

What's Really Happening to Arctic Sea Ice?



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Outline

- Sea ice and ice services today
- Historical changes in Arctic sea ice
- Future projected changes in Arctic sea ice
- Impacts on shipping in Canada's Arctic



Ice - A Canadian Issue

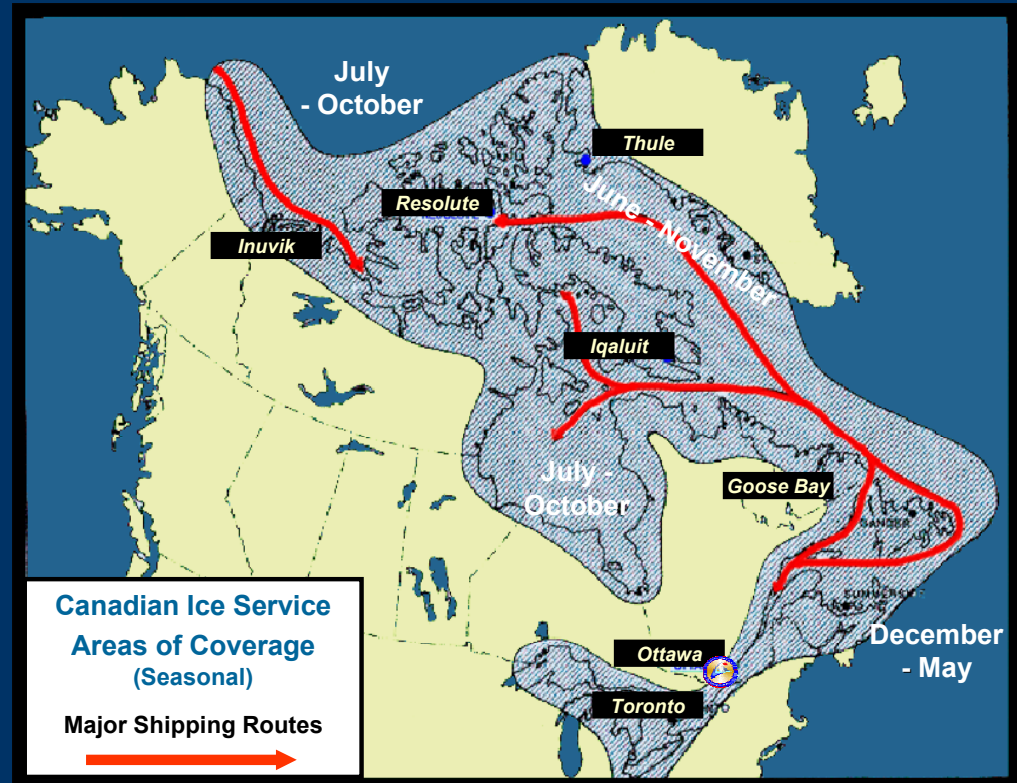
- Canada claims the world's:

- longest coastline
- greatest area of ice

- Annual variation in extent of ice is » ½ the area of Canada (4M km²)

- Seasonal effects on:

- weather and climate
- marine ecosystems
- safety and efficiency of marine transportation



Shipping in Canada's Arctic -- Today

- Ship traffic is typically restricted to the very short open water season between July and September
- Relatively low level of shipping – approx. 100 voyages / year
- Most shipping occurs in coastal waterways within and adjacent to the arctic islands
- Multi-year ice is a significant hazard throughout this season
Transits are rare, destination trips more common



Why an Ice Service ?

Ice is a significant marine hazard

