Extended Security and Climate Change in the Regional and Global Context: A Historical Account

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The last decades have seen dramatic changes in arctic politics and natural conditions. Due to a set of intermingling political and environmental factors, civil societal organizations are slowly but surely gaining access to areas of the North previously either designated for military purposes only or sealed off from human exploitation by the frosty fences of the sea ice. As a consequence, a brand new set of values, interests and priorities are increasingly making their mark on the political agenda setting of the High North, affecting the geopolitical significance of the region in international relations. A new 'Age of the Arctic' is in the making.

The purpose of this article is to substantiate and explain some of the driving forces behind this shift as they have manifested in the last decades. Two kinds of changes are at work here. One is *political*, referring to the cessation of the Cold War, whereas the other is *environmental*, stemming from the reductions in sea ice extension and volume.

Political Changes: From Cold to the Post-Cold War Politics

Cold War Politics

During the Cold War three intertwined and partly overlapping political processes defined the preconditions for civil involvement in Arctic affairs: I. *Militarization,* II. *Centralization* and III. *Marginalization* (See Figure 1).

(I) *Militarization*: After World War II, the High North became the object of an unprecedented and large-scale militarization. This was due to the fact that the shortest attack route between the belligerent parties of the Cold War are above the Arctic Ocean. To be prepared to counteract the anticipated hostilities of the other party, both sides designated the airspace above the polar ice cap as a deployment area for their strategic bombers and intercontinental missiles, whereas the water column beneath the sea ice was assigned to strategic nuclear submarines. This deployment pattern gradually made the Arctic transform

from a *military vacuum* prior to World War II, to a *military flank* in the 1950-70 period and to a *military front* in the 1980s. The gradual inclusion of the North into Cold War nuclear planning made most governments conceive of arctic security solely in military terms. National security became synonymous with military security. This had its bearing on the way in which political decisions were made in all the Arctic states.[1]

(II) *Centralization*: To retain authority and to avoid civil activities interfering – directly and/or indirectly - with military-strategic interests, central governments assumed control of the national decision-making process, and made arctic affairs the prerogative of the executive branch. Thus, interests of *high politics,* i.e those concerning the very survival of the state, ruled the day and defined the content of policy, managerial procedures and legislation in all littoral states to the Arctic Ocean. This prioritisation resulted in

(III) *Marginalization* of civil issue areas, which were subordinated to military needs and priorities and were controlled to keep a low profile in regional affairs. As a rule of thumb, security considerations gained the upper hand in setting national priorities for the North, and civil issue areas like resource exploitation, transport, research, rescue operations, native communities, environmental protection etc were integrated into the realm of military and political tension. Whenever the military establishment perceived of a conflict between the two types of interests, the civil sector was obliged to yield.

Thus, the combined processes of militarization, centralization and marginalization deprived the Arctic of a cooperative atmosphere and sidetracked the interests of civil society in policy formulation. (See Figure 1).

Post Cold War Politics

The first public attempt to break out of the Cold War security thinking came from the party most rigorously insisting on it in the past. On 1 October 1987 Secretary General, Mikhail Gorbachev gave a speech in Murmansk in which he signalled awillingness to initiated international cooperation in five civil issue areas: *energy planning*, *environmental protection,*

[1] Willy Østreng: "National Security and the Evolving Issues of Arctic Environment and Cooperation" in Willy Ostreng (ed): *National Security and International Environmental Cooperation in the Arctic – the Case of the Northern Sea Route*, Kluwer Academic Publishers, Dordrecht, London, Boston, 1999, pp. 21-52

scientific cooperation, and *transportation.*[2] In identifying these areas, Gorbachev also introduced a distinction between *military* and *civil* security. Both were regarded as vital for safeguarding national security, but the civil component was to be given priority from then on. The purpose was to create *extended security* through international cooperation by *decoupling* military and civil issue areas. Coexistence between rather than exclusion of interests was the prescription suggested to transform the region into a cooperative place for civil activities to take place on their own preconditions and on an equal footing with military activities.[3] This re-conceptualisation of national security unleashed three interrelated and partly overlapping political processes, counteracting the effects of the three Cold War processes: A. *Civilianization,* B. *Regionalization*, C. *Mobilization* (See Figure 1).

