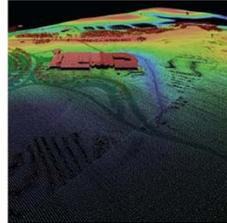
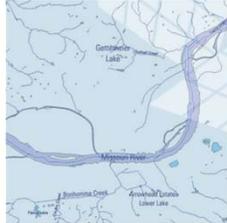
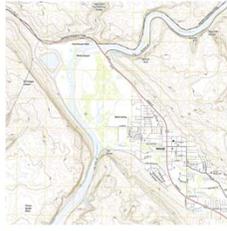




Overview of the
3D Elevation Program
(3DEP)
Broad Agency
Announcement (BAA)
Process



August 2016

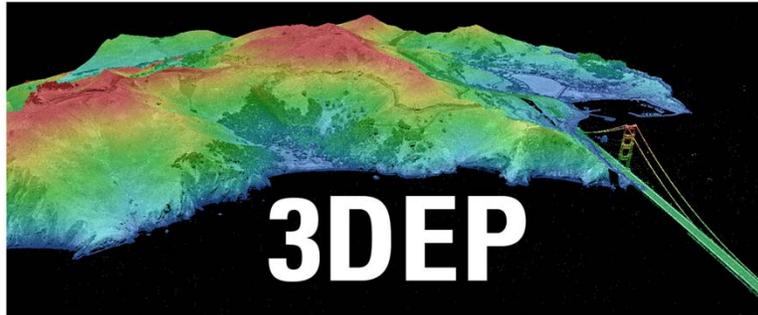


3D Elevation Program (3DEP)

BAA National Webinar - PURPOSE

2

- Provide a comprehensive overview of the Fiscal Year 2016 Broad Agency Announcement (BAA) solicitation and application process



gs_baa@usgs.gov

Good afternoon and welcome everyone to the 3D Elevation Program public webinar.

My name is Diane Eldridge, I am here today representing the 3D Elevation Program, where I serve as the 3DEP Data Acquisition Coordinator. Oversight for 3DEP is the responsibility of the US Geological Survey; operationally the program is managed and operates within the National Geospatial Program. I am joined by my colleague Ms. Allyson Jason; Allyson will be facilitating the Question and Answer portion of this afternoon's webinar.

We greatly appreciate your interest in the 3DEP program and are happy that you have taken the time to join us.

The purpose of today's webinar is to provide a comprehensive overview of the Fiscal Year 2016 Broad Agency Announcement (BAA) solicitation and application process

+

3D Elevation Program (3DEP)

BAA National Webinar - LOGISTICS

3

- Everyone but the speakers are on mute for the duration of the call
- Please use Q&A feature to submit questions – see the panel on the right
- Questions will be addressed after the presentation
- If we can't address all your questions during this session we will follow up by posting answers to the webpage:
 - cms.geoplatform.gov/elevation/3DEP/PublicMeetings
 - <http://nationalmap.gov/3DEP/FY17BAA.html>



Before we dive into the agenda, let's cover a bit of housekeeping.

- Everyone but the speakers are on mute for the duration of the call
- Please use the Q&A feature to submit questions
- Questions will be addressed after the presentation
- If we can't address all the questions during this session we will follow up by posting answers on both of the webpages listed on the slide
- Throughout the submission window questions can be submitted to gs_baa@usgs.gov. You will see this e-mail address on the bottom right of a number of slides in this presentation. Responses to questions submitted to the baa mail box will be responded to individually and then generified and added to the list of BAA FAQs so that all may benefit from the additional information.
- To make a response generic we may say answer the original question ... we would encourage Smith County whereas the generic response might be ... we would encourage any county ...

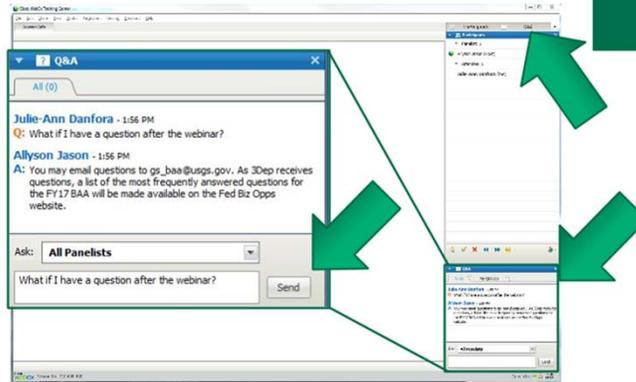
+

3D Elevation Program (3DEP)

BAA National Webinar - LOGISTICS

WebEx Q&A

4



gs_baa@usgs.gov

I will pause a second so that Allyson can explain how to use the Q & A feature in Web-Ex Training. She will also explain her approach to grouping and prioritizing questions that come in during the presentation.



3D Elevation Program (3DEP)

BAA National Webinar - AGENDA

5

- **3DEP Program Overview**
- **Summary of the Fiscal Year 2014 and 2015 BAA Results**
 - *Project Locations*
 - *Funding*
- **Overview of the Fiscal Year 2016 BAA Process**
 - *Timeline*
 - *Communications - Web Pages*
 - *Submission of Questions*
 - *Requirements*
 - *Project Viewer – SeaSketch*



gs_baa@usgs.gov

Moving on to the agenda, again we have a full presentation, designed to provide a comprehensive look at the 3DEP BAA process.

Our presentation will begin with a brief 3DEP Program Overview.

Next we will provide a summary of our FY14 and FY15 BAAs. This summary will assure that all applicants are aware of existing, in-work and planned data. For those new to the process it will inform you on the scope and size of successful BAA projects. For those familiar with the process this review will be timely as later in the presentation we will highlight the differences in the FY17 application process.

The primary purpose of today's meeting is to introduce and provide an overview of our Fiscal Year 2016 BAA process which will result in project awards in FY17 .

As part of this discussion, we will present the timeline, discuss the criteria for the selection of BAA projects, and point you to our Web pages which are the primary means of keeping you informed.



3D Elevation Program (3DEP)

BAA National Webinar - AGENDA

6

- **Overview of the Fiscal Year 2016 BAA Solicitation**
 - *FY16 Solicitation*
 - *Attachment B 3DEP FY17 Consolidated Federal Areas of Interest*
 - *Attachment C 3DEP Funding Partners FY17 High Priority Areas for Lidar Data Acquisition*
 - *Attachment D 3DEP Status Graphic (Existing, In-work and Planned with Funding)*
- **Overview of the Fiscal Year 2016 Application Process**
 - *Attachment A BAA Proposal Submission Tool*
 - *Attachment E Applicant Validation of Funding Partners*
- **Questions and Answers**



gs_baa@usgs.gov

In addition we will review the individual components of the 2016 solicitation and walk you step by step through the application process.

Finally we will address your questions. The responses to any questions remaining at the conclusion of this webinar will be consolidated and posted to our websites.

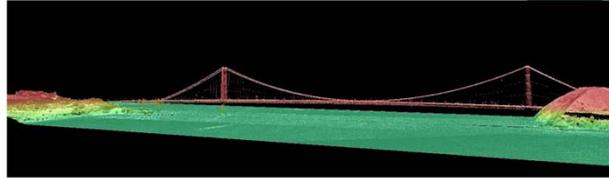
So lets get started.

+ 3D Elevation Program (3DEP)

7

Applies ground-breaking lidar technology to acquire and distribute 3D data

Addresses a broad range of critical applications of national significance



- 3D data include surface elevations and natural and constructed features
- 3DEP increases the quality level of lidar being acquired to enable more accurate understanding, modeling, and prediction
- Goal to acquire national coverage in 8 years



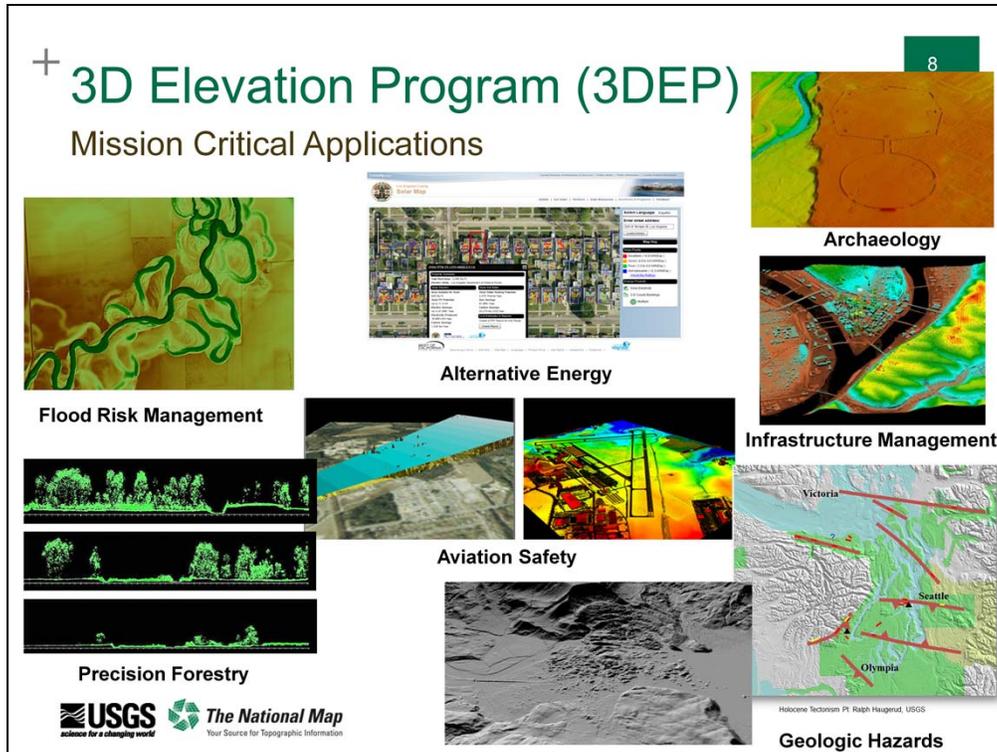
You may be familiar with the long history of the USGS in providing elevation data, first through contours on our topographic maps and later by digital data in the National Elevation Dataset.

The 3D Elevation Program is our newest effort to provide national elevation data.

We believe this program is transformational because it applies ground-breaking lidar data to provide not only a higher resolution bare earth elevation surface, but it also provides us with 3-dimensional data of all the natural and constructed features. These data are transforming industries and creating new applications never before possible.

The program also calls for increasing the quality level of lidar data being acquired because it meets many more mission critical applications.

Our goal is to acquire national lidar coverage in 8 years, with ifsar data in Alaska.



For most of our presentations we like to demonstrate the many mission critical applications of 3DEP. Today we have limited time for this overview, so I am highlighting just a few of them.

Flood risk management is one of the uses that has the highest dollar value and societal benefits from 3DEP, and FEMA has been a big partner and supporter of 3DEP.

Other applications include, precision forestry and alternative energy – this example is a Los Angeles County application that is used to determine solar potential.

Lidar helps detect obstacles to air navigation for aviation safety

Geologic hazards is a critical application area for lidar – here we have an image of the tragic Oso WA landslide, and an image showing where lidar revealed previously unmapped faults.

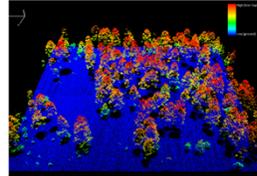
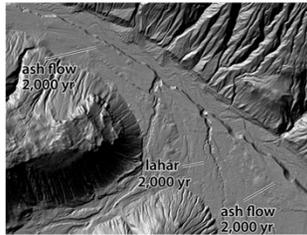
3DEP is useful to archaeology and to infrastructure management which with our aging infrastructure is a growing national concern.

Again these are just a few of the important uses of 3DEP that remind us why this effort and our collaboration is so critical to the Nation.

