

PROJECT NAME	Arctic Coastal Dynamics I
ACRONYM	ACD I
STUDY REGION	Arctic
PRINCIPAL INVESTIGATOR	Dr. Volker Rachold, Paul Overduin
DURATION	April 14, 2003 - March 10, 2009
PROJECT WEBSITE	Link to project website
LOICZ PROJECT DATABASE	Click here for more project information



PROJECT DESCRIPTION

The overall objective of ACD is to improve our understanding of circum-Arctic coastal dynamics as a function of environmental forcing, coastal geology and cryology and morphodynamic behavior.

In particular, the ACD program proposed to: establish the rates and magnitudes of erosion and accumulation of Arctic coasts; develop a network of long-term monitoring sites including local community-based observational sites; identify and undertake focused research on critical processes; estimate the amount of sediments and organic carbon derived from coastal erosion; refine and apply an Arctic coastal classification (includes ground ice, permafrost, geology, etc.)

in digital form (GIS format); compile, analyze and apply existing information on relevant environmental forcing parameters (e.g. wind speed, sea level, fetch, sea ice etc.); develop empirical models to assess the sensitivity of Arctic coasts to environmental variability and human impacts; produce a series of thematic and derived maps (e.g. coastal classification, ground-ice, sensitivity etc.);

THE PROJECT RELATES TO THE FOLLOWING PRIORITY TOPICS AND SCIENTIFIC THEMES

Scientific Themes:

- 1- Vulnerability of Coastal Systems and Hazards to Society
- 2 - Implications of Global Change for Coastal Ecosystems and Sustainable Development