

LE RENDEZ-VOUS DE L'ASSURANCE TRANSPORTS

Cannes
4th and 5th May 2010

table ronde : nouvelles routes maritimes
Le cas de l'Arctique



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SPLOTT - INRETS - MEEDDM



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DE CANNES

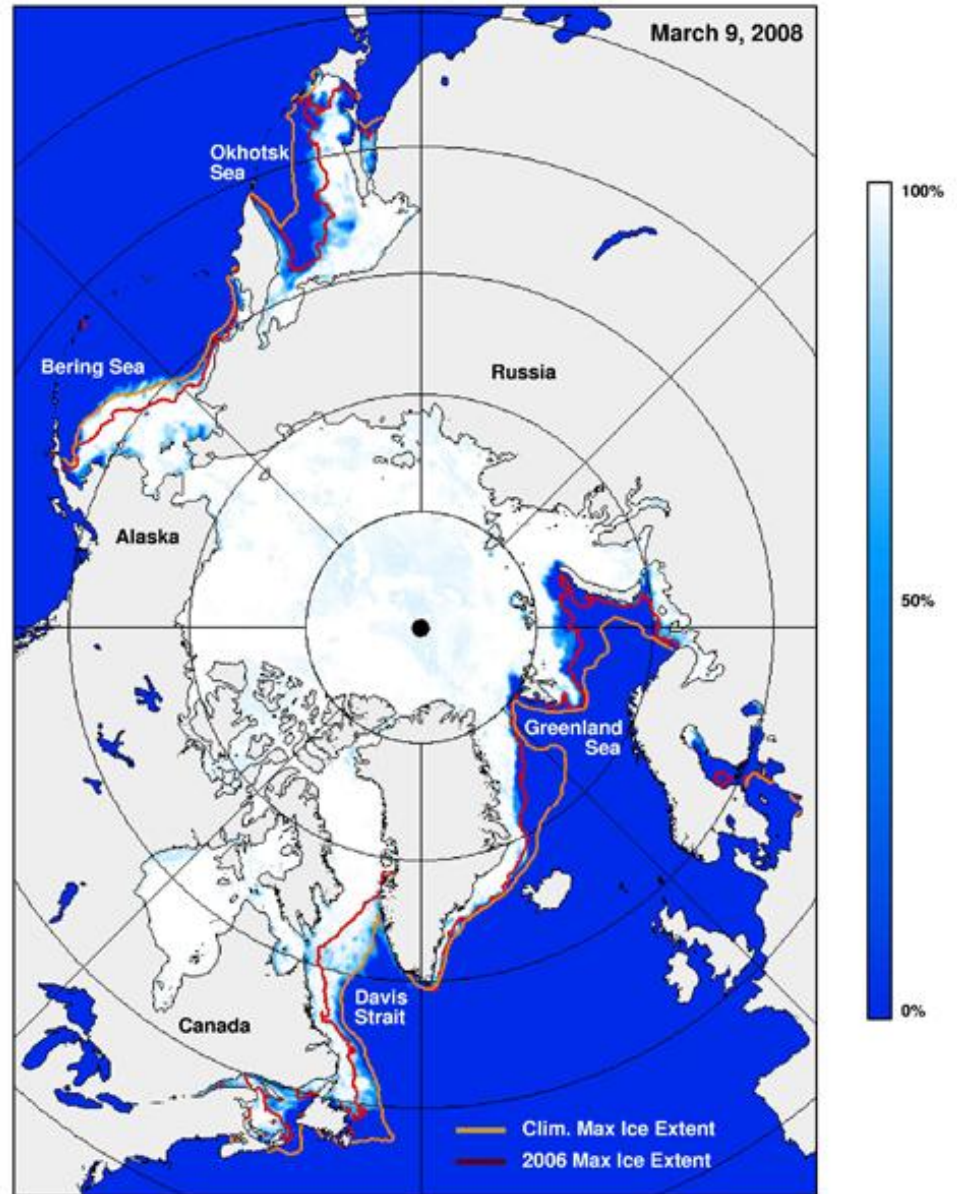
A closed passage in winter

