‘Short way round: Strategic Impacts for East Asia from the NSR, and implications for Singapore as a global shipping hub’

‘Energy Security and Geopolitics in the Arctic’ Conference, Energy Studies Institute, NUS, 9–10 January 2012

Euan Graham, Senior Fellow, Maritime Security Programme, S. Rajaratnam School of International Studies, Nanyang Technological University
Over the Top: Now and Then
Structure

- Key assumptions
- Metrics of maritime commerce
- NSR: case for
- NSR: case against
- Threat or opportunity for Singapore?
- Conclusion
Assumptions

- North-western Route, via Canada, also significant – my focus is on NSR, via Russia
- Short way round for whom?
- ‘Strategic’ impact refers to geo-economic factors
- Natural resource exploitation a more significant – and related – driver in Arctic

Conclusions

- NSR poses no serious trade displacement concern for Singapore
- Short-term niche opportunities, but
- Restrictions and high costs of Arctic navigation will remain a drag on NSR’s potential
- More ‘cons’ than ‘pros’?
Arctic short-cuts

North-western sea route

Northern sea route
Metrics of Maritime Commerce:

How to reckon economic potential of NSR?
4 main variables of maritime logistics:

1. **Distance** bears on costs and delivery times.
2. **Ship size** brings economies of scale, but restrictions on draft/length restrict access to shallow water, chokepoints, and ports.
3. **Ship type** also influences efficiency, e.g., flexibility for backhaul cargo, specific designs for cold weather/ice.
4. **Speed** determines journey time, bunker cost, design. Most merchant ships operate within 13–23 knot range (LA–Shanghai at 13 kt = 19 days; at 24 kt = 10 days)
Real world complications

Other factors can be decisive in choice of routeing:

- fuel costs
- security (piracy, war risk),
- canal tolls (Suez, Panama) and compulsory pilotage fees
- availability of intermodal transportation options
- labour relations, etc.

Difficulty predicting these real-world factors with accuracy steers shipping industry towards tried and tested, flexible options.
NSR – open for business?

The case ‘for’
NSR: the advantages

- **Distance** cut from north Asia to northern Europe. Among major liner routes, biggest saving = Yokohama–Rotterdam, 7,000km or 1/3rd Suez route.
- **Niche routes** for point-to-point trade made viable. Scandinavian and Siberian ports gain most from better access to North Asia’s importers.
- From 4 months to 12 months?
- Lower **carbon emissions**
- Improved **security** – too cold for pirates!
Other Arctic activity

- **Fishing**: interest in areas beyond Arctic EEZs now opening up in summer.

- **Oil and gas**: Scramble already under way for seabed resources among ‘Arctic Eight’. China also showing interest in Arctic energy resources, as part of its strategy to reduce dependence on Straits of Malacca.
NSR – marginal impact?
The case ‘against’
**NSR: the limitations.1**

- **Distance** gains mainly on north European and Russian routes to north Asia. Less incentive for others to switch to NSR. Panama Canal expansion a factor for Arctic routes to western Atlantic.

- **Navigational safety**: shrinking ice cap increases collision risk from loose ice. Unmapped submerged features.

- **Capacity restrictions** and **limited seasonal access**: Arctic navigation problematic even if ice free.

- Safety issues compromise **speed**, therefore impact efficiency and profitability of NSR.
NSR: the limitations.2

- **Direct costs**: ice-breaking services and compulsory pilotage fees. Tolls?
- **Indirect costs**: 4-month prior clearance required from Russian authorities – bureaucratic overhead.
- Heavy capital investment in ice-class vessels.
- **Limited infrastructure**: Arctic environment requires more support infrastructure along Siberian coast. Ship repair, bunker, SAR etc.
- **Climate uncertainty**
NSR – implications for Singapore: Displacement risks and niche opportunities
Main concern for Singapore is displacement of trade/port service. Few grounds for concern. NSR likely to have marginal effect on global shipping movements –most won’t be realised until 2040–50.

Displacement positively offset by growth in intra-Asian trade – Singapore geographically well positioned to benefit. Asia’s 2 major growth poles, India and China, unlikely to see much direct advantage from NSR. Gulf oil flows to NE Asia unaffected.

Singapore retains other advantages in governance and maritime infrastructure.

Few direct advantages for Singapore from NSR either. Potential niche opportunities in Arctic oil and gas exploration, marine insurance, ice-class ship design etc. Singapore seeking observer status in Arctic Council.
CONCLUSION

- Shorter distances via NSR may cut direct transportation costs, but must be set against direct costs of ice-breaker and pilotage fees, plus indirect costs of ice-class vessels, insurance, maintenance and reduced speeds.
- Niche opportunities available (e.g., Scandinavian ore exports to north Asia), but NSR will probably have marginal impact for short to medium term.
Thank you, and any questions?