

# Planning for Canada's Future Arctic Research Station: *Learning from our Partners*



Government of Canada  
Sustaining Arctic Observing Networks  
April 9-11, 2008 Edmonton, Alberta

Indian and Northern Affairs Canada  
Affaires indiennes et du Nord Canada



## Broad based Northern Strategy

*"Our Government will bring forward an integrated northern strategy focused on strengthening Canada's sovereignty, protecting our environmental heritage, promoting economic and social development, and improving and devolving governance, so that northerners have greater control over their destinies."*

Speech from the Throne, October 16, 2007

Sovereignty	Economic and Social Development	Environmental Protection	Governance
Protecting our Arctic sovereignty as international interest in the region increases.	Encouraging economic development and regulatory improvements that benefit Northerners.	Adapting to climate change challenges and ensuring sensitive Arctic ecosystems are protected for future generations.	Providing Northerners with more control over their economic and political destiny.

## Speech From the Throne and Budget 2008 Arctic Research Station

Our Government will build a world-class Arctic research station that will be **on the cutting edge of Arctic issues**, including environmental science and resource development. This station will be **built by Canadians, in Canada's Arctic, and it will be there to serve the world.**

- October 16, 2007 Speech From the Throne

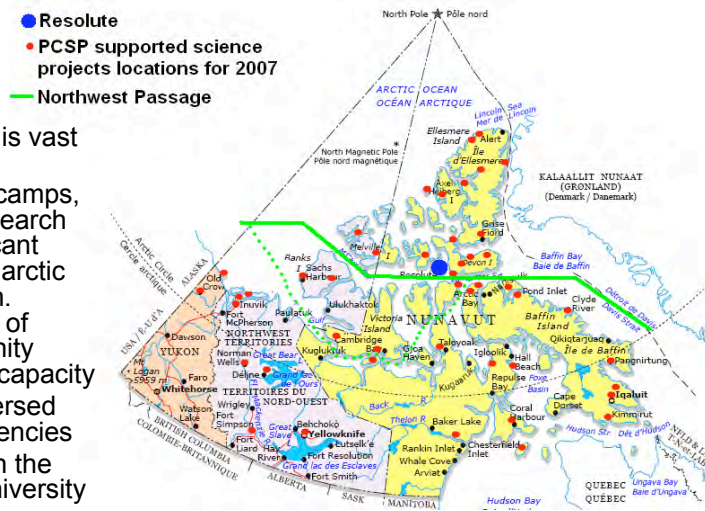
We will now proceed with ... the establishment of a world-class research station to be located in the Arctic itself. It will become the hub of our scientific activities in the North, gathering knowledge that will support our sovereignty and assist with **resource development** and **environmental protection**... the other Arctic nations already have most of these capabilities.

- Prime Minister's Response to SFT October 17, 2007

**Budget 2008 announcements confirmed the commitment by the Government of Canada to programming in the Canadian Arctic**

## Arctic research capacity and assets

- ❖ Canada's Arctic is vast and widespread
- ❖ Numerous field camps, but no major research facility or significant year-round high arctic science program. Logistical needs of science community exceed present capacity
- ❖ Assets are dispersed across many agencies
- ❖ A few colleges in the North, but no University north of ~55°N



## Planning for Canada's new Station

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### Indian and Northern Affairs mandated to lead planning

- Canadian Arctic science effort and assets dispersed
- INAC has statutory "coordination" responsibilities for the North

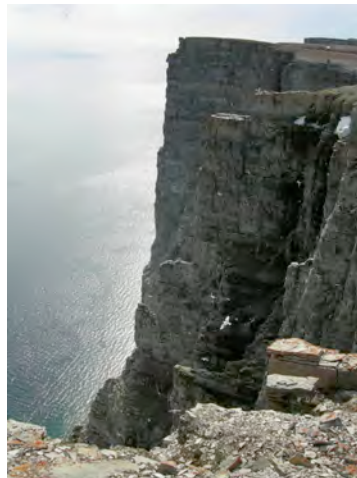
### Timing Considerations

- Some decisions will be required this Fall to secure Budget 2009 commitments
- Requires advice on science priorities and early benchmarking of existing polar stations by Summer 2008
- Likely 7 – 10 years before Station is operational
  - Contingent on new site or building upon existing facilities
  - Need to consult Aboriginal / Inuit communities
  - Environmental Impact Assessment
  - Design competition; construction challenges

## Key considerations

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- Defining Canada's advantage in Arctic Science
  - Science needs and priorities
  - Grand challenges and knowledge gaps
- Logistics and Infrastructure assessment
  - Existing infrastructure/ logistics/ technology and gaps
  - Size, scope, location of Station
  - Architectural design
- Governance model and funding structure



## Defining “World-Class” Science

- Requisite features to deliver a “world-class” facility and maintain ‘world-class features
- How do we define success?
- What is Canada’s unique advantage in Arctic Science?
- Requirements to attract the best and the brightest?
- What are the conditions to ensure sustained presence of scientists at the site?



## Getting the Operational elements right

- Getting the balance right:
  - staging centre, field research/ labs or hybrid?
- The value (and challenges) of a principle location (hub) and/or network of field sites
- The value (and challenges) of year-round activity
- Logistics and Infrastructure required to support science activities (research, monitoring, analysis...)
- Requirements to support training, outreach, dissemination, data management...
- Opportunities for joint funding/cost-sharing, priority-setting, ongoing funding considerations?



## ***Governance: Making it work***

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- What “domestic” governance models work best
  - Integrated or multi-agency?
  - Government-owned, private, not-for-profit
- Funding structure
  - To ensure flexibility
- Mechanisms to ensure collaboration with international partners, private sector, academic institutions?
  - Memoranda of Understanding
  - Cost-Recovery
- Integration of collective science effort?

## ***Location, Location, Location...***

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- Criteria for ideal location e.g., linkages to logistics/ marine and air access, science programme, broadband capacity, etc.?
- One major operational station or a hub supported by a network across the Arctic?
- Greenfield or expand on existing assets?
- Remote High Arctic or closer to populations?
- Presence: sovereignty considerations



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