Assessment
- Return on investment 5:1, $690 M annually if fully implemented
- Leverage the capability and capacity of private industry mapping firms
- Achieve a 25% cost efficiency gain by collecting data in larger projects
- Completely refresh national elevation data holdings with new lidar and ifsar elevation data products and services


Natural Resource Conservation


Infrastructure Management


Flood Risk Mitigation


Precision Farming


Land Navigation and Safety


Geologic Resources and Hazards Mitigation

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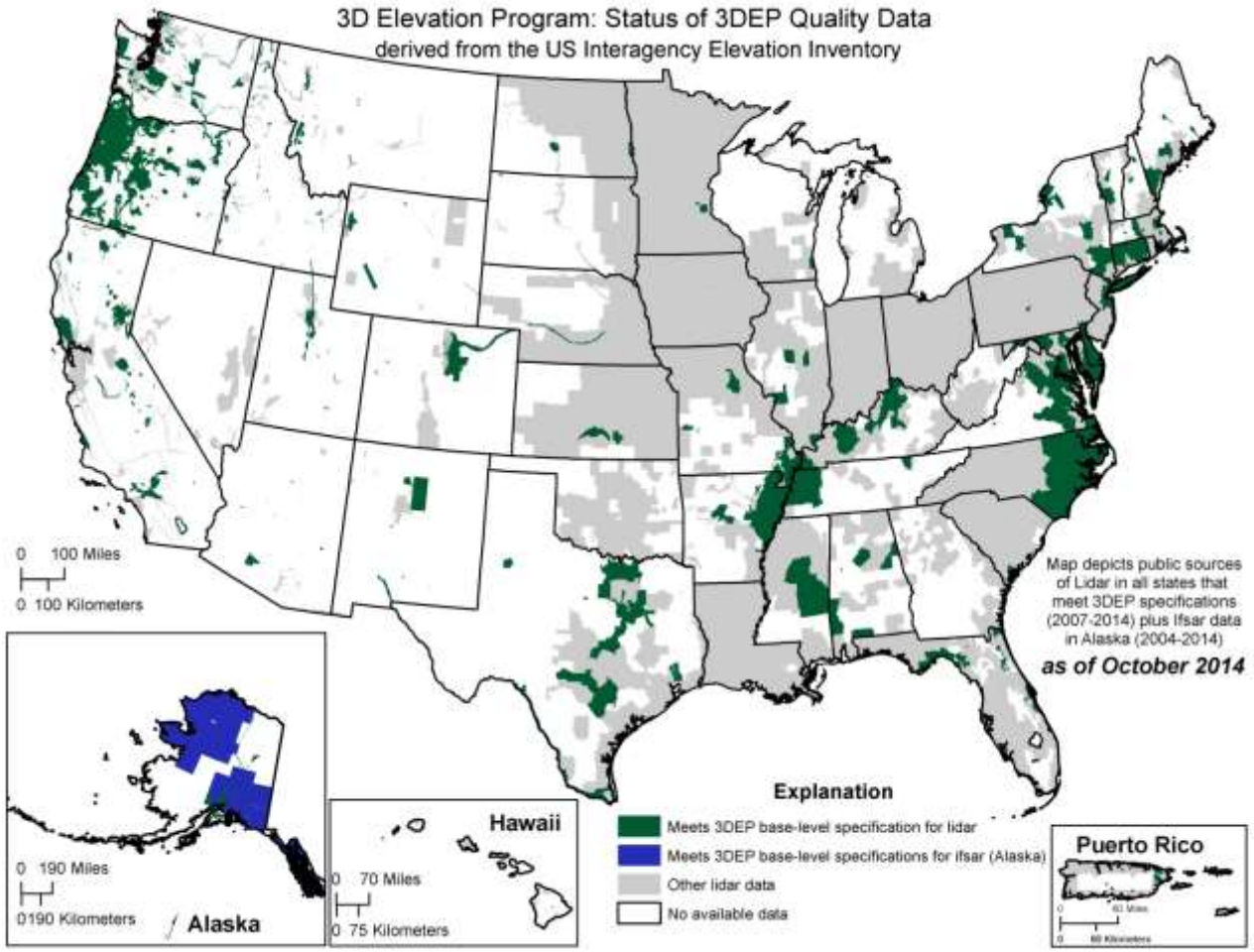
U.S. Interagency Elevation Inventory

