

SJR

54

LATE COMMITTEE REPORT
FIRST COMMITTEE OF REFERRAL

DATE: 4/21/92

FURTHER:

Date of 5-Day Notice: 4/15/92
(in accordance with Uniform Rule 23)

DATE TURNED
INTO OFFICE: _____

Transportation Committee considered SJR 54

Supporting environmentally sound development of a northern sea route and related shipping technologies.

and recommends:

replace with _____ CS _____ ()

attaches amendment(s)

adopts _____ Letter of Intent

further referral to the _____

same title
 new title
 technical
title change:
(HB only)

do pass

do not pass

no recommendation

individual recommendations

NEW FISCAL NOTES: Dept/Date
 zero fiscal notes Sen. Trans. Comm / 4/23/92

fiscal notes _____

appropriation--no fiscal note

PREVIOUS FISCAL NOTES: Dept/Date
 Governor's bill with fiscal notes:
zero fiscal notes _____

fiscal notes _____

DO PASS:

Lois Jones
Shirley Craft

OTHER RECOMMENDATIONS:

Chair
Chair: Signature and Recommendation

DO PASS

FISCAL NOTE

**STATE OF ALABAMA
1992 LEGISLATIVE SESSION**

BILL NO. SJR 54

Revision Date: April 23, 1992 Department Affected: _____

Title: Supporting northern sea route BRU: _____
and shipping technologies Component: _____

Sponsor: Senate Transportation Comm.

Requestor: Senator Curt Menard COMPONENT SERIAL NO.

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EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 93	FY 94	FY 95	FY 96	FY 97	FY 98
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0

CAPITAL						
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REVENUE FUND SOURCE:						
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FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER FUND SOURCE:						
TOTAL	0	0	0	0	0	0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

Estimate of current year impact: _____

ANALYSIS: (Attach a separate page if necessary.)

Prepared By: Johanna Munson, Sen. Trans. Comm. Phone: 465-2679

Division: _____ Date: April 23, 1992

Approved by ^{Chairman} ~~Commissioner~~ Senator Curt Menard

Agency: Senate Transportation Committee Date: April 23, 1992

Senator Rick Uehling

Downtown, Elmendorf, Northeast Anchorage



Senate Finance Committee
International Trade & Tourism Committee
State Affairs Committee

MEMORANDUM

TO: Senator Curt Menard
Senate Committee on Transportation

FROM: Senator Rick Uehling *RU*

DATE: April 23, 1992

RE: Scheduling of SJR 54, "Supporting environmentally sound development of a northern sea route and related shipping technologies."

I respectfully request your consideration in scheduling Senate Joint Resolution 54 as soon as possible.

I feel the Alaska State Legislature should regard the Northern Sea Route Project as an important evolution in international commercial shipping for nations and states of the Arctic and North Pacific Rims. The importance of recent technological advancements in polar and subpolar class commercial shipping vessels and the applicability of this technology to communities in western and northern Alaska.

The state needs to encourage potential users of the Northern Sea Route, especially Japan (Hokkaido), Russia, Norway, Finland and Canada, to use every effort to make the Northern Sea Route a prosperous and ongoing concern of all parties involved. I believe we need to support the efforts of the administration and others to create a maritime route through the Arctic Ocean, the shortest sea route between Alaska and Europe, which is safe, has as long a sailing season as possible, and which is operated with proper concern for the environment.

Thank you for your consideration of my request. If you have any questions or if I can be of any assistance, please do not hesitate to call on me.



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Willy Østreng:

**The Northern Sea Route:
A New Era in Soviet Policy?**

**Economic, Legal and
Security-Political Aspects**



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THE NORTHERN SEA ROUTE: A NEW ERA IN SOVIET POLICY?

Economic, Legal and Security-Political Aspects

In a speech held on 1 October 1987 in Murmansk, Mikhail Gorbachev spoke in favour of '... a radical lowering of the confrontation level in the (Arctic).' The aim would be to let '... the northern part of the globe (...) become a zone of peace (and) the North Pole become a pole of peace.' Confrontation was to be replaced by cooperation. One of several measures to achieve this was the proposal to - on certain conditions - place the Northern Sea Route at the disposal of international shipping.

This was new, and quite surprising to many. Only 20 years previously - in 1967 - a request from a US Coast Guard Vessel for passage through portions of the route had been met by a swarm of reconnaissance planes and rejected with an 'icy nyet'. <1>. At that time, the Kremlin considered the presence of US Coast Guard vessels, even in international waters along the route, as an unfriendly gesture directed against the Soviet state <2>. The rhetoric and reactions involved were nourished by the security-political tensions between the blocs.

Nor has the Northern Sea Route ever been much used by non-Soviet ships. This in turn has helped to confirm the view that '...the Northeast Passage was purely of Russian concern and jurisdiction.' <3>. The USA has opposed such an interpretation, consistently maintaining that the Northern Sea Route has the status of an *international waterway* open to all. Gorbachev's Murmansk initiative has now made this dispute once again topical, paving the way for a new discussion of the legal, security-political and economic dimensions involved in using this route.

This article evaluates the relationship between these various interests, as expressed in Soviet policy during the period 1917-1991. The aim is to discuss to what degree, and how, security political and economic interests have influenced official Soviet evaluations of the right of other states to make use of the 'short cut' between the Atlantic and the Pacific. Our discussion here aims at shedding light on four questions: I. What are the geopolitical realities and visions connected with economic and military use of the route? II. How have these realities and visions been translated into practical policy? III. How did Cold War security-political tensions affect use of the route? IV. How will the new thaw in international politics influence the possibilities of multinational use of the Northern Sea Route in the future?

I The Northern Sea Route: Geopolitical Realities and Visions.

