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Geographical Constraints to Soviet Maritime Power

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GEOGRAPHICAL CONSTRAINTS TO SOVIET MARITIME POWER

BY

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TABLE OF CONTENTS

Title Page	i
Table of Contents	ii
INTRODUCTION	1
BACKGROUND	3
Recent History	3
Status of the Soviet Navy	4
Missions of the Soviet Navy	5
GEOGRAPHICAL CONSTRAINTS	8
Physical Constraints	8
Political and Legal	9
Military	10
THE NORTHERN FLEET	13
THE BALTIC FLEET	17
THE BLACK SEA FLEET	22
THE PACIFIC FLEET	26
ALTERNATIVES	31
Overseas Bases	31
Offensive Operations	32
Defensive Operations	32
Change of Policy	33

CONCLUSIONS	35
NOTES	37
BIBLIOGRAPHY	39
Orientation Maps	40

GEOGRAPHIC CONSTRAINTS TO SOVIET MARITIME POWER

INTRODUCTION

Despite Soviet military expansion on land immediately following World War II, maritime strategy remained defensive in nature and the four Soviet Fleets operated largely in the vicinity of their own bases. However, as the "Cold War" progressed, the Soviet Navy continued to expand rapidly to respond to the need to maintain, support and expand overseas influence in the wake of decolonization by the Western Powers. This led to the realization that the Soviet Fleet urgently needed the ability to leave their traditional bastions to gain unimpeded access to the oceans of the world.

To support this newly developed requirement, effort was devoted to the construction of ships, submarines and naval aircraft with long range capabilities. Overseas bases were developed in friendly countries to provide infrastructure for distant operations. The Cuban Crisis of 1962 was a severe setback to the growing invincibility of the Soviet Navy, but led to a redoubling of effort to ensure that in the future it would be capable of projecting power at will. But throughout that period, the expanding Navy was vulnerable and remains so today. That vulnerability is created by geographical constraints which inhibit the four Soviet Fleets from free access to the major oceans (see orientation maps at end).

It is possible that the recent changes in Soviet attitudes and the introduction of "perestroika" by Mikhail Gorbachev, may result in a reduction of Soviet Maritime Power. But there is little evidence of reduction of the priority given the military budget allocations and at

present the Soviet Union's position as a superpower is very dependent upon military strength. It would require a major change in policy at the highest level to adopt a strategy whereby Soviet Maritime Power becomes less dependent upon free access to the oceans. However, there are indications that alternatives to that dependence are being considered.

The aim of this paper is to identify the geographical constraints, assess their impact and explore alternatives that may be considered to reduce their detrimental effects upon Soviet Maritime Power.

The paper will provide a background by addressing the recent history, status and current missions of the Soviet Navy, which is the vehicle for maritime power. The nature of the geographical constraints will then be discussed before assessing individually the impacts on the four Soviet Fleets: Northern, Baltic, Black Sea, and Pacific. Finally some alternatives will be explored to counter the vulnerability of maritime power to those geographical constraints.

It will become evident that the major constraints relate to military operations and thus it is assumed that the reader has some knowledge of such operations. In the exploration of future alternatives, speculation is inevitable, as the implementation of the Gorbachev initiatives is itself full of uncertainty.

BACKGROUND

Recent History (1)

World War II saw the Soviet Navy playing only a supporting role to the Soviet ground forces and a program of construction of capital ships, begun in 1938, cancelled in 1940 in favor of re-equipping the army, re-instituted in 1950 under Stalin, was cut again in 1953. However, the arrival of Admiral Gorshkov as Navy Commander in the mid '50's coincided with a change of impetus. In a period of "cold war", as developing nuclear weapons were given priority, so also were submarines as the Navy's main striking force, and the construction of large major surface combatants were seen for the first time for many years. In the '60's, as nuclear warfare continued to predominate, Moscow also recognized the need to have influence in other parts of the world to counter "imperialist aggression." A Soviet Third World Diplomacy was introduced which included the capability to deploy military forces overseas in support of foreign policy interests. Foreign ports, airfields and other facilities were developed as the Navy's peacetime tasks were expanded to include international duty and military support. This helped to encourage the Soviet Navy to develop from a coastal force to a true blue-water fleet.

In the mid '70's, the Kremlin changed the long range military priorities and conventional capability returned to favor as the offensive arm, behind the shield of nuclear weapons. The submarine remained the dominant vessel of the Navy and the introduction of the Nuclear Ballistic Missile Submarine (SSBN) with an extended range

missile, capable of operating under ice in the Barents Sea, was to have a major impact on maritime policy. Up to this time, Gorshkov appears to have had significant influence, and realizing the need for aircraft carriers as the indispensable means of gaining sea control beyond the range of land based aircraft, instituted a carrier building program. This program was initiated before the arrival of Dmitri Ustinov and the policy changes of 1976/77, which also saw the first signs of reduction in power of Gorshkov, at the hands of the new Minister of Defense.

The '80's saw a cut back in out of area activities and exercises were generally conducted nearer to home. There was a significant build up of the Pacific Fleet, particularly the SSBN component, and the development of the Sea of Okhotsk as a safe haven, although activity continues in the Barents Sea. This reducing activity may be due to a variety of circumstances and the future is far from clear. It is likely that the unannounced replacement of Gorshkov in 1985 was partly due to a reassessment of the very expensive carrier program and partly due to inter-service rivalry, in the fight for the defense rouble.

