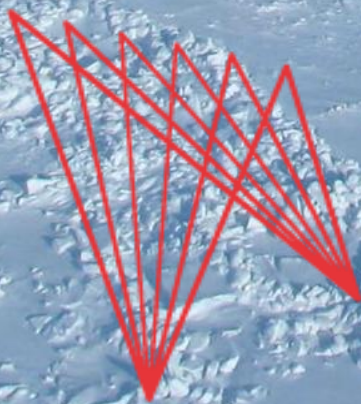


Opening of the Northwest Passage: Implications for Global Shipping and Asian Economies

Hugh Stephens, Vice Chair, Canadian National Committee on Pacific Economic Cooperation
Papeete, French Polynesia, October 19, 2015

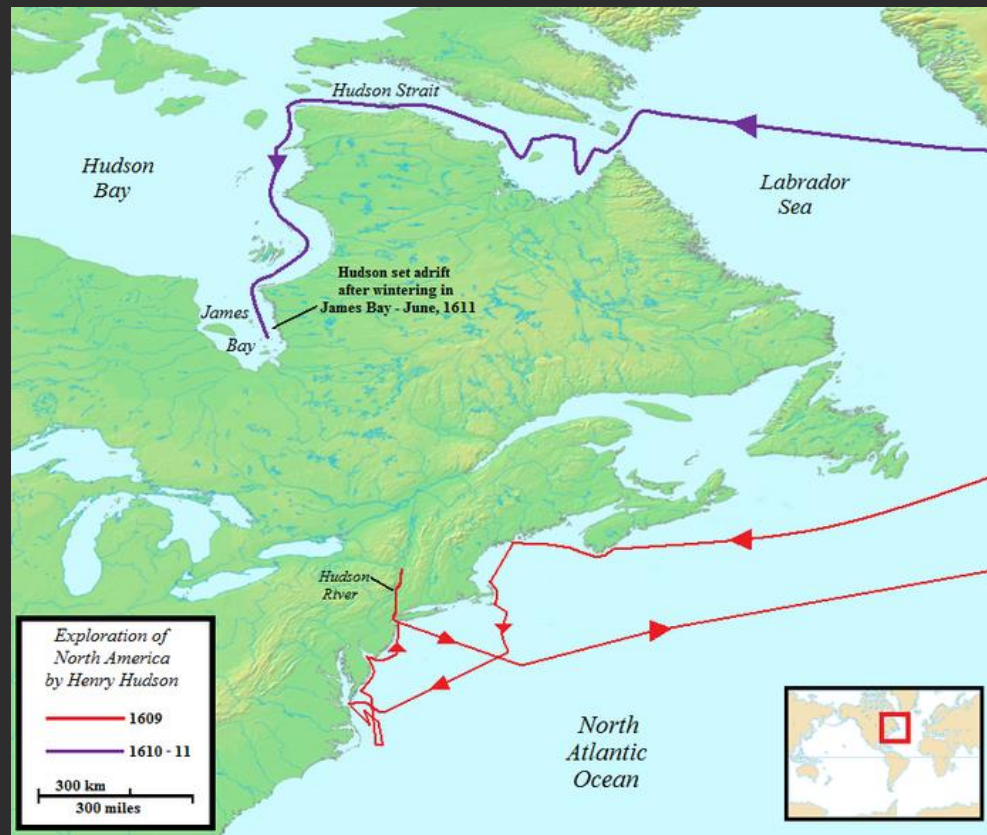


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Opening of the Northwest Passage The Historical Challenge

source: exploration.marinersmuseum.org



Source: commons.wikimedia.org

Search for the Northwest Passage: The Franklin Expedition: Well Equipped...