Ice extent in winter season

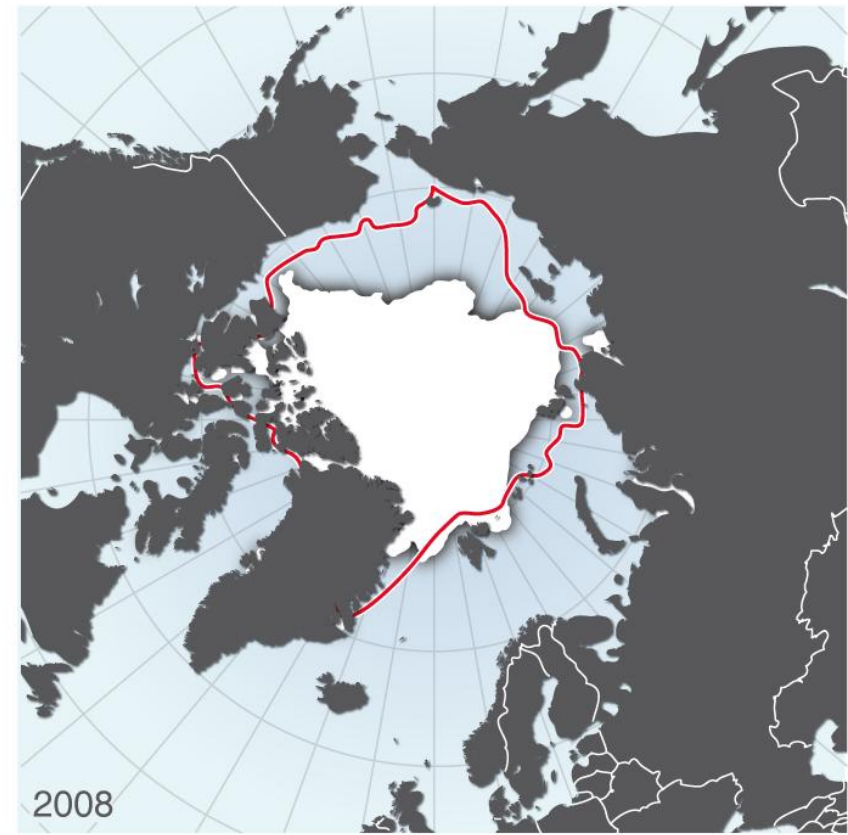
-  Average from 1980 to 2007.
-  Maximum extent in 2006.
-  Limit of the ice in 2008.

Remark: maximum extent in march and minimum extent in september.

Source: NASA.



A shrinking ice cover in summer



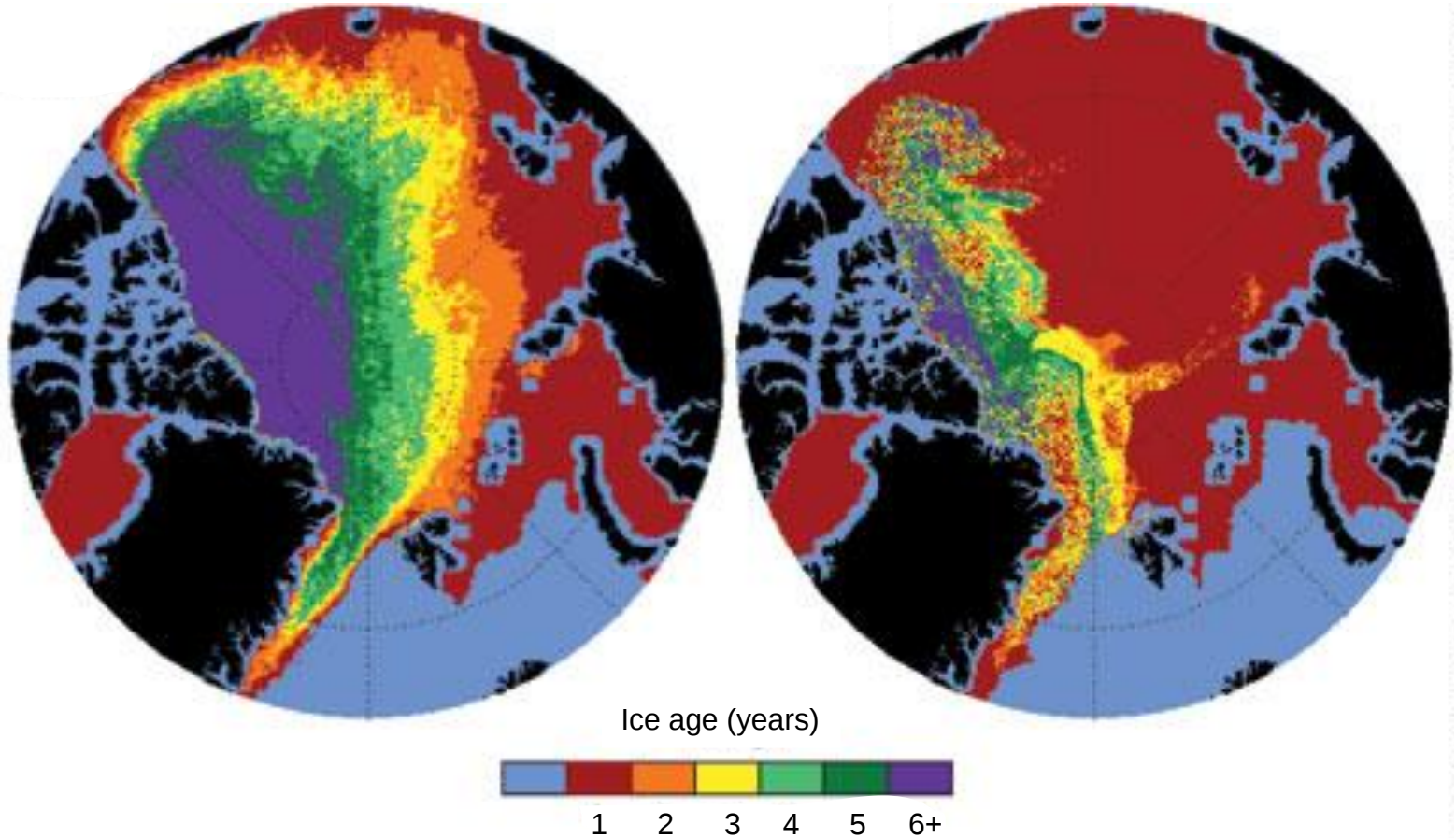
— Median minimum extent
of ice cover (1979-2000)

