

Theme Project Group 4: Northern Sea Routes

Thursday, September 25, 2008

Rapporteur: Rasmus Gjedssø Bertelsen¹

This report covers the initial meeting of the group with presentations and the follow up session on continuing work. The initial meeting saw presentations by Willy Østreng²: [insert title], Lawson Brigham³: [insert title], Ragnar Baldursson⁴: [insert title], and Reynir Gíslason⁵ *Logistical Challenges and Opportunities for Commercial Transport in the Arctic*. The debate between the presentations brought out important discussion points concerning the issue of *Northern Sea Routes*, which points toward a working group agenda until the 2010 Open Assembly of the Northern Research Forum.

The first point is the dependence of the debate concerning trans-Arctic navigation on *technology*: remote sensing from space (satellite imagery) for the development of ice conditions in the Arctic Ocean and assessing in real time, whether navigation is possible. Lawson Brigham cautioned the other presenter's against their optimism based on his extensive range of satellite imagery. The satellite imagery shows that ice cover has decreased significantly during summer and ahead of predictions, but the period of minimal coverage is a short window of 16-18 days and there is still ice to land contact in Siberia. In addition to ice, the coastal waters of the Arctic Ocean are quite shallow, which poses particular problems for the North-West Passage and directs attention to the Central Arctic Route via the North Pole. This route also has legal advantages touched upon below.

¹ Postdoctoral Research Fellow, Harvard Kennedy School, rasmus_bertelsen@ksg.harvard.edu

² Professor, Scientific Director, Centre for Advanced Study, Norwegian Academy of Science and Letters, willy.ostreng@cas.uio.no.

³ Deputy Director, United States Arctic Research Commission, usarc@acsalaska.net

⁴ Senior Arctic Official, Iceland Ministry of Foreign Affairs, ragnar@mfa.is

⁵ Executive President, International Freight Shipping SAC, rgislason@ifssac.net

The second discussion point was the *maritime technological abilities* to overcome the ice conditions identified above. This technology was addressed in, especially, Ragnar Baldursson's presentation. There was a consensus that trans-Arctic navigation would be by individually operating vessels acting as their own ice-breakers. Because of the persisting ice conditions, all ships must have polar capabilities. New technology concerning propulsion and hull design is improving ice-breaking capability, but with a 30% construction cost increase. Soviet-style ice-breaker supported convoys have been an instrument to support Soviet industrialization policy, but play no part in current and future commercial use of the Arctic Ocean. There is an old rule of thumb that a gallon of fuel will move a ton of freight about 50 to 100 miles by truck, about 300 to 400 miles by rail, and over 1,000 miles by ship. This still holds true in today's transport market. The efficiency of ocean transport is very significant and it will endure higher ship building cost so long as speed and service consistency can be secured. The Arctic route could provide significant hydrocarbon emission reduction as vessels would be designed for the Arctic sea environment.

The third discussion point is the *international economic and commercial factors* driving trans-Arctic shipping presented by especially Ragnar Baldursson and Reynir Gíslason. The immediate driver of trans-Arctic shipping is exploration of natural (energy) resources in the region. The perception itself of decreasing ice has led to an explosive growth in ice-breaker and cruise ship tourism in the region. In the longer term, the economic and commercial drivers for trans-Arctic shipping are the combination of capacity problems in the existing Suez and Panama Canal based international shipping system and a very large predicted growth in container traffic. Commercial container shipping via the Arctic depends on 3 factors, A) service reliability, B) cost to market, C) speed to market. We are several years from being able to determine possible routes and once routes have been scoped it will take several years to build necessary infrastructure to support the Arctic container liner service. Dutch Harbor, Alaska is strategic transshipment location as it is ice free port and same is for Akureyri.

Based on these technological, economic and commercial factors for trans-Arctic shipping appears potential legal and political conflict, which was addressed by Willy Østreng. The key questions are the freedom of the high seas in the Arctic Ocean and Russian interpretations of jurisdiction there. The *Northern Sea Routes* are along the Russian coast and used by Russian vessels, but the issues raised above suggest that more nations in the future will use these routes. It is therefore very important how Russia interprets its jurisdiction over these routes, which is currently undecided. It is potential very dangerous if Russia effectively rejects the freedom of the high seas in the Arctic Ocean by claiming jurisdiction over journeys which at some point pass through Russian territorial water or economic exclusion zone. The Soviet-Russian sector-tradition is even more problematic claiming sovereignty until the North Pole. This potential conflict makes the Central Arctic Route via the North Pole more attractive as mentioned above.

Based on these discussion points, the working group agenda until the Oslo Open Assembly of the Northern Research Forum in October 2010 was addressed in the follow up session. Jyrki Kallio⁶ suggested for the working group to fill the gaps of the Arctic Council and the Arctic Marine Shipping Assessment, and a number of topics were recommended. The *economic and commercial drivers* of trans-Arctic shipping should be better understood. What is the ability of market forces to develop Arctic shipping, when will such shipping become profitable and what are the technological and ice requirements? Will the nexus of strategic location, energy and raw materials in the region jumpstart shipping? What is the role of *public policy* both in creating physical and regulatory infrastructure for feasibility and profitability? How does trans-Arctic shipping affect *local, national and international politics*? It is necessary to investigate how such shipping will affect local and indigenous communities, how, for instance, environmental politics at different levels will affect public policy, and the potential of international conflict over access to these shipping lanes.

⁶ Senior Arctic Official, Ministry of Foreign Affairs, Finland, jyrki.kallio@formin.fi