Climate Change
Monitoring Coastal Communities at Risk

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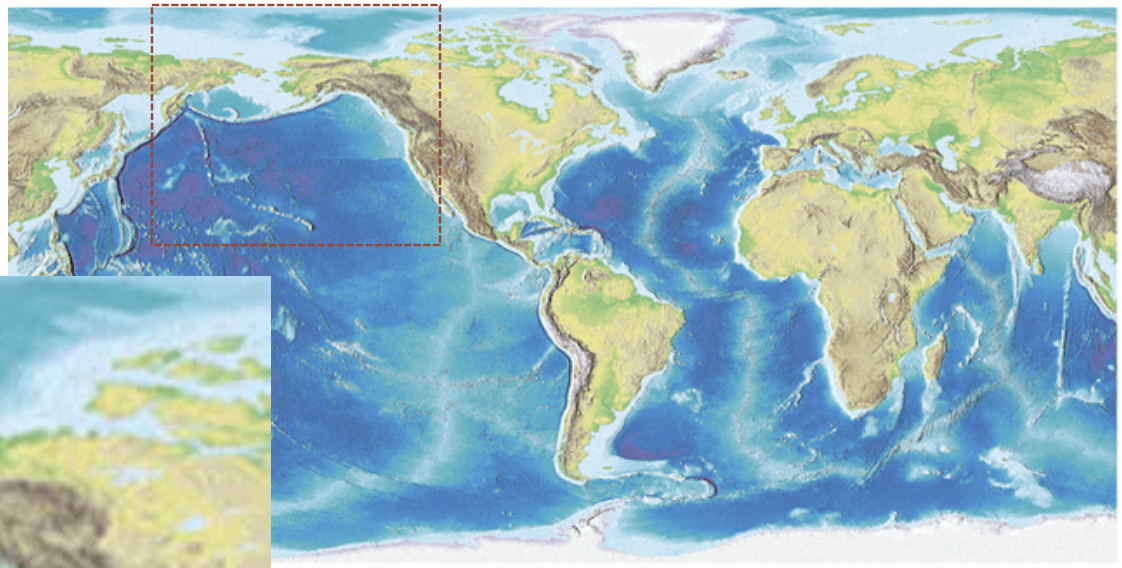
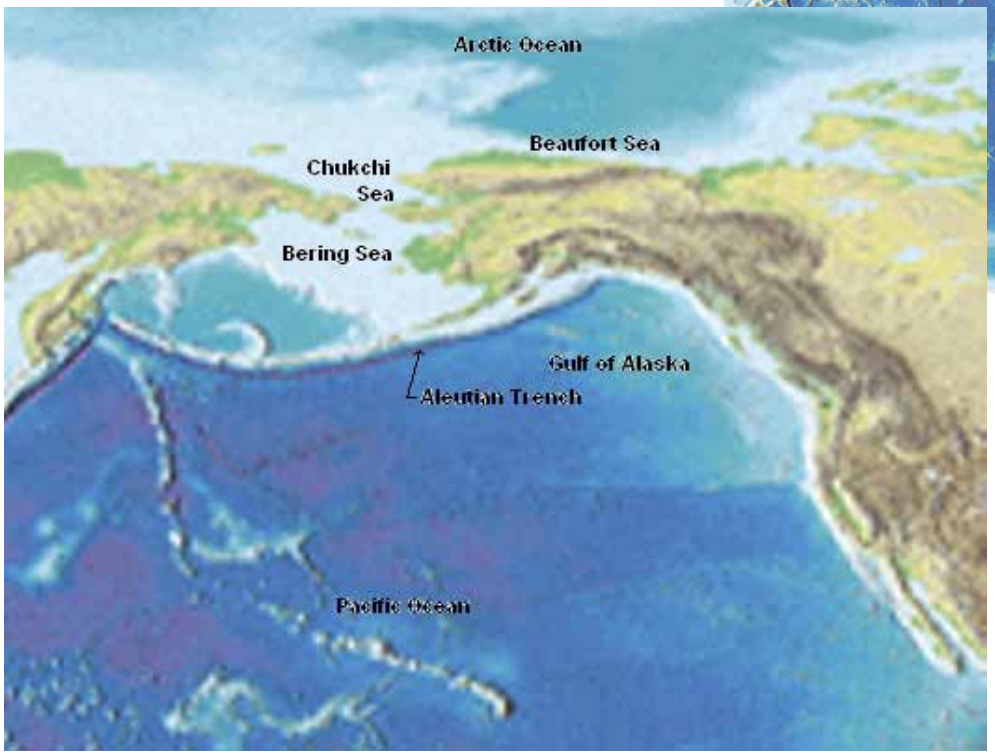
Global Scale