Source: UNEP - GRIDA.

An ice cover ever younger

February average conditions.
period: 1985 to 2000

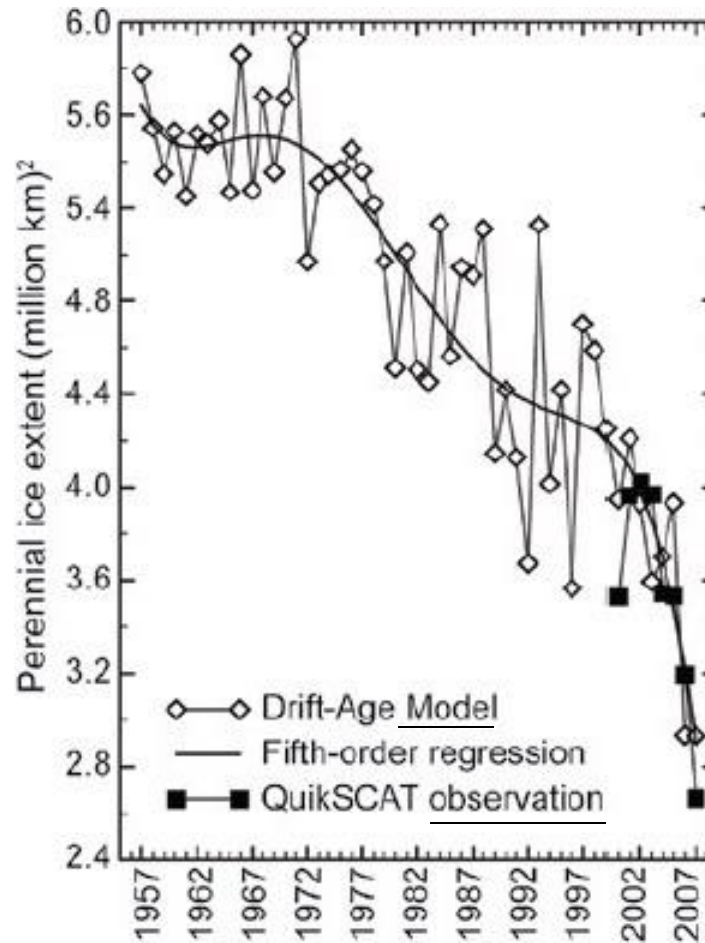
February conditions: 2008



Source: National Snow & Ice Data Center, University of Colorado, Boulder, USA.