Status of the Soviet Navy

When considering Soviet Maritime Power, it is important to realize that not only is the Navy subordinate to the Army, but maritime strategy is subordinate to an overall military strategy, which in turn depends upon national goals. (2) It is thus the army marshalls and generals who have major influence on the policy making mechanism. It is therefore likely that the deployment of the

Soviet Navy will not be a purely naval decision. The Soviets also believe that in wartime, the co-ordination of all three services is essential in the geographic theaters of military operations. The Soviet Fleets will thus be subordinate to a Theater High Command and the land battle may dictate the employment of certain naval units.

When considering the missions of the Soviet Navy, it is therefore necessary to understand the Soviet Union's unified military policy and the status of the Navy in the decision making process.

Missions of the Soviet Navy

The missions of the Soviet Navy will dictate the deployment of the four fleets and thus the geographic constraints that will be imposed upon them. Policy changes at higher levels will result in amendments to the many missions that are assigned, both in peace and in war. For convenience, in the following description, the current missions are grouped under five headings, which will be addressed separately: (3)

Deterrence

Defense of the Homeland

Support of Ground Force

Offensive Strike

Protection and Promotion of Soviet Interests

Deterrence

This activity relates to both peace and war and has two components. The first is the maintenance of a credible deterrence, contained in the ballistic missile submarines (SSBN), to guarantee the technical protection of the primary land based deterrent of the Strategic Rocket Forces. The SSBNs provide a second strike capability and act as a strategic reserve. The second component is the protection of the SSBN Force itself, which is a high priority mission for the remaining maritime general purpose forces.

In essence, the SSBNs deploy from their bases to areas chosen to provide safe havens for their patrols, within missile range of the U.S. The two primary areas are the Barents Sea, in the vicinity and relative safety of the polar ice cap, and the Sea of Okhotsk, which is a forbiddingly remote and frequently ice bound area almost entirely surrounded by Soviet territory. The deployment of the SSBNs would likely be escorted by other nuclear hunter/killer submarines (SSNs) and supported by other anti-submarine (ASW) and anti-surface warfare (ASUW) assets.

Defense of the Homeland

The Navy's role in defense of the homeland related to the protection against attacks from the sea. Protection is requires from major amphibious landings, air attacks launched from aircraft carriers and missile attacks from submarines. The major threat posed would be U.S. and NATO maritime forces, particularly the U.S. carrier battle groups (CBG) and SSNs deployed to the Norwegian Sea, the Mediterranean, and the Western Pacific. The primary means of

countering such attacks would be by coordinated operations of nuclear submarines, Soviet Naval Airforce long range aircraft, and possibly certain missile armed major surface combatants.

Support of Ground Forces

This role has evolved from the earlier major role of the Navy in support of the army. It now includes conducting amphibious landings and countering enemy amphibious operations, as well as providing direct gunfire, missile or air support to ground forces within range of the coast. A very important mission, included in this heading, is the interdiction of the Sea Lines of Communications (SLOCs) of the enemy - such as reinforcement and resupply of Europe, across the Atlantic, or of U.S. bases, across the Pacific. Protection of their own SLOCs, the pro-SLOC mission, such as coastal military supply shipping to their own land forces, is also included.

To carry out the anti-SLOC mission, the most effective method would almost certainly be by submarine deployed to attack ocean going shipping beyond the range of land based ASW Air. The remaining missions are probably best accomplished by the major surface units with their guns and missile capabilities, and amphibious assets, supported by land-based air.

Offensive Strike

This mission would most likely be executed by the long range Soviet Naval Airforce (SNAF) bombers and submarines, both using nuclear weapons. This would be a back-up mission once war had

escalated to a nuclear phase. Targets would logically include coastal areas where maritime infrastructure has been developed, such as major ports and naval bases.

Protection and Promotion of Soviet Interests at Sea

This is the primary peacetime mission of the Soviet Navy and is concerned with freedom of navigation, security of fishing and merchant shipping, oceanographic research, exercises and other non-belligerent activities. Deployment in support of these activities will vary, but it is apparent that presently assigned missions cannot be carried out from within the confines of Soviet Territorial Sea, Internal Waters, and airspace. Yet, to move out of area, the Soviet Navy makes itself vulnerable to the geographical constraints which exist both in peace and in war.

GEOGRAPHIC CONSTRAINTS

The constraints faced by Soviet Maritime Power have their cause in geography, but the effects can be experienced in a variety of ways. To discuss the nature of these constraints, they have been divided into three categories: physical, political and legal, and military.

Physical Constraints

The physical constraints refer to those areas which are restricted by the presence of land masses or straits which influence the deployment of maritime forces. The width of a strait may

restrict the ability of a group of ships to maneuver, particularly in a narrow channel, whilst depth will dictate the size and type of vessel that may pass through, or indeed prevent submerged submarine operations. The presence of ice may close areas for part of the year to surface shipping and tortuous channels and unreliable currents may significantly restrict navigation or military operations.

Political and Legal Constraints

These constraints relate to the ownership of coastal waters and adjacent landmass, and the associated legal regime. In wartime, the necessity to pass close to the territory, or through the waters of a potential or actual enemy, may seriously affect the decision to transit through such an area. In peacetime, the major restrictions are more likely to be associated with the Law of the Sea. As will be seen later, the deployment of the Soviet Navy is dependent on transit through several straits which exhibit a diversity in terms of the legal regime of passage. Although UNCLOS III is as yet unratified and is primarily concerned with the peaceful use of the sea, the current treaty is widely accepted as a basis for acceptable navigational provisions.

