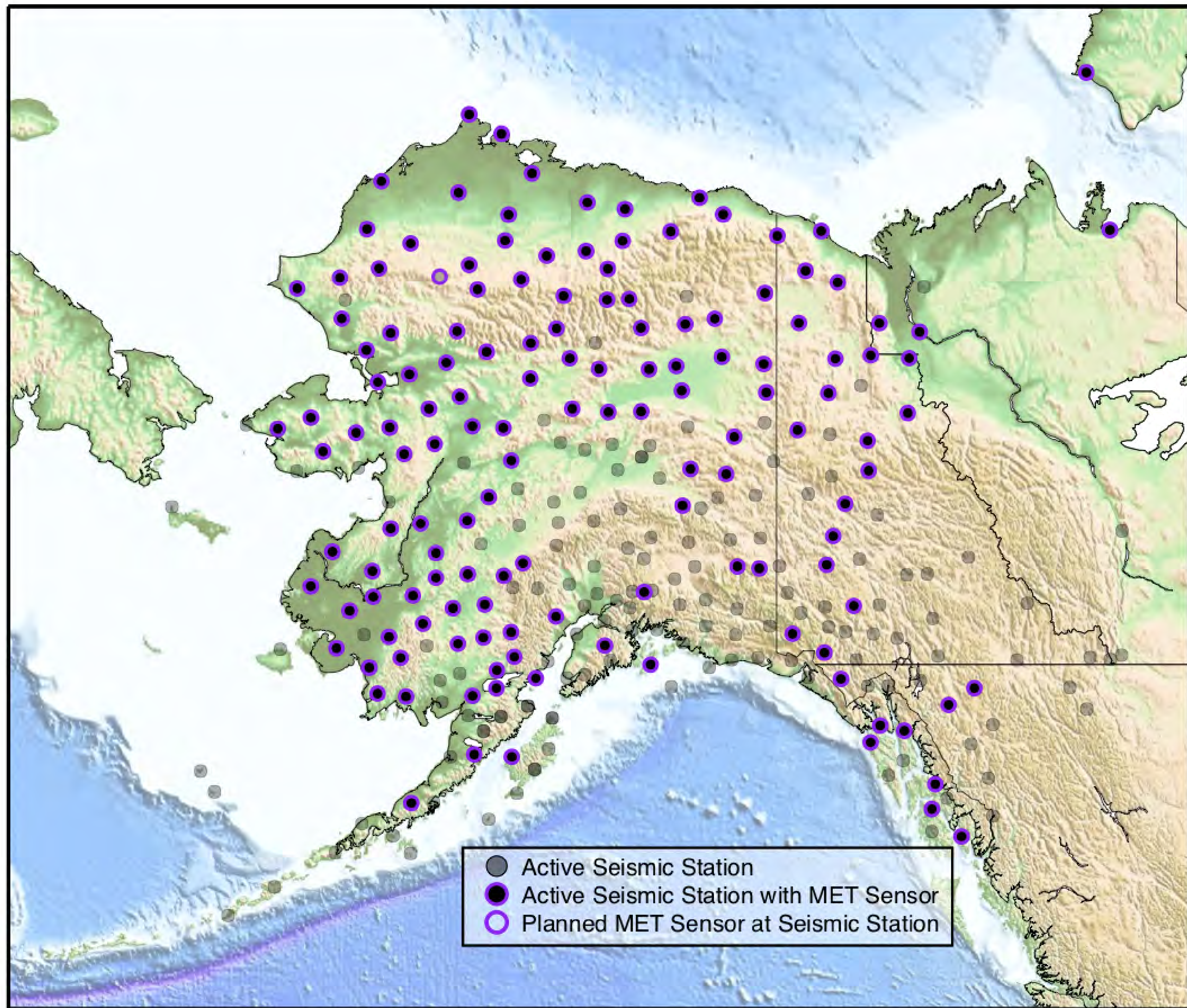


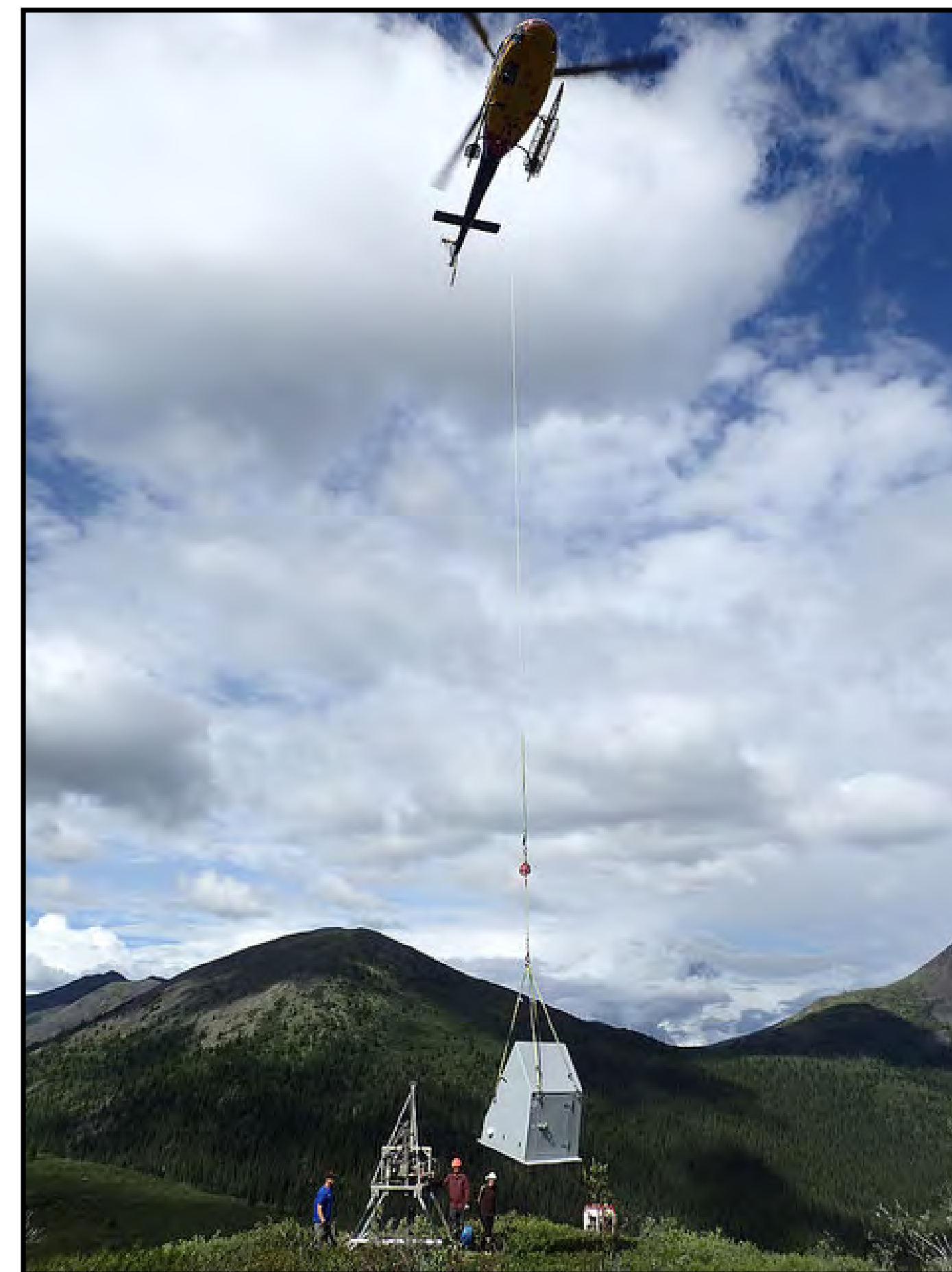
Seismic, Meteorological, and Environmental Observations of the Alaska Transportable Array

The Alaska Transportable Array is a network of 281 ground-based, autonomous, telemetered stations installed at a spacing of 85 km across Alaska and western Canada. Supported by the National Science Foundation (NSF) through EarthScope, the network was installed to record earthquakes and map Earth's structure beneath the North American plate.