2014 Status Map of Publicly Available Lidar and Ifsar



- **Only 6.8% of the lower 49 states meets the 3DEP quality goal (QL2 or better) lidar coverage**
- **About half the State of Alaska needs ifsar data to complete the 3DEP goal for coverage**

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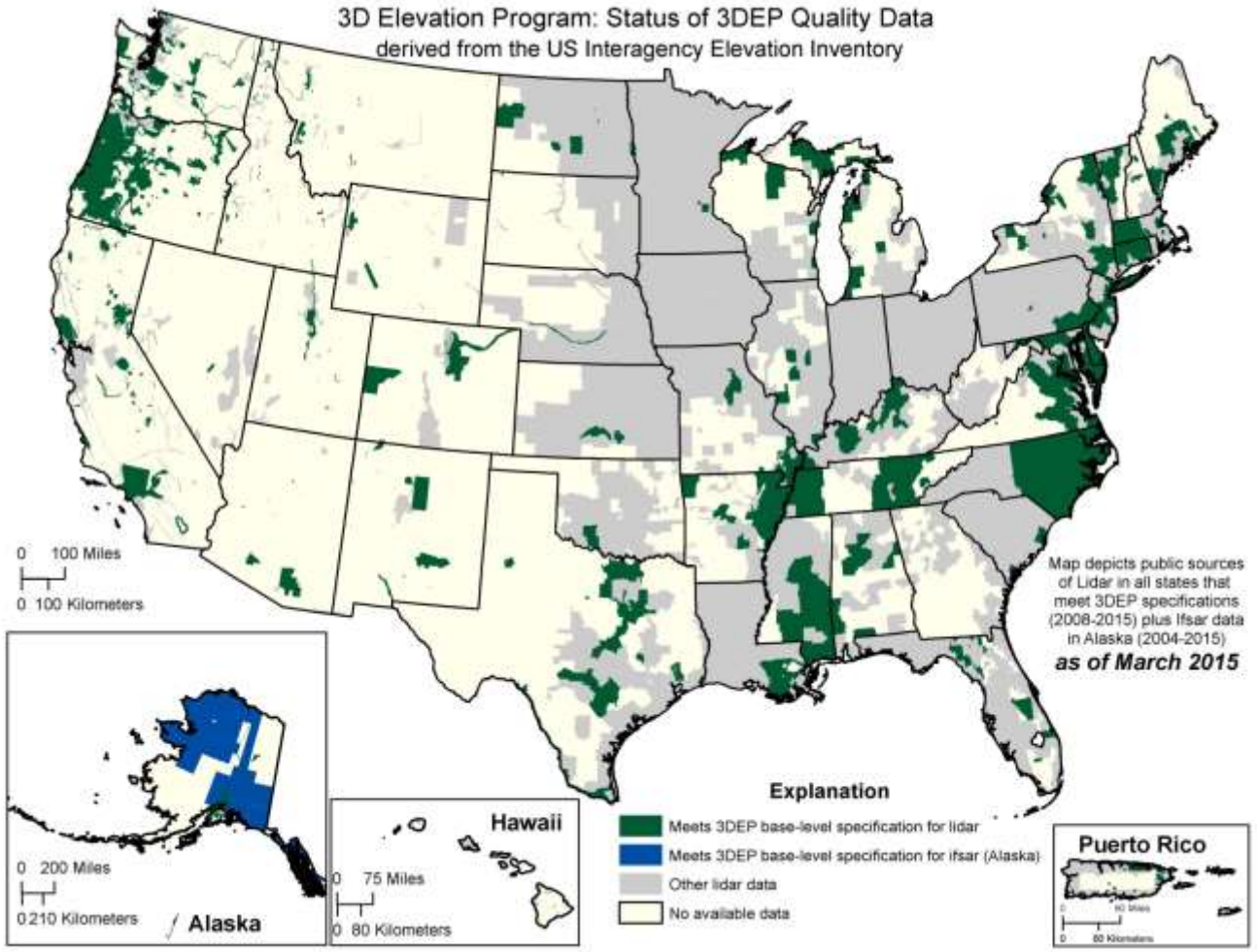
To view the inventory see: www.csc.noaa.gov/inventory

