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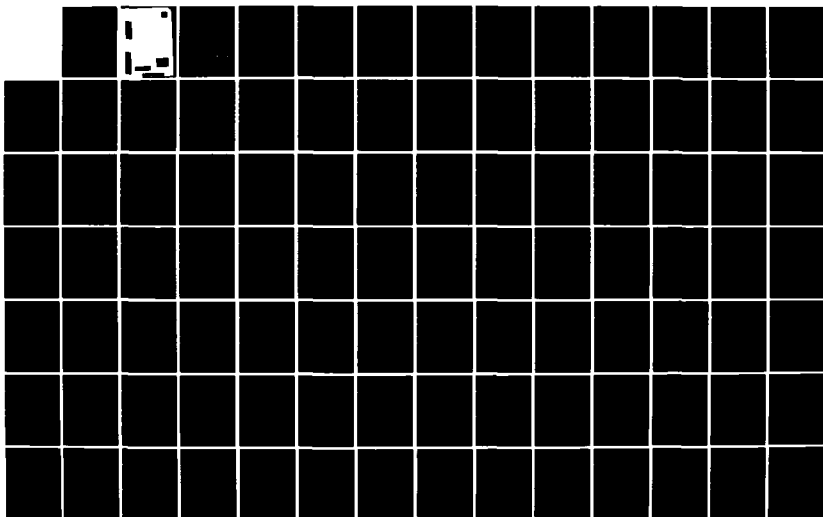
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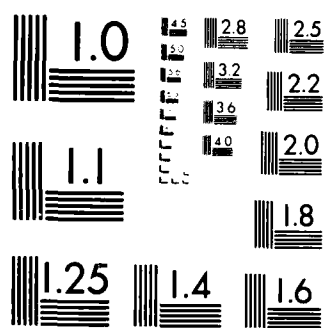
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THE STRATEGIC EMPLOYMENT OF THE SOVIET NAVY
IN A NUCLEAR WAR

by

James John Tritten

A Dissertation Presented to the
FACULTY OF THE GRADUATE SCHOOL
UNIVERSITY OF SOUTHERN CALIFORNIA

In Partial Fulfillment of the
Requirements for the Degree

DOCTOR OF PHILOSOPHY

(International Relations)

N66314-70-A-1146

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Acknowledgements

The author is an active duty Navy Commander who has had the fortune to be detailed ashore three times in the past nineteen years for educational tours of duty at civilian institutions. The first experience was at the School of International Service at The American University. The second tour was at Florida State University (Tallahassee). Finally the researcher was assigned to USC to obtain a PhD. During his studies, he worked in an additional duty capacity at The Rand Corporation.

During his three years in Los Angeles, the author broached the concept for this dissertation with a number of professionals who gave their advice. Dr. Roger Barnett, now Director of the Strategic Studies Center at SRI International was one of those who took time from his then hectic pace while heading the Navy's Strategy/Concepts Branch (OP-603). Captain Barnett was extremely influential in the author's decision to study at USC. Captain Barnett also completed his PhD at USC.

Dr. Richard T. Ackley, Director of The National Security Affairs Program at California State University

in San Bernardino has likewise spent a great deal of time counseling the author in selection of a dissertation topic. Commander Ackley offered his perspective following a tour of duty at our Embassy in Moscow and completion of his PhD at USC.

Vice Admiral Jerome King at RDA was another who took time from his busy schedule to discuss with the author what still needed to be done in the area of the Soviet Navy. Captain L. N. Scheutz, Curricular Officer for the National Security Affairs Program at the Naval Postgraduate School worked with the author to embark upon a project which would matter. Captain Scheutz gave the Navy's official approval for this dissertation and arranged for certain vital administrative doors to open.

The first step in actually undertaking the project was to gather raw materials to be used in the content analysis. It is not an understatement to acknowledge that this phase of the research could not have been undertaken had it not been for the assistance and support of Marge Behrens, the Slavic librarian at the Rand Corporation. Rand was kind enough to allow the author to use their facilities and will be

concurrently publishing an earlier version of the content analysis portion of this dissertation. 1/

The author owes a debt of gratitude to Mike Kurtz, formerly of Rand, and Captain Charles Pease (Office of Secretary of Defense - Net Assessment) who arranged for access to Foreign Broadcast Information Service data. Ellen Tudisco (Navy Foreign Publications Analysis Office), Hommer Shucker (Naval Intelligence Support Center Library), and Ken Lauderdale (Naval Postgraduate School Library), were also instrumental in assisting the author in gathering materials.

The content analysis section was reviewed by a number of persons who offered constructive criticism and assisted in the understanding of certain key phrases. Dr. Paul Davis, Dr. Rose Gottemoeller, and Nancy Nimitz at Rand are acknowledged for their contributions. Bob Herrick (SAI Corporation) provided the author with a thorough review and major comments on this section. Michael McGwire (Brookings) likewise gave the author substantive feedback.

The author's sections on hardware analysis in part were derived from his work at Rand. An earlier data base published in April 1983 focused on general

purpose forces. The author thanks Rear Admiral James Winnefeld and Dr. Bruce Bennett at Rand for their advice and support in this initial data base. Also, Captain Wayne Hughes at the Naval Postgraduate School offered advice on the construction of a data base of sufficient quality to be usable in the unclassified world.

The author's PhD Guidance Committee at USC included two members not involved with the dissertation who nevertheless deserve recognition. The author would like to thank Drs. Rodger Swearingen and Robin Ranger for their support during his studies and for providing the latitude to prepare papers during semester class work which would eventually grow into portions of this dissertation. As for the three members who comprised his Dissertation Committee, the author is grateful for their support, advice, and approval. Dr. Robert Friedheim deserves special recognition for his guidance in creating the research design and for oversight of the methodology. Dr. Don Walsh is thanked for taking the time from his busy schedule to act as the "outside" member. Captain Walsh's comments and observations were always constructive and welcomed.

The Committee Chairman, Dr. William Van Cleave, obviously can have a significant influence on both the knowledge that a student takes with him from academia and the way in which he approaches problems. Dr. Van Cleave is an extremely demanding taskmaster and is thorough in his review of finished products. His outstanding Defense and Strategic Studies Program is sufficiently flexible enough to incorporate naval matters.

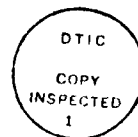
Thanks is also given to Ensign Michael Green who acted as the independent auditor for the content analysis and to Marje Cappellari for her editorial assistance and for ensuring that the paperwork got through. Finally, a hat off to Cathy Munson, who typed this dissertation, proposals, and the original research design. Cathy is one of the few people in Los Angeles who managed to decipher my handwriting the first time around.

Opinions or assertions contained herein should not be viewed as official responses or views of the Department of the Navy.

September 1984

Note

1. "Declaratory Policy for the Strategic Employment of The Soviet Navy" P-7005 (Santa Monica, CA: The Rand Corporation).



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CHAPTER 1

INTRODUCTION

The growth of the Soviet Navy from a coastal defense force, whose participation in World War II was heroic but whose contribution was marginal, to a major fleet has been the subject of an overwhelming amount of analysis and reporting in the past twenty-five years. 1/ A great deal of the literature in the West has been primarily descriptive. Some has involved speculation as to why, how, and when decisions were made in the Soviet Union regarding their growing Navy.

All of the studies eventually tackle the question of the intended use of the fleet in war. At one extreme we have a body of analysts who view the Soviet Navy primarily as the loyal helper of the Army, with a primary role of homeland defense and second-strike deterrence. Most of these analysts credit the Soviet Navy with expanded defensive perimeters beyond mere coastal waters, but still see defense as the primary motivating factor for fleet construction. 2/

Some have argued that the USSR has been "forced" to build a blue water fleet in order to react to the

offensive strike potential of U.S. and NATO. 3/
Action-reaction obviously implies that U.S. actions can influence Soviet reactions, but it fails to account for inaction-action, action-inaction and other potential combinations. This action-reaction theory has, in turn, been challenged by others who acknowledge the need for homeland defense but stress the actual use of the Soviet fleet in support of peacetime Soviet foreign policy objectives. 4/

Another group argues that the fleet will be used in a future war with the West or in naval diplomacy conflicts over raw materials and resources. 5/
Finally, there are a few analysts who think the fleet may have simply grown by inertia i.e., allocation decisions were made some time ago and have been adhered to regardless of need. 6/

Decision-makers in the West have no lack of well written, logically presented studies which purport to explain what the Russian bear is doing at sea. There appears to be a common thread to all: the predominance of the employment of the Soviet Navy in a nuclear war with the U.S.

Virtually all existing studies account for nuclear war with the U.S. first, since these require-

ments appear to have priority over all others. If predominance is, in fact, given to such nuclear missions, then the USSR is limited in using its Navy to whatever fleet capability exists above and beyond that reserved to support nuclear deterrence, participate in Soviet nuclear strikes, and terminate in a nuclear war on terms favorable to the USSR.

This study is primarily concerned with what appears to be the primary role of the Soviet Navy: preparation for or fighting of a nuclear war involving the USSR and the U.S. in which the homeland of each of these nation's is threatened with or subjected to destruction by long-range strategic nuclear systems (as strategic is generally used in the West).

The Soviet use of the word strategic is not the same as how the West views the term. The Soviet concept of strategic goals, strategic missions, and strategic nuclear forces will be developed fully in the following analysis. Briefly, the researcher's plan was to enter the investigation with only two major notions: that of war and that of deterrence of war. These were the subjects to be researched as they involved the U.S. and USSR and naval forces.

The researcher used the evidence provided by the Soviets themselves to map his research, i.e., what was it that the Soviets said that could influence the outcome of a war, and/or what types of forces did they actually have for missions capable of such influence. In the West, such missions and forces are termed as strategic. In the USSR, the researcher learned that long-range nuclear forces are considered strategic, but that other missions and some conventional forces are also strategic. The analyses in Part I establishes the logic of how and why the researcher investigated what naval forces are to be considered herein and with what target base are these forces associated before addressing the normal issues of military strategy and employment. What types of forces are judged to meet this are also developed in the analysis.

The interaction between Soviet "strategic nuclear" forces and general-purpose forces is such that the two cannot be considered separate. Although the primary subject of this study is Soviet Navy strategic nuclear forces, questions on the employment of certain general-purpose forces in support of these strategic nuclear must also be addressed.

Current Soviet Navy studies are primarily based upon (1) limited content analysis or selective extraction of Soviet military/naval writings, (2) micro-hardware analysis, which emphasizes individual ship/aircraft capability, and (3) consideration of deployments and exercises. Each of these methods offers advantages, but each is limited. Some of the best analyses to date blend all three methods. It is the opinion of the researcher that the present methods employed to analyze the Soviet Navy have not taken advantage of newer techniques that could enhance the analysis. This research effort will develop a better methodology for future assessments.

Most current analyses have not taken advantage of newer techniques (to which the researcher was exposed in his graduate education) that are routinely used in examining major issues in international relations. The deterrence of war, political gains to be achieved in war or by the threatening war, war termination, and related issues of arms control are routinely explored in the field of international relations.

Current Western analysts of the Soviet Navy can be linked to the general traditional area specialist

in the field of international relations. Most analysts of the Soviet Navy are well versed in naval operations and warfare. Most speak Russian, and many have served in Moscow with their national military missions. Most have years of experience with both naval service and have become authorities whose opinions are often not challenged outside a small circle of experts.

In reviewing existing analyses, one is immediately struck by the absence of international relations quantitative and behaviorist techniques. For example, despite numerous analyses of Soviet literature that the researcher examined, none qualify as academic or formal content analysis, i.e. analysis over time, by author, with an accounting of the medium or the audience.

Early in his graduate work, the researcher was struck by the difference in what various Soviet authors had to say about the fleet. Army officers do not write the same way about the Soviet Navy as do Navy officers. Nor does the Minister of Defense, who is senior in the chain of command to the Navy Chief. Some analysts have noted these differences in selected periods of high interest, but no one has viewed

the literature as a whole over time. The existing analyses of the Soviet Navy literature could be enhanced by an improvement in techniques.

Hardware analysis has been deficient in its failure to quantify the nuclear threat or to aggregate general-purpose forces. The lack of nuclear data is surprising due to the centrality of this issue and the routine use of such techniques by strategists in the nuclear field. The researcher was not able to find a major aggregation of the general-purpose forces of the Soviet Navy into war-fighting task groups. Existing hardware analysis has only rarely accounted for the potential for mobilization, and has rarely been subjected to sensitivity analysis.

This researcher is not advocating a wholesale replacement of existing traditional analysis with empirical methods. The sterility of the results of an outside analyst who does not know his subject matter is a major problem in other disciplines where the quantitative specialist attempts to replace the traditional expert.

Problems with gathering and processing raw data to be analyzed are almost insurmountable for a researcher

outside of government. In this project, the researcher had the advantage of utilizing unclassified material and resources generally only available to personnel inside government. In general, this type of data involves the translation of materials for which copyright restrictions are generally ignored. These materials are totally unclassified but are unavailable to the general public. 7/

A primary consideration in research is whether to approach data with a theory in mind in order to search for evidence, or whether data can or should be approached without a preconceived theory and findings allowed to simply appear. True inductive reasoning is probably impossible by the analyst who understands the field already. One solution is to test all probable theories and present findings, and to select conclusions, given the weight of evidence and the intuitive knowledge of the area specialist. The researcher generally presented in the hardware analysis the maximum threat, the minimal threat, and one case in between these extremes.

This research is concerned with two major issues. The first is to consider the strategic

employment of the Soviet fleet in nuclear war and deterrence involving the Soviet and American homelands. Second, an important by-product is the creation of a better methodology for analyzing the Soviet Navy. The new methodology will be tested by consideration of these deterrence and war roles.

The existing body of widely held conventional opinions will be challenged directly, either to validate official Washington's and other widely held views or to suggest alternatives. Findings will present the range of evidence and the author's selection of the case most likely to match declaratory policy and hardware capability.

The use of the Soviet Navy for peacetime coercive or other naval diplomacy is not the subject of this research, nor should a reader feel that findings or conclusions from this study would be valid in those areas. The methodology to be used to analyze the naval diplomacy problem, however, should be essentially the same as that applied here.

That methodology will begin in Part I with a detailed explanation of the variety of content analysis used herein. This explanation will serve as a primer

for those unfamiliar with concepts such as bureaucratic analysis by speaker, message intent, inference by audience, and the use of themes instead of words. Previous work in formal content analysis is briefly reviewed, some related to this study and some outside the area of the Soviet Navy.

Soviet writings, speeches, etc. are then analyzed to ascertain the Soviet declaratory policy for employment of its fleet in deterrence of or a major nuclear war with the U.S. Where possible, multiple approaches to investigation of the same question will be undertaken to verify evidence. During the content analysis, only passing reference will be made to hardware since the point is to determine what the Soviets say they will do, not what they can or cannot do. It will not be necessary to verify historical facts, only to determine messages conveyed by the use of history (if any). The correctness of historical data is a side issue which is not addressed here.

Once declaratory policy has been established, only then will a cross check be made against hardware capability, deployment, and exercise behavior. This phase (Part II) of the research was done independent

of the content analysis and serves as a primary cross check. As an internal verification of hardware capability, sensitivity and contingency analysis will be employed. In doing so, major assumptions with regard to hardware capability and deployment patterns will be varied to see the effect (how sensitive the findings are to variations in assumptions).

Finally, Part III, the evidence will be compared to see if there is an ability to do what they say or if they can do more or less. The search for a doctrine/force mismatch will be integral in the final findings chapter. The finding chapter in Part III will summarize the individual findings that have been more extensively presented at the end of each major section in the analyses chapters. Findings do not introduce any new concepts or ideas, and are tied directly to the evidence presented by the analysis.

In the conclusions chapter, larger issues than those subjected to analysis will be addressed in order to provide implications for the West and policy recommendations. These will include Soviet military and political-military doctrine and strategy and their concepts of deterrence and strategy. Western concepts

such as mutual assured destruction (MAD) and various arms control impacts will also be a part of the final chapter.

Research Question. What are the roles and missions for the Soviet Navy in the conduct of a nuclear war involving U.S. and Soviet territory?

Hypothesis. The Soviet Navy has a role in a nuclear war involving the U.S. and has the capability to participate successfully.

Key Assumptions.

1. A definitive answer is not likely; probabilistic answers are anticipated.

2. Since the Soviets openly state they can and will use force for political gain and that war is a continuation of politics, it will be assumed that they will choose to do so. The questions of why or when will not be addressed.

3. The Soviets will employ their military forces as they say they will in declaratory policy.

4. Declaratory policy can be ascertained from the writings and statements of key political-military officials in the Soviet Union. The public statements of the senior official of an organization represents

the official view of that group. For the purposes of this research, democratic centralism as a Soviet political concept will be taken at its stated face value.

5. Campaigns and scenarios likely to be involved in a strategic nuclear war can be identified from the content analysis, hardware and deployment limitations, and exercise behavior. In other words, if the Soviets say they will do something, have the hardware to do it, and practice it, then we should feel entitled to draw conclusions.

6. The most likely employment of multi-purpose naval forces can be determined from their hardware, exercise behavior, and deployment patterns. The probability of successful outcomes in warfare is beyond the scope of this research. Formal modeling of a strategic nuclear war itself would be a separate research topic, and could be based in part on data and findings contained herein.

There is a need for comparison between stated intent and actual capability, which is a prime goal of this study. Congress, the bureaucracy, the media, and academia are becoming more sophisticated in their view of the Soviet threat and need an extension of traditional

analysis. The product of this research will be of benefit to all these groups since it will provide findings that have been arrived at with systematic methods and can be accepted with a greater amount of certainty. Decisions about the allocation of U.S. resources can then be based upon more reliable information.

NOTES

1. The researcher has not included a major bibliography of secondary sources since these are available already. For example, see Myron J. Smith, Jr. The Soviet Navy, 1941-78: A Guide to Sources in English, War/Peace Bibliography Series #9 (Santa Barbara, CA: ABC-CLIO, 1980) contains 1741 entries accessible by author and subject. Virtually all major secondary sources are well footnoted or contain excellent bibliographies. The researcher has probably studied all major works on the Soviet Navy that deal with strategic issues. Bibliographies of these secondary sources were used as well as computer searches available from the U.S.C. and Naval Postgraduate School library and The Defense Technical Information Center (DTIC).
2. Commander Robert W. Herrick, USN (Ret.), Soviet Naval Strategy: Fifty Years of Theory and Practice (Annapolis, MD: Naval Institute Press, 1968) remains the best example of this school of thought, although the same conclusion is frequently reached by later authors. See for example, the

reaffirmation of Herrick's theory in Lieutenant Commander James T. Westwood's "Soviet Naval Strategy, 1968-1978: A Reexamination," U.S. Naval Institute Proceedings/Naval Review 1978, Vol. 104, No. 5, May 1978, pp. 114-127.

3. Michael McGwire was the leading advocate of this school for many years. In his "The Evolution of Soviet Navy Policy: 1960-74," appearing as Chapter 28 of Soviet Naval Policy: Objectives and Constraints, Michael McGwire, Ken Booth, and John Mc Donnell, Eds., Praeger Special Studies in International Politics and Government (New York: Praeger Publishers, 1975), p. 520, McGwire finally acknowledges that Soviet Navy forces on forward deployment as a reaction could also be available for naval diplomacy.
4. Bradford Dismukes and James M. McConnell, Eds., Soviet Naval Diplomacy, Pergamon Policy Studies on the Soviet Union and Eastern Europe - 37, published in cooperation with the Center for Naval Analyses (New York: Pergamon Press, 1979) is the best example of this school. In the editor's conclusions, they argue that the naval diplomacy mission is ahead of strategic defense

(p. 294) as the primary motivating factor for fleet development but then backpedal (p. 295) by stating that they cannot rule out warfighting as the motivating factor. This extremely worthwhile study devotes relatively little attention to the long and short term effects of using naval diplomacy despite the centrality of these issues.

5. Rear Admiral Robert J. Hanks, USN (Ret.) The Unnoticed Challenge: Soviet Maritime Strategy and the Global Choke Points, Special Report (Cambridge, Mass., Institute for Foreign Policy Analysis, August 1980). This is also a frequent theme of Admiral Thomas H. Moorer, USN (Ret.), former Chairman of the Joint Chiefs of Staff. See for example his "The Worldwide Resources Conflict", Wings of Gold, Vol. 8, No. 3, Fall 1983, pp. 4-5. See also Richard M. Nixon, The Real War (New York: Warner Books, 1981), pp. 25-36.
6. This possibility is raised by Bryan Ranft and Geoggrey Till in The Sea in Soviet Strategy, (Annapolis, MD, Naval Institute Press, 1983), p. 11. This view has also been raised privately to this researcher by a number of other analysts.

7. A prime example of this type of material is the translation of Morskoy Sbornik, the primary journal of the Soviet Navy. The fact that the U.S. Navy routinely translates this journal is not a guarded fact (see Captain Roger W. Barnett, U.S.N. and Dr. Edward J. Lacey, "Their Professional Journal", U.S. Naval Institute Proceedings, Vol. 108, No. 10, October 1982, pp. 95-101). There are numerous other examples of other translations that are simply not available to those outside government or its consultants or contract organizations.

CHAPTER 2

CONTENT ANALYSIS METHODOLOGY

The first major goal of this research effort is to determine the Soviet Union's declaratory policy for the use of naval forces or other military forces in oceanic theaters in the event of a major (including nuclear) war. What is sought is not what the experts in the West think but what the Soviets themselves say.

In the absence of Soviet war plans, one must rely on those unclassified statements by the Soviets that are found in their speeches, articles, books, radio and TV addresses, etc. Utilizing a methodology termed thematic content analysis, the researcher will attempt to achieve his first major goal, elucidation of the Soviet Union's declaratory policy for the use of naval forces.

Content analysis is a research "technique for making inferences by systematically and objectively identifying specified characteristics of messages." 1/ Simply put, it is a method of observation and measurement of who said what, to whom, and how, in order to infer why it was said and with what effect.

The content analysis section will attempt to ascertain the declaratory policy for the strategic employment of the Soviet Navy in a war in which nuclear weapons are used or use of them is threatened. Primary emphasis will be on those naval missions that the researcher discovers the Soviets associate with nuclear warfare or with succeeding in the attainment of war aims. It was the researcher's plan to identify declaratory employment policy from such material and then subsequently to test the workability of the declaratory policy using other methodologies (hardware, exercise, sensitivity, and contingency analysis). Content analysis is the best technique available to infer declaratory roles and missions.

Content analysis has been used widely in the past, appearing first in related fields such as journalism, literature, and propaganda analysis. The technique is not without controversy, and the researcher hopes to make a contribution to such questions as quantitative versus qualitative measurement and manifest versus latent analysis.

A major reason for using formal content analysis to search for roles and missions is due to the frequent and often valid criticism that many analysts of the

Soviet Union have selectively searched for citations to support preconceived conclusions. The specific purpose of this introduction to the methodology of this study is to outline the analysis technique that was designed prior to the analysis and was followed during the actual inquiry.

Instead of being selective and arbitrary, the method allowed comprehensive and definitive work without access to official Soviet planning documents.

Themes were selected as the most appropriate unit of analysis. Prior analysis has made extensive use of individual words. Words as a unit of measure is inadequate to measure major military plans, since context is often overlooked as well as intended audience.

Analysis based upon the "main," "prime," "important," "basic," or other similar types of missions has resulted in much controversy with no real resolution. Word understanding is important in correctly coding themes and will be discussed again later. Other possible units of measurement, such as items or characters, are better suited to studies of other subjects. The themes selected are fully explained in the appendix, and are analyzed in the following

chapters. In addition to being appropriate units for analysis, the themes are designed specifically to sidestep problems associated with previous studies focusing on words.

Previous Investigations

In addition to general reference material describing the application of content analysis, 2/ previous work done on military subjects using this technique was employed. Since some involved techniques or methods used in this study, a brief review of four earlier inquiries follows.

Lieutenant Michael W. Cramer's master's thesis 3/ in March 1975 was a major attempt to apply thematic content analysis to the statements of Admiral of the Fleet of the Soviet Union Sergi G. Gorshkov. Cramer analyzed some 113 documents which included primary and secondary sources, some duplicates, and at least one erroneous entry. His 50 major themes include a broader range of topics than those used herein.

C.A.C.I. Inc., completed a study in the fall of 1975 4/ that utilized, among other techniques, content analysis to identify varying Soviet perceptions of U.S. policies. Utilizing thematic coding and measurement of importance by frequency of appearance, C.A.C.I.

concluded content analysis was a highly productive methodology for identifying Soviet perceptions.

A specific technique used by C.A.C.I. was to obtain their data to be coded from the Foreign Broadcast Information Service (FBIS) and associated U.S. government PASKEY computerized files. PASKEY is simply a data bank of FBIS, Foreign Press Digest (FPD) and Joint Publications Research System (JPRS) translations which can be accessed by author or subject and to include or exclude certain dates. PASKEY was tasked to provide C.A.C.I. with English translations of Soviet statements on desired subjects. This method of obtaining and verifying primary data was also used in this present research study.

A PASKEY search can quickly scan the thousands of documents and provide a list of those which pertain and an extraction of the relevant passages. The themes used by PASKEY were too broad for this new study, but PASKEY aided in obtaining documents to be analyzed and identifying portions of large documents which contained Navy related themes.

C.A.C.I. also used bureaucratic analysis to distinguish themes presented by Soviet personnel in the varying different levels of the ruling hierarchy.

They were able to show that certain classes of speakers appear to have proprietary rights on certain themes. For example, benign perceptions of U.S. arms control goals were found to be more the purview of Politburo spokesman rather than the Foreign Ministry or Military, while hostile perceptions generally emanated from the Foreign Ministry.

C.A.C.I. also found that Politburo spokesmen rarely addressed individual Soviet military services. Military personnel spoke more on specific service roles and missions. In some of the previous analysis of the Soviet Navy, the assumption was often made that Admiral Gorshkov, as commander-in-chief of the Soviet Navy, was articulating approved military policies. Cross checks of similar positions by officials senior in the chain of command has generally not been done. A secondary purpose of this study is to ascertain if positions vary by bureaucratic level of the author.

John A. McDonnell completed a content analysis for the Center for Advanced Research at the Naval War College in July 1977. ^{5/} The data base utilized, unfortunately, was only Morskoy Sbornik, the primary Soviet Naval journal. The primary worth of his research is an excellent set of procedures to code

Soviet source data including certain themes on naval war fighting roles and missions.

Ketron, Inc. completed an exhaustive study of "Soviet Perceptions of U.S. Antisubmarine Warfare Capabilities," in September 1980. 6/ Ketron utilized an experienced Soviet naval analyst and two specialists in quantitative methods and was thus able to combine both qualitative and quantitative analysis. Where findings varied as to the method of analysis, both results were presented.

The Ketron Study was useful since one of its themes tracked since 1960 was the Soviet perception of the ability of their ballistic missile submarine fleet to carry out its wartime missions.

Ketron also included appendices extracting key statements that related to their major themes. Their bibliography demonstrated that Ketron recognized the requirement to consider more than just what Admiral Gorshkov has to say in order to analyze naval matters properly. Ketron's study included political and military authors from a variety of backgrounds.

The present study utilized the Ketron bibliography, which were compiled after a Library of Congress search and a search of the files of analysts of Soviet

naval affairs. The researcher planned to compare his conclusions with Ketron's finding on Soviet perceptions. In some cases, differences would be expected since Ketron's quantitative analysis gives equal weight to articles by all authors.

Mention should be made of the vast secondary source material available. In general, the researcher recognizes these previous works but thinks that the application of formal and rigorous content analysis (and other methodologies) as outlined below is needed to test and validate (or challenge) many established Western assumptions. Much, but certainly not all, of this previous work deals primarily with naval diplomacy and deployment policies in peacetime, not the subject matter for this work.

In particular, the subject of previous analyses of the Soviet Navy has been recently subject to two extremely well written critical examinations. 7/ In the first, Frank J. Stech questions the lack of rigor of current analysts' methodologies. Stech's 1981 technical paper prepared for the Office of Naval Research is required reading for anyone attempting to enter the field and make new contributions.

The second examination was done by Stephen M. Walt and deals directly with the substance of poor content analysis. Walt's analysis, prepared for the Center for Naval Analyses, indicates that he shared this researcher's opinion that existing methodologies are wanting.

Walt makes some very pointed suggestions to those currently doing analysis of Soviet military writings including that of comparison with different speakers and the vital necessity of tracking themes over time. Perhaps his best suggestion to current analysts is to consider all potential interpretations and examine the evidence for each.

Data To Be Analyzed

Perhaps foremost among the established assumptions that this researcher will question is the theory of the ocean bastion and strategic reserve missions for the Soviet Navy. These theories will be fully explained in the following analysis. If, in fact, the ocean bastion/strategic reserve role is the primary wartime mission for the fleet, then severe constraints are imposed on the ability of the Soviet Union to execute other less important missions. A major goal of this portion of the study is to examine the evidence

of declaratory policy for these pivotal missions using content analysis. Subsequent hardware and exercise analysis will cross check declaratory policy with capability.

One might question using Soviet statements regarding a future war, since invariably the Soviet context is a war unleashed by the forces of imperialism. In other words, if we take the Soviets at face value, there is no contingency plan for a war that they would start. The author rejects this assertion and views all such statements as attempts to ensure ideological conformity.

For the Soviets to engage in a war, according to Marxism-Leninism, a war is just. 8/ Just wars always involve defense of socialism against imperialism or struggles by oppressed peoples against imperialism or the bourgeoisie. From a doctrinaire standpoint, the Soviet Union cannot initiate a predatory war, and all warfare will be in response to actions taken by an aggressor.

Soviet statements that they would be involved in a war should imperialism unleash one does not mean that we cannot use their declaratory statements, since they can be expected to justify any future war as

being brought on by imperialism. Whether or not the first strike by military forces is carried out by either side is not the question; it will be the political conditions that the Soviets will use to justify the war was forced upon them.

This study will attempt to search for articulated roles and missions at the Politburo, Ministry of Defense, and Navy levels. Under the concept of democratic centralism, statements by the head of each organization should be taken as the position of that group both while a subject is under discussion, and to announce final decisions at that level once discussion has ended.

Debate over policies does exist in the Soviet Union. Lower ranking personnel often advance concepts and advocate varying positions. Once the debate within a particular organization is closed, however, a statement of final policy is generally issued. By tracking the policy positions of the heads of the three prime bureaucratic actors in the chain of command, the researcher will be able to cut through the tons of extraneous material and focus on those items that each leader was willing to identify his name with.

The specific data to be analyzed will be the statements, articles, books, speeches, etc. of the Commander-in-Chief of the Soviet Navy, the serving Ministers of Defense, and the senior member(s) of the Politburo. The time frame will be 1965, subsequent to the removal of Secretary Nikita Khrushchev, until the end of 1983 and the approximate date of the death of Yuri Andropov. The researcher felt that analysis of the Khrushchev era was too historical due to the well known shifts in military policies that occurred during the Brezhnev era.

The statements of each of these leaders at the three levels of the hierarchy should provide the views of the Politburo, the Ministry of Defense, and the Navy. It is recognized that within each group, especially the military, there is a vast source of primary data written by other personnel. Much of this data was read by the researcher but was not formally tracked via thematic content analysis. Where appropriate, comparisons will be drawn between the data used in this study and some of the more widely known works of other Soviet authors. This is done because much of the previous analysis of Soviet Navy roles and missions has drawn upon this other data.

These other writings represent an interesting source of sometimes even more detailed information. Since the object of this study is to identify approved bureaucratic positions and not items of internal debate within groups, this researcher feels that analysis of Soviet military writings that mixes materials from lower and senior levels is flawed. Under democratic centralism, there is a need to separate debate, trial balloons, and minority views from approved positions of policy. This has not been done in a number of prior studies.

As to the size of the sample to be analyzed, two different approaches were used. For Admiral Gorshkov, the researcher attempted to obtain every document authorized by Gorshkov that exists in English. The final Gorshkov total for the specified time-period was 189 primary documents, 9/ the largest unclassified collection utilized in any one study that the researcher is aware of. A full list of all documents is included as Appendix A. Rather than footnote all citations, dates will be presented in the text, and the reader can then draw on the appendix to get the full citation. Also of note is that this research generally uses the signed to press date for books rather than the publication date itself.

The Gorshkov sample could easily be doubled by including summaries, press releases, and identical materials which appear in more than one place. Documents were identified utilizing PASKEY, the Cramer and Ketron studies, computer bibliographic searches, sources noted/cited in secondary materials, and from manual searches of FBIS daily reports, bibliographic searches, sources noted/cited in secondary materials, and from manual searches of FBIS daily reports, JPRS indexes, and other government translation indexes.

Document authenticity and reliability appears to be without question. Some materials used were taken from Soviet-provided English language sources such as TASS or Embassy press releases, journals published by the Soviets, or publications authorized in the West. For materials that appear in their original version in Russian, the researcher utilized official U.S. government translations, and, where available, translations commissioned by private sources. Where more than one translation of a document existed, all were read to compare the material. Additionally, 10% of all translations were checked against the Russian originals to verify that they did in fact exist and were attributed to the individual

alleged to be the author. Documents so checked were randomly checked but the checking process was limited by the available Russian language originals in local libraries.

For documents by the Minister of Defense, PASKEY was tasked to provide a printout of all documents that had been coded as containing any Navy-related theme. The Ketron study provided similiar citations. The author also did a manual search of Party and government meeting speeches, FBIS Daily Reports of Soviet Armed Forces Day, Navy Day and similar annual materials. A search was made of JPRS indexes and relevent secondary source citations. A total of 66 documents authorized by Marshals of the Soviet Union Rodion Y. Malinovskiy, Andrey A. Grechko, or Dmitry F. Ustinov were identified as having relevent themes and used for this study. 10/ Only documents authorized while these individuals were serving as Minister of Defense and containing Navy-related themes were utilized. Most routine Armed Forces or Navy Day Orders were read but not used since they lacked substantive materials.

Finally the Politburo leader's statements were obtained using the Ketron bibliography, secondary

source citations, and a PASKEY search containing citations coded for any Navy themes. Some 17 documents by Leonid Brezhnev, Aleksey Kosygin, and Yuri Andropov were used in this study. 11/ Documents authored while the individuals were not in power were not used.

It is not possible to ascertain the completeness of the data base since materials in the USSR were not available. The final compilation of documents to be analyzed represents, in the researcher's view, the most comprehensive ever attempted on the questions to be considered.

Some final areas of controversy deserve mention. It is recognized that many or even most of the documents analyzed were not in fact authored by the individual whose name appears as author. For example, Admiral Gorshkov publicly acknowledges those officers who have "assisted" him in the preparation of his book The Sea Power of the State. In fact, they probably wrote the bulk of it. It is the researcher's view that such "ghost-written" documents represent ideas or concepts that had to be approved by the principal individual or for some reason were issued under the leader's name. It is a general bureaucratic procedure for staffs to

prepare rough drafts of speeches or position papers for a principal's approval.

Some types of content analysis that investigate writing style would be useful in identifying the actual author of some documents, but this task is outside the scope of the present research. Tracking actual authors would be of interest to other researchers since one could then read further materials signed by the ghost writer himself and note differences. This was not done in this research since only official approved positions were analyzed, not trial balloons or bureaucratic positions to which the principal would not append his name. No matter who actually wrote an article, etc., once the principal's name is on the document, it is his position.

Another potentially troublesome point was that the research was done using English translations. The author admits that the potential exists for manipulation by translators. 12/ Translations were obtained from a wide variety of government and private sources, including official Soviet translations of materials into English. Where key phrases appeared crucial to the understanding of a point, the researcher consulted extensively with Russian linguists familiar with defense terminology.

Examples of key words that cause problems in English are: "deterrence," which has no direct Russian counterpart, and "defense." Defense can be taken from the Russian "oborona" or "zashchita." The former implies active military defense, while the latter has been described as a more pacific "shield" or as "protection." 13/ Similar problems occur when trying to translate "mir" into "peace." 14/ Since Russian utilizes no articles, attempts at measuring salience using translations of "the most important" versus "a most important" are also flawed.

A final area of controversy is the value of open source data at all. All bureaucracies and governments need to communicate positions. Communication up the chain of command serves to convince superiors, while communication down the chain serves more to instruct subordinates. External communications may serve to warn. The researcher rejects the claim that all such open source communications are propaganda and/or meaningless, since if 100% of all open source data was a Potemkin village, it would imply that a total covert internal system exists which would be simultaneously performing the same function. The current "Aesopian means" of communicating in the open literature originated in Czarist times. 15/

Hypothesis Testing

As for the specific mechanics of the content analysis, the cited references guided the researcher with the following additional steps. The researcher experimented with Khrushchev's, Malinovsky's, and Gorshkov's writings from 1956 - 1964 in order to test his hypothesis that specific themes could be created and bureaucratic differences noted and that time series reading was both beneficial and somewhat novel.

In creating themes, the author let the Soviet literature be his guide. He only brought into the research the limiting parameters of Naval involvement and war (including nuclear war). Chapter 3 will expend fully on this logic, but to summarize, the researcher addressed the issue of war first, looking for statements regarding how victory is won. From these concepts of what it takes to win a war, he looked for the Soviet's specification of what types of missions and what types of forces were needed to perform those missions. Thus the researcher did not bring political-military themes into the study with him, but rather created them using the Soviet literature.

If we cannot exactly think like a Russian without being one, following the logical presentation of arguments in their literature is probably the next best thing to actually getting inside their heads. If we are to avoid mirror-imaging concepts, we must use the Russian's concept, phrases, themes, and definitions.

Utilizing some additional 41 documents from all levels in this pre-study, the researcher gained experience in eliminating duplicates and secondary sources, identifying both manifest and latent themes, and coding material as to its source, method of transmission, and anticipated audience.

From this initial rough-cut work, the following lessons were learned and hypothesis identified. There appeared to be a slight difference in the perceived threat as articulated by the Navy commander-in-chief. The Navy appeared to utilize one theme that could be viewed as either describing the threat (actual use of Western navies to support the imperialists' foreign policy goals) or as explaining how the Soviets could use an ocean-going Navy for similar purposes. This theme is singled out since it might be of interest in a follow-on study using formal content analysis for naval diplomacy topics.

Gorshkov appeared to follow the Ministry of Defense's lead on themes of military doctrine and strategy, making only tactful, modest, and subsequent comments. Despite the broad discussion of military doctrine and strategy in the other services during this period of 1956 - 1964, Gorshkov generally remained outside the public debate. The Navy primarily appeared to be responsible, however, for questions of naval art and tactics.

Gorshkov's apparent major wartime roles for the Soviet Navy generally followed those previously announced by Khrushchev and Malinovskiy. Interestingly, Khrushchev and Malinovskiy were often very specific about targets for nuclear strikes, while Gorshkov was generally vague. There appeared to be disagreement over which types of forces were to destroy specific enemy naval targets. These differences were noted and tracked in the subsequent analysis.

The Navy appeared to assign a higher status to naval surface and air forces than did the Defense Minister and Khrushchev. Overall descriptions of the Navy by Gorshkov during this period generally used the term "modern" with the capability to perform "operational" tasks. This overall description would be monitored and compared to later descriptions.

Gorshkov advanced the need for surface ships and aircraft for antisubmarine warfare and to support the striking force and naval forces in defended zones. One of his articles had what appeared to be a "shopping list" for future weapons procurements. Interestingly, Malinovskiy discussed the deployment of submarines under the ice and the need for other forces to provide mutual support for submarine operations, prior to these themes appearing under Gorshkov's name.

Finally, regarding history, the author did not attempt to verify the correctness of Gorshkov's view of Russian/Soviet historical references. What was verified, however, was Gorshkov's use of history as a vehicle to make oblique complaints about policies and governmental behavior. Analysis of latent historical themes is presented in the chapter on Soviet military strategy.

Numerous themes were identified and discarded for presentation herein since they did not pertain to the research in question. It would not be difficult for future analysis to build upon this work, recreate, and track themes showing the Navy's support of the Party or, the Warsaw Pact, or the advantages of a fleet in the conduct of peacetime overseas diplomacy.

Thorough analysis of documents in this trial period was not undertaken, but theme creation and initial appearance dates were recorded. From time to time in the findings reference will be made to data which pre-dates 1965. This is done to cite an earlier appearance of a theme or to add context to a discussion.

Analysis Mechanics

Thematic reliability was verified by checking the presence of each major theme devised by the author against similar themes used by Ketron, or Paskey. Some 61% of all documents could be so checked. Additionally, a sample of 5% of documents was selected and subjected to an independent coder with a reliability of 86%. All documents gathered by this study were read sequentially regardless of author. The researcher found that this approach, rather than reading each author separately, aided comparison of the differences in positions and in who initiated themes.

To outline the researcher's methodology of identifying a manifestly present theme, tracking it over time, and presenting a sample of direct findings from the use of that theme, an example will be detailed. The themes outlined for this purpose will be that of:

The USSR/Russia is a great Naval/sea/maritime
power

vs.

The USSR/Russia is a great land/continental
power

vs.

The USSR/Russia is a great naval/sea/maritime
and land/continental power.

As can be quickly seen, the essential difference in these three individual themes is whether or not the speaker stated specifically in the text that the USSR/Russia is a great sea, or land, or sea and land power. No latent or hidden meanings need be searched for.

Of the 271 documents used in this research, these three themes appeared 30 times, fairly consistently over the years. A linear presentation would show the following number of appearances for each theme in each of the indicated years. The total is greater than the sample size due to multiple themes within the same document.

Table 1
The USSR as a Maritime Power

| | <u>Sea</u> | <u>Land</u> | <u>Sea and Land</u> |
|------|------------|-------------|---------------------|
| 1965 | 2 | | |
| 1966 | | | |
| 1967 | 1 | | |
| 1968 | 2 | | |
| 1969 | 3 | | |
| 1970 | 1 | | |
| 1971 | 3 | | |
| 1972 | | | 2 |
| 1973 | | 1 | |
| 1974 | 1 | | |
| 1975 | 1 | | 4 |
| 1976 | 1 | | |
| 1977 | | | |
| 1978 | 1 | | 2 |
| 1979 | 1 | | 1 |
| 1980 | | | 1 |
| 1981 | 1 | | 1 |
| 1982 | | | 1 |
| 1983 | 1 | 1 | |

Obviously, a shift occurred around 1971 to stress both the maritime and continental aspects of Soviet power. The next step in findings is to ascertain who is the author of each document. In the 30 documents that contained these themes, Gorshkov was the author in all but four cases.

In July 1971, Minister Marshal Grechko stated that the USSR was the largest continental state and at the same time an enormous maritime nation. He also said that recent exercises at sea demonstrated that the USSR was a world naval power. Grechko, in a 1971

book, also claimed world naval power status for the USSR. The only other use by a non-Navy spokesman was by Andropov in his 1983 Der Spiegel arms control interview when he said that the USSR was a land power.

In 1971, Gorshkov paralleled Grechko's use of both land and sea power status. It is impossible to determine who actually used the theme first, in the absence of signed to press dates for the two documents. Gorshkov's reference to land power alone in 1973 was generally historical.

Researchers must track both the presence and absence of themes in order to conduct proper analysis. The general absence from Defense Ministry and Politburo spokesman of the theme that the USSR is a sea power is significant. The Minister of Defense has the opportunity to use this theme in his annual Navy Day Order. Party leaders could have discussed the USSR as a maritime power during their many arms control discussions to which deal with submarine launched missiles.

A pattern of advocacy of the maritime might of the Soviet state by Gorshkov appears rather steadily over time, with minor support by the Minister of Defense and a general absence of support by the

Politburo. Despite years of instruction by his Navy Chief, Chairman Andropov in 1983 described the Soviets as a land power.

Further refinement takes place with identification of the object of the communication, or to whom the message was directed. In the use of these themes, around half (13) were primarily aimed at internal general audiences and around half (13) at an audience composed of more military recipients. Four were either to foreign locations or from foreign sources. It would thus appear that Gorshkov's message of Soviet sea power status is directed at an internal audience of both the public (including the Party) and the military. In so doing, Gorshkov would be building a "unity of views" on the need for sea power.

Andropov's remark that the USSR is a land power appeared in a West German magazine, Der Spiegel, and apparently was not republished for popular consumption within the Soviet Union. Gorshkov appears to have followed the Andropov remark with a rebuttal that the Soviet Union was a sea power. Full investigation reveals that Gorshkov's statement that the USSR is a sea power was signed to press six days before the Andropov interview.

Finally, to set the current findings into a more historical perspective two additional items bear mention. The first is that Gorshkov's claim of Soviet sea power greatness predates 1965. He used the theme at least as early as July 1958. Conflict also predates 1965, since we know that Khrushchev used the theme of the USSR as a continental power in his Central Committee Report of 1961.

To introduce latent themes and the use of surrogate arguments, one finds Gorshkov using both historical and Western references. Rather than criticize any current Soviet spokesmen who argue that the Soviet Union is primarily a land power, we find Gorshkov following a Grechko theme that states there are those in the West who incorrectly claim that the Soviet Union is a land power and does not need a Navy.

Gorshkov uses another oblique technique with reference to Western critics of Russia who falsify history by claiming that all Russia's military victories were on the land and not the sea. Such surrogates are utilized in seven documents primarily directed internally. This technique would allow the author to refute current critics of Soviet sea power and to align those critics with the forces of imperialism.

What has been outlined in this sample is illustrative of what will follow. Evidence of thematic content and, where appropriate, time series and anticipated audiences will constitute the findings of the content analysis section. Conclusions will be presented in the general analysis that will also factor in hardware capability, exercises, and deployment patterns. Appendix B contains a step-by-step detailed record of content analysis procedures and of all themes used.

NOTES

1. Ole R. Holsti, "Content Analysis," Handbook of Social Psychology, 2nd Ed., Vol. II, Ch. 16, Gardner Lindzey and Elliot Aronson, Eds. (Reading, Mass.: Addison-Wesley, 1968) p. 601; and Content Analysis for the Social Sciences and Humanities (Reading, Mass.: Addison-Wesley, 1969) p. 14.
2. Bernard Berelson, "Content Analysis," Handbook of Social Psychology, Vol. I, Ch. 13, Gardner Lindzey, Ed. (Cambridge, Mass.: Addison-Wesley, 1954) pp. 488-518; Fred N. Kerlinger, Foundations of Behavioral Research, 2nd Ed. (New York, N.Y.: Holt, Rinehart and Winston, Inc., 1973) pp. 525-535; Klaus Krippendorff, Content Analysis: An Introduction to Its Methodology, The SAGE Com Text Series, Vol. 5 (Beverly Hills, Ca.: SAGE, 1980); and Holsti cited above.
3. Michael W. Cramer, "Admiral of the Fleet of the Soviet Union Sergi G. Gorshkov: An Operational Code and Thematic Analysis." Unpublished Master's Thesis, U.S. Naval Postgraduate School, Monterey, Ca., 1975.
4. C.A.C.I., Inc., "The Application of New Methodologies to Analyze Soviet Perceptions of U.S.

Policies," Vols. I and II, October 1975 and "Further Development of Soviet Perceptions Content Analysis," November 1975.

