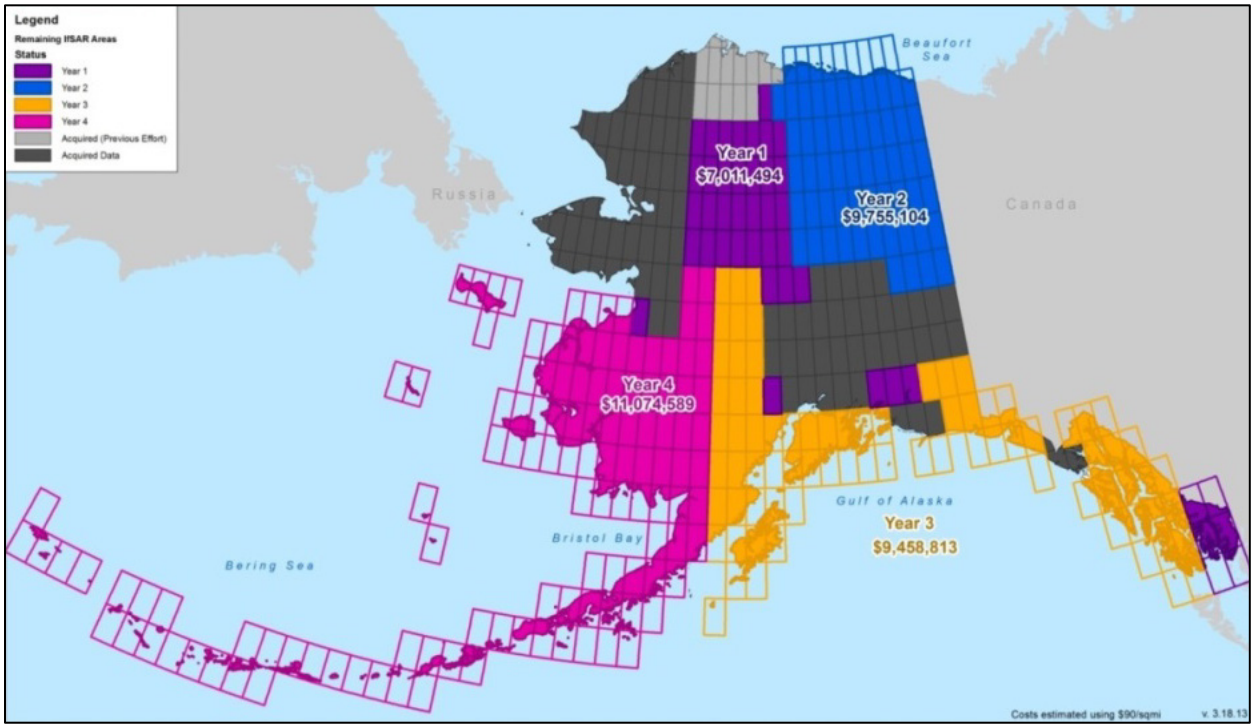
Alaska Mapping Executive Committee
Alaska Mapping Budget Cross-Cut for Completion of Ifsar Elevation Data Acquisition
September 11, 2013

Background

The interagency Alaska Mapping Executive Committee (AMEC), chaired by the Department of the Interior Assistant Secretary for Water and Science, was established to implement and coordinate the Federal role in mapping the State of Alaska. The Committee has defined three priorities for Alaska mapping, and is considering adding an additional two. AMEC priorities are outlined in the APPENDIX. The mutual first priority of AMEC and the State of Alaska's Statewide Digital Mapping Initiative is the completion of statewide high-resolution ifsar elevation data acquisition. The new 5-meter ifsar data are 12 times more detailed than the current statewide USGS National Elevation Dataset at a resolution of 60 meters, and are essential to a broad range of mission-critical applications including landscape-level assessments, as documented in the USGS National Enhanced Elevation Assessment. AMEC has focused its efforts on the first priority as a starting point to improve Alaska Mapping. Likewise, this budget cross-cut addresses only the completion of ifsar elevation acquisition. Funding strategies for the remaining priority layers will be addressed by AMEC subsequently.

To address the first priority for completion of ifsar elevation data acquisition, the AMEC Technical Subcommittee developed a 4-year plan based on geographic priorities of the member agencies. The plan is subject to identification of funding.

AMEC Four-Year Plan Showing Target Funding to Complete Statewide Ifsar Elevation Data Acquisition **(corresponds to "Target Funding" on budget cross-cut)**



In accordance with GAO Report 13-94 recommendations to OMB and Federal Agencies to make coordination a priority to reduce duplication, AMEC has promoted partnerships among its agencies and the State to leverage funding and accelerate elevation data acquisition. As a result, coverage has improved from about 15% of the State at the inception of AMEC, to 40%, including Fiscal Year 2013 planned acquisition to date. However, at the current pace of funding, and more so at reduced sequestration funding levels, data acquisition will not be completed within or even close the goal of 4 years.