Extent, Natural Conditions, Navigational Limitations

The Northeast Passage - or the Northern Sea Route, in Soviet terminology - is 5,600 nautical miles long, stretching from Murmansk/Archangel in the west to Vladivostok in the east. It runs along the coast of northwestern Russia and Siberia, passing at its most easterly point through the Bering Strait. The portion of the route between Murmansk and the Bering Strait is 3,100 naut.mi. long and is covered by heavy ice

Convoys have also encountered other natural obstacles to their operations: north of the Soviet coastline of the Arctic Ocean, the continental shelf is very shallow indeed - in some places only a few metres down. This places absolute limits to the draught vessels may navigate without running aground. The shallowest waters are found in the East Siberian Sea, where the average depth is 58 metres, and in the Chukchi Sea, where it is 88 metres <4>.

Moreover, it seems to be a law of nature that in those places with the shallowest depths, the most difficult ice conditions will prevail. The hazards of ice navigation in shallow waters are obvious. It is said that being at sea is risky; being at sea in ice is twice as risky and being at sea in convoy with an icebreaker is three times the risk.

Geopolitical advantages

None of the major industrial areas of Europe, the Soviet Union, North America or Japan is located more than 3,860 nautical miles from the North Pole. Or, expressed in another way: some 80% of world industrial production takes place north of 30 degrees northern latitude, and some 70% of all metropolises (population over a million) lie north of the Tropic of Cancer. Alaska has taken advantage of this geographical fact: 'Nearly equidistant from Tokyo, London and New York, Anchorage International Airport is one of the nation's busiest, with 95% of all Asia to Europe air cargo and 70% of all Asia to lower 48 air cargo setting down there.' <5>. Thus there is an obvious, and at times considerable, distance advantage involved in using the Northern Sea Route between ports on the Pacific and the Atlantic, as compared to the Suez and Panama Canals. The distance between Yokohama and Hamburg, for example, is only 6,600 nautical miles by way of the Northern Sea Route, as against 11,400 nautical miles through the Suez Canal. This means a 42% reduction in freight distance. Another example: between the city of Tromsø in Northern Norway and Vancouver, 3,350 nautical miles can be saved by using the Northern Sea Route instead of the Panama canal - a distance reduction of 37%.

The distance from London to all ports north of Hong Kong is shorter via the Northern Sea Route than through Suez. Likewise, it is just as far from London to San Francisco through the Panama Canal as by the Northern Sea Route. This means that most of the North American West Coast, the Soviet East Coast, Japan, China, Korea and Taiwan are all closer to the EC/EFTA area in freight distance through the Arctic than by way of the Atlantic and the Mediterranean (see fig. 2). Thus viewed, the Arctic Ocean is indeed an industrial 'Mediterranean' in the true sense of the word.

Several examples of use of the Northeast Passage illustrate its potential as an alternative to existing sea routes. As recently as in September 1989 a Soviet vessel carried cargo from Hamburg to Osaka in 22 days by the Northern Sea Route. By the Suez Canal, this would normally have taken at least 30 days. Likewise, transit time between the US Northwest Coast and Europe (Hamburg) through the Panama Canal averages some 28 days. If one takes the Arctic Great Circle Route - passing north of the large island masses in the Arctic Ocean - calculations indicate an 18 day voyage <6>.

All the same, shipping companies the world over have shown scant interest in the distance savings offered by the Northeast Passage. More important to them is whether reduced distances can be translated into reduced carrying times, thereby lowering costs on a year-round basis. What the Soviet vessels have demonstrated to date is that reduced distances can be translated into reduced carrying time during certain periods of the year. What remains to be shown is whether it is possible to achieve reduced freight times all year round at costs lower than those involved in using the existing sea routes. Soviet authorities are of the opinion that this can be achieved in the course of the 1990s. Theoretically founded calculations seem to give credence to such a view, indicating that the Arctic Great Circle route can yield savings vis-a-vis the Panama alternative: '... estimated at \$5,000 to \$10,000 per day and to the shipper concerned with inventory carrying costs of about \$360 per 40 containers of general cargo (say 11.2 MT per 40)' <7>. Or, to put it in less quantified and more poetic terms, we may quote Viljamur Stefansson: 'We have not come to the northward limit of communal progress. There is no northern boundary beyond which productive enterprise cannot go until North meets North on the opposite shores of the Arctic Ocean as East has met West on the Pacific' <8>.

Stefansson's vision from 1922 has attracted greater attention from the military-industrial complex than the shipowners of the world. As early as in 1935, General Billy Mitchell maintained, in a speech to the US Congress, 'Alaska is the most central place in the world for aircrafts. He who holds Alaska holds the world' <9>. A scant decade later, Air Force General Henry H. Arnold was to echo this, stating that the North Pole would become the strategic centrepoint if a third world war should break out <10>. Both these pronouncements - controversial as they were at the time - point to indisputable realities that since have been confirmed. Today the airspace over the Arctic Ocean, like the ocean masses under the polar ice cap, is put to use for strategic deterrence <11>. This shows the link between *geography and technology* on the one hand, and *military and political might* on the other. Russia was to realize this by means of a costly historical lesson.