5. John A. McDonnell, "Content Analysis of Soviet Naval Writings." Center for Advanced Research, Naval War College, July 1977.
6. In three vols., KFR 293-80.
7. Frank J. Stech, Estimates of Peacetime Soviet Naval Intentions: An Assessment of Methods, Technical Report prepared for the Office of Naval Research by MATHTECH, Inc., March 1981, 209 pp.; and Stephen M. Walt, Interpreting Soviet Military Statements: A Methodological Analysis, Naval Studies Group Memorandum, (CNA 81-0260.10), Center for Naval Analyses, December 5, 1983, 108 pp.
8. Colonel P. A. Sidorov in The Officer's Handbook, General-Major (Reserves) S. N. Kozlov, Ed. (Moscow: 1971) English translation published under the auspices of the U.S. Air Force as Vol. 13 of Soviet Military Thought Series, pp. 41-44.
9. It should be pointed out that these 189 documents do not include duplicates, summaries, or reprints of essentially the same item. This has been a failing in previous analyses. Of these 189

separate items, 34 were oral, 74 in a brief written format, 78 as major articles in journals or magazines, and 3 are books. The intended audience was 73 to the military, 80 to the general public, 23 to or from other socialist states, and 13 to or from other states.

10. The breakdown for Ministers of Defense is as follows: Malinovskiy - 9 documents (3 oral, 4 brief written, 2 major articles) intended for the military (3), general public (4), and socialist states(2); Grechko - 42 documents (6 oral, 20 brief written, 13 major articles, 3 books) intended for the military (21), general public (20), and from socialist states (1); Ustinov - 15 documents (all brief written) intended for the military (5), general public (9), and the West (1).
11. Politburo breakdown is as follows: Kosygin - 1 document (oral) intended for the military; Brezhnev - 12 documents (7 oral, 2 brief written, 1 major article, 2 reports) intended for the military (2), general public (4), and to or from foreign nations (6); Andropov - 4 documents

- (1 oral and 3 brief written) intended for the general public (2) and to or from the West (2).
12. John Erickson makes the point: "I fear that many of our 'Soviet experts' do not read Russian and must perforce wait on official translations, which may or may not materialize. They are not captives of 'Soviet disinformation' but rather of our information process and processing" See "The Soviet View of Deterrence: A General Survey," Survival, Vol. 24, No. 6, November/December 1982, p. 250. This researcher thinks that the problems associated with using English translations are due to poor editorial direction, indifference, or sloppy work rather than deliberate manipulation.
13. See especially Peter H. Vigor on this point in "The Semantics of Deterrence and Defense," Soviet Naval Policy: Objectives and Constraints, Michael McGwire, Ken Booth, and John McDonnell, Eds. Praeger Special Studies in International Politics and Government (New York: Praeger Publications, 1975), Chapter 25, pp. 471-478.
14. Paul H. Nitze, "The Word and The Woods," Wall Street Journal, March 23, 1984, p. 32.

15. Commander Robert W. Herrick, USN (Ret.) private communication to author dated July 23, 1984.

CHAPTER 3

CONTENT ANALYSIS INVOLVING NAVAL INFLUENCE ON WAR

The content analysis of the documents authored by the Politburo leader, Minister of Defense (MOD), and Commander-in-Chief (C-in-C) of the Soviet Navy commences with a search for themes that relate to the type of armed conflict that the Soviets associate with both nuclear war and naval forces. This chapter is not concerned with the political use of the Soviet Navy in peacetime nor with deterrence of a nuclear war, but rather with the declared role of the Soviet Navy in the conduct of a major nuclear war involving U.S. and Soviet territory. By investigating use of the fleet in such a war, it will then be possible to investigate the deterrence of such a war.

In order to analyze the role of the Navy in armed conflict, a number of different factors must be considered. First, the literature itself will provide the framework for the analysis. The researcher only enters this phase with the desire to investigate a nuclear war involving superpower territory and naval forces. What the Soviets themselves say is what drives the investigation as to what should be researched.

Second, there is the question of victory in a nuclear war itself. This subject has been raised relative to the concept of a war-winning strategy or the idea of being able to fight and win a nuclear war. This research study is only concerned with what the Soviets say about victory in warfare, not whether or not they could actually win, or, for that matter, whether anyone can win a nuclear war. In fact, victory in war (all types) is a frequent theme in their literature.

The third concern will be what forces and types of actions themselves have been identified as having the ability to influence the course or outcome of armed struggle and war. These are "canned" phrases that recur constantly in the literature. A parallel investigation will deal with the relative importance of the naval or oceanic theaters, and serves to cross check the ability to influence war or armed struggle.

The final area of investigation will have to do with the ability of the fleet to achieve strategic goals which by definition, can achieve the aims of war. Both the navy as a whole and specific combat branches of the fleet will be analyzed to determine how they relate to strategic goals. The use of the

term strategic regarding missions will also be investigated and will further cross check the ability to influence wars or armed struggle.

Upon completion of these three avenues of investigation, it should be possible to identify what types of forces and by what general means the Soviet Union intends to attain victory, and, in general, what can influence the course or outcome of armed conflict and war. From these findings, avenues for further and more detailed analysis of forces and strategy should be created.

Victory in War

Military forces engaged in combat are generally attempting to achieve victory. Discussions of victory in the Soviet literature have frequently given rise to the question of a war-winning strategy in a nuclear war. As stated earlier, the question of the possibility of victory in nuclear war is not to be addressed in this content analysis. Rather, the discussion of what the Soviets themselves say about victory is what is of interest.

The findings presented herein will necessarily be limited, since victory was not the subject being researched. Instead, it is the Soviet Navy which is

of interest and whether or not the subject of victory appears in Navy related documents authored by the Politburo leadership, the MODs or the C-in-C of the Navy.

Victory in warfare is one of the easiest themes to trace in the Soviet literature consulted since it appears that a "canned" phrase is used. Over the past 24 years, the military doctrine theme that "victory can only be achieved by the participation of all armed forces" has consistently appeared in ten of Gorshkov's documents and ten from the MOD. The latter is probably only a modest sample, since only Navy-related MOD documents were investigated. From additional readings, it can be assumed that the theme appears elsewhere. This phrase does not necessarily state that victory can be achieved, but rather that combined arms is the way to attempt to win a war.

What is of interest, however, is that Gorshkov follows the Ministry line essentially to the letter. This is not surprising, since Soviet military doctrine is the state and Party views on the definition and tasks of the armed forces, and Gorshkov appears far too astute to challenge his superiors directly. The preferred technique to differ is to use subtle

shifts in emphasis or to have a more junior officer author an article.

Of the documents that contain this theme, there are a number of slight variations which deserve to be pointed out. The victory in warfare theme appeared at least as early as February 1960 in a speech by MOD Malinovskiy. In a February 1966 Malinovskiy article appearing in Bulgaria, the MOD adds the special role of underwater branches to the "canned" phrase about all services being necessary for victory. Both editions of Grechko's book The Armed Forces of the Soviet State use the phrasing that all services are capable of decisive operations, which is another slight variation.

Gorshkov departs from the Ministry line in an interesting way. He opens his "Navies in War and Peace" series and repeats in his book The Sea Power of the State that only ground forces can secure the results of victory. In The Sea Power of the State, he adds an additional phrase that victory in a present-day war is only attainable by action of the armed forces. Note, not all armed forces but the armed forces. Perhaps this is the beginning of a view that war is the end of politics.

At this point, it is appropriate to make the distinction between war and armed struggle. War includes diplomatic, economic, ideological and other forms of struggle. Armed struggle involves the use of armed forces conducting combat activities to resolve strategic missions and attaining strategic goals. 1/

Thus, the initial set of findings from the literature review is that according to Soviet military doctrine, the attainment of victory is never associated with the Navy alone. Instead, all services will have their part to play in attaining final victory. The importance of all services in general is another constant theme used by all speakers.

Influence on Outcome of War

If victory requires the participation of all services, the next themes that need to be analyzed are those services, theaters, or operations that have been identified as having an influence on the outcome of war. Generally paralleling questions of victory are statements about which branch(es) of the Soviet armed forces are decisive or can resolutely defeat an enemy.

In April 1966, Malinovskiy introduces the theme that the dyad of the Soviet Strategic Rocket Forces

(SRF) and atomic rocket submarines can decisively route the aggressor in war. This theme reappears three times by Malinovskiy in less than one year but is replaced in 1967 by a Grechko theme that the SRF alone is the decisive branch, although the reference to "in war" is dropped, perhaps implying a role for the SRF as the main force for deterrence. Grechko refers to the SRF alone as the decisive branch three times until 1974, when he discusses the capability of all services for decisiveness in modern war.

The C-in-C of the Navy did not drop the Malinovskiy theme of the decisiveness of the dyad of the SRF and atomic rocket submarines in war until February 1971, well after Grechko had shifted to the SRF alone. Gorshkov did not even use the dyad theme until after Malinovsky's death. Gorshkov differs with Grechko in a 1969 French naval journal article and in 1971 in a provincial Soviet newspaper. Perhaps this is an indication of the limits of tolerable debate. Apparently more can be said in Western journals or to provincial readers.

Gorshkov calls strategic missiles in general (not the Soviet SRF) as decisive in war in May 1975. To further investigate this idea of a decisive branch

of combat arms, it is necessary to look beyond the concept of decisive. The theme the SRF is the "basis of Soviet military might" appears in 45% of all MOD documents since 1960 but only appears during the Malinovskiy-Grechko era. It has not been used since 1976 in any document consulted, but since the SRF was not the object of research, other appearances are likely (such as the annual day recognizing the SRF).

It would appear that a shift has occurred over time to include other branches from other services as general equals of the SRF without reference to use in war. In 1965, Brezhnev implied in a discussion of types of ramps for rockets that subsurface forces were worthy of ranking with the SRF. Malinovskiy followed with his previously mentioned references to a dyad of main forces.

Grechko pairs the SRF and nuclear submarines in general in October 1967, soon after he had become MOD. By February 1968, he introduced a new theme, that of a triad of Soviet "strategic nuclear forces": the SRF, atomic rocket submarines, and long-range aviation. Such forces are not described as decisive but rather as warranting special attention.

Grechko is not the first military officer to have discussed the triad. It appeared at least as early as 1962 in Marshal V.D. Sokolovsky's Military Strategy. 2/ In February 1963 Malinovskiy mentioned joint action by the Navy, SRF, and Air Force against land and submarine rocket bases but did not refer to these on "strategic nuclear forces." Reference to a triad of strategic nuclear forces continues today. 3/ This required themes regarding the use of the term strategic being tracked as well as the influence of other services in oceanic theaters.

Grechko departed from his use of the triad theme at least once. In July 1971, reference was made only to the dyad of the SRF and nuclear missile subs but the context was deterrence and not war fighting. Both forces are described as a reliable shield protecting the world socialist system. Of interest is that this anomaly appeared in Grechko's article in the main Soviet Navy journal, Morskoy Sbornik. Analysis of who ghost-wrote this article would be interesting.

Admiral Gorshkov's references to the main branches of the Soviet military did not parallel that of his senior in the Defense Ministry. Gorshkov preferred the use of the dyad (14 instances) as the main Soviet

military forces to that of the triad (3 instances) or the SRF alone (3 instances).

Gorshkov made a further claim starting in February 1967, that the dyad of the SRF and the Navy are "a" (or "the") most important weapon of the Supreme Command. The C-in-C only introduced this theme after Malinovskiy claimed the dyad could decisively route the aggressor in war. In 1962 Sokolovsky stated it was the triad which would fulfill tasks of the Supreme High Command which would attain victory. 4/ Gorshkov repeats the special status of dyad to the Supreme High Command through May 1970. In February 1974 and November 1977, Gorshkov drops reference to the SRF and states that the Navy (without listing the other services) is a major strategic weapon of the Supreme High Command. Both references appeared in sources that would have a predominantly naval audience. The meaning is not the Navy alone but rather the Navy also.

Gorshkov claims in February 1974 that the Soviet Navy is able to substantially influence the outcome of an armed struggle. Note that the reference is to influence, not determine. The claim is diluted by adding that it applies to conflicts on great ocean and

continental theaters of military operations. He does not state that the Soviet Navy can achieve victory in war.

In September 1977, Gorshkov states that the modern Navy can influence the course and outcome of a war when operating against coastal objectives. It is not clear if his reference is to navies or the Soviet Navy. A few paragraphs earlier, he said the Soviet Navy and the SRF were capable of influencing the course of warfare (not the outcome), in vast theaters of military operations. In this same document, the Navy C-in-C discusses SSBNs in general and refers to them as strategic nuclear forces.

What appeared to be the favored Gorshkov technique is to discuss the theoretical importance of navies and naval theaters in the future wars. These passages cannot be directly tied to the Soviet Navy or the USSR. In seven documents, the C-in-C cites both the relative and absolute growth in importance of naval warfare in a future war. The bulk of these citations follow a vague Grechko assertion in July 1971 that combat operations at sea were acquiring a special significance.

Gorshkov claimed in 14 distinct citations that naval forces/theaters in general will have an influence on the outcome of wars and armed struggle. Gorshkov claimed influence in "armed struggles" in three documents, all of which would have a general Soviet audience. He claims influence in "war" only in Morskoy Sbornik and his books.

In all but five cases, Gorshkov fails to identify the specific means by which armed struggles and wars will be influenced. In three of these cases, Gorshkov states that operations involving fleets versus shore can influence continental theaters in the outcome of a war. In the other two cases, he is discussing armed struggle and only identifies the means as general strikes from the sea. In all of these theoretical discussions, the anticipated audience is military and primarily naval.

Sokolovskiy's Military Strategy contains an oft cited passage that military operations in naval theaters can hardly have a decisive effect on the outcome of a future world war. 5/ Yet full analysis reveals that this passage is found as a part of a discussion of the four types of strategic operations. Rocket-carrying submarines were included earlier

in a discussion of strategic nuclear forces. Sokolovsky credits this triad with the capability of having decisive primary significance in the outcome of a modern war. 6/

It appears that according to Soviet military strategy, the chief means of defeating an aggressor will be the strategic nuclear force triad. All forces, however, will have a role in the attainment of victory and the Ground Forces will naturally have to actually occupy territory in order to consolidate the results of victory. The Navy C-in-C appears reluctant to articulate the role of the Soviet Air Force in contributing to the outcome of a war. He also appears to inflate the role of the Navy, often using theoretical discussions instead of direct claims.

The role of the Soviet Navy in the outcome of war is probably the best example of the differences in view depending upon the bureaucratic position of the speaker. The Politburo leaders analyzed do not appear to single out the Navy as a whole but do accord the missile submarines special treatment. The MOD appears to have equated the SRF and sub force up until February 1968, at which time the strategic nuclear triad was given special status. Gorshkov generally refers

to the entire Navy rather than specifically the submarine force when discussing roles and missions for the fleet.

Influence on Course of War

With the arrival of Grechko in the Ministry of Defense in 1967 and the obvious difference between his public position on the Navy and that of Admiral Gorshkov, we note the Navy C-in-C introducing new themes to support his contention of the Navy's importance. The concept of the Soviet Navy's role expanding is one which has appeared from time to time.

In August 1968, Gorshkov published an article in the German Democratic Republic which stated that after the strategic missile troops, the Navy was the most important instrument for exerting a decisive influence on armed conflict in theaters of war involving great distance. Note how watered down this claim is compared to the later 1974 and 1977 claims on being a strategic weapon of the Supreme High Command. The theme does not claim equal status with the SRF nor the ability to decisively conclude a war, nor is the ability to influence universal. Influence on armed conflict is, by its nature, only influence on the course of a war.

Gorshkov includes in his February 1974 statement that the Navy is a major strategic weapon of the Supreme Command, the claim that it also can "substantially influence both the course and the outcome of armed conflict in oceanic and continental theaters." By April of the following year, Gorshkov tones down his boasting to state that the Soviet Naval strategic forces can have a decisive effect on the course of major operations occurring in theaters of war of great breadth and depth, including distant continents.

Again, the watering down of boastful claims is most interesting. Gorshkov repeats his claim that the Soviet Navy can have a crucial effect on the course of armed conflict in July 1975 and November 1977 to mainly military audiences. In his September 1977 booklet The Navy, Gorshkov says that the introduction of nuclear missiles and the impact it had on the fleet versus shore capability allows the modern Navy to influence the course and even the outcome of a war. It is not clear if the admiral was referring to the Soviet Navy or to navies in general.

As in theoretical discussions of the influence of navies on the course of wars, we find Gorshkov using similar methods. In 17 different citations

found in 7 documents, the Navy Chief expounds upon the ability of theoretical fleets and naval theaters in general as being able to influence the course of war. Grechko referred to navies as being able to "have an enormous impact on the entire course of a future war."

As with the subject of the outcome, Gorshkov is generally vague about which theaters of operation he is talking about. Again, influence on the course of a "war" is generally used in Navy documents with influence on the course of a "armed conflict" the preferred term for other audiences.

The last time Gorshkov spoke of the Soviet Navy having an ability to influence the outcome of armed conflict was in 1974. The last time he discussed the theoretical possibility of navies being able to do this was in 1979. Since then, articles and books from other authors have appeared that support Gorshkov's assertion that the Soviet Navy can influence the course of a war. 7/

The findings relative to the Navy's ability to influence the course of a war is that Soviet military strategy has allocated a role for the Navy and that certain types of operations can have an influence on

the course of operations in theaters of operations not traditionally associated with naval warfare. Ability to influence the course of a war is not identical with the ability to influence its outcome. Most operations could influence the course of any war.

Means to Influence Outcome and Course of War

Although Gorshkov is distinctly vague about the specific theaters of operations in which naval warfare might be influential, one can infer the theaters. He is less hesitant about the general means associated with the attainment of influence. In his theoretical discussions of the importance of fleets and naval theaters in future conflict, Gorshkov identifies five means to attain influence.

To influence the outcome of a future war, navies can: (1) crush an opponent's military-economic potential, (2) participate in fleet versus shore operations, or (3) destroy major groupings of the enemy. In the first and third, one can assume either oceanic or land targets.

To influence the course of armed conflict or war, two additional means are identified: (1) fleet operations against the enemy's nuclear potential at sea and (2) atomic missile submarines versus shore.

No spokesman used the theme of Soviet atomic submarines (alone) against the shore, hence this theme will be included in the general fleet versus shore. The analysis will specifically look for submarine operations against the shore. Fleet operations against an enemy's nuclear potential at sea will be combined with the destruction of enemy groupings. The analysis will also identify the Soviet's perception of the threat from the sea and the means to counter it.

Taking these themes and measuring salience by repetition, we find the following evidence. A major concept is crushing military-economic potential, used six times evenly split between having an influence on the course and the outcome. Fleet versus shore in general is used eight times with mention three times of the ability to influence outcome and three times as influencing the course of warfare. Destruction of major enemy groupings is used three times, split between course (3) and outcome (2). Gorshkov additionally states in the introduction to The Sea Power of The State that direct action from the sea on vital centers of the shore can crush the military-economic potential of an enemy.

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In addition to this quantitative assessment, it must be noted that Gorshkov claims in July 1974 that the fleet versus shore role is the primary mission of navies in general and the Soviet fleet in particular. The controversy over whether or not Admiral Gorshkov was referring to navies in general or the Soviet Navy in this Pravda article appears to have been cleared up in his June 1975 Soviet Military Review interview in which he states (in English) that the "main task of the Navy today is to deliver attacks on ground objects." 8/

In September 1977, Gorshkov specifically states that Soviet naval art clearly defines the two main missions of the Navy as fleet versus shore and fleet versus fleet. He says that the Navy's operations against the shore are dominant. Ballistic missile submarines, he adds, are the main component of the world's leading navies, including the Soviet Navy.

Prior to attempting to identify types of forces that have roles that can influence the course or outcome of wars, a cross check will be made of related themes utilizing phrases also found in regard to the ability to perform these tasks.

Strategic Missions and Goals

"Strategic missions" is a general phrase used by the Soviets to describe missions that can change the situations in vital sectors or theaters and thus attain strategic goals that impact upon the war as a whole or upon a theater of operations. 9/ The Soviet use is slightly different than Western use, and mirror-imaging of the U.S. concept must be avoided. 10/

Armed conflict is the means by which armed forces resolve strategic missions that then attain strategic goals. In Gorshkov's theoretical treatment of the value of strikes, he specifically explains that strikes can be used to achieve the strategic goals of crushing military-economic potential and shattering enemy nuclear sea power. Strategic goals, by definition, impact on the war as a whole.

We have a number of documents authorized by the Soviet military that specify the strategic missions necessary to attain strategic goals in a future war. 11/ The list of strategic missions includes (1) strikes by strategic nuclear forces, (2) strategic operations on the continental theater, (3) strategic operations in naval theaters, and (4) operations to repulse or defend the nation from enemy strikes. It would appear

that by tracking the term "strategic" relative to missions, status, and targets, we may gain further insight on the central questions.

Admiral Gorshkov, but not the MOD, utilizes the theme in 29 of all his documents since 1959 that the Soviet Navy (as a whole) is capable of performing strategic missions. In 17 individual citations, the C-in-C uses strategic as a description associated with general Soviet naval operations in oceanic theaters. In nine citations, strategic is associated with the delivery of blows on distant, primarily land targets. In seven cases, strategic is associated with countering aggression from the sea or protecting Soviet installations. In Gorshkov's booklet, The Navy, the fleet mission against enemy sea based strategic weapons is described as "one of the main" missions and is designed to "weaken their attacks to the maximum extent possible."

In some of the passages, we find specific mention of Soviet missions that resemble those means identified in Gorshkov's theoretical treatment of the ways to influence the outcome or course of armed struggle or the attainment of strategic goals. For example, we find the following specific Soviet Navy strategic missions mentioned (number of times): delivery of

blows against ground targets (8), preventing/countering aggression from the sea (4), actions against enemy ballistic missile submarines (4), protecting own installation (2), defense of the border (1), and unspecified operations at sea (12).

"Strategic" is also a descriptor associated with the capability of individual branches of the Soviet fleet. Marshal Malinovskiy mentions twice (in 1966 and 1967) rocket submarines as being associated with strategic tasks. In October 1967, the Navy Chief states that the subsurface, air, and surface branches were all capable of strategic missions.

It is only in 1971 that Gorshkov associates the Soviet submarine force (alone) with strategic. In eight citations, the Navy C-in-C credits submarines with the capability of striking strategic targets or performing strategic missions. In three documents Gorshkov clearly states it was the equipping of submarines with subsurface launch SLBMs with nuclear warheads and ranges of thousands of kilometers which gave these ships a strategic capability. In two cases, the reference involves the strategic task of atomic submarines against an enemy fleet. In two cases, submarine ballistic missiles are associated with strategic targets ashore.

In seven additional citations, Gorshkov discusses the theoretical capability of submarines in general associated with the word strategic. In these cases, he is more specific than when discussing Soviet submarines. In December 1974, he goes so far as to state that a single missile submarine can achieve strategic goals by making strikes against land targets. When this same sentence reappears in The Sea Power of the State, the reference to "one combat unit" is deleted.

In other citations concerning the theoretical capability of submarines in general, strategic goals are associated with blows on targets ashore and nuclear submarines are called a "strategic resource" capable of blows against submarines and surface ships of the enemy and important targets ashore.

Gorshkov also associates strategic with other branches. He credits a strategic mission once to surface ships, 12/ but only in a passage also mentioning aviation and submarines. In four documents, Gorshkov pairs Soviet submarines and naval aviation and associates them with strategic missions.

In both editions of The Sea Power of the State, Gorshkov specifically credits Soviet submarines with

ballistic and cruise missiles and missile-carrying and anti-submarine (ASW) aircraft with strategic missions in oceanic and continental theaters. These forces are then associated with a capability to strike and undermine the military-economic potential of an enemy and shatter his nuclear sea power. Specific targets of strikes are military-industrial and administrative centers and the nuclear missile groupings of the enemy at sea.

These passages from The Sea Power of the State represent an excellent source giving the use of Soviet Naval forces in terms that describe the ability to influence the course and outcome of wars. These passages bridge the gap between Gorshkov's theoretical discussions and his roles for Soviet forces.

One of the most important findings relating to the Soviet use of the term strategic is that it is not the same as in the West. Certainly the long-range nuclear forces capable of striking the territory of each superpower fall into the category of strategic, but there are other classes and types of strategic missions and goals that do not involve nuclear weapons. Thus it would appear that with the one exception of conducting nuclear strikes, strategic missions

of the Soviet military have been identified but the means to perform those missions is not automatically tied to nuclear or conventional ordinance.

Strikes

The term "strikes" is frequently used by the Soviets to describe actions taken in combat. Gorshkov describes strikes in theoretical terms, including their ability to achieve tactical, operational, and strategic goals in his December 1974 Morskoy Sbornik article and in The Sea Power of the State. Gorshkov relegates battle to the mere attainment of tactical goals. Gorshkov also directly links strategic goals with strikes. In eight citations that consider the theoretical role of strikes, Gorshkov directly associates strikes with strategic goals in terms which are identified as means of influencing the course and outcome of wars. 13/ Gorshkov says strikes can achieve strategic goals by devastating of military-economic potential and shattering nuclear sea power. In addition, he says that submarine missile strikes against land targets can achieve strategic goals.

Findings

By reviewing the types of targets and means of delivery associated with strikes and strategic missions,

and by viewing these together with the ability to influence the course and outcome of wars and attaining strategic goals, it is possible to create a matrix of the declaratory policy for employment of the Soviet Navy in the event of a major war. Table 2 presents this matrix. The means of delivery is in the left column; the top labels refer to the naval means of influencing wars and attaining strategic goals, and the center blocks are the specific targets. Gorshkov uses the two distinct phrases "crush military-economic potential" and "crush enemy grouping at sea." For the findings so far, this distinction is retained. Notice should be made that the means to influence wars and attain strategic goals do not always involve nuclear weapons per se. The subsequent hardware analysis will investigate whether or not these types of forces are dual capable (nuclear or conventional).

Table 2

Strategic Missions/Targeting Associated with Influencing
The Course and Outcomes of War

| <u>Means of Delivery</u> | <u>Fleet vs. Shore (primary means)</u> | <u>Crush Military- economic Potential</u> | <u>Enemy Groupings (enemy nuclear sea power)</u> |
|--|--|--|--|
| <u>Soviet Fleet</u> | 8 | 1 military bases 1 acquiring cap- ability to partic- ipate in such operations 4 prevent/counter aggression from sea | 4 enemy rocket subs 1 enemy fleet |
| <u>Soviet SSBNs/SSGNs/Missile and ASW Aircraft</u> | 2 | 2 strikes against military indus- trial, and admin- istrative centers/ undermine military economic potential | 2 nuclear strikes against missile groupings/shatter nuclear sea power |
| <u>Soviet Submarine</u> | | | |
| — Spokesman Gorshkov | 2 strategic target | possibly implied | 2 enemy fleet (by atomic submarines) |
| — Spokesman MOD (submarines with rockets) | 2 targets ashore | possibly implied | 2 targets at sea |
| <u>Submarines in General</u> | | | |
| — Submarines by missile strikes | 3 | | |
| — Atomic submarines | 2 important targets | possibly implied | 2 enemy surface ships/submarines |
| <u>Strikes in General</u> | 3 (by submarine 4 with missiles) | | 2 shatter nuclear sea power 1 major groupings |

Key: Compiled by author. Number indicates individual citations mentioning targets.

The obvious finding when applying Gorshkov's theoretical means for navies to obtain strategic goals or influence war is that the branches of the Navy capable of such influence cannot be clearly identified. A sharp difference appears between the declaratory policy of the MOD and the C-in-C of the Navy. Gorshkov appears to give credit to the fleet as a whole, while the Defense Ministry appears to favor discussion of submarines with missiles in roles which Gorshkov describes as being influential.

Of interest also is the correlation between the naval means of influencing wars, strategic goals, role of strikes, and strategic missions, and Gorshkov's often cited three basic missions of great power navies in nuclear war. In February 1973, Gorshkov listed these missions as the participation in attacks by a nation's strategic nuclear forces, the blunting of nuclear attacks from the sea, and cooperation with ground forces in their operations on the continental theaters. In his booklet The Navy, Gorshkov lists the Navy's two main missions as "operations against an enemy fleet and against a hostile shore."

From the data contained in Table 2, we can determine that to further investigate the question of

role navies and naval theaters in a major war, considerations will have to be given to both types of targets identified and the means of destruction of those targets. Primary targets to be investigated will be shore targets from fleet resources, and targets on the oceans which constitute the main striking potential of the West. It is to these questions that the next two chapters turn -- consideration of the fleet versus shore mission and the fleet versus fleet.

NOTES

1. Dictionary of Basic Military Terms, General-Colonel A. I. Radziyevskiy, Ed. (Moscow: Voenizdat, Typeset April 1965). English translation published under the auspices of the U.S. Air Force as Vol. 9 in the Soviet Military Thought Series, Items 351 and 1428.
2. Marshal of the Soviet Union V. D. Sokolovskiy. Soviet Military Strategy, Ed. with analysis and commentary by Harriet Fast Scott. (New York: Crane, Russak & Co., Inc., for Stanford Research Institute, 1975), p. 282 used in conjunction with mission of strategic offense, p. 284 used in conjunction with mission of strategic defense, pp. 289 and 459 used in conjunction with nuclear strikes, and p. 451 used in conjunction with decisive weapons. All references but p. 459 appeared in 1962 edition. Use on p. 459 appeared in 1963. A Soviet Navy officer who defected to the West used the term strategic nuclear forces to include only the SRF and ballistic missile submarines in his 1972 doctoral dissertation. See Nicholas G. Shadrin, "Development of Soviet

Maritime Power" (Ph.D. dissertation, George Washington University, September 1972), Vol. I, p. 93.

3. Marshal of the Soviet Union N. V. Ogarkov.
"Guarding Peaceful Labor," Kommunist No. 10, July 1981, pp. 80-91 (a reprint of a speech to the All-Union Seminar of Ideological Workers in April); Always Ready to Defend the Fatherland (Moscow: Voenizdat, signed to press January 26, 1982) pp. 34 and 49; "Reliable Defense for Peace," Izvestiya, Morning Edition, September 23, pp. 4-5, and "The Defense of Socialism: Experience of History and the Present Day," Krasnaya Zvezda, May 9, 1984, 1st Ed., pp. 2-3. Ogarkov at the time was Chief of the General Staff and the ranking professional military officer of the USSR. Ogarkov does not claim decisiveness for the triad, instead stating that strategic nuclear forces allow top-level military leadership to have a capability of significantly influencing the "achievement of strategic and political-military war aims and objectives." A case was made that Ogarkov defined the strategic nuclear forces as a dyad in 1981 and 1982. By reading the translated

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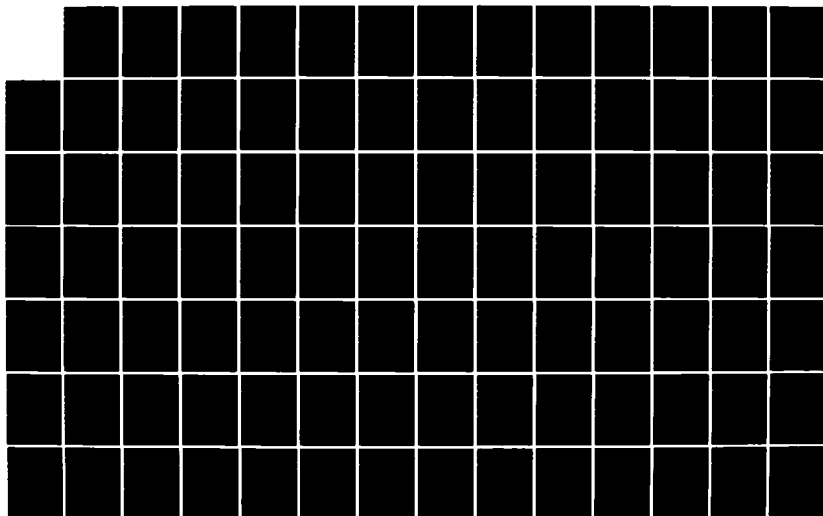
THE STRATEGIC EMPLOYMENT OF THE SOVIET NAVY IN A
NUCLEAR WAR(U) UNIVERSITY OF SOUTHERN CALIFORNIA LOS
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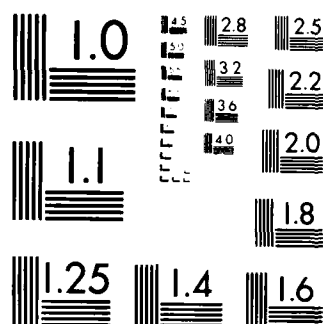
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

texts, both references discuss strategic nuclear forces and in another sentence the types of forces whose launching is automated. In 1981, Ogarkov says that intercontinental ballistic missile firings are automated. In 1982, he says that land-and sea-based ballistic missile firings are automated. Interpreting this as a dyad is not manifestly obvious. See Michael J. Deane, Ilana Kass, and Andrew G. Porth, "The Soviet Command Structure in Transformation," Strategic Review, Vol. XII, No. 2, Spring 1984, pp. 63 and 69.

4. Sokolovskiy p. 282 states the triad will fulfill their tasks by carrying out rocket strikes according to the plans of the Supreme High Command to attain victory.
5. Sokolovskiy p. 299.
6. Sokolovskiy pp. 282, 288-289.
7. Lieutenant-General M. M. Kir'yan, Ed., Military-Technical Progress and the USSR Armed Forces (Moscow: signed to press July 8, 1982, credits nuclear power missile carriers with this ability, p. 289. Vice Admiral K. Stalbo wrote recently that navies were capable of exerting an often-

times decisive influence on the course of a war. See "Some Issues of the Theory of the Development and Employment of the Navy." Morskoy Sbornik, No. 4, April 1981, p. 25.

8. This point was raised by Michael McGwire in "Naval Power and Soviet Oceans Policy" Soviet Oceans Development, John Hardt and Herman Franssen, Eds., a compendium of papers prepared by the Congressional Research Service for the Committee on Commerce and National Ocean Policy Study, U.S. Senate, 94th Cong., 2nd Sess., Committee Print (Washington, D.C.: U.S. Government Printing Office, October 1976), p. 178. It is always possible that the Soviet translators made an error in the Soviet Military Review article, but the sentence includes another reference to the role of navies in general. It would appear that the subsequent capitalization was deliberate
9. Dictionary of Basic Military Terms, Items 1465 and 1472. See also Major-General V. Kruchinin, "Contemporary Strategic Theory on the Goals and Missions of Armed Conflict," Voyennaya Mysl', No. 10 October 1963, pp. 13-14. Marshal Ogarkov had made recent references to strategic operations in

the theater of military operations as the basic operations in a future war (July 1981).

10. See for example, U.S. Department of Defense, Joint Chiefs of Staff. Dictionary of Military and Associated Terms, JCS Pub. 1 (Washington, D.C.: U.S. Government Printing Office, 1 June 1979), pp. 328-329 which defines "strategic mission".
11. Sokolovskiy, pp. 285, 288-303; Kruchinin, pp. 19-20; Major-General V. Zemskov, "Characteristic Feature of Modern Wars and Possible Methods of Conducting Them," Voyennaya Mysl, No. 7, July 1969, p. 20; Kir'yan, p. 315. Of interest is the movement of operations in naval theaters from fourth place to third that first appears in Khruchinin (October 1963) but is not changed by Sokolovskiy in the later editions of Military Strategy.
12. The one reference to a strategic capability for surface ships is an anomaly with no association to means, theater, or operations. Surface ships will not be considered further in this section but will be cross checked in both the fleet versus shore and fleet versus fleet sections to

ascertain any role in achieving goals which might have an influence on the outcome or course of a war.

13. This bridging is necessary since in at least one article in Voyennaya Mysl', the General Officer author goes to great lengths to explain that performing strategic missions by themselves might not have a decisive effect on the entire course of armed conflict. See Kruchinin, p. 14.

CHAPTER 4

CONTENT ANALYSIS OF SOVIET FLEET VERSUS SHORE

The mission of fleet versus shore has been identified by Admiral Gorshkov in the Soviet literature as the primary mission of fleets in general and the Soviet Navy in particular. As was developed in the previous chapter, fleet versus shore has also been directly tied to the admiral's theoretical treatment of methods whereby navies in general can influence the outcome of wars (all types). Fleet versus shore includes the crushing of military-economic potential of an enemy which is a strategic goal capable of impacting on a war as a whole. There are other methods of attaining this strategic goal which will be considered in the next chapter.

In the previous chapter, the means, methods, and targets whereby the fleet versus shore (and crushing military-economic potential) mission would be carried out was subject to differences depending upon the speaker. There is no question that submarines with rockets against shore targets constitute means accepted by all levels of the bureaucracy.

Admiral Gorshkov includes in his description of means Soviet Naval atomic submarines with ballistic

(SSBN) and cruise missiles (SSGN) and missile and anti-submarine (ASW) aircraft, as well as general references to the fleet as a whole. Part of the problem in understanding Gorshkov's generalities about means is that he often includes both operations at shore targets and at sea, requiring the analyst to separate the fleet versus fleet from fleet versus shore missions.

This chapter will attempt to draw the distinctions from the statements of the Navy C-in-C and his seniors to ascertain (1) what is meant by fleet versus shore operations, (2) what means are to be utilized in fleet versus shore operations that are of sufficient magnitude to be able to influence the outcome of a war or attain a strategic goal and (3) what targets, if any, have been specified. The discussion of when fleet versus shore missions would take place in a war will be included in the chapter on Soviet Military Strategy.

Missions to be Considered

The concept of fleet versus shore operations has been clearly explained by Gorshkov in The Sea Power of the State. It includes a number of traditional missions that do not meet the test of being strategic nor are associated with strikes. These would be

amphibious landings and shore bombardment by guns from naval ships. These missions may be important, but do not appear in any of the Soviet literature considered as being associated with the ability to influence the course or outcome of a war.

A check was made of anti-shore missions associated with surface ship discussions, but in all cases, the obvious reference was to amphibious operations, gun fire support, or assistance to the army. Hence, no analysis will be undertaken for Soviet Navy surface ships to directly perform a fleet versus shore strike, although the surface ship role will be analyzed with reference to other missions falling into the category of fleet versus shore.

Carrier aviation is a method of fleet versus shore activity but one in which the Soviet Navy lacked significant capability during the study period. Since Gorshkov did refer to the ability of Soviet Naval missile and ASW aviations as having a potential to perform strategic missions, a search was made through the literature to ascertain if any declaratory policy existed regarding use of land-based Naval aircraft in a direct fleet versus shore mission. These findings will be presented later.

The primary method of delivery of fleet versus shore strikes is obviously that of the submarine missile. Gorshkov specifies strikes at strategic and economically important land targets. Hence the use of submarine missile systems needed in-depth analysis. Both ballistic and cruise missiles were tracked. Targeting objects were analyzed to illuminate which ones might fall into the obviously most important field of crushing of military-economic potential.

Although one would not expect to find operations at sea in the general category of fleet versus shore, one such operation will be considered in this chapter. This is the disruption of the sea lines of communication (SLOC). Gorshkov states in The Sea Power of the State that such operations are aimed at "undermining the military-economic potential of the enemy" and form "part of the general system of operations of a fleet against the shore." This is a change from its traditional consideration as a fleet versus fleet mission. The SLOC role will be analyzed with all possible means of carrying out the potential disruption.

The question of defense of SSBNs in bastions will not be undertaken herein but rather in the chapter on fleet versus fleet. It could conceivably fit in

either section but the author would prefer to deal with the subject therein.

Soviet Naval Aviation Strikes Ashore

Although the Soviet Navy has only recently acquired air-capable surface ships, naval aviation has existed since the Czarist days. The fleet air arm has had an anti-shore role in past wars including participation by the First Mine-torpedo Regiment of the Red Banner Baltic Fleet in the first Soviet air raid on Berlin on August 8, 1941. 1/

The future combat utilization of Soviet Naval Aviation is discussed in some 41 primarily Gorshkov documents since 1961. One finds reference to an anti-shore mission in only a few. Specifically, there are two references by Gorshkov in July 1968 for Soviet Naval Aviation to strike land targets. In both editions of The Sea Power of the State, the C-in-C states in general that aviation attacks by fleets against fixed shore targets are now the exception. In September 1977, Gorshkov explained that the appearance of SSBNs allowed naval aviation to redirect its efforts to strictly warfare at sea. In a widely distributed press release in Fall 1982, the admiral

specifically stated that Soviet Naval Aviation was not intended for use against the American continent. 2/

One might assume that naval aviation strikes against ships in port or bases would be included in fleet versus shore but the Admiral places this role in the fleet versus fleet category. Hence it will not be considered in this chapter. Thus we can conclude Soviet Naval Aviation does not have a declaratory mission in direct strikes ashore, since the theme never appears and strikes against the U.S. are specifically refuted.

Soviet Submarines Strikes Ashore

The wartime role of Soviet submarines conducting strikes at land targets is a theme which appears in the statements of Alexey Kosygin, Marshals Malinovskiy and Grechko. In eleven documents that discuss Soviet fleet versus shore blows on land targets from Politburo or Defense Ministry spokesman during the studied period, 100% specified the means as submarines, with all but one specifying submarine missiles. A check of six similar citations prior to 1965 reveals the same patterns, with four references giving submarines as the means for strikes ashore.

When the spokesman for fleet versus shore blows on land targets is the Navy Chief, a much different pattern emerges. Gorshkov includes Soviet submarines alone as the means in 17 out of 44 citations. Submarine missiles are specified 11 times.

Gorshkov prefers to describe the means for distant blows in terms such as the fleet as a whole (18 citations) or Navy missiles in general (3 citations). In most of these passages, targets ashore and afloat are given making analysis difficult.

In four citations, Gorshkov combines submarines with aviation as the means but in passages not referring only to operations against the shore. As was mentioned earlier, aviation has not been assigned a mission to strike targets ashore, hence one can assume that the aviation targets in these passages refer to fleet versus fleet operation.

There are two additional citations in which Gorshkov discusses strikes ashore by both the Strategic Rocket Forces (SRF) and Navy missiles. To distinguish between the targets for each, it was necessary to search the literature for strikes by the SRF alone. These findings will be presented later.

Gorshkov also treats the subject of fleet versus land targets in a theoretical sense without specific reference to the USSR. In 15 such citations, vague means are discussed nine times, with submarines as the vehicle in the remainder. Marshal Grechko discusses theoretical naval blows ashore once but does not identify the means of delivery.

Since no other fleet branch has been given a declaratory role in strikes against distant shore targets, it would appear that the use of non-specific means is not an attempt to describe the missions of forces other than the submarine. To verify this conclusion, the analysis checked the differences between targets specified when submarines are the means and when other means are specified. The possible reasons for Gorshkov's more general means of delivery as opposed to that of his seniors in the chain of command will be addressed in the conclusions.

Targets of Soviet Submarine Strikes Ashore

In the citations that discuss the means for delivery of submarine and general fleet blows against the shore, we find explicit references to types of targets, whereas in discussions of means, the Politburo/

Minister of Defense (MOD) spokesman specified submarines, and the Navy Chief used more general terms. We find that in discussions of targets, there is the reverse tendency.

In 17 Politburo/MOD citations since 1958 referring to fleet strikes against the shore, we find the following targeting: 11 references to general targets ashore, 3 to strategic or vital targets, and 3 citations (all earlier than 1965) dealing with military targets. These latter three are statements which specify submarine missiles against naval and land bases (2 cases) or the joint action by the triad (SRF, Navy, and Air Force) against land and submarine rocket bases.

Admiral Gorshkov's statements contain more explicit targeting information. In order to utilize the information, it must be assumed that he is speaking authoritatively on the subject unless the context is an obvious argument. Since Politburo/MOD statements are so vague, there is little opportunity to cross check the Gorshkov information with his seniors. Correlation can be made with other targeting pronouncements found elsewhere.

Table 3
Gorshkov's Specified Targets For
Soviet Fleet Versus Shore

| <u>Targets</u> | | | | | | |
|-------------------------------|----------------|--|-----------------------------|-----------------|-----------------|--|
| <u>Means of Delivery</u> | <u>General</u> | <u>Strategic Vital Important</u> | <u>Adminis- trative</u> | <u>Military</u> | <u>Economic</u> | <u>Spring- boards and Overseas Bases</u> |
| Submarines alone | 4 | 3 | | | | |
| Submarine missiles | 9 | 4 | | | | |
| (SLBMs) | 4 | 3 | | | | |
| Navy Missiles | 3 | | | 1 | | |
| Fleet in General | 7 | 1 | | 8 | 1 | 2 |
| Aviation and Subs* | | | | 2 | | |
| Aviation and Sub Missiles* | | | 2 | 2 | 2 | |
| SRF and Navy Missiles | 2 | | | | | 2 |

* In reality these means SLBMs (see text)

Compiled by Author

From the data in Table 3, we can quickly sort out that 65% of all pronouncements on shore targeting is of a general nature, giving us no real clue to intended use. By focusing on the remaining 35%, we can observe certain patterns.

Under the category of administrative-political targets, Gorshkov specified administrative targets on the coast and deep in enemy territory. This passage is associated with Soviet atomic-powered submarines with ballistic (SLBM) and guided (SLCM) missiles and Soviet Naval aviation, and includes targets at sea as well as ashore. As was discussed earlier, the aviation portion obviously has to do with sea targets. Hence, we can conclude the means of submarine missile strikes ashore is either SLBMs or SLCMs.

The use of ballistic missiles against sea targets has been a lively subject of debate 3/ that will be addressed later. Regarding cruise missiles, Gorshkov declared in a July 1971 speech that winged rockets were primarily for use against sea targets, while submarines (no means specified) could hit enemy strategic targets at distances of 1,000 kilometers. In the first edition of The Sea Power of the State, Gorshkov states that SLCMs were initially developed by

navies for use against surface ships and land targets, but he drops land targets in the second edition. 4/ From this discussion, we can conclude that the current means for targeting administrative centers and other land targets is the SLBM.

Gorshkov makes reference twice to economic targets. The passage states economic (and military) potential and military-industrial centers in coastal areas and deep inland. A third reference is that the Soviet Navy is in the process (February 1973) of acquiring the capability to crush economic (and military) potential.

Military targets are listed twice in the passages specifying as the same military (and economic) potential and important military-industrial centers in coastal areas and deep inland. These references are sufficiently vague as to be taken as military, industrial, or military related industrial.

Two other military references come from Polish and Bulgarian articles where the passage specifies "that which comprises the nucleus of military might." One problem with these two citations is that from the context, it appears that Gorshkov is arguing for such a role, not announcing one. This seems illogical,

since the intended audience would not include the Party or Soviet military, but it may have to do with the latitude given publications outside the USSR. Of the remaining nine instances of military targets, three specify bases, and the remainder are vague.

The theme of fleet versus shore strikes against military targets received concentrated repetition between 1968-1972. During that time, it was directed to either general Soviet or foreign audiences and not the Soviet military.

It is, therefore, not clear exactly what type of military targets Gorshkov has in mind for his fleet versus shore strikes. It would appear that his declaratory statements are sufficiently vague to allow speculation by analysts.

The final category of targets of interest include two 1967-1968 references to overseas enemy territory. The Sea Power of the State includes two references to targeting springboards for attacks against the USSR with the means as both SRF and Navy missiles.

Earlier Soviet Navy targeting given by Gorshkov in nine pre-1965 documents reveals mostly general terms. In one case (May 1963), no specific means were identified but the targets intended were military

bases including those in the North, Baltic, and Mediterranean Seas.

Thus Gorshkov's plan for the Soviet fleet to influence the outcome of war and attain strategic goals by SLBM strikes at shore targets appears to include administrative centers, military targets of a vague nature, industrial centers associated with military potential, and bases that constitute a springboard for enemy attack. The widespread inclusion of vague targets ashore may be due to inclusion of a class of targets that the Soviets do not want publicized (for example, cities).