Purpose of Ifsar Elevation Data Budget Cross Cut

The budget cross cut presents three funding scenarios for the remaining years of the ifsar elevation data acquisition plan. The purpose of the cross cut is to assist participating agencies with planning goals and to communicate the interest in and need for the completion of this effort across multiple Federal agencies. The projected budget numbers for each agency do not represent a commitment but rather serve as a tool for planning, coordination and communication. Particularly given sequestration, actual budgets will vary from past averages and plans are subject to change.

Budget Scenarios for Ifsar Elevation Data

- **Planned** – Represents the actual amounts contributed by the agencies since 2010 together with planning numbers reported to AMEC for the remainder of the 4-year plan. Given the current budget uncertainties, participating agencies have provided conservative estimates for FY14 – FY16 contributions.
- **Average** – Represents an average annual contribution of each participating agency for the remaining years of the plan, based on contributions made since 2010. This is conceptual and meant to portray what could be done with a "flat" budget given past investment levels, and does not take into account yearly variations. These are not commitments of the agencies, but a picture of the progress that might be made with budgets on par with the previous years.
- **Fully Funded** – Represents contributions that would be required to complete the plan, based on reported requirements of the agencies. This does not take into account the many requirements of other Federal agencies that are not participating. These numbers are not commitments of the agencies but a picture of the full amount needed to reach the AMEC goal within the 4 year timeframe.

Benefits to Federal Government of Ifsar Elevation Data

While only a few Federal agencies commonly budget for and acquire geospatial data as part of their missions, many more are users of it. As part of the National Enhanced Elevation Assessment, 14 Federal agencies reported elevation data requirements in Alaska. The majority of their business uses have a requirement for ifsar data for the entire State. Several of these agencies participate in AMEC but are unable to contribute funding.

Business Uses for Ifsar Elevation Data Reported in the National Enhanced Elevation Assessment

Dept	Agency	Business Use	Functional Activity Reported
DHS	FEMA	Flood Risk Management	Flood Risk Analysis
DOC	NOAA	Flood Risk Management	Advanced Hydrologic Prediction Service Inundation Mapping
DOI	BLM	Natural Resources Conservation	Multi-Use Land Management in Alaska
	FWS	Wildlife and Habitat Management	National Wildlife Refuge System, Endangered Species, Fisheries and Habitat Conservation, Migratory Birds
	NPS	Natural Resources Conservation	Preservation and Protection of Natural and Cultural Resources
	USGS	Geologic Resources Assessment and Hazard Mitigation	Geologic Mapping
DOT	FAA	Aviation Navigation and Safety	Enroute Instrument Procedure Development
EPA	EPA	Natural Resources Conservation	Environmental Protection, Land Cover Characterization, and Runoff Modeling
		Water Supply and Quality	Broad Area Air and Water Quality Research
FCC	FCC	Telecommunications	Spectrum Management and Frequency Coordination
FERC	FERC	Homeland Security, Law Enforcement and Disaster Response	Flood Risk Mapping for Hydroelectric Dam Break Failures and Analysis
		Oil and Gas Resources	Pipeline Routing and Facility Siting
HHS	CDC	Health and Human Services	Human, Animal, and Environmental Health
NASA	NASA	Education K-12 and Beyond	Advanced Earth Science Mission Support
USDA	NRCS	Natural Resources Conservation	Conservation Engineering and Practices NRCS Specialized Mapping Applications
	USFS	Forest Resources Management	Forest Inventory and Assessment
		Infrastructure and Construction Management	Infrastructure Management
		Natural Resources Conservation	Wetlands Mapping and Characterization, Soils and Geology Inventory
		River and Stream Resource Management	Watershed Analysis
		Wildfire Management, Planning and Response	Wildfire Management

AMEC Budget Cross-Cut with 3 Funding Scenarios for Completion of Ifsar Elevation Data Acquisition for Alaska