The process of (A) *civilianization* is preoccupied with regime formation to foster international cooperation in multiple civil issue areas. It started out with the formation of the *International Arctic Science Committee* (IASC) in 1990. One year later, three new establishments saw the light of day: the *Northern Forum* (NF), the *Aboriginal Leaders Summit* (ALS) and the *Rovaniemi process.* Then followed the founding of the *Barents Euro-Arctic Region* (BEAR) and the *Parliamentarians of the Arctic* in 1993. Last, but not least, the *Arctic Council* (AC) was formed in 1996. These spontaneous and highly uncoordinated establishments have opened up a whole new era of cooperation slowly but gradually doing away with the traditional East/West divide. They manifest that civil issue areas have been assigned an independent position and role in relation to military priorities and that the endeavours to foster civil security has become a general concern of all littoral states. For the first time in Arctic history, a pan-arctic cooperative structure has been established to deal with the challenges of *low politics*, i.e those of civil society. Environmental protection and preservation, scientific exploration and indigenous peoples have been singled out by all these regimes as the most suitable issue areas for promoting multilateral cooperation. This development triggered the process of

[2] David Scrivener: *Gorbachev's Murmansk Speech: The Soviet Initiative and Western Responses*, The Norwegian Atlantic Committee, ,Oslo ,1989

[3] Willy Østreng: "Political-Military Relations among the Ice-States: The Conceptual Basis of State Behaviour" in Franklyn Griffiths (ed): *Arctic Alternatives: Civility or Militarism in the Circumpolar North*, Science for Peace/Samuel Stevens, Toronto, 1992, pp. 26-51

(B) *regionalization,* which invites for the participation of lower levels of government in decision-making for the region. This first came to expression with the founding of the *Northern Forum*, whose prime objective is to further the dialogue and promote cooperation between regional governments in the circumpolar area, and to make the regional voice stronger and more influential vis a vis central governments in policy formulation. Another example is the Barents Euro-Arctic Region, that is based on the premise that the prime responsibility of furthering transregional cooperation across national borders rests with local governments and the civil societal organizations in the sub-region.[4] This process, in turn unleashed the process of

(C) *mobilization,* which addresses the broader participatory dimension of politics. All the cooperative regimes established in the 1990s explicitly invite for instance native participation. The Arctic Council has designated native organizations as Permanent Members, whereas extraterritorial States (i.e. states with an Arctic interest but without territory in the region) have been assigned the status of Observers, ranking below the participatory status of indigenous organizations. In the context of the BEAR, no less than six different types of actors have been invited for participation: *external polities* (EU, non-subregional states), *regional territorial states* (Norway, Sweden, Finland and Russia), *subnational regions* (the eleven cooperative counties/oblasts), *structural actors* (Secretariat, the Regional and Barents Council), *transregional actors* (Samis) and *societal actors* (companies, universities, cultural organizations etc). This multi-level and multi-player setting have given rise to a most pluralistic decision-making structure labelled the 'polity-puzzle' of the BEAR.[5] And what is more: societal actors like companies, universities, cultural organizations etc have been politically defined by central governments as the prime movers of regional development.

Combined the processes of civilianization, regionalization and mobilization make room for political authority and influence in different forms and on other levels than the state. None-state polities are increasingly claiming to be points of identification, as well as claiming greater political autonomy (for instance indigenous peoples). Thus, a new era of low politics

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[4] Rune Castberg, Olav Schram Stokke and Willy Østreng: "The Dynamics of the Barents Region" in Olav Schram Stokke and Ola Tunander (eds): *The Barents Region. Cooperation in Arctic Europe*, Sage Publications, London, Thousands Oaks, New Dehli, 1994, pp. 71-84

[5] Johan Erickson: "Euro-Arctic Security: The Polity-Puzzle" in G. Lassinantti(ed): *Common Security in Northern Europe after the Cold War: The Baltic Sea region and the Barents Sea Region*, Stockholm, Olof Palme International Centre, 1994

and civil involvement in regional affairs has been put in the post-Cold War melting pot of Arctic affairs. The incentives to utilize this fresh political foundation for civil purposes is being strengthened by changes in the ice cover of the Arctic Ocean.

