Arctic Security Challenges and Issues

THE CLIMATE CHANGE-SECURITY NEXUS: IMPLICATIONS FOR CANADIAN DEFENCE POLICY AND OPERATIONS 2010-2030
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Main Themes

• Canada is facing a Transforming Arctic Security Environment

• The Arctic is a state of massive transformation
  – Climate Change
  – Resource Development – (was up to a high $140+ barrel of oil- now $80 barrel)
  – Geopolitical Transformation/Globalization

• Has a New Arctic Arms Race Arrived?

• What does this mean for Canada?
Geo-political Arctic Threats and Challenges

• Current geo-political threat level is nebulous and low – for now

• Issue is the uncertainty as Arctic States and Non-arctic states begin to recognize the geo-political/economic significance of the Arctic because of Climate Change

1) Arctic as a Geopolitical Transit Point
2) Arctic as a New Source of Resources
Confounding Nature of Arctic Security

• Non-linear Progression of Factors
  – We do not understand interaction of change
  – Events can occur very quickly eg. Economic crisis
  – Tendency to believe if things are going well now they will continue to go well

• Complexity of North
  – Will remain a very expensive and difficult region to operate in
Climate Change and Arctic Security

• Climate Change = Perception/Reality of Greater Accessibility
• Greater Accessibility + Perception/Reality of Great Resource Wealth = Increasing Arctic and non-Arctic Interest in Region
• Increasing Interest + Undetermined Maritime Borders + Involvement of Powerful States =
• Uncertain International Security Environment
The Uncertain International Arctic Security Environment

• 1989-2004: Period of Hope/Indifference
  – Environmental Security AMEC; G-8, POPs
  – Institutions Building: AEPS; Arctic Council
• 2000-2004: Uncovering the Impact of Climate Change
  – Arctic Climate Impact Assessment
• 2004-2008: Moving to the Rhetoric of Cooperation
  – Ilulissat Declaration
• 2004-2010: Unilateral Preparation
  – Military Buildup
  – Training
  – Statements
• http://cmss.ucalgary.ca/arcticsecurity
The Image of Change: Accessibility
The Melting Ice:
Movement of Ice Sept 2007-April 2008

Source: Canadian Ice Service
The Economics: The Hope of Resources
Oil and Gas: Resources of the North

Source: AMAP
US Geological Survey Arctic 2008

• To determine the sources of traditional energy supplies
• No consideration of non-traditional energy
  – E.g. gas hydrates
• Main Findings
• 30% of undiscovered Natural Gas in Arctic
• 13% of undiscovered Oil in Arctic
Uncertain Maritime jurisdiction & boundaries in the Arctic

www.dur.ac.uk/ibru/resources/arctic
New Technology

1st Arctic Shuttle Tanker

Innovative and challenging technology for Arctic Shuttle Tanker has been developed and constructed by SAMSUNG Heavy Industries in Korea.

The vessel is world 1st Arctic Shuttle Tanker which is intended for independent operation in arctic region with the following specialties:

**MAIN PARTICULARS**
- Length: 234.7 m
- Breadth: 34.0 m
- Depth: 21.0 m
- Displacement: 70,000 mt

**PERFORMANCE & PROPULSION**
- Speed in Ice: 3.0 kts
- Speed in Open water: 15.7 kts
- Azipod: 10,000 kW x 2 sets

**WINTERIZATION**
- Design Air Temp: -45°C
- Anti-icing & De-Icing Design

**OWNER & BUILDER**
- Owner: Sovcomflot
- Builder: Samsung Heavy Industries

**BUILDING SCHEDULE**
- Contracted: Nov. 10, 2005
- Delivered: Jan. 1, 2008

Source: Samsung Heavy Industries
New Geopolitics of the North

• Russia
  – Renewed Assertiveness
  – Petrodollars

• United States
  – Multi-lateral reluctance/emerging concern to act
  – International Role as remaining Superpower

• Norway
  – Refocus on North
  – Growing Interest (Concern?) with Russia
New Geopolitics of the North

• Denmark
  – Issues with Greenland – social; energy
  – New Naval capabilities

• Iceland
  – Economic melt-down

• Finland/Sweden
  – NATO – Loyal Arrow

• Canada
  – Renewed Assertiveness
  – Re-examining its Arctic capabilities
Russia
Renewed Russian Strengths

• 1990’s Period of Extreme Reduction
• 2000’s Renewal
• Russian State Rearmament Programme 2007-2015
• 6 SSBN 995 Borey
  – 1 built
  – 2 building
  – 1 to begin 2010
• 2 SSN 885 Yasen
• 6 Diesel 677 Lada

Yury Dolgoruky
The New Russian Northern Fleet?

