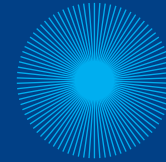


Arctic-HYDRA

The Arctic Hydrological Cycle Monitoring, Modelling and Assessment Program



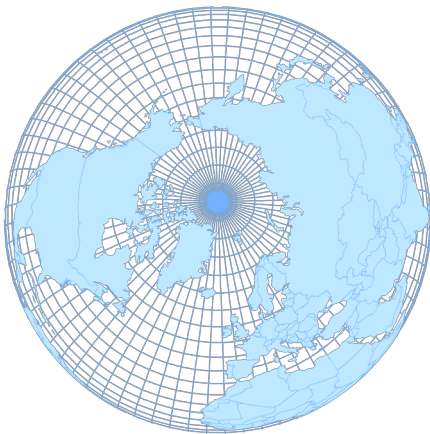
Arctic-HYDRA

The Arctic-HYDRA project is a network for the observation and studies of the Arctic Hydrological Cycle.



The scientific goals

- To characterize variability in the Arctic Hydrological Cycle (AHC).
- To examine linkages between atmospheric forcing and continental discharge to the ocean.
- To assess the historical response of the Arctic Ocean to variations in freshwater input from rivers and net precipitation over the ocean.
- To attribute to specific elements of the AHC or to external forcing the sources of observed spatial-temporal variability in the land-ocean-ice-atmosphere systems.
- To detect emerging changes in the contemporary state of the AHC in near real time and to place such changes into a broader context.



Given the scope of these goals, Arctic-HYDRA is envisaged to form part of the parallel longer term (10–15 yr) objectives of the ICARP-II (International Conference on Arctic Research Planning) Working Group 7 project “Terrestrial Cryosphere & Hydrological Processes and Systems”. The Arctic-HYDRA project consists of a core network for the observation of the Arctic Hydrological Cycle (Arctic-HYCOS) coupled with a suite of intensive, focused process studies that are based on in-depth measurements and modeling of the individual components of the AHC. Furthermore, hydrological models and data assimilation techniques will be developed to generate a comprehensive, integrated description of the AHC including the feedbacks between the atmosphere, cryosphere and the oceans. The project will have a data management and information system in accordance with IPY (International Polar Year) and WMO protocol. It will establish links with other relevant research clusters, e.g. on meteorology, climatology, cryosphere, including permafrost, snow-cover and glaciers, biosphere and societal issues affected by the AHC.

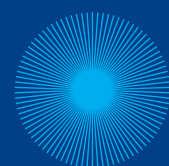
Á. Snorrason,
Icelandic Meteorological Office, Iceland
C. Vörösmarty,
University of New Hampshire, USA
D. Kane,
University of Alaska Fairbanks, USA
T. Ohata,
JAMSTEC, Japan
A. Pietroniro,
Environment Canada – National Hydro-
logical Service, Canada
J. Pomeroy,
University of Saskatchewan, Canada
B. Hasholt,
University of Copenhagen, Denmark
M. Puupponen,
SYKE, National Hydrological Service,
Finland
J. Käyhkö,
University of Turku, Finland
G. Destouni,
University of Stockholm, Sweden
K.H. Svendsen,
ASIAQ, Greenland
R. Engeset,
NVE, National Hydrological Service,
Norway
V. Vuglinski,
State Hydrological Institute, Russia
S.A. Frenzel,
USGS Water Res. Off., Alaska Science
Center, USA
T. Prowse,
ICARPII
W. Grabs,
WMO, HWR
V. Ryabinin,
WMO, WRCP/CIIC
U. Looser,
Global Runoff Data Center, Germany

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 **Water Systems Analysis Group
University of New Hampshire**

 **International
Polar Year**



Arctic-HYDRA
[http://arcticportal.org/
arctichydra](http://arcticportal.org/arctichydra)

Contact
asn@vedur.is
thor@vedur.is