

FINAL TIMETABLE (**Schedule subject to change due to weather*)

Wednesday, Aug. 12- Travel to Iqaluit and board expedition ship

0900h	Check-in, Trudeau Airport, Montreal
1100	First Air Flight (#7F6854) departs Montreal for Iqaluit
1335	Arrive in Iqaluit
1400	Meet with local dignitaries at Iqaluit museum
1500	On the ship - <i>Lyubov Orlova</i> (confirm room, luggage) Safety Drill Housekeeping leader-general comments Welcoming remarks in the boat lounge
1700	Set sail
1705	Registration
1800	Icebreaker
1930	Dinner (sit down)
2100	Free time (on the bridge)

Thursday, Aug. 13-At Sea, Symposium

0700h	Wake-up call
0730	Breakfast (buffet-style)
0830	Introductions & welcoming remarks
0850	An overview of the cruise route
0930	Paper & Poster session I: <i>Prediction of Precipitation in Ungauged Northern Basins</i> (Chair: Nikolay Filatov, Assistant: Jessica Boucher)

Glen Liston	Defining Pan-Arctic terrestrial moisture budgets using high-resolution atmospheric and snow modeling tools
Sveta Berezovskaya	The uncertainty in snow depth observations for hydrological applications
Matthew Sturm	Converting snow depth to snow water equivalent using bulk density estimates from snow classes
Sebastian Mernild	SnowModel for glacier/ice sheet surface mass balance and freshwater studies in Greenland

1030 Coffee-break

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 Iqaluit-Pangnirtung-Kuuujuaq, Canada, August 12 to 18, 2009

1100 Paper & Poster session I: **Prediction of Precipitation in Ungauged Northern Basins**
 (Chair: Johanna Korhonen, Assistant: Kean Foster)

Sjur Kolberg	Error structure in simulated and measured snow cover information
Jessica Cherry	Performance of the experimental total precipitation sensor in Alaska
Wolf-Dietrich Marchand	Relation between snow depth and terrain parameters at the 25 m grid scale
Kazuyoshi Suzuki	Potential impact of land-use change on snow distribution and water balance in heavy snowfall forested region of northern Japan

1230 Lunch (buffet-style)

1330 Paper & Poster Session II: **Northern Lake & River Systems** (Chair: Doug Kane, Assistant: May Guan)

Ray Bradley	Long-term perspectives on High Arctic lacustrine systems
Nikolay Filatov	Hydrological regime of large lakes of North-Western Russia affected by regional climate uncertainty
Wayne Rouse	Differential hydrological impacts on the surface climates of Great Slave and Great Bear Lakes
Johanna Korhonen	Changes in the hydrological regime in Finland-effect of time period trends
Terry Prowse	Hydro-ecological effects of changing Arctic river and lake ice cover: a review

1500 Coffee-break

1530 Short Poster Presentations (Chair: Sean Carey, Assistant: Anna Abnizova)

1615 Informal history of NRB (slides), Ming-ko (Hok) Woo (Introduction: Philip Marsh)

1645 Canadian Eastern Arctic Overview (Chair: Scott Lamoureux)

1800 Social Hour

1930 Dinner (sit-down)

2100 Hydrology-Ocean Interactions-Key Note Speaker: Dr. Robie Macdonald, Dept. Fisheries & Oceans, Canada (Introduction: Kathy Young)

2140 Discussion

2200 Free time (on the bridge)

Friday, Aug. 14-Site Visit, Symposium & Panel Discussion

0500h Early rise-muffins & coffee

0530 Zodiacs to Kekerten Island (major whaling station)

Two hour visit/short hikes

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- 0730 Back on the ship
 0730 Breakfast (buffet-style)
- 0900 Paper & Poster session III: **Hydrology & Ocean Interactions** (Chair: Knut Sand, Assistant: Simon von de Wall)

Ming-ko Woo	Cold ocean-seas and northern hydrology: an exploratory overview
Alexandra Jahn	Variability of freshwater pathways in the Arctic Ocean
Paul Myers	Freshwater issues in the sub-polar North Atlantic Ocean
Matti Leppäranta	The coastal zone of the Baltic Sea and its interaction with the drainage basin

- 1030 Coffee-break
 1100 Paper & Poster session III: **Hydrology & Ocean Interactions** (Chair: Bent Hasholt, Assistant: Bob Busey)

Lawrence A. Mysak	Transient simulations of the Little Ice Age and beyond with a global reduced complexity climate model
Philip Marsh	Channel and lake hydrology of the outer Mackenzie Delta
Jennifer Nafziger	Hydraulic model of river flow and storage effects in the Mackenzie Delta

- 1230 Lunch (buffet-style)
 1330 A shore excursion to Pangnirtung
 1500 Community workshop/panel discussion
 1730 On the ship
 1800 Yukon & Water Awareness Session (Host: Richard Janowicz)
 1930 Dinner (sit down)
 2100 Free time (on the bridge)
 Sail up Pangnirtung Fiord

Saturday, Aug. 15-Site Visit, Symposium

- 0700h Wake-up call
 0730 Breakfast (buffet-style)
 0830 Excursion to Auyuittuq National Park
 1200 Lunch in the "Wilderness"
 1400 On the ship

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1430 Paper & Poster Session IV: ***Climate, Cryosphere, Hydrosphere*** (Chair: Bill Quinton, Assistant: Sarah Byam)

Carl Egede Bøggild	Aerosols and ice albedo
David Collins	Meltwater temperature in rivers draining basins of differing percentage glacierisation
Kathy L. Young	Summer hydroclimatology of an extensive low-gradient wetland, Polar Bear Pass, Bathurst Island, Nunavut, Canada
Árni Snorrason	Climate and energy systems (CES) 2007-2010: a new Nordic energy research project