adventureblog.nationalgeographic.com



But with disastrous results

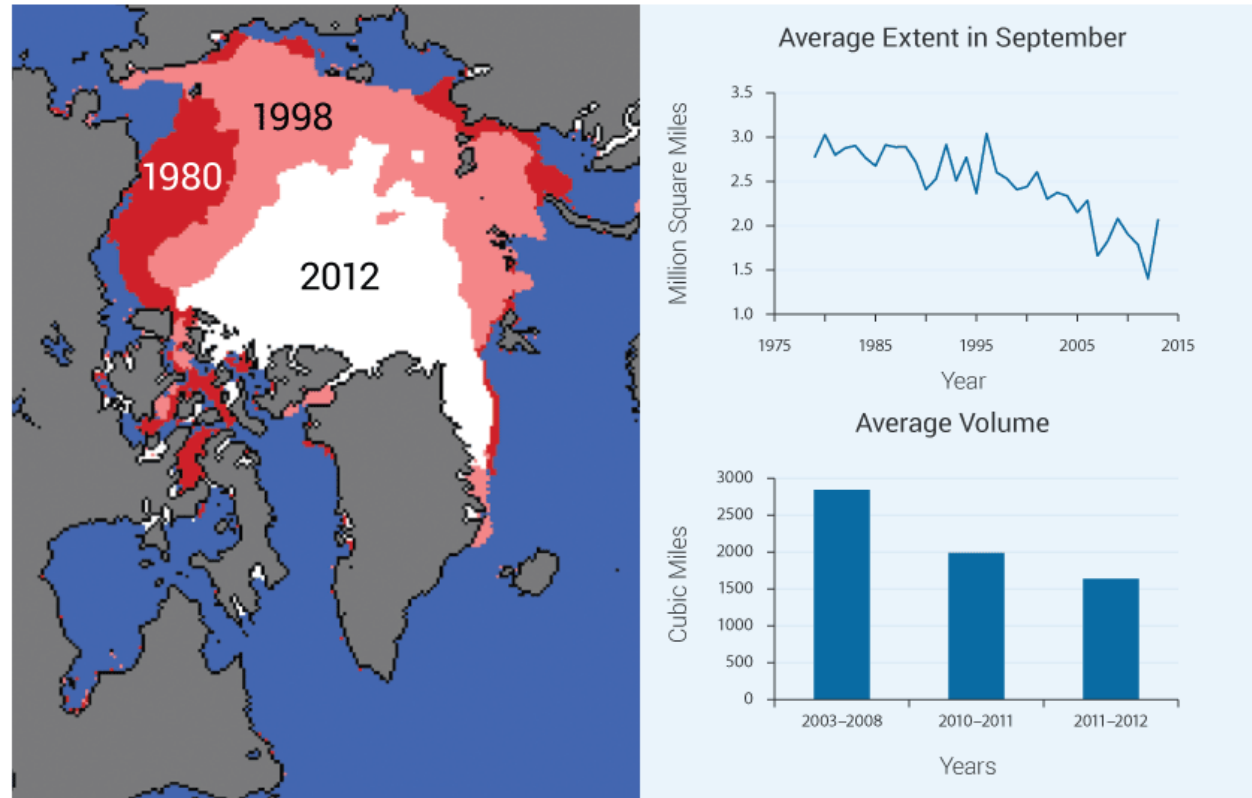
Globe and Mail.com



Arctic Sea Ice Loss