U.S. Interagency Elevation Inventory

2015 PRELIMINARY Results – Subject to Revision

Will be published in 3DEP FY15 Annual Report



- **3.1% (110,897 sq. mi.) of entire US was acquired to 3DEP quality in FY15 -** includes complete, in progress, and planned/funded
- **10.2% of Lower 49 Meets 3DEP quality (308,648 sq. mi. -** 2008-2015 only)
- **54.5% of AK Meets 3DEP quality (QL5 – ifsar, 314,834 sq. mi.)**

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Alaska Ifsar Skybreaking II Celebration

- Commemorate surpassing 50% acquisition of Alaska ifsar
- Over 250 attended on August 18, 2015 in Anchorage, Alaska
- Extensive media coverage
- Speakers included:
  - Alaska U.S. Senator Lisa Murkowski, Governor Bill Walker
  - DOI Secretary Sally Jewell (via video), DOI Principal Deputy Assistant Secretary for Water and Science Jennifer Gimbel
  - Alaska DOT Commissioner Marc Luiken, Alaska Elevation Working Group Lead Nick Mastrodicasa

Alaska 3DEP Ifsar Acquisition Status

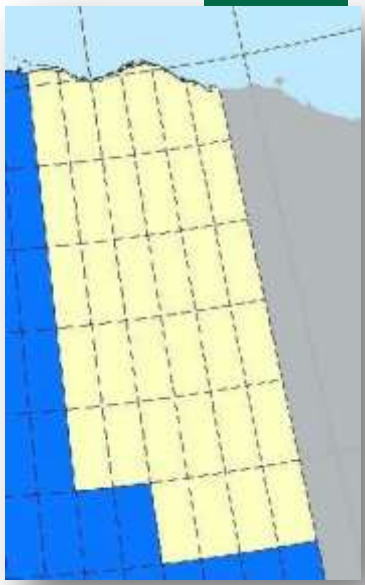
- Planned to exceed 60% fully funded coverage by end of FY15
- Over $1.4M EOY funds provided by Federal agencies
- Alaska's financial situation impacting State contributions
- Over $6.3M total contributed in FY15 by BLM, FWS, NPS, NRCS, USFS, USGS

Planned ifsar status by end of FY15

Alaska Mapping Executive Committee

- AMEC meeting held in conjunction with Skybreaking II
- Strategies for next 18 months
  - Ensure visibility of AMEC/3DEP Alaska ifsar goal across Federal and State Administration transitions
  - Accelerate funding to meet ambitious completion goal – near term focus on completing ifsar acquisition for NE
  - Develop background paper for U.S. Senator Lisa Murkowski's staff
  - Ensure tie between Alaska ifsar collection and Arctic DEM goal during U.S. Chairmanship of the Arctic Council

Complete NE Arctic Ifsar, 34 1-degree cells



Tie 3DEP AK ifsar goal to Arctic Council DEM goal

Geospatial Products and Services Contract

Revised DRAFT Schedule for Establishing GPSC3

- A suite of Indefinite Delivery Indefinite Quantity (IDIQ) contracts mechanism to obtain a broad scope of geospatial data services throughout the United States
- Supports *The National Map*, but may be used by other government agencies
- To ensure data quality and efficiency, the USGS prefers that partners use the GPSC when possible and practical for 3DEP data acquisition
- **Past Delegated Procurement Authority was $250M over 5 years – GPSC3 will increase it to $750M to accommodate increased production for 3DEP**

Process Step	Initial Date	Revised
RFPs sent out to selected firms	July 8	Late Sept/ early Oct.
RFP evaluation and negotiations	July 8-28	November
Begin awarding contracts	Sept. 21	December