To cross check this list of specific Soviet targeting, we can refer to 15 discussions of the theoretical use of navies against shore installations. Most of these references are also vague. Important economic targets are tied twice to strikes by submarine missiles. There are also three extremely vague references to the need to destroy weapons stores. All but one of these theoretical discussions are found in naval journals or in Gorshkov's books.

Marshal Grechko utilized the device of the theoretical strikes by navies in his July 1971 Morskoy

Sbornik article. The Defense Minister stated that navies in general could deliver powerful strikes against military targets and troop dispositions. The means for such attacks were not given. Of note is the fact that this method of discussing theoretical strikes predates Gorshkov's subsequent use.

Since none of Gorshkov's seniors is explicit in discussions of SLBM targeting, a check was made of translations of other Soviet military literature. In general, non-Navy authors follow the more general SLBM targeting pattern outlined by Politburo/MOD spokesman.

Targeting associated with SLBMs versus that of the SRF was also investigated. Since the SRF was not the primary focus of this research, a check was made of all documents for manifest statements of targeting by Soviet land systems or for non-specific rocket strikes in general. The Politburo/MOD documents consulted represent probably a modest portion of all that contain SRF targeting themes. Findings are based upon the total sample of 2 Khrushchev, 6 Malinovskiy, 4 Grechko, and 6 Gorshkov citations which contain direct reference to Soviet land systems or theoretical rocket strikes.

A January 1960 Khrushchev speech made general reference to the Soviet Armed Forces being able to deliver distant strikes on land targets. In an indirect passage from the same speech, Khrushchev threatened destruction of capitals and administrative and industrial centers. On the very next day, the MOD repeated these theoretical themes but added enemy armed forces as a target. The size of the country Malinovskiy used to illustrate destruction of political, administrative, and industrial centers equated to that of a larger European NATO nation.

By 1961, Malinovskiy expanded his discussion of targeting and tied it directly to Soviet ballistic missile systems. Communications centers were added as were bases and rocket sites in host nations close to the socialist community. The MOD also originated the concepts of targeting "everything that feeds war" and "where the attack came from."

In February 1962, Gorshkov writes for the first time that U.S. industrial, administrative, and political centers will be targets, but he does not specify the branch of the Soviet military that would deliver the attack. The Navy Chief also listed U.S. bases overseas as targets.

In February 1963, Malinovskiy associates the SRF with military and industrial targets and general rocket strikes with the U.S. target set given by Gorshkov in 1962. Marshal Grechko specifies SRF targets in 1971 and 1972 as including military administration, bases, means of nuclear attack, large concentrations of troops, industrial and transportation centers, rear services, and state administration and control.

In Grechko's The Armed Forces of the Soviet State, the MOD associates general rocket strikes with rear area bases, lines of communications, communications and control centers. Gorshkov follows this with reference to targets of strategic missile strikes. In May 1975, Gorshkov discusses the development of Soviet nuclear missile systems. He concludes an extremely lengthy passage with reference the primary object of military actions in a nuclear war including enemy armed forces, the economy, electrical power system, military industry, and administrative centers.

The MOD appeared to be explicit in SRF targeting (until about 1973), but, as was noted, was distinctly vague about SLBM targets. This may mean a number of

things. On the one hand, Gorshkov may have authority to announce SLBM targeting. On the other hand, despite Gorshkov's apparent linking of SLBM targets with current Soviet strategy, he may be arguing that SLBMs are capable of striking the same target set as the SRF.

In Sokolovskiy's 1962 Military Strategy, the triad of strategic nuclear forces was associated with the destruction of an enemy means of nuclear attack, military control centers, military-economic potential, enemy troop units, communications centers, bases, economy, system of government. 5/

In a 1982 book, Military-Technical Progress and the USSR Armed Forces, the authors state that Soviet strategic nuclear forces will attempt to destroy the aggressor's strategic nuclear forces, military-economic targets, troop units, and state and military control entities. 6/

By recognizing that Soviet SSBNs are a part of the strategic triad, we may construct a list of declaratory targets for Soviet SLBM attacks on ground targets from this list as well as Gorshkov's statements. SLBM targets include: political-administrative centers, military-industrial targets, military bases

that constitute a springboard for an attack on the USSR and other non-specific military targets. In order to refine the list further, subsequent hardware analysis will focus on what it is that SLBM strikes specifically can perform that the SRF or Long-Range Aviation cannot.

SLOC as Fleet Versus Shore

As was established earlier, Gorshkov has declared in The Sea Power of the State that actions to disrupt SLOCs constitute a part of the general system of fleet versus shore, a term used to describe missions capable of influencing the outcome of war. Gorshkov refers to the fleet versus shore anti-SLOC mission in terms of undermining the military-economic potential of an enemy. In his booklet The Navy, the admiral only mentions the ability of SLOC disruptions to undermine a nation's economic potential.

The subject of a Soviet SLOC mission, especially against North Atlantic reinforcement and re-supply shipments from North America to Europe, is the subject of much heated and frequent debate in the West. Most previous analysis of the subject has concentrated on the relative importance associated with this task in the Soviet literature.

For example, Marshal Sokolovskiy is often cited for his description of the SLOC mission as being "among the main tasks" (which one might infer ranks it as not the most important) but in need of being developed in the very beginning of a war. 7/ In other places, he links the main tasks of SLOC disruption with defeat of an enemy fleet and as such constituting the type of operation which can be termed a strategic mission (although hardly decisive on the outcome). 8/ Sokolovskiy includes SLOC disruption in each of the three places where he describes strategic missions of the Soviet Navy. 9/

Gorshkov says in his booklet The Navy that SLOC disruption is "a part of a modern Navy's main mission in a war." The SLOC mission also appears in the writings of other non-Navy Soviet authors. 10/ The mission is still described as current in one of the latest pronouncements 11/ and naturally continues to attract the attention of Soviet naval authors. 12/

We must refer back to Gorshkov again for a tie between disrupting SLOCs and attaining strategic goals. The Admiral makes this claim in general terms in The Sea Power of the State when he says that

disruption of the SLOCs are now "the (or a) most important part of the efforts of a fleet, aimed at undermining the military-economic potential of the enemy." In February 1967, the Navy C-in-C stated that SLOCs feed the military and economic potential of aggressors, and their disruption continues to be one of the fleet's most important missions. SLOC operations are therefore capable of the attainment of a strategic goal and, therefore, according to Gorshkov rank equal in theoretical status with SLBM strikes ashore.

SLOC disruption receives nowhere near the same amount of attention as SLBM strikes at shore targets. Gorshkov only refers to it as a current Soviet Navy mission in 12 documents since 1961. The MOD only refers to it twice, and then vaguely.

Reference to Gorshkov's citations regarding SLOC disruption are quite revealing. When specifically referring to SLOC disruption as a current Soviet Navy mission, the means are given as the general fleet (4 cases), submarines, naval aviation and surface ships (2 cases), naval aviation (3 cases), missile boats in closed and coastal seas (3 cases), and by unspecified strikes across the seas (once in November 1977).

Gorshkov's use of closed and coastal sea SLOC's is of special interest since not all references to SLOCs, convoys and transports as targets necessarily mean the North Atlantic or mid-Pacific. In fact, Gorshkov could be referring to the SLOCs in the Baltic or the Sea of Japan whose disruption might be a strategic goal for that theater.

Strikes across the sea as a means to sever SLOCs could refer to missile strikes against SLOC terminals. This serves to possibly explain the continued use of non-specific SLBM targets. The USSR might not want to publicize its plan to target port terminals, since they are generally colocated with cities and therefore with non-combatant civilians.

Further illumination of a SLOC mission is given by analysis of the admiral's general consideration of SLOCs in The Sea Power of the State. In a number of passages, Gorshkov discusses SLOC disruption in current, not historical, terms.

The Navy C-in-C points out the vulnerability of Western economies to SLOC disruption and the military importance of convoys, especially in the North Atlantic. He also discusses the importance of ports in a unified transport system, although these passages might not be directly linked to military operations.

In one possibly historical passage in this book, Gorshkov states that once an aggressor is deprived of an opportunity to counterattack, the victor exploits his success by severing sea shipments of the enemy. The means include blockade and seizure of islands and distant territories.

In a more contemporary but again theoretical reference in The Sea Power of the State to SLOC disruption, Gorshkov states that submarines have been recognized by all fleets as the main threat to merchant vessels. In December 1982, Gorshkov once again points out the life-and-death value of uninterrupted communications to industrial developed coastal and island nations.

To cross check Gorshkov's discussions of a current Soviet SLOC disruption mission, it is necessary to consider articles by other authors. In a 1979 Morskoy Sbornik article, a Navy author discusses SLOC disruption in a modern war. 13/ The article cites the principal forces involved in the conflict as nuclear submarines, surface ships with aircraft, and shore-based aviation and missile forces.

The article also points out the well known principle of the comparative ease in concentrating

objectives near terminals and states that SLOC combat operations would include blockade and attacks. It further cites the potential of various types of armed forces participating and the advantage of nuclear weapons.

Although the SLOC mission was described by Admiral Gorshkov as now being the province of fleet versus shore, full analysis of this mission will require consideration of fleet versus fleet. Although the results of severing the SLOCs are felt on the land and thus account for the fleet versus shore status, the primary means of completing this mission as being strikes against land targets or operations on the high seas cannot be established from the citations analyzed thus far.

Findings of Declaratory Policy

Fleet versus shore and especially strikes which undermine the military-economic potential of an aggressor are described by Gorshkov as influential upon the outcome of war. They rate this status due both to their identification as a strategic goal and also to Gorshkov's direct declaratory statements.

The primary means of conducting this strategic fleet versus shore mission is strike by SLBMs. The

declaratory targets to be selected include political-administrative centers, military-industrial targets, military bases which constitute a springboard for attacks on the USSR, and other military bases. There are other non-specific targets constantly referred to, with strong indication that SLOC terminals are to be included in SLBM strikes since SLOC disruption now falls into the fleet versus shore category.

NOTES

1. This raid has been widely reported by Soviet Naval authors. It is also reported in a book written primarily for the Soviet Air Force. See M. N. Kozhevnikov The Command and Staff of the Soviet Army Air Force in the Great Patriotic War 1941-1945, (Moscow: Nauka Publishing House, 1977) English translation published with the approval of the USSR by the U.S. Air Force as Vol. 17 in the Soviet Military Thought Series, p. 50.
2. Interestingly, Gorshkov's claim follows the appearance of this theme in the first two editions of Whence the Threat to Peace, (Moscow: Military Publishing House, 1982), 1st Ed. p. 70; 2nd Ed., supplemented, p. 81. This claim, however is deleted in the 3rd Ed. (1984).
3. See, for example, K. J. Moore, Mark Flanigan, and Robert D. Helsel, "Developments in Submarine Systems, 1956-76," in Soviet Naval Influence: Domestic and Foreign Domensions, Michael MccGwire and John McDonnell, Eds., Praeger Special Studies in International Politics and Government (New

York: Praeger Publishers, 1977), Chapter 7, pp. 151-184.

4. The 1979 Pergamon edition in English correctly translated the passage which is mis-translated in other sources. See p. 205 where guided missiles are given a role against ships and land objectives. Other translations state that this should read ships and large objectives in the first edition. A check of the Russian reveals Pergamon is correct. The use of SLCMs against shore targets was a possibility in early years similar to U.S. development of Regulus. Both nations appear to have phased out these systems with the advent of SLBMs. In any case, all citations referred to for missile strikes ashore post date older operational land attack SLCMs and pre-date new missile developments. See data on SS-N-3c in Norman Polmer's Guide to the Soviet Navy, 3rd Ed. (Annapolis, Md.: Naval Institute Press, 1983), p. 363. See also Captain 1st Rank G. A. Ammon, et al., The Soviet Navy in War and Peace. (Moscow: Progress Publishers, 1981), p. 100, where reference is made to long-range strategic missiles being intended for strikes on land

targets. It appears that the meanings generally associated with Engineer Rear Admiral N. V. Isachenkov's Krasnaya Zvezda article ("New Ship Weapons" November 18, 1961), that SLBMs are for shore targets and SLCMs for sea targets, has been correct during the study period.

5. Marshal of the Soviet Union V. D. Sokolovskiy. Soviet Military Strategy, Ed. with Analysis and Commentary by Harriet Fast Scott. (New York: Crane, Russak & Co., Inc., for Stanford Research Institute, 1975), pp. 282, 284, 288-9.
6. Lieutenant-General M. M. Kir'yan, Ed., Military Technical Progress and the USSR Armed Forces (Moscow: signed to press July 8, 1982), p. 314. The continuity between this new publication and Sokolovskiy is reinforced by numerous other references to the object of nuclear attacks in other Soviet military writings.
7. Sokolovskiy, p. 302.
8. Sokolovskiy, pp. 299-300.
9. Sokolovskiy, pp. 13, 285, 299-302.
10. Major-General V. Kruchinin says it is a strategic mission in "Contemporary Strategic Theory on the Goals and Missions of Armed Conflict," Voyennaya

Mysl', No. 10 October 1963 pp. 19-20 (approx.);
Colonels I. S. Zheltikov, A. I. Karpov, I. A.
Korotkov, and Engineer-Colonial N. I. Bazonov,
"The Armed Forces of the USSR," in The Officer's
Handbook, General-Major (Reserves) S. N. Kozlov,
Ed. (Moscow: 1971) English translation published
under the auspices of the U.S. Air Force as Vol.
13 of Soviet Military Thought Series, p. 117;
Major-General M. I. Cherednichenko, "Conventional
Weapons and the Prospects of Their Development,"
in Scientific Progress and the Revolution in
Military Affairs, Colonel-General N. A. Lomov,
Ed. (Moscow: Military Publishing House, 1973)
English translation published under the auspices
of the U.S. Air Force as Vol. 3 of Soviet Military
Thought Series, p. 90.

11. Kir'yan, p. 321.
12. Captain 1st Rank B. Makeyev, "SLOC Under Present-
Day Conditions," Morskoy Sbornik, No. 7 July
1979, pp. 19-22; and Ammon, p. 99.
13. Makayev, pp. 21-22.

CHAPTER 5

CONTENT ANALYSIS OF SOVIET FLEET VERSUS FLEET

The mission of fleet versus fleet is Admiral Gorshkov's term to describe the second of the two major roles of navies. Fleet versus fleet involves the use of naval forces to combat an enemy's naval forces at sea and in his bases. It also has to do with maintaining one's own sea lines of communication (SLOC). In past wars, it also involved disrupting an enemy's SLOC.

Cutting an enemy's SLOCs is now described by Admiral Gorshkov as being part of the overall mission of fleet versus shore. Since the SLOC disruption mission is closely related to operations against naval forces at sea, it will once again be considered here. The related mission of maintaining a Soviet SLOC will not be analyzed in this research since it is not associated with the term strategic nor has it been identified as a mission which has an influence upon the outcome of war. Obviously, SLOC maintenance is crucial for the West, but it is the Soviet strategic situation which is of interest to this study.

Two fleet versus fleet missions have been described in terms associated with the ability to influence the

outcome of war. These are crushing an enemy's military-economic potential (which was also a category for fleet versus shore), and destruction of major enemy groupings. Undermining the military-economic potential at sea involves operations against ships of the Navy and on the SLOCs. Under the category of strategic goals, which by definition impact upon the outcome of wars, Gorshkov includes the shattering of an enemy's nuclear sea power.

Since the threat from foreign fleets is implicit in this discussion, consideration must be given to protecting Soviet territory. Gorshkov describes the two chief goals of fleets in The Sea Power of the State as tasks associated with strikes against the shore and protection of the homeland from strikes from an enemy fleet. The latter can be considered as part of shattering an enemy's nuclear sea power. Preventing and countering aggression from the sea was described by the admiral as a strategic mission, as were specific actions against enemy ballistic missile submarines, protecting own installations, and the defense of the sea borders.

Threats From The Sea

One of the most frequent sets of themes encountered in this research has to do with the threat from the sea. The threat is not always tied to a particular nation but most often cast in terms of the West or NATO. The U.S. is frequently singled out and, upon occasion, other nations such as West Germany, the United Kingdom, and France are listed.

The threat from the sea is contained in 19% of all Politburo, 26% of all MOD, and 31% of Gorshkov's documents analyzed during the period under study. The most often discussed threats are those posed by enemy nuclear-capable naval forces: submarines with missiles and attack aircraft carriers. Seventy-six percent of all documents that discuss the threat deal with these primary two.

The stated threat from submarine launched ballistic missiles (SLBM) has changed over time; from Polaris to Poseidon and then to Trident. Since 1975, the submarine threat missile has expanded to include sea launched cruise missiles (SLCMs). The specific location of Western submarines is rarely given. There are occasional references to the Mediterranean (first use July 1963) and the Atlantic and Pacific (first use February .

1966). Marshal V. D. Sokolovskiy's Military Strategy, which was first set in type March 1962, specified the Western Pacific, Mediterranean, northeast Atlantic, northern seas, and Arctic Ocean 1/ as locations where Polaris submarines patrolled.

Generally there are no substantial differences between the subsurface threat as articulated by individual speakers from the different bureaucracies. All specify the submarine with missiles more than submarines in general. One slight variation is that Gorshkov refers to submarines as a threat other than in the context of strikes by them against Soviet territory.

The second most-mentioned threat has been the attack aircraft carrier. We find it mentioned twice by Brezhnev, and five times by the MOD, and in 30 documents by the Navy Chief. The most interesting use of this threat theme is revealed by analysis over time.

Attack aircraft carriers were mentioned as a threat to the territory of the USSR in the 1960's with parallel references to their vulnerability to Soviet weapons systems. The high costs and low combat

potential of carriers were also cited. By 1970, Gorshkov wrote in the Great Soviet Encyclopedia that carriers were useful in local and limited wars and as a strategic nuclear reserve. In the event of a nuclear war, carrier-based attack aviation was described as primarily associated with combat actions at sea. No mention was made of major Western air strikes by carrier aviation against the USSR.

Gorshkov repeats the theme that attack carriers form a strategic reserve in The Sea Power of the State and the Sovetskaya Voyennaya Entsiklopedia. He does not repeat the theme concerning attack aviation being associated with fleet versus fleet in a nuclear war.

Since 1981, the threat from aircraft carriers has most often appeared in the context of articles addressing the U.S.-Soviet naval balance and the need to account for so-called forward-based systems in European theater nuclear arms control talks. Gorshkov did offer his appraisal in January and April 1983 of the large versus small aircraft carrier debate in the West by agreeing that the Falklands armed conflict demonstrated the supremacy of large carriers. He also published a major article in Krasnaya Zvezda in October 1983 which credited aircraft carriers (according

to U.S. strategists) with a decisive role in a future confrontation between navies during a limited nuclear war.

The downgrading of the attack carrier threat was one of the major pieces of evidence that James McConnell and Bradford Dismukes used to support their contention that Soviet fleet actions in the June War of 1967, the Jordanian crisis of 1970, and the October 1973 war were primarily political in nature rather than necessitated by consideration of strategic defense of the USSR. Their logic is that had these events posed a threat to the Soviet Union, then the response was not sufficient to be characteristic of Soviet principles of war. 2/

Another specific nuclear threat from the sea deals with the NATO multilateral force (MLF). The threat of the MLF appeared from February 1963 - February 1966. Since then, it has been mentioned only as a historical note.

As was mentioned earlier, cruise missiles have been cited as a new threat since at least 1975. SLCMs are sometimes associated with the platform they would be launched from but more often appear as a general threat. The cruise missiles threat has appeared in about one-third of all documents since 1982.

Gorshkov has periodically included other nuclear associated threats from the sea. In March 1972 he cited Western plans for ocean floor bases for nuclear ballistic missile submarines (SSBNs). In the second edition of The Sea Power of the State, he claims that older U.S. Polaris submarines will be placed into the reserves, 3/ which would imply that they could be reactivated. Marshal Ustinov referred to the U.S. Trident missiles in July 1983 as a first-strike system. The Navy Chief made reference to U.S. neutron warheads from the sea in July 1977, but his later discussions of these warheads are general and do not necessarily involve the oceanic theater.

An interesting method of generally discussing the nuclear threat from the West has been to cite percentage of nuclear potential that the U.S. Navy has relative to other U.S. services. In the 1960's this was described by Gorshkov as one-third. In May 1978, he expanded the comparison by stating that Western Navies had 70% of all NATO potential. Gorshkov uses missiles as a unit of measure twice in May 1965 and September 1977. His preferred measure is warheads, which is obviously a much higher number than missiles.

Other threat themes that appear include the opening of new ocean sectors to the enemy (since May 1975) and the ability of enemy navies to attack from varying directions (since November 1975). The former might be related to either the increase in patrol areas for U.S. SSBNs due to the Trident missiles or the gradual buildup of U.S. forces in the Indian Ocean. Both themes have only once been tied directly to U.S. submarine missiles.

The perceived threat posed by Western surface ships other than aircraft carriers, surface-launched SLCMs, and the MLF, has been generally minimal. Most citations credit Western surface ships with the role of protecting carriers, convoys, or amphibious units. One document in May 1975 discussed light missile forces in NATO navies. There are occasional references to amphibious forces and the U.S. Marine Corps, but never in a context of being associated as a threat to the USSR.

In the early 1960's, Gorshkov referred to the attack aircraft carrier and Polaris submarine as the main striking force of the U.S. Navy. Over time, the subsurface missile threat has clearly emerged as the predominant threat to Soviet territory, with aircraft

carriers as more of a threat to Soviet naval forces or in actions not directly related to the USSR. To further develop fleet versus fleet, one must consider those citations that specify which enemy fleet forces are perceived as a threat to Soviet naval forces.

The major category of fleet threats to the Soviet Navy is antisubmarine warfare (ASW). Grechko refers to the ASW forces of the enemy twice and Gorshkov does 16 times in 10 documents. The first use of this threat theme is in May 1963 where ASW aircraft carriers and nuclear ASW submarines are noted. Gorshkov updates his reference to ASW carriers by mentioning the new multi-purpose carriers of the U.S. Navy which carry ASW aircraft in addition to attack planes.

With the 1970 Great Soviet Encyclopedia article, Gorshkov specifies ASW forces as including ASW carriers, surface ships, diesel and attack nuclear submarines (SSNs). In fact, the only role given to the Western SSN in this article is ASW. This SSN ASW threat theme is repeated in the Sovetskaya Voyennaya Entsiklopedia and The Sea Power of the State.

Gorshkov uses the latter book to also introduce the concept that the U.S. fleet is tasked with conducting

preemptive operations against enemy strategic forces before they could be used against the U.S. This is not necessarily against Soviet naval assets since the citation refers to counterforce against general strategic forces. Strategic forces according to Soviet use does not necessarily include what the U.S. terms strategic nuclear forces.

The stated threat from enemy fleets to the USSR is presented in the fleet versus fleet section, since actions taken by the USSR against enemy threats from the sea will generally but not always result in fleet interactions. The declared threats are from submarine-launched missiles, cruise missiles which originate at or transit the sea aboard a variety of platforms, attack aircraft carriers primarily directed at the Soviet fleet, and ASW forces, including aircraft carrier operations directed at Soviet submarines. For the purposes of this research, these will be consolidated into: (1) interactions designed to prevent nuclear attacks on the USSR, and (2) interactions designed to protect Soviet fleet assets and ensure they carry out their missions.

One final consideration of the threat in general concerns the expected audience for this theme. Nearly

half of all documents were for general audiences, with a high percentage being newspaper articles. Only 35% of all documents could be expected to have a predominantly military audience. The remaining either originated in another country or were destined for foreign consumption. Most foreign articles appeared after 1981. In fact, 32% of all documents that contained themes of the threat appeared after 1981, which constituted only 16% of the study period.

Prevention of Attacks on USSR

The primary threat from the sea to Soviet territory is the SLBM and cruise missile. Destruction of the missile carrier itself would appear to qualify as destruction of major enemy groupings and crushing military potential, both of which are included in Gorshkov's means to influence war. Destruction of the enemy's nuclear sea power is a strategic goal itself. There is no question that under the category of strategic missions, combat against enemy missile carriers is included. The mission to frustrate an enemy's attack does not necessarily have to be a total success. Gorshkov says in his booklet The Navy that fleet operations against an enemy's sea-based strategic weapons will "weaken their attacks to the maximum

extent possible." During the period of this research, the main threat was the SLBM.

As was discussed in the fleet versus shore section, the destruction of enemy ships in their bases forms part of the fleet versus fleet mission. Land and rocket submarine bases have been on the declaratory list of targets for distant Soviet blows since February 1963. Marshal Malinovskiy specified at that time the means of such blows as the triad of the Strategic Rocket Forces (SRF), the Air Force, and the Navy. Gorshkov followed this declaration with one that the Navy would target Polaris bases in Europe and strike submarines at sea.

Marshal Sokolovskiy was quite explicit in his targeting against Polaris in the 1963 second edition of Military Strategy. He discussed defense in depth with the SRF and Long Range Aviation striking the subs in their bases, and Long Range Aviation, ASW submarines, and other ASW forces being tasked with operations against submarines in transit and in patrol areas. He claimed in the 1962 first edition that ASW submarines could use homing missiles and torpedoes against Polaris and Long-Range Aviation could use nuclear depth charges. 4/

Destruction of Western SSBNs is of the highest possible concern to both the West and the Soviet Union. Marshal Malinovskiy stated twice in 1962 and 1963 that Soviet submarine rockets would target Polaris submarines but did not specify where. His reference could mean while Polaris was at sea or in their bases. One can infer from the passages that he meant at-sea targeting. Since that time, Gorshkov has specified Soviet submarines (no mention of missiles) as the means to destroy Western SSBNs. In early 1965, Gorshkov stated Soviet Navy rockets were capable of dealing with a variety of naval targets including Polaris, but he did not specify at-sea targeting.

There are a number of other citations that use less specific phrases to describe fleet versus fleet combat. In July 1972, Gorshkov specified targets at sea which comprise the nucleus of the enemies' nuclear might. The Soviet means of countering this nuclear threat from the West was Soviet atomic submarines and missile-equipped aviation. There are problems with this declaration since it also included land and surface ships as the object of attack. It also appears that Gorshkov was advocating this mission, not announcing it.

Marshal Grechko writes in The Armed Forces of the Soviet State that naval operations include combat against enemy atomic missile submarines. In a December 1972 Red Star article, Grechko stated the SRF would target naval forces in the theater, although not specifically SSBNs. This is the only reference uncovered that specified the use of Soviet land-based ballistic missiles to target naval forces apparently at sea (but possibly in theater anchorages or bases), although Gorshkov does discuss this issue once from a historical perspective.

As was pointed out in Sokolovskiy's treatment of Polaris patrol locations, the Arctic Ocean was included. None of the Politburo spokesmen, MODs, nor Gorshkov ever refer to this area as a Western SSBN patrol area. Instead, Marshal Malinovskiy boasts in October 1961 that Soviet SSBNs deploy under the Arctic ice. This theme is repeated by him once and once by Gorshkov.

Soviet submarine activities, however, are stressed twenty-two times since 1965 as having an under-Arctic-ice capability. There is no way to distinguish the Arctic as an area of continued deployment for Soviet SSBNs or that Soviet submarines would be conducting a campaign against Western SSBNs (strategic ASW).

Without entering into the related subject of deterrence of war, as understood in the West, it is necessary to point out one unique citation that appeared to discuss a different solution to the threat of Western nuclear missile strikes from SSBNs. In July 29, 1979, Gorshkov described the Western naval strategic nuclear missile threat. He then stated the Party and Government's . . . "way to neutralize that threat . . . consisted of creating qualitatively new strategic facilities in the shape of nuclear submarines carrying ballistic missiles." This appears to be a direct reference to the use of Soviet SSBNs to counter those of the West. But is it a reference to war-fighting damage limitation or a plan to deter use of Western SLBMs by a like Soviet threat implying withholding?

I will return to this concept in a separate chapter dealing with Soviet strategy in war. It is only mentioned here because it would appear to be a specific reference to another possible solution to the threat of missile strikes from Western submarines.

In general, the military answer to Polaris and its follow-on replacements appears to be similar to that first outlined by Marshal Sokolovskiy. The SRF

appears to have been tasked with destruction of SSBNs in bases. From the literature since 1965, it is possible to conclude that Soviet SLBMs might have either taken over this role or will participate in such strikes on bases.

Aviation appears to have lost the role Sokolovskiy mentioned in countering SSBNs. There are still references to joint Navy-Air Force missions or Air Force missions in maritime theaters but no specific tie to strategic ASW operations. In two cases where Gorshkov appeared to advocate a strategic ASW role for naval aviation, it appears more likely he was advocating this position not announcing it. The main method to combat ballistic missile submarines appears to be by Soviet submarines.

Notably absent from any discussion of how to counter Western SSBNs are a number of other possible methods. There is, for example, no declaratory policy of barrage use of the SRF against Western SSBN patrol areas nor as counter-battery fire once the first Western SLBM breaks the surface. There is no mention of anti-ballistic missile systems or other air defense forces and systems which could counter cruise

or ballistic missiles launched from sea or transiting the ocean airspace.

It would thus appear that the Navy's mission in countering the threat from Western navies is primarily directed at the second phase in a layered defense. Soviet submarines will be utilized against Western weapons carriers at sea. SRF and possibly the Navy have a role in distant strikes against the weapon carrier for the missiles while in port. Other forces must be tasked with defense against missiles once they are launched.

Protection of the Soviet Fleet

Having now dealt with the use of the Soviet fleet to engage an enemy fleet in order to protect Soviet territory, we need to account for threats to her fleet. In order to ascertain these, we need to return once more to those offensive missions assigned to the Soviet Navy.

Without question, the primary role of the Soviet Navy is the fleet versus shore mission consisting primarily of SLBM strikes against distant shores. The second most important mission (but one that appears to be virtually equal in status) is prevention of strikes against the USSR. All other missions are secondary.

Fleet versus fleet must include protection from Western attacks on these lower level Soviet operations such as amphibious missions and convoy resupply of land forces. Considering the perceived threats and the primacy of the fleet versus shore mission, it appears that the primary focus of fleet interactions categorized as threats to the Soviet Navy must be on Western actions contemplated against Soviet SSBNs.

Strategic ASW is rarely discussed in open source Western literature. Soviet SSBNs as targets for Western ASW represents an opportunity to achieve a major military gain during a war, at a potentially low cost. Despite the dearth of official statements in the past that the West would mount a strategic ASW campaign, there is no question that the Soviets anticipate such actions. 5/

Soviet spokesmen have specifically noted Western ASW forces as a threat, and Gorshkov has warned the U.S. fleet might pre-empt against Soviet strategic forces. There is evidence in the literature that implies the Soviet plan to utilize all naval forces in a manner that the primary strike force (SSBN) will be allowed to carry out its mission in the face of a strategic ASW campaign by the West. Gorshkov recognizes

the fleet versus shore mission as having created the fleet versus fleet problem in his booklet The Navy.

The primary threat to Soviet SSBNs is from Western submarines. The U.S. has recently emphasized the need for a strategic ASW capability for its SSNs, and stated it will conduct an offensive in Arctic waters in the event of war. Land-based patrol aviation also constitutes an ASW threat especially to forward-deployed Soviet SSBNs. Western land based air and carrier task groups could mount ASW campaigns in Arctic or other waters close to the USSR, but would then be subject to air strikes from Soviet land-based aviation. In Soviet declaratory statements, it would appear that each possible fleet versus fleet interaction has been accounted for.

Protection by Naval Aviation

It was noted earlier that current declaratory policy has Soviet naval aviation assigned primarily to fleet versus fleet missions. In some 34 documents which discuss Soviet naval air missions, there are 30 individual citations mentioning ASW and 23 associations with an anti-surface ship role.

Soviet naval aviation includes both fixed-wing airplanes and rotary-wing helicopters capable of conducting both ASW and anti-surface warfare. Specific surface and submarine targets for Soviet naval air are given in only a few cases. There have been four references to convoys and transports as aviation targets. In his 1977 book The Navy, the Navy C-in-C says that the combat capabilities of naval aviation are one of the main indicators of the fleet's striking power. In both editions of The Sea Power of the State, Gorshkov stated that aviation' targets will include the ASW forces of the enemy. As a general comment in this book, not tied specifically to the Soviet Navy, Gorshkov states that the main task of naval aviation is ASW.

An interesting theme associated with Soviet Naval Air is that of cooperation with other naval forces. This theme originated at least as early as October 1961 from Marshal Malinovskiy. Since then, Soviet naval aviation has been noted five more times as cooperating with submarines and four times with surface ships.

The Soviet Air Force also has a role in oceanic theaters against naval targets. This theme appears as

early as February 1958, but is authored only by the MOD. As we found Gorshkov reluctant to address the Soviet Long-Range Aviation in discussion of the strategic triad, we also find him avoiding reference to the Air Force in the context of their mission to strike naval forces of the enemy. Gorshkov instead makes occasional references to "other forces" in oceanic theaters without specifying the name of the service.

The status of naval aviation has placed it generally in the number two position behind the submarine branch. Gorshkov first linked these two branches as both being more important than other naval branches in July 1963. This link has reappeared 32 times through 1979 and included use by Marshal Grechko. Repetition of this theme diminished after 1977. More recent Naval Aviation themes have involved mention of new air capable surface ships.

Protection by Surface Ships

The status and roles for Soviet surface ships are interesting to trace over the years, especially in light of Nikita Khrushchev's oft cited denigrations 6/ and the reams of papers written in the West about

Soviet use of surface ships for naval diplomacy. Khrushchev's comments that the role of surface ships was decreasing was followed by similar comments from Gorshkov in the early 1960's.

Gorshkov's support for surface ships actually predates 1965, showing that he either was in disagreement with Khrushchev or Khrushchev's dismissal of surface ships has been over exaggerated in the West. In July 1963, Gorshkov stated in Morskoy Sbornik to a generally Soviet Navy audience that surface ships were still needed. In a May 1965 Literaturnaya Gazeta article, he refined this claim by making it clear that ships with guns had a lesser role but "war at sea still includes combat tasks which cannot be successfully resolved without surface ships."

By July 1966, Gorshkov attempted to include surface ships on an equal status with submarines and aviation. In February 1968, surface rocket carriers were termed the "pride of the fleet." In July, he included ASW vessels in this special group. Five years later, he declared in a Pravda article that surface ships are technically equivalent to submarines.

In the first edition of The Sea Power of the State, we find the theme that Soviet surface ships are

needed to solve a number of tasks facing the fleet. This theme is dropped in the second edition, although reference is retained to the need for surface ships to support submarines in general. In his 1977 booklet, The Navy and in the second edition of The Sea Power of the State, Gorshkov states that missile ships and small combatants are the pride of Soviet shipbuilding. In July 1980, he repeats that surface ships are still important.

In general, it is Gorshkov who has praised Soviet surface ships. Grechko did make a favorable reference to surface ships in early 1971, but in a passage which also praised submarines and aviation. Considering the place of publication, Morskoy Sbornik, this was probably a passing reference designed to praise the Navy as a whole. Most of the commentary praising surface ships appears in articles and speeches designed for a general audience.

In the 41 documents that contain references to surface ship missions being considered in this study, the most often mentioned mission for Soviet ships is ASW (40 citations), and then anti-surface (14 citations). Surface ship missions against the shore are described as amphibious operations (21 cases) or as assisting

the ground forces (14 cases). Notably absent is the use of surface ships to fire cruise missiles against land targets or to specifically engage missiles enroute to targets ashore in the USSR.

In looking at the author of these references to war missions, slight differences appear. In general, Politburo spokesmen or MOD associate ASW with Soviet surface ships. The sole exception is Marshal Grechko, who twice referred to an anti-surface role in 1971 (once against enemy strike forces) and did mention amphibious capabilities. Grechko also states in the second edition of The Armed Forces of the Soviet State that surface ships are being developed for strike missions.

Gorshkov specifies targets for Soviet surface forces. In 1970, he specifies the enemy's strike forces and transports. In The Sea Power of the State, missile boats in coastal waters and closed seas are credited with a capability against other surface ships and transports. Convoys are repeated as targets in the Sovetskaya Voyennaya Entsiklopedia. Transports and enemy ASW forces appear as targets in September 1977.

In a more general nature, Gorshkov stresses the multi-purpose nature of Soviet surface ships or their capability for a wide variety of tasks 17 times since 1965. In both theoretical discussions of surface ships in general, and specifically Soviet ships, Gorshkov states surface ships are capable of strikes, missions against the SLOCs, and "often the sole combat means of ensuring deployment of the main strike forces of the fleet - submarines."

This latter capability is tied directly to the Soviet Navy in the Sovetskaya Voyennaya Entsiklopedia and Gorshkov's booklet The Navy, which state that Soviet surface ships will "assure the combat stability of submarines." Soviet surface ships cooperating with submarines appears in The Sea Power of the State as well as interaction with aviation.

The Soviet view of aircraft carriers over time has been written about by others and will not be repeated here. As for Soviet carriers or air-capable cruisers, Gorshkov has made it clear that these are for ASW purposes, although in September 1969 he did boast that the MOSKVA was capable of combating surface ships. In May 1978, Brezhnev stated that the USSR had no attack aircraft carriers and was not building any.

Recent and repeated Gorshkov comments have stressed that the USSR's two carriers are solely for ASW purposes. Most comments were for external consumption. In July 1983, Ustinov went so far as to deny that the Soviets had any carriers obviously meaning attack carriers. As with comments about U.S. carriers, recent commentary about Soviet carriers appears to be influenced by arms control negotiations and by the need to count carrier aircraft as nuclear weapons delivery vehicles.

Protection by Submarines

Soviet submarines are also given a role in fleet versus fleet. Over the years there has been a great deal of controversy as to the means of engagement. Submarines are capable of laying mines, firing torpedoes, or using missiles.

Despite a long involvement in mine warfare and much concern about this threat by the West, the Soviet authors whose writings were consulted in this study were generally silent about future Soviet use of mines. It would appear that mine warfare is not to be openly associated with any strategic missions. The subject of U.S./NATO mine warfare capability is a

frequent theme in Morskoy Sbornik demonstrating Soviet interest in the subject.

The use of torpedoes is a frequent theme. The Soviet Navy Chief and MOD have stated on ten occasions since 1962 that Soviet torpedoes include those with nuclear warheads. Torpedoes as a means for fleet engagements is a obvious theme but is not directly associated with any particular target set.

As was noted in the fleet versus shore chapters, passages referring to the targets of submarine missiles have often included both land and sea targets making analysis extremely complicated. Also noted was the lively debate in the West over the possibility that SLBMs were to be used against targets in the oceanic theater.

In October 1961, Chairman Khrushchev made a specific reference to submarines' target-seeking rockets being used against ships. This passage was different from another passage in the same report when Khrushchev discussed both submarine ballistic rockets and target-seeking rockets. Following this report, Engineer-Rear Admiral N. V. Isachenkov stated in a Krasnaya Zvezda interview what appears to be the plan

to use SLCMs against ships and SLBMs against the shore. 7/ This article has been reanalyzed to conclude that he could have meant SLBMs against ships. 8/

Marshal Sokolovskiy states in his 1962 and 1963 editions of Military Strategy that submarines' guided missiles launched from under the surface are a threat to surface vessels. 9/ He states that such a method of operations has replaced the standard method of torpedo attack. One must remember that subsurface-launched cruise missiles had not yet appeared in 1962, and that the only subsurface-launched missile at the time was ballistic. As late as April 1965, when the Dictionary of Basic Military Terms was typeset, cruise missiles were listed as being capable of only being fired from submarines on the surface. 10/

In a February 1966 article by Malinovskiy, which appeared in Bulgaria, a passage discusses the use of submarines in fleet versus fleet engagements. The last part of includes submarine missiles striking "targets" from a submerged position. The type of missile is not specified, but if the MOD was referring to a SLCM, it had to be a prototype SLCM, since operational cruise missiles capable of submerged launch had not yet appeared.

Marshal Grechko's October 1967 speech to the Supreme Soviet contains a passage that reads:

Submarines armed with ballistic rockets are capable of destroying ships from a distance of hundreds of kilometers and delivering blows from underwater on strategic enemy targets thousands of kilometers away.

The obviously interesting portion is a direct citation of the use of SLBMs to target ships at a sufficiently short enough distance as to imply operations at sea. If ships in port were the object, then why not use thousands of kilometers?

In a Soviet-prepared English summary of his 1971 Navy Day speech, Admiral Gorshkov reportedly stated that "submarines are capable of hitting enemy strategic targets at a distance of 1,000 kilometers and sending winged rockets and torpedoes to hit enemy ships and submarines." Additional Soviet articles by other authors have appeared that might imply that SLBMs were intended for targets at sea including ships in formation. 11/ From the point of the literature alone, the use of SLBMs against fleet targets appears to be a declaratory policy at least through 1972.

One must certainly question the possibility of such a major conceptual breakthrough in light of other

pronouncements of military and naval capability. The Soviet literature has contained direct and specific reference to the use of nuclear warheads on missiles and torpedoes. A subsurface launch capability for rockets has been boasted by the Navy Chief and MOD since July 1962. Submarine speeds exceeding those in the U.S. have been discussed as early as July 1961. New rocket fuels were mentioned by Malinovskiy in February 1965. Grechko discussed submarine power capability being a hundred fold greater than WW II subs in October 1967 and Gorshkov added depth increases five times greater in December.

Gorshkov cites the construction of Soviet nuclear submarines having begun in 1953 in his Great Soviet Encyclopedia article. Elsewhere Soviet Naval authors point out their first launch of a SLBM from submarines in 1955. 12/ Statements of this type may be viewed as mere sabre-rattling or propaganda but the fact that they are made at all is of interest.

It is possible, naturally, that the Soviet military does not want to emphasize the possibility of using SLBMs against surface ships or submarines. This may be for internal domestic needs rather than to

ensure surprise. Maintaining support for naval programs might be undermined if the Party continually had naval vulnerability discussed in such terms that the vulnerability of Soviet ships was in question.

Targets of Soviet submarine fleet versus fleet interactions do not clear up the controversy since the means is often vague or targets ashore included in the passage. One finds numerous references to use of submarines against prime threats to the fleet (aircraft carriers and submarines). The July 1979 reference to a possible mission of Soviet SSBNs against Western SSBNs has previously been pointed out but, this may have been in a deterrence role, not in war-fighting.

There are references to Soviet submarines against transports and amphibious forces only in two encyclopedia articles. In The Sea Power of the State, Gorshkov includes enemy merchant ships as the target for submarines on two occasions, but he does not identify such strikes directly as a Soviet mission.

This book also contains reference to the use of Soviet submarines to engage the enemy fleet in areas of the ocean chosen by the USSR. This passage follows criticism of the centuries-old practice of the Russian fleet being tied to coastal areas and closed theaters.

Submarine cooperation with Naval Aviation and surface ships has already been discussed. Notably absent, however, is any mention of Soviet submarines cooperating with submarines. A widely cited passage from a 1975 Morskoy Sbornik article does, in fact, refer to the use of "operational-tactical submarines . . . to support the combat patrolling of strategic submarines." 13/ Unfortunately, this entire article is a discussion of Western practices and is based on materials from the foreign press. This does not mean one should dismiss this article out of hand, but it is not a direct citation stating the use of Soviet submarine patrolling with and protecting their SSBNs. The statement is typical of the problems analysts have in inferring missions of the Soviet fleet using Western surrogates.

Soviet submarine cooperation with other submarines in war is a historical fact that has appeared in the open Soviet literature. 14/ In discussions of the Soviet Naval campaign against German SLOCs in WW II, submarines were deployed in groups including groups of 2-3 when engaging convoys. At that time, the Soviets were having problems with underwater communications devices which at the time were supposedly capable of

transmissions up to 12,000 yards (roughly six nautical miles).

Discussion of this last item included a prognosis (1973) that the problem would eventually be solved. It seems noteworthy that Gorshkov makes no direct mention of the Soviet use of submarines in groups or for the protection of SSBNs, since both concepts have been credited in the West as a Soviet tactic. Another absence is the mention of submarine missiles against aircraft.

The "Blue Belt of Defense"

Problems associated with the translation of the Russian words "zashchita" and "oborona" into English as "defense" have been mentioned previously. The former generally is used as a protective shield between enemy and victim, while the latter is more of an active insertion of the shield between oneself and the enemy. The relationship of these differences to the Western concept of deterrence should be obvious.

Defense of Soviet borders is one of the most frequent themes appearing in all documents, appearing some 86 times since 1965. Instead of reopening the "zashchita" versus "oborona" debate, attention will be

directed in this section to aspects that are clearly tasks to be actually undertaken in time of hostilities.

Regarding service roles and missions, one finding should be made at the outset. Defense of the sea borders appears to be primarily a Navy task. The participation of other services does appear from time to time but not on a regular basis, nor is there any pattern based upon author. Participation by Warsaw Pact Navies most often appears in articles originating or targeted for the socialist community. The defense mission ("zashchita" or "oborona") appears to be definitely active. In 28 documents, terms such as "repel" or "repulse" attacks from the sea are used.

Gorshkov uses the term of protecting own targets, objectives, and installations in four discussions of defense of Soviet borders from October 1967 - October 1969. From the passages, it is not clear whether these targets to be protected are ashore or at sea. Gorshkov also used the term "defended zone of a naval theater" when discussing the need for forces needed to combat an enemy within such a zone and to give support to the Navy's main assault forces. This passage appears in the July 1963 Morskoy Sbornik.

One of the most interesting passages concerning naval warfare authored by a MOD was in Marshal Malinovsky's April 1966 speech to the 23rd Congress of the Communist Party of the Soviet Union. In a passage dealing with the defense of borders, Malinovskiy stated that "the construction of our blue belt defense has been completed." The closest any speaker in this study ever comes to repeating this theme is Gorshkov on July 27, 1968. In a radio address that day, the Navy Chief says the powerful Soviet Navy is "capable of taking its defense line out into the ocean."

Exactly what the MOD meant by this blue belt defense has been the subject of much speculation in the West. 15/ The German Democratic Republic Defense Minister, General Heinz Hoffman stated in 1966 that Soviet atomic submarines operating in every sea in the world were part of the blue defense belt. 16/ A Hungarian officer wrote the next year in an Army publication in Budapest that the Soviet Union now had a nuclear sword and also a shield in an article that makes direct reference to the blue belt but deals mostly with anti-ballistic missile defense. 17/

Perhaps most interesting is an East German radio broadcast from Moscow in 1970 that report on the Soviet Navy Okean maneuvers. The reporter used the blue belt defense term with reference to maritime defense. He also lists only naval forces as those assigned to the blue belt defense, and associated such units with strategic tasks. The reporter then went on to state that the Okean maneuvers tested the blue belt defense and the operability of the fleet "as well as all branches of service in such exercises." 18/

In The Sea Power of the State, Gorshkov expands upon his discussion of dominance at sea mentioned previously in his "Navies in War and Peace" series. With the appearance of the book, the Navy C-in-C states that under conditions of modern war where submarines are the main branch and the main strategic orientation is fleet versus shore, there is a need for "all-round backing of the actions of the forces solving strategic tasks."

Therefore, the struggle to create, in a particular time, favorable conditions for successfully solving by a large grouping of forces of the fleet, the main tasks facing it, and at the same time creating conditions such as would make it more difficult for the enemy to fulfill his tasks and prevent him from frustrating

the actions of the opposing side, will apparently be widely adopted. . . . Among these measures are the creation and preparation of the necessary forces and resources for keeping them in readiness to solve combat tasks, form groupings of forces and such deployment of them in a theater as to ensure positional superiority over the enemy . . .

