

UAF Sustaining USArray Capabilities in Alaska

FY2020 Request: \$4,500,000
Reference No: 62565

AP/AL: Appropriation **Project Type:** Research / Studies / Planning
Category: University
Location: Statewide **House District:** Statewide (HD 1-40)
Impact House District: Statewide (HD 1-40) **Contact:** Michelle Rizk
Estimated Project Dates: 07/01/2019 - 06/30/2024 **Contact Phone:** (907)450-8191

Brief Summary and Statement of Need:

UAF Sustaining UAArray Capabilities will dramatically improve Alaska's ability to assess and prepare for earthquakes and tsunamis by seizing a short-lived opportunity to establish a long-term statewide monitoring platform. The federal USArray project will end in 2019 and the network is scheduled to be removed for use elsewhere.

Funding:	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Total
1002 Fed Rcpts	\$3,500,000						\$3,500,000
1004 Gen Fund	\$1,000,000						\$1,000,000
Total:	\$4,500,000	\$0	\$0	\$0	\$0	\$0	\$4,500,000

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input type="checkbox"/> On-Going
0% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
Totals:	0	0

Prior Funding History / Additional Information:

Project Description/Justification:

This initiative will dramatically improve Alaska's ability to assess and prepare for earthquakes and tsunamis by seizing a short-lived opportunity to establish a long-term statewide monitoring platform. In September 2017, the National Science Foundation completed installation of the \$50 million USArray network of monitoring stations. The Alaska Earthquake Center has integrated USArray with the state's existing seismic network to provide earthquake assessments across all of mainland Alaska including, for the first time: the North Slope, Western Alaska, and Southeast. Products derived from this network help determine building codes, insurance rates, tsunami evacuation zones, emergency response plans, and the design of every major infrastructure project in Alaska.

Several other types of instrumentation piggybacking on USArray stations have improved abilities to monitor weather patterns, forest fire conditions, soil temperatures, flying conditions, and volcanic eruptions. The USArray project will end in 2019 and the network is scheduled to be removed for use elsewhere. At that time, all of these capabilities will stop. A vigorous campaign is underway to secure federal support to retain about half of the USArray sites for longterm use (detailed scope and budget at

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<https://earthquake.alaska.edu/usarray-sustainability>). Several federal agencies are currently in discussion about aspects of the network they each might consider supporting. Capital funding over the first five years will catalyze federal support and ensure that the state's interests are well represented in these negotiations. This will be achieved by (i) carrying out a suite of research (on earthquakes, tsunamis, weather, fire, permafrost, etc.) that specifically leverage the USArray data, and (ii) owning and operating a strategic subset of the field stations and piggybacked instrumentation.