One important aspect of passage relates to the difference between the types of strait. Where a strait is wider than the combined width of the Territorial Seas on each side, there exists in the middle a strip of water which is subject to a high seas or EEZ regime, thus permitting freedom of navigation or overflight. In straits entirely contained within the Territorial Seas of the two sides, it becomes a legal strait, in which the regime of transit

passage is deemed to exist. This permits all ships and aircraft the right of unimpeded transit passage provided it be "for the purpose of continuous and expeditious transit of the strait between one part of the high sea or EEZ and another part of the high sea of EEZ." (4) This regime was introduced at UNCLOS III and is quite distinct from innocent passage, which does not permit overflight and may be suspended. There is thus some sensitivity on the part of some maritime nations as to the stability of the transit passage routine.

One exception to the legal regime in straits is contained in Article 35c of UNCLOS III, which states that transit passage will not apply where "passage is regulated in whole or in part by long standing international conventions in force.....". In such circumstances, the strait will be regulated in accordance with the appropriate convention. Two such straits, the Danish and Turkish Straits, have direct impact on the Soviet Navy and will be discussed later. Other legal regimes, such as the continental shelf and EEZ, may also impinge upon the flexibility of Soviet maritime operations, but it is not intended to cover them within the scope of this paper.

Military Constraints

Military aspects of the geographical constraints relate primarily to the operation of weapon systems of ships, submarines, aircraft and other shorebased platforms. Starting beneath the surface, a strait or restricted waterway may contain water of suitable bottom or depth for the effective operation of submarines, placement of mines, or bottom mounted detection systems; all of which can present a major threat to the transitter. The submarine

is generally considered the most effective anti-submarine weapon, and operations in relatively constrained waters, probably more familiar to the hunter than to the hunted, gives the former a significant advantage.

Mines can be a major form of defense, whether rapidly laid in a period of tension or covertly laid in peacetime. Modern mines can be activated or de-activated remotely and be monitored to ascertain the exact status of arming. (5) It is technically feasible to lay an unarmed harmless field of mines which may be de-activated for a long period, but when activated remotely, at a chosen time, can select specific targets. Such a minefield would pose no danger to navigation and there would be no requirement for the coastal state to give appropriate publicity, as required by UNCLOS III, until such time as the field were remotely armed. Conversely, the announcement of mining itself, whether true or false, may be enough to inhibit passage through such restricted waters. An excellent example of the effectiveness of mining can be found in the recent mining of the Straits of Hormuz by Iranian forces. The presence of a number of out-of-date and unsophisticated mines led to the deployment of mine countermeasure forces from five different nations, and the institution of convoying with close escorts, for U.S. flagged vessels. The cost of these operations was out of all proportions to the costs of laying the mines.

The laying of a passive surveillance system can also be done covertly and with modern technology, it is extremely unlikely that even a deep transiting submarine would remain undetected. An example of such a system is the U.S. SOSUS systems, which is

reported to have the capability of passing detection information ashore within minutes. (6)

A vessel transitting on the surface is susceptible to attack by seaborne and shorebased missile systems. Many types of sophisticated missiles can be purchased on the open market, and the experience of the Falklands confrontation between the U.K. and Argentina illustrated the devastating effect of Exocet, which is but one of a family of short to medium range weapons available. The submarine or surface transitters may also have to put themselves within range of landbased air assets which provide another threat dimension. Thus a coastal state, bordering such a constrained seaway, may be capable of completely dominating the area with in-water and airflight weapon systems, delivered from a variety of different platforms.

On the other hand, some constraints might provide a military advantage to the transitter. An excellent example would be the under-ice operations by submarines. Not only will a transitting submarine be immune from attack by surface vessels and aircraft, but intelligent use of the inherently noisy conditions in the vicinity of the ice edge, will significantly improve the the chances of avoiding detection by passive sonar sensors. Conversely, the quiet waters under the polar ice cap offer the patrolling submarine an excellent environment for long range passive detection of the approach of another submarine. In addition, the physical characteristics of the ice are such that areas of thin ice, less than 10 inches thick, always exist and can be readily detected; thus

offering little resistance to a submarine which has a long range missile firing capability.

Having thus described the general nature of the constraints which might inhibit deployment of maritime forces, it is now intended to consider each Soviet fleet separately. The fleet composition and relevant geographical constraints will first be described. This will be followed by an assessment of the effect of those constraints on the maritime missions in peace and in war.