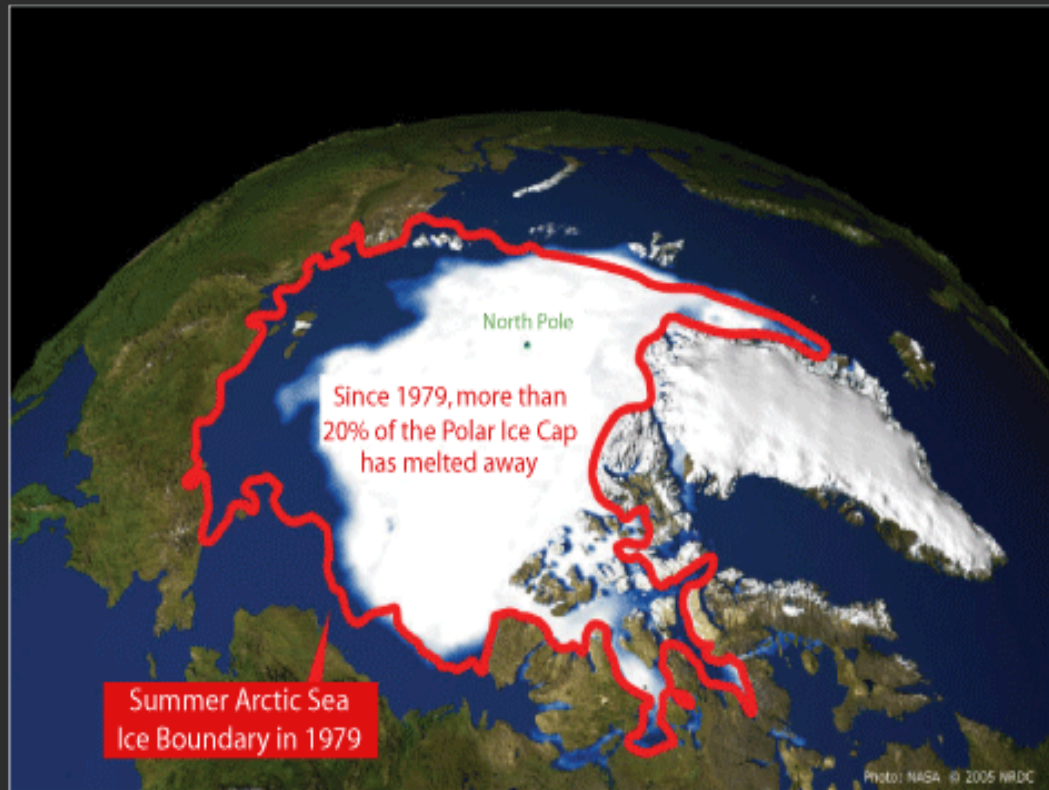
source: nca2014.globalchange.gov

Arctic Sea Ice Loss



Arctic Sea Ice Loss

Summer Arctic Sea Ice Decline

