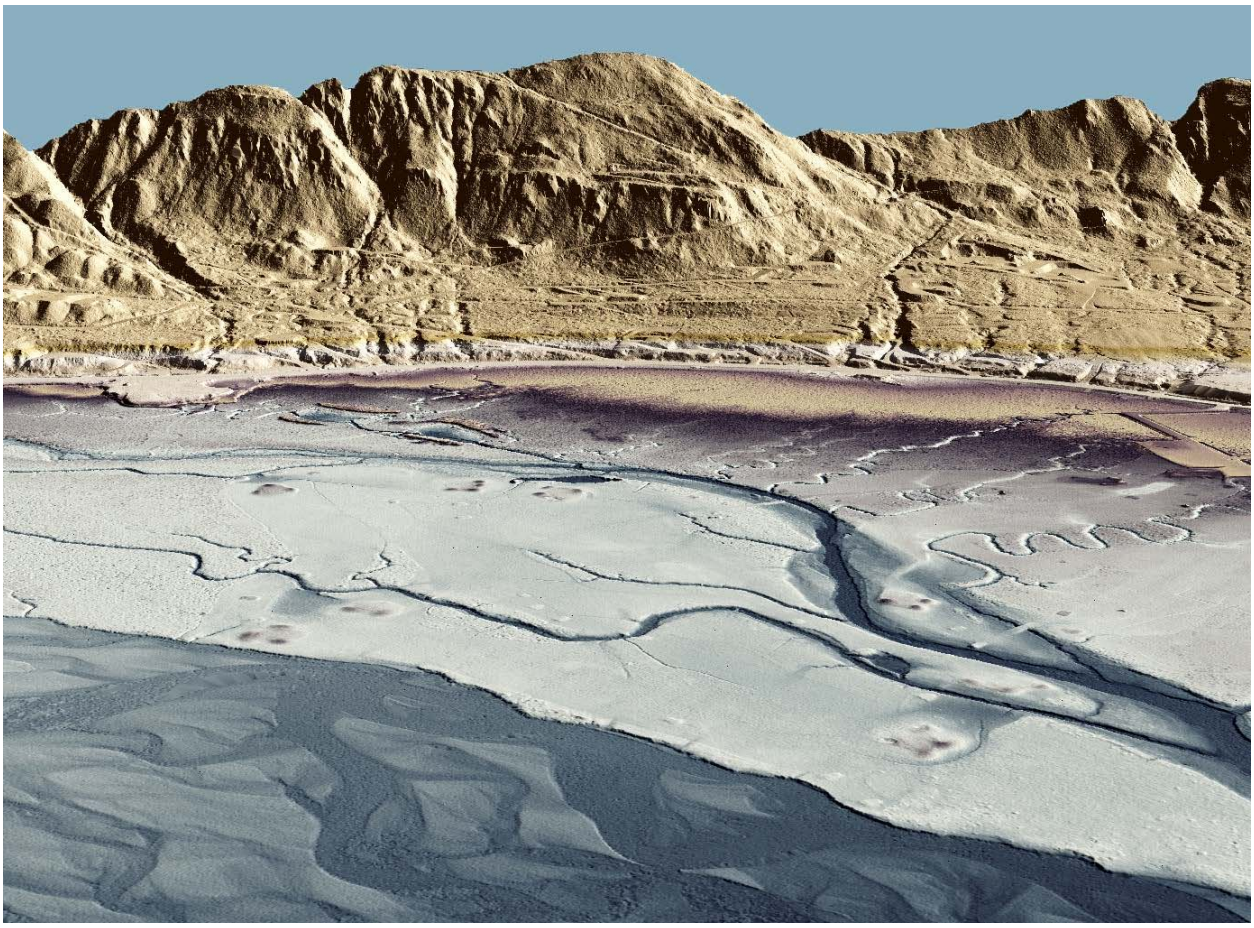
# 2018 ALASKA COASTAL MAPPING SUMMIT SUMMARY REPORT



**Haines, Alaska. A look at the intricate braiding of tidal flats, looking north at the shoreline west of McClellan Flats. The image was created from the gridded LiDAR surface colored by elevation. Quantum Spatial**

Final
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# I. EXECUTIVE SUMMARY

On February 9, 2018 over one hundred subject matter experts gathered in Anchorage for the second Alaska Coastal Mapping Summit. This event, hosted by the Alaska Ocean Observing System (AOOS), the State of Alaska Department of Natural Resources (AK DNR), and the federal Interagency Working Group on Ocean and Coastal Mapping (IWG-OCM), provided a forum to discuss the next steps for a coordinated approach to coastal mapping in Alaska.

Numerous real-world stories and planning scenarios made it apparent that reliable geospatial data underpins all responsible and economical decision-making for Alaska's coastal environments. Examples illustrated how coastal mapping is critical to the safety and livelihoods of residents, responsible resource extraction (mining, oil, gas, and timber), tourism, commercial fishing, subsistence, land and habitat management, and the development of local and international marine shipping routes. More than 30 of these detailed examples are included in the body and appendices of this summit report and the specific applications identified at the summit will drive development of the State's Coastal Mapping Strategic Plan.

Summit participants worked together to discuss strategies for identification and realistic prioritization of gaps in baseline geospatial data, namely imagery and seamless elevation surfaces that extend from inland areas to nearshore water and require auxiliary coastal mapping data, like tide station products or ground control. Meeting participants agreed that investments in Alaska coastal mapping should promote publicly accessible and authoritative products that address gaps critical to the safe navigation of vessels, infrastructure planning, flood and erosion mapping, emergency response, and environmental change detection.

Discussions throughout the day recognized that approaches, priorities, and objectives for mapping in Alaska's coastal zone require unique consideration of its extremely varied geomorphology, active earth processes, and remote setting. However, past success stories (e.g. 3D Elevation Program lidar project on the Yukon Delta), opportunities to pioneer new methods and technologies (e.g. advanced photogrammetric techniques or crowd-sourced bathymetry), and the existence of successful inter-agency bodies that recognize the importance of coastal mapping (e.g. the Alaska Mapping Executive Committee (AMEC), the Alaska Geospatial Council (AGC), and the ShoreZone Program) set a tone of optimism and opportunity about what can be achieved with this renewed commitment to statewide coordination.

To ensure that the substantive discussion from this meeting becomes a roadmap for coastal data acquisition in Alaska, the National Oceanic and Atmospheric Administration (NOAA), AOOS and the AGC have jointly funded a one-year Coastal Mapping Strategist position to spearhead compilation of an Alaska Coastal Mapping Strategic Plan. This Plan will incorporate many of the more than two dozen recommendations from this summit provided in the appendices to this report including; priorities and refresh rates for bathymetry, terrestrial elevation and imagery data; tiered, technology-neutral data specifications for different coastal environments; a data inventory with appropriate metrics; and an emphasis on demonstrated region-specific applications and anticipated future uses. Widespread and continued participation in the development of the Alaska Coastal Mapping Strategic Plan -- scheduled for draft release by December 2018 -- will be required to achieve an executable strategy that will include Alaska's many coastal mapping needs.