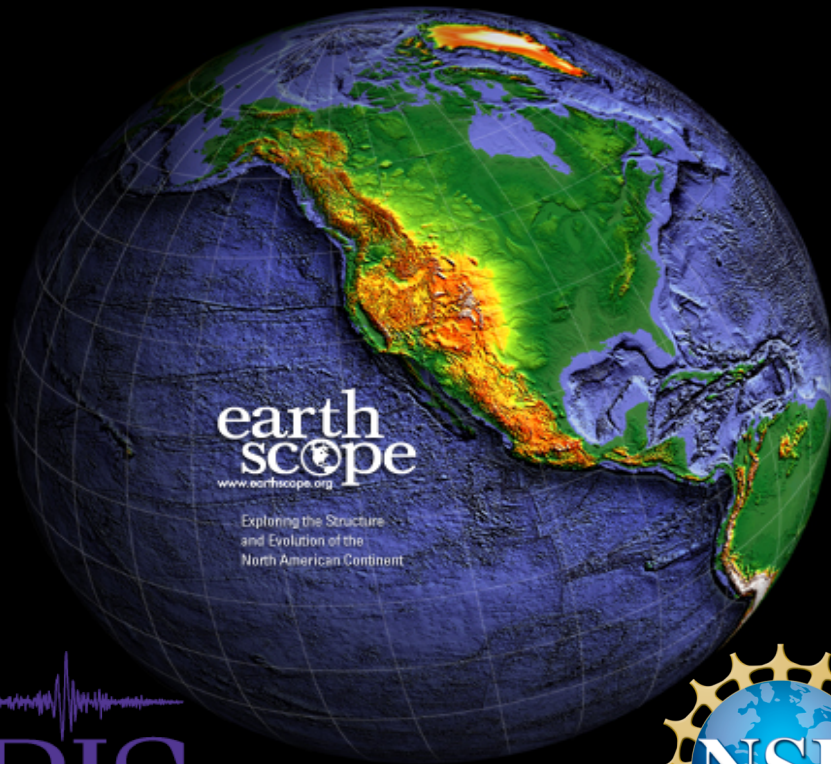


ATA Future Plans

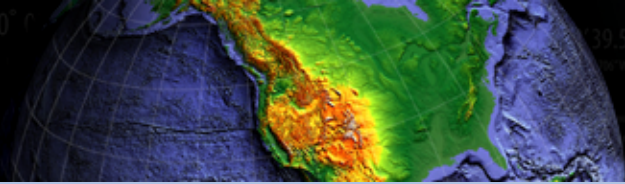


Bob Busby
IRIS TA Manager

Bob Woodward
IRIS Director of Instrumentation Services

Kasey Aderhold
IRIS Project Associate

May 30, 2018



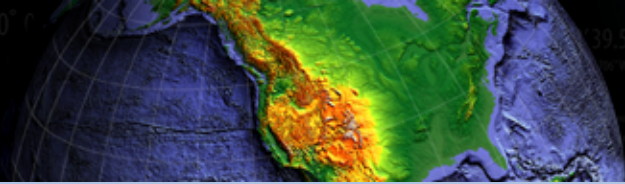
Alaska Transportable Array

A summary of 2018 operations

Summary of baseline demobilization proposal

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