- Resumption of Northern Fleet Operation
  - 2 month Tour - Mediterranean & North Atlantic
  - Tour to Caribbean
- Commitment to have 5-6 Carrier Battle-groups by 2025/30
  - Northern based
  - Not clear when building commences

- source:
  Admiral Vladimir Vysotsky

Source: RIA Novosti
Resumption of Russian TU-95 (Bear) Arctic Flights, August 18, 2007

- If US/EU position on Northwest Passage is correct then these aircraft have the right of over-flight
- Replacement announced to be built by 2020
Russian Surface Fleet Return to Arctic Waters – 2008/09

Summer 2008/09

Severomosk

Marshal Ustinov
Russian Arctic Exercises

• Twin Submarine Test Missile Launch near North Pole 2009
  – 2 Delta IVs SSBN plus several SSNs
• Large Military Exercise in Arctic Region 2009 - 8,000-10,000 troops
• Planned Paratrooper drop 2010 North Pole
• Ice Station will float into Canadian Waters 2010
Delta IVs at the Arctic 2009

Source: Defence Intelligence Agency
United States
US Arctic Forces

- Submarine Forces:
  - US – Seawolf and Los Angles Class; (Virginia Class?)
  - Cooperation with UK
  - ICETEX March 2009 – 2 LA class SSN

- Missile Development

  Missile Defence – Ft. Greely

USS Honolulu  2003
HMS Tireless 2007 after accident
USS Texas at North Pole Oct-Nov 2009

• Open Source Information had stated that the Virginia Class was not “ice-capable”
• First known case of Virginia Class in Arctic
• Misinformation or they have been retrofitted
Deployment of F-22 to Alaska

- 186 F-22 to be built
- 36 are being deployed to Alaska
- 20% of total arsenal
Fort Greely – Delta Junction
New US Concerns

- National Security Presidential Directive 66/
  Homeland Security Presidential Directive 25 -
  Arctic Region Policy (January 9 2009)
- “The United States has broad and fundamental
  national security interests in the Arctic region and
  is prepared to operate either independently or in
  conjunction with other states to safe-guard these
  interests”
  - missile defence and early warning;
  - deployment of sea and air systems for strategic sealift,
    strategic deterrence, maritime presence, and maritime
    security operations;
  - ensuring freedom of navigation and over-flight.
US Arctic Exercises
Northern Edge

• Annual US northern military exercise
• Annual even June 1993-2004; 2006-2009
• 10,000-8,000 troops
• 200 aircraft
• 1 aircraft carrier
Norway
Norwegian Arctic Focus

• The High North is the most important priority area of the Norwegian Defence - Norwegian Minister of Defence Anne-Grete Strøm-Erichsen – April 2008

• 5 New Aegis Frigates
  – Very capable
  – Most expensive Norwegian defence project

• Helicopters stationed at northern base of Bardufoss

• Purchase 48 F-35s November 2008
Norwegian Developments

• Fridtjof Nansen class - 5
  – Aegis system
  – 4th one joined fleet fall 2009

• Purchase 48 F-35 JSF Aircraft Nov 2008

Roald Amundsen and Admiral Kuznetsov 2008
Source: RNoAF
Svalbard- Norwegian Coast Guard

Source: Canadian American Strategic Review
Norwegian Arctic Exercises

Cold Response

• Large scale exercise with Norway and 12-14 NATO members – 2006, 2007, 2009
• 8,000-10,000
• Held in Northern Norway in mid-March
Denmark
Danish Military Building