THE NORTHERN FLEET

Based on the Kola Peninsula, the Northern Fleet has been the centerpiece of the Soviet Navy since WW II. Its growth and characteristics reflect the importance the Soviets attach to the North Atlantic, Norwegian Sea, Barents Sea, and the Arctic, in their continental strategy. It is the only fleet with direct access to open oceans and consists of : (7)

Aircraft Carrier	1
Major Surface Combatants	73
Other Combatants	82
SSBNs	39
Other Submarines	136
Naval Aviation	440
Auxiliaries	95
Naval Infantry	1 Brigade (12,000)

Constraints:

North Cape - This most northerly point of Norway is only 250 miles from the Kola and although by no means a strait, it dominates the deep water transit route of any N. Fleet unit proceeding North West and West from its home base. It is also an area constantly under surveillance by NATO forces, making any covert deployment very difficult. (8)

Greenland/Iceland/U.K. (GIUK) Gap - Although relatively wide: (Greenland/Iceland 180m; Iceland/UK 400m) and deep: (Greenland/Iceland 1000+ft; Iceland/UK 600-3000ft), this focal point is 1500 miles from the Kola and almost entirely dominated by NATO's military capability. The GIUK Gap is within range of land base attack air, air defense and ASW aircraft; it is an excellent area for submarines operating in the anti-submarine role and is constantly under surveillance by a combination of Long Range Maritime Patrol Aircraft and SOSUS. (9) The three major passages through the area also lend themselves to anti-submarine mining operations although the northerly Denmark Strait has partial ice cover for much of the year. All nations bordering the Straits are members of NATO.

Davis Strait - Width: 170m; Depth: 1000+ft; Length: 300m. The reason for the inclusion of this strait is that it may provide the only means by which the N. Fleet submarines can transit into the Atlantic without passing through the GIUK Gap, thus avoiding probable detection. However, transmitters from the Arctic must pass through

This deployment significantly reduces the effects of the
and places forces deployed in defensive roles in the forward
positioned by accomplishing some of the other operations
been to avoid directly to the ice-covered areas of the Baltic Sea
the no-median sea area of Baltic Sea. (1) Recent practice has
NATO states could be brought to bear from any part of the area of
(2000+ miles) of the ice. (2) The potential capability of the
may be introduced to the joint land-sea strategic mission
operations

Methods

Task

operations, and it certainly involves a long and difficult operational
that may be accomplished with some of the operations as
initially thinking is diminished. Attempts to transfer the O-10
element of support, which plays a significant role in some
areas. Thus, the opportunity to take advantage of the important
skill and experience that no large scale covert deployment can take
the NATO and the existence of the constant NATO surveillance
there are no major constraints to the described missions of

Procedure

operations (which is possible) (10)

could be much of the area. Despite the hazards, it is thought that
about 500 miles in length with a base width of 15 miles and ice-
the northern part of the sea, and the Russian and Finnish operations

constraints on this primary mission. The one exception is the Yankee Class SSBN, which although becoming obsolete, still have an operational capability and must transit through the GIUK Gap in order to reach the appropriate patrol areas in the mid-Atlantic, from which their shorter range missiles can be fired at the U.S. mainland.

Defense of the Homeland

The primary threat to the Soviet homeland is the NATO Striking Fleet Carrier Battle Groups and the U.S. Cruise Missile Firing Submarines (SSGN) which plan to deploy into the Norwegian Sea through the GIUK Gap. To oppose these forces, using the principle of defense in depth, it would be logical to attempt to counter them before they transit the Gap. This would be achieved by coordinated long range air and submarine attack, but both types of asset would themselves have to transit in the vicinity of Norway and through the GIUK Gap to achieve firing positions.

Support of Ground Forces

The existence of the North Cape and nearby NATO air and naval bases, is undoubtedly a thorn in the side of the USSR and it is thus possible that an attempt would be made to neutralize N. Norway. This might be achieved by air operations or possibly amphibious operations in support of ground forces. The anti-SLOC component of the mission however, would likely be carried out by N. Fleet submarines, which would have to transit long distances into the Atlantic, through the GIUK Gap, thus making themselves vulnerable to detection and attack.

Offensive Strike

The offensive strike mission would most probably be carried out against land based maritime targets on the coast of Europe or the U.S. The deployment of long range naval aviation and nuclear submarines again involves a transit through the unfriendly environment of the GIUK Gap, with its associated anti-air and ASW capability.

THE BALTIC FLEET

With its major base at Leningrad, the Baltic Fleet has several other lesser bases available in the Baltic Sea. In addition, both the East German (GDR) and Polish Navies are tightly integrated into the Soviet operational chain of command in peacetime. They are well trained and effective navies and of particular significance is their amphibious and minewarfare capability. In war, all three are subordinated under one Soviet Commander, with the GDR and Polish Navies having a major supporting role to the Baltic Fleet. The composition is: (12)

Baltic Fleet

Major Surface Combatants	50
Other Combatants	96
Submarines (SS&SSB)	45(includes 6 GIs)
Naval Aviation	282
Auxiliaries	45
Naval Infantry	1 Brigade

GDR Navy

Combatants	133
Auxiliaries	70

Polish Navy

Combatants	125
Submarines	3
Auxiliaries	40
Landing Division	1 (12,000 men)

The majority of the East German and Polish combatants consist of small fast missile and torpedo boats and minewarfare units, plus a significant amphibious capability.

Constraints:

Danish Straits - Consist of three passages of approximately 60 miles in length, in a general North/South direction called the Little Belt, the Great Belt and the Sound (minimum widths: 0.5m, 1.0m, and 2.5m; minimum depths: 45ft, 60ft, and 20ft). The mainland to the West, and islands forming the land boundaries to both Belts, are Danish. The Sound is contained by the major Danish island of Zealand to the West and Sweden to the East. To the North, the straits open out to the Kattegat, a broad but relatively shallow waterbody, contained by Denmark and Sweden and leading into the greatly deeper waters of the Skagerrak off the Norwegian Coast.

