



FARO 2013: Canadian Update



Canadian Polar Commission

Canada's National Institution for Polar Knowledge and Awareness



Canadian Polar Commission

Our Growing Network

Federal Government

- Aboriginal and Northern Affairs
- Environment
- Natural Resources
- Fisheries and Oceans
- Canadian Space Agency

International



IASC



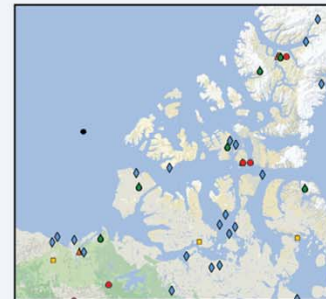
SAON Canada

Northern Research Institutes and Governments

- Nunavut Research Institute
- Yukon Research Centre
- Aurora Research Institute (NWT)



Canadian Network of Northern Research Operators



Public Outreach

- Canadian Museum of Nature
- Royal Canadian Geographical Society

Canadian Aboriginal Organizations

Nations with Polar Interests



Canada

Canadian Network of Northern Research Operators (CNNRO)

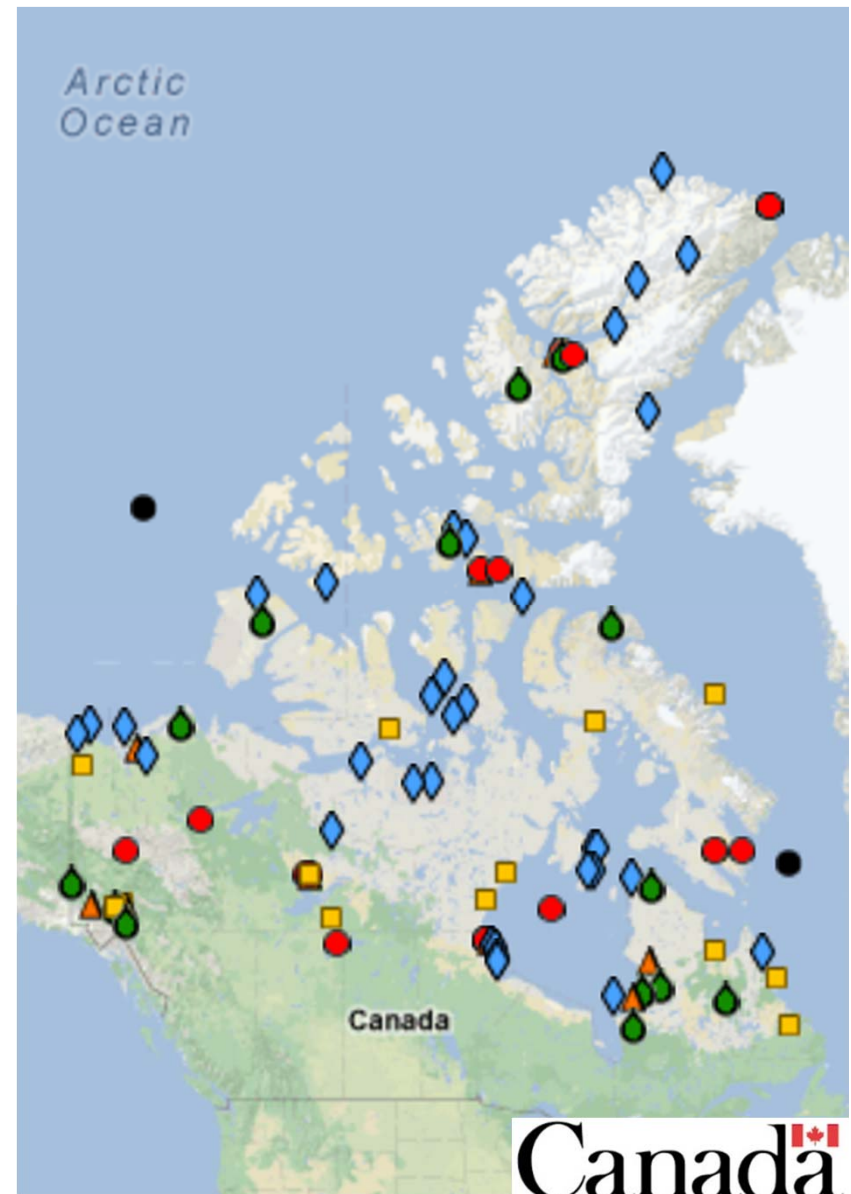
Réseau canadien d'opérateurs de recherche nordique