Gorshkov's discussion is an attempt to distance himself from Mahan, whom he frequently criticizes, and to state that in order to accomplish strategic tasks at sea, sea control is only required over particular ocean areas and only during particular times. As we know, strategic tasks have been generally associated with strikes against the shore and with countering aggression from the sea.

Findings of Declaratory Policy

Soviet declaratory policy does not include fleet versus fleet engagements as interactions whereby navies would engage in a decisive battle for its own sake. All major naval engagements have been tailored to a formalized system of strategic goals and missions capable of influencing the outcome of a war. To understand these engagements, one should look at the stated threat from the West and visualize the distances and geography involved.

The long-range threat to the USSR is from Western naval forces found in their home bases and waters and by SSBNs deployed at sea. The long-range threat can be countered by ballistic missiles from the SRF and possibly also from Soviet Navy submarines. Strikes will be conducted against enemy fleet units in ports and at bases. Ships in their bases (especially SSBNs and carriers) are magnets for Soviet strikes, since major benefits would result from the expenditure of only a few missiles. Such attacks constitute part of the overall fleet versus fleet mission. U.S. SSBNs on distant patrol are targets of Soviet submarine ASW action.

A closer-in threat is posed by shorter range SLBMs, carriers of SLCMs, and surface carrier task forces primarily by their ASW assets, submarines, and supporting land-based air. These Western units pose a threat against the Soviet homeland itself (SLBM, SLCM) or against the Soviet fleet.

There is no doubt that open Soviet declaratory policy includes active defense of Soviet SSBNs, which this researcher feels would bait Western navies to combat in areas chosen by the USSR. Areas of such defense allow both protection of Soviet assets and the

opportunity to destroy major enemy groupings. Soviet military forces assigned to oceanic theaters of operations supporting defended areas include the Soviet navy and the air force. Soviet policy is for close interaction of a multitude of air, surface, and subsurface units that would ensure control of these areas and deny the West the ability to upset Soviet control. Concluding this concept of active defense of the fleet as a "bastion," defense appears proper.

If there is any evidence of a declaratory Soviet SLOC mission in terms generally associated with at-sea operations rather than by missile strikes against terminals, it is modest. Occasionally, the Soviets have stated they intend to use aviation, surface ships (missile boats, especially), and submarines in combat against SLOCs but some of this commentary has specified coastal areas and closed areas. It appears that the major threat to distant SLOCs is missile strikes under the fleet versus shore category.

Finally, the matter of the use of ballistic rockets against surface ships appears to be declaratory policy but perhaps historical. MOD Grechko did, in fact, state that Soviet SRF missiles and SLBMS would be used against surface ships in the theater.

NOTES

1. Marshal of the Soviet Union V. D. Sokolovskiy, Soviet Military Strategy, Ed., with analysis and commentary by Harriet Fast Scott (New York: Crane, Russak & Co., Inc., for Stanford Research Institute, 1975), p. 301.
2. Bradford Dismukes and James M. McConnell in Soviet Naval Diplomacy, Pergamon Policy Studies on the Soviet Union and Eastern Europe - 37, Published in cooperation with the Center for Naval Analyses (New York: Pergamon Press, 1979), p. 292.
3. Gorshkov should have known that this was not possible under the provisions of the SALT I Interim Agreement. Consequently, we can surmise either poor research by the staff tasked with updating the book, or deliberate falsification of data.
4. Sokolovskiy, pp. 290, 302.
5. The plan to have U.S. naval forces conduct strategic ASW against the USSR in the event of a war was openly resurfaced by Chief of Naval Operations James Watkins. See, for example, the

May 19, 1983 articles by Walter S. Mossberg, "A Nuclear Attack Sub Shows Its Capabilities in Long, Silent Patrols," Wall Street Journal, p. 1; Richard Halloran, "Navy Trains to Battle Soviet Submarines in Arctic," New York Times, p. 17; George C. Wilson, "Navy is Preparing for Submarine Warfare Beneath Coastal Ice," Washington Post, p. 5; and report of the same interview by Edgar Ulsamer, "Bobbing, Weaving, and Fighting Smart," Air Force Magazine, Vol. 66, No. 8, August 1983, pp. 88-94.

6. Khrushchev Remembers: The Last Testament, Trans. and ed. by Strobe Talbott (Boston, Mass.: Little, Brown, and Co., 1974) pp. 20, 22-23, 30-34. An interesting commentary on Khrushchev's depreciation is written by James McConnell in Soviet Naval Diplomacy, p. 13.
7. "New Ship Weapons," Krasnaya Zvezda, November 18, 1961. "Ballistic rockets are basically assigned to the destruction of coastal targets. . . The Soviet Navy is faced with the task of destroying on the sea the ships and vessels of the enemy. The most efficient means of combat on the oceans and seas are self-homing rockets."

8. K. J. Moore, Mark Flanigan, and Robert D. Helsel, "Developments in Submarine Systems, 1956-76," Soviet Naval Influence: Domestic and Foreign Dimensions, Michael McGwire and John McDonnell, Eds., Praeger Special Studies in International Politics and Government (New York: Praeger Publishers, 1977) pp. 171-172. One sentence has been left out of their reprint of portions of the Isachenkov interview. It is underlined in footnote 7 above.
9. Sokolovskiy, p. 301.
10. Dictionary of Basic Military Terms, General-Colonel A. I. Radziyevskiy, Ed. (Moscow: Voenizdat, typeset April 1965), English translation published under the auspices of the U.S. Air Force as Vol. 9 in the Soviet Military Thought Series, Item 797, p. 111.
11. Lieutenant Commander Carl H. Clawson, U.S. Navy (Ret.) in his "The Wartime Role of Soviet SSBNs - Round Two," U.S. Naval Institute Proceedings, Vol. 106 No. 3 March 1980, p. 66 cites three supposedly direct references to SLBMs against surface ships. The July 28, 1967, TASS Interview

with Admiral Sergeyev cited was carried by Moscow Domestic Service in Russian at 1500 GMT and does appear to support Clawson's claim. The report by Val. Goltsev "The Nuclear Submarines Attack," in Izvestiya, April 28, 1970 Morning edition, p. 6, places the reference to ballistic missiles in one paragraph and ships at formation as the targets of missiles (type unspecified) in another, thus undermining Clawson's thesis. By 1970, the missiles capable of striking ships in formation could have been SLCMs.

12. Captain 1st Rank C. A. Ammon, et al., The Soviet Navy in War and Peace, (Moscow: Progress Publishers, 1981), p. 97. Gorshkov only uses the term "the early 1950's" to describe when the first SLBM appears (in his September 1977 book).
13. Captain 1st Rank N. V'yunenko, "Some Trends in the Development of Naval Tactics," Morskoy Sbornik, No. 10 October 1975, p. 22.
14. V. I. Achkasov and N. B. Pavlovich Soviet Naval Operations in the Great Patriotic War 1941-1945, (Annapolis, Md.: Naval Institute Press, 1981, a translation of the 1973 Russian original), p. 205

- and Captain 1st Rank G. Karmenok, "Control of Navy Submarines in Operations on Enemy Sea Lanes," Morskoy Sbornik, No. 5 May 1983, p. 24.
15. See especially Robert W. Herrick, "The USSR's 'Blue Belt of Defense' Concept: A Unified Military Plan for Defense Against Seaborne Nuclear Attack by Strike Carriers and Polaris/Poseidon SSBNs," in Naval Power in Soviet Policy, Paul J. Murphy, Ed., Published under the auspices of the U.S. Air Force, Studies in Communist Affairs - Vol. 2 (Washington, D.C.: U.S. Government Printing Office, 1978), Chapter 9, pp. 169-178. An earlier version (minus the last paragraph) appeared as his Center for Naval Analyses Professional Paper, No. 111, in May 1973.
16. East Berlin ADN Domestic Service in German at 1421 GMT on May 25, 1966.
17. Lieutenant-Colonel Jozsef Bojcsuk, "The Antimissile--A Contribution by Our Military Expert," Nepszabadsag (Budapest) April 30, 1967.
18. Jonny Marhold Moscow dispatch carried on East Berlin Domestic Service in German at 0756 GMT on May 7, 1970.

CHAPTER 6

SOVIET MILITARY STRATEGY

Up to this point, we have considered declaratory goals and missions of the Soviet military in the event of a major nuclear war, what enemy forces would be engaged by the various types of Soviet forces, and other initial questions of military doctrine and strategy. To complete the content analysis of Soviet declaratory policy, we now need to assess the nature of a future war, the methods of conducting such a war, and specific plans as they relate to the use of naval forces and operations on the oceanic theater.

The theory by official Washington of the employment of the Soviet Navy in the event of war is generally as follows: It is assumed that forward-deployed nuclear ballistic missile submarines (SSBNs) would be employed against time-urgent targets in the U.S., i.e., bomber/tanker bases, command and control centers, or intercontinental ballistic missile (ICBM) silos in a "pin-down" attack. 1/ Certain older submarines in European and Asian waters are assigned theater strike missions. Newer submarines would be deployed in Arctic-defended bastions where they would be withheld from an initial

Soviet strike 2/ in order to be used for inter-or post-war negotiations and a peace settlement.

It is to this general conception of an employment plan that the content analysis will now turn. Some of the more recent criticisms of existing analyses is that the evidence in the Soviet literature does not necessarily support these Western conclusions. 3/ The ability of the Soviet fleet to carry out its wartime missions cannot be harshly criticized in internal Soviet publications or speeches for fear of undermining deterrence credibility. The point of this chapter is to weigh the evidence by reviewing the literature for both manifest and latent support.

To do so, themes were tracked that have to do with: the anticipated length of war, the potential for limited nuclear war, the concept of deterrence, strategic nuclear reserves, capabilities of naval forces, command and control, operational art, and tactics.

Global Versus Limited Nuclear War

There is no question from the reading of the literature during the Khrushchev era that doctrinal declaratory policy for a war in response to a strike by the West was for massive nuclear attacks and a

rejection of limited war. Since that time, military authors and leaders have stressed the importance of conventional warfare and the ability to "respond" with other than a spasm nuclear attack.

Minister of Defense (MOD) Grechko introduced the concepts that war can be waged either with or without nuclear weapons in February 1968, could commence with nuclear or conventional weapons in February 1969, and might be conventional only in February 1970. Grechko also stated in The Armed Forces of the Soviet State that conventional weapons might be decisive and that nuclear weapons cannot solve all the problems of war.

The Minister of Defense's emphasis on conventional warfare does not necessarily mean that a future Soviet war with the West can take the form of a conventional-only attack on NATO Europe. His references may be directed to the need for certain types of conventional capabilities that complement nuclear warfare or will primarily exploit the use of nuclear weapons. Alternatively, the context might have been for a capability to fight limited wars (such as in Afghanistan) or to provide military assistance at lower levels of conflict.

Admiral Gorshkov has generally remained outside the debate over the character of a future war, making only infrequent statements supporting the MOD. Apparently, the question of the character of future war is beyond the domain of the Navy Chief. The Navy position parallels the MOD: war might be conventional or nuclear. Although it is the latter that this research is focused on, we cannot dismiss complementary conventional operations, such as strategic antisubmarine warfare (ASW), that might be conducted prior to the nuclear phase of a future war and that could prevent strategic nuclear forces from successful mission completion.

The question of escalation is another one that apparently does not translate well from Russian into English. In the West, the general view is that there is conventional war and then there is nuclear war, with some arguing that a limited nuclear war is possible. From certain aspects of the Soviet literature, the firebreaks in escalation appear to be the political goals and not the weapons used. 4/

If this political distinction is the essential question in escalation, we must conclude both that a primarily nuclear offensive is one possible option and

that a conventional armed struggle is another, and would that a mix of combined nuclear and conventional is the third. From the researcher's reading of the available literature concerning land warfare, the Soviet emphasis has been decidedly nuclear with conventional as a complement.

This does not preclude an initial conventional operation from eventually growing into a nuclear confrontation if the political stakes were raised. For example, an insertion of Soviet troops into a Third World crisis area would be for limited political goals and would involve only conventional weapons. If the U.S. then intervened and the political context were decidedly changed, the result might be to alter the planned employment of military force to include nuclear threats or use.

A frequent question in analysis of Soviet military thought has been whether or not the USSR would engage in a limited or tactical nuclear war. A few years ago, one could read into the literature or from land exercise behavior that perhaps limited nuclear war was being contemplated in theory.

In recent years, Chairman Brezhnev and Marshal Ustinov specifically rejected the notion of a limited

nuclear war (November 1981 and February 1982). Marshal Nikolay V. Ogarkov, former Chief of the General Staff and senior professional military officer has also spoken against any Western notion of limited nuclear war and once again emphasized a frequent theme in the literature: the decisive nature of the initial period of a future war. 5/

General war is described as early as October 1967 by Admiral Gorshkov in terms including the need to suppress aggression at its inception. Gorshkov repeats this theme at least seven times through 1979. Gorshkov did make one reference to limited nuclear wars in October 1983 but attributed the plan to U.S. strategists. He did note the U.S. plan to use aircraft carriers in a decisive role in the confrontation between navies.

Ustinov echos the Navy Chief by mentioning the need to prevent military conflicts growing into nuclear ones (July 1982) implying a recognition (of late) of a nuclear firebreak. This supports the Grechko theme that war does not necessarily need to be nuclear. It also implies a need to deter nuclear attack in the event of a conventional-only war.

The Soviet means of deterrence has been often described in the West as "war-fighting." In other words, some Western analysts claim that the Soviet method of deterrence is not just to threaten a retaliatory blow but to prevent successful attacks in addition to threatening retaliation. Grechko, however, generally spoke of retaliation rather than of attempting to limit damage from an attack. The best Soviet source of late that supports these Western assertions was Marshal Ogarkov. In discussing Soviet military doctrine in 1982, he states:

The point is to be able not simply to defend oneself, to oppose the aggressor with appropriate passive means and methods of defense but also to deliver devastating response strikes on the aggressor and to defeat the enemy in any situation conditions. 6/

As has been stated earlier, the concept of deterrence as generally understood in the West does not translate well into the Russian. To ensure ideological conformity, all Soviet military actions are cast as responses to the West. Deterrence is used in the abstract, not against any one type of war or always against the U.S.

In the literature, however, there are two main themes relating to naval warfare that emerge when the

passages are evaluated over time. The first is that the Soviet Navy as a whole is restraining aggression and adventurism by the imperialists on the high seas in general and also specifically in the Mediterranean. This theme appears as early as June 1969 and appears only in statements by the Navy Chief. In April 1975, Gorshkov adds the concept that the Navy is strengthening peace and stabilizing the international situation. In February 1980, he amplifies this concept further by stating the fleet prevents the imperialists from fulfilling police functions with impunity, and in July 1981 that it shows the futility of naval demonstrations.

Whereas the Soviet Navy as a whole has a restraining influence on the West's use of naval diplomacy for political purposes, Gorshkov credits fleets in the abstract in the final episode of the "Navies in War and Peace" series with the capability of achieving political objectives in war. In The Sea Power of the State, he adds the ability of fleets (in general) to achieve political goals without actual armed struggle by threatening military action. The context of the latter passage is clearly peacetime naval diplomacy, but the implication extends to other uses of fleets.

The restraint on imperialism in the 30 passages analyzed thus far cannot be tied directly to either nuclear forces as the means of restraint nor to deterrence of nuclear war. In some additional 22 passages, however, the means of restraint is more closely associated with nuclear. The passages show variation, however, over time and by author.

As with the previously discussed themes of the main Soviet military services, we find differences between the position of the MOD and the Navy Chief. In three citations (1966-1967), Marshal Malinovsky initiates the theme of the dyad of the Strategic Rocket Forces (SRF) and Navy atomic rocket submarines as the chief means of restraining/resisting/containing aggression.

Marshal Grechko, on the other hand, in five passages from 1968-1972, cites the SRF alone as the chief means of deterring/restraining/curbing aggression. In his July 1971 Morskoy Sbornik article, Grechko shifts to the dyad theme for deterrence, stating that both constitute a shield.

Starting in February 1968, the Navy Chief discusses nuclear means for deterrence by asserting that the SRF

is a powerful means of containing imperialism. By the time this article appeared, Malinovskiy had died, and Grechko was in the Ministry and had just published his differing view that the SRF alone was the chief means of deterring aggression.

In July 1969, Gorshkov advances the theme that SLBMs were a barrier to aggression. This predates his February 1974 claim discussed earlier that the Soviet Navy was a major strategic weapon for the Supreme Command and was capable of influencing the course and outcome of armed conflict. It would appear that the context was that naval forces also, not alone, contributed to deterrence.

By October 1969, Gorshkov picks up the Malinovskiy theme that the dyad could decisively route the aggressor in war (discussed earlier) and also followed the former MOD's concept that the dyad was a fundamental means of deterring aggression. Gorshkov repeats this theme twice in February 1971 and adds that the dyad was a shield over the socialist system. He ignores numerous Grechko statements that the SRF was the main service (discussed earlier).

Gorshkov also ignores Grechko's three 1971 citations that the SRF alone was the main means of

deterrence. The Navy Chief continues on with the dyad deterrence theme (including shield) in five additional instances. In July 1973, all dyad references cease.

In July 1979, Gorshkov made his cryptic statement that Soviet SSBNs could neutralize (in the sense of off-setting) the threat of enemy SSBNs. In February 1980, he referred to strategic missile forces as a nuclear shield. In July 1983, Gorshkov stated that Soviet Navy strategic arms deterred aggression.

The deterrence of nuclear war is accomplished by strategic nuclear forces, according to Marshal N. V. Ogarkov. In at least four documents since 1981, Ogarkov has specifically mentioned the strategic nuclear forces as the "main factor" for deterring the aggressor. 7/ In his latest pronouncement, the former Chief of the General Staff specifically identified the components of the strategic nuclear forces as the triad of SRF, and components of the Navy and Air Force.

Since 1973, the more frequent theme relating to deterrence of aggression from the sea against the USSR has been that the Soviet Navy restrains ocean-originated aggression and can counter such threats. This concept

was first introduced in February 1973, where it was perhaps best explained. In his closing passage to the "Navies in War and Peace" series, Gorshkov discusses the Soviet Navy as a "shield from enemy attacks from the sea and a real warning of the inevitability of retaliation for aggression." In his February 1980 Kommunist article, the Navy Chief again states that the Navy will contain aggression coming from the ocean and if necessary, retaliate.

The question of the inevitability of retaliation is tied to the scope of a future nuclear war. Under Khrushchev, declaratory policy appeared to be that if a war were to occur, nuclear use would be swift, total, and widespread. With the conventional operations articulated by Grechko, the Navy would still have a strategic mission to contain non-nuclear Western naval operations against the Soviet fleet or homeland and to be prepared to initiate or retaliate with its nuclear capability if called upon.

Although it can be argued that a conventional-only land war in Europe would play into NATO's hands by providing sufficient strategic warning to allow a major upgrading in Western defenses due to mobilization, Soviet conventional capability at sea may not necessarily

be tied only to a NATO land war. Should the Soviets decide to utilize their military forces overseas outside the Eurasian land mass, a strong Navy would be a definite advantage. Conventional weapons and capability would be more useable in a Third World environment than would nuclear ones.

Thus far, the findings appear to fit together. Global nuclear war is not the automatic response to any or all aggression. The question remains, however, how much of the Soviet nuclear forces would be fired once the political decision were made to go nuclear? Here, the evidence begins to get extremely thin and is inconclusive.

On the one hand, we have Gorshkov's statement in July 1979 that Soviet SSBNs are a counter to Western SSBNs. One can read into this a threat to withhold these as long as the West does, in other words nuclear forces deter opposing nuclear forces. We also have Gorshkov's October 1983 comment about limited nuclear war involving naval forces. On the other hand, most of the commentary from MOD and Politburo spokesman about the inevitable retaliation include claims that it will be "crushing" and not limited or withheld.

From the content analysis alone, it is impossible to measure exactly what the Soviets mean by a "crushing" blow or response. They appear to emphasize that the response will be a large one, but Soviet comments since January 1981 have discussed both the inevitable danger of unlimited nuclear war (implying that global escalation is not automatic) and that nuclear war cannot be conducted by prearranged rules.

In January 1960, Chairman Khrushchev discussed Soviet hidden reserves of rockets. In February 1968, Gorshkov stated that an attack on the USSR would be followed by Soviet SLBM retribution from the sea but the retaliation was not described as immediate or swift. In July 1982, the Navy Chief again stated that Soviet SSBNs would provide inevitable retribution to Western strategic submarine missile systems.

Thus the findings on the manifest evidence of the global or limited nature of a future nuclear war are inconclusive. Some of the evidence points to a possible use of Soviet SLBMs as a counter to deter Western SLBMs or limited operations planned by the West. Other evidence points to a swift and massive nuclear retaliation once the decision is made to go nuclear. There is no direct evidence in the literature

alone to support a declaratory policy of withholding SSBNs from the initial nuclear strike for inter or post-war bargaining and negotiations. To explore this matter further, the researcher investigated related but more indirect themes.

Advantages of Naval Forces

One of the more common themes from all naval leaders is the uniqueness of naval warfare and the advantages of fleets in peacetime or in war. Gorshkov is no exception. His writings on the use of navies to support foreign policies of states demonstrating that a nation's military might, beyond its borders, support friends, and operate in a no-man's land are well known in the West and have been analyzed by others.

Gorshkov's related comments in December 1972 and The Sea Power of the State that naval forces can demoralize an enemy, intimidate him, and achieve political goals by the mere threat of military action, can be viewed in a number of ways. One can read into them nuclear deterrence, but this researcher thinks that naval diplomacy is the more correct context. Naval diplomacy could be a surrogate for other contexts, however.

The Navy Commander-in-Chief (C-in-C) does make frequent reference, starting in 1973, to the concealment of atomic submarines in general and of SSBNs in particular. He also cites their stability from nuclear weapons and great survivability. Grechko adds a discussion of the survivability of missile submarines in the 2d Edition of The Armed Forces of the Soviet State. One cannot take these passages and infer withholding of weapons.

Those of us in the West generally assume that the West will not conduct a first strike on the USSR, although defense of NATO may require the first use of tactical nuclear weapons even if the Soviets remain conventional. Despite this, the Soviets must assume the potential for a Western first strike in their war plans. Thus submarine' survivability may be explained as an attribute allowing an inevitable and even a crushing counter-blow if the West eliminated all Soviet land systems. Grechko in The Armed Forces of the Soviet State, refers to nuclear missiles as being only relatively invulnerable.

Naval forces also have some advantage in a more offensive military context. Gorshkov frequently cites their ability to form into powerful groupings and

their great maneuverability (including that of SSBNs). He also discusses the ability of fleets to strike from different directions. One such comment is directly associated with SLBMs (July 1973) and two with a Western capability (in The Sea Power of the State). Striking from different directions can be viewed as a potential threat to the USSR since it would complicate Soviet anti-ballistic missile (ABM) systems. It can also be viewed as a Soviet advantage since it frustrates U.S. warning systems. The ability of fleets to deploy rapidly is also a Gorshkov theme tied to SSBNs twice in The Sea Power of the State.

Command and Control

Another frequently analyzed area of commentary in the Soviet literature deals with the needs of naval command and control. Gorshkov has gone on record as pointing out the problems posed by independent and distant deployments creating problems for command and control. Most of his passages discussing the need for flexibility are probably of a more tactical nature, since independent military initiative involving the initiating nuclear war would appear to be an anathema to any political group running any country. On the

other hand, nuclear war at sea might be viewed as necessary, controllable, and not necessarily escalatory. If the war ashore is nuclear, the war at sea will probably also be.

In viewing statements involving command and control, one notices that an often-overlooked aspect is that comments are in the context of ensuring control. Malinovskiy referred at least as early as February 1958 to the need to control the new means of warfare. In July 1982, Ustinov openly discussed the need to ensure tight control to prevent the non-sanctioned launch of nuclear weapons.

Gorshkov and Marshal Orgarkov have endorsed Soviet centralized control on the same basis as it was in the Great Patriotic War. Gorshkov also points out in The Sea Power of the State that fleet versus fleet operations are more independent than fleet versus shore. In May 1980, he states that centralized control is necessary for guided missile weapons and other situations in which there can be no delay. Marshal Grechko does acknowledge that naval operational art is somewhat different in The Armed Forces of the Soviet State. This researcher feels that the context of the literature emphasizes that initiation of

nuclear war would be a political decision and not military.

Naval Art Versus Military Strategy

Rather than discussions of specific problems of command and control in the open literature, we more often encounter more detailed but open debate over the concepts of military strategy and naval art. Debate is permissible under the category of military science. The most interesting subject of debate involves the degree of independence of naval operations and which theoretical framework should govern operations by other than Naval forces in oceanic theaters. In other words, the debate is deliberately vague but can be directly related to service roles.

Military strategy decides the employment of all Soviet military forces. There is no independent naval strategy. Military art generally determines how land and air forces will carry out the strategy, as naval art determine the role for naval forces. The running debate is that since naval forces must be subordinated to military art when operating in a military theater, then should not naval art determine the employment of other forces when they operate in oceanic theaters?

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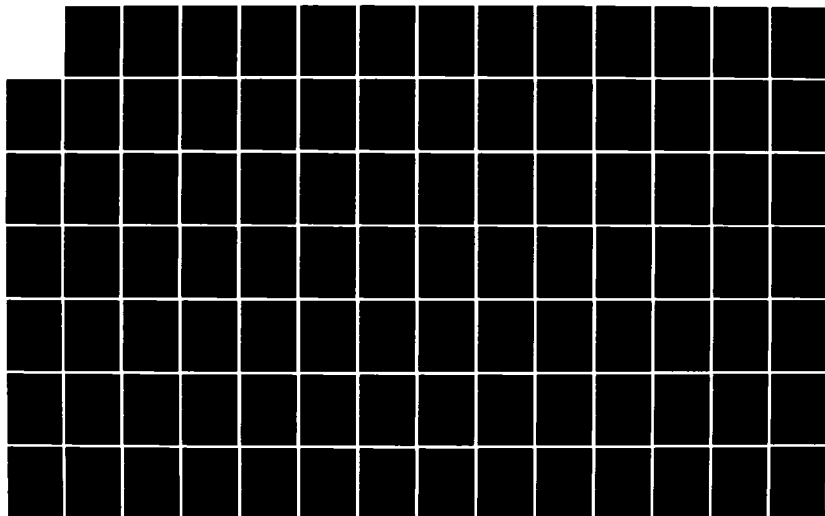
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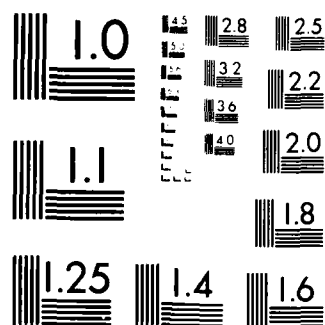
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We know from our review of fleet versus fleet that the Air Force has a role in oceanic theaters. We also know that the SRF has a declaratory role in fleet versus fleet actions against ships in port and possibly at sea. It has been Gorshkov's view since February 1965 that the Navy, as the determinant of naval art, should manage the employment of other services in oceanic operations.

With the 2nd Edition of The Sea Power of the State, Gorshkov revises his position slightly by discussing a unified strategy but with options for the strategic employment of forces. Furthermore, he states that there cannot be one sphere where one branch of the military is sovereign.

Following this revision to the book, a series of nine articles appeared in Morskoy Sbornik from April 1981 through April 1983 in which the subject of the "Theory of the Navy" was debated openly. 8/ Vice Admiral K. Stalbo, a leading Navy theoretician, opened up the series with his view that there cannot be an independent naval science, a future war would likely be protracted and global in nature, and that the Soviet Navy could influence the course of such a war. He was also critical of those who underestimated the

strategic employment of SSBNs, and appeared to argue that naval operations must include actions against the enemies' main and most heavily defended forces. The primary strategic effort of the fleet involved strategic nuclear missile submarines.

In July 1983, Gorshkov ended the debate with a restatement of the theme that there cannot be a separate naval science. There can only be a separate theory, which is allowable for each service. He emphasizes that the procurement of new weapons is limited by Navy roles, missions, and economic realities. The strategic employment of the Navy is determined by a unified military strategy. Naval operational art is considerably more independent. Naval art is primarily determined by the Navy, although it is linked to and based upon military art. It appeared from Gorshkov's article that operations by other forces in remote oceanic regions will be governed by naval operational art.

Stalbo describes the strategic employment of the navy as being concerned with the objectives of armed conflict at sea and in coastal sectors of continental theaters where strategic missions are accomplished with the Navy's participation. This ties Navy missions

previously described as strategic to the overall unified military strategy. Independent Navy strategy does not exist.

Stalbo describes naval operational art as both independent and joint service actions in oceanic theaters. Naval operational art falls between the theory of the strategic employment of the Navy and naval tactics. Operational art is essentially the standardization of naval operations.

The point is that the Navy does not determine the major questions of how to fight or deter wars but rather is primarily concerned with maximizing the implementation of strategy. The Soviet Navy appears to be interested in gaining command and control over other forces assigned to oceanic theaters for operational-tactical purposes. The Navy does not and cannot have an independent view of how wars will be fought.

Hence statements by Admiral Gorshkov that are at odds with his seniors must be viewed extremely carefully. Unfortunately, this does not answer questions raised earlier about whether or not Gorshkov is empowered to articulate SLBM targeting, since his statements do differ from those of the MOD. It is not clear whether

or not those passages are part of a debate or are announcements of strategy. Thus, we may need to analyze the hardware and deployment patterns to decide this question.

Naval Operational Art and Tactics

Discussions of naval operational art and tactics are generally found only in writings of Navy authors. Marshal Grechko did enter the field on a few occasions. He mentions in The Armed Forces of the Soviet State that sudden attack is a Navy tactic but since tactics is structurally well below doctrine or strategy, one cannot infer a Soviet nuclear first strike against land from such a statement. Gorshkov makes similar comments on surprise blows by Soviet naval forces, including a comment in April 1966 involving submarines against land and sea targets. The advantages of surprise in conjunction with nuclear weapons is cited in December 1974 by the Navy C-in-C as a general comment not tied to the USSR.

Grechko also introduces the theme in February 1971 that the Soviet Navy has the means for simultaneous and prolonged combat. This is repeated in The Armed Forces of the Soviet State and then picked up by

Gorshkov in July 1975 and in The Sea Power of the State.

Gorshkov uses this book to make specific reference to problems of the Soviet fleet in carrying out strategy. The Navy Chief cites the lack of overseas bases, choke points, and bad weather in home bases. As a general comment, he states that battle forces may have to pre-deploy. Battle, as we know, is associated with tactical objectives not strategic ones.

Gorshkov repeats in April 1983 his direct mention of choke points and Western fleets being able to inhibit Soviet fleet actions. In September 1977 and July 1983, he implies that the proper method of establishing a fleet's balance is to do so in each individual theater.

Boldness and initiative are also frequent Gorshkov tactical themes, usually tied to discussions of increased tempo of operations at a tactical level. Battle will probably be determined in short order, and success may hinge on seconds.

In discussions of the tactical use of nuclear weapons at sea, Gorshkov has become more vague over the years. In May 1965, he points out the advantages of nuclear weapons in destroying objectives for

certain and rapidly. In July of that year, he boasts to a foreign audience that massive nuclear use would be employed on short notice against a variety of land, air, surface, and sub-surface targets.

In May 1966, Gorshkov states that the fleet must be prepared to use nuclear weapons in response to an enemy first use. The advantage of destroying targets with one missile having a powerful warhead appears in July 1972 and March 1973. Since then, the Navy Chief has made three non-specific general comments about tactical nuclear weapons as a powerful means of battle and one direct statement that air launched nuclear missile strikes are especially effective. In his booklet, The Navy, he claims that nuclear missiles are the main weapons.

From the literature evidence alone, it is impossible to make the types of conclusions about a limited tactical nuclear war at sea that Western analysts frequently make concerning a tactical nuclear war ashore. The evidence supports a view that if the Soviets go nuclear, all forces will go nuclear. If the land campaign would be better served by a nuclear offensive, according to their literature, one must conclude that nuclear use would also occur at sea. On

the other hand, use at sea alone or first would appear to be restricted by a declaratory policy to not conduct a limited nuclear war.

Latent Lessons of History

Over the years, Gorshkov has changed his emphasis on the value of the lessons of history relative to current military strategy and naval art. In July 1963, he stated to a Navy audience that the role of the Navy today was greater than its role in the Great Patriotic War (the Soviet phrase describing their participation in World War II). In May 1965, Gorshkov said that military art had changed significantly since the War and that many obsolete theories had been abolished.

In May 1975 the Navy Chief changed his emphasis and stated that current questions must include investigation of the experiences of the Great Patriotic War. Gorshkov stated in September 1977 that the gap between capability and tactics had been eliminated. In October 1977 he added the need to study Leninist principles and in July 1983 the experiences of imperialists in local wars.

Centralized command and control has been specifically tied to the success of the USSR in the Great Patriotic

War. The advantage of naval forces in achieving political objectives has been referred to by Gorshkov in current and historical contexts. The experiences of the military in a historical context is one of the most frequent methods of articulating concepts in the Soviet literature. It is necessary to analyze this material both due to its volume and to the fact that both Gorshkov and Grechko state that historical military experiences (especially the Great Patriotic War) still have value today. The question at hand will be to analyze latent military strategy themes that use historical surrogates to see if they parallel and supplement current ideas.

Czarist History

James McConnell has done outstanding pioneering analysis of latent themes using historical surrogates. McConnell's summation of hidden messages in historical lessons 9/ was substantiated by this researcher's review of the original materials.

Specifically, analysis of history prior to the Russian revolution does validate emphasis on Navy political roles and their influence on the outcome of wars and on peace talks. Not stressed by McConnell is

a concurrent Gorshkov theme that land forces have also been extremely important and are needed to consolidate victory. McConnell uses various examples from Czarist history to argue that Gorshkov is sending a message that the Soviet Navy will win the peace in a future nuclear war.

Of interest is the place of publication of these references to historical experiences prior to the Revolution. All but one occur in "The Navies in War and Peace" series or in the revision and reprint of these passages found in The Sea Power of the State. One additional place of publication is a March 1972 article in Voyennaya Mysl'. Thus the intended audience is primarily military but not general audiences or foreigners. One can assume that the Soviets know the U.S. does read internal documents and that therefore that the audience includes foreigners.

Some other themes of interest not previously emphasized by Western analysts include: enemy sea lines of communication (SLOC) should be cut if the enemy depends upon them, the value of bases for inter-theater maneuver, and the ability of navies to geographically escalate. One interesting passage in the 1972 Voyennaya Mysl' article is the appearance of:

The Russian Navy was always confidently guided by the dictate of the first naval regulations: 'Do not adhere to regulations as to a blind wall, for in it orders are written, but not times and instances'.

This theme never appears in any other document consulted.

Historical references to the Czarist days do contain explicit criticisms of short-sighted leaders who failed to understand the value of navies, or misused them, and failed to provide the Russian fleet with the materials necessary in future wars. The value in constantly building and of technological superiority is pointed out. These passages appear only in Navy publications.

World War I

Gorshkov states that in certain areas navies had a profound influence on the course and outcome of World War I. These areas included the German submarine blockade of Britain, convoying reinforcements to Europe from North America, the allied blockade of Germany, and the influence of Allied Navies on neutrals' decisions to eventually declare war on Germany.

The lack of influence on the Battle of Jutland was indeed rejected by Gorshkov in May 1972 and in The Sea Power of the State. Yet in a subsequent discussion

of this battle in that book, Gorshkov says it did not have "any strategic or operational link with the combat actions on the land." Furthermore, in the Sovetskaya Voyennaya Entsiklopedia Gorshkov writes "that not one of the sides achieved its objectives." McConnell argues that Gorshkov's treatment of the Jutland Battle is a message that less than decisive battles (and mere fleets-in-being) can have a major influence on the course of the armed struggle.

On a tactical plane, Gorshkov points to German failure to coordinate other forces with its submarine campaign against the SLOC and the high cost of the ASW forces mounted against the German submarines. All World War I commentary appears in publications designed for military and primarily Navy audiences.

Inter-War Years

Perhaps one of the best examples of the use of historical surrogates and how Soviet Navy literature analysis has been incomplete is found in the discussion of the Leninist principles governing military operations. Admiral Gorshkov includes these in his discussion of the Soviet Navy in the Revolution. Subsequent naval

analyst commentary in the West 10/ noted the presence of these passages in "The Navies in War and Peace" series but failed to uncover their prior publication.

In 1970, the centennial year of V.I. Lenin's birth and the 25th anniversary of the victory over fascist Germany, Marshal Grechko published an article in the third issue of Kommunist which discussed these Leninist principles. Grechko again discusses these principles in Kommunist No. 3 of 1974 as well as both editions of The Armed Forces of the Soviet State. Gorshkov refers to the principles in The Sea Power of the State and says in October 1977 that Leninist principles are still important today.

Leninist principles governing military operations are summarized as follows:

- (1) Determine the primary threat and study all possible means of military employment by the enemy.
- (2) Concentrate the means and forces at the decisive place and time.
- (3) Be flexible in the use of forces.
- (4) Seize the initiative and strike sudden blows.
- (5) Make blows decisive.

One additional major principle appears in Grechko's statements but is not used by Gorshkov. In the

1970 article, the MOD discusses the Great Patriotic War and states "Lenin's concept to the effect that war in our days is a people's war and that 'he who has greater reserves, greater sources of strength and greater endurance within the thick (mass) of the people' emerges as the winner."

In the Kommunist article, Grechko points out how Lenin built up strategic reserves and the Party provided for industrial base reserves prior to World War II. In his book, Grechko adds to the Lennist principles the need to create reserves in war.

The subject of reserves is intimately tied to potential roles of Soviet Navy SSBNs. There have been an excellent attempt to trace the roles of reserves through the Soviet literature and tie the submarine force to such a role. 11/ Perhaps the best evidence from the open literature is from a discussion of strategic reserves in a 1964 Voyennaya Mysl' article, which states that strategic reserves include "reserves of nuclear weapons and rockets," 12/ The value of reserves is tied to Lenin's words that "victory in war goes to the side who people has greater reserves, greater sources of strength, and greater endurance." 13/

The evidence that submarines will be a part of a declaratory policy for a strategic nuclear reserve simply does not exist in direct manifest or latent passages. Acceptance of this conclusion on the basis of the open literature alone is thus speculative and is based upon the interpretation of Western analysts reading of some passages with multiple possible meanings.

Should we accept these latent themes, as McConnell claims, as implying the Navy having the major role in the creation of the peace? If we do so, then why is this message directed at Navy audiences primarily? Is it to explain approved strategy, or does Gorshkov utilize his own service journals and military journals to advocate? If he were merely advocating, it would appear that the audience who could do him the most good (the Party) is not the primary recipient.

Gorshkov is not reluctant to criticize Soviet policies during the inter-war years. In July 1963, the Navy Chief quotes Army General M. V. Frunze (People's Commissioner for Military Affairs in 1925) at a 1924 conference:

Some comrades, as a result of our inadequate means, have the idea that it would be better to concentrate our entire

attention on the land army. This point of view is extremely erroneous. . . The Revolutionary Military Counsel takes the firm and unshakeable point of view that the navy is extremely necessary to us . . .

The quotation reappears in both editions of The Sea Power of the State. The Frunze name is associated with a prestigious military academy and an annual award by the Council of Ministers for excellent military or military historical writing. There can be no doubt that Gorshkov is using a historical surrogate to get across a message to today's audience.

In discussing the Soviet Navy of the 1920's, Gorshkov both points out that the "small war" or "mosquito fleet" was defensive in nature" and also that it corresponded to the economic realities of the time. The association of any military form with the defensive is to associate it with the disgraced Trotsky rather than with Lenin and the offensive. 14/ All discussions which include criticism of the 1920's era appear in Soviet Navy publications.

As opposed to using history to criticize, Gorshkov uses it also to reinforce positive actions. In discussing the economy of the 1930's and the possibilities for building a large Navy, Gorshkov makes

repeated reference to the Party decision made before World War II to build such an oceangoing fleet. This theme appears 20 times in a wide variety of domestic publications.

The decision cited generally is associated with the end of the 1930's implying a recognition that the threat was perceived and that the correct solution was reached well before the start of hostilities in the Great Patriotic War. A related theme is that this war interrupted the planned ship buildings which Gorshkov obviously thinks were wise.

Related to the planned buildup is commentary on military thought. MODs generally refer to pre-war military thought as essentially correct, although Grechko makes reference to faulty concepts based upon the limited experiences of the Spanish Civil War. Gorshkov frequently points out that a defensive mind set for the employment of the Navy had been created due to the earlier "small war" theories that impacted on support for naval building.

Gorshkov is specific in his criticism of a pre-war fleet capable of only local defensive operations, pre-war military doctrine and strategy based upon such

operations, and leadership in the armed forces that underestimated or had disdain for the fleet. Gorshkov stresses the pre-war lack of appreciation of the potential of attack naval aviation. It would appear certain that Gorshkov's use of these concepts constitute examples of history used as surrogates. In all cases, the intended audience is military and not necessarily only Navy.

On a more specific level, the Navy Chief cites the prewar mal-deployment of submarines and problems associated with joint combat operations. The fleet itself was deficient in amphibious hardware, anti-air protection, ASW equipment and forces, and varying classes of minesweepers and auxiliaries. Naval aviation was cited as deficient since it lacked aircraft designed specifically for sea warfare. Gorshkov implies in The Sea Power of the State that an aircraft carrier would have been useful. Amphibious hardware problems receive the most frequent commentary and are virtually the only criticisms that are published outside military audiences.

In an attempt to ascertain the importance of these latent comments to current needs, a cross check

was run to those statements that discuss needs of the current Soviet fleet. Today's surface ships have also been described once as needing anti-air defenses in a passage tied to the lessons of the past war. ASW ships were also cited in 1963 as being needed.

Auxiliary vessels are also needed to balance the fleet today. Gorshkov makes it clear that the pre-war fleet was not balanced. The need for aviation being able to overcome anti-air defenses is associated with the lessons of the war. ASW aircraft problems are discussed and appear also as a prewar criticism.

Subsurface needs are interestingly quite explicit and most interesting. A paragraph was added by Grechko to the 2nd Edition of the Armed Forces of the Soviet State which discusses the need for Soviet SSBN quietness, greater depth and endurance. This passage does not appear in the U.S. translation authorized by the Soviet All-Union Copyright Agency.

Gorshkov discusses in July 1983 the need for greater submarine depth, a new powerplant, the necessity for concealment, and sensors to ensure the submarine gathers necessary intelligence. The Navy Chief makes reference to the possibility of close coordination

between subsurface, surface, and air platforms in three passages tied to the lessons of the past war. Thus there appears to be some but not total correlation between manifest current fleet needs and that of the fleet in 1938.

World War II

Both Grechko and Gorshkov have specifically stated that it is the past war which holds lessons of value today. The MOD uses the war as a warning to the West that an attack will result in defeat. Other lessons of the war are more internal.

Gorshkov repeatedly implies that the current Soviet Navy has roles of greater importance than those in the past war due to the composition of the modern fleet, advances in technology, and the improved economic opportunity. Soviet Navy Wartime roles of interest to this study which Gorshkov refers to are as follows (number of documents containing theme):

| | |
|---|----|
| Support to the Army in general | 52 |
| Amphibious operations | 45 |
| Attacking surface ships including disrupting SLOCs | 42 |
| Maintaining Soviet SLOCs | 41 |

It has been widely reported that the primary Soviet fleet mission was to support the Army. Gorshkov's

discussions of amphibious operations and maintaining supply lines at sea are generally all tied to the support they provided the Army. Other tactical fleet support operations include gunfire (22) and aviation (16).

Of interest is Gorshkov's treatment of the Soviet campaign against enemy SLOCs. He often goes to great lengths to explain how the interruption of supplies to the Germans was felt on the land fronts. In July 1982, he states that "all this attests to the great strategic importance of the naval actions on the naval communications lines for victory over the enemy."

Soviet Navy roles and missions during the Great Patriotic War are found in a wide variety of internal publications.

Gorshkov cites a number of positive achievements and lessons from the Great Patriotic War. Northern fleet operations in keeping open supply lines to allies have been described as strategic. The diversion of significant numbers of German Navy units to the flanks contributed to the allies victory in the Battle of the Atlantic. The value and correctness of Stalin's centralized command and control has already been

pointed out as a lesson articulated by both Grechko and Gorshkov. The Navy Chief deviates slightly when he cites the successes of Navy controlled SLOC disruptions (July 1982).

In accordance with the standard party line, Gorshkov acknowledges that the war was won on land. Grechko associates victory with strategic reserves in 1970 but says they were decisive only on the course of the war in The Armed Forces of the Soviet State. Grechko cites the importance three times of the buildup of strategic reserves in the pre-war period.

One of McConnell's main points is that Gorshkov is saying that navies rarely have an impact on the outset of a war but exercise more influence as it progresses. One can certainly infer this from earlier historical discussions. From discussions involving the Great Patriotic War, the war Grechko and Gorshkov say is important, a slightly different pattern emerges.

We find 29 distinct citations by Gorshkov and one by Grechko that refer directly to the Soviet Navy's contribution to the armed struggle in its initial period. In passages that specifically discuss the Soviet Navy doing its duty "right to the end," we find

only 14 citations. The initial value of the Navy is cited regularly over the years whereas the "duty to the end" appears less regularly, from 1963-1967 and since 1975.

Not all experiences from the Great Patriotic War were positive, however. Gorshkov admits that during the war the employment of the Navy was local and merely defensive, and that some commanders had disdain for the fleet and did not understand its potential. He cites examples of poorly coordinated joint operations, including amphibious landings and naval base defense. He specifically cites the lack of surface and air units for support of Baltic fleet submarines due to their being assigned to Army support.

The lack of shipbuilding production is a negative factor blamed on shipyard loss to the enemy, assignment to produce items for the Army, and Naval losses exceeding all pre-war forecasts. In Gorshkov's September 1977 book and his 1980 Kommunist article, he says the rear supplied the Navy everything it needed. It was not the job of the rear services to provide new ships.

Other less frequent lessons include: that the Soviet Union was hampered in inter-theater maneuver

between fleets (meaning that each fleet essentially remained unsupported); and that ships had to perform missions for which they were never designed. Gorshkov acknowledges the contribution of 1,600 ships mobilized by the Peoples Commissariat of Internal Affairs, the merchant and river fleets, new construction, and allied aid, but states that these were of low quality, secondary importance and did not solve the lack of balance in the fleet. All negative comments are found in publications primarily read by military audiences.

Gorshkov draws on the experiences of the USSR's former allies. He points out the massive amounts of support for allied amphibious operations, the tremendous ASW assets tied up with limited results (which he says, in November 1972, is of interest today), and the value of the SLOCs, both economically and for the military. In his booklet The Navy, the Admiral emphasizes the role of submarines in the World War II SLOC campaign but not in the historical section. Instead, it appears in the post-war review.

World War II SLOC campaigns are associated with undermining military-economic potential in The Sea Power of the State. In that book, Gorshkov also

points out the Pacific War as being instructive for wars between nations separated by oceans. He also points out that Pearl Harbor had no unified commander responsible for defense.