An acceleration of the phenomenon of melting ice

Evolution of the perennial ice cover
in million square kilometers:
model vs observation

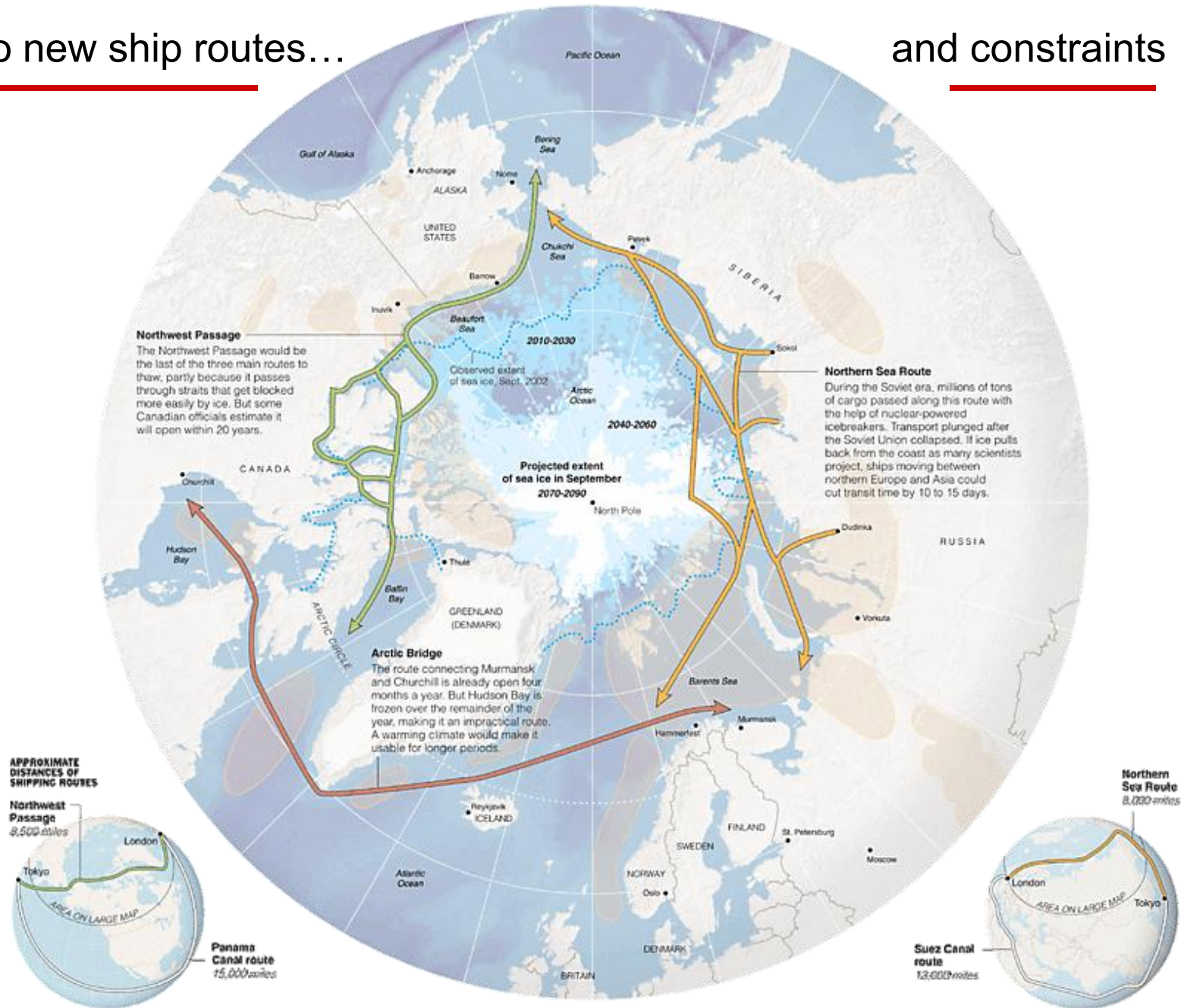


Source: NOAA.

To new ship routes...