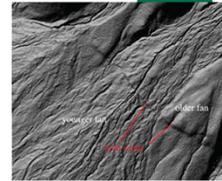
+ 3D Elevation Program (3DEP)

Mission Critical Applications

Natural Hazards: Identifying features in heavily forested and snow covered Glacier Peak



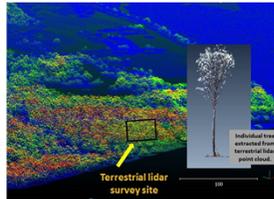
Climate and Land Use Change: Combining Landsat and lidar data to support terrestrial biomass estimates



Energy and Minerals: Investigating geology in the Southwestern US to provide information on mineral and energy resources

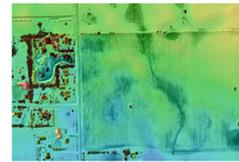


Water: Modeling flood inundation along the Upper Mississippi

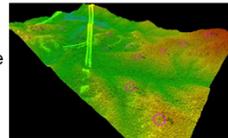


Core Science Systems: Assessing the impact of fire on forest structure and wildlife habitat in the Great Smoky Mountains

Ecosystems: Measuring effects of hurricanes and other disturbances on vegetation in Northeastern US



Environmental Health: Identifying 3D relationships between agricultural fields, windbreaks, and buildings to support environmental health studies



As the program matures and additional data become available, program participants are discovering new and innovative ways to utilize the data.

The applications highlighted on this page represent utilization of the data within the USGS where each of the USGS mission areas have explored and discovered uses of lidar data to support their missions.

The USGS is not alone in our widespread use of the data. Each of the agencies contributing funding to the program have similarly discovered the value of the data and are experiencing an incredible return on investment for the dollars they commit to the program.

3DEP is a collective effort to develop partnerships to fund the program and accelerate the rate of acquisition to enable these benefits on a national level.

+ What is the 3D Elevation Program?

10

3DEP is a call for community action to...

- Address the mission-critical requirements of 34 Federal agencies, 50 states, and a sampling of local governments, tribes, private and not-for profit organizations documented in the **National Enhanced Elevation Assessment**
- Return more than \$690 million annually in new benefits, ROI = 5:1
- Leverage collaboration among Federal, states, local and tribal partners to systematically complete national 3D data coverage in 8 years
- Leverage the capability of private industry mapping firms, create jobs
- 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



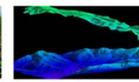
Infrastructure Management



Flood Risk Mitigation



Precision Farming



Land Navigation and Safety



Geologic Resources and Hazards Mitigation



We like to call 3DEP a call for community action because it is an effort to address more than 600 mission-critical needs that were reported by 34 Federal agencies, 50 states, and a sampling of other organizations and documented in the National Enhanced Elevation Assessment of 2012.

3DEP is designed to provide a 5 to 1 return on investment and a conservative dollar benefit of more than 690 million dollars annually if implemented in 8 years.

3DEP is also a call for community action because it is a partnership that depends on the collaboration of Federal, state, local, tribal and other partners to fund the data acquisition.

3DEP leverages the expertise and capacity of the private sector mapping firms that acquire the data for us through the USGS Geospatial Products and Services Contract, and through partner acquisitions.

By acquiring data in larger project areas, 3DEP will help all of the partners realize a cost efficiency gain we estimate to be about 25% lower costs.

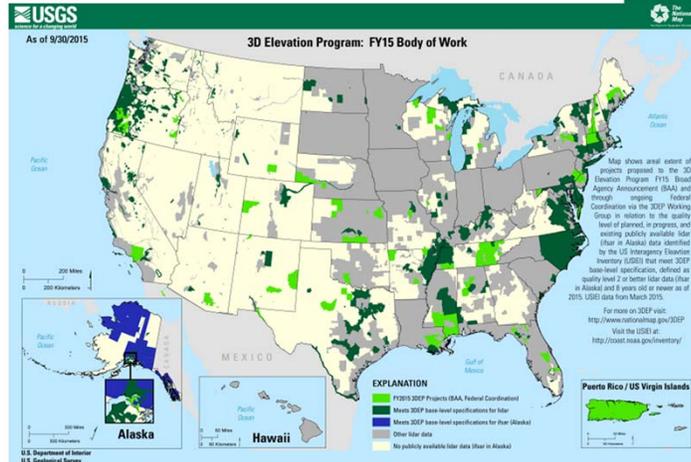
And of course we will completely refresh our publicly available, national data holdings to replace the patchwork of quality and sources with consistent, new lidar and ifsar data products and services. In 2015 the program began delivering these new products and services through The National Map.

Summary of Fiscal Year 2014 BAA Results

11

Awards Made in Fiscal Year 2015

- 29 projects
- USGS, FEMA HQ, and NRCS NCGE committed \$10.8M, regional federal offices, state and local agencies contributed \$13.1M for a total project value of \$23.9M
- Project awards ranged from \$61K to \$1.3M; average award was \$355K
- Average BAA award covered 36% of the cost of the project; range 14% - 50%.
- Average project size 3100 square miles; range 550 – 11,900



Results available at <http://nationalmap.gov/3dep>

In July of 2014 the USGS issued the first Broad Agency Announcement to solicit funding partnerships for 3DEP. There was tremendous interest in the program, we received 72 pre-proposals and ultimately funded 29 projects which are displayed here on the graphic, shown in the bright green.

The federal offices (USGS, FEMA HQ and NRCS NCGE) that provide funds to support BAA awards collectively contributed \$10.8M. BAA partners (regional federal agencies, state and local offices) contributed \$13.1M to increase the value of the BAA projects to just under \$24M.

In 2015 project awards ranged from \$61K to \$1.3M, the average award was \$355K.

The average BAA award covered 36% of the cost of the project, ranging from a low of 14% to our maximum contribution of 50%.

The average project size was 3100 square miles, with a range from 550 – 11,900 square miles. If you were to look closely at the data you would realize that the larger dollar amounts are aligned with the larger projects.

Because you may not be able to read the small print on the graphic, the gray represents all existing lidar data, the dark green represents existing data that meets 3DEP specifications, and again the lighter green represents the 95,000 square miles of new data that will be added to the national lidar holdings as a result of FY14 BAA partnerships.

For additional details on the FY14 BAA including a list of the organizations receiving awards you are encouraged to visit the website noted on the bottom of the slide.

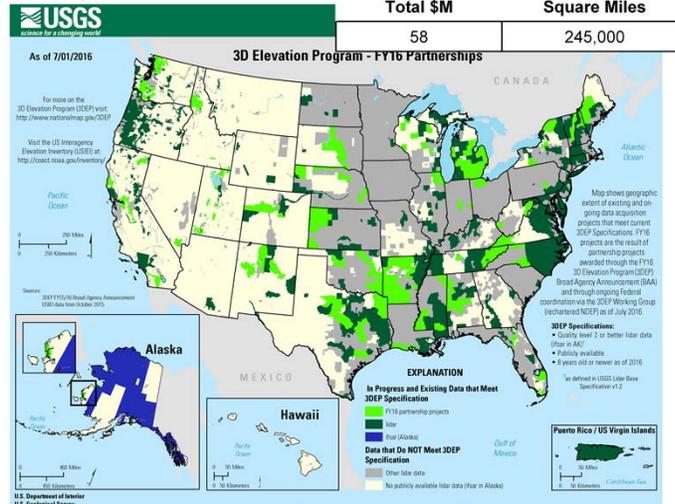
Summary of FY 2016 3DEP Partnerships

12

BAA + Additional Federal Investments

FY16 3DEP Lidar (BAA, Federal Projects)
Planned and Funded Projects
(as of July 2016)
*acquisition for some projects will occur in FY17

- BAA supported 29 projects
- For BAA projects - USGS, FEMA HQ and NRCS NCGE committed \$9.8M, regional federal offices, state and local agencies contributed \$17M for total BAA project value of \$26.8M
- BAA project awards ranged from \$8K to \$797K, average award was \$330K
- Average BAA award covered 38% of the cost of the project
- Average project size 4220 square miles



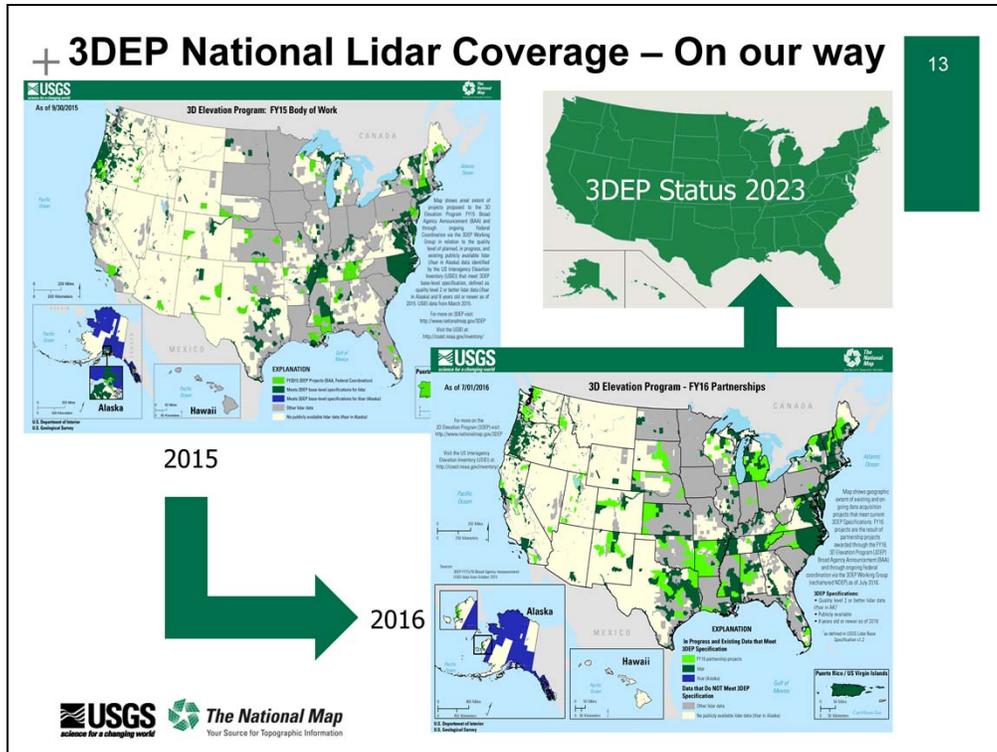
Results available at <http://nationalmap.gov/3dep>

In FY16, our BAA numbers were very similar.

We supported 29 projects. The USGS, FEMA HQ and NRCS NCGE direct contributions to BAA projects has been consistent, however the **overall federal contribution to 3DEP rose significantly**. 3DEP BAA projects resulted in \$26.8M of project work which will result in 123,000 square miles of new lidar data. As of July, total FY16 contributions to 3DEP projects by 3DEP stakeholders is up around \$58M, supporting a total of 245,000 square miles of project work. These are preliminary figures that will be modified. Some new projects will be added prior to end of the FY; the final contracts for some of these projects will likely not be completed in FY16 but likely will be contracted before the end of the calendar year in preparation for the 2017 spring acquisition window.

The growth in federal contributions outpaced the growth in BAA submissions. Many federal acquisitions moved forward without state and local partners. For FY17 Federal agencies have worked hard to identify their high priority areas in sufficient time to include their AOIs in the BAA to advertise these partnership opportunities. We will look at those high priority areas in a few minutes.

The program was happy to see that our average project size has increased to 4220 square miles, an increase of over 1000 square miles over the FY15 average project size. The cost efficiencies gained with larger acquisitions reduce the cost of the project.