Gorshkov emphasizes the need for air supremacy/capability for distant-water operations and amphibious landings. He points out in The Sea Power of the State that the British attitude that carriers were mere auxiliaries was faulty. Most comments on allied experiences are destined for military readers.

Grechko makes one comment on the Western war experience that is of special interest to this study. In both editions of The Armed Forces of the Soviet State, he states that atomic bombs are only decisive if used on a massive scale and that the "American command used the new weapon not on enemy forces, but on cities having little strategic or economic importance."

In assessing the experiences of her former enemies in World War II, Gorshkov points out the value of Norway to Germany, the loan of non-naval aircraft to the German Navy as a proven bad idea, and the ability of the German command to maneuver fleet units against the USSR and use geography to their advantage.

Gorshkov's most frequently cited criticism of the German Navy is its failure to allocate air and surface units to support submarines in the Battle of the Atlantic and its failure to attack ASW forces. In discussing Japan, Gorshkov cites her wartime navy as being unbalanced and that Japan grossly underestimated its dependency upon SLOCs. The comment is about Japan, but the message applies to the U.S. and Europe. All commentary about Axis war experiences appear in Soviet military publications.

Post-War Era

Gorshkov criticizes the postwar Stalin era for its mistaken views that the fleet should revolve around a defensive strategy and assisting the Army. He faults relying on large gun ships that lacked air and submarine defenses. Building gun ships so dominated the shipyards that it precluded building amphibious ships and craft. Gorshkov complains that naval aviation was too defensive in orientation and specifically lacked ASW capability. In February 1967, he said that military theory in this era was deficient. All criticisms generally appear in Soviet military publications.

Criticism of the Khrushchev era begins in February 1967 with commentary about the mid-1950's decision to expand the fleet. Gorshkov criticizes "authorities" who thought that nuclear weapons had made the fleet obsolete and those who dismissed amphibious operations. He claimed that "defensive tendencies held up forward movement of our theoretical military thought."

Gorshkov mentions in February 1967 that a "frequent assertion of the time was that single missiles, placed on land launchers would be sufficient for destroying . . . surface warships, and even submarines." Yet as was mentioned previously, in December 1972 Grechko made specific reference to the SRF targeting naval forces in the theater. Content analysis is an inadequate tool to ascertain actual declaratory policy, given the timing of these irreconcilable statements.

The Navy Chief repeats in The Sea Power of the State his criticism of those who thought fleets were obsolete, attributing such views to no one in particular or to imperialist circles who genuflected to the "omnipotence" of nuclear weapons.

In one extremely convoluted passage from an article in Voprosy Filosofii, (May 1975), Gorshkov

points out that initially Soviet Navy plans for the use of nuclear weapons and missiles were "within the framework of already existing principles and views." Nuclear weapons were simply viewed as intensifications of weapons of the Great Patriotic War.

When Soviet Navy missiles with nuclear warheads were actually built, however, the theoretical employment of these weapons was then based upon the U.S. experience of nuclear weapons in Japan and the experience of other powerful means of armed combat. Following further investigation and testing, Gorshkov states the proper role and targeting objectives of strategic missiles was then later determined. That role and target set were previously discussed in the chapter on fleet versus shore.

Of interest here is the historical reference to early consideration of nuclear weapons for routine tactical use and an apparent disdain for the targeting of cities which parallels Grechko's comments. Targeting objectives might be in cities, which was perhaps unfortunate or irrelevant, but it was specific strategic, military, and economic objectives that were settled upon as the objects of attack.

This Voprosy Filosofii article is simply too vague to allow the analyst to definitely conclude that the Soviets will use nuclear weapons in a limited nuclear war, but it does reinforce military targeting in order to achieve distinct war aims. If the political decision were made to use nuclear weapons in warfare, their use would not appear to be against civilians or cities.

Value of Historical Analysis

In order to illuminate more fully Soviet declaratory policy involving a future nuclear war, it has been argued in the West that one must include the use of historical latent themes. Such themes are supposed to show that the Soviets intend to withhold a part of their Navy submarine missile fleet to be employed for escalation control, deterrence (or its restoration), and inter/post-war negotiations conducted from a position of strength.

If this view is accepted as declaratory policy, historical surrogates must first be accepted as real. From reviewing the literature, there appears to be no question that historical surrogates are used by Soviet writers to impact hidden messages. There is no doubt

that Gorshkov has used latent themes to demonstrate the value of navies and the wisdom of previous Party decisions to support the Navy. Similarly, he uses history to illustrate problems in peace and war when a nation, including the USSR, had an unbalanced navy or when a navy was inadequate for national needs.

If the most significant latent themes of Czarist era history are those involving navies winning the peace, then the intended audience being primarily Navy is a problem. We simply do not know whether this is a case of publishing ideas in Navy journals, since censorship controls are perhaps looser, or, if it is an attempt to explain policies internally to the Navy. There is always the possibility that the use of Czarist era history might simply be to illuminate the general worth of navies and not to convey a special message for nuclear war.

Discussions of Leninist principles governing military operations are associated with today's political-military situation. The emphasis on reserves is most often cast in terms of land forces and economic stockpiles. Inferring that a message regarding reserves of all forces is logical, 15/ even so,

withholding as a strategy involving only submarines is not an automatic next step.

Criticism of the defensive tendency of the Soviet Navy in the 1920's, pre-war period, Great Patriotic War, and postwar eras is constant. Yet the bastions theory would involve a defensive strategy with offensive (active defense) tactics. The weight of the evidence due to both the quantitative amount and the repeated emphasis to study the Great Patriotic War would suggest that a defensive-only strategy in a future war is not declaratory policy, rather that active defense against western SSBNs and attack carriers should be expected.

Latent historical themes and manifest themes regarding specific fleet building deficiencies were correlated. There was some degree of similarity but no general analogy, hence criticisms of the fleet in 1938-1941 may simply have been used to demonstrate that previous decisions can be erroneous, not to infer specific needs today.

A similar lack of correlation is evidenced by Gorshkov's constant discussions of the need for balanced navies. He frequently points out historical

instances of lack of balance and associates this lack with failures. We might, therefore, expect to find him mentioning the need to balance the Soviet Navy today, or, at least no mention of the subject. Gorshkov has stated nine times (from May 1965 to July 1982) to a variety of military, general, and foreign audiences that his fleet is balanced. One does not find a separate external message that the Soviet fleet is balanced and a different internal message that the Navy needs balance. Yet both editions of The Sea Power of the State only refer to having the foundation of a balanced fleet.

If we take Gorshkov's advice and focus on the last war, the latent message is that Soviet naval operations in war will not be purposeless fleet versus fleet operations. Rather the operations would be expected to support the land campaign. Cutting the SLOCs is an important method that undermines the military-economic potential of the enemy and influences the war ashore.

One can attempt to show history demonstrating navies as valuable in longer wars or after the armed struggle is well underway. Yet the worth of the Soviet Navy in the initial period of the Great Patriotic War is consistently stressed.

It appears, therefore, that there is value in the investigation of historical surrogates but that their utility is diminished by selective extraction and lack of cross check with manifest themes. By taking the extra effort and analyzing a wider data set, analysis of declaratory policy is possible.

Arms Control Impact

In June 1971, Chairman Brezhnev gave an election speech in Moscow where he proposed solving the situation of the navies of great powers cruising for long periods far from their shores. In a February 1982 letter to an Australian disarmament group, the Party Chairman repeated this position. Since 1982 restrictions on Western SSBNs, SLBMs, and SLCMs have been a recurring theme in the context of on going bilateral SALT/START negotiations as well as those involving intermediate range systems in Europe. The Soviets have proposed extensive and various naval arms control regulations. 16/ The latest proposals supplement previous statement by calling for limitations on antisubmarine forces and aircraft carriers. 17/

In general, it would appear that naval arms control is a matter for Politburo spokesman to initiate

and the MOD and Navy Chief to simply endorse and more fully explain. Soviet proposals would directly hamper Western deployments and the ability of Western navies to strike the USSR. Few proposals would appear to be related to Soviet home waters. 18/

There appears to be a direct correlation with perceived threats from the sea and willingness to regulate such threats by arms control. As threats are identified, they appear to be met, in the literature, by a combinations of Soviet military programs and arms control. Arms control as a solution appears to be most frequent in areas where the literature indicates the Soviets are weakest militarily.

Notes

1. Department of the Navy, Office of the Chief of Naval Operations Understanding Soviet Naval Developments, 4th Ed. (NAVSO P-3560 (Rev. 1/81) (Washington, D.C.: U.S. Government Printing Office, 1981), p.15.
2. Statement of Rear Admiral John L. Butts, Director of Naval Intelligence on February 24, 1983 contained in Fiscal Year 1984 Defense Department Authorization and Oversight Hearings, Part 4 of 8 Parts, Seapower and Strategic and Critical Materials Subcommittee, Armed Services Committee, House of Representatives, 98th Cong., 1st Sess. (HASC No. 98-6) (Washington: D.C., 1983), p. 46.
3. The Soviets own view of the mission-completion capability of their SSBNs in defended bastions has been postulated as less than assured in a study by Ketron, Inc. See Soviet Perceptions of U.S. Antisubmarine Warfare Capabilities, KFE 293-80, September 30, 1980. See Vol. I, p. S27-28, Vol. II, pp. III 298-299, 333, IV 10-12. A more recent speculation as to the assumed wartime missions of the Soviet Navy has been

raised by Jan S. Breemer in "The Soviet Navy's SSBN Bastions: Evidence, Inference, and Alternative Scenarios," (unpublished paper, December 1983).

4. Rear Admiral V. Shelyag, "Two World Outlooks--Two Views on War," Krasnaya Zvezda, February 7, 1974, pp. 2-3 and condensed version in English, "Two Ideologies--Two Views on War," Soviet Military Review, No. 11, November 1974, p. 9.
5. Marshal N. V. Ogarkov, "Guarding Peaceful Labor," Kommunist No. 10, July 1981, pp. 80-91 (This is a reprint of a speech to the All-Union Seminar of Ideological Workers in April 1981), Always Prepared to Defend the Fatherland (Moscow: signed to press January 26, 1982), pp. 16, 47, "The Victory and the Present Day," Izvestiya, Morning Edition, May 9, 1983, pp. 1-2, "Reliable Defense for Peace," Izvestiya, Morning Edition, September 23, 1983, p. 58; and "The Defense of Socialism: Experience of History and the Present Day," Krasnaya Zvezda, May 9, 1984, 1st Ed., pp. 2-3.
6. Ogarkov, 1981, p. 58.

7. Ogarkov, 1981, 1982 p. 49, September 1983, May 1984.
8. See issues 4, 5, 11 of 1981; 1, 3, 4, 7 of 1982; and 3 and 4 of 1983.
9. James McConnell, "The Gorshkov Articles, The New Gorshkov Book, and their Relation to Policy," Soviet Naval Influence: Domestic and Foreign Dimensions, Michael MccGwire and John McDonnell, Eds., Praeger Special Studies in International Politics and Government (New York: Praeger Publishers, 1977), pp. 586-592 especially.
10. Michael MccGwire "Advocacy of Seapower in an Internal Debate," in Admiral Gorshkov on "Navies in War and Peace," Center for Naval Analyses Report CRC 257 September 1974, pp. 29-30.
11. Captain Roger W. Barnett, "Soviet Strategic Reserves and the Soviet Navy," (unpublished paper dated January 1981).
12. Major General Kh. Dzhelaukhov, "Combatting Strategic Reserves in a Theater of Military Operations," Voyennaya Mysl', No. 11 November 1964, p. 2.
13. V. Ryabov. The Soviet Armed Forces Yesterday and Today, (Moscow: Progress Publishers, Russian translation into English 1976), p. 73.

14. Y. Korablev. Lenin - The Founder of the Soviet Armed Forces, (Moscow: Progress Publishers, Translation into English 1977), p. 147. The subject of the "offensive" in relation to Soviet military thought has been rediscovered in the West lately. For those who would like an excellent discussion of the background of offensive versus defensive see D. Fedotoff White, "Soviet Philosophy of War," Political Science Quarterly, No. 3 September 1936, pp. 321-353.
15. See Samuel T. Cohen and Joseph D. Douglass, Jr., "Selective Targeting and Soviet Deception," Armed Forces Journal International, Vol. 121, No. 2, September 1983, pp. 95-101, for an excellent discussion on the possibility of land based reserves.
16. "Averting the Growing Nuclear Threat and Curbing the Arms Race," a memorandum submitted to the United Nations, distributed by TASS and contained in a Soviet Embassy press release of June 17, 1982.
17. Andrei Gromyko's letter to U.N. Secretary General Javier de Cuellar distributed by TASS April 14,

1984 contained in a Soviet Embassy press release of April 16, 1984.

18. A notable exception involves Yuri Andropov's speech of June 7, 1983 where a nuclear free Baltic was discussed, (printed in Krasnaya Zvezda, 2nd Ed. pp. 1,3, and in a June 6 TASS release contained in a Soviet Embassy press release of June 7). According to the New York Times, (p. 14) report of this speech on the same day, Colonel General Nikolai V. Chervov stated some months ago that if the Baltic were made nuclear free, the Soviet Navy would withdraw six missile carrying submarines based there.

CHAPTER 7

CONTENT ANALYSIS FINDINGS OF DECLARATORY POLICY

The following represents the researcher's findings of declaratory policy for the strategic employment of the Soviet Navy in a future major nuclear war. These findings represent a synthesis of the manifest and latent themes as discussed in detail in previous chapters. Alone they do not represent predictions for Soviet behavior. Such predictions must include consideration of hardware, deployments, and exercises.

Bastions

The theory that the Soviets will deploy their fleet in home waters in defended bastions designed to protect their SSBNs appears to be well substantiated by manifest evidence. Falling into the category of fleet versus fleet, concepts have been openly described that likely would apply to any such bastions, including the presence of defended zones, cooperation between branches, and the need to support the main striking arm--their ballistic missile nuclear submarines (SSBNs). The threat to Soviet SSBNs has been described primarily as Western anti-submarine warfare (ASW) forces, including submarines and aircraft carriers.

Bastion defense also appears to be associated with the need to protect Soviet territory itself. The defense perimeter that protects the SSBN also protects the homeland against shorter range threats from the sea, such as cruise missiles and older ballistic missiles and carrier aviation.

Latent evidence for bastions appears to be plentiful. The need to provide combat stability to submarines, which are the main striking arm, is a message from World Wars I and II and Soviet Baltic Fleet operations in the Great Patriotic War. The failure of Germany to attack ASW forces is also cited by Gorshkov. Submarines are the navy's total contribution to the Soviet strategic nuclear forces. There is additional latent evidence in the claim that Western submarines will support their SSBNs, a concept that is not found in the Western literature.

Bastion defense may be defensive in strategy, but it would involve aggressive tactics and offensive operations. Defended zones should not be expected to be passive. Defense of bastions can involve a total conventional phase of the armed struggle even though the primary object of attack by the West and subject of defense by the Soviet Union are nuclear forces.

Withholding SSBNs

The theory that the Soviets will withhold some of their SSBNs for escalation control, deterrence, or to aid inter/post-war negotiating positions is not well substantiated by the manifest evidence. Rather, if there is any latent evidence for withholding, it is of all types of nuclear forces and not specifically those in the Navy.

According to literature evidence, Soviet declaratory policy now includes the potential for an initial conventional phase or a total conventional war. These may not necessarily have anything to do with a possible war with the U.S. The fleet has also been described as having the capability for prolonged combat operations.

Nuclear retaliation from the sea and elsewhere is inevitable, not automatic. Brezhnev and Ustinov have again recently stressed that limited nuclear war is impossible and a future war could not be fought assuming prearranged rules. The context appears to be that if Soviet territory is hit by Western theater systems, U.S. soil will also suffer.

If war is to come about, Soviet declaratory policy is to end it quickly and on terms favorable to the USSR. A case can be made from the literature that long-range

nuclear weapons will be withheld initially from attacks on the soil of each superpower and would serve as a deterrent to the conduct of such operations. Thus Soviet long-range strategic nuclear forces must be able to survive a Western strike.

Land-based systems are not necessarily invulnerable, according to Grechko. The emphasis on sea-based systems survivability, therefore, may have nothing to do with withholding, since it could equally be a part of a general strategy to delay nuclear attacks on superpower territory and fear of a Western first strike or strategic ASW campaign against Soviet SSBNs.

There is no manifest evidence if the nuclear tripwire is crossed in Europe, that the use of nuclear weapons by the Navy will be delayed; rather the fleet's ability to immediately participate is stressed. One can infer that withholding Soviet SSBN strikes from attacks on the U.S. itself could deter similar strikes by American SSBNs. Withholding might be a strategy to deny advantage to the U.S., which has openly discussed maintaining a secure force capable of assured destruction of the USSR. The U.S. might be deterred from using its final military capability due to withheld Soviet reserves.

The withholding of submarines as part of a reserve appears likely but not unique. It would appear illogical, based on the literature, that the nuclear reserves would be allocated to only one service. Soviet victory in war is always described as requiring the participation of all services. Naval forces and theaters are described only in Navy documents as being capable of influencing the outcome of war. In non-Navy documents, the claim is diluted to influence of armed struggles.

The evidence from latent themes does support the use of navies to win the peace, but so do similar historical passages written by Western authors. Rather than conclude that Gorshkov has made a unique contribution in stressing naval forces in winning wars, one need only re-read Mahan on how the American Revolution was really won and how Napoleon was really defeated.

Despite many historical examples of the value of navies over the long run in a war, Gorshkov stresses the lessons of the Great Patriotic War, which emphasize the value of the Soviet Navy in the initial phase. If anything can be gained from these latent messages, it

is that there is a role for navies both in the beginning and at the end of a future war.

Targeting

Soviet ballistic missile declaratory targeting includes major Western naval combatants (SSBNs, ASW forces including carriers and submarines) in ports and at bases. The Strategic Rocket Forces (SRF) and the navy appear to be assigned this mission. All operations would be nuclear.

Open ocean fleet versus fleet operations receive little mention. Modern U.S. SSBNs probably do not have to enter the local defended bastions in order to fire their missiles, and therefore they must be the target of Soviet ASW submarines conducting distant operations. Such operations could be entirely conventional. There is also a possible declaratory policy (not reinforced of late) that SRF and Navy nuclear ballistic missiles will be used against enemy ships in the theater which may mean at sea. Admiral Gorshkov criticized such views in 1967, but Marshal Grechko did make direct reference to SRF targeting in 1972, and Gorshkov himself discussed the use of Soviet SSBNs to counter similar Western systems in 1979. The matter cannot be resolved by content analysis.

Targeting for fleet versus shore operations appears to involve ballistic missile strikes against political-administrative centers, military-industrial targets, terminals for the sea lines of communication (SLOCs), and military bases. As such all operations would be nuclear. Gorshkov is much more specific in his targeting objectives than are his seniors. This needs to be further analyzed by consideration of deployment patterns and hardware capability.

Of interest is the targeting of military bases that constitute springboards for attack against the USSR. This can certainly be taken as missile or air bases and would thus confirm official Washington's version of Soviet SSBN targeting.

Latent evidence supports the contention that the USSR does not plan to target cities per se, but it does not answer the question if they view civilian casualties as something to avoid, unavoidable and unfortunate, or a bonus.

Sea Lines of Communication

The manifest evidence for a SLOC mission involves nuclear war and strikes against terminals. There is ample additional latent evidence that a SLOC campaign

option against ships at sea is either part of the strategy or is a role that Gorshkov is still advocating. From the content analysis and intended audiences, either case can be made.

The importance of SLOCs in history is cited as being both strategic and capable of undermining an enemy's military-economic potential (a current strategic goal). The difficulty in defending against a submarine campaign in historical passages as well as the diversion of assets it causes is pointed out.

A SLOC campaign at sea is not important in a short nuclear war involving the U.S. or Europe. If Soviet doctrine in fact now recognizes a conventional phase or even a lengthy conventional war (declaratory policy according to the literature), then the disruption of SLOCs without nuclear strikes on the terminal ends would still be a strategic mission that the Soviet military would have to perform. An at-sea SLOC campaign could involve conventional or tactical nuclear weapons.

This could explain Gorshkov's continual criticisms, using historical surrogates, of defensive-only navies. A conventional SLOC capability would involve an

offensive strategy that could influence the outcome of a war. The evidence of capability in hardware should provide insight into Gorshkov either arguing for this role or announcing it as approved strategy.

Tactical Nuclear War At Sea

Based upon the literature, the possibility for tactical nuclear warfare initiated at sea and limited to that theater cannot be supported or dismissed. It is clear that the Soviets do not want a nuclear world war, but there are major advantages for the Soviets in threatening to go nuclear immediately in Europe. The Soviets have also been emphasizing conventional capabilities, but much of this probably involves complementary combined operations ashore or the potential for operations not involving superpowers or NATO.

Gorshkov has pointed out what all naval officers intuitively understand--that nuclear weapons can guarantee tactical success in battle (one weapon = one ship). Whether or not operations could be confined to the sea is another question. On the other hand, if the Soviets go nuclear ashore, there is no reason to doubt they will go nuclear at sea.

Ustinov made direct reference to the non-sanctioned use of nuclear weapons, and Gorshkov is obviously concerned with getting release authority to his deployed forces. Based upon the general tone of the literature, the seriousness with which nuclear war is addressed, and the absence of statements to the contrary, this researcher finds no literature evidence to support the view that release authority for tactical nuclear weapons is a Navy matter nor that a nuclear war at sea alone would be initiated by the Soviets.

Based upon the researcher's understanding of the literature concerning the nature of a future land war against NATO Europe, where first nuclear use by the Soviets is likely, the researcher must conclude that once nuclear weapons are used ashore, they will be used at sea as well. The decision to initiate tactical nuclear war at sea appears to be neither a Navy decision nor one that will hinge upon naval matters. Rather, it will depend upon the political context, such as participants in a war and desired length of the war.

CHAPTER 8

HARDWARE ANALYSIS METHODOLOGY

The ability of a nation actually to use its military or to threaten to use force is a function of the capability of those forces and of the opposing forces, and the credibility that they can and will be used as planned. Capability of military hardware is a measurement of what a military force can actually do. Capability is generally thought to be easier to measure, the result of intelligence gathering and expert analysis of the threat.

As opposed to what can a military force do, intent involves what the enemy will do with its force. Intent can be partially determined by analysis of declaratory policy, which was done in the content analysis section of this study. Intent can also be ascertained by analysis of capability, exercise behavior, and deployment patterns. This section will analyze those concepts.

Credibility is more difficult to measure than capability, since it is not easily quantified. Credibility can be inferred from open source literature information by measuring the repetition of themes and

the emphasis they are given. This, too, was done in the previous content analysis section.

Capability can also be a measurement of credibility, since it also represents a measurement of determination or will. The final capability of forces is the end result of inter-service debates over roles and missions, debates over percentages of budgets to go to each service or the military versus non-military sectors and occurs after the actual technical abilities of the economy, scientific community, and military are factored in. Hence, capability is more than just a measurement of what weapons systems can do.

This section will deal primarily with measurements of capability. Since measurements of capability may be dependent upon one's perception of intent, intent can and will be manipulated or tested against all reasonable possible uses for a weapon system.

One of the first problems in assessing capability is whether the analyst should adopt a "worst case," "worst plausible case," "most likely case," or "best case" view of the perceived threat. In other words, should he view what is the worst that the opponent can do if everything works in his favor, or vice versa, or

should analysis be based upon conditions somewhere in between.

Adopting a worst-case or worst-plausible-case threat to strategic nuclear forces has always been the doctrine in the U.S. In looking at the statements of former and the successive Secretaries of Defense, one finds remarkable consistency over the years. In discussing the need for sufficient U.S. capability to threaten the USSR, the following statements reflect the worst-case assumption made:

| | | |
|------|-------------|---|
| 1962 | McNamara | even in the face of a massive surprise attack. . . . <u>1/</u> |
| 1965 | McNamara | even were the attacker to strike first <u>2/</u> |
| 1967 | McNamara | even after our absorb- ing a surprise first strike <u>3/</u> |
| 1974 | Schlesinger | even in the aftermath of a well-executed surprise attack <u>4/</u> |
| 1980 | Brown | even if the Soviets were to attack first, without warning <u>5/</u> |

1983 Weinberger survive a first strike
. . . . 6/

The issue is not what the U.S. response should be, rather than in matters of a possible nuclear war with consequences of such a monumental scale, taking the worst case threat has been the rule and not the exception. That worst case is the well executed surprise attack on an unalerted U.S., i.e., the bolt from the blue.

Since this study involves the threat posed by Soviet Navy strategic nuclear forces to U.S. strategic nuclear forces, the reader can be justified in preferring to view the threat in its worst-case form. The researcher will present the range of evidence for the extremes and one case in between.

Worst cases have been criticized as being extremely unlikely, although, in theory, if one develops his own forces based upon the worst-case threat, it is likely that he will have sufficient capability to meet any actual threat. The worst case is usually not acceptable politically in the U.S. for other than the strategic nuclear problem since it can result in a never-ending commitment of resources. The best example of this is

NATO where the worst-case surprise attack is never used as a planning assumption.

It is the job of the analyst to calculate the extremes of both the worst and best case. This will set the parameters of the problem and will provide the decision-maker with sufficiently accurate assessments that he can make an intelligent choice of the most likely case.

Taking into account the purposeful high levels of uncertainty regarding military force capability and the scenario dependency of various aspects of hardware analysis, this section will proceed as follows.

First, a common data base of facts will be established based upon items that most or all major sources agreed upon. This will include fleet disposition and forward deployments. Second, a set of scenario aggregated task groups will be based upon the researcher's assessment of the logical employment of forces considering declaratory policy, force deployment, and design characteristics.

The researcher will then attempt to ascertain whether or not the capabilities of the forces permit accomplishment of missions articulated as declaratory

policy. Essentially these are nuclear strikes from ballistic missile submarines on shore targets of varying types and protection of a portion of the ballistic missile submarine fleet in bastions.

A full assessment of Soviet capability would have to include dynamic interactions with opposing Western defenses and forces. That is well beyond the scope of this research effort, since it would involve, among other things, a major gaming effort that would need to be classified. This research effort will instead, examine only half of the equation. It is the researcher's opinion that since the U.S. is virtually defenseless against ballistic missiles, sufficient information can be gained from this one-sided presentation for the nuclear strike mission. The data base generated herein can be used by others interested in gaming to model the dynamic interactions.

Following completion of this basic analysis, the researcher will subject those findings to sensitivity and contingency analysis, although it will be the former term that is generally used. 1/ Sensitivity analysis is an attempt to determine how sensitive results are by deliberately varying the quantitative

assumptions. Contingency analysis does the same thing, but context or environment are manipulated rather than numbers alone. In other words, intent can be manipulated in order to see the impact upon capability.

Sensitivity analysis has been notably absent from most of the hardware studies in the past. Although certain sophisticated methods exist with which to vary a large number of variables simultaneously, this researcher feels that a major contribution can be made simply by varying one or two key assumptions once those driving factors become obvious.

A number of other points will be considered in the analysis. Prominent will be whether or not a surplus in capability exists beyond what is minimally necessary for the accomplishment of the primary mission of nuclear strikes and bastion defense. The most logical mission for surplus general-purpose forces involves interdiction of the sea lines of communication.

Another flag will be whether or not offensive forces are more likely to be used in counterforce (including active defense by damage limitation) or

countervalue (the threat of punishment). Types of targets for Soviet Navy strategic weapons may be ascertainable from certain key design features.

There is the question of time frame. Since the content analysis only extends through 1983, that will be the year for a snapshot analysis of hardware. A time series of major proportions (probably since 1964 also) would be necessary to develop a model for predicting future force levels. Such a model is not impossible to create, only beyond the scope of the research. The intent is to provide a guide on how to do one year so as to aid subsequent researchers attempting to create such a model.

A number of factors must be included in this type of hardware analysis. These include the types and numbers of ships in the Soviet Navy, their location, their mobilization potential, and the capability of certain individual weapons systems. Many of these factors can be identified and quantified with relative certainty. Other factors, however, such as fleet logistics capability for sustained operations, qualitative factors of individual units, and personnel are beyond the methodology used.

For example, in May 1984 the press reported a major explosion in the Soviet Northern Fleet ammunition depots. There is no way to account for the impact of the loss of weapons. At one extreme, it might prevent the Northern Fleet from carrying out vital wartime missions. On the other hand, it may have involved obsolete weapons or perhaps a few nuclear devices. We have no way of knowing.

The analysis will be conducted in two parts. The first will deal with the strategic offensive nuclear forces assigned to the Soviet Navy. The second will deal with general-purpose forces. In general, this parallels the content analysis of fleet versus shore (strategic nuclear forces) and fleet versus fleet (general purpose forces). For both parts, the researcher has selected four major sources from which to draw the raw numbers necessary to create his data base. These sources are as follows:

1. Jean Labayle Couhat, Ed., Combat Fleets of the World 1984/85, English language edition prepared by A. D. Baker III, an updated version of Editions Maritimes et d'Outre-Mer (1983). Annapolis, MD: Naval Institute

Press, 1984 (current through February 1, 1984).

2. Captain John Moore, RN (Ret.), Ed., Jane's Fighting Ships 1983-84. London: Jane's Publishing Co., Ltd., 1983 (currency varies).
3. International Institute for Strategic Studies, The Military Balance 1983-84, Autumn 1983 (current through July 1, 1983).
4. U.S. Defense Intelligence Agency, Unclassified Communist Naval Orders of Battle, DDB-1200-124A-83, November 1983 (current through October 1, 1983).

Other sources used to establish the data base or expand the hardware analysis (especially nuclear warhead characteristics) will be individually cited. The methodology utilized herein was developed by the researcher during his graduate education and was utilized in part by the Rand Corporation for a gaming project. Rand published an early version as a Professional Paper: "Soviet Navy Data Base: 1982-83," P-6859, April 1983. The dissertation data base will not replicate the detail given to general-purpose forces published in this Rand paper but will significantly expand in the areas of nuclear weaponry.

In the third part of this research, a full comparison of declaratory policy and hardware capability together will be undertaken. One of the key goals will be to search for a match or mismatch between declaratory policy and capability. It is the researcher's opinion that if mismatches are found, the unclassified data that is available is insufficient to explain these mismatches fully. Perhaps classified materials exist that explain their decisions and building programs.

Mismatches as perceived by the Western analyst may not be obvious to the Soviet decision-maker. Furthermore, in the real world, people do not always complete what they have set out to do. Hence, a mismatch may be due to bureaucratic inefficiency, structural failures, human blindness, etc. Hence mismatches, as perceived by the researcher, will be identified, but no effort will be made to explain why they exist.

The final part will include the researcher's assessment of capability and the credibility of intended missions as gleaned from the content analysis declaratory policy.

Notes

1. Address at Ann Arbor, Michigan, June 16, 1962.
2. Statement before Senate Armed Services and Appropriation Committees, February 24, 1965.
3. Address before United Press International Editors and Publishers, San Francisco, California, September 18, 1967.
4. Annual Defense Department Report, FY 1975.
5. Annual Defense Department Report, FY 1981.
6. Annual Defense Department Report, FY 1984.
7. E. S. Quade, Analysis for Public Decisions, (New York: Elsevier, 1975), p. 220.

CHAPTER 9

STRATEGIC NUCLEAR FORCES

Static Measurement of Capability

From the content analysis section, it was determined that the Soviets consider ballistic missile submarines as part of their strategic nuclear forces. Those that are nuclear-powered are termed SSBNs in the West while those with diesel propulsion are SSBs. For purposes of this research, Western hardware terms will be used.

The Soviets had some eleven classes of ballistic missile submarines in service during 1983. Six classes of ballistic missile submarines are accountable under the bilateral U.S.-Soviet SALT I Interim Agreement and are generally termed "strategic" in the West.

The total number of SALT accountable or "strategic" missile submarines, however, does not equal the total number of ballistic missile submarines available to the USSR. Additional units are not accounted for under SALT since they have shorter range theater weapons or may not have undergone official sea trials. Many are thought to be exempt since they are relatively unique prototype or research and development subs.

This analysis will include all militarily useful weapons and will not be artificially limited to consideration of the lesser numbers of SALT accountable systems. SALT numbers will be tabulated to demonstrate the contrast.

The first need in assessing the Soviet Navy's strategic nuclear forces is to decide how many of what class submarines actually exist. In order to do this, each of the four primary sources was consulted, the total numbers per class were averaged (rounded), and an agreed upon figure was derived. Table 4 contains the findings of this data. Totals and sub-totals indicated in parenthesis have been artificially computed by the researcher.

Table 4

Soviet Navy Ballistic Missile Submarines (1983)

| <u>Class</u> | <u>Combat</u> | <u>Jane's</u> | <u>IISS</u> | <u>DIA</u> | <u>Assumed</u> |
|--|---------------|---------------|-------------|------------|----------------|
| *Typhoon SSBN | 2 | 2 | 2a/ | 2 | 2 |
| *Delta III SSBN | 15 | 14 | 14 | 14 | 14 |
| *Delta II SSBN | 4 | 4 | 4 | 4 | 4 |
| *Delta I SSBN | 18 | 18 | 18 | 18 | 18 |
| *Yankee II SSBN | 1 | 1 | 1 | 1 | 1 |
| *Yankee I SSBN | 23 | 24 | 24 | 23 | 23d/ |
| Hotel III SSBN | 1 | 1 | 1 | 1 | 1 |
| Hotel II SSBN | 4 | 5 | 3 | 2 | 4 |
| Golf V SSB | 1 | 1 | 1b/ | 1 | 1 |
| Golf III SSB | 1 | 1 | 1 | 1 | 1 |
| Golf II SSB | 12 | 13 | 13 | 13 | 13 |
| All SSBN/SSB | (82) | (84) | (82)c/ | (80) | 82 |
| All SSBN | (68) | 69 | (66) | (65) | 67 |
| All SSB | (14) | 15 | (15) | (15) | 15 |
| *SALT I Account- able Hulls (limit 62) | (63) | (63) | 62 | (62) | 62 |

Key: Numbers of submarines in each major source with final assumed number compiled by author.

Notes:

- IISS Typhoon total indicates 1 unit operational and one additional to start sea trials in 1983.
- IISS Golf V is not tabulated under operational forces but rather under reserves. Reserve forces are still SALT accountable, however.
- IISS gives total as 80 due to not counting second Typhoon and Golf V:
- Assumed Yankee I number rounded down vice rounded off upward. Reagan administration has repeatedly stated Soviets are dismantling Yankee hulls to remain within SALT I limit of 62 is valid, 23 is number of Yankee I.

From an agreed-upon number of submarine hulls, we can now proceed to the number of missile tubes per hull and therefore the number of missiles able to be carried. For the purposes of this research thus far, the possibility of reloading missiles into submarines will not yet be considered. Since the DIA Order of Battle did not give the number of missile tubes per submarine, an alternate official U.S. government document was used, the Department of Defense (DOD) Soviet Military Power, 3rd. Ed., published in April 1984. Table 5 presents the data for submarine launched ballistic missile (SLBM) launchers.

An interesting historical note is that the USSR was the first to successfully fire a SLBM from a submarine. As was mentioned in the content analysis section, the Soviet Navy fired a ballistic missile from a submarine in 1955, years before the U.S. Polaris program.

Table 5

Static Soviet SLBM Launchers (1983)

| <u>Class</u> | <u>Missile Type a/</u> | <u>No. Subs b/</u> | <u>Couhat</u> | <u>Jane's</u> | <u>IISS</u> | <u>DOD</u> | <u>Assumed No. of c/ Launchers</u> |
|--------------|------------------------|--------------------|---------------|---------------|-------------|------------|------------------------------------|
| *Typhoon | SS-N-20 | 2 | 20 | 20 | 20 | 20 | 40 |
| *Delta III | SS-N-18 | 14 | 16 | 16 | 16 | 16 | 224 |
| *Delta II | SS-N-8 | 4 | 16 | 16 | 16 | 16 | 64 |
| *Delta I | SS-N-8 | 18 | 12 | 12 | 12 | 12 | 216 |
| *Yankee II | SS-N-17 | 1 | 12 | 12 | 12 | 12 | 12 |
| *Yankee I | SS-N-6 | 23d/ | 16 | 16 | 16 | 16 | 368 |
| *Hotel III | SS-N-8 | 1 | 3e/ | 6 | 6 | 6 | 6 |
| *Hotel II | SS-N-5 | 4 | 3 | 3 | 3 | 3 | 12 |
| *Golf V | SS-N-20 | 1 | 1 | | | | 1 |
| *Golf III | SS-N-8 | 1 | 6 | 6 | 6 | | 6 |
| Golf II | SS-N-5 | 13 | 3 | 3 | 3 | 3 | 39 |
| | | | | | | | 988 |

Totals: SS-N-20 41 SS-N-17 12 SS-N-6 368
SS-N-18 224 SS-N-8 292 SS-N-5 51

* SALT I accountable launchers (Limit 950) 949d/

Key: Numbers of launchers listed by each major source with final assumed number compiled by author.

Notes:

- All sources agree upon type missile carried.
- Taken from assumed number in Table 4.
- Number of submarines x number of launchers.
- Cross check using launchers shows that in order to remain below 950 SALT I accountable launchers, the number of Yankee I hulls must have been 23 and not 24.
- Couhat discredited since it is only source to appear with this number.

Each missile contains a certain number of warheads. These warheads are either single (one warhead per missile) or multiple. Of the latter, some are independently targetable (MIRVs) while others (MRVs) are multiple but not independently targetable and will fall on the same target.

In general, both strategists and arms controllers consider MRVs as one warhead since they will fall essentially in the same place. A multiple-warheaded MRV missile could only be used against one target area while MIRVed missiles can target more than one. For the purposes of this research, MRV capability will be noted but will be counted as one nuclear warhead.

Table 6 presents the best information available in the major sources for the number of warheads carried by each type Soviet Navy ballistic missile. Again, Soviet Military Power, 3d. Ed. was used as the official U.S. government source. Where SS-N/1 or 2, etc. appears, this indicates the modification or model number of that missile. For example, SS-N-18/3 means SS-N-18 Mod 3.

Table 6

Possible Static Soviet SLBM Warheads (1983)

| <u>Missile Type</u> | <u>No. of a/ Launchers</u> | <u>Couhat</u> | <u>Jane's</u> | <u>IISS</u> | <u>DOD</u> | <u>Possible No. b/ of Warheads</u> |
|---------------------|--------------------------------|---------------|---------------|-------------|------------|--|
| SS-N-20 | 41 | 6-9 | 9-12c/ | 6-9 | 6-9 | 246 - 369 |
| SS-N-18/3 | | 7 | 7 | 7 | 7 | |
| SS-N-18/2 | 224 | 1 | 1 | 1 | 1 | 224 - 1568 |
| SS-N-18/1 | | 3 | 3 | 3 | 3 | |
| SS-N-17 | 12 | 1 | 1+d/ | 1 | 1 | 12 |
| SS-N-8/2 | 292 | 1 | 1 | 1 | 1 | |
| SS-N-8/1 | | 1 | 1 | 1 | 1 | 292 |
| SS-N-6/3e/ | | 1 | 1 | 1 | 1 | |
| SS-N-6/2 | 368 | 1 | | 1 | 1 | 368 |
| SS-N-6/1 | | 1 | | 1 | 1 | |
| SS-N-5 | 51 | 1 | 1 | 1 | | 51 |
| | | | | | | <u>1193 - 2660</u> |

Key: Number of warheads listed by each major source with final assumed numbers compiled by author.

Notes:

- a. Taken from assumed numbers in Table 5.
- b. Number of launchers x minimum number, and, number of launchers x maximum number.
- c. Assume maximum of 9 warheads on SS-N-20 since Jane's data inconsistent. Section on missiles says 12, section on submarines says 9.
- d. Jane's data inconsistent. Section on missiles says MRV/MIRV capable, section on submarines says one warhead. In previous years IISS stated that SS-N-17 had been tested with MIRV.
- e. SS-N-6/3 MRV capable. 2 RV according to Couhat, IISS, DOD.

Obviously the uncertainty over the number of warheads carried by the SS-N-18 missile is the driving factor in the wide range of totals possible. The first edition of Soviet Military Power (September 1981) stated that there were almost 2000 Soviet SLBM warheads. 1/ The second edition (March 1983) revised this figure and contains a graph showing approximately 1,500 SLBM warheads. 2/

The third edition (April 1984) contains a dramatic new drawing of the graph of SLBM warheads, changing the data as far back as 1976. Now according to DOD, the SLBM (excluding theater SS-N-5s) totals are around 2,500. 3/ If this is true, it indicates a major revision by U.S. intelligence of when the Soviets began as well as how fast it pushed ahead MIRVing SLBMs. If the approximate 2500 figure is correct, then it would appear that virtually all SS-N-18s aboard Delta III submarines are the Mod 3.

Cross checking DOD information with Soviet Ministry of Defense data is revealing. According to the U.S. DOD, in 1984 the USSR had 2500 SLBM warheads, some 2250 warheads in 1981, and in 1975, just over 700. According to the 1984 Soviet booklet Whence the

Threat to Peace, (3rd Ed.), the USSR had around 2500 SLBM warheads in 1984, 2000 SLBM in 1981 and 724 in 1975. 4/ It would appear that the upward revision of SLBM warheads was justified if we are to believe what the Soviets say about themselves.

Thus for the purposes of this research, it will be assumed that Soviet Military Power, (3rd Ed.) and Whence the Threat to Peace are authoritative and, therefore, that 2500 SLBM warheads should drive the analysis. It will also be assumed that the SS-N-20 is being counted by DOD at its maximum of 9 RVs. This would account for 1041 RVs on SS-N-20, 17, 8, and 6s, leaving around 1459 to come from the SS-N-18 missiles.

By inference, we can work out that of the 224 SS-N-18 launchers, all but one-two Delta IIIs carry the Mod 3. The maximum number of SS-N-18 warheads if all missiles are MIRVed is 1568. Each Delta III having 3 vice 7 RVs on each missile results in a net decrease of 64. Each Delta III having 1 vice 7 RVs on each missile results in a net decrease of 96.

The difference between the maximum possible and approximate number of all SS-N-18 warheads is 109. It appears likely that there is either one Delta III with

single RVs aboard or two with 3. It will be assumed that the Soviets at least MIRVed all missiles, and hence we will tabulate 2 Delta III's with SS-N-18/1 on board. Figures do not totally add up, since they are based on a rather subjective assessment (a line on a graph) giving 2500 as the total SLBM warhead count. Table 7 reflects the assumed number of SLBM warheads.

Table 7

Assumed Static Soviet SLBM Warheads (1983)

| <u>Missile Type</u> | <u>Sub Type</u> | <u>No. of Launchers</u> | <u>Total No. of Warheads</u> |
|---------------------|-----------------|-------------------------|------------------------------|
| SS-N-20 | Typhoon | 40 | 360 |
| | Golf V | 1 | 9 |
| SS-N-18/3 | Delta III | 192 | 1344 |
| SS-N-18/1 | Delta III | 32 | 96 |
| SS-N-17 | Yankee II | 12 | 12 |
| SS-N-8/1/2 | Delta II | 64 | 64 |
| | Delta I | 216 | 216 |
| | Hotel III | 6 | 6 |
| | Golf III | 6 | 6 |
| SS-N-6/1/2/3 | Yankee I | 368 | 368 |
| SS-N-5 | Hotel II | 12 | 12 |
| | Golf II | 39 | 39 |
| | | | <u>2532</u> |

Key: Compiled by author.

The static number of warheads on missiles as a measure of military capability is a poor indicator, despite its frequent use by the press. It does not account for missiles actually deliverable due to range limitations, a submarine going through overhaul etc. At best, it is a rough measure of the number of targets capable of being hit (discounting colocated targets). As such, it will be utilized later in the dynamic assessment section.

Since not all warheads are equal in size, the next step is to determine the estimated yield for each type warhead. Unclassified data is available on warhead yields but accurate numbers for modifications of the SS-N-6 is lacking.

IISS in their Military Balance 1981-1982 and Jane's 1980-81 reported that only Mod 1 and 3 SS-N-6 missiles were carried. It is therefore assumed that certain Yankee I submarines must have been unable to convert from the first version of the SS-N-6. The U.S. had a similar problem with early Polaris boats.

For the purposes of this research, it will be assumed that the number of Mod 1 Yankee I boats in 1981, listed as 10, has been depleted by the total

number of Yankees subtracted from the inventory since that date. There are now 23 Yankee I's while in 1981 there were 28. Hence, we will assume 5 Yankees capable of SS-N-6/1 and 18 capable of SS-N-6/3.

Table 8 presents the findings in raw megatons. Raw megatonnage itself is of value in the construction of other units of measurement. It may also serve as an input assisting in computing lethal fallout areas and measurements of damage that will be considered later.

Table 8

Static Soviet SLBM Warhead Yields in Megatons (1983)

| <u>Missile</u> | <u>Couhat</u> | <u>Jane's</u> | <u>IISS</u> | <u>Assumed Raw Yield</u> | <u>Total Force a/ Raw Yield</u> |
|----------------|---------------|---------------|-------------|------------------------------|-------------------------------------|
| SS-N-20 | | | | .1b/ | 36.9 |
| SS-N-18/3 | | .2 | .2 | .2 | 268.8 |
| SS-N-18/1 | .2 | .2 | .2 | .2 | 19.2 |
| SS-N-17 | 1 | | MT Range | 1 | 12 |
| SS-N-8/2 | 1.5 | .8 | .8 | .8c/ | 233.6 |
| SS-N-8/1 | 1.5 | .8 | 1 | .8c/ | |
| SS-N-6/3d/ | | | 2x.2 | 2x.2 | 115.2 |
| SS-N-6/1 | 1 | 1 | 1 | 1 | 80 |
| SS-N-5 | .8 | .8 | 1 approx. | .8 | 40.8 |
| | | | | | <u>806.5 MT</u> |

Key: Megatons listed by each major source and assumed final data/totals compiled by author.

Notes:

- a. Assumed Raw Yield x number of warheads from Table 7. Based upon 5 Yankee I submarines capable of SS-N-6/1 (80 warheads) and 18 Yankee I submarines capable of SS-N-6/2 (288 warheads).
- b. Based upon Congressional Budget Office, Modernizing U.S. Strategic Offensive Forces: The Administration's Program and Alternatives, May 1983, p. 90.
- c. Input also from Aviation Week and Space Technology, Vol. 120, No. 11, March 12, 1984 (Aerospace Forecast and Inventory Issue), p. 165 which states .8 MT.
- d. Due to MRV (2 warheads of .2 MT each, neither individually targetable).

In an effort to make each of the effects of various types of warheads relatively standardized for analytic purposes, equivalent megatonnage (EMT) can be calculated from raw megatonnage. One needs to do this is because it takes roughly an increase in yield of 8 times in order to double blast damage. In other words, an 8 MT nuclear blast is not 8 times as powerful as 1 MT blast, but rather twice as powerful.

The formulas used to construct EMT reflect the lethal radius of a weapon is proportional to its yield to the $1/3$ power and its lethal area is proportional to the square of the lethal radius. For individual warheads below 1 MT, $EMT = \text{yield}^{2/3}$. Above 1 MT, $EMT = \text{yield}^{1/2}$. Obviously, EMT is biased to increase warheads yield below 1 MT and reduce it above 1 MT. Aggregate EMT is computed by totalling the figures from individual warheads calculations, not by computing the total yield and then applying the correction factor.