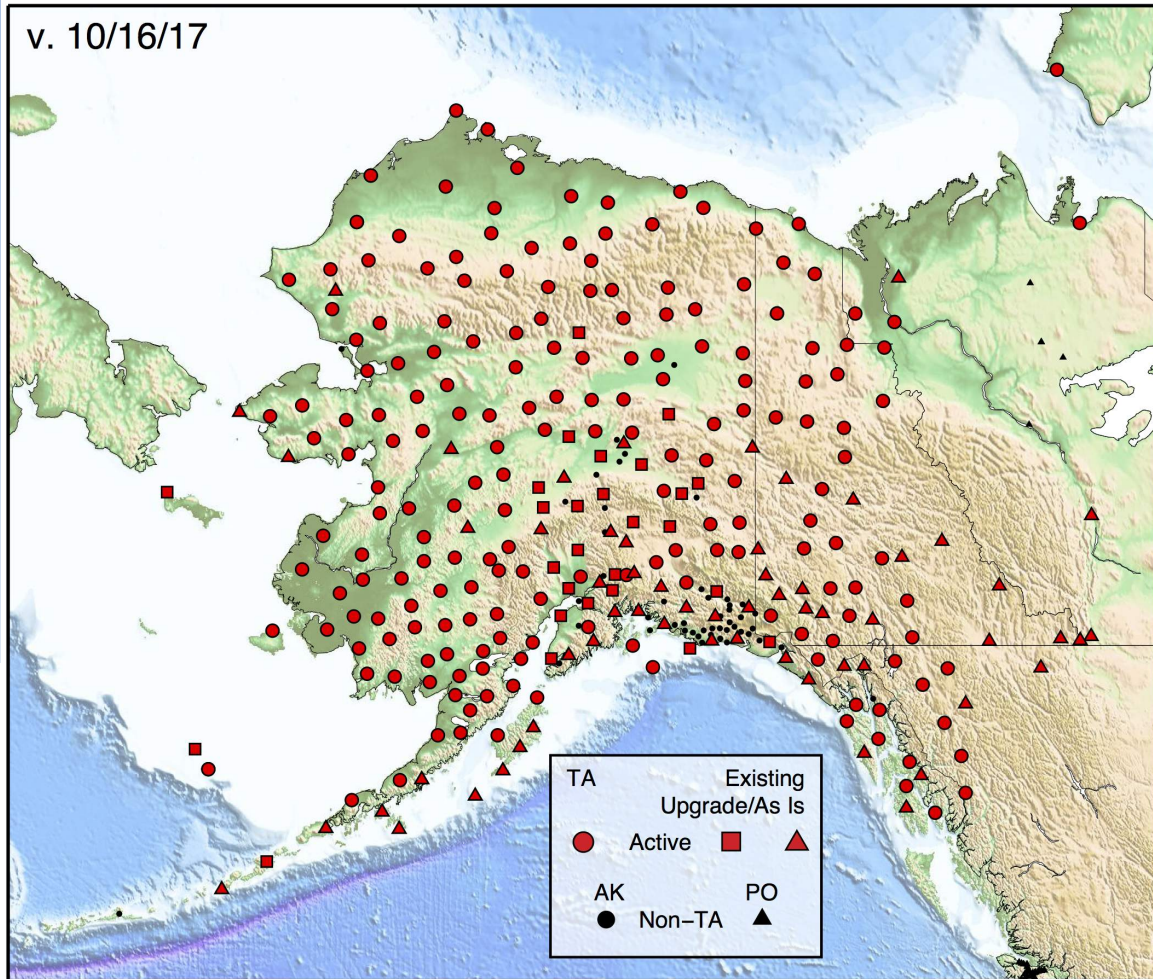
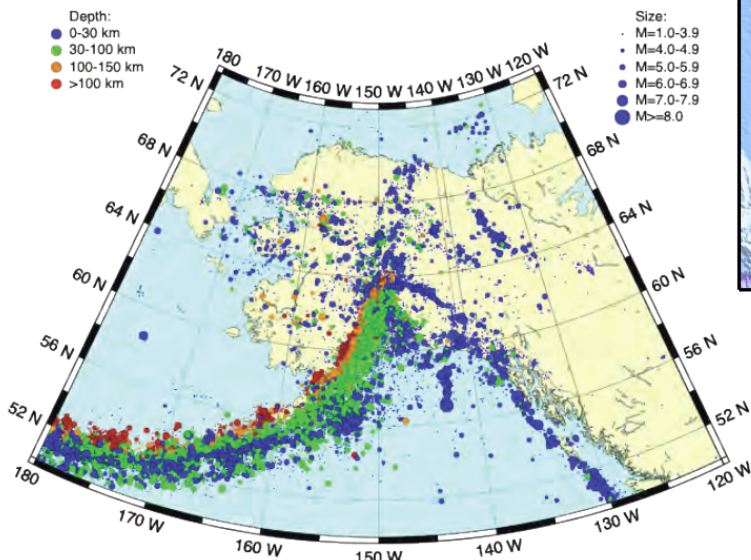
www.usarray.org/alaska



TA in Alaska / Yukon

- ~280 sites
- 85 km spacing
- Broadband Seismometers
Infrasound, pressure
Meteorological, Soil Temp
- <4hr Communications
- Fully deployed 2017

Seismicity in Alaska & Yukon



www.usarray.org/alaska

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)