		Previous Contributions			AMEC 4-YEAR PLAN					
		FY10 Actual	FY11 Actual	FY12 Actual	FY13 Actual	3 Budget Scenarios for outyears	FY14	FY15	FY16	Total FY10 - FY16
Target Funding		NA	NA	NA	$7,011,494		$9,755,104	$9,458,813	$11,074,589	$37,300,000
Agency Contributions and Plans	BLM	$212,110	$19,620	$0	$162,092	Planned	$0	$0	$0	$393,822
						Average	$98,456	$98,456	$98,456	$689,189
						Fully Funded	$979,120	$901,864	$2,053,250	$4,328,056
	FWS	$0	$250,000	$300,000	$0	Planned	$0	$0	$0	$550,000
						Average	$137,500	$137,500	$137,500	$962,500
						Fully Funded	$979,114	$901,859	$2,053,238	$4,484,211
	NPS	$98,091	$147,143	$178,533	$30,000	Planned	$86,722	$188,203	$90,068	$818,760
						Average	$113,442	$113,442	$113,442	$794,092
						Fully Funded	$167,345	$154,141	$350,929	$1,126,183
	NRCS	$99,996	$231,701	$107,448	$630,000	Planned	$450,000	$0	$0	$1,519,145
						Average	$267,286	$267,286	$267,286	$1,871,004
						Fully Funded	$979,120	$901,864	$2,053,250	$5,003,379
	USFS	$0	$0	$347,561	$200,000	Planned	$297,272	$0	$0	$844,833
						Average	$136,890	$136,890	$136,890	$958,232
						Fully Funded	$650,405	$599,085	$1,363,922	$3,160,973
	USGS	$995,995	$853,212	$3,066,402	$3,145,289	Planned	$2,000,000	$2,000,000	$2,000,000	$14,060,898
						Average	$2,015,225	$2,015,225	$2,015,225	$14,106,572
						Fully Funded	$2,000,000	$2,000,000	$2,000,000	$14,060,898
	NGA	$2,354,182	$0	$0	$0	Planned	$0	$0	$0	$2,354,182
	ALASKA	$1,839,205	$0	$4,953,738	$2,800,000	Planned	$4,000,000	$4,000,000	$1,200,000	$18,792,943
Annual Total		**$5,597,673**	**$1,497,203**	**$8,944,329**	**$6,967,381**	**Planned**	**$6,833,994**	**$6,188,203**	**$3,290,068**	**$39,318,851**
						Average	**$6,768,798**	**$6,768,798**	**$3,968,798**	**$40,512,981**
						Fully Funded	**$9,755,104**	**$9,458,813**	**$11,074,589**	**$53,295,092**
GAP = Shortfall of Target Funding					**$44,113**	**Planned**	**$2,921,110**	**$3,270,610**	**$7,784,521**	**$14,020,354**
						Average	**$2,986,306**	**$2,690,015**	**$7,105,791**	**$12,782,111**
						Fully Funded	**$0**	**$0**	**$0**	**$44,113**

APPENDIX

AMEC Priorities

The full set of AMEC priorities includes the following: (note that the budget cross-cut addresses only priority #1 to complete statewide ifsar elevation data acquisition)

Priority #	Description	Goal	Funding Gap
1	Ifsar Elevation Data	Statewide coverage	$14.5M
2	National Hydrography Dataset and Watershed Boundaries Dataset	Statewide, full revision	$24M
3	Transportation	Statewide public data	$1.2M
TBD	GRAV-D	TBD	$4.6M
TBD	Coastal Mapping	TBD	$10M

National Hydrography Dataset (NHD) and Watershed Boundaries Dataset (WBD) – The NHD is the surface water component of the USGS *National Map* and the primary repository for hydrography data in the United States. The WBD defines the areal extent of surface water drainage to a point based on hydrologic principles, accounting for all land and surface areas. The USGS and partners including the National Park Service, the U.S. Forest Service and the Alaska Department of Natural Resources, are currently collaborating to improve major errors in these datasets. However, full revision, estimated at $20M for NHD, and $4M for WBD, is needed to better enable mission critical applications of the AMEC member agencies and the broader community, including resources management, water quality and quantity management, pollution reporting and control, emergency operations, and others.

Transportation – Research and planning are ongoing with the Alaska Department of Transportation and the U.S. Census Bureau as the lead agencies, to produce and maintain a publicly available dataset, estimated at $1.2M for completion. The data are useful to a variety of applications, including planning, routing, and navigation.

NOAA GRAV-D and Coastal Mapping – AMEC is currently considering the addition of these layers to the Committee priorities. GRAV-D data will be used to create an improved geoid for Alaska, greatly increasing the accuracy of geospatial data in the State, including the ifsar elevation data, NHD and all others. The Coastal Mapping effort will update coastlines for a variety of products and applications.

GOVERNOR
Sean Parnell
of Alaska

SENATOR
Lisa Murkowski
of Alaska

SENATOR
Mark Begich
of Alaska

CONGRESSMAN
Don Young
of Alaska

March 19, 2013

The Honorable Kenneth L. Salazar
Secretary
United States Department of the Interior
1849 C Street, NW
Washington, DC 20240

Dear Secretary Salazar,

We would like to express our gratitude for the U.S. Department of the Interior's leadership in accelerating the acquisition of statewide topographic mapping for Alaska. This issue remains a critical priority for the State of Alaska and the Alaska Congressional delegation.

As you are aware, Alaska lacks an adequate digital base map. Accurate topographic data is essential to support responsible economic development, the preservation of human life, and the advancement of scientific research in Alaska. The importance of mapping Alaska is underscored by the state's key role in America's energy future, as well as the need to understand climate change impacts. Good data is also a must for disaster preparedness and response.

We were pleased that your department, thanks in large part to the leadership of officials like Anne Castle, partnered with the State of Alaska to host a roundtable of senior federal executives last June to focus on Alaska mapping. That roundtable led to the establishment of an executive committee of federal officials tasked with overseeing the federal role in completing the mission of mapping Alaska.

We look forward to further progress through the interagency Executive Committee and continued coordination between the federal agencies and the State of Alaska to advance mapping in Alaska to modern standards.

Sincerely,

Sean Parnell
Governor

Lisa Murkowski
U.S. Senator

Mark Begich
U.S. Senator

Don Young
Congressman