To the South the Straits lead into the Western Baltic, with the Federal Republic of Germany (FRG) as the southern landmass. This

area then rapidly expands eastward into the central Baltic in the vicinity of the GDR, and is surrounded by Poland, the USSR, Finland, and Sweden. It can be seen that the countries exercising control over the Straits are Denmark and West Germany, both members of NATO, and Sweden which has a long tradition of neutrality.

The Straits are claimed by Denmark and Sweden to be subject of the Copenhagen Convention of 1857, and as such are not subject to transit passage, being excepted by Article 35c of UNCLOS III. (13) Thus both nations have introduced rules relating to the transit of the Straits, particularly pertaining to warships. The presence of shallow waters and narrow fairways make the Danish Straits particularly suitable for mining, and the operation of small fast patrol craft and shore based missile or gun batteries.

Kiel Canal - This canal, connecting the Western Baltic with the North Sea, is the only exit for ships in the event of closure of the Danish Straits. The canal cuts across part of the FRG and is suitable for shipping up to about 20,000 tons. The control of the waterway will remain with the power occupying the adjacent land and although it is available to all nations in peacetime, it could easily be closed or restricted to certain users in time of war.

Peacetime

In the Danish Straits there are no barriers to merchant shipping, but certain restrictions exist for warships. The rules relating to the Swedish part of the Sound permit innocent passage for all warships and aircraft without notification, and passage for

belligerents in wartime, with certain restrictions. The Danish rules are more demanding and relate only to peacetime, giving the Danish Ministry of Defense the power to make exceptions to the regulations at any time. In all circumstances, submarines must proceed on the surface, flying the appropriate national flag, although water depth provides few opportunities to transit submerged. In peacetime, three or more warships require notification of at least three days if passing through the Great Belt or Danish part of the Sound, and overflight of military aircraft requires permission requests, eight days in advance. (14) This Danish/Swedish claim is ambiguous and may be challenged on the basis that the original treaty of 1857 did not include warships, which had never been restricted prior to this time. However, NATO nations have not been anxious to challenge their Danish allies.

Due to the large complex of repair and support facilities in the Baltic, there is a frequent transit of major units coming from and returning to other fleets, but no protest is made by the Soviet authorities regarding the regulations. Occasionally, groups of major Soviet combatants will exit the Baltic to exercise with the N. Fleet, often simulating enemy forces, but they always return. Polish and GDR major units seldom leave the Baltic. However, it is clear that the combined strength of the Baltic Fleet and supporting navies is greater than that required for coastal defence and thus an offensive strategy is assumed. (15)

Wartime

Deterrence and Defense of the Homeland

These are minor missions for the Baltic Fleet. The only units which contribute to deterrence are the 6 Golf II Class submarines which have ballistic missiles with a range of approximately 750 miles, and are unlikely to leave the confines of the Baltic. The domination of the Baltic by Warsaw Pact surface forces, supported by adjacent land based air, makes a seaborne attack against the USSR difficult to execute. The only potentially offensive forces in the Baltic are the coastal submarines and attack-air of the FRG and Danish naval and airforces, which all have a maritime mission.

Support of Ground Forces

This is the major role of the Baltic Fleet and to carry out such operations, the missile, gun and air capability could be used to neutralize much of Denmark's defensive capability. Subsequently, mine countermeasure and amphibious forces should be employed to project power ashore with the Soviet Naval Infantry, Polish Landing Division and airborne assault forces. This would not only be a first step in controlling the Straits, but would significantly assist Warsaw Pact land forces by creating a flanking move on NATO's ground forces on the northern Central Front. Attrition against Danish air defence forces would reduce the threat to both medium and long range Soviet naval aviation, thus enabling it to have less restricted egress from their Baltic bases to the North Sea and beyond. It is speculated that Sweden would remain neutral, but

control of the Danish islands and the mainland of Denmark and Northern FRG would facilitate the desired control of the Straits.

The primary role of NATO forces in the Danish Straits would be defensive in nature. Both the Danish and FRG forces contain a significant minelaying capability, which is exercised frequently and is considered to be extremely effective. The laying of mines in Danish and FRG Territorial Seas and Internal Waters, should successfully block the Straits and inhibit Warsaw Pact amphibious operations, until they can be cleared by the large minesweeper force. The NATO fast missile craft and air assets would help to defend against such offensive operations.

The early deployment by parts of the Baltic Fleet prior to hostilities has been much discussed. (16) However, in the view of this author, this departure is unlikely, as it is not compatible with the major Soviet aim to exercise control over the entire Baltic Sea.

Thus it can be seen that the Danish Straits play a crucial part in any future conflict. The need to control these waters is recognized by both sides and the inherent penalty of losing control is unacceptable to both NATO and the Warsaw Pact.

THE BLACK SEA FLEET

Based upon Sevastopol, although the Black Sea is almost totally enclosed, the Fleet is large and very significant shipbuilding and repair facilities exist. This Fleet also provides the permanent Soviet Mediterranean Squadron, which consists of approximately 40

combatants and auxiliaries. The Fleet dominates the Black Sea and consists of:

Aircraft Carriers	2
Major Surface Combatants	73
Other Combatants	70
Submarines	29
Naval Aviation	468
Auxiliaries	63
Naval Infantry	1 Brigade

Constraints:

The Turkish Straits are the only exit from the Black Sea and consist of the Bosphorus (min. width: 0.45m; min. depth: 108ft; length: 17m) and the Dardanelles (min.width:0.6m; min. depth: 165+ft; length: 35m). These two narrow straits are connected by the Sea of Marmara, itself approximately 100 miles long and the entire length of the waterway is contained within Turkish territory. The Straits are subject to the legal regime of the Montreux Convention and again comes under the Article 35c exemptions of UNCLOS III. Small craft and mining operations are likely to be effective in these restricted waters; a capability held by the Turkish Navy.