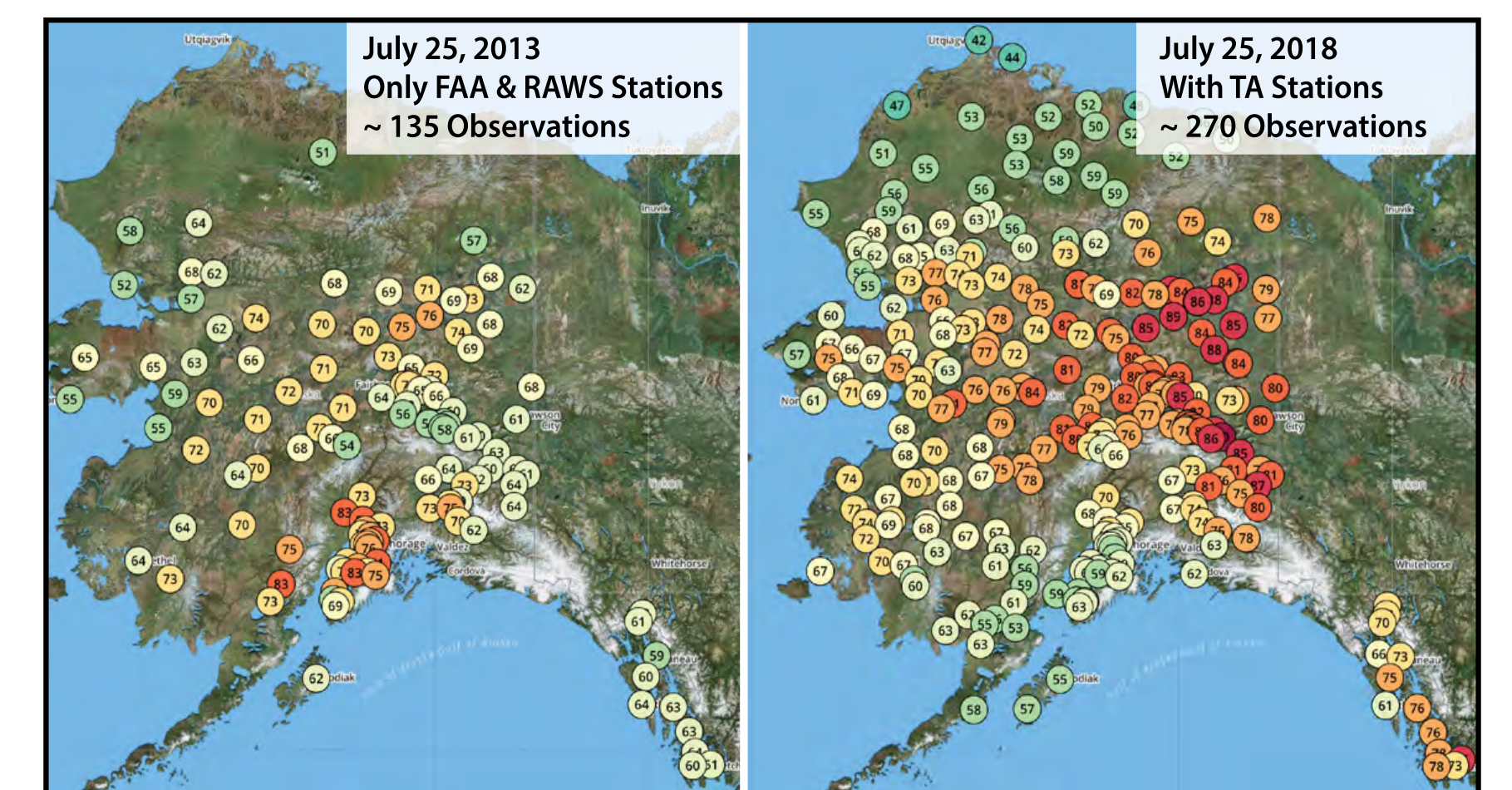
For more information, please go to www.usarray.org/Alaska

While the primary mission of this network is to collect high-quality ground motion data, 140 of the most remote stations have been outfitted with a meteorological sensor through collaborations between IRIS, UCSD, NASA ABoVE, NOAA NWS, and Yukon Wildland Fire Management.



