

Arctic Shipping 2030

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1. Project/publication	Brunstad, B. (ed.) (2007): <i>Arctic Shipping 2030: From Russia with Oil, Stormy Passage, or Arctic Great Game?</i> Report 2007-070. Oslo: ECON. http://www.econ.no/stream_file.asp?iEntityId=3244
2. Initiator	The project was commissioned by Norshipping for their 2007 conference. Norshipping is an annual exhibition and conference for the maritime industry at Sjølyst in Oslo, see http://messe.no/en/ntf/Projects/Nor-Shipping/Home/
3. Objective	The intention was to contribute to strategic thinking about the Arctic for the international maritime industry.
4. Geographical delimitation	The maritime Arctic as a whole.
5. Time horizon	2030
6. Thematic focus	<p>The scenarios treat the future of the maritime industry in the Arctic. Petroleum activities and shipping are the main industries covered. The following questions led the scenario development:</p> <p>What new opportunities and risks will arise for the international maritime industry in the Arctic towards 2030? What will be the physical operating conditions? What political regimes and structures will regulate activities? What industrial activities will take place in the High North, and what shipping needs will result? What role will the Arctic play as a <i>transit</i> corridor? (from points outside the region to other points outside the region) What technological solutions will be available to deal with the many challenges?</p>
7. Images of the future	<p>The three scenarios can be summarized as follows:</p> <p><i>From Russia with Oil</i> is a story about a new major oil and gas province in the Arctic – in a world that is still thirsting for fossil fuels. The Russian sector of the Arctic especially, both onshore and offshore, has a high level of activity under this scenario, and a multitude of actors take part in extracting the resources and shipping them to market. The main maritime industrial activities in the region are related to the exploration and extraction of oil and gas, and the export of crude oil and to some extent LNG.</p> <p><i>Stormy Passage</i> is a story about an increasingly ice-free Arctic that is emerging as a major east-west transit lane in a world where global-climate concerns set the agenda. A high price on carbon and great advances in alternative energy make most of the Arctic oil resources too expensive to develop. The main maritime industrial activities in the region are related to export of LNG, minerals and timber, as well as the rapidly expanding east-west transit of goods.</p> <p><i>Arctic Great Game</i> is a story about political tensions and conflicts in the Arctic – in a world dominated by strong regions and gripped by resource nationalism. There are strong drivers for exploiting the region’s natural resources, but maritime industrial activities are hampered by political obstacles – especially in the Russian area. Maritime industrial activities take different shapes in the North American, European and Russian parts of the Arctic, but oil and gas related activities play a large role in each.</p>

<p>8. Key driving forces</p>	<p>A separate chapter in the report discusses what driving forces that will shape the future of the Arctic as an arena for maritime industrial activities. These are:</p> <ul style="list-style-type: none"> • Melting of the sea ice and other physical changes to the marine environment • Future climate policies, in particular, the eventual inclusion of the transport sector and schemes affecting the prices of the fuel. • The pace and direction of Arctic oil and gas exploitation • Export of petroleum by pipelines or ships • Economic viability of extracting Arctic mineral deposits • Demand for Arctic forest products (timber, lumber, pulp and paper) and eventual increase in use of ships for transport • New vessel designs and the logistical chains for transport • Globalization and its eventual modification into more regionalized trade • Developments on alternative routes for east-west transit, both sea lanes (expanding canals, super ships and super ports) and rail routes across the Eurasian and American continents • Development of surveillance and control systems and other infrastructure needed for large scale shipping operations • The geography of economic growth in Asia • Russia's future developments particularly on energy and the Arctic • Tensions and disputes over sovereignty and jurisdiction in Arctic waters <p>Trends and uncertainties are discussed for all these drivers. Several additional drivers are thus identified in the text.</p>
<p>9. Uncertainties/wildcards</p>	<p>No wildcards are presented explicitly. In the scenario storylines, a major tanker accident is introduced.</p>
<p>10. Accomplishment and collaboration</p>	<p>The study is expert-based, drawing on knowledge from many disciplines.</p> <p>More details: The study was undertaken by a project team with four employees from ECON. Bjørn Brunstad was the project leader. Norshipping had provided a reference group to ensure additional support of expertise, inter alia on shipping technology. Workshops were arranged with the reference group.</p> <p>The project team also spent much time on research. They interviewed several experts, inter alia on ice conditions, maritime law, international relations in the North, Russia and Canada (contacts provided through the Canadian embassy in Oslo). Informal contacts were also taken to their network of expertise to discuss ideas.</p>
<p>11. Method</p>	<p>The study is qualitative.</p>
<p>12. Sources of information</p>	<p>Apart from some references in the text, no particular data sources are provided.</p>
<p>13. Strengths</p>	<p>The study is very rich in the exploration of drivers and discussion of their developments and related uncertainties; here the results of extensive research can be seen. The analysis draws on knowledge from a wide range of disciplines and synthesizes this well. While much of the popular reporting on Arctic shipping presented simplistic views on melting ice and shorter distances, the analysis clearly demonstrated how the future development of Arctic shipping depends on a lot of other factors.</p> <p>The study was very timely with the events that occurred later in 2007 in the Arctic (record ice melting, Russian flag planting) and the boost in the interest for the region. New opportunities for shipping soon became an important topic. The study</p>

	<p>was at that time one of very few forward-looking studies on Arctic shipping that gave a good overview and opened up for different perspectives – not only the reporting of new routes that would open soon. Until Arctic marine shipping assessment (AMSA) was presented in 2009, it probably was rather unique in its approach.</p> <p>It is a good application of scenario methodology with scenarios that present very different futures that can be used as the basis for developing strategies.</p>
14. Weaknesses	<p>The scenarios could have been developed better and are relatively weaker than the very good analysis of the drivers. Nevertheless, they give basic traits of three different possible futures where, for instance, climatic development and climate policy differ, the role of petroleum versus renewables differ and the nature of Arctic shipping varies from no transits to an international shipping corridor.</p>
15. Attention and significance	<p>The project was presented at Norshipping-07 as a basis for the discussions at the conference. The report has been available on the web site of ECON, now Econ-Pöyry, since then.</p> <p>Following the initial presentation, ECON was invited to present the study on a number of other conferences the next couple of years. The requests often did include further developments of the scenarios or other adjustments to make it relevant for the occasion. Among the events were Arctic Shipping (St. Petersburg 2008), Arctic Oil and Gas (2008 in Oslo, 2010 in Houston), Harsh Weather Summit (Calgary 2008), Scottish Enterprise (Aberdeen 2008) and Arctic Frontiers (Tromsø – two times). The Norwegian Petroleum Directorate also called for ECON due to this project.</p> <p>The project leader, Bjørn Brunstad, participated in the second scenario workshop of AMSA in Helsinki. His impression was that the ECON study was not well known by the participants. Whatever the reason is, it is possible to see several similarities in the analyses of drivers and some basic traits of the scenarios between the two studies.</p> <p>A more surprising end-user, was the introduction of the study on the syllabus in a course at The Norwegian Defence University College (Forsvarets høyskole).</p>
16. Relevance for the Fram Centre	<p>The study is very relevant for the Fram Centre. It is interesting to have contact with the authors particularly on scenario and foresight methodology.</p>
17. Additional comments	<p>Bjørn Brunstad has been interviewed on issues that could not be found in the written documentation of the project, most notably on the process (question 10) and influence (question 15).</p>