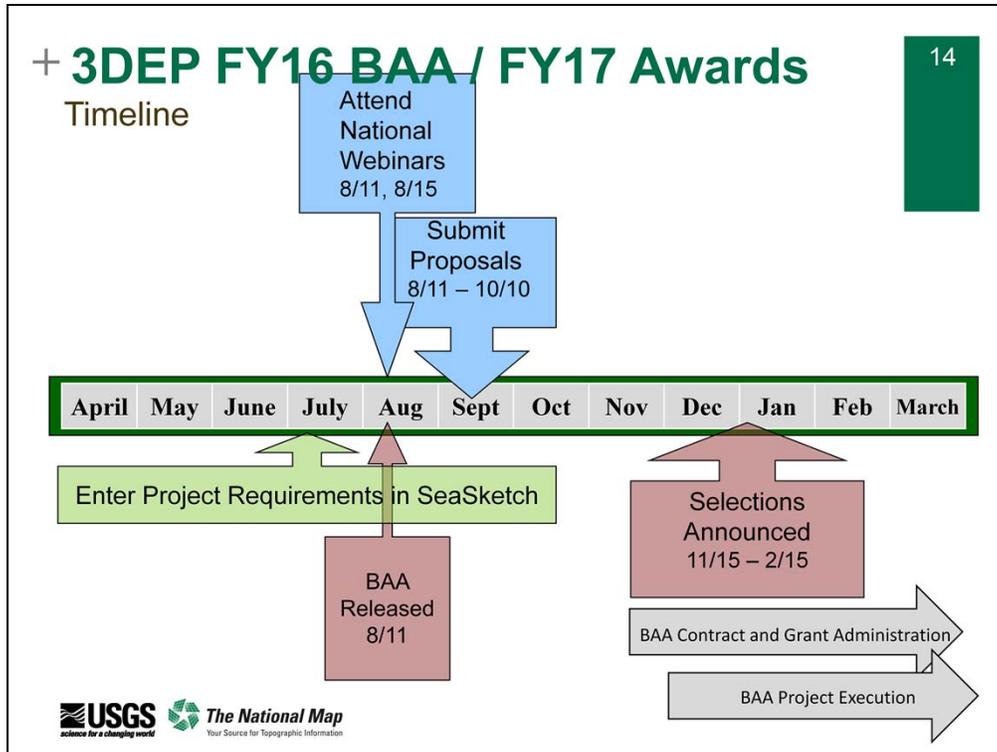


This slide represents the growth in the program over the last two years.

We can note significant increases in data being acquired in the Northwest, the South/ Southeast, the Mid-Atlantic and the Northeast. We are even beginning to see some acquisitions in the West. These data will be of immense value to these communities.

However as our goal is national coverage, there is still work to be done.

The BAA represents an opportunity to forge partnerships and take advantage of all available financial resources to acquire data to satisfy your requirements.



For those familiar with the Lidar acquisition process, you are aware that the entire project lifecycle, from formulation to product delivery is often 18 to 24 months, sometimes longer. This timeline focuses on the near term actions of gathering and reviewing requirements, submission of a BAA proposal and the selection and notification of a BAA partnership award.

The items in rose, along the bottom, are USGS actions. The items in blue across the top are your actions. The items in green apply to all stakeholders.

The BAA was posted August 11th to both FedBizOpps.gov and Grants.gov. The 3DEP team held public webinars on both August 11th and August 15th. The sessions will be recorded and the slides, the recording and the webinar and additional Q&A s will be posted on our websites. Proposals are due October 10th. While the BAA does remain open all year long, submission received by the initial deadline receive priority consideration for funding.

Initial project selections will be made beginning November 15. New this year, the USGS will be allowed to notify you as soon as your project has been recommended for award. What does this mean. It is likely that once again the federal government will be operating on a continuing resolution when our fiscal year begins on October 1st. During a CR, our ability to spend or commit funding is limited. While the evaluation team meets immediately following the initial deadline to review and prioritize projects, in the past we were not allowed to notify applicants of their status until we had the authority to spend money. This year we will be allowed to notify you that your project has been recommended for award pending the availability of funding. This will provide you early notification of our intent to fund your project so you may move forward with finalizing the details of your project and initiating the funding agreements needed to secure your funds.

Applicants choosing to make use of the Geospatial Products and Services Contracts (GPSC) will work with a 3DEP and/or GPSC POC to complete the required acquisition documents; applicants receiving cooperative agreements will work with a USGS grants specialist.

3DEP FY16 BAA / FY17 Awards

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Communication

<https://cms.geoplatform.gov/elevation/3DEP> <http://nationalmap.gov/3DEP/index.htm>

The screenshot shows the GEOPLATFORM.gov website. The main heading is "3D Elevation Program (3DEP) FY16/17 Broad Agency Announcement (BAA) Information Sharing Site". Below this, there is a "What is 3DEP?" section with a paragraph of text. A "3DEP Partnership Opportunities" section follows, containing links for "Attend a Public Meeting", "View the Proposed Collection Areas", and "Propose an Area of Interest". At the bottom, there is a link to "Links to FY16 Opportunity will be made available here." and logos for USGS and The National Map.

The screenshot shows the nationalmap.gov/3DEP/index.htm website. It features a header with the USGS logo and "The National Map" branding. The main content area includes an "Introduction and Goals" section with a 3D visualization of terrain. Below this is a "3DEP Data Acquisition Partnership Opportunities" section, which includes a "NEW! FY17 USGS Broad Agency Announcement (BAA) for the 3D Elevation Program (3DEP)" and a "Public Webinars" section. A map of the United States is also visible, showing the collection areas for the program.

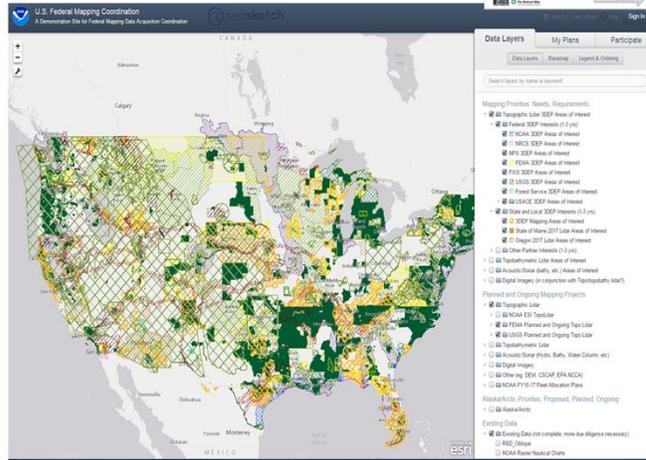
We are now going to move to a series of web pages and tools that will provide you detailed information on our FY17 program.

The 3DEP program posts information on our internal USGS 3DEP Web pages. In addition we share information on the Geospatial Platform. The pages are fluent and we encourage you to check back frequently for new content.

3DEP FY16 BAA / FY17 Awards

Enter and Review Project Requirements in SeaSketch

The [3D Elevation Program](#) and the Interagency Working Group on Ocean and Coastal Mapping have established a system to share information about areas of interest and proposed and planned elevation projects. Federal, State and Local requirements are available at the NOAA sponsored SeaSketch site: [U.S. Federal Mapping Coordination, A Demonstration Site for Federal Mapping Data Acquisition \(<http://seasket.ch/hwpR3E-MxO>\)](#).



<http://seasket.ch/hwpR3E-MxO>

We have said it before and will say it again, 3DEP is a collaborative effort to acquire national data. To accomplish that goal stakeholders must have a means to post their requirements and review the requirements of others. 3DEP has chosen to utilize the NOAA sponsored SeaSketch Site to accomplish that goal.

The [3D Elevation Program](#) and the Interagency Working Group on Ocean and Coastal Mapping have established a system to share information about areas of interest and proposed and planned elevation projects. Federal, State and Local requirements are available at the NOAA sponsored SeaSketch site: [U.S. Federal Mapping Coordination, A Demonstration Site for Federal Mapping Data Acquisition \(<http://seasket.ch/hwpR3E-MxO>\)](#).

This mapping site is comprehensive, showing areas of interest, proposed, planned, in-work, and completed elevation and related projects.

17

3DEP FY16 BAA / FY17 Awards

Enter and Review Project Requirements in SeaSketch

Topographic Lidar: 3DEP Areas of Interest

Federal

State

+

3DEP FY16 BAA / FY17 Awards

Data Layers

My Plans

Participate

Data Layers

Basemap

Legend & Ordering

Search

Mapping Priorities: Needs, Requirements

- Topographic Lidar 3DEP Areas of Interest
- Federal 3DEP Interests (1-3 yrs)
- NOAA 3DEP Areas of Interest
- NRCS 3DEP Areas of Interest
- NPS 3DEP Areas of Interest
- FEMA 3DEP Areas of Interest
- FWS 3DEP Areas of Interest
- USGS 3DEP Areas of Interest
- Forest Service 3DEP Areas of Interest
- USACE 3DEP Areas of Interest
- State and Local 3DEP Interests (1-3 yrs)
- 3DEP Mapping Areas of Interest
- State of Maine 2017 Lidar Areas of Interest
- Oregon 2017 Lidar Areas of Interest
- Other Partner Interests (1-3 yrs)
- Topobathymetric Lidar Areas of Interest
- Acoustic/Sonar (bathy, etc.) Areas of Interest
- Digital Imagery (in conjunction with Topo/topobathy lidar?)

USGS
science for a changing world

The National Map
Your Source for Topographic Information

Federal Agencies annually update their High Priority Areas of Interest. Each Federal Agency is responsible for updating their requirements. State and Local agencies may enter their own requirements or may utilize the 3DEP Lidar Priorities Collector Tool to enter their Areas of Interest. AOIs entered into the project collector tool are collated into a service with a direct feed to SeaSketch (State and Local 3DEP Interest (1-3 years), 3DEP Mapping Areas of Interest).

The SeaSketch Viewer allows you to zoom in and turn layers on and off so you can focus on your specific AOI. We will review that function in a minute but first let me provide a few details on the 3DEP Lidar Priorities Collector Tool.

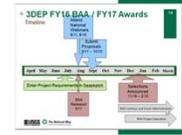


3DEP FY16 BAA / FY17 Awards

Enter and Review Project Requirements in SeaSketch

<https://survey.geoplatform.gov/index.php/994421/lang-en#>

18



The 3DEP BAA - Public Areas of Interest Project Collector Tool

Next

Welcome!

This system will allow you to share your idea for a potential lidar acquisition project under the 3D Elevation Program (3DEP). Your project will be viewable in an online map.

The USGS is implementing 3DEP to acquire new 3D elevation data for the Nation. Beginning in 2015 the USGS offered partnership funding for lidar acquisition projects through the USGS Broad Agency Announcement (BAA) for 3D Elevation Program (3DEP), a competitive solicitation for partnerships to acquire lidar data. In FY15, partnership funding was provided to support 29 projects, resulting in over 95,000 square miles of new lidar data. As of 03/31/16, the FY16 BAA has supported 26 projects resulting in 100,000 square miles of new data.

The USGS anticipates funding another round of projects in FY17.

The 3D Elevation Program (3DEP) utilizes a shared system ([NOAA sponsored Seasketch](#), [U.S. Federal Mapping Coordination - A Demonstration Site for Federal Mapping Data Acquisition Coordination](#)) for planning, coordinating partnerships, and tracking elevation data acquisition projects. The system supports the maintenance and publishing of

- Mapping Priorities: Needs, Requirements
- Planned and Ongoing Mapping Projects
- Existing Data

The Federal agencies that partner on the 3DEP have compiled their near term (1 to 3 years) priorities for lidar acquisition and published them on an Seasketch. Project overlap with these Federal priorities will be one of the key evaluation criteria in the upcoming BAA. However, 3DEP is a national program and encourages all interested parties to submit partnership proposals.

Interested parties are encouraged to share their potential projects through this system. Projects should represent geographic areas under consideration in the next 1 to 3 years. Sharing your potential project will let others know of your interest and may result in additional partners. The USGS appreciates your interest and involvement in the 3DEP program.



The link to the public project collector tool is noted here along the top of the slide. You can also find the link on our web pages. For those of you who have utilized the tool in the past, we do update the tool each year which results in a different urn. So if you had the url bookmarked you may need to update.

These opening remarks provide context for your project information.

+

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3DEP FY16 BAA / FY17 Awards

Enter and Review Project Requirements in SeaSketch

<https://survey.geoplatform.gov/index.php/994421/lang-en#>

*** Please enter a descriptive name for your project:**

Names that describe the location and purpose for the data are the most useful. (Examples: Black Creek Watershed Flood Study List or 2016 San Diego Region Earthquake Free Standing List)

Character limit: 250

*** Please enter the organization entering the project AOI:**

*** Provide point of contact information:**

THIS INFORMATION WILL BE SHARED AND AVAILABLE in the ONLINE SYSTEM. Business contact information is preferable.