Environmental Changes: Sea ice reductions

Over the last 30 years, the average winter temperature in the Arctic has increased by six degrees Celsius. This warming has resulted in a decrease in snow cover and glacier mass balances, thawing of the permafrost, and a notable reduction in sea ice extent and thickness. Since 1978, the overall reduction of sea ice extent has been more than 10%.[6] New extreme minima of summer ice extent have been established repeatedly ever since 1980. As an example, the September ice extent in the Chukchi Sea was in 1998 25% below the prior minimum value over a 45-year period.[7] In late July 2007, the Arctic Ocean reached its absolute sea ice minimum so far. One year later the extent of sea ice was about 1 million square km bigger than at the same time the year before.[8] This notwithstanding, expert opinion is that the thawing is long-term and that the ice-edge will steadily migrate northward. In the last 30 years, sea ice thickness in the Central Arctic Ocean - a sensitive indicator of climate change - has decreased by 42 %, a decrease of 1.3 meters – from 3.1 to 1.8 meters.[9] As a consequence, the influx of multi-year ice from the Central Arctic Ocean to the coastal areas – where shipping, fishing, whaling and oil prospecting takes place - has decreased by 14 percent from 1978 to 1998. On the basis of these and other scientific observations, model experiments suggest a further decrease in sea ice thickness of some 30 %, and an ice volume decrease between 15 and 40% by 2050.[10] If this trend continues, one postulate is that

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[6] *Impacts of Global Climatic Change in the Arctic Region*, Report from a Workshop on the Impacts of Global Change, 25-26 April, 1999, Tromso Norway, published by the International Arctic Science Committee, p. 12

[7] Gunther E. Weller: "Climate Change and its Impact on the Arctic Environment" in Henry P. Huntington (ed): *Impacts of Changes in Sea Ice and Other Environmental Paramerets in the Arctic*, Report of the marine Mammal Commission Workshop, Girdwood, Alaska, 15-17 February, 2000, p. 43

[8] Alister Doyle: " Arctic ice bigger in 2007, but thawing long-term", 30 July 2008: blogs.reuters.com/environment

[9] Gunther E. Weller: "Climate Change and its Impact on the Arctic Environment" in Henry P. Huntington (ed): *Impacts of Changes in Sea Ice and Other Environmental Parameters in the Arctic,* Op. cit. p. 40

[10] *Naval Operations in an Ice-free Arctic*, Final Report of a Symposium, 17-18 April 2001, Office of Naval research, Naval Ice Center, Oceanographer of the Navy and the Arctic Resear4ch Commission, Whitney, Bradley & Brown, Washington 2001, p.3

summertime disappearance of the ice cap is possible in the course of this century and that significant areas of the Arctic Ocean may become permanently free of sea ice on a permanent basis.[11] Global warming is a fact, but how should it be interpreted? Are the recorded trends due to cyclical natural variations of restricted duration or evidence of long-lasting climate change?

Since science on complex non-linear systems, like the global "weather machine", cannot be modelled exactly, our knowledge on the relationship between global warming and climate change will remain somewhat simplified and limited, leaving room for scientific uncertainties, doubts and even controversies. This notwithstanding, prominent climatologists estimate the probability that the recorded trends result from natural climatic variability to be less than 0.1 percent.[12] The UN International Panel of Climate Change (IPCC) follow suits, stating with increasing certainty that the prime driver of global warming is anthropogenic, mainly caused by greenhouse emissions. This conclusion finds support in the fact that there is a 90 percent match between rising greenhouse gas emissions, mainly from use of fossil fuels, in recent decades and observations of a retreat of sea ice.[13] Most governments have taken the position of the IPCC, on which this paper is also based.

In the Arctic, the projected trends will raise a whole new set of social, economic, environmental, political, cultural, human rights and strategic questions presenting governments and civil societal organizations with complex challenges as well as fresh opportunities. The regional utility pattern is about the change. Let us illustrate this point by a limited number of sketchy examples.

[11] Ibid.

[12] Vinnikov, K.Y., A. Robock, R. Stouffer, J. Walsh, C. Parkinson, D. Cavalieri, J. Mitchell, D. Garrett and V. Zakharov: "Global warming and northern hemisphere sea ice extent", in *Science* 286 (5446) pp. 1934-1937

[13] Alister Doyle: "Arctic ice bigger in 2007, but thawing long-term", 30 July 2008: blogs.reuters.com/environment

An Emerging New Utilization Pattern

Petroleum prospecting

The continental shelf north of Russia is the biggest and shallowest in the world and assumed to be abundantly rich in oil and gas. This shelf has hitherto been off limit to the oil industry due to the presence of sea ice, lack of adequate technology, low energy prizes and Cold War-politics. Only the southernmost parts of the marginal seas of the Arctic Ocean have sufficiently benign ice conditions for seasonal prospecting and production, for instance the Barents and Bering seas.