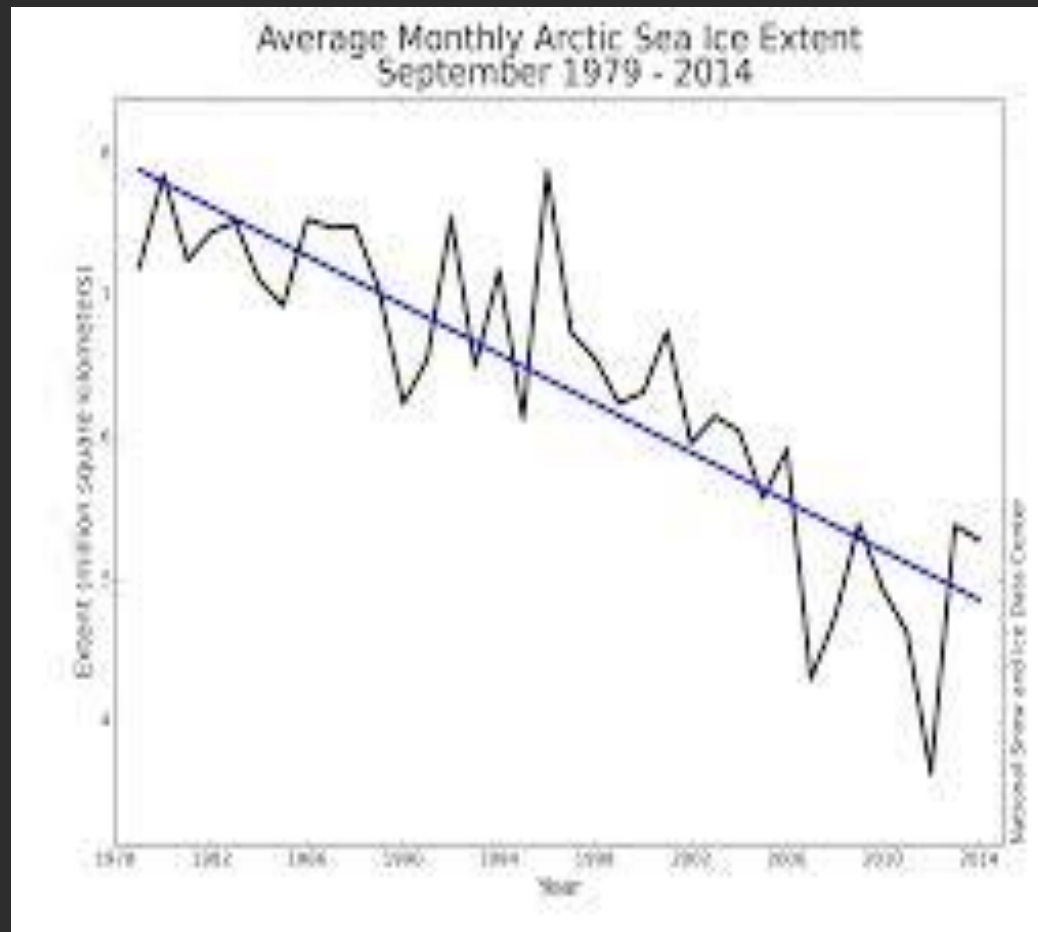


Source: NASA & Natural Resources Defense Council

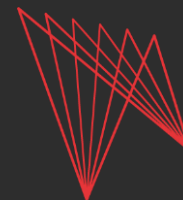
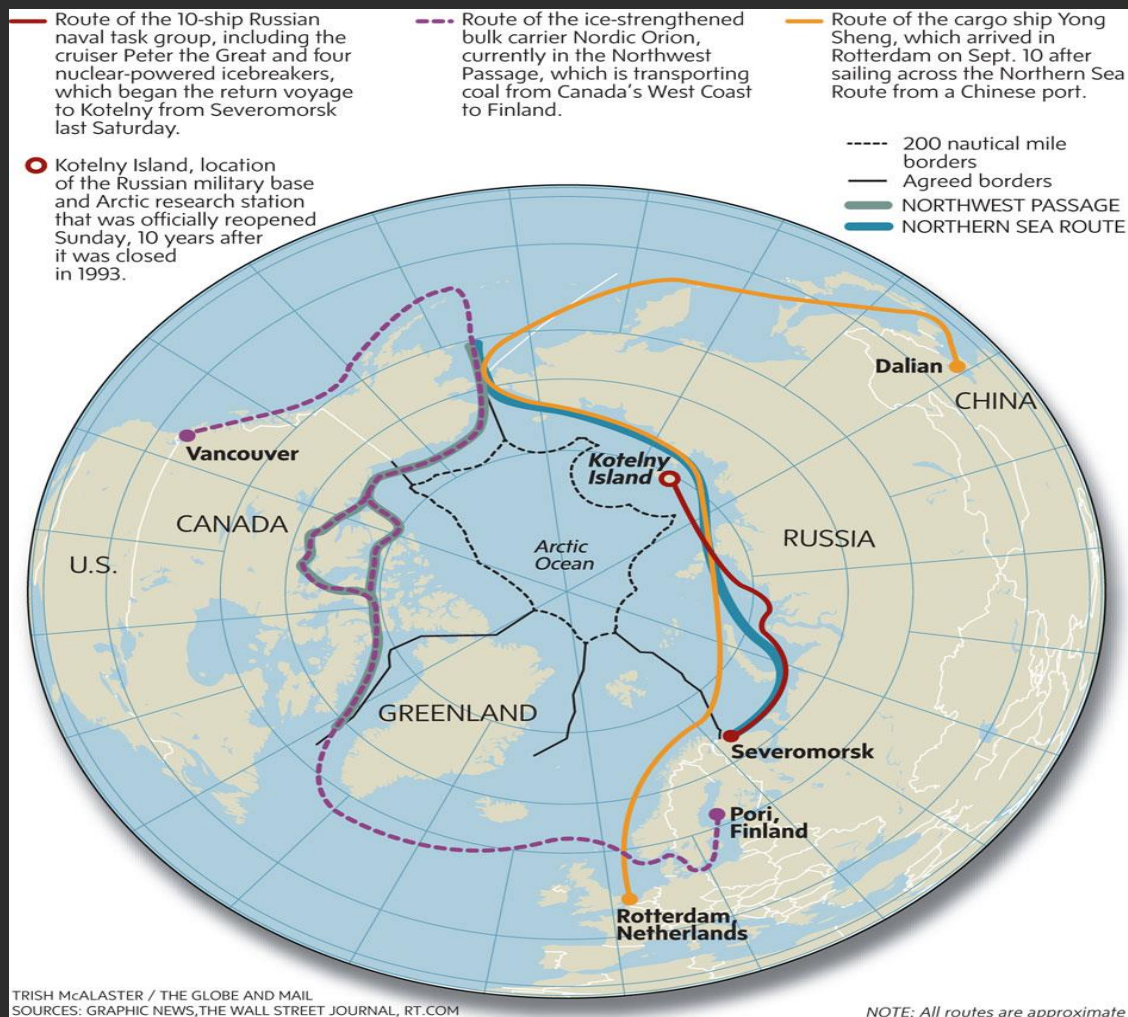