Provide a forum for Canadian Research Operators
~35 members (as wide a representation as possible)
Facilities support diverse research activities
Facilities vary greatly in size and budget

Aim: To ensure that Canada maintains an appropriate
Northern research infrastructure.

Activities: sharing information and concerns,
improving efficiency and lowering costs by
working collaboratively.

The CNNRO web-site is: <http://www.cnnro.ca>



The Canadian High Arctic Research Station, *will be on the cutting edge of Arctic issues* [...]serving Canada and the world



The Station will be a “hub” of Canada’s network of Arctic research facilities that includes laboratories, field camps, monitoring sites, ships, and satellites. It will pursue impact through robust partnerships.

The Station’s S&T Program will pursue a series of priority outcomes under the themes: Resource Development, Exercising Sovereignty, Environmental Stewardship and Climate Change, and Strong and Healthy Communities.

Polar Continental Shelf Program

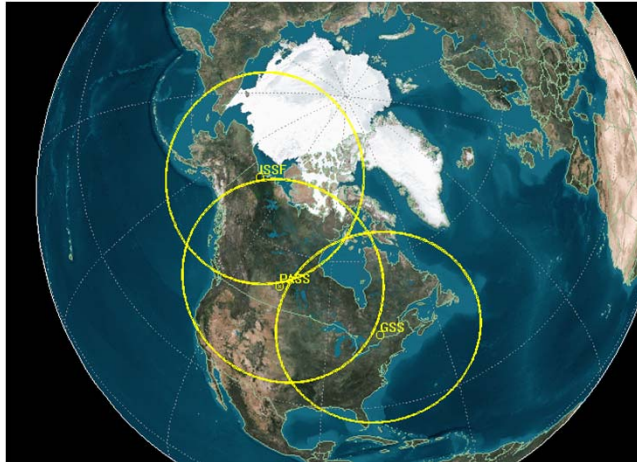
Canada's Centre of Excellence for Logistics Support in the Canadian North



- PCSP supports over 150 projects and 1100 scientists every year, including international clients
- Efficient logistics → maximize support for science
- Examples of the science PCSP supports include:
 - Major field science programs such as GeoMapping for Energy and Minerals
 - Ecological research on the grizzly population on the Yukon North slope
 - Research on the effects of climate change on algae and plankton life cycles in the Arctic