The attraction of these resources are on the increase. Apart from the specific political and environmental drivers in the region itself, the attraction is also fed by the war against terrorism and the enduring political dramas of the Middle East and Central Asia providing the bulk of fossil energy at present to import-dependent countries in the Western world. To take energy resources from the Arctic complies with the policy of most oil and gas importing countries to reduce their vulnerability of being subjected to energy blackmails from governments in politically unstable areas. Thus, extraterritorial political conditions in southern latitudes may turn out to be a most important driver for producing oil and gas from the Arctic. This shows the integration of the High North in world politics on an issue area belonging to the realm of extended security.

Shipping: regional development and international trade

As part of the re-conceptualization of regional security and the civilianization policy, the Russian government on 1 July 1991opened up the NSR north of the Eurasian continent for international shipping (see Figure 2). Although various transportation options are being studied at the moment,[14] sea transportation of fossil energy from these areas is certainly a strong candidate.[15] The Timan-Pechora Company – a consortium led by Exxon and

[14] For the time being there are plans to build a pipeline from West Siberia to the city of Murmansk at the Kola Peninsula for shipment of oil and gas to the world market. The pipeline may be readied by 2010/11.

[15] Asbjøern Sæbo: " Will Russia's Arctic Oil be Exported by Sea?" in Claes Lykke Ragner (ed): *The 21st Century – Turning Point for the Northern Sea Route*? Kluwer Academic Publishers, Dordrecht, London, Boston, 1999, pp. 147-150

StatoilHydro – is for instance focusing solely on tanker transportation for export of its oil output from these areas westward along the NSR. Ever since 1978 the Russian icebreaker fleet has succeeded in keeping the stretch of NSR from Murmansk to Dudinka on the banks of Yenisei river open for sailings 12 months a year. Revenues stemming from shipments of nickel from Igarka was the driving force behind this achievement. Revenues generated from sale of oil and gas will surpass those of nickel many times, and is highly needed and a backbone in Russian national economy. In anticipation of this, the Russian oil company, Lukoil have invested in a modern fleet of 11 ice-strengthened tankers to operate in these waters. In recent years a steadily increasing number of shipments of petroleum have been transported by this fleet from onshore production sites in West Siberia and Northwest Russia to Murmansk. Here the cargo is reloaded and transhipped with super tankers southward along the Northern Maritime Corridor to European and US ports.[16] Expectations are that these shipments will increase in the years ahead.

As seen from a geopolitical point of view, thousands of kilometres can be saved in freight distance, and 10 to 15 days in transit time between ports in the Pacific and Atlantic Oceans by using the Northeast and Northwest Passages instead of the Suez and Panama Canals. If this can be done on a year-round basis, the economic attraction of arctic waterways will be unmatched and can in the long haul contribute to revolutionize parts of international trade. There is an obvious, and at times considerable, distance advantage involved in using the NSR between ports in the Pacific and those in the Atlantic, as compared to the Suez and Panama Canals. The distance from Yokohama in Japan and Hamburg in Germany, for example, is only 6.600 nautical miles by way of the NSR, as against 11.400 nautical miles through the Suez Canal. This implies a 42% reduction in freight distance.[17] During summer time, when ice conditions are more manageable, voyages undertaken by Russian freighters confirm that the savings in freight distance can be converted into savings in freight time. Ten to fifteen days have been saved in actual operation time by using the NSR instead of southern

[16] Willy Østreng: "Transport of miljøutfordringer I nordområdene", in *Horisont, Næringspolitisk tidsskrift*, no. 3, vol. 6, NHO, 2005, pp. 80-97

[17] Willy Ostreng: "The Historical and Geopolitical Context of the Northern Sea Route: Lessons to be Considered" in Willy Ostreng (ed): *The Natural and Societal Challenges of the Northerrn Sea Route. A Reference Work*, Kluwer Academic Publishers, Dordrecht, London, Boston, 199, pp. 1- 46.

routes. The continuous weakening of the sea ice regime makes such scenarios likely on a year round basis in a not too distant future. [18]

Environmental challenges

Increasing shipping with hazardous cargo through environmentally fragile waters may pose a serious threat to the well functioning of specialized polar ecosystems. The Arctic – of which the NSR area comprises a substantial part - contains some of largest pristine wilderness areas remaining on earth, including sizeable animal populations hitherto affected by little other than natural environmental factors. The state of the arctic environment is also important to many ecosystems further south, for instance the migratory fish species in the Bering and Barents Sea. The ecosystems of Gaia are interconnected. Although, arctic organisms and habitats are no more vulnerable to human impacts than those of other regions, the physical conditions of the Arctic, such as low temperatures, may render the effects of such impacts more complex, long-lasting and far-reaching than at lower latitudes. For this reason, there is a pressing need to take extraordinary precautionary steps to make economic activities environmentally sustainable.[19] Here, economic benefits have to be weighed against environmental concerns.