There has been specific criticism of the present method of computing EMT. 5/ Nevertheless, the standard formula represents an analytic measure recognizable in much of the defense community. Despite its flaws, EMT

continues to be utilized in analysis since it can be found associated with charts giving urban-industrial damage and is used to compute counter-military potential. It also is a standard unit of measurement used to describe the level of deliverable force often described as needed to assure the destruction of the USSR (400 EMT).

Table 9 presents individual, missile, and total force EMT based upon the raw megatonnage in Table 8 and the number of warheads per missiles in Tables 6 and 7.

Table 9
Static Soviet SLBM Warhead Yields (1983)

| <u>Missile</u> | <u>EMT/Warhead</u> | <u>EMT/Missile</u> | <u>Total Force EMT</u> |
|----------------|--------------------|--------------------|----------------------------|
| SS-N-20 | .22 | 1.98 | 81.2 |
| SS-N-18/3 | .34 | 2.38 | 457 |
| SS-N-18/1 | .34 | 1.02 | 32.6 |
| SS-N-17 | 1 | 1 | 12 |
| SS-N-8/2/1 | .86 | .86 | 251.1 |
| SS-N-6/3a/ | .68 | .68 | 195.8 |
| SS-N-6/1 | 1 | 1 | 80 |
| SS-N-5 | .86 | .86 | <u>43.9</u> |
| | | | 1153.6 EMT |

Key: Equivalent megatons compiled by author.

Notes:

a. EMT based upon 2 MRV of .2 MT each.

Thus far, the units of measurement have not been specifically associated with any particular target set. Warheads and yields assist an analyst in determining the countervalue potential of nuclear forces against relatively unprotected cities, harbors, airfields, etc. To assess potential against protected targets, such as missile silos, an assessment must be made of the accuracy of the warheads.

CEP is the radius of a circle around a target into which there is a 50% chance that the warhead will fall. CEP varies with range, but the given figures will be assumed valid at nominal useable range. Data concerning warhead accuracy are difficult to find in authoritative unclassified government documents. Table 10 represents the best assessment of accuracy available expressed in circular error of probability (CEP) in meters. No DOD sources were available, hence others have been individually cited.

Table 10

Soviet SLBM Warhead CEP (Meters) (1983)

| <u>Missile</u> | <u>Couhat</u> | <u>Jane's</u> | <u>IISS</u> | <u>Other Sources</u> | <u>Assumed CEP</u> |
|----------------|---------------|---------------|-------------|--------------------------|------------------------|
| SS-N-20 | 600 | | | 556a/ | 556 - 600 |
| SS-N-18/3 | 1,100 | 1,400 | 600 | 1,408b/ | 600 - 1,408 |
| SS-N-18/1 | 1,100 | 1,400 | 1,400 | 1,408b/ | 1,100 - 1,408 |
| SS-N-17 | | | 1,500 | | 1,500 |
| SS-N-8/2 | 1,500 | | 900 | 1,556c/ | 900 - 1,556 |
| SS-N-8/1 | 1,500 | | 1,300 | 1,556c/ | 1,300 - 1,556 |
| SS-N-6/3 | 1,850 | | 1,400 | | 1,400 - 1,850 |
| SS-N-6/1 | 1,850 | | 900 | | 900 - 1,850 |
| SS-N-5 | | | 2,800 | | 2,800 |

Key: Circular error of probability in meters with assumed final figures ranging from best to worst case. Conversion to meters by author.

Notes:

- a. Congressional Budget Office, Modernizing U.S. Strategic Offensive Forces: The Administration's Program and Alternatives, May 1983, p. 90.
- b. Aviation Week and Space Technology, Vol. 116, No. 2, January 11, 1982, p. 26.
- c. Aviation Week and Space Technology, Vol. 116, January 4, 1982, p. 21.

There is obviously a great deal of uncertainty over the accuracy of certain of these missile warheads. To make matters worse, slight variations of CEP in formulas which assess counterforce potential (against hardened targets) can result in major fluctuations in assessment. Rather than average CEP, a worst and best case must be presented.

Prior to delving into formulas, it is possible to infer the hard target kill potential of Soviet SLBMs. Admittedly hard target kill is a poor unit of measurement but in this case we have an opportunity to assess capability by comparison to U.S. systems.

Hard target kill potential assumes that one warhead will be delivered against one target of approximately 2000 - 2500 psi hardness. Obviously not all silos are of this hardness, nor would one warhead be targeted against one silo. However, like EMT, hard target kill represents a standard measure recognized by analysts as an acceptable basis for comparison.

For example, the Reagan administration has been attempting to develop a new Trident II missile which is described as being capable of counterforce silo targeting. The single-shot hard target kill potential

for Trident II is supposed to be just over 82%. 6/
The current Minuteman III with a MK-12A warhead has
about a 56% probability of hard target kill. This
relatively unsatisfactory rating is cited as the need
for upgrading the U.S. ICBM force.

The U.S. Trident I missile had about a 18% hard
target kill rating and was described as a weapon
incapable of serious counterforce targeting. By
referring to the IISS data on these U.S. missile CEP,
we see that the Minuteman III/MK-12A is rated at 220
meters and the Trident I at 450 meters. The best
Soviet SLBM warhead is rated at around 600 meters.

Since hard target kill is dependent on both yield
and accuracy, we must attempt to compare Soviet
systems in both areas. The closest Soviet SLBM
warhead yield comparable to the Minuteman III/MK-12A
(335 KT) is the SS-N-18 (200 KT). The accuracies of
these two systems are not even close. The best
estimate of the SS-N-18 (600 m) is almost 3 times the
radius of the Minuteman III/MK-12A. The Soviet
warhead is 135 KT less than the U.S. system.

Similarly, the Soviet warhead closest to the
Trident I is the SS-N-20, both at 100 KT. The accur-

acies are different, however. The U.S. system, which is 150 meters better than the SS-N-20, is described as having an unsatisfactory 18% hard target kill potential. By inference, we can see that at best, the SS-N-20 is less capable than the Trident I which is not considered a counterforce weapon. Similarly Soviet SLBMs accuracies are well outside the 300-500 meter CEP of Soviet ICBMs that have been described as being counterforce capable.

To cross check this conclusion that Soviet SLBM warheads have little utility in counterforce destruction of silos, another unit of measurement, counter military potential (CMP) will be used. Again, this measure is unsatisfactory since it is extremely biased toward accuracy and does not account for the reliability of warheads nor the effects of electromagnetic pulse (EMP). However, it is a tool used and recognized by analysts.

$CMP = \frac{EMT \text{ of a warhead}}{\text{square of the CEP}}$. $CEP = Y^{2/3} / CEP^2$. This formula shows that a fourfold increase in CMP occurs if accuracy is halved. To match a fourfold increase using yield only, if above 1 MT, a 16 times increase

is needed. If below 1 MT, a 8 times increase is required.

Table 11 presents the CMP value computed for each missile warhead. Variations are due to the use of all combinations of possible CEP. CEPs have been converted to nautical miles (nm). Hard target kill probability is then given. The CMP necessary to destroy a U.S. ICBM silo hardened to 2000 psi with 95% certainty has been given as 150. 7/

Table 11

| <u>Soviet SLBM Warhead CMP (1983)</u> | | | | |
|---------------------------------------|--------------|----------------|------------|---|
| <u>Missile</u> | <u>Y 2/3</u> | <u>CEP(nm)</u> | <u>CMP</u> | <u>Kill Prob- a/ ability Against 2000psi Target</u> |
| SS-N-20 | .22 | .30018-.32394 | 2.1-2.4 | 7 - 7-1/2% |
| SS-N-18/3 | .34 | .32394-.76 | .6-3.2 | nil - 8% |
| SS-N-18/1 | .34 | .59389-.76 | .6- .9 | nil - 1% |
| SS-N-17 | 1 | .81 | 1.5 | 2% |
| SS-N-8/2 | .86 | .48591-.84008 | 1.2-3.6 | 2 - 9% |
| SS-N-8/1 | .86 | .70187-.84008 | 1.2-1.7 | 2 - 3% |
| SS-N-6/3 | .68 | .75586-.9988 | .7-1.2 | nil - 2% |
| SS-N-6/1 | 1 | .48591-.9988 | 1 -4.2 | 2 - 9% |
| SS-N-5 | .86 | 1.51172 | .4 | nil |

Key: Calculations and measurements by author.

Notes:

- a. Derived using Bruce Bennett Assessing The Capabilities of Strategic Nuclear Forces: The Limits of Current Methods, N-1441-NA (Santa Monica, CA: The Rand Corporation, June 1980) p. 58.

As a comparison to the CMP for other warheads, using IISS data, the Trident I (non-counterforce) has a CMP of 3.6, the Minuteman III/MK-12A (insufficient counterforce) has 34 and the Soviet SS-18/3 (counterforce) is 125.

Thus, by a different route we can see that existing Soviet SLBM warheads are not significantly usable against hardened silos (not greater than 10%). Even if we assume the worst case (for us), most accurate estimates, the largest warhead estimated yield contained in Table 8 (1.5 MT for the SS-N-8) and combine it with the greatest accuracy for that missile (900 meters), the result is a CMP of 5.5 which still does not (even if off by a factor of two) approach that of a nominal counterforce weapon. A CMP of 11 equates to a kill probability of around 21%.

The potential use of SLBMs to act as a counterforce by pinning down U.S. ICBM silos will be addressed in the next chapter. The most important finding of this section is that current Soviet SLBMs cannot be used with any degree of success against hardened silos. Soviet weapons of this caliber do exist, but they are a part of the land-based forces, not the

Navy. 8/ There are also alternative measures that would accomplish the same results that Navy SLBMs can perform. These will be analyzed later.

Dynamic Measurements

To a large degree, static measurements must be supplemented with additional considerations in order to assess military capability. It is not enough to know that Soviet Navy warheads are only capable against softer targets, we must know what is the deliverable amount of that force.

The most effective illustration of the importance of dynamic measures is number of warheads. We know that the Soviets have around 2500 SLBM warheads in submarine launchers. Yet by accounting for the number of submarines on routine patrol, a significantly lower number is the actual day to day threat. For example, if 5 Yankees and 5 Delta I with SS-N-8 missiles were routinely at sea on patrol, the maximum number of warheads posed by the close in Yankee threat is 80 and the nominal number of Delta warheads posing a long range threat would be 60 (assuming other Delta will not fire from their berths). This section will estimate the routine threat of deliverable warheads, megatonnage, etc.

To further develop dynamic measurements, we must account for Soviet fleet deployment of submarine hulls, various missile ranges, the potential for surge, mobilization in addition to normal patrols, and make some assumption as to how many weapons will work. From these measures, we can then assess the threat to the U.S.

The first breakdown must be the allocation of submarine hulls to each of the four Soviet fleets (Northern, Pacific, Baltic, and Black Sea). Most sources give the deployment of submarines as a percentage of the total or without specifying the class. An exception to this rule is that virtually all sources identify the Baltic as the location for 6 Golf SSBs.

The November 1983 DIA Unclassified Communist Naval Orders of Battle, however, has broken out the specific fleet location for each class of SSBN/SSB. Since the DIA hull data base and the one used in this study are virtually identical (this study credits the Soviets with 2 more Hotel IIs than does DIA), it is possible to utilize DIA as the authority for fleet location. The two additional Hotel units will be

placed in the Northern fleet, assuming this is where they are undergoing dismantling. 9/

Table 12

Soviet SSBN/SSB Fleet Assignments (1983)

| <u>Class</u> | <u>Northern</u> | <u>Pacific</u> | <u>Baltic</u> | <u>Black</u> |
|--------------|-----------------|----------------|---------------|--------------|
| Typhoon | 2 | | | |
| Delta III | 9 | 5 | | |
| Delta II | 4 | | | |
| Delta I | 9 | 9 | | |
| Yankee II | 1 | | | |
| Yankee I | 14 | 9 | | |
| Hotel III | 1 | | | |
| Hotel II | 4 | | | |
| Golf V | | | | 1 |
| Golf III | 1 | | | |
| Golf II | | 7 | 6 | |

Key: Number of submarines per fleet according to DIA.
Hotel II totals adjusted by author.

The single tube research and development Golf V was reported by IISS as being in a reserve status. Assuming this is true, it will be discounted from further considerations of routinely available forces. It will be assumed that DIA is more aware of the status of dismanteling submarines and that two Hotel II's they do not count are presently in such a state as to be either dismantled or nearly so. Hence, they will not be considered available for use.

The next step for analysis will be to account for the number of submarines on normal routine patrol in peacetime. Naturally, this number is a closely guarded secret and will fluctuate over time. There have been sufficient "leaks" to the open press to give us a reasonable assumption of the numbers of submarines on station. 10/

In early 1984, the Soviets increased the numbers of SSBNs by sending out additional Delta SSBNs to mid-Atlantic patrol stations and upsetting the normal pattern of deployed units. 11/ For the purposes of this research, we will assume tht a maximum of 5 Yankees will be on patrol off both U.S. coastlines and an additional 5 Deltas maximum are patrolling in all Soviet home waters.

The patrol areas for Soviet SSBNs are clearly marked on a map in Soviet Military Power, (3rd Ed.). They include the Atlantic and Pacific near North America, the Norwegian and Baltic Seas, and the Bering, and Seas of Japan and Okhotsk. 12/

The reason why Soviet SLBMs can target the U.S. while close to their own waters is a function of missile range. The SS-N-6 systems aboard Yankee I

need to be relatively close to their targets while newer missiles aboard Delta and Typhoon classes can reach the U.S. from Arctic waters. Table 13 presents the ranges nominally associated with each missile.

Another historical note of interest is that the major sources all agree that it has been the USSR and not the U.S. which pioneered the development of long range SLBMs. The Soviet SS-N-8 appeared around 1972 and the SS-N-8 around 1978. The comparable U.S. Trident I system did not appear until 1980.

Table 13

Soviet SLBM Ranges (n.m.) (1983)

| <u>Missile</u> | <u>Couhat</u> | <u>Jane's</u> | <u>IISS</u> | <u>DOD</u> |
|----------------|---------------|---------------|-------------|------------|
| SS-N-20 | 4,300 | 5,000 | 4,482 | 4,482 |
| SS-N-18/3 | 3,530 | 3,500 | 3,510 | 3,510 |
| SS-N-18/1 | 3,530 | 3,500 | 3,510 | 3,510 |
| SS-N-17 | 2,000 | 2,400 | 2,106 | 2,106 |
| SS-N-8/2 | 4,950 | 4,900 | 4,914 | 4,914 |
| SS-N-8/1 | 4,240 | 4,200 | 4,212 | 4,212 |
| SS-N-6/3 | 1,600 | 1,800 | 1,620 | 1,620 |
| SS-N-6/1 | 1,300 | 1,300 | 1,296 | 1,296 |
| SS-N-5 | 900 | 850 | 756 | 756a/ |

Key: Nautical miles of range listed by each source.

Notes:

a. Taken from 2nd Ed. of Soviet Military Power, p. 22.

There is no need to decide which range is more correct for each missile, since all are close. The point is that for a SS-N-5 equipped submarine to threaten a shore target, it needs to maneuver to a range extremely close to that target. Similarly, Yankee class submarines need to fire from the Atlantic or Pacific shores near the U.S. to reach targets in the U.S. Newer Delta and Typhoon submarines have sufficient standoff range to be able to target the U.S. from home waters. SS-N-5 equipped submarines are obviously theater systems but Yankees found in Soviet home waters are also.

Once the missile range is established, it is possible to understand why unclassified reports of strategic submarines off the U.S. shores are generally of Yankees and why newer submarines need not transit close to the U.S. to be within target range.

The next stage in the dynamic measurement is to account for the ability of the fleet to unexpectedly surge additional units or to mobilize for war or exercise. No navy can put 100% of its fleet to sea at any given time, nor can we expect any military force to be able to count on total participation from its

forces. There will always be units undergoing overhaul, outfitting, scheduled and unscheduled maintenance, conversions, etc.

For purposes of this study, a low threat and high threat will be presented using the same procedures developed by the researcher in his earlier "Soviet Navy Data Base: 1980-83." ^{13/} Two conditions will be analyzed. The first will present the fleet's capability to rapidly surge forces (implying a lack of planning/warning). The second will be the mobilization threat based on a planned deployment for a show of force or war. Naturally, the second case assumes strategic warning or Soviet intentional use of the fleet.

The low threat scenario will assume that at least one-third of the fleet can get underway under normal peacetime conditions and two-thirds if the Soviets planned in advance or mobilized. No specific timetable of days is specified for a surge, but within a few days is assumed as reasonable. The high threat will assume one-half of the fleet can surge deploy rapidly and that three-fourths could mobilize. Table 14 presents the scenarios in graphic format.

Table 14

Soviet Fleet Surge/Mobilization Assumptions (1983)

| | <u>Low Threat</u> | <u>High Threat</u> |
|----------|-------------------|--------------------|
| Surge | 33-1/3% | 50% |
| Mobilize | 66-2/3% | 75% |

Key: Percentage of fleet assumed by author as capable of getting underway.

Obviously all of these assumptions are just that--assumptions. They are based upon familiarity with U.S. force capabilities and discussions over the past three years with numerous analysts who obviously would prefer to remain uncited. 14/ When the author's initial data base was published, copies were sent to a number of experts and analysts in the field, none of whom have refuted or criticized the assumptions. 15/ Hence the researcher continues to use these figures.

It is important to realize that the part of the fleet that is deployable under each condition includes those ships assumed to be already at sea. Although the number of Yankees and Deltas at sea has already been assumed as five each, an accounting needs to be made of other forces normally on patrol. The 10-15% figure appearing in the unclassified literature as a rule of thumb will be utilized for all other classes.

Table 15 indicates the SSBN/SSB threat assessment using assumed deployments, surge, and mobilization potential. Rounding has been used to account for whole submarines. For Yankees, additional units must be accounted for due to transit distances involved. Transit calculations will not be presented here but are found in the earlier data base. 16/

Table 15

Soviet SSBN/SSB Threat Tabulation (1983)

| <u>Fleet</u> | <u>Submarine</u> | <u>On Patrol/ Transit</u> | <u>Home Waters Total If Surge</u> | <u>Home Waters Total If Mobilize</u> |
|--------------|------------------|-------------------------------|---|--|
| Northern | Typhoon | 0 | 1 | 2 |
| | Delta | 3 | 7-11 | 15-17 |
| | Yankee | 3/2 | 0-3a/ | 5-6a/ |
| | Hotel III | 0 | 0 | 1 |
| | Hotel II | 0 | 0 | 1 |
| | Golf III | 0 | 0 | 1 |
| Pacific | Delta | 2 | 5-7 | 9-11 |
| | Yankee I | 2/1 | 0-2a/ | 3-4a/ |
| | Golf II | 1 | 2-4 | 5 |
| Baltic | Golf II | 1 | 2-3 | 4-5 |

Key: Total numbers of submarines on forward deployment or capable of being surged in local home waters compiled by author.

Note:

- a. Locally available Yankees in addition to units on forward deployment or in transit to those locations.

The point of Table 15 is to use it as the key to calculate deliverable nuclear warheads or megatonnage. From the submarines capable of deploying to at-sea locations, it is simple to calculate the numbers of missiles and warheads capable of reaching targets within missile range. From those numbers, other assessments are possible.

In addition to the 10 Yankees and Deltas routinely on patrol within missile range of the U.S., the additional 3 Yankees in transit might be quickly deployable against North America. As such, the likely case involving a rapid increase in Yankees is not additional surged units but rather the extension of the off-going submarine patrol date.

In the Soviet home waters, the situation is different, since, in theory, Delta or Typhoon could strike the U.S. from its home base. If we assume 5 already on local patrol, this number could be at least increased by 8 and perhaps by as many as 12. The mobilization threat is naturally much higher.

Theater threats are highly variable. Obviously, Golf and Hotel submarines that are surged or mobilized are theater systems, but what about the additional

Yankees? Should these be considered as a theater threat, or will they go into the deep Atlantic and Pacific and attempt to reach the U.S. coastlines?

Rather than attempt to answer these questions with definitive statements of policy, all likely cases will be analyzed as alternative scenarios. From these scenarios, measurement of numbers of warheads and deliverable megatonnage will be constructed.

NOTES

1. Soviet Military Power, 1st Ed., p. 57.
2. Soviet Military Power, 2nd Ed., p. 23.
3. Soviet Military Power, 3rd Ed., p. 26. To cross check totals, the following list of launcher numbers found on p. 12 compares to those used in this study:

| <u>Sov Mil Power</u> | | <u>This Study (Table 6)</u> |
|----------------------|---------|-----------------------------|
| 45 | SS-N-5 | 51 |
| 368 | SS-N-6 | 368 |
| 292 | SS-N-8 | 292 |
| 12 | SS-N-17 | 12 |
| 224 | SS-N-18 | 224 |
| 40 | SS-N-20 | 41 |

It is impossible for the warhead totals to have reached approximately 2500 except by the SS-N-18 MIRV factor.

4. Whence The Threat to Peace, 3rd Ed., (Moscow: Military Publishing House, 1984), p. 8. This fact was ignored in a recent criticism of DOD's "inflating" of the threat even though these numbers were available in the 2nd Ed. (1982). See William M. Arkin and Jeffrey I. Sands "The Soviet Nuclear Stockpile," Arms Control Today, Vol. 14, No 5, June 1984, pp. 4 and 7. These

authors also ignored DOD's graph in Soviet Military Power, 3rd Ed. giving the total number of SLBM warheads as around 2500. Hence their conclusion that DOD has "inflated" the threat to be as high as 5245 warheads in SLBMs alone is in direct contradiction of the evidence they cite and ignores the Soviets' own figures.

5. Bruce W. Bennett. Assessing The Capabilities of Strategic Nuclear Forces: The Limits of Current Methods, N-1441-NA (Santa Monica, CA.: The Rand Corporation, June 1980), pp. 67-73.
6. Information on U.S. missile hard target kill potential is taken from statement of Richard N. Perle, Assistant Secretary of Defense for International Security Policy on February 23, 1982 contained in Hearings on Military Posture before the House Armed Services Committee, 97th Cong., 2nd Sess., Part 2 of 7 (Strategic Programs), HASC 97-23, p. 75.
7. Steve Smith, "MX and the Vulnerability of American Missiles," ADIU (Armament and Disarmament Information Unit) Report, May/June 1982, p. 2. Smith's assessment of the vulnerability of U.S. silos is not used since it is based upon sources not used

by this research. Hardness of Minuteman silos confirmed by Secretary of Defense Caspar W. Weinberger, written statement of October 6, 1981 found in HASC 97-33, p. 12.

8. James McConnell in his "Possible Counterforce Role for the Typhoon," Professional Paper 347 (Alexandria, WA.: Center for Naval Analyses, March 1982), attempts to argue a counterforce role for the SS-N-20. No calculations are performed to estimate hard target kill. It appears that Mr. McConnell really is talking about soft target counterforce. Harold A. Feiveson and John Duffield's "Stopping the Sea-Based Counterforce Threat" International Security, Vol. 9, No. 1, Summer 1984, pp. 187-202 is based upon the premise that SLBMs will eventually reach hard target counterforce capability but similarly lacks good calculations.
9. The dismantling of Hotel hulls was reported in Soviet Military Power, 2nd Ed., p. 23. Since both Jane's and IISS report more SSBNs than DIA and both tabulate the total number of SSBNs by fleet, the only way their Northern fleet totals

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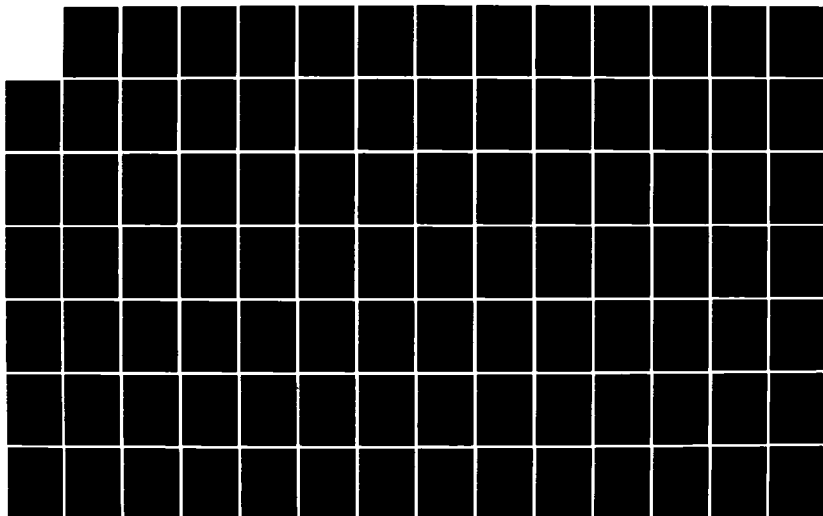
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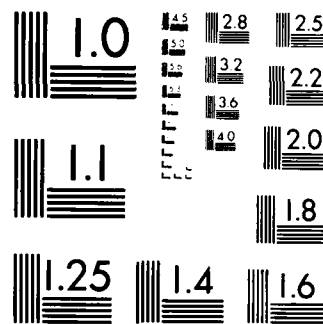
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MICROCOPY RESOLUTION TEST CHART
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could be accurate is if the extra Hotels are found there.

10. Aviation Week and Space Technology, Vol. 119, No. 22, November 28, 1983, p. 17 reports 8-10 SSBN/SSB at sea at all times which confirms earlier reports in the Los Angeles Times, November 28, 1982, Part VI, p. 7 (8-10 subs); and by Bryan Ranft and Geoffrey Till The Sea in Soviet Strategy (Annapolis, MD: Naval Institute Press, 1983) p. 169 (9-10 Delta/Yankees).
11. Washington Post, January 27, 1984, p. 23 reported 2-3 Deltas in the Atlantic.
12. See pp. 114-115. The Baltic is not depicted on the map, although on p. 53 it says that Golf II submarines are stationed in that sea. It is interesting to trace the difference in SSBN patrol areas in each of the three editions. The second edition lists "nuclear submarine operating areas" on a map on pp. 84-85 without the Seas of Okhotsk, Japan nor the Norwegian Sea. The first edition omits the Bering Sea additionally (pp. 84-85). Hence with each edition, patrol areas have been further identified.

13. Rand Corporation Professional Paper P-6859,
April 1983.
14. Michael MccGwire attempted similar calculations describing forces as "ready" (on patrol or able to deploy within 4 hours), on standby (able to deploy within 1 day), or those requiring 1 week or 1 month to deploy. This compares well with my calculations. My surge range is 33-50% and MccGwire's was 45%. My mobilization range is 67-75% and MccGwire's was 65%. See "Maritime Strategy and the Superpowers" from Adelphi Paper 123, Conference papers from 1975 reported in Sea Power and Influence: Old Issues and New Challenges, International Institute for Strategic Studies, The Adelphi Library 2, Jonathan Alford, Ed. (Hamshire, England: Gower Publishing Co., Ltd., 1980), p. 64.
15. A project at Rand utilized this data base for a major gaming exercise.
16. The one exception is that for the previous data base, two unlocated Yankee was assumed for gaming purposes (one in each major ocean). In this study, two Yankees are assumed off the U.S. Pacific shore (vice one).

17. A similar (but undocumented) accounting of forces was presented by Captain John Moore in Jane's 1980-81 (p. 127). Recognizing that his figures are based upon a slightly altered basis of types of forces, the number of submarines that could be mobilized in the two major fleets is strikingly similar to my findings. For example, Moore concludes that a maximum of 16 long range SSBNs could be mobilized in the Northern Fleet home water areas. My calculations are for 15-19. Moore finds 15 shorter range SSBNs would be available for other Atlantic operations, my figure is 13-14. In the Pacific, Moore decided that 8 long range submarines could be mobilized whereas I calculate 9-11. In other Pacific waters, including theater and forward deployed areas, Moore states 10 submarines could deploy, my finding is for 11-12. The difference in submarine totals is accounted for by Moore by assuming deployments in the Mediterranean and Indian Ocean (5 units).

CHAPTER 10

NUCLEAR DYNAMIC THREAT ASSESSMENT

Now that the raw data needed is constructed, a number of scenarios will be outlined. The threat will be assessed, each scenario will be explained, and the data will be assumed cited if not taken from the previous tables. Should subsequent investigations reveal that any assumptions need revision, one need only rework the analysis using the existing framework.

For the purposes of analysis, some probability needs to be assigned to the likelihood of what type of the two Yankee or three versions of Delta will be found on patrol. Similarly, a probability of type of missile carried on Yankee I and Delta III needs to be made. Table 16 presents the probabilities assumed and are based upon the percentage of that individual type in the whole of that class.

Table 16

Analytic Probabilities Assumed

| | | | |
|--|-----------|-----|----------------|
| Likelihood Northern Fleet Yankee is a | Yankee II | 7% | (limit 1 sub) |
| | Yankee I | 93% | |
| Likelihood Northern Fleet Delta is a | Delta I | 41% | (limit 4 subs) |
| | Delta II | 18% | |
| | Delta III | 41% | |

| | | | |
|--------------------|-----------|-----|----------------|
| Likelihood Pacific | Delta I | 64% | |
| Fleet Delta is a | Delta III | 36% | |
| If Yankee I sub- | SS-N-6/1 | 22% | (limit 5 subs) |
| marine likelihood | SS-N-6/3 | 78% | |
| carries | | | |
| If Delta III sub- | SS-N-18/1 | 14% | (limit 2 subs) |
| marine likelihood | SS-N-18/3 | 86% | |
| carries | | | |

These percentages will be applied to the total possible number of units, rounded as necessary, and thus an assumed threat can be constructed.

Bolt From The Blue

For the purposes of analysis, the Bolt From the Blue threat must be calculated since it represents one end of the spectrum. It assumes a calculated war initiated by the Soviets with no strategic and essentially no tactical warning. In other words, it means they will fire forces already in place without any overt sign of preparation. Based upon the data constructed thus far, with no manipulation of forces, this threat can be assessed. One can view the Bolt From the Blue as the worst case, the one in which they can strike without doing anything new.

The number of submarines on patrol is known, we can assign probabilities to assume their type and missiles carried. Numbers of warheads and equivalent

megatons (EMT) on patrol will be calculated and serve as the primary two units of measurement since it has already been shown that hardened silos are not a likely target set for SLBMs.

Not all missiles can be expected to work or be serviceable on the date of need. The serviceability and reliability of Soviet missiles is not available in the general literature, nor is it probably known with certainty to the Soviets themselves. The author has based his estimates upon a composite of varying U.S. government, IISS, and other sources which have listed reliability for Soviet and U.S. systems.

In general, IISS gives a maximum reliability rating of 80% to any weapons system. The Congressional Budget Office (CBO) has assessed a reliability of 70% in their assessment of Soviet strategic submarine launched ballistic missiles (SLBMs). For comparison, U.S. SLBM reliability is assessed by the CBO to be 80%. 11/ Table 17 presents an assessment of the "Bolt from the Blue" threat from Soviet SLBMs. In the subsequent sensitivity analysis, the reliability rating will be manipulated.

U.S. damage possible from a Bolt from the Blue strike as well as the other scenarios to be quantified.

will be presented later. At this point, it is only the number of deliverable warheads and EMT that is being calculated.

Table 17
Bolt From the Blue (1983)

| Fleet | No. Subs on Patrol | Assumed Class | Assumed No. and Missile | No. Warheads on Patrol | BMF on Patrol | Reli- ability | Deliverable Warheads | Deliverable BMF |
|-----------------|-----------------------|----------------------------|--|---------------------------|----------------------|-------------------|-------------------------|--------------------|
| <u>Northern</u> | | | | | | | | |
| (forward) | 3 Y | 3 Y-I | 16 SS-N-16/1 32 SS-N-6/3 | 16 32 | 16 21.8 | 70% 70% | 11 22 | 11 15 |
| (local) | 3 D | 1 D-I 1 D-II 1 D-III | 12 SS-N-8 16 SS-N-8 16 SS-N-18/3 | 12 16 112 | 10.3 13.8 38.1 | 70% 70% 75% | 8 11 84 | 6.9 9.5 28.6 |
| <u>Pacific</u> | | | | | | | | |
| (forward) | 2 Y | 2 Y-I | 32 SS-N-6/3 | 32 | 21.8 | 70% | 22 | 15 |
| (local) | 2 D | 1 D-I 1 D-III | 12 SS-N-8 16 SS-N-18/3 | 12 112 | 10.3 38.1 | 70% 75% | 8 84 | 6.9 28.6 |
| | 1 G-II | 1 G-II | 3 SS-N-5 | 3 | 2.6 | 60% | 2 | 1.7 |
| Baltic | 1 G-II | 1 G-II | 3 SS-N-5 | 3 | 2.6 | 60% | 2 | 1.7 |

Key: Compiled by author.

From the data in Table 17, we can conclude that the likely Bolt from the Blue attack on the U.S. might involve 55 deliverable SLBM warheads from close-in Yankees capable of 41 EMT. An additional 195 deliverable warheads and 80.5 EMT is carried aboard Deltas on patrol in Soviet home waters. The theater threat is 2 deliverable warheads on Europe, or 2 on Asia, Alaska, or Pacific Islands.

Mobilization

At the other end of the spectrum, a greater number of weapons could target the U.S. if the Soviets fully mobilized. A mobilization could take place under conditions of escalation in which both sides were aware of the mobilization or else under the guise of an exercise.

For example, in the Spring of 1984, the Soviet Navy conducted a major Northern and Baltic Fleet exercise in which hundreds of ships got underway. If this "exercise" were to suddenly take the form of a real war, mobilization could have been achieved without the West taking appropriate countermeasures. Thus one can consider a mobilized USSR and an unmobilized West as another possible worst case. The

method by which mobilization would occur (under the guise of exercise or not) is not the issue--only the numbers of units that constitute the resultant threat.

For the mobilization scenario to be considered, an assumption needs to be made about the location of submarines once at sea. Two situations will be presented. In the first case, all Yankees will deploy to forward positions. This clearly would be the worst case for the U.S. since Yankees off the North American coastline represent a unique threat due to the shorter range of their missiles hence shorter warning time.

In the second, no increase in forward deployed Yankees will be assumed other than a delay in off-going subs. In other words, those in transit will supplement those off the U.S. coastline. Additional Yankees will be deployed along with Deltas in Soviet home waters.

No change in deployment for submarines equipped with longer or shorter range missiles will be assumed, since it is illogical. There is no advantage to deploying Delta and Typhoon away from home waters and

serious increases in risk. Tables 18 and 19 present the data for both cases assuming the high-risk threat percentages tabulated earlier.

Table 18
Mobilization - Yankees Forward Deploy (1983)

| Fleet | No. Subs on Patrol | Assumed Class | Assumed No. and Missile | No. Warheads on Patrol | IMP on Patrol | Reliability | Deliverable Warheads | Deliverable IMP |
|-----------------|-----------------------|------------------|-----------------------------|---------------------------|------------------|-------------|-------------------------|--------------------|
| Northern | | | | | | | | |
| (forward) | 11 Y | 10 Y-I | 32 SS-N-6/1 128 SS-N-6/3 | 32 128 | 32 87 | 70% | 22 90 | 22 61.2 |
| | | 1 Y-II | 12 SS-N-17 | 12 | 12 | 70% | 8 | 8 |
| (local) | 2 Typ. | 2 Typ. | 40 SS-N-20 | 360 | 79.2 | 70% | 252 | 55.4 |
| | 17 D | 7 D-I | 84 SS-N-8 | 84 | 72.2 | 70% | 59 | 50.7 |
| | | 3 D-II | 48 SS-N-8 | 48 | 41.3 | 70% | 34 | 29.2 |
| | | 7 D-III | 96 SS-N-18/3 | 672 | 228.5 | 75% | 504 | 171.4 |
| | | | 16 SS-N-18/1 | 48 | 16.3 | 75% | 36 | 12.2 |
| | 1 H-III | 1 H-III | 6 SS-N-9 | 6 | 5.2 | 70% | 4 | 3.4 |
| | 1 G-III | 1 G-III | 6 SS-N-8 | 6 | 5.2 | 70% | 4 | 3.4 |
| | 2 H-II | 2 H-II | 6 SS-N-5 | 6 | 5.2 | 60% | 4 | 3.4 |
| Pacific | | | | | | | | |
| (forward) | 7 Y | 7 Y-I | 32 SS-N-6/1 80 SS-N-6/3 | 32 80 | 32 54.4 | 70% | 22 56 | 22 30.1 |
| (local) | 11 D | 7 D-I 4 D-III | 84 SS-N-8 48 SS-N-18/3 | 84 336 | 72.2 114.2 | 70% | 59 252 | 50.7 85.7 |
| | 5 G-II | 5 G-II | 16 SS-N-18/1 15 SS-N-5 | 48 15 | 16.3 12.9 | 75% | 36 9 | 12.2 7.7 |
| Baltic | 5 G-II | 5 G-II | 15 SS-N-5 | 15 | 12.9 | 60% | 9 | 7.7 |

Key: Compiled by author.

Table 19

Mobilization - Yankees Withheld (1983)

| Fleet | No. Subs on Patrol | Assumed Class | Assumed No. and Missile | No. Warheads on Patrol | BMF on Patrol | Reliability | Deliverable Warheads | Deliverable BMF |
|-----------------|------------------------------|------------------------------|--|---------------------------|---------------------------|--------------------------|-------------------------|---------------------------|
| Northern | | | | | | | | |
| (forward) | 5 Y | 5 Y-I | 16 SS-N-6/1 64 SS-N-6/3 | 16 64 | 16 43.5 | 70% 70% | 11 45 | 11 30.6 |
| (local) | 6 Y | 5 Y-I | 16 SS-N-6/1 64 SS-N-6/3 | 16 64 | 16 43.5 | 70% 70% | 11 45 | 11 30.6 |
| | 2 Typ. | 1 Y-II 2 Typ. | 12 SS-N-17 40 SS-N-20 | 12 360 | 12 79.2 | 70% 70% | 8 252 | 8 55.4 |
| | 17 D | 7 D-I 3 D-II 7 D-III | 84 SS-N-8 48 SS-N-8 96 SS-N-18/3 | 84 48 672 | 72.2 41.3 228.5 | 70% 70% 75% | 59 14 504 | 50.7 29.2 171.4 |
| | 1 H-III 1 G-III 2 H-II | 1 H-III 1 G-III 2 H-II | 16 SS-N-18/1 6 SS-N-8 6 SS-N-8 6 SS-N-5 | 48 6 6 6 | 16.3 5.2 5.2 5.2 | 75% 70% 70% 60% | 36 4 4 4 | 12.2 3.4 3.4 3.4 |
| Pacific | | | | | | | | |
| (forward) | 3 Y | 3 Y-I | 16 SS-N-6/1 32 SS-N-6/3 | 16 32 | 16 21.8 | 70% 70% | 11 22 | 11 15 |
| (local) | 4 Y | 4 Y-I | 16 SS-N-6/1 48 SS-N-6/3 | 16 48 | 16 32.6 | 70% 70% | 11 34 | 11 24.1 |
| | 11 D | 7 D-I 4 D-III | 84 SS-N-8 48 SS-N-18/3 | 84 336 | 72.2 114.2 | 70% 75% | 59 252 | 50.7 85.7 |
| | 5 G-II | 5 G-II | 16 SS-N-18/1 15 SS-N-5 | 48 15 | 16.3 12.9 | 75% 60% | 36 9 | 12.2 7.7 |
| Baltic | 5 G-II | 5 G-II | 15 SS-N-5 | 15 | 12.9 | 60% | 9 | 7.7 |

Key: Compiled by author.

From the worst mobilization case (for the U.S.) in Table 18, we find that if the Soviets mobilized and sent all available Yankees off the North American coastline, they might threaten the U.S. with 198 medium range deliverable warheads which provide little warning time. Since it might be argued that this scenario is unrealistic, the alternate mobilization scenario in Table 19 presents a more likely threat where only the in-transit and off-going Yankees supplement those already on station. In this case, 89 deliverable warheads would threaten the U.S. with 67.6 EMT.

The force that could be mobilized in Soviet home waters capable of hitting North America is identical in either case. The Soviets can probably deliver 1240 long-range warheads totaling 474.3 EMT.

As for the theater threat, one must decide whether or not Yankees in home waters would be used or withheld. If these forces are to supplement SS-N-5 equipped submarines in theater strikes, the threat is 77 deliverable warheads and 60.7 EMT on Europe and 54 deliverable warheads and 41.8 EMT in Asia, Alaska, or against Pacific Islands. On the

other hand, if Yankees in local waters are not used, the theater threat is again only modest.

Surge

A third case will be that of an unplanned, immediate surge. The scenario will be that the fleet has been instructed to respond rapidly to a crisis and thereby put on a show of force. The data used will be the high-threat surge from Table 15, giving the Soviets the benefit of the doubt as to capability to get their forces underway.

As was done with the mobilization scenario, the surge will present the dual deployment Yankee alternatives. Tables 20 and 21 present the findings. The surge case represents a mid-range threat between The Bolt from the Blue and the mobilization case. It should not be looked upon as a most likely case since it is only reflective of the assumptions upon which it is based. If anything, it can be considered another worst case (for the U.S.) since the environment likely to be unplanned and highly unstable.

Table 20

Surge - Yankees Withheld (1981)

| Fleet | No Subs. on Patrol | Assumed Class | Assumed No. and Missile | No. Warheads on Patrol | EMT on Patrol | Reliability | Deliverable Warheads | Deliverable EMI |
|-----------------|-----------------------|--------------------------------------|--|------------------------------|---------------------------------------|---------------------------------|-----------------------------|---------------------------------------|
| Northern | | | | | | | | |
| (forward) | 5 Y | 5 Y-I | 16 SS-N-6/1 64 SS-N-6/3 | 16 64 | 16 43.5 | 70% | 11 45 | 11 40.6 |
| (local) | 3 Y | 2 Y-I 1 Y-II | 32 SS-N-6/3 12 SS-N-17 | 32 12 | 21.8 12 | 70% | 22 8 | 15 8 |
| | 1 Typ. 11 D | 1 Typ. 4 D-I 2 D-II 5 D-III | 20 SS-N-20 48 SS-N-8 32 SS-N-8 64 SS-N-18/3 16 SS-N-18/1 | 180 48 32 448 48 | 39.6 41.3 27.5 152.3 16.3 | 70% 70% 70% 75% 75% | 126 34 22 36 36 | 27.7 29.2 18.9 114.2 12.2 |
| Pacific | | | | | | | | |
| (forward) | 3 Y | 3 Y-I | 16 SS-N-6/1 32 SS-N-6/3 | 16 32 | 16 21.8 | 70% | 11 22 | 11 15 |
| (local) | 2 Y 7 D 4 G-II | 2 Y-I 4 D-I 3 D-III 4 G-II | 32 SS-N-6/3 48 SS-N-8 48 SS-N-18/3 12 SS-N-5 | 32 48 336 12 | 21.8 41.3 114.2 10.3 | 70% 70% 75% 60% | 22 34 252 7 | 15 29.2 89.7 6 |
| Baltic | 3 G-II | 3 G-II | 9 SS-N-5 | 9 | 7.7 | 60% | 5 | 4.3 |

Key: Compiled by author.

Table 21
Surge - Yankees Forward Deploy (1981)

| Fleet | No. Subs on Patrol | Assumed Class | Assumed No. and Missile | No. Warheads on Patrol | Eff on Patrol | Reli- ability | Deliverable Warheads | Deliverable EMI |
|-----------------|-----------------------|--------------------------------------|--|------------------------------|---------------------------------------|---------------------------------|------------------------------|---------------------------------------|
| Northern | | | | | | | | |
| (forward) | 8 Y | 7 Y-I | 16 SS-N-6/1 | 16 | 16 | 70% | 11 | 11 |
| | | | 96 SS-N-6/3 | 96 | 65.3 | 70% | 67 | 45.6 |
| | | 1 Y-II | 12 SS-N-17 | 12 | 12 | 70% | 8 | 8 |
| (local) | 1 Typ. 11 D | 1 Typ. 4 D-I 2 D-II 5 D-III | 20 SS-N-20 48 SS-N-8 32 SS-N-8 64 SS-N-18/3 16 SS-N-18/1 | 180 48 32 448 48 | 39.6 41.3 27.5 152.3 16.3 | 70% 70% 70% 75% 75% | 126 34 22 316 36 | 27.7 29.2 18.9 114.2 12.2 |
| Pacific | | | | | | | | |
| (forward) | 5 Y | 5 Y-I | 16 SS-N-6/1 | 16 | 16 | 70% | 11 | 11 |
| | | | 64 SS-N-6/3 | 64 | 43.5 | 70% | 45 | 40.6 |
| | 7 D | 4 D-I | 48 SS-N-8 | 48 | 41.3 | 70% | 34 | 29.2 |
| | | 3 D-III | 48 SS-N-18/3 | 336 | 114.2 | 75% | 252 | 85.7 |
| | 4 G-II | 4 G-II | 12 SS-N-5 | 12 | 10.3 | 60% | 7 | 6 |
| Baltic | | | | | | | | |
| | 3 G-II | 3 G-II | 9 SS-N-5 | 9 | 7.7 | 60% | 5 | 4.3 |

Key: Compiled by author.

In this surge case, the most likely scenario would involve keeping off-going Yankees on station off North America and surging the extra Yankees into home waters. In this case, depicted by Table 20, the threat to the U.S. is identical as in the mobilization case (89 deliverable warheads from Yankees).

The surge scenario results in a long-range missile threat to the U.S. from Soviet home waters, totalling 840 deliverable warheads and 317.1 EMT. The theater threat would be 35 deliverable warheads and 27.3 EMT on Europe and 29 deliverable warheads and 21 EMT on Asia, Alaska, and Pacific Islands if Yankees are withheld.

Assessment of Counterforce Damage to U.S.

Although counterforce is often associated with the destruction of land based intercontinental ballistic missiles (ICBMs) silos, this study will assess the impact of Soviet Navy SLBMs in each of the three cases outlined (Bolt From the Blue, Mobilization, and Surge) against other strategic offensive force based in the continental U.S. Three distinct classes of counterforce attack will be analyzed: disruption of command, control, and communications

(C3), pin-down of ICBMs, and strikes against bomber and Naval bases. A final assessment will then be presented.

C3 Disruption

The wisdom of conducting an attack against a superpower's C-3 facilities will not be addressed herein. Some would argue such an attack is irrational since it might result in no one to communicate with during a period where war termination was the goal. Nevertheless, there are those who continue to discuss the possibility of such attacks, describing them as "decapitation" implying a loss in political control 2/ and severe degradation of the ability of the U.S. to perform a second strike.

Two distinct possibilities for such attacks are discussed. In the first, only a single warhead may be necessary. This attack involves electromagnetic pulse (EMP) and other disruptive effects to communications which could frustrate U.S. command and control.

EMP effects are not fully understood. One device of several hundred kilotons has been prescribed as capable of disrupting most of the U.S. with a peak of 25,000 volts/meters. 3/ Alternate estimates are

for one 10 MT device blanketing the U.S. with 50,000 volts/meters. 4/ In the first case of a modest yield weapon, this is certainly within the capability of known Soviet SLBMs. An SS-N-6 fired from an in-close Yankee would offer the advantage of disruption little or no warning. If a 10 MT device is required, no known Soviet Navy weapon will do.

The second major C3 attack scenario involves individual targeting of facilities that provide command, control, or communications with U.S. strategic nuclear forces. Estimates for such an attack vary from 50-100 warheads and would target all essential links. 5/ This attack includes 10-20 high altitude detonations.