1600 Coffee Break

1630 Paper & Poster Session V: ***Modelling Hydrologic Variables & Climate Change*** (Chair: Faye Hicks, Assistant: Jennifer Nafziger)

Oddbjørn Bruland	ENKI-operational hydrological forecasting system
Diana Versegby	Surface aggregation for hydrological modelling in northern basins
Keane Foster	Seasonal streamflow forecast: a GCM multi-model downscaling approach
William Quinton	Basin runoff modelling in wetland-dominated, discontinuous permafrost: Important considerations
Katrina Bennett	Applying the VIC hydrologic model for analysis of climate change in the headwater basins of the Peace River watershed
Amy Tidwell	Alaska North Slope Decision Support System (DSS) for water resource planning and management

1800 Workshop I (Lead: Doug Kane)

1930 Barbeque on ship deck

2100 IPY Slide Show: *Journey Across the Changing Antarctic & Arctic*; Glen Liston and Matthew Sturm (Introduction: Ming-ko (Hok) Woo)

2300 Free time (on the bridge)

Sunday, Aug. 16-At Sea, Symposium, Site Visit

0700h Wake-up call

0730 Breakfast (buffet-style)

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0845 Paper & Poster session VI: **Arctic Hydrology & Uncertainty** (Chair: Diana Versegby,
 Assistant: Robin Thorne)

Richard Janowicz	Climate change impacts on Yukon hydrologic response with implications on water management strategies
Doug Kane	Estimating design flows for catchments in the Alaskan Arctic
Bent Hasholt	Runoff and sediment transport from the Greenland Ice Sheet at Kangerlussuaq, West Greenland
Scott Lamoureux	Strategies & approaches to predicting sediment erosion and water quality changes in northern basins caused by localized permafrost disturbances.
Christopher Spence	Regional Arctic Archipelago streamflow volume and timing estimates and their uncertainty
Knut Sand	The economic value of hydrological information
Brain Morse	Managing hydrological uncertainty in engineering design in northern environments

1030 Coffee-break

1100 Paper & Poster session VI: **Arctic Hydrology & Uncertainty** (Chair: David Collins,
 Assistant: Alexandra Jahn)

Sean Carey	A multi-year perspective on snowmelt runoff generation in an alpine subarctic catchment
Simon von de Wall	Open water and ice-induced extreme water levels on Canadian rivers
Stein Beldring	Climate change impacts on hydrological processes in the Norwegian Arctic
Jon Ove Hagen	Problems related to melt water intrusions into Svea-Nord coal mine
Anna Abnizova	Impact of hydrologic connectivity on wetland sustainability and dissolved organic carbon dynamics in Polar Bear Pass, Bathurst Island, Nunavut

1230 Lunch (buffet-style) & Canadian Delegate lunchtime meeting

1400 Excursion to Monumental Island (walrus) or Lower Savage Islands (wildlife)

1730 On the ship

1800 Main Poster Session (Chair: Sean Carey)

Jane Assini	Snowcover distribution and melt in a High Arctic environment
Jessica Boucher	The hydrometric and hydrochemical role of channel icing (aufeis) on streamflow in a subarctic, subalpine watershed
Laura Brown	Modelling variability of lake ice phenology in Northern Canada
Robert (Bob) Busey	Hydrologic uncertainty in the Snake River watershed on the Seward Peninsula of Alaska, USA
Sarah Byam	Coupled atmosphere-snow modeling for the Arctic

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May Guan	Spatiotemporal interaction of near-surface soil moisture content and frost table depth in a discontinuous permafrost environment
Philip Marsh	Spatial variability of sensible heat flux and snow cover area over a northern catchment during spring melt
Robin Thorne	Streamflow, precipitation, temperature and effects of ENSO in northern North America
Robin Thorne	Development of an energy-based runoff generation model in the Arctic Tundra region

- 1930 Dinner (sit down)
 2100 Arctic Hydrology & Uncertainty-Key Note Speaker: Dr. Larry Hinzman, Director, International Arctic Research Center (IARC), Alaska (*Introduction: Richard Janowicz*)
 2140 Discussion
 2200 Free time (on the bridge)
 2200 Chief Delegates meeting (2200-2300)

Monday, Aug. 17-Workshop, Site Visit

- 0700h Wake-up call
 0730 Breakfast (buffet-style)
 0900 Workshop II: Status of Task Forces (*Chair: Terry Prowse, Assistant: Laura Brown*)
 1030 Coffee-break
 1100 Workshop II: New Task Force(s)?
 1145 Workshop II: Young career scientists' report (*Amy Tidwell*)
 1200 Workshop II: Next NRB meeting
 1215 Workshop II: Submission Instructions to *Hydrology Research* (*Kathy Young*)
 1230 Lunch (buffet-style)
 1400 Excursion to Akpatok Island
 1730 On the ship
 1800 Social Hour
 1900 Pre-Captain's Dinner Cocktails (*Dress Suggestion: Formal*)
 1930 Captain's Dinner & farewell speeches
 2100 Free time (on the bridge)

Tuesday, Aug. 18-Site Visit, Departure

0700h	Wake-up call
0730	Breakfast (buffet-style)
0900	Arrival in Kuuujuaq, luggage taken to the airport
0930	Site Visit & Makivik Research Centre
1200	Buffet lunch in town & visit with local dignitaries
1330	Site Visit
1500	Depart for Kuuujuaq Airport
1650	First Air Flight (#7F865) departs Kuuujuaq for Trudeau Airport, Montreal
1905	Arrive in Montreal