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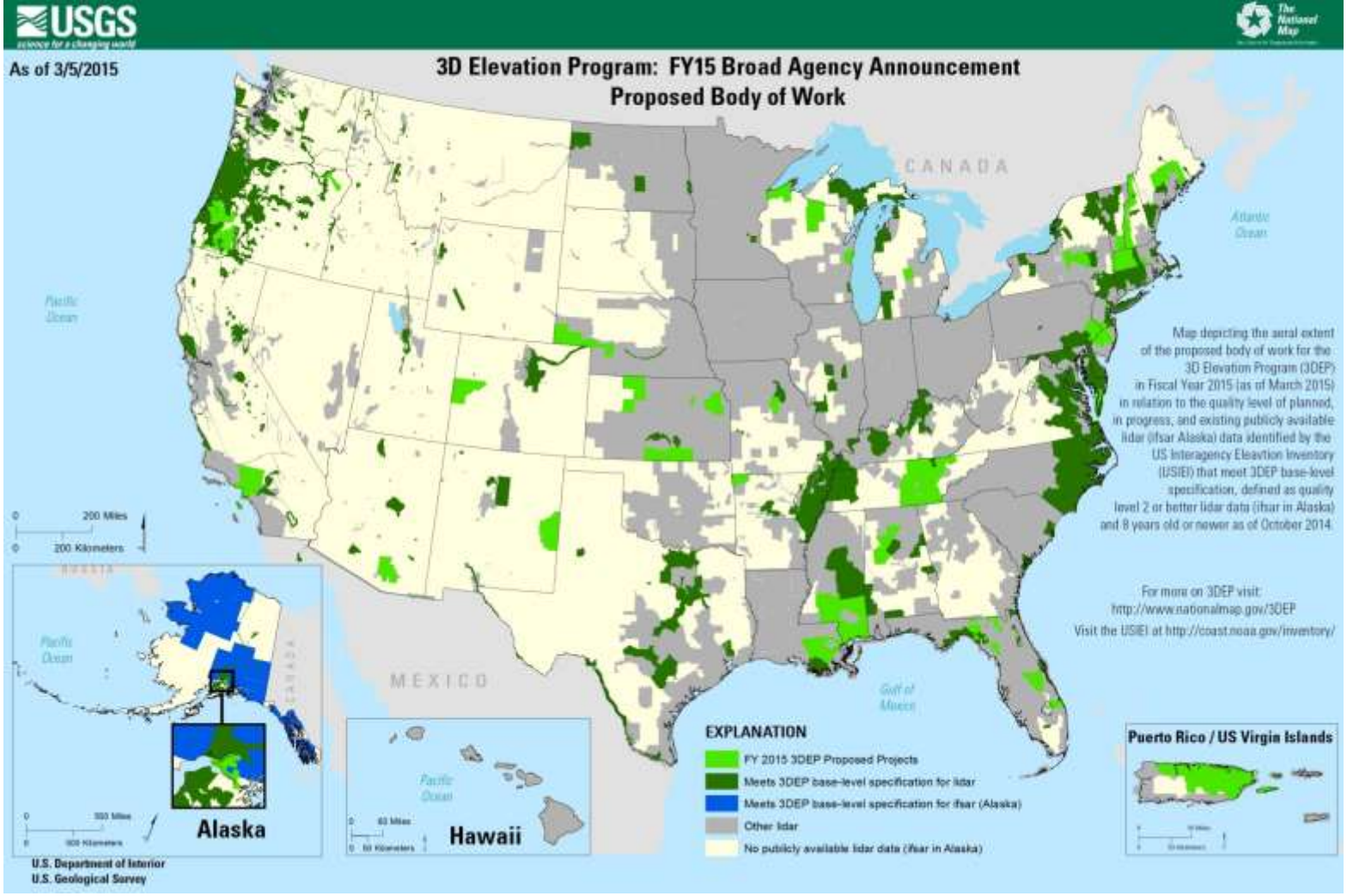