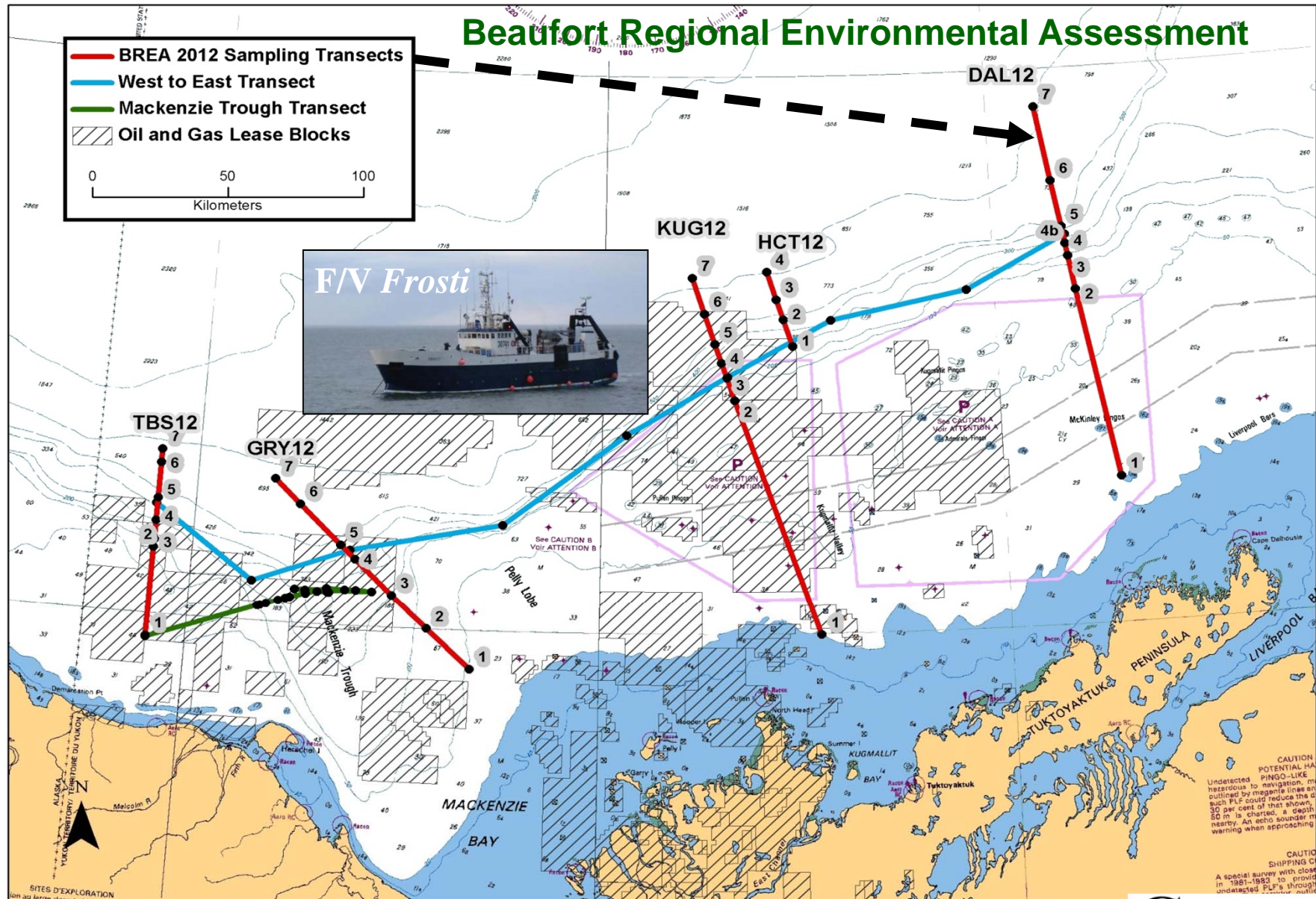
Canada's Inuvik Satellite Station Facility (ISSF)



