ATA Future Plans

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Alaska Transportable Array

A summary of 2018 operations
Summary of baseline demobilization proposal

For maps, station locations, general description, etc., see:

www.usarray.org/alaska
• ~280 sites
• 85 km spacing
• Broadband Seismometers
  Infrasound, pressure
  Meteorological, Soil Temp
• <4hr Communications
• Fully deployed 2017
2018 Operations Summary

Activities in 2018

Operational:

- Monitor and assess performance and diagnostics
- Maintain data availability through station servicing
- Adapt stations to lower cost comms as available
- Addition of (30) Forgen Wind Turbines at northern stations

Planning:

- 2018 provides cost experience for long-term operations
- 2018 provides an opportunity for external organizations to develop plans for evolving / extending the ATA (informed by cost experience)
2018 Cooperative Activities

- (12) Borehole upgrades at AEC and Canadian stations supported by the operators

- Strong motion added to tsunami warning station locations at:
  - TA.S15K / AT.CHGN and TA.S19K / AT.OHAK

- Additional (12-15) meteorological sensor installs

- Woods Hole Research Center soil sampling-NASA ABoVE / NSF BIO

- Space weather trial with MACAWS project and possible soil moisture / snow depth via backscatter
Collaborations

Seismology Partners:
- UAF Alaska Earthquake Center (AEC)
- USGS Alaska Volcano Observatory
- NOAA Tsunami Warning Center
- EarthScope Plate Boundary Observatory (PBO)
- Canadian Hazards Information Service (CHIS)
- University of Ottawa

Other Science Partners:
- UCSD Scripps Infrasound group
- Yukon Geological Survey
- NASA Arctic Boreal Vulnerability Experiment (ABoVE)
  - Soil Temperature and Meteorological Instruments
- NOAA National Weather Service - Alaska Region
- University of Utah - MesoWest
- Yukon Wildlands Fire Division
Proposed activity for 2019-2020, per baseline demobilization plan:

- Station removals to begin in 2019 with about (60) stations in the north, and
- Continue in 2020 with about (120) stations further south, closer to subduction zone

Might alter plans to extend stations and/or transition to other agencies / organizations:

- May reduce the number of station removals
- May require adapting / adjusting the removal plans articulated in the baseline plan
• Station removals to begin in 2019 with about (60) Stations in the north
• Station removals continue in 2020 with about (120) stations further south
(17) Stations already planned for transfer to other agencies – shown in orange and yellow
(24) Posthole sensors installed at existing stations transfer to operator
These plans pertain to AVO, AEC, and Canada
• September 30, 2018: Deadline for parties wishing to pursue an alternative outcome to have a written plan submitted to NSF for consideration.

• April 1, 2019: Deadline for agreement on any activities that depart from the “baseline plan” related to the 59 stations in northern regions identified for removal in FY19.

• September 30, 2019: Deadline for agreement on any activities that depart from the “baseline plan” related to the 119 stations scheduled for removal in FY20.
  • The baseline plan for this season calls for a large number of removals, thus the logistical plan and execution is complex and requires arrangements well in advance (thus the September 2019 deadline).
The Alaska Transportable Array team is happy to answer questions about performance, capabilities, schedules, costs, etc.

Following the break -- presentations / discussion by participants to highlight the mission, applications, or observational interests of their organization that are relevant to the Alaska Transportable Array
On the Web

• EarthScope
  www.earthscope.org

• USArray
  www.usarray.org

• National Science Foundation
  www.nsf.gov

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