Maximum glaciation

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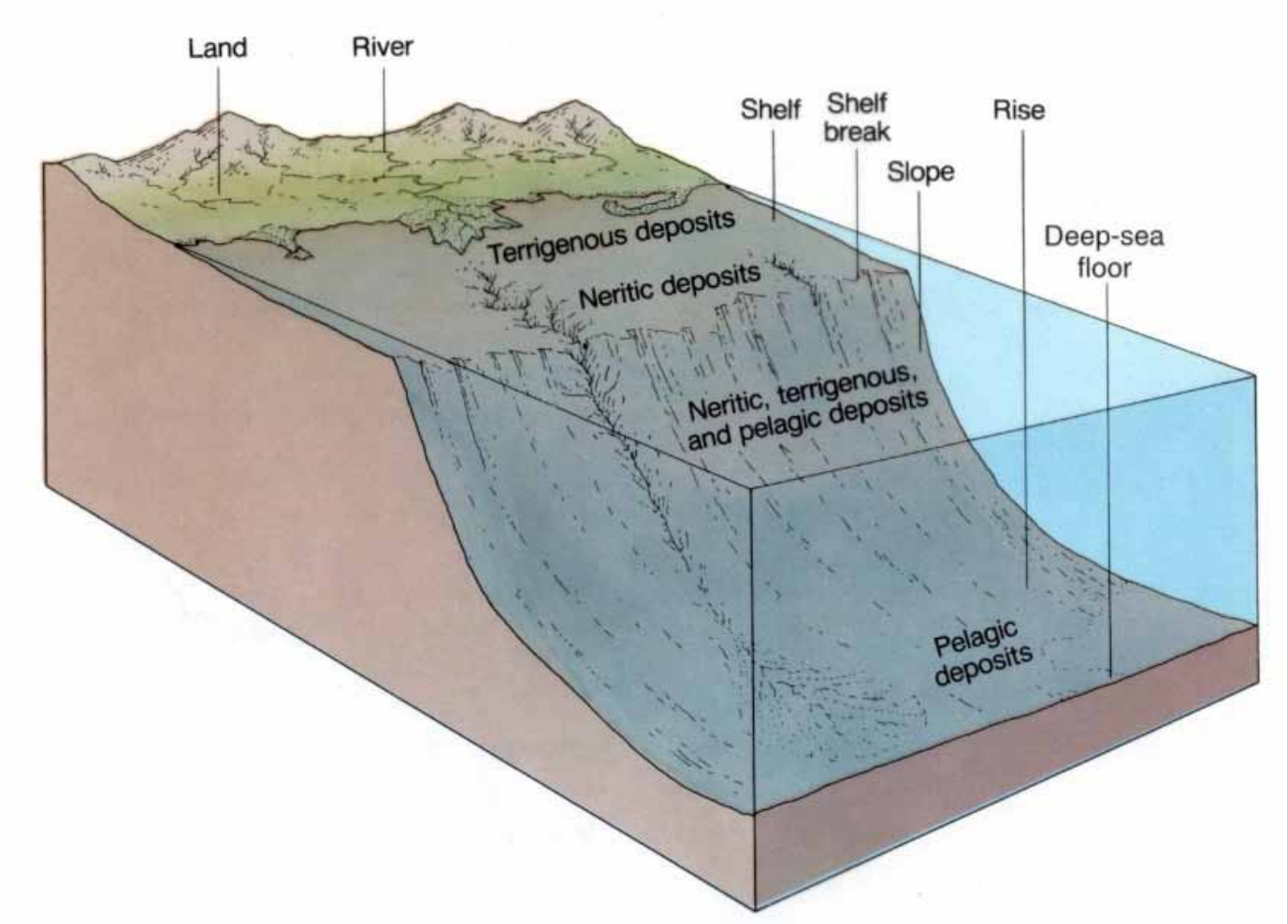
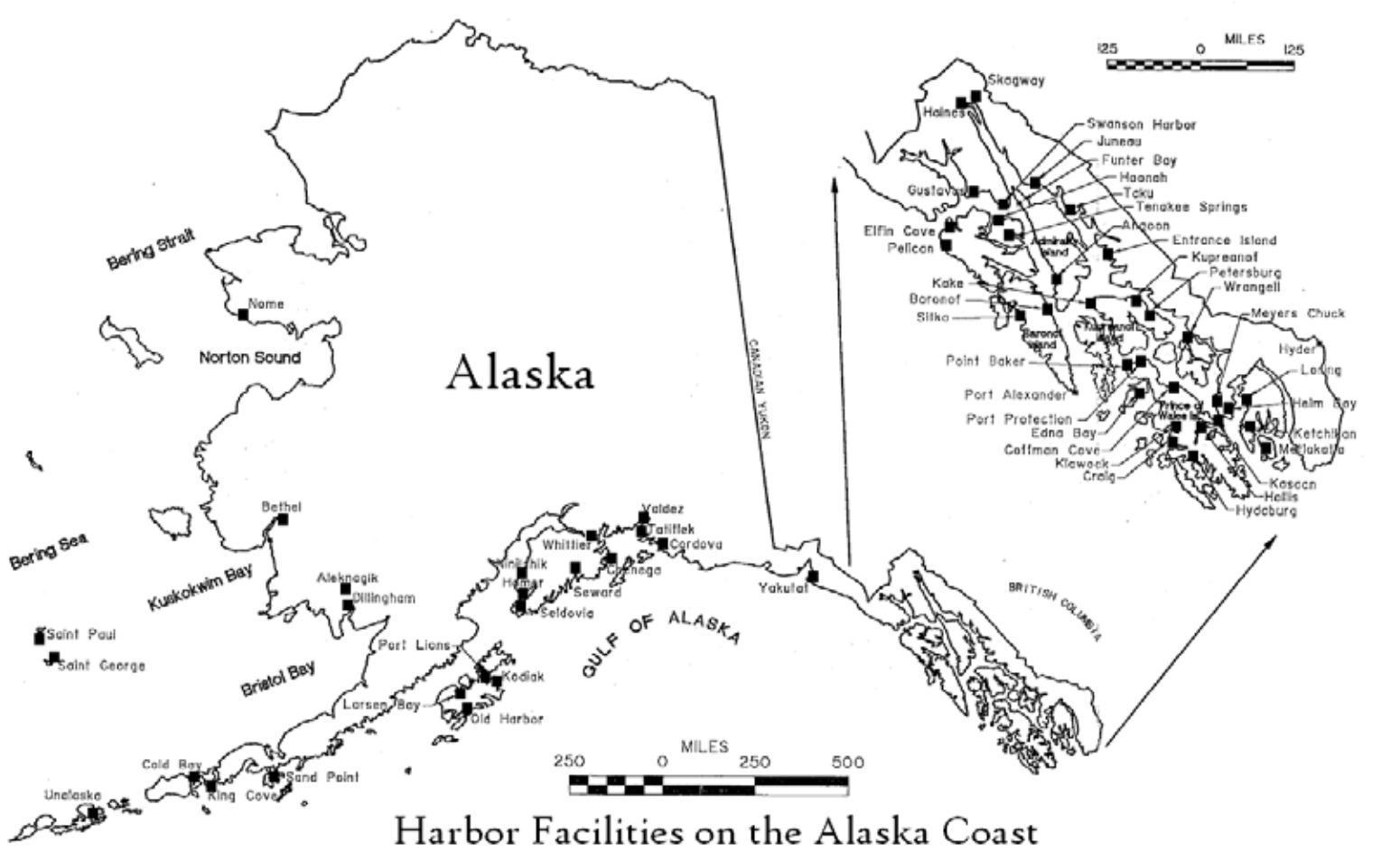
Continental Margins

