USGS National Geospatial Program
Status and Plans

Vicki Lukas
January 29, 2013
National Geospatial Program: *The National Map*

Topographic Maps and Data for the 21st Century

**National Leadership**

- Elevation
- Hydrography

**Products and Services**

- Data services
- Data visualization
- Online maps: US Topo
- Historic maps
National Hydrography Dataset

- NHD is the surface water component of The National Map that contains features such as lakes, ponds, streams, rivers, canals, dams and stream gages

- Contains a flow network that allows for tracing water downstream or upstream

- Uses an addressing system based on reach codes and linear referencing to link specific information about the water such as water discharge rates, water quality, and fish population

- Includes the Watershed Boundaries Dataset
National Hydrography Dataset

National Leadership

- **National Stewardship Assessment** – Use pilot findings to shape a survey of all stewards nationally to determine best practices and success factors

- **NGAC Feedback** – Advice and recommendations on stewardship and funding models

- **Mapping Sciences Committee** – Considering a study related to integration of hydrography and elevation
The National Enhanced Elevation Assessment demonstrated the potential to generate $1.2 billion to $13 billion new benefits annually.

Based on the NEEA findings, a cooperatively funded national enhanced elevation program executed by USGS.

Plan to acquire high resolution LiDAR data for 49 states, IfSAR in Alaska.

The goal is to achieve an 8-year acquisition cycle ($146 M per year).

Provide bare earth elevation, point cloud and other data derivatives.
Proposed Funding Strategy
Cooperatively Funded Program Executed by USGS

- Coalition of Federal agencies to commit funding annually to a national program (in rank order of benefits): NRCS, USACE, DISDI, USGS, NOAA, FEMA, EPA, USFS, FAA, and NGA - Kevin Gallagher and Mark DeMulder have met with these agencies
- USGS additionally contributing existing base program
- States and other partner agencies will be invited to participate
- Collection priorities will be based on coalition partner agency needs
- Partners may buy up to higher quality level (Quality Level 1)
- Acquisition cycle scales with funding
Funding Channels DRAFT
Multiple Options

- Pooled Funding - Ongoing partnership program
  - Current annual investments of about $50M – all sources
  - State and Federal Agency commitments to fund Alaska IfSAR
- Appropriations
- Authorization
- Supplemental funding – ex. Hurricane Sandy (targeted to impact area)
- Increased appropriations where authorizations are in place
- Non-Federal Stakeholder actions
  - An interest group establishes a 3DEP Coalition
  - Other advocacy
3DEP Executive Forum

First meeting scheduled for February 7 at DOI

- **Purpose** – To facilitate executive dialog and collaboration on creative funding strategies to implement and maintain 3DEP
  - Status, plans and coordination for 3DEP and the national collection of data
  - Coordination on nationally significant developments – for example, legislation, hurricane supplemental funding plans, GAO reports or other multi-agency concerns
  - Sharing of insights and development of strategies to communicate with industry and other potential stakeholder groups
  - Executive direction and input to NDEP as the operational coordinating body for enhanced elevation

- **Membership** – Executive-level (Associate Director equivalent) representatives of NDEP and other agencies with the highest potential benefits as reported in NEEA
3DEP Executive Forum

Linkages

- A-16 leadership for elevation – executive champion
- Explore linkages of 3DEP with Data Acquisition as a Service in Geospatial Platform
Current USGS Activities

Toward Implementing 3DEP

- Program operations being consolidated and modernized
- Two year transition to QL2 data collections (except for Alaska, goal to fund only QL2 lidar and higher beginning in FY15)
- Acquisition specification being updated for QL2
- Inventory update for 2012 to be released soon
- 3DEP Implementation Plan under development
- 3DEP Executive Forum – first meeting in February
- Exploring multiple funding alternatives
- Expanded outreach strategy to include select industries such as precision agriculture, transportation and alternative energy
- GPSC3
Interagency Elevation Inventory

- Ongoing NOAA, USGS, and FEMA collaboration to maintain the inventory and make the data accessible
- 2012 update to be available soon
- Inventory is critical to assessing progress towards 3DEP goals

www.csc.noaa.gov/inventory
3DEP Endorsements

- **NGAC Recommendation, April, 2012** - “The NGAC endorses a national elevation program (i.e., 3D Elevation Program, or 3DEP) as described in the National Enhanced Elevation Assessment conducted by the U.S. Geological Survey (USGS). The NGAC encourages the USGS, the Department of the Interior, and Federal partner agencies to refine, adopt, and implement this program in partnership with other levels of government, academia, and the private sector.”

- **NSGIC** - Letter of endorsement was sent to the USGS Director in April, 2012 in support of the recommended program and to request that there be advanced planning and buy up opportunities.

- **NDEP** – Fully endorsed by member agencies in December, 2012

- Other endorsements expected

- **MAPPS** private sector capacity statement
3DEP Resources

- NEEA Report
- 3DEP webpage
- USGS Fact Sheets
  - NEEA at a glance
  - 3D Elevation Program
- Resources in work
  - State information sheets
  - Journal articles
  - Industry solutions

Next:

Final Report of the National Enhanced Elevation Assessment

Revised March 29, 2012

http://nationalmap.gov/3DEP
USGS Alaska Mapping Initiative

US Topo for Alaska

- Finalize specifications and begin automated production of US Topo maps for Alaska in FY13
- Partner with the Alaska Statewide Digital Mapping Initiative (SDMI) on IfSAR data acquisition - 3DEP starts in Alaska
- Sources for other map layers needed for The National Map datasets and US Topo provided by USGS and partners
Alaska Mapping Executive Committee

Led by the Department of the Interior

- DOI established an interagency executive committee as an outcome of the Alaska Mapping Roundtable held in June, 2012
- Assistant Secretary for Water and Science, Anne Castle, chair
- Coordinate the Federal role in Alaska mapping
- Met in August and November, next meeting in March
- Participation includes Alaska Lt. Gov. and State executives
Alaska Mapping Executive Committee

Funding for Statewide Ifsar

- Technical Subcommittee developed a 3-4 year acquisition plan
- Budget representatives from each agency are being sought
- Allocation of costs based on NEEA and other requirements
- Beginning development of a budget cross cut
5 Year GPSC Funding History and 2012 Projection – From 7/12 MAPPS meeting

Dollars (Millions)

2007  2008  2009  2010  2011  2012 (projected)
GPSC (1 and 2) Tasks and Dollar Values FY07 through FY13 (est)

Number and value of GPSC task by year

Task Orders Total $ Value (millions)

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<th>Task Orders</th>
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GPSC3 Preliminary Planning and Procurement Schedule

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*draft and subject to change*
A Couple of Odds and Ends

- Hurricane Sandy supplemental
- Sequestration and budget
- MAPPS-USGS Collaboration – THANK YOU
Questions?