Arctic Sea Ice Fluctuation

Source: carbonbrief.org

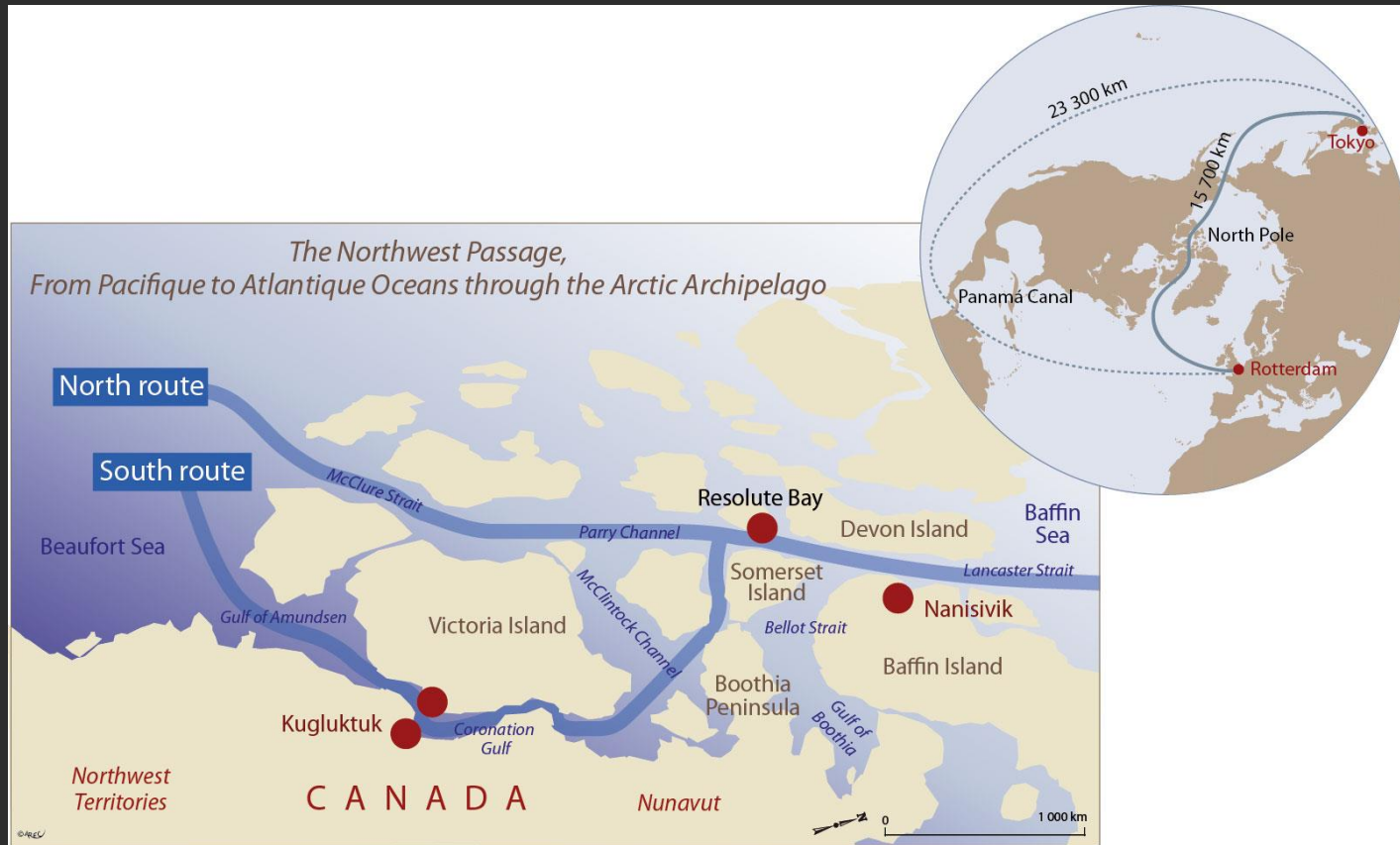


Arctic Shipping Routes



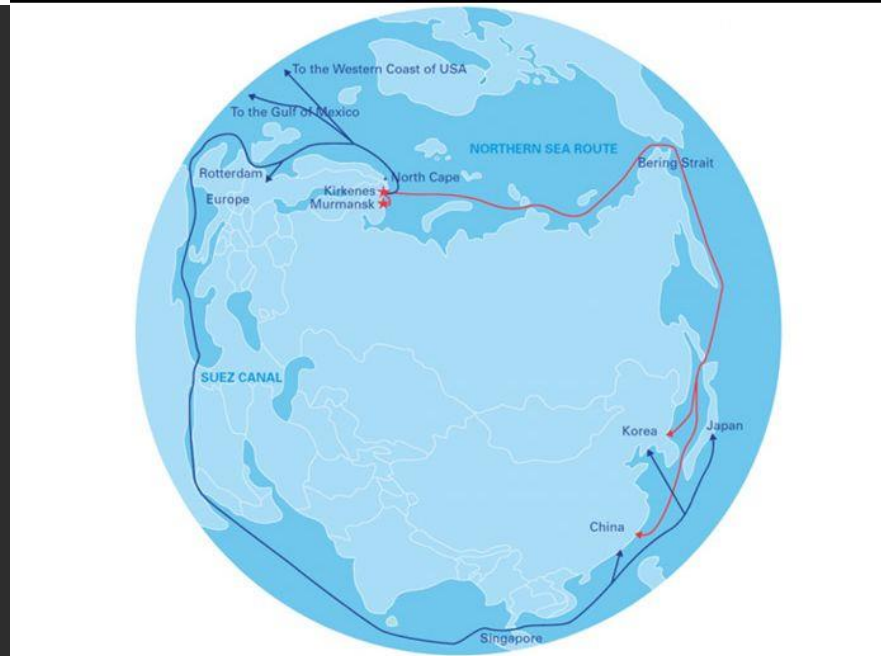
Advantages of the Northwest Passage

Source: atlas-caraibe.certic.fr



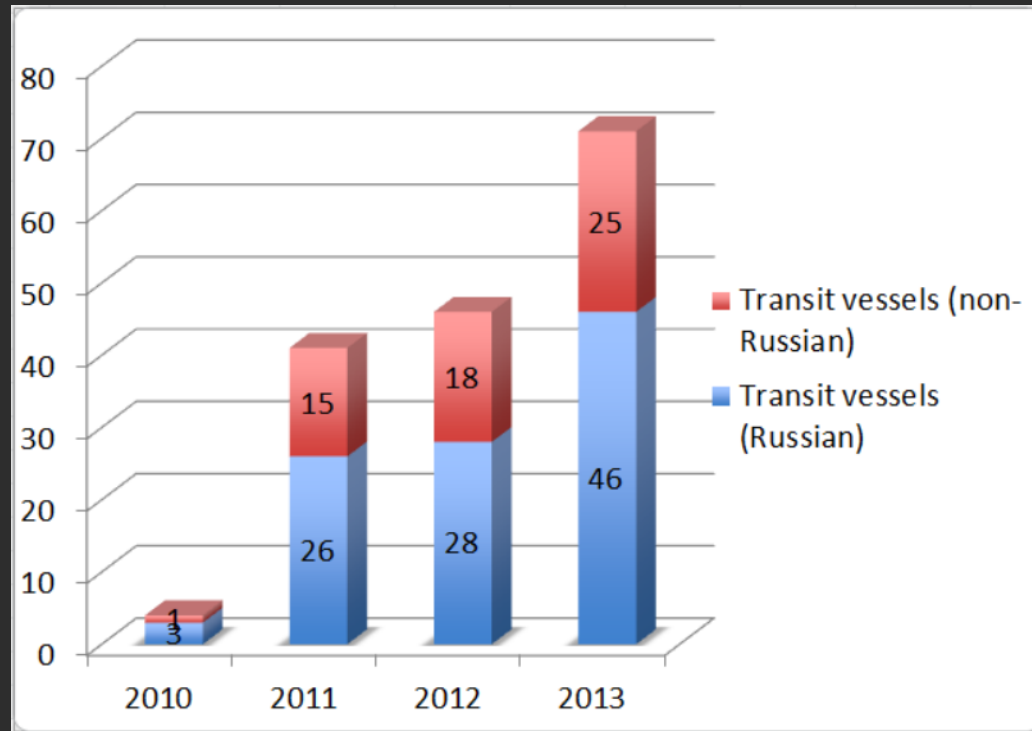
Advantages of the Northern Sea Route

	Via Suez Canal			Through Northern Sea Route			Days saved
	Distance Nm.	Speed Knts	Days	Distance Nm.	Speed Knts*	Days	
Shanghai, China	12050	14	37	6500	14	19	18
Busan, Korea	12400	14	38	6050	14	18	20
Yokohama, Japan	12730	14	39	5750	14	17	22



Northeast Passage (Northern Sea Route)

(Marchenko 2014)



Northeast Passage: Challenges

- Ice conditions still heavy and unpredictable
- High ice breaking fees
- High insurance rates
- Long wait times to form convoys