Indigenous peoples

The social consequences of a changing ice regime are no less serious. The northward movement of the ice edge forms leads of open water between land and sea ice. This implies that indigenous peoples can no longer use the ice cap effectively and readily for hunting and transportation – a core parameter in their culture and way of life. Wherever depth conditions allow, these leads will also be used by cargo vessels to keep up the speed of deliveries and reduce the risks of accidents. This will in turn affect native fishing and whaling taking place in the same leads as those used by ships. Here, the objective of preserving indigenous

[18] Ola M. Johannssen, Vitaly Yu. Alexandrov, Ivan Ye. Frolov, Stein Sandven, Lasse H. Pettersson, Leonid U. Mironnov and Nokolay G. Babich: Remote Sensing of Sea Ice in the Northern Sea Route. Studies and Applications, Springer, Praxis, berlin, Heidelberg, New York, 2007.

[19] Kjell A. Moe and Gennady N. Semanov: "Environmental Assessment" in Willy Østreng (ed): *The Natural and Societal Challenges of the Northern Sea Route. A Reference Work, ……..,*Op. cit. pp. 121- 229.

cultures as expressed in the various regimes of the civilianization process is put to a serious test.[20]

Military interests

The melting of sea ice is about to change the operational conditions of strategic submarines (SSBNs) operating beneath the sea ice canopy in the Central Arctic Basin. The sea ice has ever since the late 1970s, early 1980s acted as a "protective shield" preventing the effective application of anti-submarine warfare (ASW) against SSBNs seeking protection from the ice cover. It prevents the effective use of most ASW measures from the ocean surface (i.e. deepwater bombs) and reduces the effectiveness of listening devices on the sea bed. Even hunter-killer submarines are restricted by sea ice conditions in their efforts to detect, track and destroy SSBNs in these waters. [21] The US Office of Naval Research puts it succinctly: "The geographic proximity of the Arctic Ocean to North America, Europe and Asia makes (the Arctic Ocean) a particularly attractive area for the stationing of strategic (ballistic missile) submarine. …….(T)he ice canopy makes deployment of surveillance systems costly and difficult. Stationary submarines can take refuge near the ice, where they are virtually undetectable and invulnerable to attack: or in the marginal ice zones, where environmental noise masks their presence." [22] The Central Arctic Basin has to a large extent served Soviet and Russian SSBNs as an operational sanctuary for decades, preserving the strategic balance.

The gradual disappearing of the ice, will according to the US Office of Naval Research "..eliminate the haven now provided to stationary submarines by ice keels. Active sonar detection of submarines, both by ASW sonars and acoustic torpedoes, will become feasible… (and) the melting of sea ice will turn (the Arctic Ocean) into a conventional open-ocean ASW environment, with none of the advantages it now affords to an adversary strategic

[20] Winfried K. Dalmann: "Indigenous peoples of the northern part of the Russian federation and their environment", *INSROP Working Paper* no.90 – 1997, II.4:10, FNI. See also Zoya Sokolova and Anatoly Yakovlev: "Assessment of Social and Cultural Impact on Indigenous Peoples and Expanded Use of the Northern Sea Route", *INSROP Working Paper*, no. 111-1998, IV.4.1, FNI

[21] For a discussion of the operational conditions of ASW measures beneath sea ice see: Willy Østreng: *The Soviet Union in Arctic Waters. Security Implications for the Northern Flank of NATO*, Occational Paper no. 36, 1987, The Law of the Sea Institute, University of Hawaii, Honolulu, pp. pp. 42-48 and 68-77.

[22] *Naval Operations in an Ice Free Arctic*, Final Report from a Symposium obn Naval Operations in an Ice-Free Arctic, 17-18 April 2001, Office of Naval research, naval Ice Center, Oceanographer of the Navy and the

submarine."[23] The usefulness of the sea ice for enhancing the survivability of Russian SSBNs is in the process of changing, requiring dramatic alterations of existing strategic concepts. The same applies to military surface operations.

