USArray TA Alaska and Western Canada Status

TA Status on June 5, 2015

- Initial Site
- Recon Target
- Potential-Existing Seismic Site
- Potential-Existing Other Site
- Potential-Reconned Primary Site
- Permit Submitted
- Permit Accepted
- Planned Upgrade-Existing
- Site Constructed
- Equipment Installed
- Certified Station
- Certified Station-Existing
- Certified Station-Upgraded
- YNSN

Flex Array Experiments
- MVP Events
- SALMON 06042015
- FLATS Installed 2014
- AAA Mini Array
- MT & Seismic at Olnok
- FLATS Planned 20140904
New “Trawl-Resistant Mount” for shallow water

Site M09B showing evidence of having been hit by a trawler.
Some Ideas for the Future

See geoprisms report from 2014 workshop

Three targets

- Alaska Thrust Zone
- Alaska / Aleutians Deep Volatile/Magma Cycle
- Rifting at Eastern North America

Through 2018, should address EarthScope science priorities
Proposed subduction boxes

Subduction Cycles

red: subduction-volatiles-magma; yellow: thrust zone.
Seismic Deployment

- Plate-spanning grid at 70 km spacing
- Densified in forearc
- Two focused arrays:
  - Grays Harbor (WA)
  - Mendocino Triple Junction
- Years 1 (2011-12) and 3 (2013-14) in north
- Years 2 (2012-13) and 4 (2014-5) in south (red)
- Land array stays fixed for duration