During the 1904-1905 Russo-Japanese War, the Russian Admiralty considered sending a fleet squadron along the coast of Siberia, to enable a surprise attack on the Japanese. However, this idea was rejected, on the grounds of insufficient experience in navigating in ice-covered waters. Instead, the Admiralty decided to send the fleet around Africa's Cape of Good Hope. The result is common knowledge: the Russian fleet was defeated, totally and humiliatingly, by the Japanese in the Tsushima Strait, between Japan and Korea. This was a lesson that Russia never forgot, even after the Revolution of 1917. As recently as during the 18th Party Congress in 1939, the strategic potential of the route was underlined in a speech by Ivan Papanin - head of the first North Pole station: 'In an emergency, if the enemy dares to attack us from the west or from the east, we shall be able, undisturbed and in a short time, to transfer warships from one seaborder of our great Soviet Union to the other' <12>. In this connection, it is relevant to quote Terence Armstrong:

"When the Soviet government decided, in the early 1930s, to put big efforts into making the route usable, there is no doubt that strategic considerations played a part in the decision. Japan was

inter-
ides,

there. As early as in 1921, there were 23 expeditions with a total of 4,000 men working to realize this goal. Geophysical observatories were constructed on Novaya Zemlya, Franz Josef Land, Severnaya Zemlya and the New Siberian Islands. In 1930, plans for developing navigation possibilities in the Kara Sea were expanded drastically and the entire Northeast Passage was accordingly to be opened to transport and transit passage <16>. To attain this, research was stepped up. By 1937, *Glavsevmorput* - the Directorate of the Northern Sea Route, formally established in 1932 - had spent the equivalent of one billion dollars on activities north of 62 degrees N latitude and had some 40,000 persons on the payroll <17>. From 1937 until 1956, the Soviet Union equipped scientific expeditions to a total of 524 different destinations in the Arctic, mainly in areas along the Northern Sea Route <18>. These research efforts did not pass unnoticed abroad. During the 1960s and 1970s it was conventional wisdom in Western research circles that Soviet 'knowledge of the region (was) much more extensive than that of the sum of the other nations bordering the basin' <19>.

Especially after World War II, Soviet research efforts were followed up by an ambitious programme for constructing a large fleet of powerful icebreakers. Today 38 icebreakers are operating along the route and southwards along the great rivers of Siberia; 21 of these icebreakers are equipped with forward thrust engines of 10,000 hp or more. Six are nuclear powered, with the largest ones - 'Arktika', 'Sibir' and 'Rossiya' - having 75,000 hp each at their disposal. Three nuclear-powered icebreakers are under construction - two in the 'Arktika' class and one new type, the 'Ural', equipped with 90,000 hp. According to US Coast Guard sources '.. these ships represent a remarkable diversity of icebraking capabilities; they provide the Soviet Union with an important ability to navigate in all of its surrounding arctic and subarctic seas' <20>.

In addition to this fleet, the Soviet Union has close to 700 freighters built for use in ice-covered waters on a year-round basis <21>. From 1982 to 1987, the Soviet Union has purchased 19 SA-15 class ships from Finland. These vessels have greater cargo capacity than earlier generations of freighters, and are powered by 21,000 hp engines. In many ways they are quasi-icebreakers, in the sense that they can force their way through ice up to one metre thick, without stopping and without the assistance of icebreakers. More vessels of this type are on order and will be built at Finnish shipyards in the course of this decade <22>.

It is widely acknowledged that the Soviet ice fleet is second to none, and that the Soviet Union is clearly the top shipping nation in the Arctic. It may also be added that: '.. Soviet mariner's mastery of seamanship has made navigation through the ice - once the stuff of heroes and legend - an almost routine activity today' <23>.

How, then, has this Arctic 'superpower status' contributed to realization of the Soviet goals mentioned earlier?

future. Of course the route might become relevant in the long term perspective provided the navigation season could be extended to year-round passage for *war vessels* (in itself a highly unlikely development) and if the opponent should lack capabilities for Arctic submarine warfare. Today, as we enter the 1990s, this too would seem at best a highly theoretical possibility.

Goal 2: Developing Trade and Commerce as well as Settlement in the North

As already mentioned, this is a twofold goal: Firstly it is meant to support development of the northern regions; secondly such support in itself is intended as a step towards realization of goal No. 1 above.

To the extent permitted by limitations in the navigation season, the first part of this aim has been accomplished. During World War II, the importance of the Northern Sea Route to the Soviet war capacity was put to the test, at least to some extent. At that time the volume of cargo was so great (approx. 3-400,000 tons per season), especially in the Kara Sea, that the German naval forces found it necessary to carry out U-boat attacks on convoys. In 1942 the battleship *Admiral Scheer* was sent to the area on a partly successful mission <26>. The Germans felt that such local trade contributed to Soviet war capabilities and should therefore be brought to a halt. The reverse occurred and the volume of cargo increased throughout the war years.

Today, as many as 400 ships are engaged in cargo operations along the Northern Sea Route every year, sailing in convoys, which usually consist of 3 or 4 ships astern one or more icebreakers. For the period 1950-70, cargo volume averaged between one and two million tons; by the mid-1980s this figure had risen to somewhat more than six million tons. Since then, however, it has fallen, and there is much to indicate that this tendency will continue <27>. Although prognoses show that total Arctic freight will increase in volume in the years to come, the share represented by the Northern Sea Route is expected to be relatively lower. As an example, the freight demand for Yakutsk in 1995 is stipulated at a total of 16.5 million tons: of this, 2.5 million tons will be carried by the sea route, 5.7 on the River Lena and 8.3 tons by the new railway line under construction between the Trans-Siberian Railway and Yakutsk <28> (See Fig. 3).

Lower freight demand also means lower revenues for the sea route. This has created worries that it will not prove possible to maintain the present commercial and settlement structure in the region. Leading Soviet economists are saying, with more and more strength: 'Utilizing the riches of the Arctic depends on year-round navigation on the Northern Sea Route - the biggest economic problem of the future' <29>. Year-round traffic was also cited as an important measure by Mikhail Gorbachev in a speech held in Vladivostok on 28 July 1986: 'It is necessary to speed up measures to increase the economic benefit of through traffic on the Northern Sea Route' <30>.

