



STUDY OF ENVIRONMENTAL ARCTIC CHANGE

U.S. Interagency Study of Environmental Arctic Change (SEARCH)

*A system-scale, cross-disciplinary, long-term
arctic research program*

Hajo Eicken (hajo.eicken@gi.alaska.edu)

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<http://www.arcus.org/SEARCH/index.php>

SEARCH Objectives

The overall objective of SEARCH is to

Understand the nature, extent and future development of the system-scale change presently seen in the Arctic.

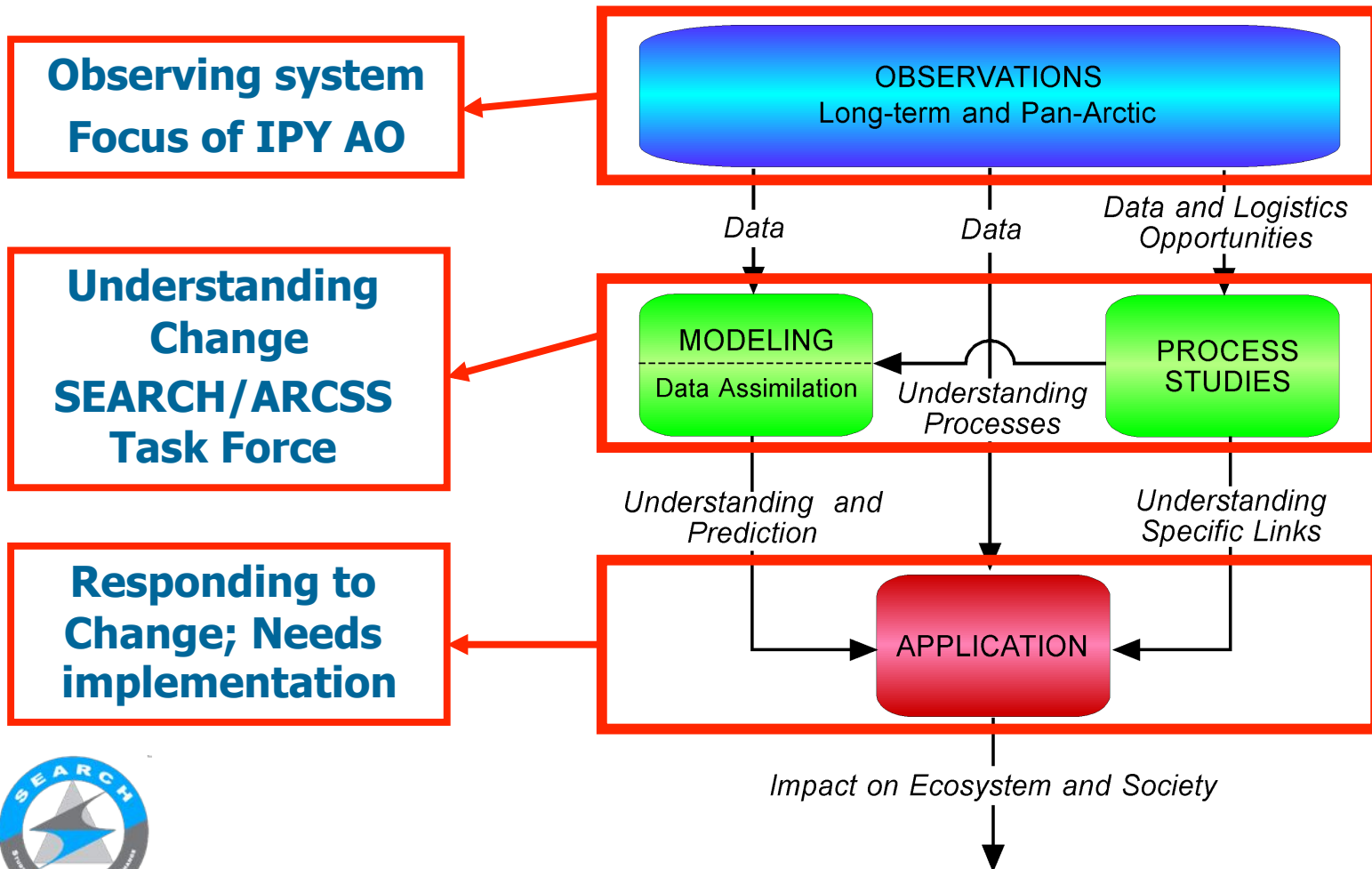
SEARCH is built around three basic elements:

- **Observing Change** - *Arctic Observing Network*
- **Understanding Change** - *Modeling & synthesis*
- **Responding to Change** - *System response, adaptation, and mitigation*



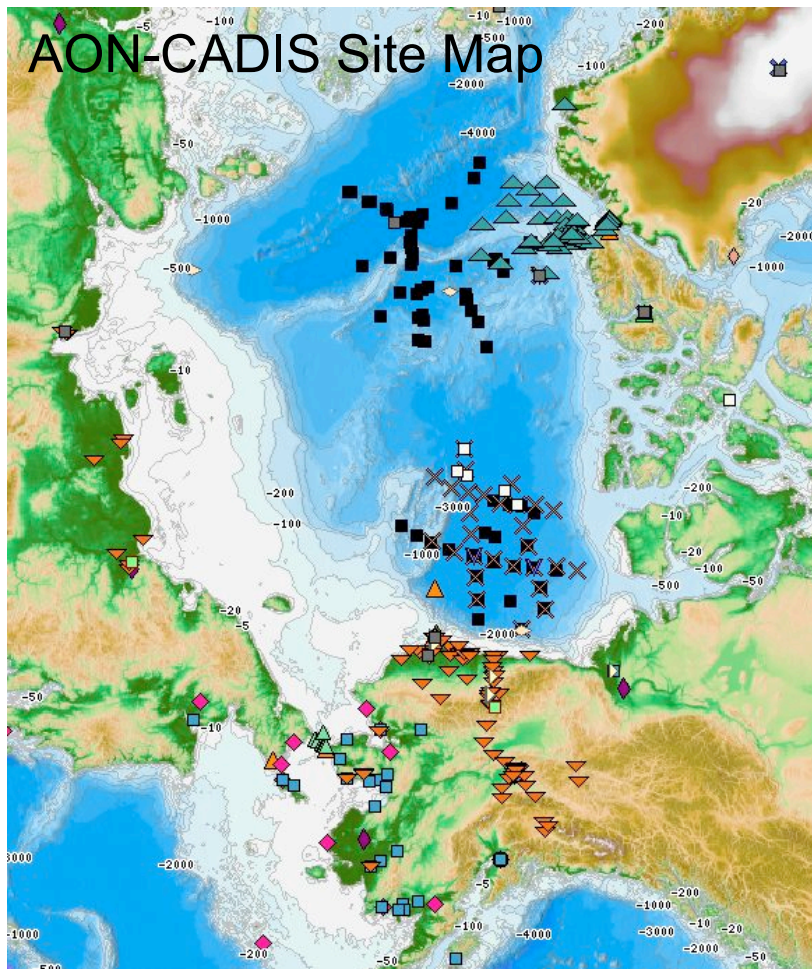
Overall SEARCH Strategy

Science Plan & Implementation Strategy at:
<http://arcus.org/SEARCH/index.php>





Arctic Observing Network (AON)



- State of AON:
 - >40 projects underway (see summary report available at this meeting, www.arcus.org/search/aon.html)
 - >50% with international partners
 - Programmatic partnerships with EU DAMOCLES and Canadian ArcticNet Programs
- Joint planning of sensor deployments and joint use of flagship sites
- Joint field campaigns



Impediments to successful international partnership and coordination

- Short planning/program horizons challenge for sustained observations
 - International programs (ISAC, IASC, WCRP, CBMP, emerging SAON, etc.) as mechanisms to coordinate longer-term efforts
- Traditional funding support mechanisms not always conducive to highly coordinated international program
 - Joint calls for proposals? Structured international science implementation plans
 - Finding international funding mechanisms for joint support of “core” activities? E.g., standard stations & variables, joint permanent ice station
- Potential impediments to free data & scientific research site access
- Informal & formal international links & collaboration major strength of Arctic research programs



Future of coordinated, international arctic science from SEARCH perspective

- Guidance from both scientific community and stakeholders on key research questions and associated programs
 - Arctic communities & community-based observations
 - National agencies
 - Industry & non-governmental organizations
- Forum for coordination of Arctic observing system(s) implementation (e.g., annual Observing Network Summit)
- Developing scenarios for international Arctic science of the future & working towards common goals
- Partner with Arctic communities with profound location-based expertise and strong pan-Arctic ties, international organizations and the commercial sector