- (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

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

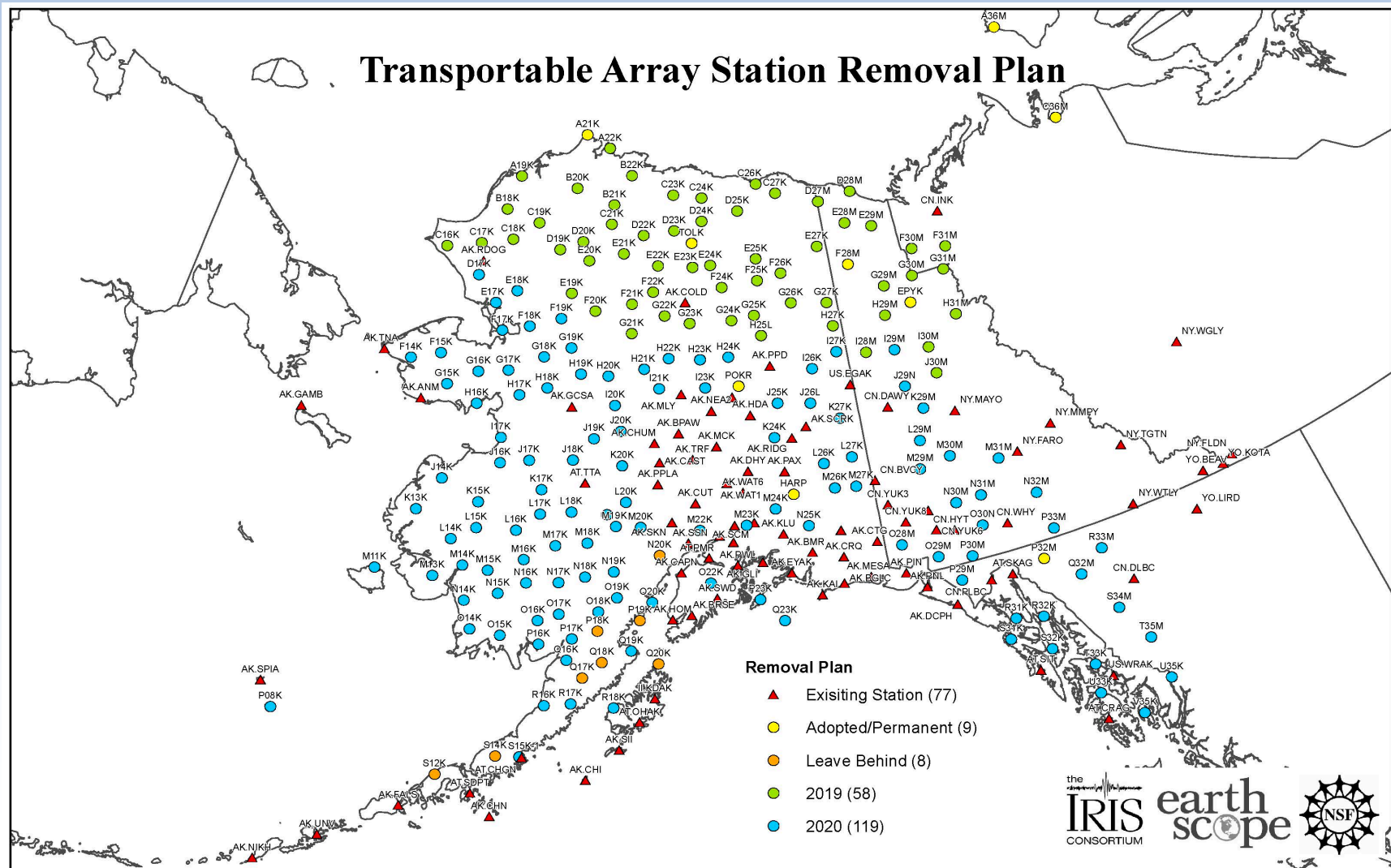
Other Science Partners:

- UCSD Scripps Infrasond 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

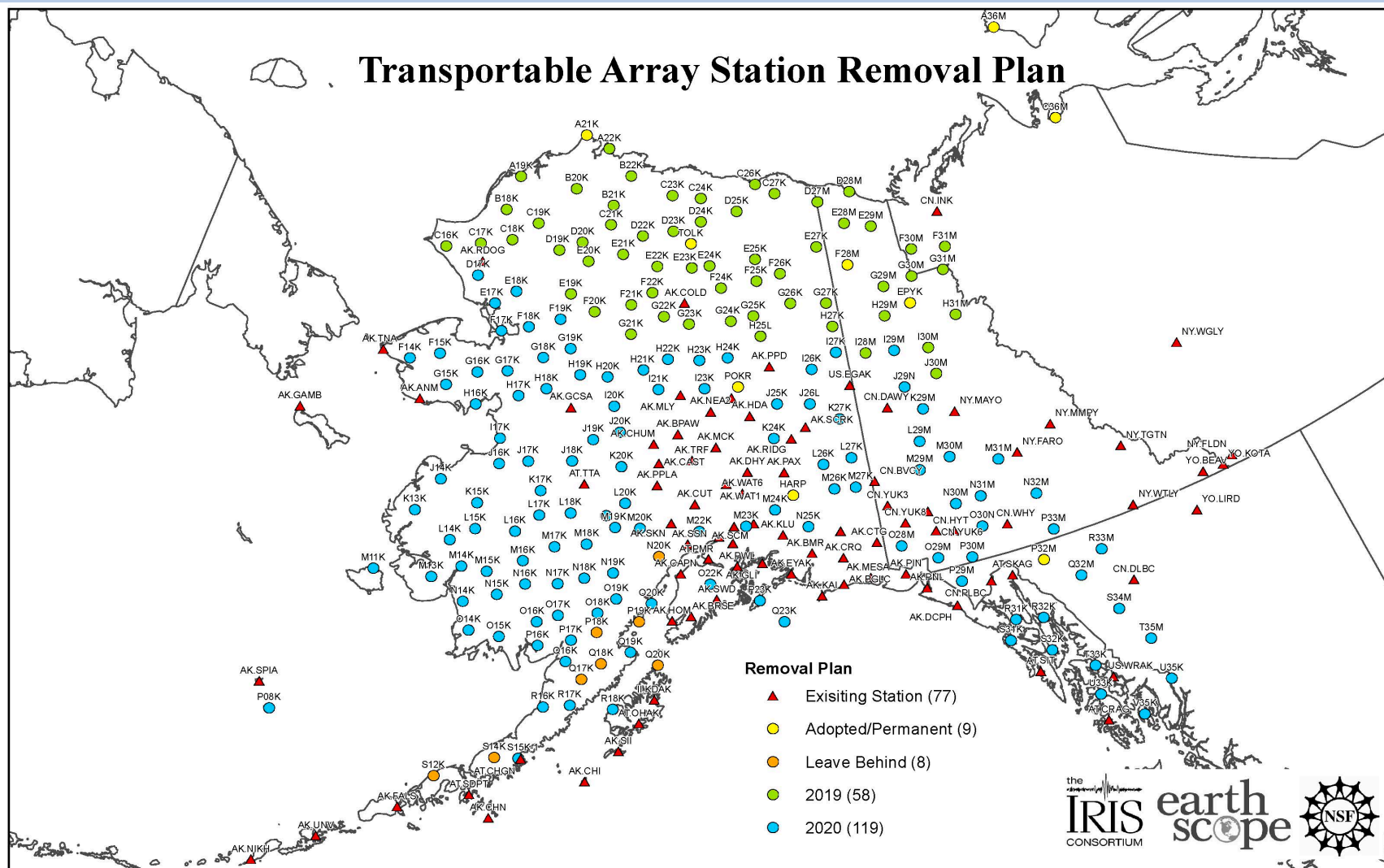
- Proposed activity for 2019-2020, per baseline demobilization plan:
 - Station removals to begin in 2019 with about (60) stations in the north, and
 - Continue in 2020 with about (120) stations further south, closer to subduction zone

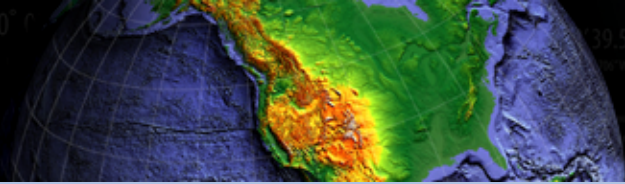
- Might alter plans to extend stations and/or transition to other agencies / organizations
 - May reduce the number of station removals
 - May require adapting / adjusting the removal plans articulated in the baseline plan

- Station removals to begin in 2019 with about (60) Stations in the north
- Station removals continue in 2020 with about (120) stations further south



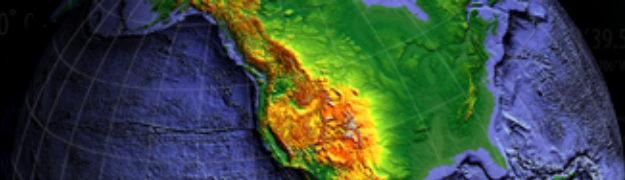
- (17) Stations already planned for transfer to other agencies – shown in orange and yellow
 - (24) Posthole sensors installed at existing stations transfer to operator
- These plans pertain to AVO, AEC, and Canada





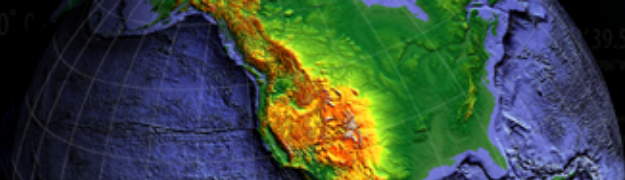
Timeline

- 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).



Discussion

- 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



Want More Info?

On the Web

- EarthScope
www.earthscope.org
- USArray
www.usarray.org
- National Science Foundation
www.nsf.gov

busby@iris.edu
woodward@iris.edu

EarthScope is funded by the National Science Foundation.