- Substantial Re-building Northern and General purpose surface fleet post 1989
- 4 Thesis – ice-capable
- 2 Knud Ramussen – ice capable
- 12 Flyvefisken - multi role/some ice capable
- 2 Abasalon/3 Iver Huitfeldt – multi role
- Decision expected in 2-3 years F-35 purchase
Danish Vessels

Thesis class

Inspection Ship (Inspektionsfartøjer or OPV) P570 Knud Rasmussen (Knud Rasmussen class)

Flyvefisken class
Finland/Sweden

- Arctic Exercise - *Loyal Arrow* – June 2009
- 200 aircraft; 2000 troops; 50 vessels
- Finland developing closer links with NATO

HMS *Ark Royal* in Swedish Waters
China
Chinese Arctic Interest

• Was not detected by Canada until arriving in Tuk

- 1st Arctic Voyage: July-Sept 1999
- 2nd Arctic Voyage: July-Sept 2003
- 3rd Arctic Voyage Summer 2008

Xue Long in Antarctica
South Korea

Source: Samsung Heavy Industries
Canada
Canadian Security Actions

• New Military Operations since 2002
• 6-8 Arctic Offshore Patrol Vessels
• Nanisivik Refueling Facility
• Resolute Bay Training Facility
• Increased Rangers Patrols
  - Number 58 to 61
  - Training and Equipment
• Northern Watch
• Throne Speech Oct 2007
  – Northern Strategy (Sovereignty/Security)
Canadian Security Actions (cont.)

• Feb 2008 Budget – $720 Million Icebreaker
• June 2008 Canada First Defence Strategy (Harper White Paper)
• Arctic Strategy July 2009
  - One of four pillars on Arctic Sovereignty and Security
• Postponement (Cancelation?) of Joint Support Vessels
• Mandatory Reporting of Ship Traffic – Nordreg (shipping season 2010)
Canadian Navy in Northern Waters
Post 2002
Canadian Northern Exercises

- Resumed in 2002 – Operation Narwhal
- Hudson Sentinel -2005 Hudson Bay
- Operation Nanook Eastern Arctic
  - 700 troops and OGD
- Operation Nunakput Western Arctic
- Operation Nunalivut – Ranger Parol
Base Location

Resolute Bay

Ft. Greely

Iqaluit

St. John’s

Canadian Forces maritime test range
Nanoue Bay is where Canada’s navy tests sonobuoys, sonar systems and torpedoes in an area off the east coast of Vancouver Island.

Submarines
Canada’s fleet of diesel submarines cannot function in our own Arctic waters, but the U.S., U.K., Russia and France all have vessels that can operate there undetected.

Nanisivik
On Aug. 10, Prime Minister Stephen Harper announced the creation of a deepwater port at this Baffin Island community.

Coast Guard
Most of the Coast Guard’s vessels can operate in the Arctic only in the summer.

CFB Esquimalt is Canada’s West Coast navy base and home port to the Pacific fleet.

CFB Halifax is Canada’s East Coast navy base and home port to the Atlantic fleet.

THE GLOBE AND MAIL  SOURCE: WWW.NAVY.FORCES.GC.CA
Arctic Offshore Patrol Vessel

General Arrangements – Upper Deck

Source: Canadian Navy
RadarSat II

Source JTFN
Canadian Diplomatic Efforts

• Willingness to follow the lead of others
  – Ilulissat Greenland Meeting 2008
• Recent announcements of International Intentions
  – Whitehorse; Montreal
• Suggestions of Bilateral talks
• Preparation for 2013
  – Chairpersonship of AC
  – Submission to CLCS
Where are we Headed?

• Circumpolar states have called for cooperation
• Circumpolar states are building up their combat capable force for the Arctic
  – New Equipment – Ice and Combat Capable
  – New Policies – Unilateral “concern”
Conclusion

- Geopolitics Concerns reduced immediately after end of Cold War
- New concerns are arising as Arctic is perceived/becoming more accessible
- Issues will be Maritime/Aerospace
- Issues will be understanding entry of new actors to the region
Conclusion

• Canada needs to be Prepared
• Needs to Either:
  – 1) Take robust diplomatic efforts to short-circuit developing arms race; or
  – 2) Develop a more robust and capable northern forces; or
  – 3) Arrange to have the Americans protect our north
• Cannot simply say all is well and build limited capable forces