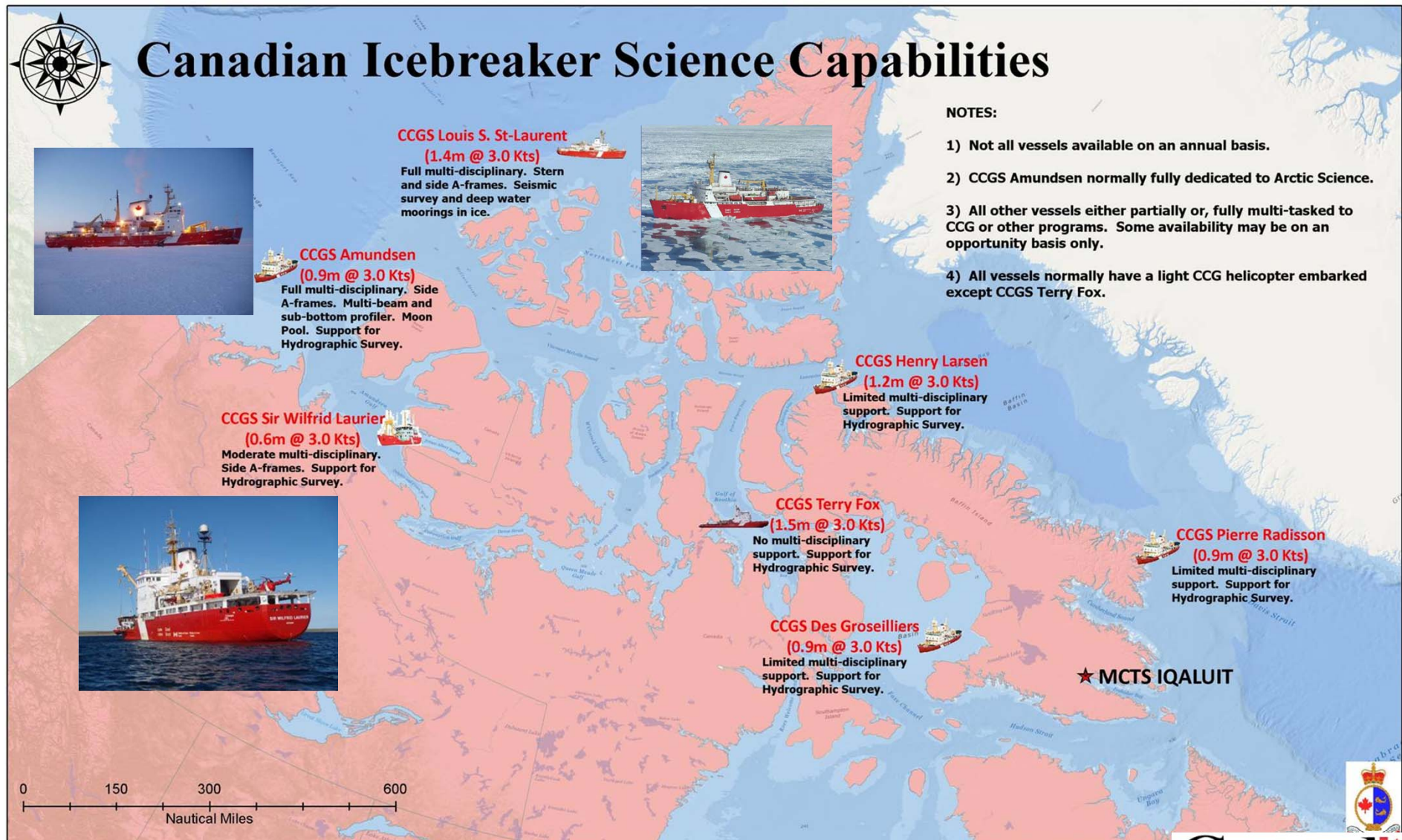
- The ISSF is uniquely positioned to receive Earth Observation satellite data over Canada's North.
- Earth Observation and Remote Sensing support northern monitoring (e.g. snow cover, permafrost) for applications such as infrastructure planning and ecosystem reporting.
- The ISSF currently hosts two international antennas.
- A Canadian antenna will be installed in 2014.
- Expansion of the facility is underway to meet the increasing demand.
- Canada is revitalizing its cross-Canada satellite infrastructure by also installing new antennas at its other facilities in Saskatchewan and Québec in 2013 and 2014.



Canadian Coast Guard: Supporting Science in Canada's Arctic



Canadian Icebreaker Science Capabilities



Polar Icebreaker: CCGS *John G. Diefenbaker*

Notional Vessel Particulars:

- IACS UR PC2 (Icebreaker +)
- Length approximately 149m
- Beam approximately 28m
- Displacement ~23,000 tonnes
- Fully integrated diesel electric
- Installed power of ~36 MW
- 18 knots max / 12 knots cruise / 3 knots ice
- Full power endurance of at least 25 days
- Complement of 60 crew / 40 msn personnel
- 270 days logistical endurance
- 2 x medium lift helicopters
- Extensive multi-disciplinary science outfit