Strait of Gibraltar - This strait is included as the legal regime of the Turkish Straits does not permit the transit of submarines from the Black Sea, to operate in the Mediterranean. Thus the Northern Fleet provides the submarine support for the Soviet Med. Squadron (typically 7-8 SS/SSN); which must transit through this waterway.

Although strong currents in the narrowest part of the Strait (width: 8m; depth: 1000+ft; length: 33m), make mining difficult, the areas on either side are suitable, as well as providing relatively good conditions for ASW Operations.

Peacetime

The Montreux Convention of 1936 provides for free passage of merchant vessels of all nations, but sets a number of conditions for the passage of warships, differentiating between Black Sea and non-Black Sea Powers. The regulations dictate the size, type, and number of foreign vessels that may transit at the same time, specifying the notification required and maximum aggregate tonnage and length of time a non-Black Sea nation's warship may stay. (17) These regulations thus have the effect of dictating the composition of the Med. Squadron, as well as raising questions as to the legality of large warship transits. Of particular interest to NATO will be the assumed forthcoming exit of the first Soviet nuclear powered aircraft carrier, recently completed in a Black Sea yard. On the other hand, the legal regime might be seen by the Soviets as assisting in the aim of restricting the entry of non-Black Sea nations, thus supporting the concept of an enclosed sea, which is in their own interest.

Wartime

Defense of the Homeland

Similar to the Baltic Fleet, the Black Sea Fleet does not have a serious deterrence capability, but the defense of the homeland mission is very real. This is due to the presence of the U.S. Sixth Fleet in the Mediterranean, capable of conventional and nuclear strike operations against Soviet territory. To counter this threat, a coordinated attack would likely be planned, composed of long range naval aviation from their bases in the Crimea, submarines and surface forces from the Soviet Med. Squadron.

Support of Ground Forces

Units remaining within the Black Sea, under the control of the South West District Theater Commander, would initially support ground forces with defensive operations along the coast. Offensive amphibious operations in support of a ground and air offensive would be conducted, aimed at securing the Turkish Straits, as part of a campaign to neutralize Turkey, Greece, and Italy; in order to ensure control of the Black Sea and Eastern Mediterranean. This in turn would permit access to the Med. for Black Sea Fleet submarines and thus provide additional assets to interdict the significant NATO SLOCs in the Western Mediterranean.

In addition to the Sixth Fleet, the size of which might vary significantly, the remaining threat to the projection of maritime power in the area, is likely to be the Turkish forces, cast in a defensive role. The Turkish Navy is relatively small, consisting

primarily of submarines and small missile craft in the area of the Black Sea and Straits. These would be supported by defensive mining and land based air assets. The Turkish Army is of considerable size, and reinforced by other planned NATO forces, could present a formidable obstacle to would be aggression, along with the Turkish Straits.

THE PACIFIC FLEET

With the major base at Vladivostok and a submarine base at Petropavlovsk, the Pacific Fleet is now the largest, having doubled in size since 1965. The most recently completed aircraft carrier has joined this Fleet, making it the only one with two carriers. In 1988 the Fleet consisted of:

Aircraft Carriers	2
Major Surface Combatants	75
Other Combatants	128
SSBNs	30
Other Submarines	98
Naval Aviation	560
Auxiliaries	95
Naval Infantry	1 Brigade

Constraints:

The major operating areas for the Pacific Fleet are in the Sea of Japan and the Sea of Okhotsk. Restricting access between the two seas, as well as East to the Pacific and South to the Yellow Sea, are three principle international straits: Korea, Tsugaru, and La Perouse.

Korea Straits are composed of two parts. The West Korea Strait is between South Korea and the Japanese island of Tsushima (width: 22m; min. depth: 165+ft; length: 41m). The East Korea Strait lies between Tsushima and the Japanese mainland (width: 25m; depth: 165+ft; length: 12m). These straits sit astride the major trade route to and from the West Coast of Japan and the East Coast of the Soviet Union. Through them run the essential shipping lifelines from Singapore, the Indian Ocean, and the Persian Gulf, on which Japan is so dependent. The area is suitable for submarine and mining operations.

Tsugaru Strait - Separating the two main Japanese islands of Hokkaido and Honshu, this strait forms a major artery between them, including the newly built Seikan Tunnel which runs beneath. It is also the shortest route from the central Sea of Japan to the Pacific and is ice-free throughout the year. It lends itself readily to control by Japan from ashore and the waters are suitable for mining and passive sensors. Although less than 24 miles in width, (min. width: 10m; depth: 350-600ft; length: 60m) Japan only claims a 3 mile

Territorial Sea through these Straits and thus creates an EEZ or high seas passage.