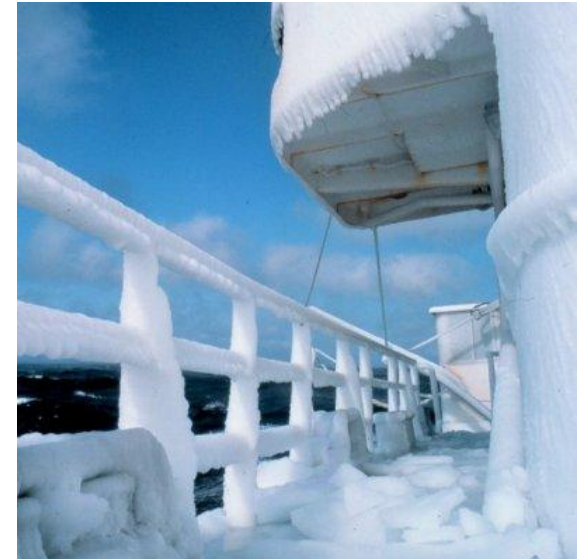
and constraints

New opportunities for commercial shipping?



Source: New York Times.

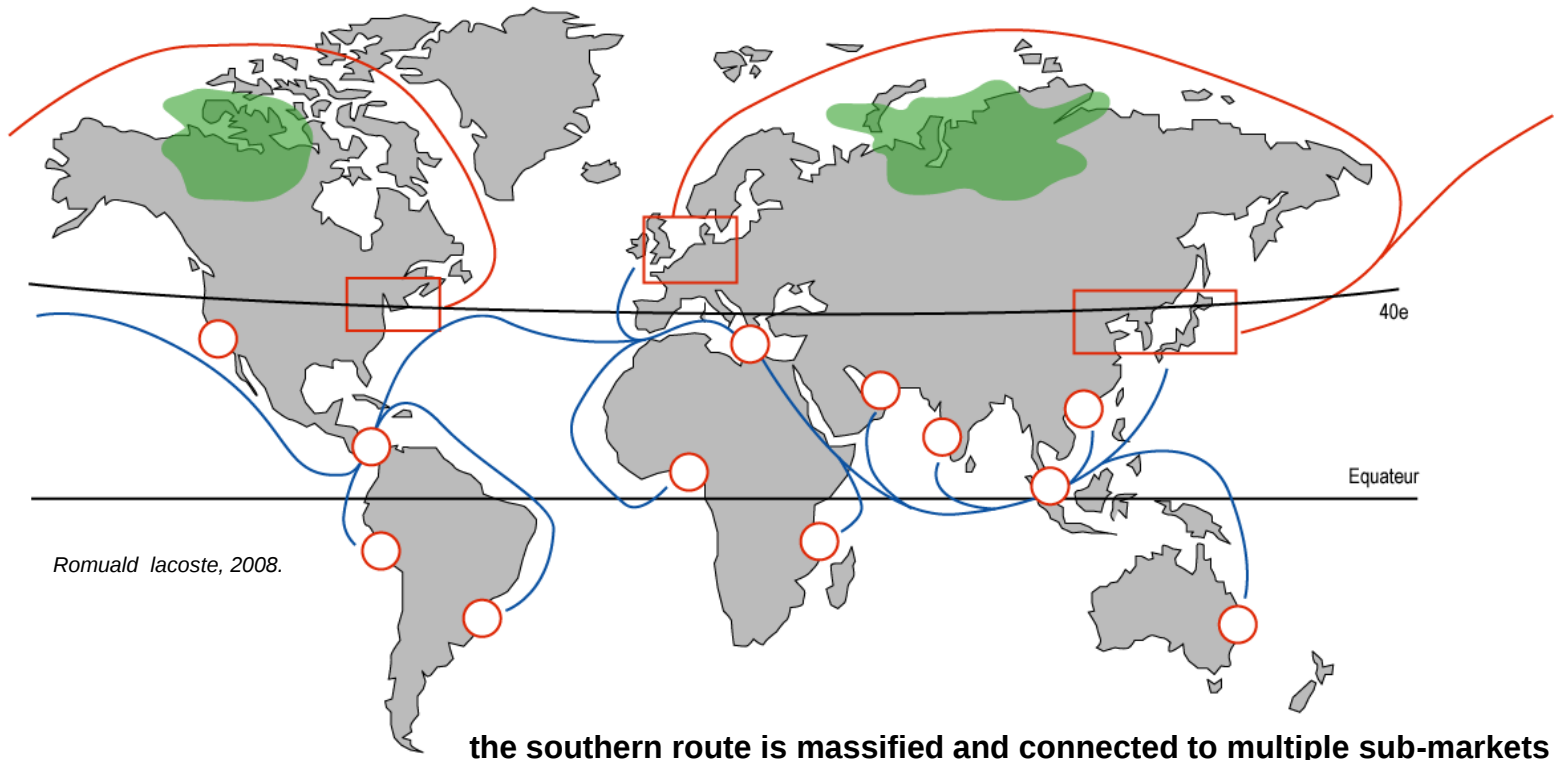
the goal: navigation without assistance in severe conditions all year