That this will have beneficial effects on the economy was demonstrated back in 1980, when the all-year traffic to and from Dudinka proved to yield increased revenues. The nickel industry could note extra earnings of 71 million roubles, whereas the extra costs for the shipping interests amounted to 23 million

roubles <31>. Now the authorities in charge are under pressure to increase revenues. As of 1 January 1988 the Ministry for the Merchant Marine have been ordered to run the Northern Sea Route on a commercial basis - state subsidies are to cease and operations must be ensured through revenues earned. That these revenues will have to be increased is clear from the preliminary calculations made in the Soviet Union. These show that the profits to be made from other states' possible use of the route would amount to no more than some 37 million roubles, whereas the expense involved in running the nuclear-powered icebreaker fleet alone would come to 57 million roubles <32>. The difference will have to be covered through increased revenues from local commercial use as a result of all-year traffic on the route. In other words: there is a growing realization within the Soviet Union that there is a linkup between regional development and year-round through traffic. In many ways these are two sides of the same coin. Regional development can be ensured on a responsible economic basis only if the two goals are viewed together - seen in the light of each other, rather than as independent items.

The main relevance of the Northern Sea Route lies in the fact that it serves several large harbours, and many smaller ones, at the estuaries of the great rivers of Siberia. Raw materials are carried out and the necessities of life brought in. In addition, some hundred scientific, commercial and military outposts are also supplied in this way. The route is also of importance as a supply link to cities and towns situated along the main Siberian watercourses, which are navigable for most of their total length. Sea-going vessels can reach for example the harbour of Igarka, 670 km south of the Yenisei estuary, and proceed to Yakutsk, another 1,160 km south of Igarka. The Ob, the Yenisei and the Lena are all navigable all the way to the Trans-Siberian Railway, which runs 2,270 km south of the Arctic Ocean coastline - and has long been overburdened for transport purposes. The Lena also links in with the Baikal-Amur railway which together with the Trans-Siberian Railway, will have a direct rail connection with Yakutsk in a few years' time (See Fig. 3). In this way, the Northern Sea Route relieves and supplements transport by air and land in northwest Russia and Siberia. Some observers have also seen military-strategic importance in this fact <33>.

The argument runs as follows: one of the weakest points in the Soviet war machinery is connected with limitations in transport capacity. The railway network is already heavily overburdened even in peacetime. Or, to quote two leading experts thoroughly familiar with the Soviet transport system: '... since the mid-70s congestion at key points on the railroad system has brought bottlenecks that have hampered operations in many sectors of the economy. Delays and shortages spread from sector to sector, eventually hurting transport itself. Such bottlenecks are chronic in the Soviet economy and as long as planning is excessively taut, they cannot be eliminated' <34>.

This applies not least to the Trans-Siberian Railway. And here the Northern Sea Route can provide a relief link between rivers, railways and canals such as the White Sea - Baltic Canal, which has been used for re-basing of fleet units in peacetime <35>. In time of war, pressure on the sparse railway network will increase even more. If the through traffic season in the north can be extended, the Northern Sea Route will be able to relieve the railways of some of this pressure. This it is claimed, is what gives the Northern

a main reason for the longstanding Soviet policy of keeping the researchers and scientists of other countries away from the Russian High North <42>. I shall return to this below.

Seen through Soviet eyes, the failure to achieve the goals set for the Northern Sea Route must appear as one gigantic disappointment. Enormous sums of money and great effort have been invested, yielding only modest results. Transit on a year-round basis remains a dream for the future, even for ice-reinforced freighters. As for warships, the route is unlikely to have any military-strategic importance whatsoever in the foreseeable future. All this means that the main goals set during the interwar years have by no means been realized. The geopolitical advantages of the route, which formed the basis for all these goals, remain a potential that it has not been possible to translate into military and economic advantages. Much of the blame for this has been laid on the Cold War.

III The Postwar Security-Political Atmosphere and Arctic Security Thinking

In the course of the 1950s the Arctic Ocean became a power-political tension field between the superpowers - a taboo area where the bordering states most of the time sought to avoid direct contact with the adversary. Any attempt to approach the interest areas of the other side was immediately interpreted as suspicious, an unfriendly gesture to be counteracted. In particular, research activity was seen as a potential threat to national security interests. So pervasive were such suspicions that, for instance, foreign scientists carrying out fieldwork in northern Canada were subject to security restrictions in their work. The same held true in Alaska and Greenland. The Soviet side took a more drastic line by totally excluding all foreign researchers, even from the East European countries <43>. This exclusion policy was also applied at sea. On 5 August 1960 the Soviet Union extended its territorial waters to 12 nautical miles offshore, and declared that foreign vessels were '... prohibited from carrying out hydrographic work and research in Soviet territorial and internal waters...' <44>. This led to reactions from Washington, which had long protested against the Soviet sector demand in the Arctic Ocean <45>.

Two years later, US authorities initiated a hydrographic research programme along the eastern portion of the Soviet Arctic coastline. The programme required assistance from the US Coast Guard, which in the period 1962-67 carried out missions to the Chukchi, East Siberian, Laptev, Kara and the Barents Seas. In addition to research, the purpose of these US expeditions was '... openly to assert the high seas status of these waters...' <46>. In a similar vein, the Soviet authorities made it plain that straits like the Laptev and Sannikov Straits, both of which are in fact close to 30 nautical miles wide and thus wider than the territorial waters - could not be transnavigated by the US vessels because these straits were historically part of Soviet *internal waters*, where Soviet sovereignty applied without any curtailment. The concept of *internal historic waters*, was a Soviet legal invention claimed to be applicable to the waters of Arctic bays, inlets, coves and estuaries, seas and straits historically belonging to the USSR. The very concept and its implications in the Arctic were hotly contested by the US side, which, after the completion of the expeditions, delivered a formal protest to Moscow against being deprived of the right to *innocent passage* through territorial waters <47>.