This contact information will allow other interested potential partners to contact you. Please include: name, organization, phone number, email, website, and any other relevant information.

Character limit: 300

*** Select the state or territory containing the majority of the project area:**

Please choose...

*** Enter the month and year when you hope to collect the data:**

Please specify future acquisitions either Q1 for the month, for example Q4/Winter enter Q1 for the month

The standard product for the 3DEP program is defined as QL2. Will your project use the QL2 specification or the more stringent QL1 specification?

You can use the "other details" question below if you have mixed quality levels or other special situations.

Please choose...

Provide any other important details about your project:

Include special requirements like higher accuracy requirements, time of year it must be collected, site coordination requirements, etc.

Character limit: 500

File upload:

You must define the location of your Area of Interest (AOI) by uploading a geospatial file defining the coverage area for your project. Your AOI must be represented by a polygon in shapefile or KML format. If you do not have a project file in one of these geospatial formats, use these [instructions](#) to create one using freely available tools.

You can upload a KML, KMLZ, or a zip archive containing a shapefile. A "shapefile" is actually a collection of related files. Be careful to include all the [required files](#) in your zip.

[Upload files](#)

Submit

[Exit and clear survey](#)

The tool asks you several simple questions.

The questions are designed to provide basic information on your interest to enable others to review the project info to determine overlapping requirements.

At the end you will be asked to upload a kml or shapefile, instructions are provided.

3DEP FY16 BAA / FY17 Awards

Coordination - Contact your National Map Liaison

<http://nationalmap.gov/3DEP/FY17BAA.html>



Find or Request 3DEP and BAA Presentations in Your State

The 3D Elevation Program (3DEP) initiative is being developed to respond to needs for high-quality topographic data and for a wide range of other three-dimensional representations of the Nation's natural and constructed features. The primary goal of 3DEP is to systematically collect enhanced elevation data in the form of high-quality light detection and ranging (lidar) data over the conterminous United States, Hawaii, and the U.S. territories, as well as interferometric synthetic aperture radar (isar) data over Alaska. The 3DEP initiative is based on the results of the National Enhanced Elevation Assessment (NEEA), which indicated an optimal benefit to cost ratio for Quality Level 2 (QL2) data collected over 8-years to complete national coverage. The implementation model for 3DEP is based on multi-agency partnership funding for acquisition, with the USGS acting in a lead program management role to facilitate planning and acquisition for the broader community, through the use of government contracts and partnership agreements. The annual Broad Agency Announcement (BAA) is a competitive solicitation issued to facilitate the collection of lidar and derived elevation data for the 3D Elevation Program (3DEP). Federal agencies, state and local governments, tribes, academic institutions and the private sector are eligible to submit proposals.

National Webinars

A duo of 3DEP public webinars: 3D Elevation Program (3DEP) FY16 Public Webinars in preparation for the upcoming release of the USGS Broad Agency Announcement for 3D Elevation are scheduled in August. The webinars are intended to introduce 3DEP and the BAA opportunity to the broadest stakeholder community possible and provide a summary of the BAA application procedures.

August 11, 2016 3:00 - 4:30ET
August 15, 2016 1:00 - 2:30ET

Registration information is posted on the following websites:

- <https://cms.geoplatform.gov/evaluation/3DEP-Public-Meetings>
- <http://nationalmap.gov/3DEP/FY17BAA.html>

3DEP FY17 Broad Agency Announcement (BAA) National Webinar videos will be available after August 15th.

Opportunities in Your State National Map Liaison Contact Information

To receive information about 3DEP/BAA presentations or to request a presentation, contact the National Map Liaison listed for your state.

Alabama	Alaska	Arizona	Arkansas	California
Colorado	Connecticut	Delaware	District of Columbia	Florida
Georgia	Hawaii	Idaho	Illinois	Indiana
Iowa	Kansas	Kentucky	Louisiana	Maine
Maryland	Massachusetts	Michigan	Minnesota	Mississippi
Missouri	Montana	Nebraska	Nevada	New Hampshire
New Jersey	New Mexico	New York	North Carolina	North Dakota
Ohio	Oklahoma	Oregon	Pennsylvania	Puerto Rico/US Virgin Islands
Rhode Island	South Carolina	South Dakota	Tennessee	Texas
Utah	Vermont			
Wisconsin	Wyoming			

Texas
National Map Liaison for Texas
Claire DeVlaughan
Phone: (512) 927-3583
Email: cdevaugh@usgs.gov

Presentation Title	Date	Time	Venue	Access	Location	Virtual Option Available
The 3D Elevation Program (3DEP)	10/27/16	10:30 a.m.	Texas GIS Forum	Limited to Texas GIS Forum attendees.	Austin, TX	No

To receive information about 3DEP/BAA presentations or to request a presentation, contact the National Map Liaison listed for your state



As we mentioned earlier, we communicate about our program through our web pages. Information on how to contact your liaison to request a meeting is found on our FY17 BAA Web page as noted here on the slide. Again these web pages will be listed as resources at the end of the presentation.

This page contains a link to the document noted on the left of the slide. Inside the document you will find a listing of the states, selecting the state will provide you the name and contact information of your national map liaison.

As we were zoomed in on Texas in the preceding slide, we will continue using Texas as an example. The liaison in Texas is Claire. It notes that she has an upcoming presentation at the Texas GIS forum, however it also notes that attendance at that event is limited to Forum attendees. If you were interested in a public meeting specific to a select region of Texas you may wish to contact Claire to discuss other opportunities to schedule such a gathering in Texas.

Please note that our liaisons have limited ability to travel but are masters at facilitating virtual meetings.

3DEP – The Solicitation

USGS Broad Agency Announcement for 3D Elevation Program

FedBizOpps.gov G16PS00711

Grants.gov G16AS00121

The screenshot shows the FedBizOpps.gov website with the following details for the Broad Agency Announcement for 3D Elevation Program:

- Solicitation Number:** G16PS00711
- Notice Type:** Special Notice
- Original Set Aside:** No
- Classification Code:** D - Information technology services, including telecommunications services
- NAICS Code:** 541 - Professional, Scientific, and Technical Services
- Posting Date:** August 11, 2016
- Original Set Aside:** No
- Contracting Office Address:** USGS NATIONAL ACQUISITION BRANCH, 205 NATIONAL CENTER, 12201 SQUIRRE HOLLOW DRIVE, RESTON, VA 20192, US

The screenshot shows the Grants.gov website with the following details for the 3D Elevation Program (3DEP) Grant Opportunity:

- Document Title:** 3D Elevation Program (3DEP)
- Posting Opportunity Title:** 3D Elevation Program (3DEP)
- Posting Opportunity Number:** G16AS00121
- Original Posting Date:** Jul 17, 2016
- Current Closing Date for Applications:** Sep 30, 2016
- Category:** Discretionary
- Agency:** USGS
- Category of Funding Activity:** Education, Natural Resources, Science and Technology and other Research and Development
- Eligible Applicants:** State, tribal, local, and other governments; Public and State controlled institutions of higher education; Nonprofit organizations; Other than individuals of higher education; County governments



Continuing across the timeline ... as I noted earlier the BAA was released August 11th. The announcement is available through both FedBizOpps and Grants.gov. These links provide you application instructions along with access to all of the appropriate application documents. As the procedure for downloading the attachments on the FedBizOpps site is not readily apparent, we will walk through it.



3DEP FY16 BAA / FY17 Awards

USGS Broad Agency Announcement for 3D Elevation Program

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The image contains three screenshots of the FedBizOpps website. The first screenshot shows the search bar with the solicitation number 'G16PS00711' entered. The second screenshot shows the search results with the 'Broad Agency Announcement for 3D Elevation Program' highlighted. The third screenshot shows the detailed announcement page with a link to 'Click here to see more information about this opportunity on FedConnect' highlighted.

Step 1 Enter Solicitation # G16PS00711

Step 2 Select Announcement

Step 3 Scroll Down to the middle of the page : "Click here to see more information about this opportunity on FedConnect"

USGS The National Map Your Source for Topographic Information

Go to the FedBizOpps website.

You will see an option for entering a Keyword or the Solicitation #. Enter the number G16PS00711 and Select the Search button.

You also have the option to enter keywords such as USGS 3D Elevation Program to direct you to the announcement.

As I entered the Solicitation # only one option appears. Select the Announcement, this will bring up the actual text.

Scroll down to the middle until you see Additional Info: [Click here to see more information about this opportunity on FedConnect.](#)

Click on this link which will take you to FedConnect.

+ 3DEP FY16 BAA / FY17 Awards

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USGS Broad Agency Announcement for 3D Elevation Program



Do you want the US federal government to buy your products or services? Or, are you seeking grants or assistance funding?

FedConnect can help. Every day, FedConnect helps over 100,000 vendors and grant applicants find, respond to and win opportunities for contracts, grants, and other types of assistance funding. To learn more about how FedConnect works, click here to review the tutorial.

Do you work for a federal agency?

FedConnect is the perfect complement to FedBizOpps and Grants.gov. FedConnect goes beyond the basic features of those systems to provide full device support including the ability to post opportunities, receive responses, deliver awards, and communicate throughout the pre-award, award, and post-award phases using FedConnect's secure 2-way messaging. Click here to learn more.

- Sign In - Full Access
- Search Public Opportunities Only
- Register for Free Account

My FedConnect

- FedConnect Ready, Set, Get Tutorial
- Check Registration Status
- Password Reset
- Contact Your Organization's FedConnect Administrator
- Contact FedConnect Support

Want to learn more?

- Participating Government Agencies
- Accessibility Features
- Release Notes for Upcoming Version 2.2

Watch as "Roz" tries to keep up with all the demands for contract data and compliance information



Step 4
Select Search Public Opportunity

FedConnect

public opportunities

This is a list of publicly posted opportunities. To view a particular opportunity, click the hyperlink under the title. For more details on using this page, click Help.

Search Criteria: Advanced Options
Reference Number * (G16PS00711)

Title	Type	Agency	Issuing Office	Issue Date	Response Due Date	IFSC / FSC	NAICS	Solicitation Number
Broad Agency Announcement for 3D Elevation Program	Special Notice	DOI - USGS	USGS NATIONAL ACQUISITION BRANCH	8/11/2016 8:54:09 AM		0215	54130	G16PS00711

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Step 5 Enter the Solicitation #
Step 6 Select the Announcement Title

In FedConnect you will see an option for "Search Public Opportunities" (the middle of the three options), which you select.

From there you will enter the Solicitation Number G16PS00711 which will bring up the Announcement Title.

When you select the title you are finally taken to the location where you can download the solicitation and all the documents.



3DEP FY16 BAA / FY17 Awards

USGS Broad Agency Announcement for 3D Elevation Program

Opportunity: Broad Agency Announcement for 3D Elevation Program

Description

This special notice is for a Broad Agency Announcement for 3D Elevation Program. Attached are documents which contain all details of this special notice: Broad Agency Announcement/Conditions Attachment A - Submission Tool Attachment B - FY17 Consolidated Federal Acquisition Regulation - FARS and MARS FY17 High Priority Acquisition Regulation C - 3DEP Single Attachment C - Register Attachment of Function Pointers FY17 Acquisition Regulation No. 50000

What do I do now?

This is the opportunity summary page. To the left you will see a description and an overview of this opportunity. To the right you will see a list of the attached documentation. To view any of the attachments, simply click the attachment name.

Registered Users

To register interest in this opportunity or to electronically respond, you must first sign in. Click the Sign In button below.

[Sign In](#)

Non-Registered Users

You can view this or any other public opportunity. However, registered users have numerous added benefits including the ability to submit questions to the agency, receive alerts concerning updates and amendments, create and manage a response team and submit responses directly through this site. Becoming a registered user is fast, free and takes only a few minutes. To get started, click the Register Now button below.