Containerization: the alternative to the southern route has its limits

- crews better trained and more experienced.
- vessels equipped with technology for navigation in ice.
- risk of pollution in particularly sensitive areas.
- higher insurance premiums.
- profitability « without a net »: direct lines without shipcalls.
- issues of sovereignty unresolved.
- range limited opportunity north of the 40th parallel N for containers.

the profitability of the northern route is still unproven



Containerization: the U.S. example



Source: Romuald LACOSTE, 2010.



The US railway landbridge

photo: railway-technology.com



photo: John Reay



John Reay, copyright 1996

photo: AECOM



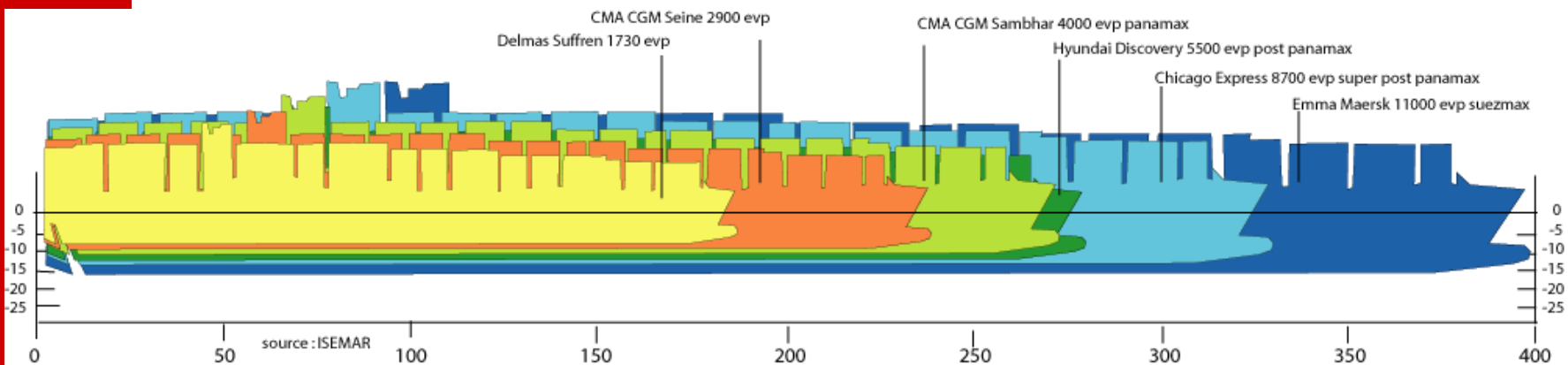
Alameda railway freight corridor through Los Angeles. Double stack train.