legal status attributed to sea ice, as well as to waters infested with it, which caused problems to foreign vessels in these waters' <55>. This point may be illustrated by referring to the course of the most recent Soviet/US test of strength concerning the legal status of the Northeast Passage: In 1967, the US Coast Guard had planned a circumnavigation of the Arctic Ocean with two of their icebreakers, 'Edisto' and 'Eastwind'. The vessels set their course for the northern tip of Severnaya Zemlya, where they were forced to turn because ice conditions north of the islands blocked any further progress. The captain of the 'Edisto' then asked the Soviet authorities for permission to pass through the 22 nautical mile broad Vilkitski Strait, phrasing his request in carefully chosen terms: 'this squadron will ... make a peaceful and innocent passage through the straits of Vil'kitskii, adhering to the centerline as closely as possible, and making no deviation or delay.' In line with earlier Soviet reactions, the request was refused on the grounds that the strait lay within Soviet territorial waters and that the vessels in question had not followed the usual procedure for obtaining permission for passage. The Soviet authorities maintained that military vessels, including the two Coast Guard vessels, must submit their request for passage through territorial waters 30 days in advance, and via diplomatic channels. This had not been done in the case at hand. Therefore the request could not be granted.

According to prominent Soviet experts on the law of the sea, the right to *innocent passage* does not apply unconditionally in the straits along the Northern Sea Route. Ice covered waters should have a special status within the law of the sea. In connection with the Northeast Passage, the Soviet Union cites two particular conditions:

Firstly, the route is considered as a *national transport route* under full Soviet control and jurisdiction, independent of whether it passes through territorial waters or not: 'The integral nature of the Northern Sea Route as a transport route is not affected by the fact that individual portions of it, at one time or another, may pass outside the aforesaid boundaries (i.e. boundaries of internal waters, territorial waters and economic zone), where the USSR exercises its sovereign rights or sovereignty in full (i.e. it may pass into the high seas)' <56>. Here the Soviets invoke the ruling of the International Court of Justice in the Anglo-Norwegian fisheries case of 18 December 1951. The judgement reached was that the entire sea route from Varangerfjord to the Porsangerfjord, irrespective of whether parts are within internal or territorial waters, was laid, exploited and equipped exclusively by Norway, and was therefore under its complete control and administration.

The second factor that entitles the Soviet Union to special rights is, according to these legal experts, that in accordance with the *Decree of the Council of Ministers of 15 January 1985*, straight baselines have been drawn from the coast of the mainland to the islands, in such a way that several straits - previously claimed to be *internal historic waters* - have now become *internal waters* in compliance with existing international law as expressed in state practice and the *1982 UN Convention on the Law of the Sea*. This in turn means that foreign ships cannot invoke the right to innocent passage in straits that pass through the Severnaya Zemlya group, or those straits between the mainland and Novaya Zemlya, or the mainland and the New Siberian Islands <57>. In such cases, they must request permission from the Soviet authorities in

Changes in security thinking

In his Murmansk speech, Gorbachev signalled a willingness to distinguish more sharply between military and non-military issue areas in the Arctic. This found clear expression when he, in contrast to former practice, identified six issue areas as being particularly well-suited for international cooperative efforts. He wished for cooperation on the use of natural resources, and spoke in favour of the establishment of a common energy programme for the North. Furthermore, he invited Norway and Canada to take part in joint ventures and projects for the extraction of petroleum from the Soviet continental shelf. He moreover underlined the desirability of cooperation within the field of the environment, and pointed out that an international plan for the protection of the environment, should be considered. He also wished to contribute to the establishment of an international forum to strengthen and develop scientific cooperation in the region. As a final point, he proposed - on certain conditions - placing the Northern Sea Route at the disposal of international shipping.

As regards all these points, Gorbachev has singled out non-military issue areas, and separated them from the integrated security concept of the period 1945-87. This may mean that Soviet policy is now entering a phase where the artificial linking of civilian and military issues is in process of disappearing. It would appear that the Kremlin is attempting to identify areas where cooperation can yield increased mutual gains, and that it is the particular nature of the issue in question which determines whether or not to seek cooperation with other states.

This is a functional approach quite in line with the new security political thinking within the Soviet Union. Only a few months after Gorbachev had become General Secretary of the Communist Party, he expressed deep concern for the security of the Soviet Union, but stressing the *economic* rather than the *military* threat. According to Gorbachev, security has increasingly become a question which can be solved only by diplomatic means. His criticism of the Brezhnev policy was that it 'had failed to gain the security benefit available through flexible diplomacy and compromise' <61>. The essence of his 'new political thinking' is now 'the priority of common human values over class values' <62>. By common human values are meant wishes, needs and interests that are common to all people, independent of political system or class - for example, the wish for peace. This new sense of priorities springs from two basic political perceptions: firstly, that *national security* can be achieved only through *mutual security* - i.e. that both sides feel secure they will not be attacked by the other. And secondly, that *mutual security* can be achieved only through confidence building *cooperation on solving mutual problems and challenges* <63>.