The obvious advantage in conducting a C3 attack using Soviet submarines is that warning time is substantially reduced due to shorter missile flight times. Targets on the U.S. coastlines might be struck within 5 minutes and further inland no later than 15 minutes after launch. Important facilities could be neutralized before the arrival of Soviet ICBMs.

Soviet Yankees on routine patrol off the U.S. coastlines could probably carry out a moderate C3

attack. The Bolt from the Blue scenario credits Yankees with 55 deliverable warheads or about the minimum number required. The likely mobilization and surge cases increase this number to 89 deliverable warheads making success in a C3 attack more likely but at the expense of using all Yankee capability for this mission.

The attractiveness of a C3 attack by Soviet SLBMs is that success may in fact result in the paralysis of U.S. ICBMs, bombers, and those sea-based systems not assigned to the strategic reserve. SLBMs offer a unique advantage of being able to successfully target the common core for all U.S. systems. The weaknesses in the U.S. C3 have been addressed by the Reagan Administration and partially corrective measures are being funded.

ICBM Pin-Down

Some spokesman have theorized that Soviet Yankee SLBMs would be used against land based missiles by pinning-down U.S. ICBMs forcing them to remain in their silos. Such an attack would need to last only as long as it would take for Soviet ICBMs to arrive, less the flight time it took the SLBMs to arrive, no longer than 15-25 minutes.

A pin-down attack could threaten blast damage to ICBMs as they emerged from silos, and X-ray and EMP damage as they flew along corridors to the USSR, or additional dust/debris damage if surface bursts were used. High-altitude pin down is not viewed as a logical use of weapons since the primary kill mechanism, X-rays, is dissipated in an extremely short time period, requiring more weapons than a lower altitude attack. The surface burst pin-down might create so much debris that the survivability of incoming Soviet ICBM RVs may be in doubt.

The most logical use of SLBMs in pin-down would be attempting to damage missiles with blast caused by air burst weapons. Air blast overpressures of 4-10 psi are sufficient to cause complete damage to aircraft. 6/ For a 1 MT weapon (carried by the SS-N-6/1) the lethal radius would be 2.8-5 miles. For a .4 MT weapon (the SS-N-6/3) the lethal radius is 2-3.3 miles. For more modern Soviet SLBMs with smaller warheads, the lethal radii are smaller.

During the "dense pack" MX discussions, various estimates were given of the megatonnage necessary to pin down the field of deployed MX missiles. At that time, pin-down estimates ranged from 1 - 10 MT/minute

over that small field alone. 7/ Pin-down requirements for MX are considerably higher than for Minuteman since the new MX missile will be hardened and thus more survivable.

The approximate deliverable MT by Yankee is routinely 28.6 MT (55 deliverable warheads) and in a likely surge or mobilization case 48.8 MT (89 deliverable warheads). The U.S. has six Minuteman Wings dispersed throughout the Midwest. Each base is of considerable size.

The researcher feels that the data available in the unclassified arena is insufficient to fully assess the potential for the Yankee fleet to pin down the entire U.S. Minuteman force. Based upon the limited number of missile warheads available and the limited amount of deliverable megatonnage in Yankee, this researcher is not optimistic about the ability of the USSR to totally pin down the Minuteman force given the likelihood that C3 disruption could achieve the same end with less effort and the mission to attack bombers and naval bases may have priority. 8/ The author does concede that there may be additional classified evidence to support official Washington's

views that ICBM pin-down is a likely mission for Yankee.

Attacks on Bombers/Naval Bases

The third category attack would involve SLBMs against U.S. bomber, supporting tanker bases, and certain naval bases. The U.S. air breathing force is maintained at a small number of bases in peacetime and is theoretically capable of being dispersed in crises to additional bases including those inland. The U.S. Navy is based at a similar small number of bases along the coasts.

To set the boundaries for this third situation, one should assume a Soviet Bolt From the Blue because it results in a fewer number of aim points. In this case, the U.S. would have not received strategic warning and dispersed its assets. This represents the worst case (for the U.S.) and is the standard by which bomber survivability is routinely measured.

The Soviets need only target 18 primary Strategic Air Command (SAC) airfields, 3 fields used by SAC and other forces and SAC headquarters in order to attack all bombers and tankers. 9/ In a dispersal to outlying fields the number of airfields rises as high

as 45. 10/ In the non-generated alert, the Soviets could easily deliver 2 warheads per base with warheads to spare (55 deliverable on routine patrol). By assuming Yankess are quickly able to augment by delaying the off-going submarines, they could raise the number of deliverable warheads to 89 and probably successfully target all bases in a generated alert.

There are a number of variables into an assessment as to how successful an attack against the bombers or tankers would be. These are beyond the scope of this research. The threat should not be viewed through U.S. eyes where, for example, destruction of greater than 95% of an incoming Soviet ICBM force is claimed as necessary to fund an anti-ballistic missile (ABM) system. Rather, using Soviet Navy standards, 80-90% loss in combat potential is considered "destruction," 70% loss is a "defeat," 50% loss is "doing damage," 30% loss is "substantially weakening," and 10-15% loss is "weakening." 11/

An SLBM attack on bomber bases need not be a destructive or defeating attack. It need only "pin-down" the aircraft long enough until the ICBMs could arrive. One or two ICBM warheads exploding over each bomber/tanker base ought to sufficiently

disrupt the planned launch of alert aircraft considering the minimum megatonnage deliverable on each target is 400 kilotons (KT).

The U.S. Navy maintains only three SSBN bases in the continental U.S. This is generally where the Soviets could find SSBNs preparing for deployment or having just returned. Other submarines can be easily located in a few shipyard locations where they are undergoing overhaul.

Similarly, the U.S. keeps its surface fleet, including aircraft carriers, in a relatively small number of home ports. Although it is possible that the Soviets might catch a U.S. carrier battle group in port, loaded with ammunition and planes, ready to sail, this researcher does not feel that the use of Yankee SLBMs against surface ships is warranted. An ICBM or long-range SLBM would do.

Unlike the U.S. SSBN, which could in theory fire from its berth and hit the USSR within 30 minutes, the carrier battle group is neither a time urgent threat nor can its weapons reach the U.S. until the ship sails closer to the Soviet Union. Hence with only a limited number of shorter range SLBMs available

it would be a waste to use them against naval targets other than SSBNs or C3 facilities.

A similar question exists for using SLBMs against deployed U.S. Navy forces. There is no reason to use a SLBM to target these forces since Soviet ICBM and intermediate range systems could do the same job.

Counterforce Assessment

It would appear that from the types of Soviet Navy forces and their deployment options that the routine patrols by Yankees are tailored to target bomber, tanker, and submarine bases and conduct a modest but effective C3 attack. A full scale C3 attack or an ICBM pin-down attack may be possible but at the expense of the bomber/tanker/submarine attack. The limiting factor is numbers of warheads.

Soft target counterforce as the primary target set for Yankee appears logical since the SS-N-6 has the unique ability amongst all Soviet strategic nuclear forces to be able to significantly degrade time urgent targets in the U.S.

Assessment of Countervalue Damage to U.S

Despite the fact that this researcher views soft target counterforce as the primary class of targets

which forward deployed Yankees are committed to, the question remains as to what type of targets longer range SLBMs will be used against. The evidence of the literature strongly suggests that counter-value targeting against cities is not Soviet declaratory policy.

There are those in the West, however, who still feel that targeting cities should be policy for both superpowers, or that the Soviet Union intends to actually do this. Despite the literature evidence to the contrary, this research will now attempt to assess the possible countervalue damage potential to the U.S. should Soviet declaratory policy not be actual employment policy. In other words, if the Soviets do attack our cities with their SLBMs, what can be expected.

Such an assessment may also give perspective of the limits of civilian/non-military casualties which would be expected even if military targets are the object and collateral damage to co-located civilians occurs. From the static hardware evidence, it was shown that the Soviet SLBM trend is to increase missile accuracy and lower yields. This could be due to an effort to reduce collateral damage.

From the assessment of deliverable warheads and EMT in Tables 17-21, it is possible to roughly estimate the amount of countervalue damage which the Soviets threatened the U.S. with their SLBMs. There have been a few unclassified attempts to study the effects of a nuclear war on the U.S. and USSR.

Studies involving damage to the U.S. have been criticized in the past for their bias in favor of worst-case assumptions involving high Soviet weapons reliability and survivability. For the purposes of this study, only the impact of weapons actually delivered will be considered. In other words, if the bias has been primarily over how many weapons are deliverable, it is possible to circumvent this problem by sidestepping the issue and using tables herein to input warheads/EMT.

Some of the criticism on nuclear war effects however, concerns the consequences of the explosions themselves. For example, a recently publicized theory suggests that nuclear wars involving 10,400 warheads of 5000 MT would result in a "nuclear winter" has received much much media attention despite the unlikelihood of such a massive exchange.

The "nuclear winter" prediction was accompanied by a warning that the threshold for a major climatic catastrophe could be as low as 200 warheads. The threshold for major optical and climatic consequences was estimated as low as 1000 small warheads totalling 100 MT. 12/

This research paper cannot assess the accuracy of studies on the effects of nuclear war but merely cite the conclusions and findings that such studies have presented and assess the political consequences. Two recent studies done for the U.S. government contain data useable herein. These are the Senate's Economic and Social Consequences of Nuclear Attacks on the United States 13/ and the Office of Technology Assessment's The Effects of Nuclear War, 14/

In the Bolt from the Blue scenario, the Soviets were found to be able to deliver 55 warheads of 41 EMT from close in Yankees and 195 warheads totaling 80.5 EMT from distant Deltas. This is the Soviet Navy minimal delivery threat. If we use the target set from the Senate study of the 71 largest U.S. standard metropolitan areas, we find that a minimal attack (involving 144 EMT) would result in 20-30%

population and 25-35% industry destroyed in the U.S. Such an attack assumes all SLBMs are used against cities.

The Bolt from the Blue, however, would allow the Soviets to use their ICBMs also and perhaps their intercontinental bomber forces. Hence, assuming levels of damage to the U.S. from the submarine fleet alone is highly artificial but is undertaken simply for measurement and analysis.

Submarines cannot target more locations than the total number of individually targetable warheads on missiles allow (unless collocated targets exist). It is possible but unlikely that important facilities would be targeted only by one warhead. In the Senate study, cities the size of Milwaukee received hits from at least two 1-MT weapons.

The maximum number of weapons per city would vary with the size of the city and the size of the attack. It is impossible to know how many warheads would be used against any major city. One must not conclude however, that the Bolt from the Blue threat of 250 total SLBM warheads means that 250 U.S. cities could be destroyed.

A further complication involves MIRV footprints. Simply put, just because the SS-N-18/3 contains 7 individually targetable warheads, the placement of those warheads is constrained. The OTA study contains an excellent descriptive map of a typical Soviet ballistic missile footprint. For example, one missile with 10 MIRV warheads could be used against Los Angeles and as far away as San Diego, or, if aimed at the eastern seaboard, New York and Philadelphia. Warheads from the same missile cannot target both New York and Los Angeles.

At the other end of the spectrum, we found that upon mobilization the Soviets could deploy in home waters alone a force which could deliver 1240 warheads of 474.3 EMT. Such an attack could certainly cover the 71 major urban areas in the U.S. since it would involve over 300 individual deliverable missiles. Using EMT as a guide, the results of such an attack would be around 30-35% population and 45-60% industry loss to the U.S.

The Yankee force in the mobilization case could either surge to the U.S. coastline or be withheld in home waters. Using the latter case as more likely,

Yankees off the U.S. could deliver an additional 89 warheads of 67.6 EMT.

The third case discussed was an immediate surge. Here, the Yankee threat to the U.S. is probably the same as in mobilization. The long range threat would be 840 deliverable warheads on 200 missiles and 317.1 EMT. Such a force could target all 71 major U.S. urban areas and probably cause 25-30% population and 35-45% industrial loss to the U.S.

How much U.S. destruction is perceived by the Soviets as deterring a U.S. nuclear strike? At best, the Soviet day-to-day submarine fleet can threaten destruction of one-fourth to one-third of U.S. population and industry if cities were the targets. This is in contrast to the U.S. goal of keeping a minimal deliverable assured destruction force deployed at sea at all times theoretically capable of destroying one-fifth to one-fourth of Soviet population and one-half industry. In mobilization, the level of U.S. destruction threatened by the USSR might be increased to one-third and one-half industry.

The level of potential U.S. destruction which deters U.S. action is also a function of U.S. decision makers. The Senate study concluded 150 MT delivered

on the U.S. was significant. There would certainly be those who would argue that the U.S. should be deterred if the threat were only 1 MT on 1 city. There is no number that we can assign which represents the threat to the U.S. that the Americans say is enough. We can only judge the Soviet view as to how much is enough by measuring their ability to deliver based upon varying scenarios.

It appears that the force of Deltas and Typhoons routinely deployed in Soviet waters is sufficiently powerful to deliver enough damage on the U.S. to make any U.S. decision maker consider the consequences of such an attack. The implications of this conclusion are two.

First, Yankees which could surge in a crisis or be mobilized do not need to deploy off the coast of the U.S. to increase the countervalue threat. Sufficient countervalue capability exists from Deltas and Typhoons. Adding more Yankees or using Yankee against cities is not necessary. Yankee's strong point is the ability to attack time sensitive targets and not cities.

Secondly, the Yankee fleet off the U.S. coastline is ill-suited for destruction of numerous major urban

industrial centers since it is limited by deliverable warheads. It would appear to be better suited for destruction of soft military targets where 1-2 warheads/missiles would result in a probable "kill."

NOTES

1. IISS Military Balance 1982-1983 gives a reliability rating of 60% for the SS-N-5 (p. 136). The Congressional Budget Office (CBO) Counterforce Issues For the U.S. Strategic Nuclear Forces (Washington, D.C.: U.S. Government Printing Office, January 1978), p. 16 estimates 70% reliability for the SS-N-6, 8, 17, and 18. James F. Dunnigan's How to Make War (New York, N.Y.: William Morrow and Co., Inc., 1982) is not a primary source, but was consulted to compare his assignment of reliability. He assigns the SS-N-18 75%. This present analysis will use the IISS and CBO figure for all SLBMs except the SS-N-18 where the Soviets will be given the benefit of the doubt and Mr. Dunnigan's unsubstantiated assessment. Later sensitivity analysis will vary the reliability factor.
2. John D. Steinbruner, "Nuclear Decapitation," Foreign Policy, No. 45, winter 1981-82, pp. 16-28.
3. U.S. Congress, Office of Technology Assessment, MX Missile Basing, (Washington, D.C.: U.S. Government Printing Office, September 1981), p. 297.

4. View of scientists reported by David Burnham in "U.S. Fears One Bomb Could Cripple the Nation," New York Times, June 28, 1983, p. c.1 In July 1962, a 1.5 MT weapon exploding at an altitude of 250 mi caused minor disruptions of electrical power at a distance of 600 mi. See Aviation Week and Space Technology, September 17, 1984, p. 76.
5. Desmond Ball, "Can Nuclear War Be Controlled?" Adelphi Paper 169 (London: International Institute for Strategic Studies, Autumn 1981), p. 35.
6. Damage calculations from the U.S. Department of Defense and Energy Research and Development Administration, The Effects of Nuclear Weapons, 3rd Ed., Samuel Glasstone and Philip J. Dolan, Eds. (Washington, D.C.: U.S. Government Printing Office, 1977).
7. The 1 MT estimate is credited to Richard L. Garwin who included the assessment that this required 2-4 Soviet SLBM warheads/minute. See report by Charles Mohr "'Pindown' Tactic Called Peril to Tightly Packed MX Missiles," New York

Times, July 21, 1982, p. 15; and, Debate and Discussion, "Densepack MX: Will It Work?"

Baltimore Sun, December 18, 1982, p. 10.

Reports of 5-10 MT/min for the dense pack field are in Aviation Week and Space Technology, May 3, 1982, p. 15, August 9, 1982, pp. 18-19, and October 11, 1982, p. 115.

8. Roger D. Speed calculated 200-300 warheads (size not specified) were needed to pindown Minuteman silos. See Strategic Deterrence in the 1980's (Stanford, CA: Hoover Institution Press, 1979), p. 159. Also the OTA MX Missile Basing study cited hundreds of MT per minute necessary to guarantee Minuteman pin-down (p. 156).
9. "Guide to USAF Bases at Home and Abroad" Air Force Magazine, Vol. 67, No 5, May 1984 (Air Force Almanac Issue), pp. 192-198.
10. Speed, p. 46. Bruce Bennett Assessing the Capabilities of Strategic Nuclear Forces: The Limits of Current Methods, N-1441-NA (Santa Monica, CA.: The Rand Corporation, June 1980), p. 101.
11. Captain 1st Rank O. Shul'man (Reserves), "Wording of Combat Missions," Morskoy Sbornik, No. 8, August 1976, p. 19.

12. Richard P. Turco, Owen B. Toon, Thomas P. Ackerman, James B. Pollack, and Carl Sagan, "Nuclear Winter: Global Consequences of Multiple Nuclear Explosions," Science, Vol. 222, No. 4630, December 23, 1983 pp. 1283-1292; and their "The Climate Effects of Nuclear War," Scientific American, Vol. 251, No. 2, August 1984, pp. 33-43 and Carl Sagan "Nuclear War and Climate Catastrophe: Some Policy Implications," Foreign Affairs Winter 1983/84, pp. 257-292. This study has been criticized prompting the Reagan Administration to fund an official investigation into the possibility of a nuclear winter. See report by Philip J. Hilts, "U. S. Begins Study of Possible Climatic Disaster in Nuclear War," Washington Post, May 29, 1984, p. 6. Sagan originally said the threshold for the nuclear winter could be as low as 500 warheads in his Foreign Affairs article (p. 292) but apparently revised this down to 200 warheads in July 1984. See "Military Experts Accept 'Nuclear Winter' Scenario," Washington Post, July 12, 1984, p. 32.

13. A study; prepared for the Joint Committee on Defense Production, published by the Senate Committee on Banking, Housing, and Urban Affairs, Committee Print, 96th Cong., 1st Session (Washington, D.C.: U.S. Government Printing Office, March 1979).
14. Office of Technology Assessment (Washington, D.C.: U.S. Government Printing Office, May 1979).

CHAPTER 11

NAVY STRATEGIC NUCLEAR FORCE ISSUES

There are a number of issues involving the Soviet strategic submarine force that cannot be addressed without consideration of the secondary source literature. In previous analyses, a number of possible interpretations of the data and/or literature has been postulated and needs to be tested against the available evidence.

In the content analysis and hardware analysis sections, findings were based upon the researcher's reading of the literature or on his assessment of capability. In this chapter, varying hypothesis of interest will be cited and discussed in light of the findings thus far. These issues will be once again raised in the overall findings, conclusions, and implications.

Withholding

There is a general theory that Soviet nuclear ballistic missile submarines (SSBNs) that routinely deploy or could surge or mobilize in home waters will be held as a strategic reserve. Most analysts conclude that those submarines off the U.S. coastline would be

used. From the evidence of hardware alone, forward-deployed Yankees are obviously a first-strike weapon. They appear tailored to act as a counterforce against time urgent bomber/tanker and submarine bases. Supporting this view is their lack of survivability against U.S. anti-submarine warfare (ASW).

Soviet Yankees located in home waters could be either withheld or used immediately. Due to the SS-N-6 missile range, they would have to be against theater targets and not the continental U.S. If Yankees attempted to break out into mid-Atlantic or Pacific waters, they might be subject to Western ASW and suffer severely attrition.

The only significant increase in military capability should the Soviets break out additional Yankees to North American waters would be the potential to increase the ICBM pin-down threat. A successful attack on bomber/tanker/submarine bases and against C3 does not appear to need any additional warheads. An increase in submarines off the U.S. shores might be politically desirable as a escalatory statement and as a demonstration of resolve. 1/

From the evidence of the hardware alone, it is impossible to conclude with certainty whether Yankees

retained in home waters would be used in theater strikes or as part of a theater or strategic reserve. Some items appear to suggest a theater strike role versus a reserve.

First, there have been reports the Soviets can reload their SSBNs at sea in protected fjords. 2/ This would be beneficial for Yankees in theater actions such as those tasked with submarine ballistic missile (SLBM) strikes against forward deployed U.S. Navy assets in ports or concentrated at anchorages. With reloadable launchers, theater-range SLBMs could be used, reloaded, and used again in short order. Thus theater Yankees could be a strategic reserve for the theater. It should be recalled that the Soviet use of the word strategic can involve theaters and not intercontinental missions.

Secondly, the incremental increase available from the Yankee fleet in home waters to Deltas and Typhoon targeted on the U.S. is modest. Under a surge condition, Yankee could contribute an additional 52 deliverable warheads (38 EMT) to an existing 840 warheads (317.1 EMT) already from deliverable long range missiles. In a mobilization, the increase from Yankees would be 109

warheads (83.7 EMT) to a deliverable long range force of 1240 warheads (474.3 EMT) on Delta/Typhoons, etc.

Third, there is the major problem of moving the additional Yankees from Soviet home waters some 4000 n.m. to place them in North American waters. This contingency appears often in both the Soviet and Western literature. The Soviets cannot be assured that their submarines would survive such a transit.

On the other hand, this researcher is aware of the vast intermediate and shorter range Soviet land systems which make the Navy's contribution a mere drop in the bucket. The need for all services to participate in all theaters is probably the only significant theme in the literature evidence that makes Soviet SLBM participation in the Eurasian theaters likely.

Without Yankee in the theater, the nominal Navy ballistic missile threat consists of only around 5 EMT per theater in a surge. In the mobilization scenario, Navy theater systems would only total 13 warheads (11.1 EMT) in Europe and 9 warheads (7.7 EMT) in Asia without these additional Yankees. Thus theater use of these additional Yankees would vastly increase Soviet Navy theater contribution to "victory".

Long-range missiles aboard Delta and Typhoon submarines have been theorized as part of an intercontinental reserve. From the hardware alone, the evidence supports such a conclusion. Long-range Soviet SLBMs are not capable of hard-target counterforce and suffer the same problems of lack of timeliness as Soviet ICBMs if used against soft counterforce targets. Soviet long-range SLBMs are better suited for strikes against non-hardened targets.

One could certainly theorize that if the Soviets were to utilize nuclear warfare against the U.S., both countervalue and counterforce weapons might be used in one spasm. If this were true, why go to all the extra expense of putting relatively inaccurate missiles at sea? Surely the same destruction capability could have been fielded on ICBMs much cheaper than by using Navy submarines. ICBM accuracies are generally better than SLBMs meaning that not only could land systems be cheaper but they would be more flexible.

If one spasm response were all that could be expected, survivability, the strong suite of Delta and Typhoon, would not be necessary. A one-shot nuclear force could be constructed by simply proliferating land systems in sufficient numbers that the U.S. could

not destroy enough even if the West strikes first (which is presently the case).

Hence the long range of SLBMs and deployment in home waters maximizes submarine survival. Coupled with their lack of accuracy which limits use against hardened targets, this tends to support a reserve vice immediate use role. The one main advantage of Delta/Typhoon is that it further guarantees a Soviet assured destruction strike against the U.S. no matter what else happens to other Soviet strategic nuclear forces.

This reserve role does not necessarily mean only for inter-or post-war bargaining or coercion but also as a hedge against the possible but unlikely destruction of all Soviet bombers, submarines in port and ICBMs. No matter what else happens, sufficient capability remains at sea to make a nuclear response. Soviet Deltas and Typhoons appear to constitute a reserve. One cannot conclude that they are the only reserve from an analysis of the hardware itself.

Research and development submarines equipped with long-range missiles also would logically be a part of this reserve. Since not all submarines might be capable of getting underway before a potential U.S.

strike on Soviet naval bases, units which could survive such a strike would also form a part of the reserve. There have been reports that the Soviet Navy can protect its fleet assets in hardened sea-level tunnels. 3/ Alternatively, they might simply submerge in deeper waters off their home ports. An alternate suggestion for deploying a Navy strategic nuclear reserve is to hide submarines in Scandinavian fjords. 4/ The theory is that the U.S. would be reluctant to attack Soviet submarines in neutral waters.

One new report impacting on the withholding and reserve theory is the possibility that Soviet SS-N-20's can be reloaded aboard Typhoon using extra missiles carried on board. 5/ If true, this would be a major advance in technology and complications for strategists. Obviously, Typhoon could fire, reload, and immediately refire or contribute to the reserve. All SLBMs are "cold launched" and capable of being reloaded from tenders or in bases.

As Soviet submarines become more sophisticated, one must assume they will be quieter. The lack of quiet subs has been largely negated by the Soviet practices of deployment in home waters. If the Soviet submarines become as quiet as U.S. subs, would there

be any advantage to changing current deployment practices? Deploying SSBNs in greater numbers outside home waters would only increase their possible interdiction by Western forces. Quietness increases can, on the other hand, make a significant contribution to the survival of Soviet SSBNs in home waters. Hence, it does not necessarily follow that newer Typhoons and follow-on classes of SSBNs will be employed in mid-ocean patrols vice in Soviet home waters.

Exercises

Normal hardware analysis would include an assessment of past employment in armed conflict and current employment in exercises. The Soviet Navy has never been involved in a nuclear war, hence this body of experience is simply lacking. With regard to exercises, those few secondary sources which report or analyze exercises contain little reference to Soviet SSBN employment other than to cite SLBMs were fired.

At best, even classified employment reports would merely report communications procedures, launch interval, missile trajectory, and point of impact. If there were any use of SLBMs to target naval forces at sea, this might be discernable from the footprint of multiple independently targetable (MIRV) warheads.

For obvious reasons, official U.S. government discussions of Soviet Navy missile tests are not too revealing. Recognizing that official study conclusions, however, are based upon input of classified inputs, one can speculate on exercise behavior based upon the content of these reports.

Official U.S. government assessments of the expected employment of Soviet SLBMs in war include a first strike by Yankees off the U.S. coastline, theater strikes by shorter range systems, and a reserve role for Delta/Typhoon. One must assume that Soviet exercises support this official assessment.

Yankee Obsolescence

Yankee I submarines were completed between 1967 and 1974. Since then, some have been dismantled as SSBNs and converted to other purposes. Depending upon the size of the Delta and Typhoon building program, the status of strategic arms control agreements, and the desire to replace relatively noisy/vulnerable submarines with other systems, the Soviet Union needs to replace Yankee with something else which can provide a similar unique military capability (damage limiting strikes on bomber, tanker and submarine bases, a modest C3 attack, and possibility of ICBM pin-downs).

A number of options are open to the USSR. First, they can simply deploy Deltas or Tyhpoons off the U.S. shoreline as a replacement for Yankee. Problems with this option include minimum firing distances for the long range SLBMs (roughly one-third the maximum) and an increased attractiveness of these submarines to U.S. ASW. If the Soviets were to deploy advanced submarines nearer to U.S. shores, the potential pay off in terms of warheads destroyed by the U.S. would make them more likely targets for counter-action.

A new medium-range missile might be needed that would once again raise the speculation that missiles with depressed trajectory would be developed. A depressed trajectory would cut flight time to the target. Although frequently discussed, numerous reports state it has not been tested.

Deploying Deltas or Typhoons near the U.S. might nevertheless be undertaken as a peacetime political statement such as their supposed "matching" of the "new" U.S./NATO capability in theater forces in Europe. As of today, the Yankee short-range threat is the direct political parallel to "new" U.S./NATO theater forces in Europe except that it has existed since the late 1960's. There is nothing "new" about

the threat posed by submarine systems off the U.S. shores. Yankee is a serious first strike counterforce weapon whereas making a similar claim for new U.S./NATO systems in Europe is difficult.

A second option is to take nuclear submarine cruise missile carriers (SSGNs) and use these to replace Yankee. Indeed, the press has incorrectly implied that Soviet SSGNs deployed off the U.S. coastline in early 1984 were supplementing the land attack mission of Yankee. 6/

Soviet SSGN's off the U.S. coastline are presently carrying missiles designed for anti-ship warfare. New SS-N-21 sea launched cruise missiles (SLCMs) with nuclear warheads and designed for land attack will be operational in 1984 and can be carried by any Soviet submarine through its torpedo tubes. 7/ It is possible that Yankees that have been converted from SSBNs will be used as cruise missile carriers and will return to patrols off the U.S. shores.

Although slower than SLBMs, new SLCMs are small and difficult to detect by radar. It is very possible that due to the difficulty of detecting their presence, an analogous threat to U.S. time urgent targets might be presented by SLCMs as is currently posed by the

SS-N-6. The U.S. is not unaware of this possibility and is taking steps to enhance its warning capability against SLCMs. 8/ Steps will need to be taken to destroy oncoming SLCMs to negate the threat.

A third option is to replace the in-close Yankee threat with SLBMs from Arctic Ocean areas close to the Canadian borders. The potential for Typhoon and perhaps the Delta III to perform this role has received press attention. 9/ A through-ice capability for Typhoon has been reported by Jane's Fighting Ships 1983-84 and Combat Fleets of the World 1984/85. Earlier submarines lack the capability to punch through ice areas and ensure proper functioning of missile tube doors and launchers.

The ability of submarines to perform this Arctic mission is theoretically possible, although early press reports stated that the Soviets had not yet been observed practicing it. Missile ranges of Soviet SLBMs allow Canadian or Danish waters to be used for targeting the entire U.S. 10/ Depressed trajectory would cut warning time.

Potential disadvantages include the uncertainty of being able to punch through the ice and using a

flight path similar to Soviet ICBMs thus making U.S. warning and tracking easier. Nevertheless, the possibility exists that Soviet under ice capability may be for a current offensive strategy and proof that the Soviets plan to hide submarines held in reserve.

Ballistic Missiles Versus Fleets

The subject of the use of ballistic missiles against naval forces at sea is a topic that comes up from time to time in the secondary source literature. Rear Admiral James Holloway was forced to deal with the issue of ICBMs against aircraft carriers in 1970 hearings before Congress. 11/

A lively debate occurred in the U.S. Naval Institute Proceedings from June 1978 - July 1980 in which it was theorized that Soviet SLBMs could be used as counter battery against U.S. SLBMs 12/ or against carriers. 13/ Other analysts have speculated on Soviet patrols of Golf and Hotel submarines in the 1960's were against naval forces and not for fleet versus shore. 14/

All current official U.S. assessments of Soviet military hardware fail to list surface ships as targets for ballistic missiles. There was one SLBM,

the SS-NX-13 which apparently was tested in a role against ships at sea, but it is always referred to as cancelled or inactive.

Unfortunately, from a hardware analysis point of view, it is entirely possible that an anti-surface ship or even ASW capability exists in Soviet ICBMs or SLBMs and such capability remains classified in the West. The SS-NX-13 may have in fact be shelved, but any MIRV ballistic missile could theoretically be used successfully against surface targets. Testing of this capability would be difficult to prove since no special preparations for the point of impact would be needed although a near circular footprint might be observable.

MIRV nuclear depth bombs against Western or other submarines are likewise possible. Testing of an actual nuclear depth bomb in the oceans is prohibited by current arms control agreements but development of a depth bomb involves non-nuclear technology, and testing of the warhead can be done underground. Hence, lack of leaks of this capability is not sufficient for the analyst to rule out its possible existence.

The point is that although according to open sources, there is apparently no role for ballistic missiles to be used against naval forces at sea, the lack of such information is not sufficient to make the analyst discount the very real possibility of such weapons. There is a surplus of land based missiles in the USSR which can be explained in a number of ways, one of which is planned use against navies.

SSBN Air Defense

Just as publicity that naval forces might be subject to attack by ballistic missiles would not be popular among naval personnel, the ability of submarines to fight back against aircraft would be viewed with alarm by aircrews. Generally all aircraft involved with ASW operations against SSBNs lack self defense against missiles. This is understandable, given their expected operating environment.

Submarines in previous wars did have an anti-aircraft capability. With the drive for increased speed and decreased noise, externally mounted guns have disappeared. Self-defense was equated with speed and quietness. Surface-to-air missiles on submarines would indicate a major shift in employment philosophy and probably be a serious thorn in the side of ASW flight crews.

Portable anti-aircraft missiles can be fired from any ship including a surfaced submarine. Provisions can be made for a cluster of missiles to be fitted to a submarine sail and fired while the sub is at periscope depth. 15/

A more favored approach would be a missile capable of being fired while the submarine is submerged and attacking an aircraft without guidance from the sub itself. The U.S. has been interested in this capability for a number of years.

Reports in the U.S. press have indicated that an attack Soviet submarine was sighted with a dual launcher for a surface to air missile. Citing a leaked intelligence report, the U.S. Navy League reported that the USSR was capable of developing a submarine surface to air defense system. 16/ More recent reports confirm the fears of naval intelligence by stating that two systems appear to be under development. 17/

This is an area to watch, although even if a Soviet air defense system aboard SSBNs becomes operational, the West will be extremely reluctant to admit that its defenseless ASW aircraft might be vulnerable. Such an admission would require; (1) costly counter-

measures, (2) actively protecting ASW aircraft, (3) admitting to aircrews that the threat exists and nothing will be done, or (4) giving the Soviets the possibility of a free ride in their operations in vast areas of the ocean.

NOTES

1. The Soviets made use of their SSBNs in such a show of force in January-February 1984. At that time 2-3 Delta submarines were deployed in the mid-Atlantic receiving high visibility in the U.S. press (see January 27 Washington Post p. 23, Wall Street Journal p. 6). There is no question that the motivation was political since Secretarys Brezhnev and Andropov implied a military response to US/NATO theater deployments and finally Andropov announced on November 25, 1983 than an increase in the Soviet Navy systems would be that response. On May 20, 1984 Defense Minister Ustinov specified discussed this increase as being a counterbalance to the U.S. systems. Thus, we have a direct case of Soviet use of nuclear weapons in peacetime for purely political purposes.
2. William F. Parham, "Russia's Superb Arsenal," Norwich (Connecticut) Bulletin, November 1, 1981, p. 1; U.S. Department of Defense, Soviet Military Power, 2nd Ed., (Washington, D.C.: U.S. Government Printing Office, March 1983), p. 17;

Soviet Military Power, 3rd Ed., (Washington, D.C.: U.S. Government Printing Office, April 1984), p. 22. One additional report states a reload potential at Cienguegos, Cuba. See Walter Andrews, "Soviets Can Reload Missile Subs at Sea," Washington Times April 20, 1984, p. 1. If true, then Yankees on forward deployment represent important targets for U.S. ASW even after they have fired their first salvo.

3. Soviet Military Power, 2nd Ed., p. 17, 3rd. Ed. p. 21; Ted Agress "Soviet Navy Completing Four Tunnels to Hide Subs," Washington Times, March 27, 1984, p. 1; and Rick Atkinson, "Soviet Tunnels Could Hide Submarines," Washington Post, April 7, 1984, p. 4.
4. Captain Roger W. Barnett USN, "Soviet Strategic Reserves and the Soviet Navy," (unpublished paper dated January 1981), p. 36; and Reuters report of Soviet defector Arkady Shevchenko in "Defector says Soviet plans to hide subs in crisis," Baltimore Sun, March 1, 1984, p. 2.
5. There is one report that SS-N-20 SLBMs carried aboard Typhoon are loaded in "clips of two." If true, Typhoon could fire 180 warheads and then

- hold an additional 180 in reserve. See "Washington Roundup - Typhoon Missiles," Aviation Week and Space Technology, November 28, 1983, p. 17.
6. Washington Post, January 27, 1984, p. 23, and "Some Bumps in the Night," Newsweek, April 2, 1984, p. 41.
 7. Soviet Military Power, 3rd Ed., p. 31.
 8. Clarence A. Robinson, Jr., "Soviets Test New Cruise Missiles," Aviation Week and Space Technology, January 2, 1984, pp. 14-16; Charles W. Corddry, "Soviet Cruise Missiles Expected," Baltimore Sun, November 26, 1983, p. 1.
 9. William Parham, "A Soviet Threat From the Arctic?" Norwich (Connecticut) Bulletin, November 29, 1981, p. 11; Robert C. Toth, "Soviets Newest Submarines a Threat to U.S." Los Angeles Times, June 26, 1983, p. 1.
 10. A report of Soviet submarine activities in Baffin Bay including possible visual sightings by Greenland residents was carried by the Berlingske Tidende (Copenhagen) on December 13, 1983, p. 2.
 11. Contained in CVAN-70 Aircraft Carrier, Joint Hearings before the Joint Senate-House Armed

Services Subcommittee of the Senate and House Armed Services Committees, 91st Cong., 2nd Session (Washington, D.C.: U.S. Government Printing Office, 1970), pp. 18 and 88.

12. Commander Richard T. Ackley USN (Ret.), "The Wartime Role of Soviet SSBNs," U.S. Naval Institute Proceedings, June 1978, pp. 37-39.
13. Lieutenant Commander Carl H. Clawson USN (Ret.) "The Wartime Role of Soviet SSBNs - Round Two," U.S. Naval Institute Proceedings, March 1980, pp. 64-71.
14. Michael McGwire, "Current Soviet Warship Construction and Naval Weapons Development," Soviet Naval Policy: Objectives and Constraints, Michael McGwire, Ken Booth, and John McDonnell, Eds., Praeger Special Studies in International Politics and Government (New York: Praeger Publishers, 1975), pp. 434-435; and Harlan Ullman, "The Counter Polaris Task," ibid., pp. 585-600.
15. John W. Skipper "Fighting Back," Defense and Foreign Affairs, April 1983, pp. 20-23 reports the British have developed such a capability.
16. Sea Power, March 1983, p. 44.
17. Soviet Aerospace, March 5, 1984, p. 62.

CHAPTER 12

SENSITIVITY ANALYSIS OF NAVY STRATEGIC NUCLEAR FORCE

One of the more frequent criticisms of any dynamic assessment of military capability is the dependence of conclusions upon crucial and often unstated assumptions. This research has specified all known assumptions in order to focus attention on the proper creation of a framework for analysis. By doing so, when the underlying assumptions change, problems can be worked again.

Where possible, different approaches were used to derive findings in both content and hardware analysis. For example, the major missions in a nuclear war were derived from multiple themes involving the ability to influence the outcome of war, the major forces of the Soviet military, types of strategic operations, and analysis of means versus ends. Similarly, the assessment of hard-target kill came from the destructive potential of warheads using different units of measures demonstrating no matter how the problem was worked, a similar finding was reached.

With the dynamic assessment of Soviet naval force disposition, a slightly different form of

verification of findings will be used. In this case, major assumptions will be deliberately manipulated to ascertain how findings will be altered. For example, a major assumption was made at the outset of the strategic force assessment as to how many missiles contained multiple warheads. That assumption will be altered to assume fewer multiple warheads and the findings challenged.

Similar manipulation of deployment patterns will take place to assess the strength of other findings of the "normal" situation and to see how much the day to day routine would need to change to alter capabilities. Such manipulation, termed sensitivity or contingency analysis, has been notably absent from previous examinations of the Soviet Navy.

To some degree, this was done in assessing the likely role for additional Yankess capable of being surged or mobilized. By measuring the modest incremental increase additional Yankees would add to submarines already off the U.S. coastline, considering the problems of sending additional units to North America, and by comparing this by the vast increase in theater capability (either as a theater reserve or for immediate use), it was concluded the theater role was more likely.

In this analysis section, major calculations will not be presented as they were in Chapters 9 and 10 nor will reference be made to studies, etc., previously presented. All calculations and damage assessments remain in the same format and from the same sources.

Strategic Missile MIRVing

The total numbers of ballistic missile submarines (nuclear are SSBNs, diesel powered are SSBs) appear to be a relative certainty as are the numbers of launchers on each submarine. The one submarine ballistic missile (SLBM) per launcher rule also appears certain as long as one recognizes the possibility of a reload potential.

The first questionable area in strategic systems is the numbers of SLBMs that have been deployed with multiple independently targetable (MIRV) warheads. Recent criticism of the Department of Defense (DOD) has included the possibility of deliberate manipulation of the MIRV capability of Soviet Navy SLBMs. 1/

Since there are only two Soviet MIRV capable SLBMs, the specific criticism involves the SS-N-20 aboard Typhoon and Golf V, and the SS-N-18 aboard Delta III. If one assumes a maximum MIRVing of each missile, both systems could field 1937 warheads. If

one assumes minimal MIRV for the SS-N-20 and single warheads for the SS-N-18, the maximum number of warheads is 470.

For static arms control counting purposes, the difference between the extremes appears significant. From a perspective of military-political utility in war fighting and deterrence, the difference may or may not be significant. To ascertain the effect of less than full MIRVing, the assumptions will be changed.

For the SS-N-20, instead of 9 warheads per missile, we will assume 6 which is the minimum number given by any major source. For the SS-N-18, the problem becomes trickier since it is the MIRVing of this missile which drives the assessment.

In the initial evaluation of capability in Part II of this research, the evidence used to drive the problem was DOD's recently revised estimate of the total number of SLBM warheads. 2/ Despite the fact that the revised DOD numbers for 1975 and 1981 were virtually identical to the Soviets own figures, 3/ DOD was criticized for raising the warhead total. Implied in this criticism was the assumption that an earlier DOD total was correct.

Hence, the critics will be assumed to be correct and the earlier DOD total of 1500 SLBM warheads in 1983 will be used. 4/ Since the SS-N-20 will be counted as 6 warheads/missile and all other missiles are single RV, this means that 531 warheads must be accounted for by the SS-N-18.

There are only 14 Delta III submarines each with 16 launchers for a total of 224 possible missiles upon which the 531 warheads must ride. Rather than assume a random number deployment of each of the three modifications of the SS-N-18 missile, a minimum MIRV case will be assumed. This would occur with 5 submarines outfitted with single RV SS-N-18/2 missiles (80 warheads) and 9 submarines with the 3 MIRV version of the SS-N-18/1 (432 warheads). 5/

The raw megatonnage of the single RV SS-N-18/2 is .45 megatons (MT) instead of the .2 MT on the other two versions. Changing this and accounting for fewer SS-N-20 warheads, adjusts the total static raw MT aboard the SLBM force from 806.5 to 628.6. The equivalent megatonnage (EMT) for each SS-N-18/2 is .59. Adjusting for this change and fewer SS-N-20 warheads, the total static force EMT is reduced from 895 to 572.4.

Accuracy of the SS-N-18/2 is estimated to be between 600-1408 meters according to our primary sources. This makes its hard target kill capability slightly better than the MIRV version but not nearly enough to be lethal. Measuring counter military potential (CMP) verifies this conclusion. The CMP would be 5.6 at best, better than any other Soviet SLBM but only slightly better than the U.S. Trident I.

Full counterforce capable missiles are rated over 100 and partial counterforce systems have a CMPs six times that of the SS-N-18/2. The kill probability against a 2000-psi hardened silo is around 13%. Thus even assuming that the single RV version of the SS-N-18 is routinely deployed makes no difference in the assessment that existing Soviet SLBMs are not significantly capable of hard-target counterforce.

It is now necessary to assess the impact on deliverable numbers of warheads or megatonnage. All Typhoons will be modified to carry 6 vice 9 warheads. The 5 Delta IIIs in the Pacific Fleet will be assumed to all carry the single RV version and the 9 Delta IIIs in the Northern Fleet the 3 MIRV missile. This will in no way impact upon deliverable warheads or megatonnage and merely was done to make calculations

easier. The numbers of submarines now assumed to carry single vice MIRV versions of the SS-N-18 exactly matches the number of Delta IIIs in each of those two fleets.

None of the scenarios created (Bolt From the Blue, surge, or mobilization) would have their time urgent threat modified since Typhoons and Deltas do not patrol close to the U.S. shoreline. The only change would occur in the long range threat. The slightly better range of the SS-N-8/2 (4320 n.m.) is not appreciably different than other versions, hence patrol areas for the submarines is unaltered.

In the Bolt from the Blue, the total deliverable number of long-range warheads would be reduced by more than half from 195 to 75 and deliverable EMT reduced from 80.5 to 42.6. This still leaves enough deliverable warheads to target at least one on each of the 71 major metropolitan areas assumed to be targeted in the Senate study. The amount of deliverable EMT (83.6 including Yankee) would result in significantly less overall damage but sufficient enough to deter those who feel even a modest attack on the U.S. would be unacceptable. Spread out throughout the nation, a 83.6 EMT attack would probably result in less than 15%

overall loss in population and industry. When the Office of Technology Assessment described the percentages of population fatalities from a varying attack on the U.S., an 80 EMT attack against 10 urban areas was judged to be capable of killing 1-5 million people.

In the surge scenario, the reduction in the long range SLBM threat would be from 840 deliverable warheads to 390 and from 317.1 deliverable EMT to 176.5. A surge attack on the U.S. would total 384.7 EMT including Yankees. Even if the long range fleet alone was withheld for counter-value attacks or countervalue damage occurred during an attack on military targets, the 176.5 EMT capability gives it a maximum of 30% loss in population capability and 35% loss in industry.

In the extreme case of mobilization, the long range threat would be 628 deliverable warheads instead of 1240 and 285 deliverable EMT instead of 474.3. Losses from long-range missiles alone would be around 35% of U.S. population and 45% of industry.

The assessment of damage to the U.S. is speculative at best but it appears from this assessment that even if the maximum number of SLBM warheads is 1500 instead

of 2500, sufficient countervalue capability exists in the surge and mobilization case to deliver a powerful attack on the U.S.

In the Bolt from the Blue the 42.6 EMT deliverable capability in protected bastions is much less but whether or not it is sufficient to deter U.S. actions is dependent upon the personalities involved and the circumstances of the time. The only circumstance which would result in a Soviet response with only the 42.6 EMT from the bastions would be if the West/China pre-empted against the USSR and succeeded in destroying all Soviet land intercontinental ballistic missiles (ICBMs), bombers, SSBNs in port, and forward deployed Yankees. Otherwise, the bastion does not constitute the only useable strategic nuclear force.

Despite the unlikelihood of this scenario, the Kremlin must account for it in their worst case assessment of the threat posed to them. It would involve everything going wrong for the USSR. The amount of deliverable force routinely deployed on relatively invulnerable submarines is often described as the minimal acceptable destruction threat that any major nuclear power can deliver. For the U.S.,

this is around 400 EMT. For the Soviets it is either 42.6 or 80.5 EMT, depending on which version of the MIRV case one accepts.

Since we know that the USSR is still MIRVing its SLBMS, we could conclude either that they are apprehensive about future U.S. actions regarding anti-ballistic missile defense (hence MIRV is a hedge) or that this minimal response of 42.6 or 80.5 EMT is an insufficient assured destruction capability. The Soviets can probably both count on strategic warning from the U.S. (hence can at least surge additional submarines and raise the minimal assured response) as well as an inability of the U.S. to successfully eliminate all Soviet ICBMs, 6/ and other strategic nuclear forces.

Hence the Soviet minimal deployment pattern for strategic submarines may not be indicative of their view of what constitutes an assured destruction of the U.S. but rather might demonstrate their not having to routinely deploy an assured destruction second strike in time of peace. Soviet confidence in the West's inability to threaten them with a disarming first strike may mean that they need only deploy sufficient submarines to limit damage to the USSR by bombers/

Western SSBNs (as a hedge against uncertainty) and to at least guarantee some nuclear response in the extremely unlikely case that everything else is destroyed.

If this assessment is correct, than the number of warheads on SLBMs being 1500 or 2500 is virtually inconsequential from a political point of view. Efforts to focus in on this disparity warrent consideration primarily for arms control and as a symbol of political-military power. If the Soviets wanted to increase the number of warheads which routinely constituted an assured second strike, they would only need to increase the numbers of deployed submarines (from a modest 10-15%) while MIRVing continues.