Massification and economies of scale

Emma Maersk 14 000 teu

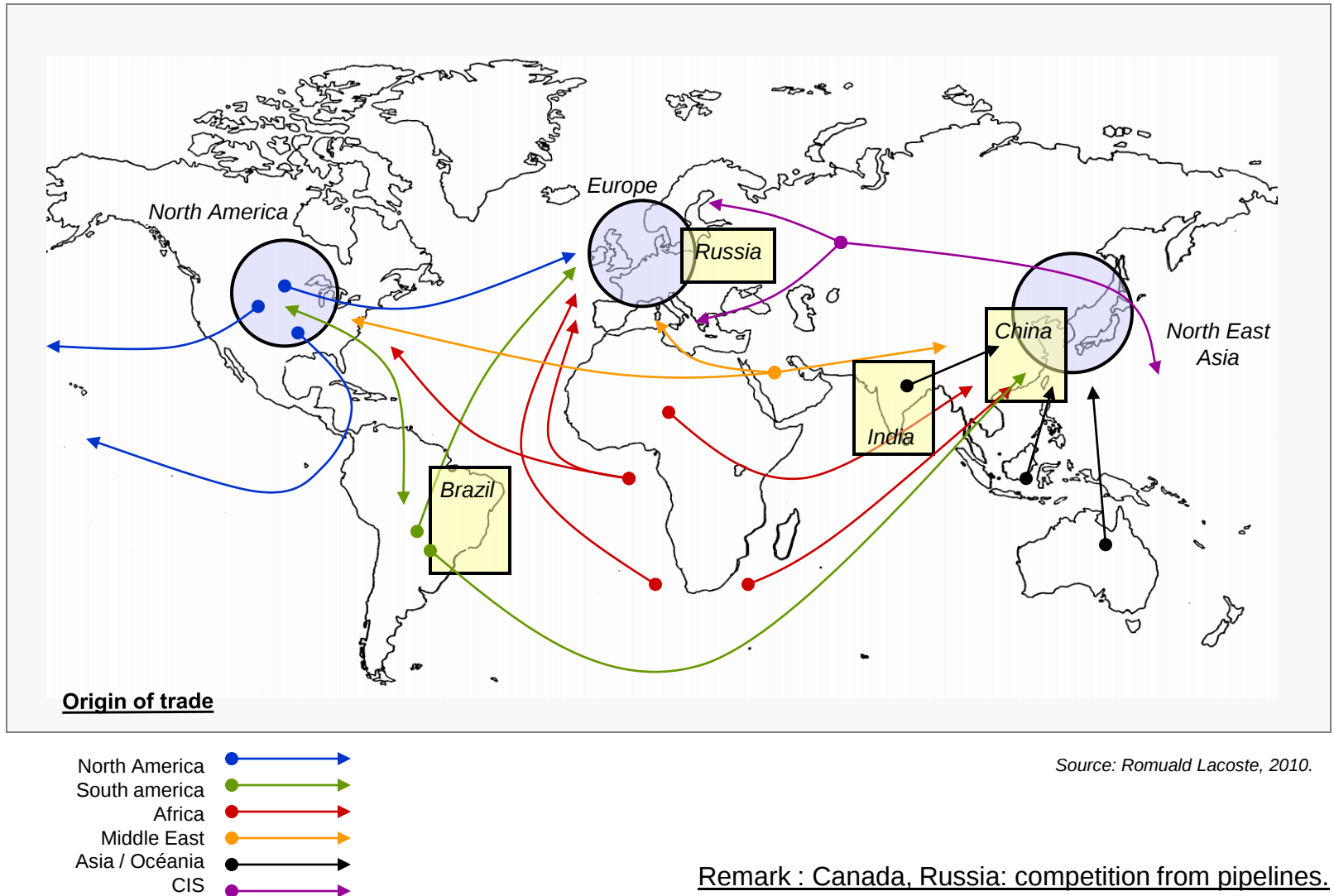


photo: ISEMAR



A transit route for large flows of raw materials?

Existing large trade flows of raw materials between continents



More than a passage, a destination



Source: Le Monde Diplomatique.

Tankers ice class fleet in 2008

ice classes	existing fleet		orderbook % by class	ice thickness in meter
	number of ships	% of ships		
1A super	5	1	14	1
1A	169	32	36	0,8
1B	139	26	46	0,6
1C	169	32	4	0,4
Class II/III	48	9	0	
total	530	100	100	

Source : McQuilling Services, New York, USA.

Some big players:

Latvian shipping
 Odfjell
 Eitzen
 Stena / Concordia
 Neste
 Novoship
 Sovcomflot
 Prisco

Unicom
 Tsakos energy Navigation
 Minerva Marine
 Thenamaris
 Dynacom
 Interiorient
 Fednav
 Descagnes

Canada: bulk ships and Fednav



photo: Kent Malo



photo: dnv.no

Umiak I, general cargo / bulkship of 32 000 dwt, ICE-15 class. Navigation into 1.5 m ice thickness without icebreaker assistance. For nickel transport from Voisey bay to Quebec.

Canada: iron ore projects (Baffin Island) and grain trade (Churchill)



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Russia: the oil market

Aframax oil tankers *Stena arctica* and *Prisco Captain Kostichev* of 116 500 dwt ice class 1A super. Navigation into 1.5 m ice thickness without icebreaker assistance.



Russia: development of deposits in the Barents Sea



zebrastationpolaire.over-blog.com



Oil tanker *Vasily Dinkov*, DAS.
Navigation into 1.5 m ice thickness without
icebreaker assistance.
The ship operates between Varandey and
Murmansk.

Russia: the trade of Norilsk Nickel

The northern road: a destination for specialists



General cargo / container ship of 750 teu and 14 500 dwt *Norilsk Nickel*, DAS, 80 millions €.

The ship operates between Dudinka (Norilsk port) and Murmansk.



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