This change in thinking does not imply a rejection of security as a *comprehensive concept* embracing several issue areas. It is more a change of approach. By distinguishing more clearly between military and non-military issues in security thinking, one can gain non-military security through mobilizing that issue's own potential for attracting international cooperation. This in turn means that military tension no longer seems to be the predominant factor in defining the content and tempo in work towards non-military security. By means of this approach, the Soviet Union can achieve comprehensive security asymmetrically,

shorter than passage through the various straits <66>. On 25 May the following year, the icebreaker 'Sibir' and two freighters took the same route. They passed north of Severnaya Zemlya and the New Siberian Islands, and two weeks later the vessels reached Magadan on the mainland by the Sea of Okhotsk - having logged 1,820 nautical miles, of which 1,540 had been in, at times, thick ice <67>. The 'Sibir' returned along the same route, on the way paying a visit to one of the floating Soviet ice-stations at 76 degrees northerly latitude. One of the lessons learnt from this expedition was that more research was needed, both in hydrography and in shipbuilding <68>. Nine years were to pass before the next Soviet vessel voyaged to the North Pole: this time it was the 'Sibir' that reached the Pole on 27 May 1987, only a few months before Gorbachev held his famous speech in Murmansk. The conclusion drawn after the voyage was that it '...convincingly proved the possibility of carrying out research expeditions aboard nuclear icebreakers in high latitudes during any time of year' <69>. Less sensational, albeit perhaps equally important, are the many efforts that have been made to extend the navigation season to times of the year when ice conditions are particularly difficult - i.e. the period from early November to late March. Trial missions have been successfully conducted both in December and January, for instance in the Kara and Chukchi Seas. It was efforts like these that helped make possible year-round passage on the Murmansk-Dudinka section of the route in the 80s. According to Terence Armstrong, 'The stimulus towards year-round operation was the need to take nickel ore from the mining centre of Noril'sk to the refinery near Murmansk. There was almost no use of the through route, connecting Atlantic and Pacific, though the current level of skill and technology would permit this' <70>. This statement concurs with oral evaluations presented by Soviet experts who have maintained that it is both theoretically and technically possible to keep the route open for transit all year round. That this is not done today is because it is not economically feasible in view of today's cargo volume, costs and revenue possibilities.

However, more and more have become sceptical to the 'brute force' principle in icebreaking for the future. Even a new generation of icebreakers of 150,000 hp will not be powerful enough to be able to move anywhere in the Arctic Ocean at any given time of the year. According to calculations, for that to happen, 210,000 hp capacity is needed. The expense of building such a vessel far exceeds what can reasonably be expected in return. For that reason, Soviet researchers today are looking into other, potentially less expensive strategies for icebreaking.

Considerable interest has been shown in new bow constructions, which, if applied to the already existing fleet, should be able to increase current icebreaking capacity by as much as 20%. To take one example: Thyssen Nordseewerke constructed a new bow for the Soviet icebreaker 'Mudyug' in 1986. It was tested in the waters around Svalbard, where it managed to move through ice of 1.2 m thickness at a speed of 8 knots without having to stop. Ice of just this thickness is found along sizeable portions of the Northeast Passage, which is mainly covered by annual ice - i.e. ice which has formed in the course of the year. The average thickness of annual ice along the route is 70 cm. By the month of May, there is generally a belt of icefree water between the fast ice, i.e. ice which is connected to land, and the annual ice. During the winter, ice thickness varies in the straits - from 1.2 m to 2 m on average and the difference in average ice thickness lies somewhere between 30 and 50 cm <71>.

gradual warming, which can reduce ice formation in the marginal seas. This natural climatic change may, moreover be reinforced by the manmade greenhouse effect, which is likely to be more pronounced in the polar areas than in more southerly latitudes. Scientists have indicated that with a doubling of CO2 emissions, autumn and winter temperatures in the Arctic may rise between 8 and 12 degrees C, whereas summer temperatures may rise by 1 or 2 degrees <79>. Ice melting would then increase. Therefore, it is possible that some time in the 21st century, there will be less Arctic ice, which in turn would reduce the problems for convoy traffic. All in all, then, the combination of improved icebreaking technology and warmer climate open up new perspectives for the use of the Northern Sea Route.

Improved ice warning and ice surveillance

Western experts have pointed out that several of the problems facing the Soviet Union in connection with the Northern Sea Route can be explained by limited ice warning and surveillance capacity <80>. For example, in the late 1980s ice warnings were still limited in time to the duration of the navigation season, i.e. a mere 3 - 4 months for certain portions of the route. This means that the Soviet Union - which certainly knows more about polar ice conditions than any other nation - still has some gaps in its knowledge of ice movements, and an imprecise picture of variations in the ice situation in different parts of the route. According to Soviet sources only 80 percent of the ice forecasts prove to be correct <81>. The Vice-chairman of the State Committee for Hydro-meteorology and Environmental Control, Y. Tolstikov, has confirmed that ice surveillance in the Soviet Union is imperfect, and that this will reduce the utility of nuclear powered icebreakers until the situation has improved. According to Tolstikov there is a need for intensified research, new equipment (not least aircraft), and improvements on the organizational side as well. If progress can be made in these areas, he feels it may be a realistic goal to establish year-round routes in the Bering, Chukchi and East Siberian Seas, where ice poses the greatest problems <82>. That would also mean a major step towards opening the Northeast Passage for all-year transit. But these are not the only improvements necessary. According to Alexander Arikainen at the Institute of System Studies in Moscow "a very significant role (also) belongs to improvements of the management organization and the economic mechanisms" <83>.

More Efficient Administration and Organization

Responsibility for running the Northeast Passage is vested in the Administration for the Northern Sea Route (ANSR), established in 1970. This administration has been set up under the auspices of the Ministry of the Merchant Marine, and thus replaced Glavsevmorput, which was disbanded in the 1960s. The Administration was intended to exercise relatively wide-ranging powers as "a special, national supradepartmental agency" <84>. The supradepartmental feature is manifested in the fact that the USSR Council of Ministers both approves of the ANSR procedures and appoints its top executive.

The Soviet press has in recent years questioned both the efficiency, weaknesses and even the ethical standards of the Administration. The recurrent theme when efficiency is criticized is that town and built-up

recollection of the Soviet Union having issued a similar offer back in 1967, which was later discreetly withdrawn. In other words:

Is the Soviet Union serious?