[Register Now](#)

[Return to Public Opportunity List](#)

Documentation

- 3DEP500711
- Special Notice
- Overview
- Attachment A
- Attachment B
- Attachment C FARS
- Attachment C MARS
- Attachment D
- Attachment E
- Broad Agency Announcement

Documentation is on the right



The documentation is on the right.

There is one other option for securing the solicitation, two other options for securing the attachments.

+ 3DEP FY16 BAA / FY17 Awards

USGS Broad Agency Announcement for 3D Elevation Program

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SEARCH: Grant Opportunities | G16AS00121

SEARCH: Grant Opportunities | Enter Keyword...

1 OF 1 MATCHING RESULTS:

Opportunity Number	Opportunity Title	Agency	Opportunity Status	Posted Date	Close Date
G16AS00121	3D Elevation Program (3DEP)	DOI-USOS1	Posted	08/11/2016	09/30/2017

Select Announcement Number / Title

The information is also available in Grants.gov.

To access the information go to Grants.gov.

In the upper right corner you will see an option to search for the grant opportunity. Enter G16AS00121 (note that the FedBizOpps and grants.gov numbers are different) A new screen will appear with the Announcement Title.

Continuing to Select the Announcement Number and Title will direct you to the opportunity details.



3DEP FY16 BAA / FY17 Awards

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USGS Broad Agency Announcement for 3D Elevation Program

GRANTS.GOV

VIEW GRANT OPPORTUNITY

G16AS00121
3D Elevation Program (3DEP)
Department of the Interior
Geological Survey

SYNOPSIS | VERSION HISTORY | RELATED DOCUMENTS | PACKAGE

General Information

Document Type: Grants Notice	Version: Synopsis 3
Funding Opportunity Number: G16AS00121	Posted Date: Aug 11, 2016
Funding Opportunity Title: 3D Elevation Program (3DEP)	Last Updated Date: Aug 11, 2016
Opportunity Category: Discretionary	Original Closing Date for Applications: Oct 10, 2016
Opportunity Category Explanation: Cooperative Agreement	Current Closing Date for Applications: Sep 30, 2017
Funding Instrument Type: Grant	Archive Date: Oct 30, 2017
Category of Funding Activity: Equipment	Estimated Total Program Funding: \$0
Natural Resources	Award Ceiling: \$0
Science and Technology and other Research and Development	Award Floor: \$0
Category Explanation: 15.817 - National Geospatial Program Building The National Map	
Expected Number of Awards: 0	
CTDA Number(s):	
Cost Sharing or Matching Requirement: Yes	

Eligible Applicants: Individuals, Special District governments, Native American tribal organizations (other than Federally recognized tribal governments)

USGS The National Map
Your Source for Topographic Information

Important to review the information in all of the tabs:

- Synopsis Details
- Version History
- Related Documents
- Application Package

And you get to the detailed project information. It is important to review the information in each of the tabs. The “Synopsis Details” provides an overview of the opportunity. The “Version History” alerts you to any changes or updates to the solicitation. The “Related Documents” is where you will find all of the attachments. And very important for those selecting to apply for a cooperative agreement, the “Application package” details the process you must go through to apply for a cooperative agreement.

Some of you may have questions on when you need to use the grants.gov web site. The grants.gov website must be used by those of you who are requesting a cooperative agreement. Please hold that thought and we will return to that question in just a few minutes.

Lets take a quick look at the documentation:

+ 3DEP Data Acquisition

Broad Agency Announcement (BAA)

Solicitation

U.S. Geological Survey
Broad Agency Announcement for 3D Elevation Program (3DEP)
G16PS00711
Grants.gov Funding Opportunity Number: G16A80121

A: Proposal Submission Tool

U.S. Geological Survey
Broad Agency Announcement for 3D Elevation Program (3DEP)
Grants.gov Funding Opportunity Number: G16PS00711
Request for Proposal Information

E: Validation of Funding Partners

U.S. Geological Survey
Broad Agency Announcement for 3D Elevation Program (3DEP)
Grants.gov Funding Opportunity Number: G16PS00711
Request for Proposal Information

C: FEMA

FEMA 3DEP FY17 High Priority Areas for Data Acquisition

C: NRCS

NRCS 3DEP FY17 High Priority Areas for Data Acquisition

B: Federal Areas of Interest

3DEP FY17 Federal Areas of Interest

D: 3DEP Status

3D Elevation Program FY17 Status of 3DEP Quality Data

Which is all this.

The documentation consist of:

- The Solicitation
- Attachment A Proposal Submission Tool
- Attachment B 3DEP FY17 Consolidated Federal Areas of Interest
- Attachment C 3DEP Funding Partners FY17 High Priority Areas for Lidar Data Acquisition Part 1 (FEMA)
- Attachment C 3DEP Funding Partners FY17 High Priority Areas for Lidar Data Acquisition Part 2 (NRCS)
- Attachment D 3DEP Status Graphic (Existing, In-work and Planned with Funding projects)
- Attachment E Applicant Validation of Funding Partners

We will briefly touch on the importance of each of these documents.

Bur first a quick note of the 3rd location from which you can download the attachments.

+ 3DEP FY16BAA / FY17 Awards

USGS Broad Agency Announcement for 3D Elevation Program

<http://nationalmap.gov/3DEP/BAAReferenceMaterials.html>

The screenshot displays the USGS website interface for the 3D Elevation Program (3DEP). It features a navigation menu on the left with options like 'Home', 'Get Data', 'Data Products/Tools', 'Benefits', 'Resources', and 'Contact Us'. The main content area is titled 'FY17 Broad Agency Announcement Reference Materials' and includes a list of attachments: Attachment A - BAA Proposal Submission Tool, Attachment B - 3DEP FY17 Consolidated Federal Areas of Interest, Attachment C - 3DEP Funding Partners FY17 High Priority Areas for Lidar Data Acquisition, and Attachment D - 3DEP Status Graphs (Existing, In-work and Planned with Funding). Below the text, there are two map thumbnails. The larger one on the right is titled '3DEP FY17 Federal Areas of Interest' and shows a map of the United States with various colored regions. A legend below the map indicates the 'Number of Federal Agencies Requesting Data' with categories: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50. A note on the right side of the map states: 'The number of agencies requesting data for each area is indicated by the color of the area. The number of agencies requesting data for each area is indicated by the color of the area. The number of agencies requesting data for each area is indicated by the color of the area.' Below the map, there are links for 'Downloadable PDF' and 'Downloadable shapefile'.

Attachment A - BAA Proposal Submission Tool

- [Interactive Version](#) (Uses Microsoft Word 2007 or newer)
- [Static Version \(Uses Adobe PDF\)](#) - Note: File must be downloaded and saved for full functionality



The Attachments are also available on our USGS web pages. Note the link above. A couple of important notes.

For the graphics – the attachments can be downloaded as a PDF or as a shapefile.

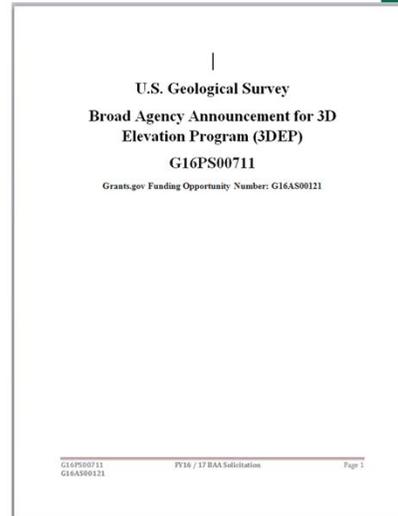
For the forms – two options will be available: The interactive version and a static version, both versions will be accepted and the type of form you use has no bearing on the consideration of your proposal for award.



3DEP FY16 BAA / FY17 Awards

BAA Solicitation

- Encourage you to read the full solicitation
 - Cover highlights
- I. Overview Information
 - Response Dates
 - Proposal due 10 October, 2016
- II. 3D Elevation Program (3DEP) Opportunity Description
 - C. Opportunity Consideration and Clarifications
 - 1. Contract Mechanism
 - Geospatial Products and Services Contracts (GPSC)
 - Cooperative Agreement (Financial Assistance)



So lets take a look at the solicitation.

First of all we encourage you to read the full solicitation. Today's presentation will cover the highlights. Time does not allow us to cover every detail, however as an applicant you are responsible for all of the material included within the BAA.

What are the proposal deadlines. Full Proposals are due on October 10th. For those of you familiar with our program, you will note that we have eliminated the pre- proposal stage. Applicants are now only required to submit one proposal to be considered for award.

The program offers applicants two different contract mechanisms.

Applicants may choose to make use of the USGS Geospatial Products and Services Contracts or they may choose to apply for Financial Assistance in the form of a cooperative agreement

+ 3DEP FY16 BAA / FY17 Awards

BAA Solicitation – Contract Mechanism Geospatial Products and Services Contracts (GPSC)

- USGS manages contract, the applicant provides their portion of the project funding to the USGS through a Joint Funding Agreement (JFA) or an Interagency Agreement (IA). While each JFA is unique to the funding partner, we have a standard template that can be used by all. We will post a copy of this template to our website and would encourage potential partners to familiarize themselves with the document.
- The GPSC is a multiple award acquisition vehicle that is designed to utilize the teams of firms on the contract for services needed to accomplish 3DEP data acquisition. Firms on the GPSC have been selected based on their qualifications and performance in providing the professional services needed for 3DEP.
- The contracts include acquisition, processing, and quality assurance of lidar and other source geographic data.
- To ensure data quality and efficient development of standard products and services, the USGS prefers that partners use the GPSC when possible and practical and expects to allocate approximately 80% or more of the available funding to projects proposing to use the GPSC.

First the Geospatial Products and Services Contract

For this option:

(Read from above)

+ 3DEP FY16 BAA / FY17 Awards

BAA Solicitation – Contract Mechanism Cooperative Agreement

- USGS provides financial assistance to the applicant by means of a cooperative agreement. (We pass funds to you)
- The applicant is responsible for securing a vendor to acquire the data
- The data must adhere to the data specifications and deliverables as defined in the USGS Lidar Base Specification V1.2; data must be placed in the public domain
- The USGS expects to allocate approximately 20% of the available funding to support cooperative agreements

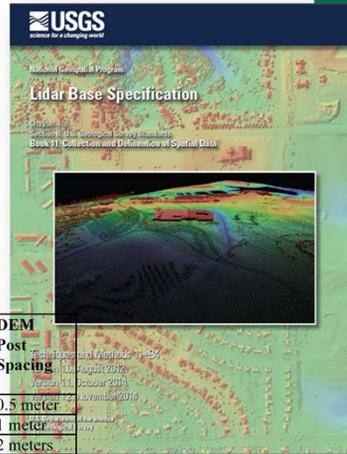
The second option is where the USGS provides financial assistance to the applicant by means of a cooperative agreement. (we pass funds to you)

(Read from above)

+ 3DEP FY15 BAA / FY16 Awards

BAA Solicitation

- II. 3D Elevation Program Opportunity Description
 - D.3DEP Lidar Base Specifications, Project Deliverables and Upgrade Options
 - <http://pubs.usgs.gov/tm/11b4>
 - Must meet QL2 specifications



Quality Level	Source	Vertical Accuracy RMSEz	Nominal Pulse Spacing (NPS)	Nominal Pulse Density (NPD)	DEM Post Spacing
QL1	Lidar	10 cm	0.35 m	8 points/sq. meter	0.5 meter
QL2	Lidar	10 cm	0.7 m	2 points/sq. meter	1 meter
QL3	Lidar	20 cm	1.4 m	0.5 points/sq. meter	2 meters
QL4	Imagery	139 cm	N/A	N/A	5 meters
QL5	Ifsar	185 cm	N/A	N/A	5 meters

Continuing our walk through of the solicitation,

As we just mentioned all data must adhere to the Lidar Base Specification V1.2. This document is available for download from the link noted here. USGS technical experts are available to answer questions related to the specification.

