**Key Science Questions**

- creation of continental crust
- rates and fluxes of arc crustal growth

(1) **Cascades:**

- high-resolution seismic image of crustal column beneath active volcano: where are the melt/mush zones?
- good infrastructure; lots previous work
- additional mapping/geochronology/geochemistry on volcanic/plutonic exposures
- compare adjacent volcanic centers with distinctly different magma types
- deliverables within 5 years

(2) **Aleutians (island arc):**

- same as above, plus:
  - example of juvenile arc crust:
  - can use crustal column to infer magma influx rates over lifetime of arc
  - can deploy transportable array (OBS)
- deliverables within 10 years
Thematic Objectives:
- sequestered funds for work on a wide range of localities, but will coordinate work done among broad community

Key Science Questions
- what are the slab inputs?
- what is the architecture of arc crust/lithosphere?

(1) Exhumed slabs
- sites that collectively sample wide P-T range/mineralogy
- geochemistry, petrology, fabrics, geophysical property measurements, etc.
- need to organize curation of all samples, etc.
- if possible, new analytical work on samples already collected
- deliverables within 3-5 years

(2) Exhumed arc crustal sections (deep and middle)
- sites that collectively sample entire crustal column (lower, middle, upper)
- geochemistry, petrology, fabrics, geophysical property measurements, etc.
- need to organize curation of all samples, etc.
- if possible, new analytical work on samples already collected
- deliverables within 3-5 years