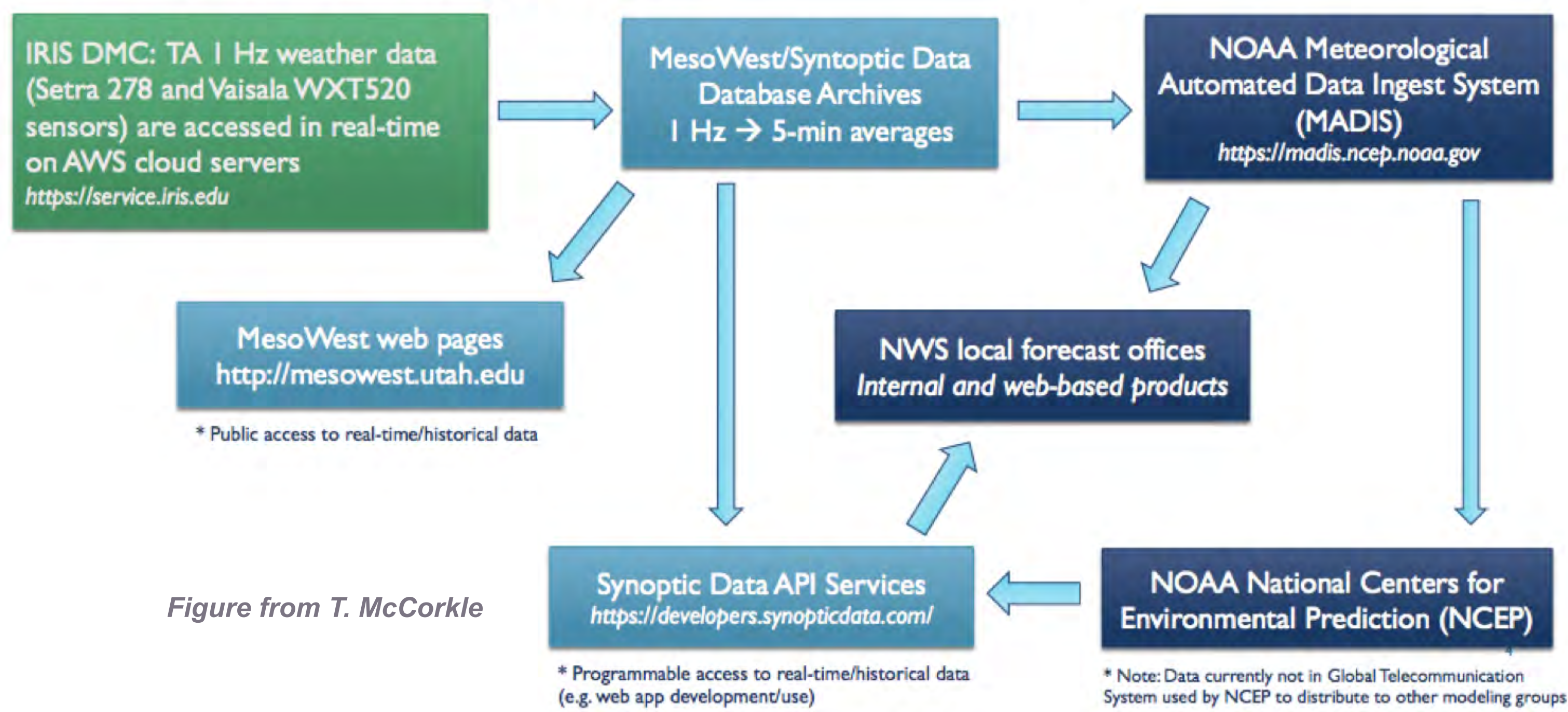
"The USArray is an invaluable resource for research and forecasting in Alaska. We need to find out a way to keep it around."

– Eric Stevens, Alaska Inter-agency Coordination Center, formerly NWS



Data, including pressure, precipitation intensity, wind speed, wind direction, and temperature, is sent year-round in real-time to be archived along with the seismic and infrasound channels. The University of Utah MesoWest group repackages incoming data for NOAA, NCAR, and graphical displays for weather forecasting, meteorological research, and wildfire management. Soil temperature data is also recorded onsite at 78 stations.