La Perouse (Soya) Strait - Situated between Northern Japan and the Soviet territory of Sakhalin, the strait forms a major SLOC between the Seas of Japan and Okhotsk (width: 21m; depth: 600ft; length: 6m). The Strait is suitable for mining or submarine operations, although it is frozen over for several months in the Winter. This is the only one of the three straits over which the Soviets have part ownership and thus plays an important part in their maritime strategy.

Wartime

Deterrence

It is understood that the Pacific Fleet SSBNs will deploy from their base at Petropavlovsk, accompanied by supporting SSNs, into the relative sanctuary of the Sea of Okhotsk. However, the remoteness of this base on the Kamchatka Peninsula, with no road or rail links with the rest of the Soviet Union, depends upon the sea for resupply, thus creating an essential SLOC from Vladivostok which would normally pass through La Perouse Strait. Control of this Strait, or an alternative ice-free route, is likely to become part of a successful deterrent mission. As with the Northern Fleet, the Yankee class submarine becomes an exception, and would need to transit East if wishing to achieve a missile firing position within range of the U.S.

Defense of the Homeland

The major threat to the USSR in the Far East is the U.S. Pacific Fleet, which has the capability to launch stand-off carrier-borne air attacks or submarine launched cruise missiles. To oppose that threat, it would be logical to attack U.S. units at long range to prevent them entering the Seas of Japan or Okhotsk, although with forward U.S. bases in Japan, this may not be easy to achieve. However, the best strategy would seem to be a coordinated attack by long range naval aviation, submarines, and possibly major surface units, in the Pacific approaches to the Kuriles and the Sea of Japan. Once again, the ability to transit the straits will be critical.

Support of Land Forces

It is difficult to speculate on a land battle in the Far East, but it is believed that the Soviets must consider the need to ensure some form of control over the straits. The significant mining and amphibious capability of the Pacific Fleet could be employed, and all straits are within range of naval aviation assets. La Perouse would certainly be the easiest to control, by landings on Northern Hokkaido, supported from the base already established at Korsakov, on the southern tip of Sakhalin. (18)

Tsuguru and the Korea Straits, being bounded by the non-friendly nations of Japan and Korea, are unlikely to be amphibious targets in the early stages of a war. It must also be remembered that the U.S. Pacific Fleet has a greater capability than its Soviet counterpart and is likely to act as a significant deterrent to extended range amphibious operations. Thus again, it would be

offensive mining and submarine operations that would play a vital part in the battle for control of these straits.

SLOC interdiction in the Pacific theater is meaningful to both the Soviets and their opponents. Although much U.S. forward basing has taken place in Guam, Japan, and the Philippines, important and lengthy SLOCs from the U.S. will still exist, as well as Japan's own essential SLOCs to the South and East. These will be vulnerable to the Fleet's large submarine force, deployed from Vladivostok, perhaps through the straits, or from Petropavlovsk.

On the other hand, the Soviet Pacific Fleet is itself heavily dependent on SLOCs, as a substantial percentage of its supplies come by sea from the Western Soviet Union through Suez, or via the Cape of Good Hope or North East Passage. The development of the Soviet military base at Cam Ranh Bay, in Vietnam, has created another SLOC which needs protection. Thus it can be seen that SLOCs in this theater are vital to both sides.

Offensive Strikes

Offensive strikes by long range naval aviation, submarines, and surface forces against Japan, can be conducted from within the Sea of Japan. However, similar such strikes against U.S. bases beyond the perimeter of Japan, involves the transit of at least one of the straits.

The military importance of these three straits is clearly evident. If the Soviets wish to dominate the Seas of Japan and Okhotsk, it is in their interest to control the Straits or deny control to a potential enemy.

ALTERNATIVES

It is apparent that Soviet Maritime Power is severely restricted by the geographical constraints which must be faced by all four fleets. In peacetime the constraints are predominantly physical and legal and are of lesser significance. But in wartime, the imposition of political and military constraints have an overwhelming impact on the traditional flexibility of seapower. In the final part of the paper, four alternatives will be explored, which could reduce the vulnerability of Soviet Maritime Power to these constraints.

Overseas Bases

The acquisition of overseas bases can reduce dependence upon the need to transit straits and other focal points. At present, as an aid to foreign policy, the USSR has obtained basing rights in: Vietnam, South Yemen, Ethiopia, and to a lesser extent, Libya, Angola, and Cuba. However, these bases are generally found in poorly developed countries which have limited capacity for ship repair and most of these nations do not have strong traditional ties with the Soviet Union. In addition, past experience such as the loss of Alexandria (Egypt) and Berbera (Somalia) as bases, indicates a lack of guarantee of return on the investment. Another major disadvantage is the fact that oversea bases create their own SLOCs, which could themselves become vulnerable.

Offensive Operations

The second alternative is to carry out offensive operation prior to or early in a confrontation, in order to overcome or neutralize the geographical constraints. Although certain straits might be dominated by military forces from a distance, in order to control such straits it will normally be necessary to carry out amphibious or land operations in order to hold adjacent territory. As only one of the six straits considered earlier involves shared ownership by the USSR (La Perouse), such operations against enemy held territory would likely only be considered as part of a major, and costly, campaign. Where such straits are not immediately adjacent to the landmass of the USSR, additional SLOCs would again be created. It is thus probable that such an option would only be considered where it was thought to directly support the land battle, as in the case of the Baltic and Black Sea.