Northwest Passage: Challenges

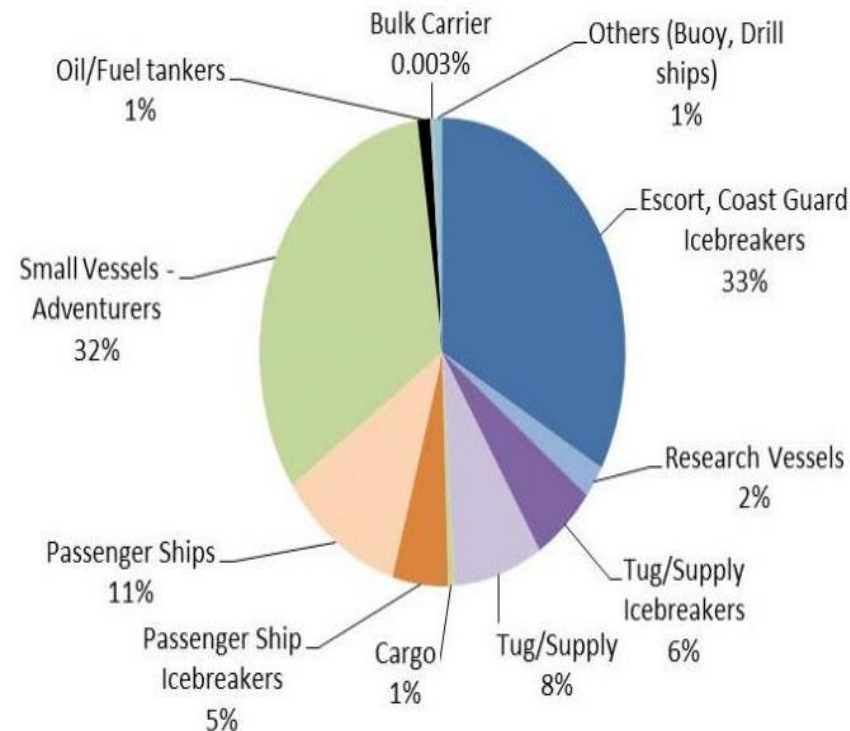
- **Ice-bound; unpredictable ice patterns**
- **Shallow; navigation hazards; poor charts**
- **Limited ice-breaking capacity**
- **High insurance rates**
- **Lack of facilities/harbours and other critical infrastructure**



Future of the Northwest Passage

source: enr.gov.nt.ca; edition.cnn.com

Type of ships in the Northwest Passage



Future of the Northwest Passage

- **Growth in Cruise Traffic**
- **Slow growth in coastal shipping**
- **Some use of NWP to ship minerals directly to Asia**
- **Possible future use for energy shipments**
- **No major uptick in transit traffic-
"boutique shipping"**



Northern Sea Route: Future Prospects

- **TPP: Shortest but least likely**
- **NWP: Limited current prospects**
- **NEP: Most Favoured (resource base, existing infrastructure, better ice conditions)**
- **Competition: Panama 15K ships annually, NEP 30-70 in recent years**
- **Cost factors: NEP fees must be competitive with Suez/Panama**



Implications for Asia

- **Potential Cost Advantages for Shipping to/from Europe**
- **Potential for Direct/Cheaper Access to Arctic Resources**

but.....

- **Little/No impact on shipping to North America or growing S/S trade**
- **Cost of fuel and competing modes of transit must be considered**



China and the Arctic



The Arctic Council: Asian Interest

- **Of 12 observer states, 5 are from Asia (China, Japan, ROK, India, Singapore)**
- **Conditions to be admitted as an Observer:**
 - Accept and support the objectives of the Council
 - Recognize Arctic States' sovereignty and jurisdiction
 - Recognize existing legal framework including UNCLOS
 - Respect indigenous values, culture, interests and traditions
 - Have demonstrated Arctic interests and expertise relevant to the work of the Arctic Council, and have political willingness and means to contribute substantively and financially



Implications for Canada

- **Need to exercise Arctic sovereignty (Ice breakers, infrastructure, legal regime)**
- **Potential impact on legal status of NWP**
- **Opportunity for collaboration with Asian countries, (China, Korea, Japan) in Arctic research, navigation, etc**
- **Development potential of Arctic resources; direct shipping to Asia**





Thank you

Hugh Stephens

**Senior Fellow
Asia Pacific Foundation of Canada**