In 1967 the Soviet authorities offered the shipping companies of the world, the use of the Northern Sea Route in return for payment of a fee to cover icebreaking and pilot assistance. The offer concerned transit passage. However, it was never followed up by Western shippers, who were probably in doubt as to the profitability of such a venture. The offer was not repeated by the authorities, and some have indicated that in actual fact it was withdrawn quietly. The background to this was, most likely, the political circumstances surrounding the Six Days' War and the closure of the Suez Canal. If the Kremlin had decided to follow up its offer to the West by making available an alternative to the Suez Canal, the influence of the Soviet Union in the Arab world - especially its relationship to Egypt - could have suffered. This was too high a price to pay. Thus, it seems, the great-power situation elsewhere on the globe can explain much of the reason why the 1967 offer was withdrawn. If this situation had not arisen, there are grounds for assuming that the offer would have been maintained, not least because the Soviet Union - then as now - was in great need of Western hard currency. Moreover, acceptance of the offer could also serve as indirect acceptance of the Soviet view of the status of the route in international law. Prior to making the offer, the Soviet Union had been through five years of US challenges to this standpoint.

Today the great-power climate is different indeed. The Cold War has been dismantled, and during the Gulf War the Soviet Union voiced political support of the UN and the UN-allied forces. The Soviet Union has neither the financial strength nor the political energy for a global engagement in competition with the USA. The all-important problem is to straighten up the economy, by means of the new policy of perestroika. And here the Northern Sea Route enters the picture as one of several areas of emphasis. There is much to indicate that this time the Soviet Union is serious in its offer of transit use of the route by foreign shipping:

1. It is important to view the follow-up to the Murmansk programme as a totality. Several of Gorbachev's six points are now being implemented with active Soviet participation. For one thing, an *International Arctic Science Committee* has been established, to take care of coordination and cooperation on Arctic research. In the so-called Rovaniemi Process, the Arctic states are preparing to formalize a programme of environmental protection cooperation for the Arctic. Cooperation has also been established for extraction of energy resources. Development of the Shtokmanovskaya gas field on the Soviet shelf of the Barents Sea, for instance, is taking place in collaboration between Norwegian, Finnish and Soviet interests. Moreover, there has been a perceptible movement towards international cooperation also with respect to the Northern Sea Route.

In September 1990 the Governor of Alaska convened the Third Northern Regions Conference in Anchorage. Here 20 regional leaders from all the Arctic states met in order to 'share common concerns'

and Technology, and the KGB. Now the project has been submitted to the Admiralty for the Northern Fleet and the Soviet Navy, and it would appear that these have no objections to foreign merchant vessels using the route, although there is still some doubt as to whether to permit foreign research vessels. Opening up of this route to foreign research vessels also has legal implications since: '...research or survey activities by foreign vessels is prohibited in Soviet territorial or internal waters unless specifically authorized by competent Soviet agencies or by international treaties of the USSR' <97>. A decision by the Admiralty is expected in the near future.

CONCLUSION

Originally, the Soviet Union had two goals for the Northern Sea Route: all-year transit; and stimulating/expanding regional commerce and industry, as well as settlement patterns. Both goals still hold, but have taken on different aspects and perspectives.

In the period 1918-45, military-strategic concerns dictated the desire for year-round transit possibilities; today the main point is the realization that regional exploitation of Siberia's vast mineral deposits necessitate such transport. In other words: implementation of the regional goal is dependent on realization of the first goal. The two form an integrated whole.

The military-strategic aspect has been replaced by the economic one. To the degree to which these two integrated goals can be realized, two new sources of revenue will be created for the Soviet Union: *increased* revenues from regional resource exploitation, and *new* revenues from the pilot and icebreaker services necessary for foreign use of the route. In view of the major economic difficulties the Soviet Union has been experiencing, there is good reason to believe that the offer in Gorbachev's Murmansk speech was meant seriously. Not only that: the offer could also be explained in security-political terms as well.

In the new political thinking in the Soviet Union, emphasis is put on the economic rather than the military threats to the country. During the Cold War the reverse applied, which meant that in cases of conflict between the two interests, the economic aspect had to yield. Now both interests in Soviet security thinking are placed on an equal footing, at least to the extent that economic interests no longer must automatically yield to military-strategic ones. The fact is that there now exists a political foundation which can be used to explain why economic interests may in some cases have to be given priority at the expense of military ones. The stress is now on providing the Soviet Union with a comprehensive security that covers all areas important to the maintenance of the Soviet state. Each individual issue area has been delegated independent responsibility for ensuring optimal security within its particular sector. In this way, the 'veto power' of the military establishment vis-a-vis the civilian sector has been reduced. Moreover, as far as the Northern Sea Route is concerned, any direct military-strategic relevance for transfers between the Atlantic and Pacific is at best minuscule. In itself this means a de-emphasis of the importance of military-strategic importance and force in Soviet domestic policy and conflicts of interest. This in turn implies that both economic and security-political interests would seem to favour opening of the Northeast Passage to

with further improvements in relations between the superpowers, can serve to tone down the conflict. This in turn can prevent disagreement from rising to the surface, unfolding itself for all to see. If the parties succeed in this, then a first major step may have been taken towards solving the problem. Or as pointed out by William E. Butler: 'The willingness of the Soviet Union (as expressed in Gorbachev's Murmansk speech) to discuss 'any counter-suggestions and proposals' as well as their own, places arctic relationships, including legal relationships, on an entirely different footing. It now remains to be seen what the Arctic Powers can make of this' <98>.

In this respect, it is worth noting that Western governments may have a common incentive to play down the Arctic dispute to compensate for the political uncertainties connected to transport through the Suez and Panama canals. In the course of the post war period the turmoil of Middle East politics has resulted in the closure of the the Suez canal for lengthy periods, severely hurting western economies. The Northeast passage may offer an alternative: 'The prospects that ships with western cargo will one day be sailing through the Arctic, instead of the Suez Canal would seem to be one good reason for opening a dialogue with the Soviets on ice navigation technology. With instability in the Middle East, shipping companies may not be able to count on the Suez Canal in the future. Despite the ice, the Northern Sea Route may be safer as well as shorter' <99>.