Defensive Operations

This alternative is seen as the ability to influence the military activity within a constrained area, without having to be established on the adjacent land. An example would be the denial of access to a strait, perhaps by the presence of mines, submarines or acoustic surveillance systems creating an unacceptable transit risk, thus effectively using the strait to own advantage.

The early deployment of mines and submarines by the Northern Fleet in the GIUK Gap could be described as defensive operations, as could similar operations in the straits surrounding the Sea of Japan, discussed earlier. However, an important principle is involved: if

you wait too long your opponent might be there before you, which makes control of such an area much more difficult. On the other hand, if you get there too early you might be giving your opponent warning of your intentions, thus perhaps losing the essential element of surprise.

Change of Policy

A positive alternative would be a change of policy which would have the result of diminishing the Soviet Navy's dependence upon access to the oceans. It is believed that such a change could be taking place, although the inherent reasons and the future outcome are far from clear. Indications come from the reduction of out of area deployments witnessed in the last few years. (19) 1987 saw the withdrawal of the Yankee class submarines from the mid-Atlantic and was the first year for over a decade that did not see the deployment of a Soviet Task Force to the Caribbean. Major out of area exercises have been less extensive and it does appear that the Soviet "bastion" theory of defense has regained official respectability. (20)

At the same time, the world is going through a remarkably peaceful period. The superpowers are talking disarmament, the Gulf war is at an end, the Soviets have withdrawn from Afghanistan, and 'perestroika' appears to be having a liberating effect on Eastern Europe. For the USSR, there is no doubt that defense spending must be reduced if an economic future is to be assured. In evidence of this trend, over the past decade the growth rate of defense spending has declined from 4% to 2% per annum. (21) Even the military

leaders appear to support Gorbachev's economic reforms, and indeed seem more enthusiastic than many of the Party managers. (22) There has been a general slowing down by the Politburo on military procurement, as perhaps evidenced by the reduction in the aircraft carrier program, which now appears significantly less ambitious. (23)

So far , the USSR has based its superpower status largely upon its military capability. To retain that status it must match the West economically, technically, and ideologically; which it has failed to do in the past. The present initiative by Gorbachev is based upon an acknowledgement of this weakness and might be leading to the change in policy that will in turn affect maritime power. Perhaps that change has recognized a lessening of tension and need to reduce the expensive out of area activity, indicating a return to a more defensive posture by the Soviet Navy, nearer to the homeland. The primary mission fo deterrence would be unaffected by such a move, as the SSBNs have already adjusted their patrol positions to areas relatively close to their operational bases

CONCLUSIONS

The Soviet Navy is the tool of Soviet Maritime Power and deployments will depend upon the overall military strategy, based on national policy. A review of current missions of the four Fleets, identifies a significant need for deployment of assets distant from the homeland. Such deployments are faced with constraints created by geography, whether physical, political and legal, or military in nature. In turn, these constraints are seen to have a potentially adverse impact upon the accomplishment of the maritime missions.

Alternatives are required to reduce the vulnerability of the Soviet Navy to those constraints; four have been explored. The preferable option would appear to be a change in Soviet policy. The recent reduction in maritime deployments and level of activity indicates that a change in policy may be taking place. It is possible that the reason for change was initiated by the restructuring, or "perestroika", introduced in the recent past by Mikhail Gorbachev.

Conversely, the reason for the change in policy could be the very existence of those geographical constraints, which when viewed in conjunction with the formidable capability of a 600 ship U.S. Navy and allied forces, simply present too great a challenge; only to be overcome by imposing an unacceptable economic burden on the Soviet people.

In reality, it is probably a combination of these reasons which are dictating a change in policy and any future turn of events is not easy to predict. But, for the foreseeable future, it is clear that the

Soviet fleets will remain aware of the geographical constraints to their projection of maritime power.

NOTES

- (1) George J.L. Ed. The Soviet and Other Communist Navies: The View from the mid-1980s. Naval Institute Press p9.
- (2) Ibid p84.
- (3) Ibid p27, based on article by Herrick, R.W.
- (4) Alexander, L.M. Navigational Restrictions within New LOS Context for more comprehensive coverage pp 104-108.
- (5) Thorpe, A.Y. Minewarfare at Sea. 18 ODIL 2, p264.
- (6) Larson, D.L. Naval Weaponry and LOW 18 ODIL 2, p.153
- (7) All Fleet compositions extracted from: Soviet Military Power 1988, Government Printing Office.
- (8) As for (6) p150.
- (9) Ibid p.155
- (10) Le Marchant, T. Captain R.N., Under Ice Operations, Naval War College Review Jan/Feb 1985
- (11) As for (1) p203
- (12) As for (1) p297 -for fuller description of WP Navies.
- (13) See Baltic Straits orientation map at end.
- (14) Alexandersson, G. The Baltic Straits, International Straits of the World Vol.6, Appendices I and II.
- (15) Wegener, E. The Soviet Naval Offensive, p35
- (16) Ibid p35
- (17) As per (4) p140
- (18) As for (1) p241

- (19) Editorial to Janes Fighting Ships 1987-88.
- (20) Ibid.
- (21) The Military Balance 1988, IISS.
- (22) Zamascikov S. -Gorbachev and the Soviet Military, Comparative Strategy Vol.7, p246
- (23) As for (19).

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The Baltic Straits Orientation Map

The Soviet Navy: an Inventory



FIGURE: *Soviet naval fleet areas and ocean access points*

Source: Naval War College Review, September 1980.