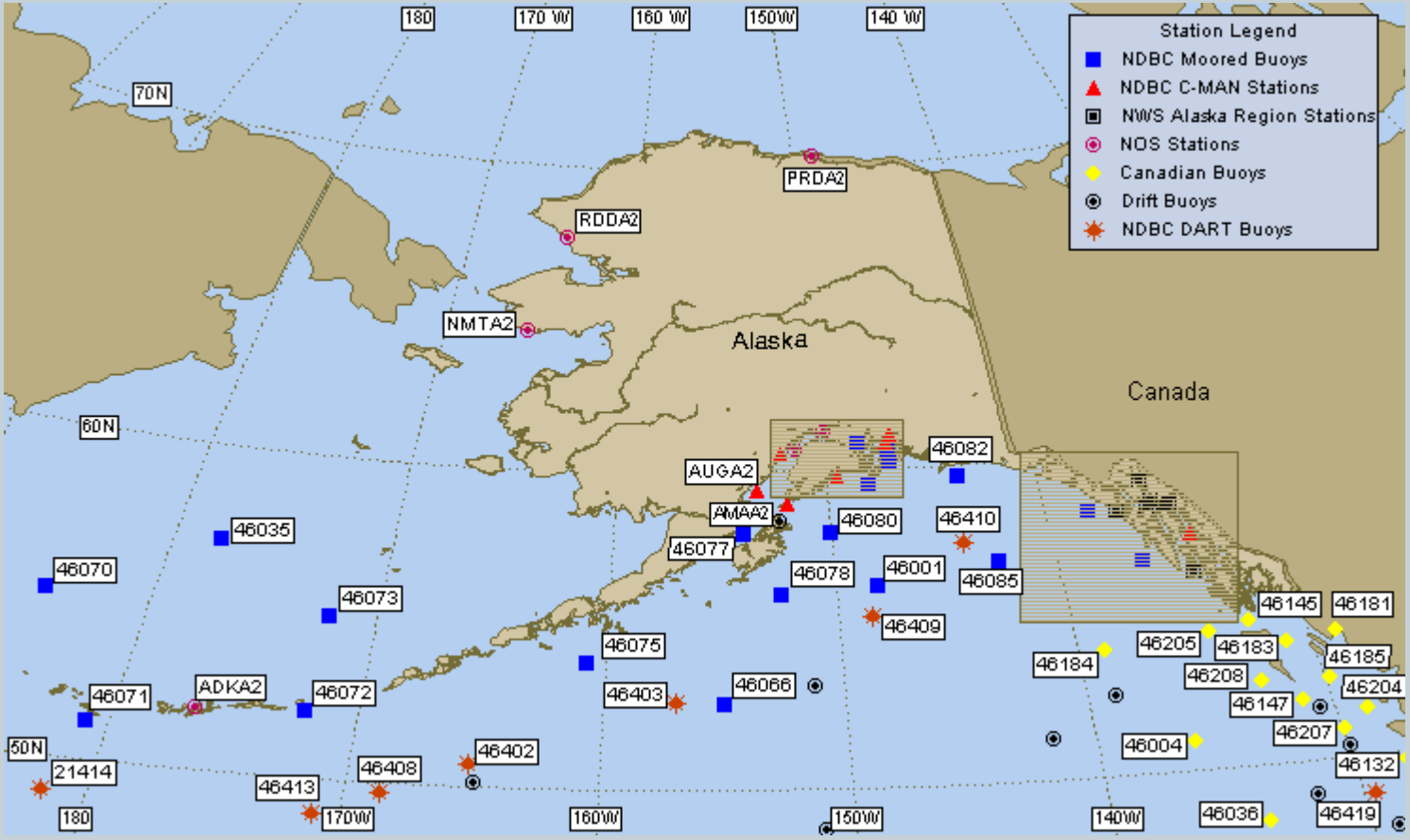


Centers of Coastal Development

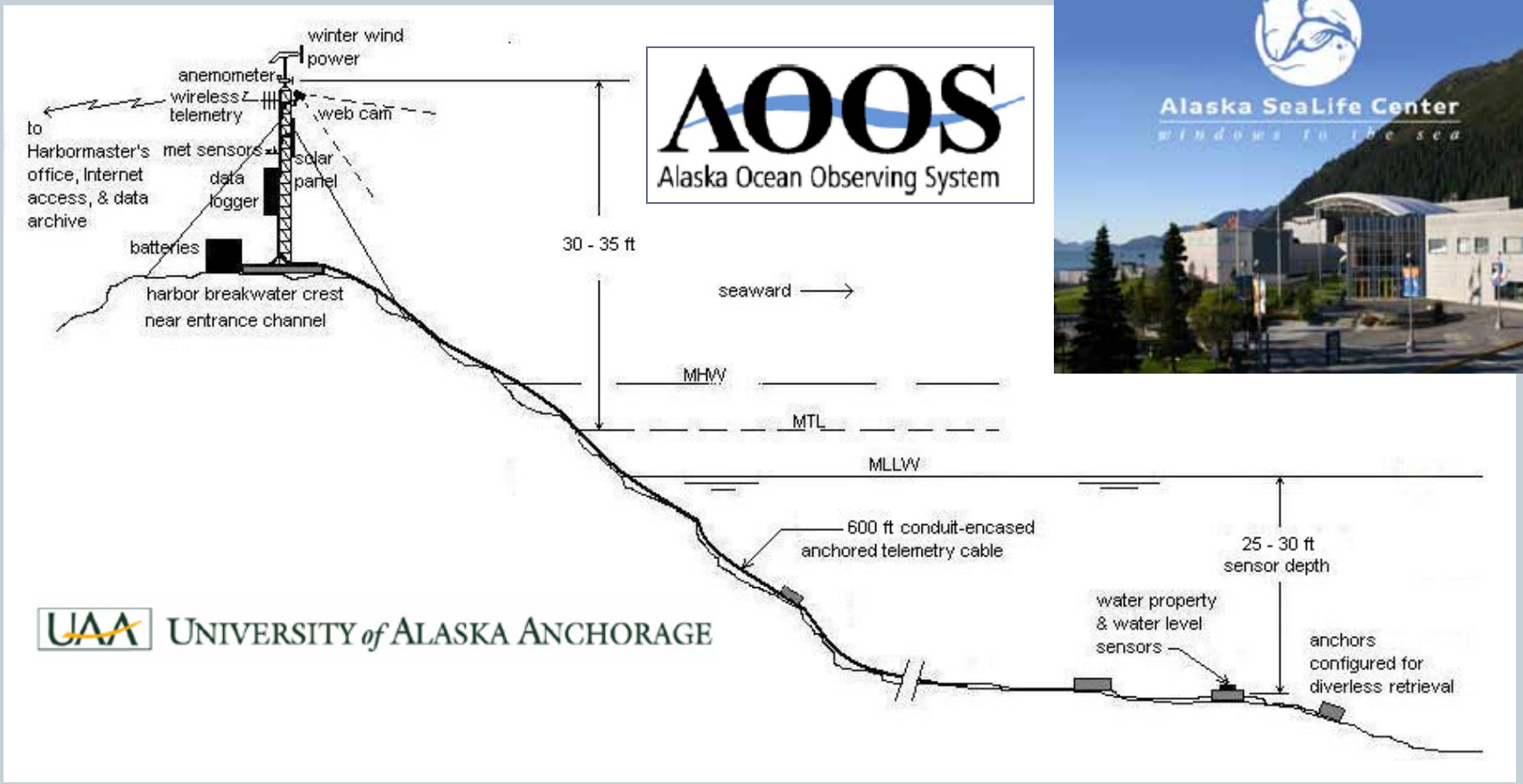


Harbor Facilities on the Alaska Coast

NOAA Data Stations



Harbor Entrance Data Station



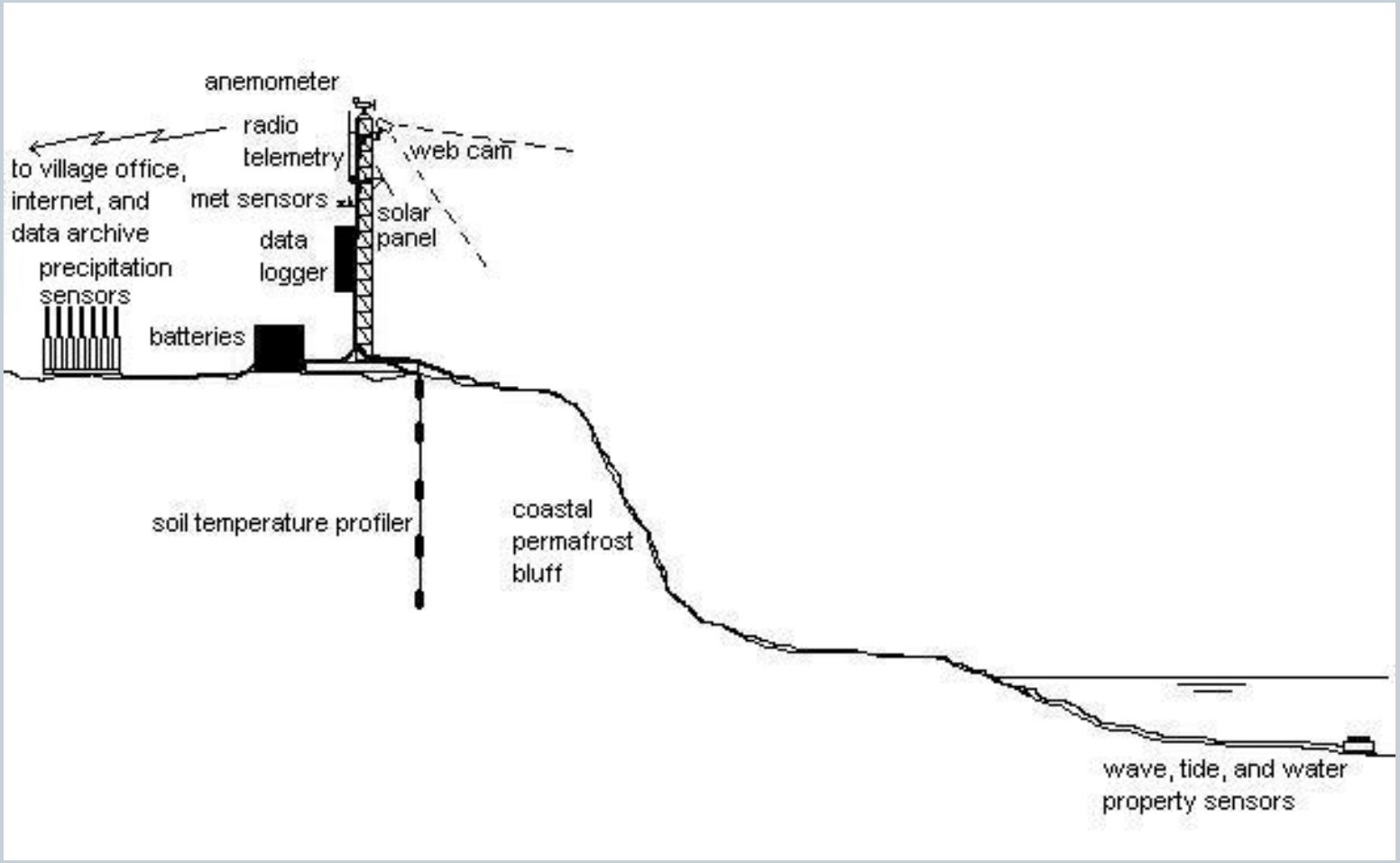
Seward Prototype

http://akharborobs.net/Seward/

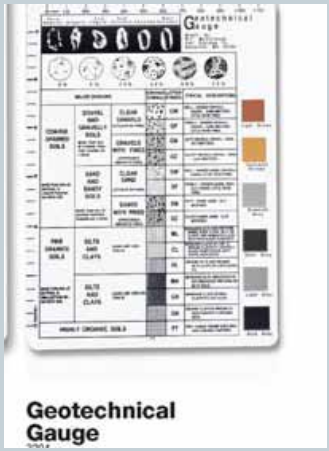
Station Cost Summary

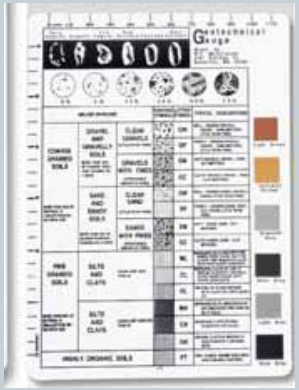
Hardware System	Cost
Sensors	$12,000
Tower, wind turbine, solar panel	5,000
Telemetry	3,000
Hardware subtotal	**$20,000**
Installation, electronics contract	5,000
Ordinary annual maintenance	4,000
Electronics contract subtotal	**$9,000**
Grant administration, insurance (ASLC)	7,000
Site design and programming (UAA)	4,000
Permit applications (ASLC & UAA)	4,000
Design and administration subtotal	**15,000**
Total station cost	**$44,000**

Remote Coastal Installation



Alaska Rural Coastal Observers Network



Coastal Observers

- Manual observations reported via Internet
  - Beach form, position, sediment character
  - Wind speed and direction; air temperature
  - Wave height, period, and direction
  - Longshore current speed
  - Digital photo
  - Water quality
  - Ice characteristics