22. Terence Armstrong: Op. cit., supranote 13, p: 42.
23. Gordon G. Watson: "Technical aspects of ice navigation and port construction in Soviet Arctic", in Lawson W. Brigham (ed): Op. cit. p. 158. 24. Tønne Huitfeldt: "A Strategic Perspective on the Arctic", in *Cooperation and Conflict*, No. 2/3, 1974.
25. Ulrich Sweinfarth: "Alaska: The USA's Frontier State", in *Aussenpolitik*, vol. 29, no. 4, 1978, pp: 414-424.
26. Terence Armstrong, George Rogers and Graham Rowley: *The Circumpolar North*, Methuen & Co Ltd, London, 1978, p: 59.
27. *Extracts from the Soviet Press on the Soviet North and the Antarctic*, SNI/91, 29 January 1991, External Affairs and International Trade Canada, *Vodnyi transport*, 25 October 1990. p:26.
28. Terence Armstrong: 'The Northern Sea Route, 1988', in *Polar Record*, vol. 25, No. 154, July 1989, p: 299.
29. Sitert fra Terence Armstrong: 'The Northern Sea Route, 1988' in *Polar Record*, vol. 25, No. 154, July 1989, p: 249.
30. Terence Armstrong: 'The Northern Sea Route, 1986', in *Polar Record*, vol. 23 No. 146, May 1987, p: 589.
31. Terence Armstrong: 'The Northern Sea Route, 1980' in *Polar Record*, vol. 20, No. 128, May 1981, p: 452.
32. See supranote 16, p: 25.
33. T.J. Laforest: Op. cit. supranote 12.
34. Holland Hunter and Vladimir Kontorovich: "Transport Pressures and Potentials", in *Study Paper submitted to Joint Economic Committee, Congress of the United States: Gorbachev's Economic Plans*, November 23, 1987, p: 382
35. See *International Herald Tribune*, October 27, 1975: 'Baltic Canal is Enlarged by Russians'. See also Willy Østreng, supranote 12, pp: 242-243. 36. For a discussion of this aspect see Willy Østreng: supranote 11, pp: 70-17.
37. Sayre A. Swartztrauber: 'Alaska and Siberia: A Strategic Analysis', in *Naval Review, U.S. Naval Institute*, 1965 pp: 154-155
38. Gerald E. Synhorst: 'Soviet Strategic Interest in the Maritime Arctic', in *US Naval Institute Proceedings*, May 1973, *Naval Review Issue*, p: 93.
39. O.P. Araldsen: 'The Soviet Union and the Arctic', in *US Naval Institute Proceedings*, vol. 93, no. 6, June 1967 p: 50.
40. J. Zander & R. Araskog: *Nuclear Explosions 1945 - 1972, Basic Data*, 1973, The Research Institute of National Defence, Sweden.
41. *Izvestija*, 9.24.90.
42. Willy Østreng: 'Polar Science and politics: Close twins or opposite poles in international cooperation', in S. Andresen & W. Østreng: *International Resource Management*, Belhaven Press,

65. Terence Armstrong: 'the Northern Sea Route, 1988', i *Polar Record*, vol. 25, no. 154, July 1989, p: 247.
66. *Polar Record*, Jan. 1978: 'Icebreaker Voyage to the North Pole, 1977', pp: 67-68
67. *Polar Record*, May 1978: 'The Northern Sea Route, 1977, p: 186.
68. Pier Horensma: Op. cit. pp: 144-146
69. Ivan Frolov: " The 1987 expedition of the icebreaker Sibir to the North Pole", in Lawson W. Brigham (ed): Op. cit., p. 44.
70. Terence Armstrong: 'Industrialization and its Consequences', unpublished paper in the archives of the Fridtjof Nansen Institute, p: 6. 71. Alexander Arikaynen: "Exchange of Experience in Arctic Studies, Moscow, 1988, pp: 5-6
72. Terence Armstrong: 'The Northern Sea Route, 1987' in *Polar Record*, vol. 24, no. 149, April 1988, p: 129
73. Norvald Kjerstad: *Drift av fartøy i arktiske strøk, med spesiell vekt på skipsfart i nordøst-passasjen*, Tromsø Maritime Høyskole, Tromsø, April 1990, pp: 68-77.
74. Gordon G. Watson: Op. cit., p. 168.
75. Ibid., p. 163.
76. Y. Fujita, H. Narita, H. Kitagawa: "Design Study of a 200 (000) dwt Icebreaking Tanker", in *Proceedings of the Fifth International Offshore Mechanics and Arctic Engineering Symposium*, vol. IV, ASME, 1986, pp: 192-199.
77. Information given to Arnfinn Jørgensen-Dahl og the author of this article during a visit to Japan's Ship Research Institute, 23. April 1991.
78. Lawson W. Brigham: Op. cit., p. 130.
79. Gail Osherenko og Oran R. Young: *The Age of the Arctic. Hot Conflicts and Cold Realities*, Cambridge University Press, Cambridge, 1984 p: 125.
80. Norvald Kjerstad: Op. cit, p: 22.
81. A.I.Arikainen: "Management of the Northern Sea Route: Stages and problems of development", in Lawson W. Brigham (ed): Op. cit.
82. Terence Armstrong: 'The Northern Sea Route, 1980' in *Polar Record*, vol. 321 No. 123, May 1984, p: 181. 83. A.I.Arikainen: Op.cit., 140
84. Ibid., p.143.
85. Ibid.
86. Ibid.
87. Ibid.
88. Ibid., p. 148.