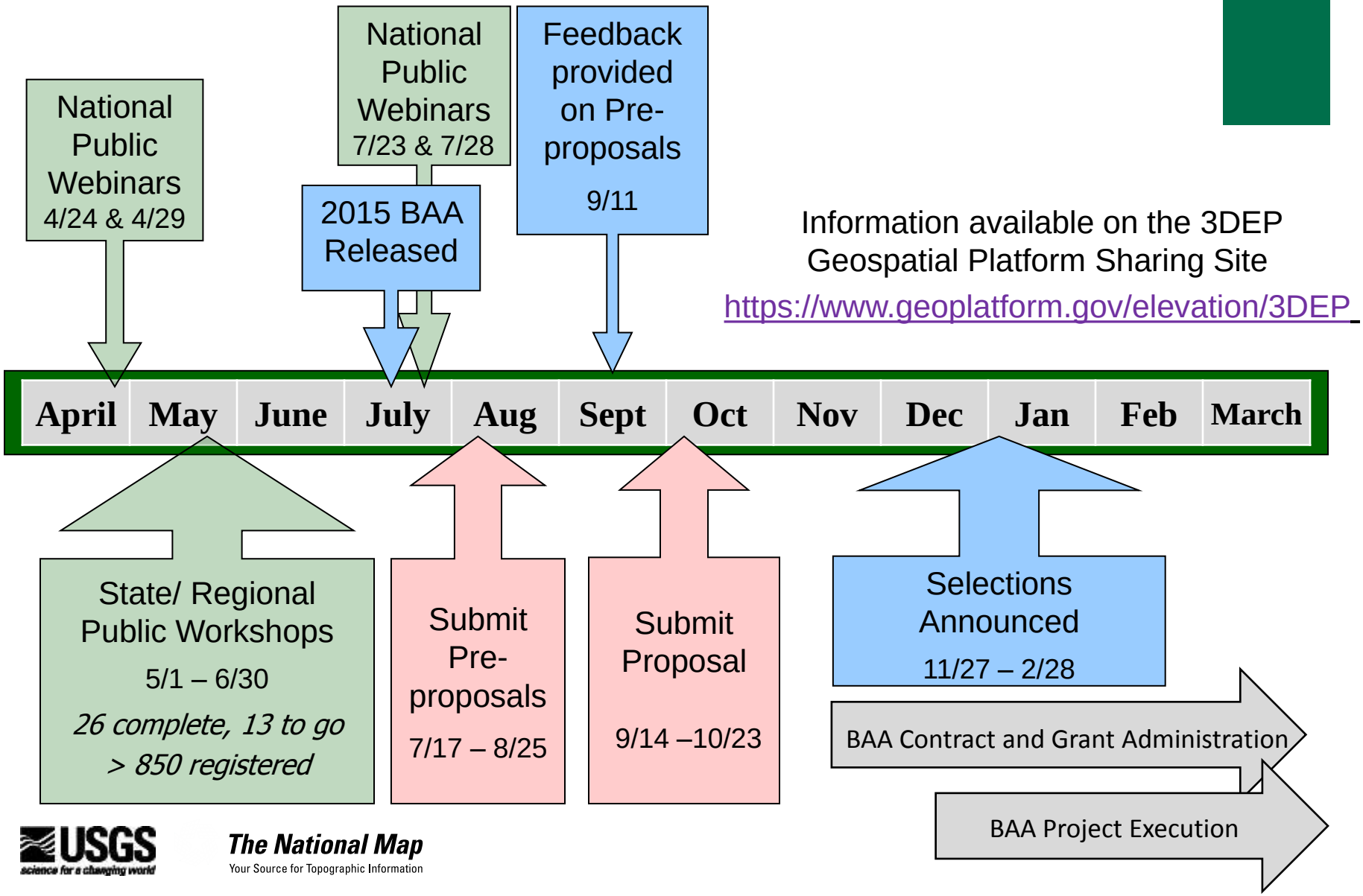
Note that there are still GPSC2 contracts that remain active well into 2016