The 3DEP program collects data to the QL2 specs noted above. The 3DEP goal is to secure funding to provide a nationally consistent dataset. Our funds are designated to support a QL2 collection. However we acknowledge that some partners desire more detailed data. Upgrades to QL1 are available however the applicant is responsible for the cost of the upgrade.

3DEP FY15 BAA / FY16 Awards

BAA Solicitation – Non Linear Mode Technologies

II. 3D Elevation Program Opportunity Description

D.3DEP Lidar Base Specifications, Project Deliverables and Upgrade Options

Exceptions for Non-Linear Mode Technologies

Compliance with Current Specification

Requirement	IntelliEarth	HROLS	Comments
LAS Version 1.4	LAS v1.4	LAS v1.2	Both data sets LAS v1.4 compatible
Point Data Format	Compliant	Compliant	
Coordinate Reference System	Compliant	Compliant	
Global Encoder bit	Compliant	Compliant	
Time Stamp	Compliant	Not Compliant	IntelliEarth – unique but not based on agreed methods HROLS – none provided
System ID	Compliant	Compliant	
Multiple Returns	Not Compliant	Not Compliant	Both systems do not produce multiple returns
Point Source ID	Not Compliant	Compliant	IntelliEarth – No Right swaths
Intensity	Reflectance	Not Compliant	IntelliEarth – similar to linear mode HROLS – no intensity data
Overlap and without	Not Compliant	Compliant	IntelliEarth – No Right swaths
Scan Angle	Not Compliant	Not Compliant	Spec not compatible with these sensors
XYZ Coordinates	Compliant	Compliant	

USGS The National Map WOLPERT Dewberry



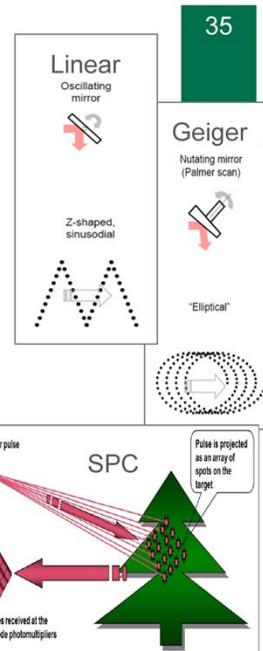
The 3DEP program is undergoing an assessment of Geiger Mode and Single Photon lidar systems; these systems do not currently meet the USGS Lidar Base Specification, as that specification was written to specifically address linear mode lidar. The technologies are showing enough potential to warrant additional testing and the development of next steps. In FY16 the USGS supported a limited number of incubation phase acquisitions making use of these technologies. The program expects to award a similar number of incubation phase projects in FY17. By allowing for a limited set of incubator collections across the country, 3DEP can continue to learn about, adapt to, and help these systems come in to full compliance with our specifications; Exceptions to the Lidar Base Specifications applicable to these technologies are noted in the award documentation.

The USGS continues to receive questions about the inclusion of new technologies within the portfolio of systems acceptable to 3DEP

Read from above

+ Emerging lidar platforms

- Geiger Mode and Single Photon Counting (SPC) lidar are becoming more widely used and requested by 3DEP partners
 - Higher altitude equates to broader coverage, more efficient data acquisition
 - Greater point density
- Assessment of data from these platforms identified initial technical challenges that impact immediate adoption by 3DEP
 - Non-compliance with current lidar acquisition specifications
 - Range walk
 - Foliage penetration
 - Absolute accuracies
- Both companies say these are legacy issues that have been or will be resolved
- USGS will continue to assess these technologies in an incubation period, with the goal to mature these technologies for operational use in 3DEP



Just a few additional notes on these technologies



Future Test Projects

Foster maturation of new technologies for 3DEP

- No further Geiger or SPC contracts in FY16
 - Use the test projects to better understand how the data is processed through our existing workflows
 - Review the data throughout the lifecycle to inform acquisition decisions next year
- For FY17, continue with limited investments in GM / SPC data acquisition
 - Set a total funding and/or total square mile investment
 - Allow for growth and incremental acceptance of the new technologies
 - Provide flexibility to continue to work with partners interested in Geiger/SPC

In 2016, we supported three projects, selecting projects in different geographic areas and with diverse landscapes (urban, open areas with limited vegetation, forested areas). Evaluation of these data will determine the utility of these technologies to acquire data to 3DEP specifications over diverse landscapes.

We were not in a position to support all FY16 applications who wished to use one of these new technologies. Applicants were provided feedback that encouraged them to either put in a new submission requesting the use of traditional linear mode lidar systems or resubmit in the future as the technologies continue to mature.

+ Ongoing Evaluations

Foster maturation of new technologies for 3DEP

- Replicate the methods used in the initial study as our baseline
 - Check required attributes (Absolute Accuracy, Nominal pulse spacing, etc)
 - Waive acceptable non-conformances (multiple returns, scan angle, etc)
 - Designate data as 'provisional' products
- Add additional tests
 - Check calibration between collections (i.e., point-to-plane comparison)
 - Collect terrestrial lidar data to evaluate accuracy of surfaces, in addition to single points
- Assess costs associated with storage and hosting of higher density collections



Today's presentation is not designed to provide a detailed discussion of these or other emerging technologies.

However our program is proactively engaged in fostering the maturation of new technologies for 3DEP.

We continue to work with our industry partners on the evaluation of all emerging technologies.

You are also reminded that the 3DEP program must assess the cost of storage and hosting higher density collections.



Managing our 3DEP technology portfolio

- Position 3DEP to proactively assess and evaluate new technology
 - Sensor technologies
 - Processing, storage, and delivery architecture
- Communicate our needs/requirements in a technology agnostic way - regardless of platform we need data that can collect:
 - 2x3D measurements per square meter
 - Be vertically accurate to within 10 cm RMSE
 - Resolve both bare earth and non bare earth features
- Specification is a living document to allow innovation while retaining standard, consistent 3D data nationwide





Managing our 3DEP technology portfolio

- Ongoing evolution in technologies we may want to leverage
 - SfM (structure from motion)
 - Topobathy sensors
 - Multi-wavelength lidar (Optech's TITAN)- 3 lasers, 3 detectors
 - Waveform lidar
 - Lidar from other kinematic platforms (UAS, mobile mappers)
 - Imagery-derived elevation models
- Need a transparent, repeatable process to answer the question:
Does this instrument produce data that meets 3DEP requirements both technically and programmatically?



3DEP FY16 BAA / FY17 Awards

BAA Solicitation

- IV. Eligibility Information
 - B. Cost Share, Minimum non-Federal Match for Cooperative Agreements, Project Scope

The implementation model for 3DEP is based on multi-agency partnership funding for acquisition. Applicants **must** commit to a cost share for their project to be considered for funding. Cost share (funds contributed by applicant) is an evaluation factor against which proposals are rated. The greater the applicant's cost share, the greater the score for this factor. In 2016, the average BAA award covered 38% of the total project cost, resulting in an average cost share of 62% by award recipients. Project awards ranged from \$8,388 to \$797,472, with an average award of \$330,261.



Returning to our discussion of the BAA criteria, cost share is an important evaluation criteria

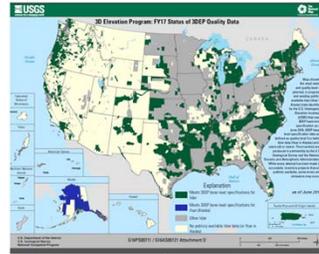
(Read from above)

3DEP FY16 BAA / FY17 Awards

VI Proposal Review Information

A. Criteria

- 1. Project Location
 - Areas with no lidar coverage
 - Existing data
 - Data more than 8 years old
 - QL3, 4, 5
 - Significant changes to the landscape have occurred
- 2. Areal Extent
 - 3DEP Prefers project between 1500 and 5000 square miles
 - Preference given to larger projects
 - Projects outside of this range considered
 - To fill in gaps in coverage
 - For projects that represent significant cost share by the applicant



BAA Attachment D:
3DEP FY17 Status
of 3DEP Quality Data

Project Location is an important criteria. The program's first consideration is to acquire data in geographic areas where no lidar data exist.

The program will consider new acquisitions if the existing lidar data is:

- Older than 8 years
- QL3, 4 or 5
- Or if the proposed acquisition covers areas over which significant changes to the landscape have occurred.

The program also looks at Areal Extent.

The program prefers projects between 1500 and 5000 square miles. Within this range preference is given to larger projects.

The program will consider projects outside of this range to fill in gaps in coverage or for projects that bring considerable funding (large cost share) to the table.



3DEP FY16 BAA /FY17 Awards

VI Proposal Review Information

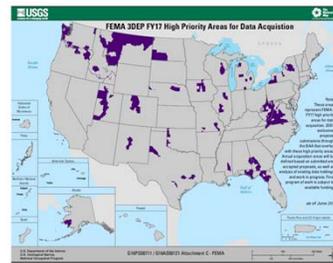
A. Criteria

- 3. Geographic Overlap with areas represented on
 - Attachment B: 3DEP FY17 Federal Areas of Interest
 - General preference
 - Attachment C: Agency Specific FY16 High Priority Areas for Data Acquisition
 - Additional Consideration by individual agencies

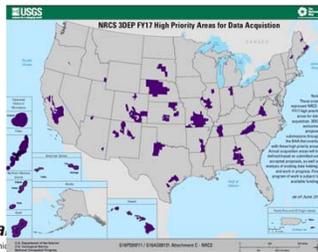


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BAA Attachment B: 3DEP Combined Federal Areas of Interest



BAA Attachment C: 3DEP Funding Partners FY17 High Priority Areas for Lidar Data Acquisition (FEMA, NRCS)



An additional criteria is geographic overlap with areas represented on either Attachment B – the 3DEP Combined Federal Areas of interest or Attachment C – the agency specific FY17 high priority areas for data acquisition.

General preference is given to project areas that overlap any of the federal areas of interest, however we do want to note that as 3DEP is a national program we encourage proposals over any portion of the US to include our territories.

Both FEMA and the NRCS have provided funds to the USGS in support of the 3DEP program to be used to help fund projects submitted through the BAA. While both agencies are united in their support for national coverage, they are particularly looking for BAA proposals that align (overlap or are adjacent to) with their high priority areas for data acquisition. Both FEMA and NRCS have active regional and state offices with interest in the acquisition of lidar data. We would encourage you to reach out to those POCs (available through SeaSketch) to look for partnership opportunities. Federal agencies participate in the BAA through both their state and regional offices and through their national offices.

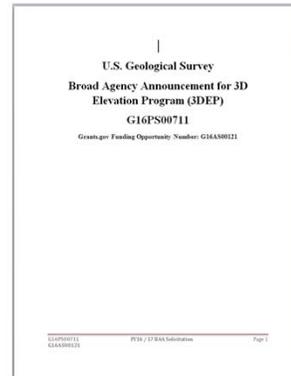


3DEP FY16 BAA /FY17 Awards

VI Proposal Review Information

A. Criteria

- 4. Project Cost and Cost Share (funds contributed by applicant)
- 5. Maturity of Applicant's Proposal and maturity of designated funding sources
- 6. Technical Approach
 - Projects making use of the GPSC as the acquisition mechanism receive full score for technical approach
 - Applicants proposing to manage their own contract will be evaluated on the applicant's approach to data acquisition and required project deliverables
- 7. Past Performance



The rest of the criteria:

We will consider overall project cost and the applicant's proposed cost share.

We will look at the maturity of the applicant's proposal and the maturity of the designated funding sources.

We will look at the Technical Approach. Projects making use of the GPSC as the acquisition mechanism receive full score for technical approach. Applicants proposing to manage their own contract will be evaluated on the applicant's approach to data acquisition and the required project deliverables.

Finally we reserve the right to look at the past performance of both the applicant and the vendor they are proposing to use to acquire the data (part of the technical evaluation)

Project Cost, cost share and the maturity of your funding will be noted in the application forms- so lets take a look at these.