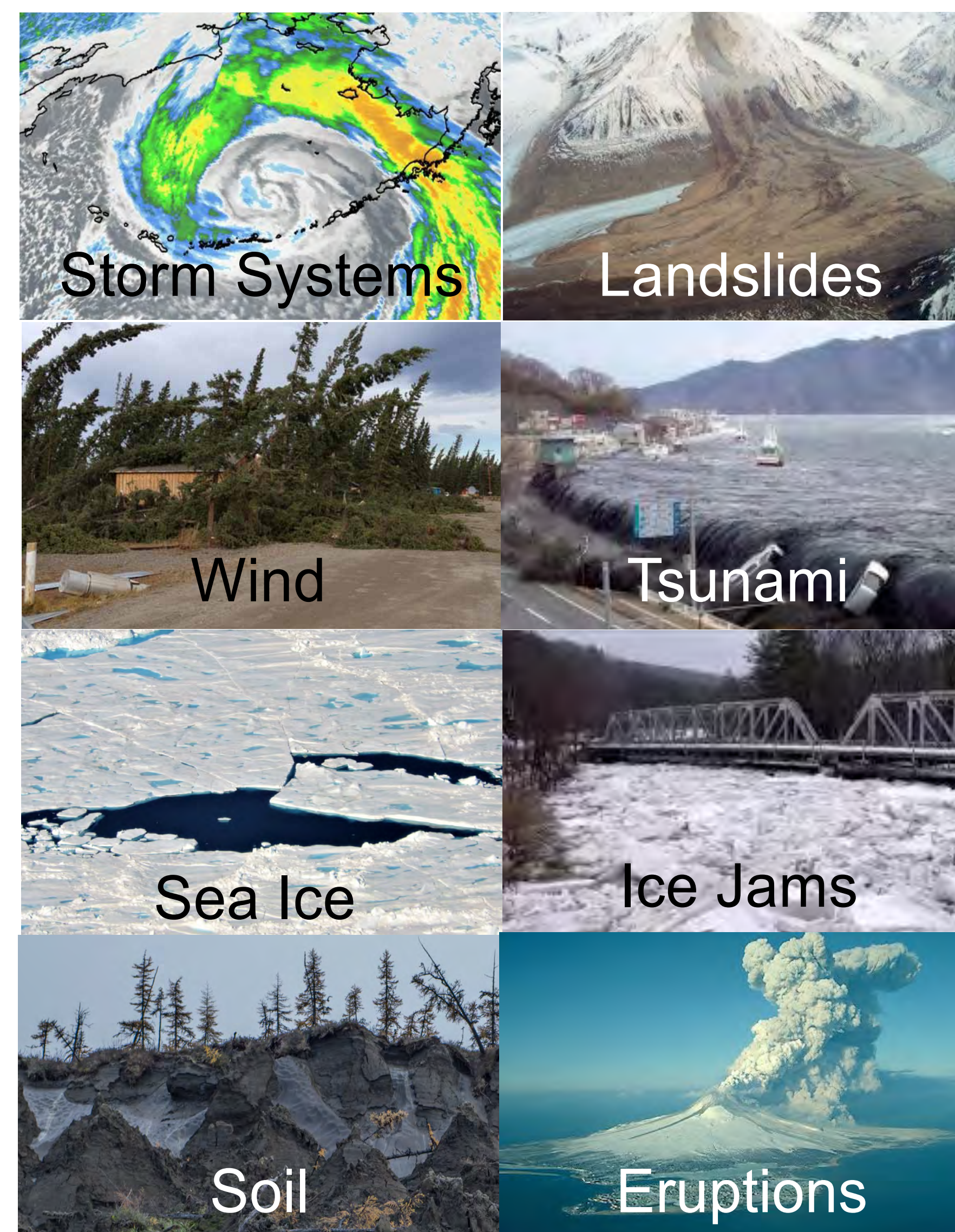
Real-Time USArray Data flow



"It is being used directly for situational awareness. The data is also directly being used in the Real-Time Mesoscale Analysis/Unrestricted Mesoscale Analysis for Alaska and our local analysis. These analysis are used to verify our forecasts, situational awareness, and for ground truth to post-process modeling systems."

– Gene Petrescu, National Weather Service

Observations Possible with Current Instrumentation



Observations Possible with Additional Instrumentation



Leveraging collaborations with local, state, federal, and international agencies has enabled the ongoing collection and dissemination of extremely valuable and cross-disciplinary data from a sparsely-sampled region. An NSF Dear Colleague Letter (19-048) encourages proposals for further repurposing the Alaska Transportable Array for environmental observations in the Arctic.

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