Conclusion

Changing politics and environments have altered the operational preconditions of human involvement in the utilization of Arctic potentials. The processes of civilianization, regionalization and mobilization, have multiplied the number of voices having a legitimate interest and say in the outcomes of this development. The regional political agenda setting is getting more complicated, not least because the interests of high politics will share operational space in these waters with low politics. This increases the likelihood of contacts between spheres of interests, enhancing the possibility of conflicts. Thus, the challenges of regional post-Cold War politics in light of the climate change calls for cooperation within and between sectors, nations and governments extending far beyond the region itself. The Arctic at large is gradually being assigned a new geopolitical role in international affairs. It is no longer off the beaten track of southern civil politics.

Arctic Research Commission, Washington 2001, Appendix A: The Arctic Ocean and Climate Change: A Scenario for the Navy, p. 14

[23] *Naval Operations in an Ice Free Arctic*, Op. cit. Appendix A, p. 15.

Figure 1: Civil Societies in Arctic Security Politics: From the Cold War to Post-Cold War

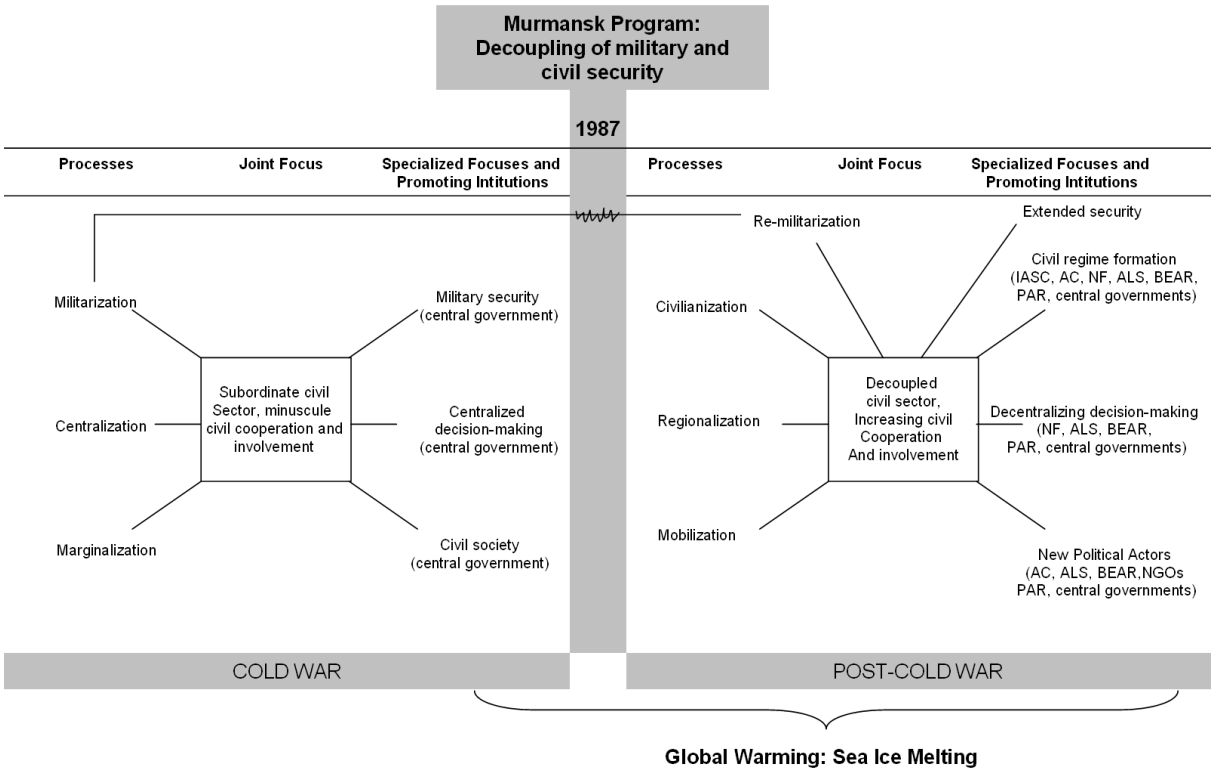
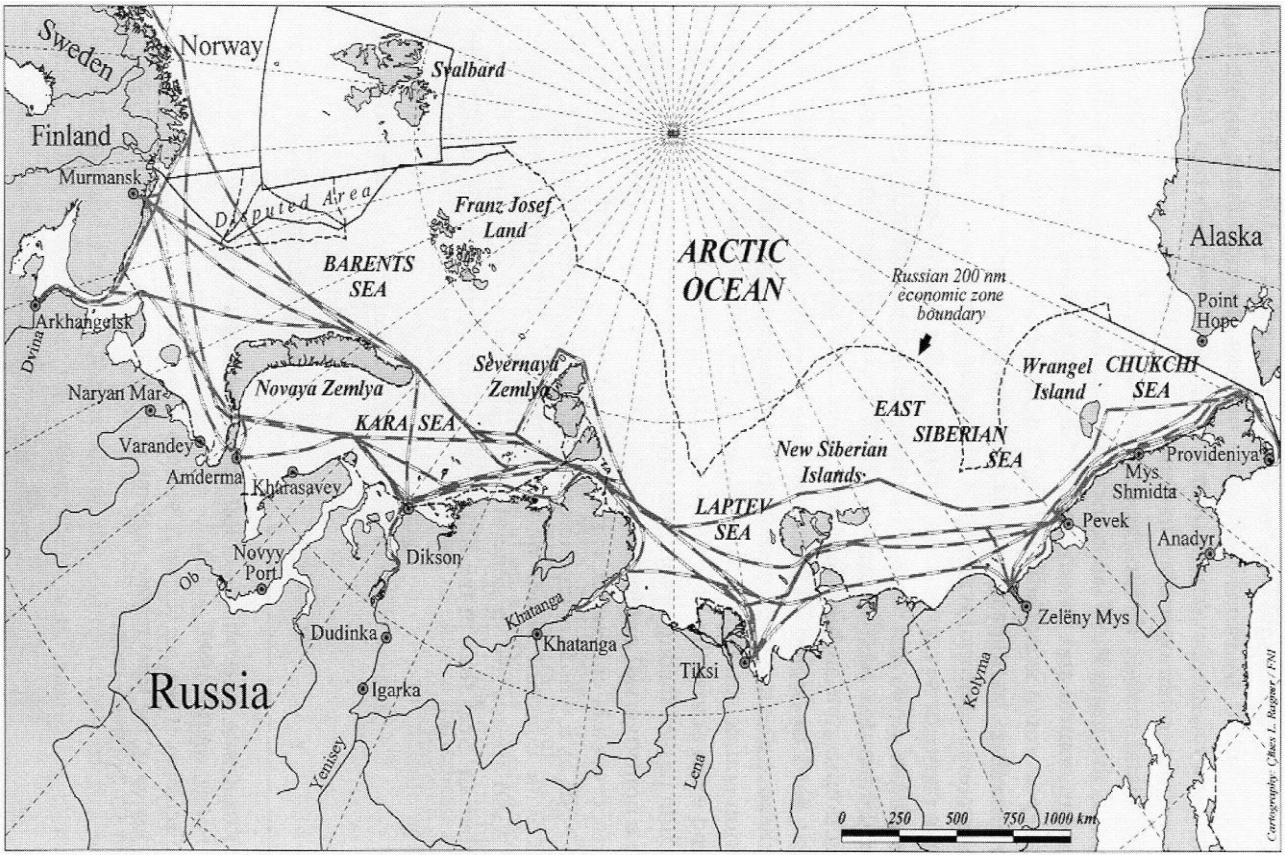


Figure 2: The Northern Sea Route


Sweden
Norway
Svalbard
Finland
Murmansk
Disputed Area
Franz Josef Land
BARENTS SEA
ARCTIC OCEAN
Russian 200 nm economic zone boundary
Alaska
Point Hope
Arkhangelsk
Dvina
Severnaya Zemlya
Novaya Zemlya
Naryan Mar
KARA SEA
Wrangel Island
CHUKCHI SEA
EAST SIBERIAN SEA
Varandey
Amderma
Kharasavey
New Siberian Islands
Provideniya
Mys Shmidta
LAPTEV SEA
Pevek
Anadyr
Novyy Port
Ob
Dikson
Khatanga
Zelëny Mys
Dudinka
Khatanga
Tiksi
Russia
Igarka
Kolyma
Yenisey
Lena
0 250 500 750 1000 km
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