+ 3DEP FY15BAA / FY16 Awards

BAA Solicitation

Attachment A: Proposal Submission Tool

- V. Application and Submission Information
 - Proposal
 - Must use Attachment A: Proposal Submission Tool
 - GPSC
 - Must submit electronically to Vickie Floyd at gs_baa@usgs.gov
 - Financial Assistance (Cooperative Agreements)
 - Must be submitted through grants.gov
 - **Prospective grantees must complete several steps in order to participate in the grants.gov application process starting early is extremely important as it may take several weeks to complete the process.**
 - Additional documentation is required
 - Review of the Proposal Submission Tool



Just a note on the proposal submission.

Those proposing to use the GPSC submit their proposals to the USGS contracting office at the e-mail noted above (gs_baa@usgs.gov).

Those requesting financial assistance must submit their proposal through grants.gov.

Prospective grantees (generic term for those applying for a cooperative agreement) must complete several steps in order to participate in the grants.gov application process SO starting early is extremely important as it may take several weeks to complete the process.

For cooperative agreement applicants, In addition to the proposal template, additional documentation is required . You will recall that when we were looking at the grants.gov site their was a tab called “Application Package”. Applicant’s applying for a cooperative agreement must follow the instructions located in this tab.

+ 3DEP FY16BAA / FY17 Awards

BAA Solicitation Attachment A: Proposal Submission Tool

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US Geological Survey
 Broad Agency Announcement for 3D Elevation Program (3DEP)
 G16PS00711 / G16AS00121
 Proposal Submission for the Acquisition of Lidar Data

Instructions: Enter text or value. Press TAB to register the entry in other parts of the submission tool.

Organization:			Date:	
Organization DUNS Number:		Are you a small Business:	<input type="checkbox"/> Yes <input type="checkbox"/> No	
POC				
First Name:		Last Name:		
Title:				
Street Address:				
City:		State:		Zip Code:
Email Address:		Phone:		
Additional Details or Clarifications:				

Project Title: 300 characters maximum	
Project Summary: 2000 characters maximum	Please provide a summary of your project. Summary should include purpose and justification of proposed acquisition and relationship of project to existing, in-work, or planned acquisitions.



Project Synopsis: 2000 characters maximum	The USGS releases a list of projects receiving funds from the 3DEP. Please provide a short synopsis of your project suitable for publication should your project be selected for award.
<small>Acknowledgement required, please read and check box</small>	<input type="checkbox"/> The applicant agrees to the release of this project summary should this proposal be selected for award.

Walk through the proposal submission tool

+ 3DEP FY16BAA / FY17 Awards

BAA Solicitation Attachment A: Proposal Submission Tool

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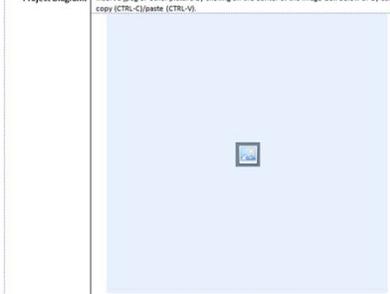
GEOGRAPHIC EXTENT OF PROJECT

State(s):

Geographic Extent: County(ies) Please specify:
 Watershed Please specify:
 Other Please specify:

Square Miles: Note: Please hit TAB after entering square miles to autopopulate "Square Miles" field in project finance tables.

Project Diagram: Insert a jpeg or other picture by clicking on the center of the image box below or by using copy (CTRL-C)/paste (CTRL-V).



Project GIS File: A vector GIS file defining the location and coverage area of your project is required for proposal submission. Your project area must be represented by a polygon in shapefile or KML/KMZ format. The file name should use the following naming convention: ST_Geographic Description where:
ST= State Abbreviation (ex. AL or UT); AND
Geographic Description (ex. Blue_Arrow_Middle_Counties or Eastern_Utah_8_Counties)
Note: Minimum shapefile components required are: .shp, .shx, .dbf, .prj.

GEOGRAPHIC EXTENT OF PROJECT

State(s):

Geographic Extent: County(ies) Please specify:
 Watershed Please specify:
 Other Please specify:

Square Miles: Note: Please hit TAB after entering square miles to autopopulate "Square Miles" field in project finance tables.

Project Diagram: Insert a jpeg or other picture by clicking on the center of the image box below or by using copy (CTRL-C)/paste (CTRL-V).



Project GIS File: A vector GIS file defining the location and coverage area of your project is required for proposal submission. Your project area must be represented by a polygon in shapefile or KML/KMZ format. The file name should use the following naming convention: ST_Geographic Description where:
ST= State Abbreviation (ex. AL or UT); AND
Geographic Description (ex. Blue_Arrow_Middle_Counties or Eastern_Utah_8_Counties)
Note: Minimum shapefile components required are: .shp, .shx, .dbf, .prj.



Continue the walk through of the proposal submission tool. The blank template is on the left, a template with the square miles entered is on the right.

+ 3DEP FY16BAA / FY17 Awards

BAA Solicitation Attachment A: Proposal Submission Tool

Acknowledgment required, please read this sheet for Additional Details or Clarifications:	<input type="checkbox"/> A project vector GIS file with proper file name and format has been submitted as a part of the proposal submission package.
Additional Details or Clarifications:	

PROPOSED TIMELINE

Acquisition: Select Only One Option	<input type="checkbox"/> Spring 2017	
	<input type="checkbox"/> Fall 2017 / Winter 2018	
	<input type="checkbox"/> Other: _____	
Additional Details or Clarifications:		

DATA SPECIFICATION

Data must adhere to the USGS Lidar Base Specifications V1.2. In addition to the requirements outlined in the USGS Base Lidar Specification V1.2, lidar data and derived products must meet the current definition of Quality Level 2 (QL2). Upgrades to QL1 are allowed but the cost of the upgrades is the responsibility of the applicant. In the event that a new version of the specification is released during the open period of the BAA, opportunities to migrate to the revised specification will be discussed and agreed upon at the time of award.

Project will be collected to: Select Only One Option	<input type="checkbox"/> QL2 (Use QL2 Project Costs Table)
	<input type="checkbox"/> QL1 (Use QL1 Project Costs Table)
	<input type="checkbox"/> QL1 / QL2 combination (Provide details and/or delineate QL1 and QL2 Areas on project graphics) (Use QL1 Project Costs Table)
	<input type="checkbox"/> Other: _____
Additional Details or Clarifications:	



Continue the walk through of the Proposal Submission Tool

+ 3DEP FY16BAA / FY17 Awards

BAA Solicitation Attachment A: Full Proposal

DATA DELIVERABLES

Standard 3DEP deliverables are defined in the USGS Lidar Base Specification V1.2

Final Project Deliverables:	Standard period of performance for lidar acquisition projects is 12 to 24 months. Project deliverables are required at the end of the performance period.
<i>Acknowledgment required; please read and check box</i>	<input type="checkbox"/> The applicant agrees to provide all project deliverables to the USGS without use restrictions upon final acceptance of the project deliverables from applicant's contractor.
Additional Products and Services:	Additional products and services are available. The cost of additional products is the responsibility of the applicant
<i>Select Only One Option</i>	<input type="checkbox"/> The applicant does not require any additional products or services <input type="checkbox"/> The applicant anticipates the need for additional products and services generated from the lidar data. For those applicants proposing to use the Geospatial Products and Services contracts, additional products may be selected after award during the task order estimation process. The costs of the products will be identified at that time and if the applicant requires these products, the cost of the products will be added to their funding agreement. For applicants proposing to manage their own contract for data acquisition, the cost of these products should not be included in your 3DEP funding request



APPROACH TO DATA ACQUISITION

Mechanism: <i>Select Only One Option</i>	USGS Geospatial Products and Services Contract (GPSC) Applicant enters into agreement with the USGS GPSC to procure data. The USGS National Geospatial Program's preferred method of data acquisition is through the GPSC, a multiple award acquisition vehicle that is designed to utilize the teams of firms on the contract for services needed to accomplish 3DEP data acquisition.
<input type="checkbox"/>	Cooperative Agreement Applicant manages data procurement (detail technical approach below).
Technical Approach (Cooperative Agreement): <i>3000 character maximum</i>	Please provide a qualifications statement describing your proposed technical approach for acquiring and performing quality assurance of lidar data and derived products. Include information on your approach to selecting a vendor; if a vendor has already been selected please provide a brief summary of the vendor's experience and past performance as related to the acquisition and processing of lidar data that meets USGS Base Lidar Specification V1.2

Continue the walk through of the proposal submission tool

+ 3DEP FY16BAA / FY17 Awards

BAA Solicitation Attachment A: Full Proposal

PROJECT FINANCES

Project Costs

To calculate your project costs use EITHER the QL2 Project Costs table OR the QL1 Project Costs table. For projects that contain a combination of QL1 and QL2 use the QL1 Project Costs table.

QL2 Project Costs

For FY17 3DEP is using an average figure of \$255.00 per square mile (QL2) to estimate the cost of data acquisition projects in the continental United States. The figure is updated annually based on current project work and industry trends. This average cost includes data acquisition, data processing, and vendor quality assurance/quality control (QA/QC). It is important to note that as this is an average cost, in some geographic areas of the country the price will be higher, and for some the cost to acquire the data will be lower. Applicants may choose to use the \$255 figure to estimate their project cost or alternately they may provide another cost estimate and provide an explanation of how the cost estimate was derived to enable evaluation of the costs. The USGS will complete an independent review during the evaluation period to determine if the proposed cost estimates reflect valid industry cost for the specific geographic area and reflect a good value to the government. In addition to the acquisition cost, applicants utilizing the GPSC contracts will be subject to a 5% assessment on the value of their contribution. This assessment covers the cost of contract management. The total cost of the project will include the acquisition cost plus the assessment. For applicants proposing to use the services of the USGS GPSC, the final cost of your project will be determined post award during the task order estimation process. However, applicants may contact the USGS GPSC (gs_baa@usgs.gov) prior to proposal submission for a preliminary estimate specific to your proposed AOI. This option is available to all but must be requested no later than 9/10/16 to meet the 10/10/16 deadline for project submission.

QL2 over entire Project Area: (Select One Option)			
<input type="checkbox"/> The applicant is using the average 3DEP QL2 acquisition, processing and vendor QA/QC costs cost of \$255 per square mile to estimate project costs.			
<input type="checkbox"/> The applicant is using an alternate QL2 figure to estimate project acquisition, processing and vendor QA/QC costs.			
Please provide explanation of how estimated cost was derived: [REDACTED]			
	Square miles	Cost per square mile	Costs
Total project area	0		
Cost of 3DEP base data (QL2) for project area 3DEP will consider cost share on this portion of the project costs			
(Use One Estimate Option Only)	Estimate using the 3DEP average base price	0	\$255 \$ 0.00
	Estimate from Other source	0	\$0.00 \$ 0.00

PROJECT FINANCES

Project Costs

To calculate your project costs use EITHER the QL2 Project Costs table OR the QL1 Project Costs table. For projects that contain a combination of QL1 and QL2 use the QL1 Project Costs table.

QL2 Project Costs

For FY17 3DEP is using an average figure of \$255.00 per square mile (QL2) to estimate the cost of data acquisition projects in the continental United States. The figure is updated annually based on current project work and industry trends. This average cost includes data acquisition, data processing, and vendor quality assurance/quality control (QA/QC). It is important to note that as this is an average cost, in some geographic areas of the country the price will be higher, and for some the cost to acquire the data will be lower. Applicants may choose to use the \$255 figure to estimate their project cost or alternately they may provide another cost estimate and provide an explanation of how the cost estimate was derived to enable evaluation of the costs. The USGS will complete an independent review during the evaluation period to determine if the proposed cost estimates reflect valid industry cost for the specific geographic area and reflect a good value to the government. In addition to the acquisition cost, applicants utilizing the GPSC contracts will be subject to a 5% assessment on the value of their contribution. This assessment covers the cost of contract management. The total cost of the project will include the acquisition cost plus the assessment. For applicants proposing to use the services of the USGS GPSC, the final cost of your project will be determined post award during the task order estimation process. However, applicants may contact the USGS GPSC (gs_baa@usgs.gov) prior to proposal submission for a preliminary estimate specific to your proposed AOI. This option is available to all but must be requested no later than 9/10/16 to meet the 10/10/16 deadline for project submission.