- 72 pre-proposals submitted, requested funds over $50M, 29 were funded
- Total estimated committed = $9.8M, with a total estimated value of $26.5M (estimates will be refined)
- The $9.8M is comprised of USGS, FEMA and NRCS funds
- Total square miles is estimated at 94,114, with average project size of 3,245 sq mi
- Additional selections may follow with remaining funding as project estimates are refined and FY15 funding is clarified

3DEP BAA Timeline



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FY15/16 Broad Agency Announcement

Preliminary Look at Pre-proposals

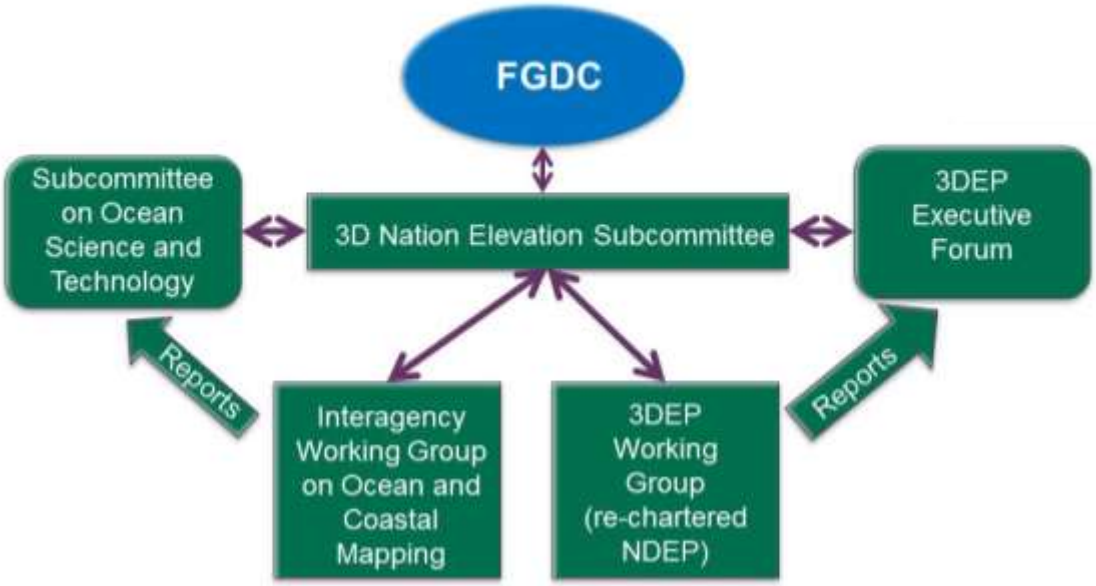
- Recommended but not required
- Deadline August 25
- Received 38 pre-proposals for projects in 26 states, requesting coverage of 132,000 square miles
- Plan to publish a map of proposed geographic areas
- FY15/16 Reference documentation: http://nationalmap.gov/3DEP/BAAReferenceMaterials.html
- Full proposals due Oct. 23

3DEP Executive Forum

Topics for the next meeting – September 29

- Approve charters for the 3D Nation Elevation Subcommittee, Executive Forum and 3DEP Working Group
- OMB Budget cross cut results and next steps

Proposed Governance Structure



H. R. 4348—512

TITLE II—FLOOD INSURANCE

Subtitle A—Flood Insurance Reform and Modernization

SEC. 100201. SHORT TITLE.

This subtitle may be cited as the "Biggert-Waters Flood Insurance Reform Act of 2012".

SEC. 100220. COORDINATION.

(a) INTERAGENCY BUDGET CROSSCUT AND COORDINATION REPORT.—

(1) IN GENERAL.—The Secretary of Homeland Security, the Administrator, the Director of the Office of Management and Budget, and the heads of each Federal department or agency carrying out activities under sections 100215 and 100216 shall work together to ensure that flood risk determination data and geospatial data are shared among Federal agencies in