QL2 over entire Project Area: (Select One Option)			
<input type="checkbox"/> The applicant is using the average 3DEP QL2 acquisition, processing and vendor QA/QC costs cost of \$255 per square mile to estimate project costs.			
<input type="checkbox"/> The applicant is using an alternate QL2 figure to estimate project acquisition, processing and vendor QA/QC costs.			
Please provide explanation of how estimated cost was derived: [REDACTED]			
	Square miles	Cost per square mile	Costs
Total project area	5000		
Cost of 3DEP base data (QL2) for project area 3DEP will consider cost share on this portion of the project costs			
(Use One Estimate Option Only)	Estimate using the 3DEP average base price	5000	\$255 \$1,275,000.00
	Estimate from Other source	5000	\$0.00 \$ 0.00



gs_baa@usgs.gov

Continue the walk through of the proposal submission tool. Blank form on the left, an example form on the right illustrating the generation of the estimated cost for a 5000 square mile project,

+ 3DEP FY16BAA / FY17 Awards

BAA Solicitation Attachment A: Full Proposal

QL1 Project Costs

QL1 Project Costs vary significantly by geographic area. For applicants proposing to use the Geospatial Products and Services Contracts for data acquisition, please contact the GPSC team (gpssc@usgs.gov) to obtain a cost estimate for your proposed project. This option is available to all but must be requested no later than 09/10/16 to meet the 10/10/16 deadline for project submission. The USGS will complete an independent review during the evaluation period to determine if the proposed cost estimate reflects valid industry cost for the specific geographic area and represents a good value to the government. For those applicants proposing to manage their own data acquisition, please provide an explanation sufficient to enable evaluation of how the cost was derived. 3DEP will evaluate an applicant's proposed cost share based on the average 3DEP QL2 acquisition and processing cost of \$255 per square mile over the project area. Upgrade costs (the difference between QL1 and QL2) are the responsibility of the applicant. In addition to the acquisition cost, applicants utilizing the GPSC contracts will be subject to a 5% assessment on the value of their contribution. This assessment covers the cost of contract management. The total cost of the project will include the acquisition cost plus the assessment.

<input type="checkbox"/> QL2 Base Data with QL1 data over selected areas or QL1 Data over entire area: <small>Select Only One Option</small>	<input type="checkbox"/> QL1/QL2 The applicant requires QL1 data over at least a portion of the project area and has received a cost estimate from the GPSC team for the total cost to acquire and process both the QL1 data and the QL2 data components of their project area.
<input type="checkbox"/> QL1/QL2 The applicant requires QL1 data over at least a portion of the project area and has used an alternate (non GPSC) source to estimate project costs. <small>* Please provide explanation of how estimated cost was derived:</small>	<input type="checkbox"/> QL1/QL2 The applicant requires QL1 data over at least a portion of the project area and has received a cost estimate from the GPSC team for the total cost to acquire and process both the QL1 data and the QL2 data components of their project area.
<input type="checkbox"/> QL1/QL2 The applicant requires QL1 data over at least a portion of the project area and has used an alternate (non GPSC) source to estimate project costs. <small>* Please provide explanation of how estimated cost was derived:</small>	<input type="checkbox"/> QL1/QL2 The applicant requires QL1 data over at least a portion of the project area and has used an alternate (non GPSC) source to estimate project costs. <small>* Please provide explanation of how estimated cost was derived:</small>

	Square miles	3DEP Average Cost per square mile	Costs
Total project area	0		
Total project costs (both QL1 and QL2 areas)			
<small>(Use One Estimate Option Only)</small> Estimate from GPSC			
<small>(Use One Estimate Option Only)</small> Estimate from Other source			
Cost of 3DEP base data (QL2) for project area <small>3DEP will consider cost share on this portion of the project costs</small>	0	\$255	\$0.00
Applicant responsible for the full cost of this (upgrade to QL1) portion of the project			\$ 0.00

QL1 Project Costs vary significantly by geographic area. For applicants proposing to use the Geospatial Products and Services Contracts for data acquisition, please contact the GPSC team (gpssc@usgs.gov) to obtain a cost estimate for your proposed project. This option is available to all but must be requested no later than 09/10/16 to meet the 10/10/16 deadline for project submission. The USGS will complete an independent review during the evaluation period to determine if the proposed cost estimate reflects valid industry cost for the specific geographic area and represents a good value to the government. For those applicants proposing to manage their own data acquisition, please provide an explanation sufficient to enable evaluation of how the cost was derived. 3DEP will evaluate an applicant's proposed cost share based on the average 3DEP QL2 acquisition and processing cost of \$255 per square mile over the project area. Upgrade costs (the difference between QL1 and QL2) are the responsibility of the applicant. In addition to the acquisition cost, applicants utilizing the GPSC contracts will be subject to a 5% assessment on the value of their contribution. This assessment covers the cost of contract management. The total cost of the project will include the acquisition cost plus the assessment.

<input type="checkbox"/> QL1/QL2 The applicant requires QL1 data over at least a portion of the project area and has received a cost estimate from the GPSC team for the total cost to acquire and process both the QL1 data and the QL2 data components of their project area.	<input type="checkbox"/> QL1/QL2 The applicant requires QL1 data over at least a portion of the project area and has received a cost estimate from the GPSC team for the total cost to acquire and process both the QL1 data and the QL2 data components of their project area.
<input type="checkbox"/> QL1/QL2 The applicant requires QL1 data over at least a portion of the project area and has used an alternate (non GPSC) source to estimate project costs. <small>* Please provide explanation of how estimated cost was derived:</small>	<input type="checkbox"/> QL1/QL2 The applicant requires QL1 data over at least a portion of the project area and has used an alternate (non GPSC) source to estimate project costs. <small>* Please provide explanation of how estimated cost was derived:</small>

	Square miles	3DEP Average Cost per square mile	Costs
Total project area	5000		
Total project costs (both QL1 and QL2 areas)			
<small>(Use One Estimate Option Only)</small> Estimate from GPSC			\$1,560,000.00
<small>(Use One Estimate Option Only)</small> Estimate from Other source			
Cost of 3DEP base data (QL2) for project area <small>3DEP will consider cost share on this portion of the project costs</small>	5000	\$255	\$1,275,000.00
Applicant responsible for the full cost of this (upgrade to QL1) portion of the project			\$225,000.00



gs_baa@usgs.gov

Continue the walk through of the proposal submission tool.

The QL1 table is used only by those applicants requesting an update to QL1 data. Detailed information is available on page 8 of the solicitation. Should you have questions we encourage you to contact your National Map Liaison who can facilitate your interaction with the USGS commercial partnerships team regarding the potential cost for your project.

You can also submit your questions to gs_baa@usgs.gov

+ 3DEP FY16BAA / FY17 Awards

BAA Solicitation Attachment A: Full Proposal

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PAST PERFORMANCE

Past Performance (of primary applicant) 750 characters maximum	Please provide a summary of the applicant's history of managing large data acquisitions with multiple funding partners
---	--

ADDITIONAL PROJECT DETAILS OR CLARIFICATIONS

(1500 characters maximum)

G16PS00711 / G16AS00121 Attachment A: FY16/17 BAA Proposal Submission Tool Page 10



gs_baa@usgs.gov

Continue the walk through of the proposal submission tool



3DEP FY16 BAA / FY17 Awards

BAA Attachment E: Validation of Funding Partners

- One form for each funding partner
- Why needed
 - In FY14 there were some funding partners who were not aware they were listed in the proposals
 - Proposal received a cost share score for funds that did not really exist
 - This is NOT a legally binding document
 - Good faith estimate of proposed contribution

While reviewing the full proposal form we referenced Attachment E.

Applicants must submit one form for each of the funding partners listed in their proposal.

This assures the 3DEP team that each of the proposed funding partners is aware that they are included in the proposal package and requires that they acknowledge the proposed amount of their contribution.

It is important to note that this form does not obligate the funds, it is not a legally binding document. It is simply a good faith estimate of your proposed contribution.

Why is this necessary. In our initial year we had some funding partners listed in proposals that were either unaware of their inclusion or were listed but really had only a remote possibility of coming up with funds. In a competitive process it is important that the applicant present a realistic picture of the proposed funding package.



3D Elevation Program (3DEP)

Resources

USGS 3DEP Web Pages
<http://nationalmap.gov/3DEP>

3D Elevation Program (3DEP) FY16/17 Broad Agency Announcement (BAA) Information Sharing Site <https://cms.geoplatform.gov/elevation/3DEP>

BAA Reference Materials Page
<http://nationalmap.gov/3DEP/BAAREferenceMaterials.html>

NOAA sponsored SeaSketch site: U.S. Federal Mapping Coordination, A Demonstration Site for Federal Mapping Data Acquisition
<http://seasket.ch/hwpr3E-MxO>

The 3D Elevation Program Initiative – A call for Action
<http://pubs.usgs.gov/circ/1399/>

USGS NGP Lidar Base Specification V1.2
<http://pubs.usgs.gov/tm/11b4/pdf/tm11-B4.pdf>

For Further Information Contact: 3D Elevation Program:
gs_baa@usgs.gov

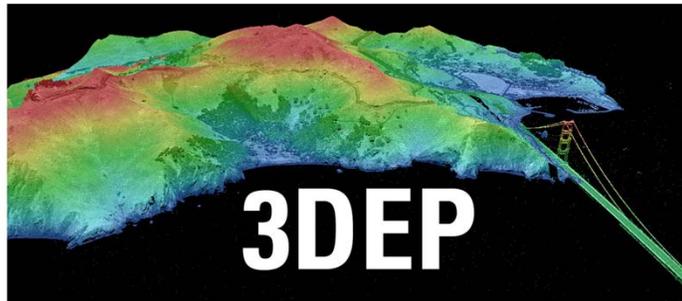


3D Elevation Program (3DEP)

BAA National Webinar

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Questions

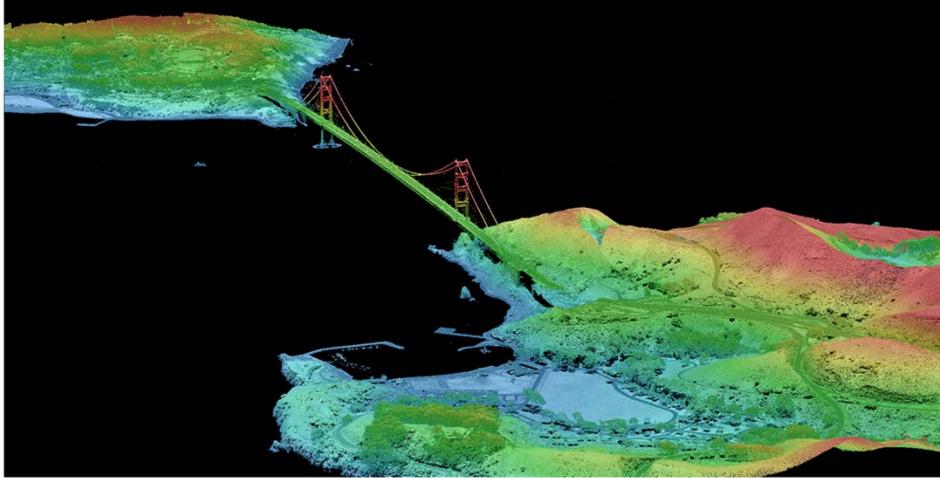


That ends the formal presentation, we will now address questions. Note that responses to the questions asked on both of our national webinars will be documented and presented on our 3DEP web pages. The written responses may be more thorough than our initial response to provide an opportunity for the 3DEP program to provide background and/or contextual information necessary to completely respond to your question.

Allyson Jason from our USGS 3DEP team will now facilitate the Question and Answer session.

+ Thank you!

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 **The National Map**
Your Source for Topographic Information