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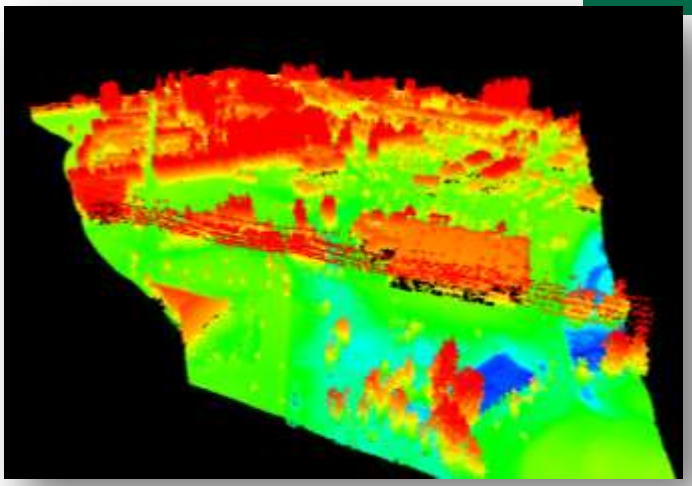
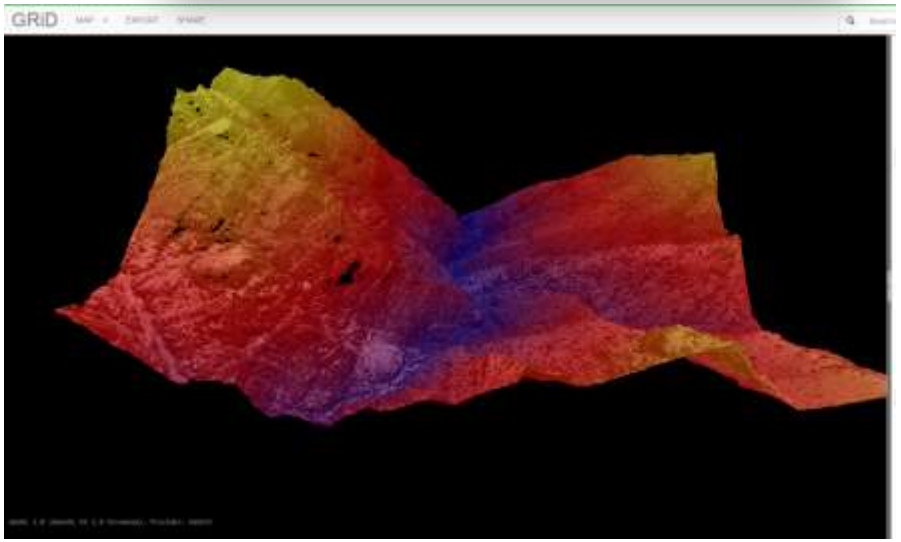
Emerging 3D Technologies Working Group

E3D-WG under the 3DEP Working Group (Formerly NDEP)

- Result of Emerging Lidar Technology Federal Roundtable meeting of 9/14
- Members from USGS, NOAA, NGA, FWS, USACE, USFS, NRCS
- Coordination with NGA-led Lidar Interoperability Work Group (LIWG)
- Better understand emerging instruments: potential strengths and limitations
- Come to Federal consensus on whether these instruments can meet 3DEP requirements
- Current focus on high altitude and topobathy lidar systems





Emerging 3D Technologies Working Group

Emerging Lidar Technical Assessment

- Study contracted through the USGS Geospatial Products and Services Contracts (GPSC)
  - Single Photon Lidar – Sigma Space, HRQLS
  - Geiger Mode Lidar – HARRIS Corp., Intelliearth
- Study area (red outline)
  - 500 sq. mi. overlaps recently acquired Sandy QL2 data in Connecticut
  - Includes landcover and terrain variability, portions of Hartford including the main airport, and rivers and lakes to test hydro-flattening
  - Includes leaf-on QL2 linear lidar data acquisition (yellow outline)
  - Data collected in August

Emerging 3D Technologies Working Group

Emerging Lidar Technical Assessment

- Dewberry, Woolpert and E3D-WG will independently assess data, reports will be reviewed by E3D-WG and results presented at ILMF and published
- Absolute Accuracy will evaluated using ASPRS Positional Accuracy Standards for Digital Geospatial Data :
  - Relative to the existing QL2 Lidar data
  - Relative to the new QL2 Lidar data
  - Absolute to ground surveyed points
- Study evaluates how the data meet the accuracy standards set forth by USGS Lidar Base Specification v 1.2
- Study does not evaluate potential cost for implementing these technologies
  - Cost efficiency will be assessed if data are found to meet 3DEP accuracy standards
  - Future data acquisition at higher altitudes will require additional assessment

Thank you!