Any increase in the number of SSBNs on routine patrol can be viewed as either an attempt at political coercion (if the Soviets already believe they have a satisfactory second strike routinely deployed) or an indication that they are uncertain of future U.S. actions (and therefore need to deploy their full assured second-strike force). Either case can be made as exemplified by Marshal N. V. Ogarkov's recent statement that both sides already have sufficient

nuclear forces to destroy all important targets and that neither side can perform a disarming single strike. 7/

SLBM Reliability

Another major assumption in the strategic nuclear threat assessment was regarding missile reliability. The assignment of a 70-75% reliability to the SS-N-18 is significant since those missiles carry 57% of all SLBM warheads and 42% of all EMT. Perhaps rating Soviet systems this reliable is an error since 80% is the essential maximum rating given to any weapons system.

One of the major issues raised by the Defense Reform Movement and defense critics is that sophisticated weapons systems rarely work as advertised. The actual observed reliability of Soviet SLBMs is probably known in intelligence circles but unavailable to unclassified researchers. Most unclassified analysis done by major government agencies and research institutions grant the USSR, near technological parity with the U.S. in missile reliability. The worst reliability even assigned by a defense critic was 65% for the SS-N-6 and SS-N-8. 8/ Perhaps U.S. or Soviet systems will only work half the time or worse.

There is no question that deliberate manipulation of the reliability factor can affect the ability of the Soviet Navy to deliver warheads or megatonnage. Of the two major types of SLBM strikes, time urgent and long range, the former would be more affected.

If we assume in a bolt from the blue that at least 22 Strategic Air Command (SAC) bases need to be attacked, then the absolute minimum number of warheads which need to be delivered is 44 (Soviets must assume 1 will not work). With 80 missiles on routine patrol, firing just over half from the submarine will probably guarantee at least one warhead actually arrives and detonates on each of 22 targets.

The Soviets cannot assess actual warhead performance quickly enough to employ a shoot-look-shoot tactic. Survivability of the submarine is doubtful once the first missile exits the water, hence a total salvo is likely. Thus, the Soviets could use their remaining 36 missiles to again supplement an attack on SAC bases with the assumption that at least one out of three will work.

There are only three probable U.S. strategic submarine ports (only two are operational today but

this assumes one submarine may be in another location temporarily). The Soviets should be able to successfully destroy those SSBNs in port by again using three missiles per port and assuming at least one will work.

Even by approaching the problem from the worst possible case from the Soviets (33% reliability), it appears that they can at least carry out a Bolt From the Blue attack against bombers, tankers, and U.S. SSBNs with one warhead deliverable per target.

If, on the other hand, a C3 attack is higher in priority than bombers, tankers, and submarines, then the lack of an unclassified U.S. target set makes mission completion difficult to assess. The minimal requirements for a C3 attack could be as little as one device of several hundred kilotons and as high as 100 warheads. With such a range of uncertainty, unclassified assessment is impossible.

The best one can conclude is that if the Soviets indeed do know more than we do about the effects of high-altitude bursts and their own missile reliability, then they can be reasonably assumed to have at least deployed a Yankee force that can meet their minimum

objectives in a war. Either SLBM reliability is lower than 70-75% and the C3 disruption will only take a few missiles, or, the C3 attack would take a higher number of missiles but since missile reliability is high, all time-urgent targets can be expected to be targeted.

A final possibility is that the number of Yankees and the reliability of SLBMs is too low to perform minimal missions (bomber, tanker, submarine, C3) and that the Soviets count on deploying additional submarines off the U.S. shores as a political warning prior to hostilities. This seems unlikely since if off-going submarines are retained (the quickest method of increasing numbers), the U.S. can disperse the Air Force and submarines driving Soviet warhead requirements upwards.

If the U.S. is in a generated alert posture, the number of bomber and tanker bases could be as high as 45. The maximum number of missiles carried by an augmented Yankee force is 128. To successfully target all bases and perform even a minimal C3 attack means that the Soviets would have to risk using only two missiles on each air base instead of the three possible under the Bolt from the Blue.

This does not mean that the potential for such an attack is less credible or less likely, only that the possibility exists that more bombers would survive or C3 might be less disrupted. Hence, even in a generated alert with modest augmentation of the in-close Yankee fleet, the USSR can accept a 50% reliability in SLBMs and still be reasonably assured that one warhead will arrive on every time urgent airfield with some 38 missiles left over for C3 and the remote chance that deployable submarines remain in port.

The effect of lower SLBM reliability on a long-range missile strike would be to simply reduce the megatonnage and number of warheads delivered. In turn, levels of damage in the U.S. would be less.

The minimal assumed threat from Deltas was 195 deliverable warheads (80.5 EMT). If the reliability of the SS-N-8 and 18s was 50% instead of 70-75%, then the minimal assured response would be 132 warheads (55.28) plus warheads delivered by forward-based Yankees. Would this be enough to respond to a U.S. first strike? Possibly, but the Soviets can virtually count on strategic warning hence this minimal alert posture probably only represents a hedge against

uncertainty. They can also count on the U.S. not destroying all ICBMs and other strategic nuclear forces, hence the submarine fleet is not responsible for the entire second strike.

The more likely occurrence is that the USSR could at least surge deploy additional submarines with long-range missiles. In a surge, even with a 50% reliability on missiles, the threatened response from long-range SLBMs alone is 570 warheads and 216 EMT. In a mobilization it would be 660 warheads and 325 EMT.

Thus, even with a drastically reduced missile reliability rating, sufficient deliverable megatonnage and warheads would be available to the USSR in their defended bastions to constitute a substantial response, even if everything went wrong for the USSR and the submarines were all that remained.

MIRV and Reliability

If the assumptions made on SS-N-18 MIRVing are incorrect and SLBM reliability is significantly lower, would this impact upon the conclusions of mission capability? The worst case for the Soviets regarding the close in threat already has been considered with low reliability alone. The MIRV issue does not effect the SS-N-6.

The impact of lower MIRVing completion and lower reliability would effect the Navy's contribution to an assured second strike from long-range missiles. The minimal strike from the ocean in the ungenerated Bolt from the Blue would be 52 warheads and 30.1 EMT. In the more likely second-strike response in the surge scenario the Soviet response would be 316 warheads and 123.2 EMT. In a mobilization, even assuming the worst circumstances for the Soviets, their expected response from the Navy long-range SLBMs alone would be 434 warheads and 200.4 EMT.

The Bolt from the Blue scenario only makes sense if the Soviets or the West strikes first with no warning. Even if the unlikely happened (West strikes first), the Soviets will still have forward based Yankees, undestroyed submarines in port (perhaps in protected tunnels), some ICBMs, and some intercontinental bombers. Hence, even a worst MIRV/worst reliability case for Soviet SLBMs must be viewed in relation to the whole of the strategic nuclear force. If the USSR strikes first in a Bolt from the Blue, their massive Strategic Rocket Force makes the Navy's long range contribution insignificant even assuming maximum MIRV/reliability. If the West strikes first in a Bolt

from the Blue, enough strategic nuclear forces would survive to ensure a significant retaliation.

In the surge or mobilization scenario, it is likely that all sides are in a generated alert. Even if the USSR was forced to rely on its submarine assets alone, in a surge or mobilization they could still deliver a significant strike even assuming the worst MIRV/reliability case.

SSBN Deployment Areas

The change in deployment areas for Soviet SSBNs or the sending of all available Yankess to North America in a surge or mobilization might impact on the time urgent counterforce potential of the Soviet Navy. It was assessed that the close-in Yankee threat was already sufficient enough to attack bomber, tanker, and submarine bases with a modest C3 disruption possible but insufficient to constitute a simultaneous major C3 attack and pin-down of ICBMs. If the Soviets were to increase the numbers of close in warheads, might they be able to increase the counterforce threat?

In past years, it was speculated that the Yankee fleet would in fact deploy to North American waters if surged or mobilized. Although a convincing case can

be made that the incremental increase in deliverable weapons/EMT is not worth the risks in time of war, the assumption will now be made that the Soviets do in fact send all Yankees to mid-ocean but while transit safety is assured. Also to be tested will be the assumption that all Deltas and Typhoons also deploy in the Atlantic, a possibility hinted at by those who see further quieting of Soviet submarines as a sign that deployment areas will/could shift.

In a Bolt from the Blue, with only the five Yankees off the U.S. coast, the threat is insufficient to do all potential counterforce missions. If those Yankees were replaced eventually by Deltas, however, the threat would change considerably as would the incentive for the U.S. to quickly neutralize the threat.

Since this is a future possibility it will be assumed that the force consists of Delta IIIs equipped with maximum MIRVs with high reliability. The close in deliverable threat would be 420 warheads (143 EMT/84 MT). For comparison, if Typhoon were used instead of Delta III, then the deliverable threat changes to 630 warheads (138.6 EMT/63 ET). The routine threat from Yankee is 55 warheads (41 EMT/28.6 MT).

Thus replacing Yankee in the future with either new and quieter Delta or Typhoons would allow either considerably more capability in deliverable warheads or EMT on the same number of submarines or the ability to reduce the forward deployed fleet to fewer units. Since survivability of forward deployed SSBNs is questionable, we might expect submarine numbers to remain constant and capability to increase.

Today, if the existing Yankees on patrol and in transit were supplemented with all additional Yankees, it was shown in Part II that the deliverable threat to time urgent targets would then be 142 deliverable warheads (106.2 EMT/74.8 MT) in a surge, and 198 deliverable warheads (151.3 EMT/110.4 MT) in a mobilization. Thus, replacing routinely patrolling Yankee with even five newer submarines equipped with MIRV missiles will threaten the U.S. with more time urgent warheads than if the entire Yankee fleet was mobilized and succeeded in sailing to North America.

If the USSR were to surge all available Yankees today to North American waters, the threat appears sufficient to ensure all bomber, tanker, and submarine bases receive at least two warheads with an additional

49 warheads remain for other purposes. In the mobilization scenario, 102 warheads would be available for other uses.

These 49 or 102 warheads would probably be employed in a C3 attack or in pin-down of ICBMs. Without classified information giving accurate assessments of the numbers of warheads needed for each mission, it is impossible to know for certain which is more likely. A successful C3 attack could have the same impact on ICBMs as pin-down.

If the Soviets were to deploy Deltas or Typhoons in addition to all available Yankees in mid-ocean patrol areas instead of Soviet home waters, might this improve Soviet capability to perform ICBM pin-down? A related problem with this ability to increase capability would be the potential for decreased survivability.

One could make the case that a peacetime deployment all available submarines in mid-ocean would so overwhelm Western ASW assets that survivability is once again assured. In a surge, the Soviets could place 19 additional SSBNs in the Atlantic and Pacific. In a mobilization, this number would increase to 30 not counting Golfs or Hotels. The numbers of deliverable

warheads from Typhoons and Deltas which could supplement existing Yankees in time urgent strikes would be 840 (317.1 EMT/209.4 MT) in a surge and 1232 (467.5 EMT/312.4 MT) in a mobilization. The minimum range for SS-N-8 and 18 SLBMs (one-third of maximum range) would be a bit of a problem.

In theory, the USSR could deliver a total of 422.8 MT on time urgent targets in the U.S. if all deployable long range submarines appeared off the shores of North America. Pin-down has been described as requiring hundreds of MT per minute. The creation of windows of launch opportunity by irregular arrivals of SLBMs raises the uncertainty of ICBM pin-down. For pin-down to be effective, warheads need to keep arriving with no breaks that can be exploited by the U.S. to shoot through. Window exploitation would be easier with survivable U.S. sensors warning of each new SLBM launch.

Since the Soviets could not count on the absence of sensors nor of guaranteed warhead detonation, their logical action is to use two warheads, doubling the required deliverable numbers. It appears that, faced with the uncertainties and limitations of science and hardware, continued development of new hardened

missiles and dispersion of ICBM silos can negate any reasonable threat of total pin-down of U.S. ICBMs from Soviet SLBMs.

This being the case, future massive deployments of all Soviet SSBNs to North American waters seems unlikely. At best, a few ICBM Wings might be effected. At worst, the USSR could place its submarine fleet at unnecessary risk. Massive increases in forward deployed SSBNs also appears inconsistent with declaratory statements emphasizing the need to control strategic nuclear forces and to preclude unwanted launch of weapons.

Yet we may see extra SSBNs deploy in mid-ocean. The USSR did so in early 1984 when 2-3 Deltas appeared in the Atlantic. There was no military reason to deploy Deltas in this area. Rather it afforded Western ASW units an unprecedented opportunity to gain intelligence information. The Soviet action was a clear case of the use of strategic nuclear force to coerce and influence political decisions and actions by NATO member nations.

A mass deployment of SSBNs into the Atlantic or Pacific is allowable under international law. Future repeat surges made as political statements cannot be

prevented by existing arms control agreements. Nor should any attempt be made to restrict such deployment since it places Soviet SSBNs in areas where they are more accessible to Western ASW action.

If a mass mid-ocean deployment of Deltas, Typhoons, and Yankees did take place, it would probably be designed to send a major political statement rather than shift the military balance. Such a massive surge would not be sustainable since eventually those submarines would need to return for provisions or risk exposing themselves in open-ocean replenishment. A shift to routine mid-ocean deployments instead of bastions would free the general purpose forces of the Soviet Navy from what has been their avowed purpose, protection of those SSBNs under the umbrella of land-based air power.

Notes

1. William M. Arkin and Jeffrey I. Sands, "The Soviet Nuclear Stockpile," Arms Control Today, Vol. 14, No. 5, June 1984, pp. 1, and 4-6.
2. U.S. Department of Defense, Soviet Military Power, 3rd Ed. (Washington, D.C.: U.S. Government Printing Office, April 1984), p. 26 portrays 2500 warheads excluding SS-N-5 theater systems.
3. Whence the Threat to Peace, 3rd Ed., (Moscow: Military Publishing House, 1984), p. 6 tabulates around 2500 SLBM warheads in 1984, 2000 in 1981, and 724 in 1975. Soviet Military Power, 3rd Ed. gives the totals for those years as 2500, 2250 and slightly over 700.
4. U.S. Department of Defense, Soviet Military Power, 2nd Ed. (Washington, D.C.: U.S. Government Printing Office, March 1983) p. 23. The revised estimates for 1975 remain the same. For 1981, the total would now be around 1300 or 700 less than the Soviets themselves said they had.
5. The total is 512 instead of the 531 needed. Since 531 was derived using a graph estimates of 1500, the difference of 19 warheads could easily be explained by optical interpretation of the 1500 line.

6. Using IISS data, the maximum number of U.S. ICBM warheads would be 1915. At two warheads per launcher and an 80% reliability of systems, at best, 766 Soviet ICBM launchers could be targeted by the U.S. The Soviets have 1398 known hardened ICBM launchers. Hence a U.S. first strike on Soviet ICBMs leaves the U.S. with 0 and the USSR with at least 632 plus reloads and non-SALT accountable systems. U.S. SLBMs are incapable of successfully targeting silos and bombers/cruise missiles could not arrive in time to prevent Soviet use.
7. Marshal N. V. Ogarkov, "The Defense of Socialism: Experience of History and The Present Day," Krasnaya Zvezda, May 9, 1984, 1st Ed., pp. 2-3. Party Secretary Leonid Brezhnev in a speech to the Polish Sejm stated on July 21, 1974 that the world already had sufficient stockpiles of weapons to destroy every living thing several times. On July 3, 1965 Brezhnev told the Military Academy graduates in the Kremlin that the USSR had enough rockets to make short work of any aggressor. One wonders the purpose of continued improvements in strategic systems.

8. James F. Dunnigan, How to Make War (New York, N.Y.: William Morrow and Co., Inc., 1982) pp. 298-299. Dunnigan gives modern U.S. SLBMs a reliability of 80%.

CHAPTER 13
GENERAL PURPOSE FORCES

Data Base

For this research, a complete threat assessment of all the general purpose naval forces of the Soviet Union is not required. Since the purpose is to assess capability for forces involved in a major nuclear war, ships and aircraft whose missions are only or obviously related to peripheral areas (amphibious operations, local border patrol and coastal defense, mine warfare, surveillance, training, research and development, logistics, etc.) will not be considered.

The reason for including general purpose forces at all is to assess the capability of the Soviet Navy to actively defend its nuclear powered ballistic missile submarines (SSBNs) in bastions close to the USSR. Implicit in such a defensive strategy (which appears to be declaratory policy) is the need for forces to protect the SSBNs which may be withheld as a part of the strategic nuclear reserve.

The forces of interest are active long-range and theater submarines, surface ships (corvettes and larger), and fixed wing airplanes capable of strikes on major Western surface ships or submarines. As was

done for strategic submarines, each of the four primary sources in the hardware analysis was consulted to develop an agreed-upon data base of numbers of the various types of ships that exist in the Soviet Navy.

Table 22 presents this data in an aggregated manner. For a thorough description of the methodology used in assigning forces to one section or another, etc., reference is made to a substantially larger but earlier data base done by the author. 1/ Categories are not fully definitive. For example, anti-submarine warfare (ASW) units are capable of anti-surface warfare and vice versa. By and large, the preponderance of certain types of weapons systems is the criteria for assigning a ship to one group or another.

Table 22

Active Navy Forces

| | <u>Couhat</u> | <u>Jane's</u> | <u>IISS</u> | <u>DIA</u> | <u>Assumed Number</u> |
|---------------------------------|---------------|---------------|-------------|------------|---------------------------|
| <u>Strike/Attack Submarines</u> | | | | | |
| With cruise missiles | 65 | 64 | 65 | 68 | 66 |
| Without missiles | 207 | 210 | 198 | 207 | 206 |
| <u>Surface Strike</u> | | | | | |
| Carriers | 3 | 3 | 3 | 3 | 3 |
| Cruisers | 11 | 10 | 10 | 10 | 10 |
| Major destroyer | 3 | 2 | 2 | 3 | 3 |
| Gun cruiser | 9 | 12 | 8 | 10 | 8 |
| <u>Surface ASW</u> | | | | | |
| Helicopter carriers | 2 | 2 | 2 | 2 | 2 |
| Cruisers | 17 | 17 | 17 | 17 | 17 |
| Major destroyers | 4 | 2 | 2 | 3 | 3 |
| <u>Surface Escorts</u> | | | | | |
| Missile destroyers | 38 | 39 | 39 | 36 | 38 |
| Missile frigates | 32 | 32 | 32 | 32 | 32 |
| <u>Theater Escorts</u> | | | | | |
| Destroyers | 20 | 28 | 22 | 25 | 24 |
| Frigates/corvettes | 151 | 146 | 144 | 145 | 147 |
| <u>Airplanes (fixed wing)</u> | | | | | |
| Bombers | - | 430 | 360 | 375 | 388 |
| ASW | - | - | 190 | - | 190 |

Key: Numbers of units listed by each major source compiled by author. Assumed number is compiled by author.

The next step is to allocate each of these types of forces into the four main fleets of the Soviet Navy. Since each primary source used a different number of forces in each category, percentages of the total were calculated and are expressed in Tables 23 - 26. From the percentages, an assumed number of actual fleet assets is constructed and tabulated utilizing the raw data in Table 22.

Table 23

Active Northern Fleet Forces

| | <u>Couhat</u> | <u>Jane's</u> | <u>IISS</u> | <u>DIA</u> | <u>Assumed</u> | <u>Assumed</u> |
|---------------------------------|---------------|---------------|-------------|------------|----------------|----------------|
| | <u>%</u> | <u>%</u> | <u>%</u> | <u>%</u> | <u>%</u> | <u>Number</u> |
| <u>Strike/Attack Submarines</u> | | | | | | |
| With cruise missiles | - | 55 | - | 51 | 55 | 36 |
| Without cruise missiles | - | 45 | - | | 45 | 93 |
| <u>Surface Strike</u> | | | | | | |
| Carriers | - | 33 | - | 33 | 33 | 1 |
| Cruisers/major destroyers- | - | - | - | 31 | 31 | 4 |
| Gun cruisers | - | 18 | - | 20 | 19 | 1 |
| <u>Surface ASW</u> | | | | | | |
| Helicopter carriers | - | 0 | - | 0 | 0 | 0 |
| Cruisers/major destroyers- | - | - | - | 40 | 40 | 8 |
| <u>Surface Escorts</u> | - | 32 | - | 26 | 29 | 20 |
| <u>Theater Escorts</u> | - | 27 | - | 26 | 27 | 46 |
| <u>Bombers</u> | 19 | - | 21 | - | 20 | 78 |
| <u>ASW Airplanes</u> | 36 | - | - | - | 36 | 68 |

Key: Percentages of the total numbers given in each major source. Final assumed percentage and number of units compiled by author.

Table 24

Active Pacific Fleet Forces

| | <u>Couhat</u> | <u>Jane's</u> | <u>IISS</u> | <u>DIA</u> | <u>Assumed</u> | <u>Assumed</u> |
|---------------------------------|---------------|---------------|-------------|------------|----------------|----------------|
| | <u>%</u> | <u>%</u> | <u>%</u> | <u>%</u> | <u>%</u> | <u>Number</u> |
| <u>Strike/Attack Submarines</u> | | | | | | |
| With cruise missiles | - | 36 | - | 32 | 36 | 24 |
| Without cruise missiles | - | 34 | - | | 34 | 70 |
| <u>Surface Strike</u> | | | | | | |
| Carriers | - | 33 | - | 33 | 33 | 1 |
| Cruisers/major destroyers | - | - | - | 31 | 31 | 4 |
| Gun cruisers | - | 36 | - | 30 | 33 | 3 |
| <u>Surface ASW</u> | | | | | | |
| Helicopter carriers | - | 0 | - | 0 | 0 | 0 |
| Cruisers/major destroyers | - | - | - | 30 | 30 | 6 |
| <u>Surface Escorts</u> | - | 27 | - | 30 | 29 | 20 |
| <u>Theater Escorts</u> | - | 31 | - | 33 | 31 | 53 |
| <u>Bombers</u> | 32 | - | 33 | - | 33 | 128 |
| <u>ASW Airplanes</u> | 41 | - | - | - | 41 | 78 |

Key: Percentages of the total numbers given in each major source. Final assumed percentage and number of units compiled by author.

Table 25

Active Baltic Fleet Forces

| | <u>Couhat</u> | <u>Jane's</u> | <u>IISS</u> | <u>DIA</u> | <u>Assumed</u> | <u>Assumed</u> |
|---------------------------------|---------------|---------------|-------------|------------|----------------|----------------|
| | <u>%</u> | <u>%</u> | <u>%</u> | <u>%</u> | <u>%</u> | <u>Number</u> |
| <u>Strike/Attack Submarines</u> | | | | | | |
| With cruise missiles | - | 8 | - | 9 | 8 | 5 |
| Without cruise missiles | - | 11 | - | | 11 | 22 |
| <u>Surface Strike</u> | | | | | | |
| Carriers | - | 0 | - | 0 | 0 | 0 |
| Cruisers/major destroyers | - | - | - | 15 | 15 | 2 |
| Gun cruisers | - | 18 | - | 10 | 14 | 1 |
| <u>Surface ASW</u> | | | | | | |
| Helicopter carriers | - | 0 | - | 0 | 0 | 0 |
| Cruisers/major destroyers | - | - | - | 10 | 10 | 2 |
| <u>Surface Escorts</u> | - | 13 | - | 18 | 15 | 11 |
| <u>Theater Escorts</u> | - | 15 | - | 15 | 15 | 26 |
| <u>Bombers</u> | 23 | - | 26 | - | 24 | 93 |
| <u>ASW Airplanes</u> | 10 | - | - | - | 10 | 19 |

Key: Percentages of the total numbers given in each major source. Final assumed percentages and numbers of units compiled by author.

Table 26

Active Black Sea Fleet Forces

| | <u>Couhat</u> | <u>Jane's</u> | <u>IISS</u> | <u>DIA</u> | <u>Assumed</u> | <u>Assumed</u> |
|---------------------------------|---------------|---------------|-------------|------------|----------------|----------------|
| | <u>%</u> | <u>%</u> | <u>%</u> | <u>%</u> | <u>%</u> | <u>Number</u> |
| <u>Strike/Attack Submarines</u> | | | | | | |
| With cruise missiles | - | 1 | - | 8 | 1 | 1 |
| Without cruise missiles | - | 10 | - | | 10 | 21 |
| <u>Surface Strike</u> | | | | | | |
| Carriers | - | 33 | - | 33 | 33 | 1 |
| Cruisers/major destroyers | - | - | - | 23 | 23 | 3 |
| Gun cruisers | - | 28 | - | 40 | 34 | 3 |
| <u>Surface ASW</u> | | | | | | |
| Helicopter carriers | - | 100 | - | 100 | 100 | 2 |
| Cruisers/major destroyers | - | - | - | 20 | 20 | 4 |
| <u>Surface Escorts</u> | - | 28 | - | 26 | 27 | 19 |
| <u>Theater Escorts</u> | - | 27 | - | 26 | 27 | 46 |
| <u>Bombers</u> | 26 | - | 20 | - | 23 | 89 |
| <u>ASW Airplanes</u> | 13 | - | - | - | 13 | 25 |

Key: Percentage of the total numbers given in each major source. Final assumed percentage and number of units compiled by author.

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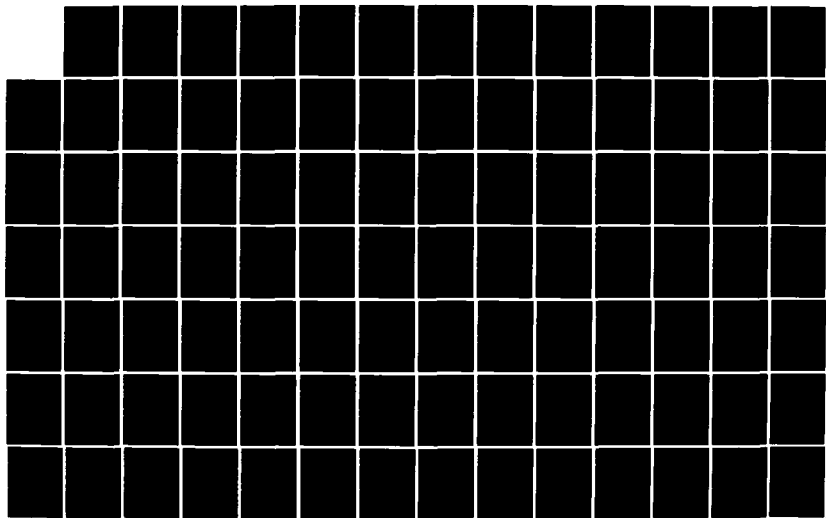
THE STRATEGIC EMPLOYMENT OF THE SOVIET NAVY IN A
NUCLEAR WAR(U) UNIVERSITY OF SOUTHERN CALIFORNIA LOS
ANGELES J J TRITTEN DEC 84 N66314-70-A-1146

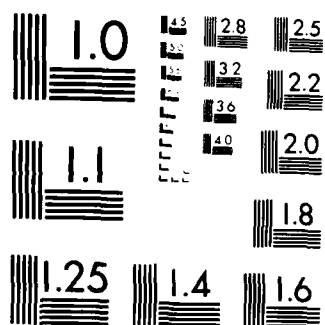
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

The Soviet Union does have allies with naval forces. From their types of fleets and the location of forces, it is judged unlikely that other Warsaw Treaty navies would be able to significantly assist the USSR in the completion of strategic missions involving a nuclear war. The bulk of these forces are in the Baltic or Black Sea. The largest surface combatants are a Polish destroyer, two German, and two Bulgarian frigates. Poland and Bulgaria also have a few old submarines. 2/

From the forces to each of the four main Soviet fleets, there are units routinely assigned elsewhere or on forward deployment. A detailed analysis of assets not normally found with their home fleets is contained in the author's earlier and more comprehensive data base.

Tables 27 - 30 present each of the four fleets, listing the total number of units assumed to be in the fleet, the number normally out of area, and the surge and mobilization potential for remaining forces. The methodology and percentages used for the high and low threats are identical to that described in Chapter 2 for strategic submarines.

Units on forward deployment must be subtracted from the amount judged capable of surging or mobilizing to correctly assess the ability of the remaining fleet to deploy in local waters. The out-of-area threat is presented in Table 31 and consists of units deployed or transiting through these areas to deployed stations.

Table 27

Northern Fleet Surge/Mobilization Threat

| | <u>Assumed Total</u> | <u>Out of Area</u> | <u>Surge Totals</u> | | <u>Mobilization Totals</u> | |
|---------------------------------|----------------------|--------------------|---------------------|-------------|----------------------------|-------------|
| | | | <u>Low</u> | <u>High</u> | <u>Low</u> | <u>High</u> |
| <u>Strike/Attack Submarines</u> | | | | | | |
| With cruise missiles | 36 | 7-8 | 4 | 11 | 16 | 20 |
| Without cruise missiles | 93 | 17-24 | 7 | 30 | 38 | 53 |
| <u>Surface Strike</u> | | | | | | |
| Carriers | 1 | 0 | 0 | 1 | 1 | 1 |
| Cruisers/major destroyers | 4 | 0 | 1 | 2 | 3 | 4 |
| Gun cruisers | 1 | 0 | 0 | 1 | 1 | 1 |
| <u>Surface ASW</u> | | | | | | |
| Helicopter carriers | 0 | 0 | 0 | 0 | 0 | 0 |
| Cruisers/major destroyers | 8 | 0 | 3 | 4 | 5 | 6 |
| <u>Surface Escorts</u> | 20 | 0-2 | 5 | 10 | 11 | 15 |
| <u>Theater Escorts</u> | 46 | 0 | 15 | 23 | 31 | 35 |
| <u>Bombers</u> | 78 | 0 | 26 | 39 | 52 | 59 |
| <u>ASW Airplanes</u> | 68 | 2-4 | 18 | 32 | 41 | 49 |

Key: Numbers of units compiled by author. Surge/mobilization totals are numbers available in home waters.

Table 28

Pacific Fleet Surge/Mobilization Threat

| | Assumed | Out of | Surge Totals | | Mobilization Totals | |
|---------------------------------|---------|--------|--------------|------|---------------------|------|
| | Total | Area | Low | High | Low | High |
| <u>Strike/Attack Submarines</u> | | | | | | |
| With cruise missiles | 24 | 3-5 | 3 | 9 | 11 | 15 |
| Without cruise missiles | 70 | 10-12 | 11 | 25 | 35 | 43 |
| <u>Surface Strike</u> | | | | | | |
| Carriers | 1 | 0 | 0 | 1 | 1 | 1 |
| Cruisers/major destroyers | 4 | 1-2 | 0 | 1 | 1 | 2 |
| Gun cruisers | 3 | 0 | 1 | 2 | 2 | 2 |
| <u>Surface ASW</u> | | | | | | |
| Helicopter carriers | 0 | 0 | 0 | 0 | 0 | 0 |
| Cruisers/major destroyers | 6 | 1 | 1 | 2 | 3 | 4 |
| <u>Surface Escorts</u> | | | | | | |
| | 20 | 6-9 | 0 | 4 | 4 | 9 |
| <u>Theater Escorts</u> | | | | | | |
| | 53 | 1-2 | 16 | 26 | 33 | 39 |
| <u>Bombers</u> | | | | | | |
| | 128 | 0 | 43 | 64 | 35 | 96 |
| <u>ASW Airplanes</u> | | | | | | |
| | 78 | 4 | 22 | 35 | 48 | 55 |

Key: Numbers of units compiled by author. Surge/mobilization totals are numbers available in home waters.

Table 29

Baltic Fleet Surge/Mobilization Threat

| | Assumed | Out of | Surge Totals | | Mobilization Totals | |
|---------------------------------|---------|--------|--------------|------|---------------------|------|
| | Total | Area | Low | High | Low | High |
| <u>Strike/Attack Submarines</u> | | | | | | |
| With cruise missiles | 5 | 0 | 2 | 3 | 3 | 4 |
| Without cruise missiles | 22 | 1 | 6 | 10 | 14 | 16 |
| <u>Surface Strike</u> | | | | | | |
| Carriers | 0 | 0 | 0 | 0 | 0 | 0 |
| Cruisers/major destroyers | 2 | 0 | 1 | 1 | 1 | 2 |
| Gun cruisers | 1 | 0 | 0 | 1 | 1 | 1 |
| <u>Surface ASW</u> | | | | | | |
| Helicopter carriers | 0 | 0 | 0 | 0 | 0 | 0 |
| Cruisers/major destroyers | 2 | 0 | 1 | 1 | 1 | 2 |
| <u>Surface Escorts</u> | 11 | 1-2 | 2 | 5 | 5 | 7 |
| <u>Theater Escorts</u> | 26 | 0 | 9 | 13 | 17 | 20 |
| <u>Bombers</u> | 93 | 0 | 31 | 47 | 62 | 70 |
| <u>ASW Airplanes</u> | 19 | 0 | 6 | 10 | 13 | 14 |

Key: Numbers of units compiled by author. Surge/mobilization totals are numbers available in home waters.

Note:

USSR capability might be supplemented by 7 East German frigates/corvettes and 1 Polish destroyer and 2 submarines (mobilization capability assessed by author).

Table 30

Black Sea Fleet Surge/Mobilization Threat

| | Assumed Total | Out of Area | Surge Low | Totals High | Mobilization Totals Low High | |
|---------------------------------|------------------|----------------|--------------|----------------|------------------------------------|----|
| <u>Strike/Attack Submarines</u> | | | | | | |
| With cruise missiles | 1 | 0 | 0 | 1 | 1 | 1 |
| Without cruise missiles | 21 | 0 | 7 | 11 | 14 | 16 |
| <u>Surface Strike</u> | | | | | | |
| Carriers | 1 | 0 | 0 | 1 | 1 | 1 |
| Cruisers/major destroyers | 3 | 1-2 | 0 | 1 | 0 | 1 |
| Gun cruisers | 3 | 0-1 | 0 | 2 | 1 | 2 |
| <u>Surface ASW</u> | | | | | | |
| Helicopter carriers | 2 | 1 | 0 | 0 | 0 | 1 |
| Cruisers/major destroyers | 4 | 1 | 0 | 1 | 2 | 2 |
| <u>Surface Escorts</u> | 19 | 8-9 | 0 | 2 | 4 | 6 |
| <u>Theater Escorts</u> | 46 | 7-9 | 6 | 16 | 22 | 28 |
| <u>Bombers</u> | 89 | 0 | 30 | 45 | 59 | 67 |
| <u>ASW Airplanes</u> | 25 | 2-4 | 4 | 11 | 13 | 17 |

Key: Numbers of units compiled by author. Surge/mobilization totals are numbers available in home waters.

Note:

USSR capability might be supplemented by 1 Bulgarian submarine and 1 frigate (mobilization capability assessed by author).

Table 31

Soviet Out of Area Threat

| | <u>Atlantic</u> | <u>Pacific</u> | <u>Mediterranean</u> | <u>Indian</u> | <u>S. China</u> | <u>W. Africa</u> | <u>Caspian</u> | <u>Various a/</u> | <u>Unlocated b/</u> |
|---------------------------------|-----------------|----------------|----------------------|---------------|-----------------|------------------|----------------|-------------------|---------------------|
| <u>Strike/Attack Submarines</u> | | | | | | | | | |
| <u>With cruise missiles</u> | 4 | 0-1 | 2-3 | 0-1 | 2 | | | | 2 |
| <u>Without cruise missiles</u> | 7-12 | 0-4 | 8-10 | 1 | 5 | | | | 5 |
| <u>Surface Strike</u> | | | | | | | | | |
| <u>Carriers</u> | | | | | | | | | |
| Cruisers/major destroyers | | 0-1 | 1-2 | 0-1 | 0-1 | | | | |
| Gun cruisers | | 0-1 | | | | | | | |
| <u>Surface ASW</u> | | | | | | | | | |
| <u>Helicopter carriers</u> | | 0-1 | 1 | 0-1 | 0-1 | | | 1 | |
| Cruisers/major destroyers | | | | | | | | 3 | |
| <u>Surface Escorts</u> | 0-3 | 0-2 | 5-6 | 4 | 1-3 | 1 | | | |
| <u>Theater Escorts</u> | | | 4-6 | | 1-2 | | 3 | | |
| <u>Bombers</u> | | | | | | | | | |
| <u>ASW Airplanes</u> | | | | 2-4 | 4 | 2-4 | | | |

Key: Numbers of units compiled by author.

Note:

- a. 1 helicopter carrier and 3 escorts deployed in random location.
- b. Assumption that 1 of each major type submarine is unlocated is prudent military planning. One missile submarine, one nuclear, and one diesel submarine unlocated from each fleet with direct access to open ocean.

The total number of general purpose major combatants on forward deployment, would, therefore be between 58-91 (average 74.5) depending upon the status of transiting units. Additional mine warfare, amphibious ships, strategic submarines would increase these totals to an average of around 97.5.

In 1975, the Soviets were credited with around 120 ships on forward deployment. 3/ These reports were authorized by individuals whose later tabulations of ships days and port visits indicates routine use of naval auxiliary forces in totals. 4/ Since we know the out-of-area ship days has been increasing for the Soviet fleet, 5/ the difference must be in counting auxiliaries among the 120 in 1975.

To cross check the number of units capable of being surged, the number of ships which augmented forward-deployed units in the Okean-75 exercise is illustrative. In that case, 100 additional ships went to sea from all four fleets. Using the surge low threat numbers in the above tables, a minimum 101 ships are assumed to be capable of getting underway.

In a Spring 1984 exercise involving the Northern and Baltic fleets, the Soviets were able to put a significantly larger number of ships to sea. By

subtracting the number of ships involved from the Baltic Fleet (1 cruiser, 4 frigates, 1 cruise missile submarine, 3 attack submarines, and 4 auxiliaries 6/), we are able to determine the number of ships deployed by the Northern Fleet.

The Northern Fleet alone deployed 135 surface warships, 66 submarines, and 36 auxiliaries. 7/ One hundred thirty-five surface warships must include minor classes and amphibious units not tabulated in the tables herein. Other reports stated the number of major, modern warships deployed along the Greenland - Iceland - United Kingdom (G-I-UK) Gap as 29-30. 8/ Assuming these units were capable of air self-defense, it would confirm the estimate herein of 27 ships in the mobilization, high threat scenario.

The number of submarines reportedly deployed is also well within the mobilization scenario range. Early reports of the exercise had specified a much lower total of 20-30 submarines in comparing with major surface combatants. 9/ If the later figures are correct (66 submarines total), the number of additional submarines (36-40) can be explained by at least two major hypotheses.

First, the initial figures of 20-30 submarines could have been in error and all 66 submarines reported later by the Pentagon were cruise missile, strike, or attack units. Alternately, the extra submarines might include SSBNs. The data presented previously under strategic nuclear forces indicated that the USSR should be able to mobilize around 30 SSBNs from the Northern Fleet alone. Without access to classified intelligence reports, it is impossible to know how many of what type submarines actually did deploy. It would not have been impossible to mobilize 66 general purpose submarines alone assuming the high threat case. A more likely case is a combination of general purpose and SSBNs in the total of 66.

Task Group Baseline

Naval engagements might take place with single units but the preferred method is to aggregate into task groups and task forces. In the Great Patriotic War, Soviet naval forces were organized into task groups including groups of 2-3 submarines. 10/ In the worldwide Okean-75 exercise, the Soviet Navy organized itself into 12 such groups. 11/

The International Institute for Strategic Studies (IISS) recognized the need to aggregate naval forces

into task groups in their Military Balance 1978-1979. In their attempt to draw up a balance of forces, IISS aggregated the major forces of the Soviet fleet into a total of 16 groups.

Any attempt at aggregation will be both speculative and scenario dependent. Units which were never designed to may be forced to operate together. Some ships may be optimized for one major mission but, due to circumstances, perform others. The priority of certain missions may dictate what types of forces are allocated for missions of lesser priority.

From the behavior of the USSR in past crises and by observation of their major fleet exercises over the years, it is possible to construct varying "typical" task groups. The task groups listed as "typical" are illustrative of how one should do this and need not be definitive.

The key element in understanding aggregation of forces is to recognize that it includes air, surface, and subsurface forces. For the purposes of this research, a representative set of task forces optimized for the naval tasks most commonly articulated by the USSR. These are: anti-carrier warfare, ASW submarine warfare, and surface warfare.

Although not part of this research, amphibious warfare groups need to be accounted for since they will reduce the number of surface ships available for other purposes. A major assumption is that amphibious groups must be formed. It is the author's opinion that if the amphibious ships and craft exist, and the men are routinely exercised in such operations, the Soviets will perform such missions in time of war. Table 32 represents "typical" task groups.

Table 32

Typical Task Groups

Anti-carriers Warfare Group/Air Supplemented Option

- 1 cruiser/major destroyer
- 2 escorts
- 1 cruise missile submarine
- 2 submarines (3 if submarine missiles unavailable)
- (1 carrier or 20 bombers if available)

ASW Group/Air Supplemented Option

- 1 cruiser/major destroyer
- 2 escorts
- 3 submarines
- (1 carrier/helicopter carrier or 5 ASW airplanes if available)

Submarine Warfare Group

- 3 strike/attack submarines

Surface Warfare Group

- 1 carrier, helicopter carrier, cruiser, or major destroyer
- 3-4 escorts (depending upon availability of above)

Amphibious Group

- 1 gun or other cruiser
- 3-4 escorts (depending upon availability of above)

Bomber Strike Group

- 20 bombers

ASW Air Group

- 5 airplanes

Key: Numbers of units compiled by author.

Units have been created with optional air cover. For ASW airplanes, the selected number includes units in transit to/from and operating in one patrol area. For bombers, the strike group is one mass. 12/ By referring to the normal peacetime deployment of the Soviet fleet, we can aggregate forces into baseline cases.

Table 33 presents a baseline of task groups optimized for support of major combatants. For example, in the Northern and Pacific fleets this is anti-carrier and ASW. In the Baltic, this would be amphibious operations. Forces were allocated to these primary missions first, then remaining forces were allocated to others. Allied forces have not been added since at best they would simply add to amphibious warfare groups.

Air groups in the Baltic and Black Seas are probably not representative of real theater war-fighting capability since longer range fixed-wing airplanes can easily be supplemented with shorter range aircraft. Mid-Atlantic task groups are also not optimized for war fighting since they are composed of units in transit to other locations.

Certain locations were deleted since they are either isolated from the main oceans (Caspian Sea) or represent minor or sporadic patrols (West Africa and Caribbean). The one helicopter cruiser and escorts listed previously as being in various locations could easily form up with unlocated submarines in any theater to form a full air supplemented ASW group. The number of units routinely located in Soviet home waters is not known, hence this condition is not assessed.

These task groups therefore represent only one possible, but admittedly "normal" condition. In the sensitivity analysis section that follows this chapter, the assumed deployments, and other factors will be manipulated to present alternative cases. Such manipulation will include assuming a surge of units out of the Black Sea, optimizing for a conventional SLOC campaign etc.

Table 33

Soviet Task Group Baseline

| <u>Area</u> | <u>Type</u> | <u>Routine Level</u> | <u>Surge Total</u> | <u>Mobilization Total</u> |
|--------------------------|-------------|--------------------------|------------------------|-------------------------------|
| Norwegian Barents Sea | Air Sup ACW | - | 1-2 | 3-4 |
| | Air Sup ASW | - | 1 | 5-6 |
| | Submarine | - | 1-12 | 8-16 |
| | Surface | - | 3-7 | 5-8 |
| | Bomber | - | 0-1 | 0-1 |
| | ASW Air | - | 2-5 | 2-5 |
| | Amphibious | - | 1 | 1 |
| Seas of Japan Okhotsk | Air Sup ACW | - | 1 | 1-2 |
| | Air Sup ASW | - | 1-2 | 3-4 |
| | Submarine | - | 2-9 | 9-15 |
| | Surface | - | 1-2 | 5-7 |
| | Bomber | - | 1-3 | 4-5 |
| | ASW Air | - | 2-6 | 5-8 |
| | Amphibious | - | 2 | 2 |
| Baltic | Air Sup ASW | - | 1 | 1-2 |
| | Submarine | - | 2-3 | 4-6 |
| | Surface | - | 1-3 | 2-5 |
| | Bomber | - | 1-2 | 3 |
| | ASW Air | - | 0-1 | 1-2 |
| | Amphibious | - | 1-2 | 2-3 |
| Black Sea | Submarine | - | 2-4 | 5-6 |
| | Surface | - | 1-5 | 5-9 |
| | Bomber | - | 1-2 | 3 |
| | ASW Air | - | 1-2 | 3 |
| | Amphibious | - | 0-2 | 1-2 |
| Atlantic | Submarine | 4-5 | - | - |
| | Surface | 1 | - | - |
| Pacific | Submarine | 0-2 | - | - |
| | Surface | 0-1 | - | - |

Table 33
(continued)

| <u>Area</u> | <u>Type</u> | <u>Routine Level</u> | <u>Surge Total</u> | <u>Mobilization Total</u> |
|---------------|--|--------------------------|------------------------|-------------------------------|
| Mediterranean | ACW | 1-2 | - | - |
| | ASW | 1 | - | - |
| | Submarine | 0-2 | - | - |
| | Surface | 1-2 | - | - |
| | Amphibious | 0-1 | - | - |
| Indian | Air Sup ASW or ACW or surface (varies) | 1 | - | - |
| S. China Sea | Air Sup ASW or ACW and ASW Air | 1 | - | - |
| Various | Air Sup ASW (location varies) | 1 | - | - |

Key: Numbers of task groups compiled by author.

The two primary areas of interest to a discussion of the strategic nuclear force issues are the Norwegian/Barents Sea and Seas of Japan/Okhotsk. Both represent areas where the bastions are generally located. In compiling the likely Soviet Navy threat in these two areas, the researcher concludes that the numbers of task groups is impressive.

In the mobilization case, which represents the most likely case if bastion defense were to ever be put to the test, (a war of a relatively long enough period to deploy numerous forces), the numbers of anti-carrier task groups or bomber groups represents what the author has been told over the years would be the most likely number of U.S. carrier task groups to be involved.

To fully analyze the potential for the Soviet Navy to succeed in their defense of the two major bastions would require an enormous gaming effort which would need to be classified. What this researcher can conclude from Table 33 is that sufficient general-purpose forces can be mobilized to constitute a powerful enough force that the West cannot simply sail its naval assets (especially surface ships) into bastions without considerable risk.

Another conclusion of the researcher is that the Soviets have in fact deployed task groups which can either match the total number of routinely deployed U.S. aircraft carriers in the Mediterranean and Indian Oceans. An additional task group is positioned to interdict the Southeast Asian choke points and possibly deny transit to a carrier task group attempting to transit.

Finally, it should be noted that Soviet ASW groups are not deployed either near home ports for U.S. SSBNs nor in the deep Atlantic or Pacific reaches where American SSBNs patrol.

General Purpose Force Issues

Before moving on to manipulation of hardware aggregation and analysis of declaratory policy versus hardware capabilities, a few residual issues often raised in the secondary literature needs to be addressed herein.

First, the number of naval task groups assigned to support the Army may not only be a function of the modest amphibious lift and naval infantry capability of the fleet. Western sources have reported for years that Soviet exercises include routine transport of

Ground Forces by ships of the Merchant Marine. In a recent Soviet book about the Soviet Navy, the editor included pictures of an assault on the beach in which civilian ships are in the background. 13/ The point is that if additional sealift utilizing merchant ships takes place, additional naval force will need to be diverted from the tasks of protecting SSBNs to accommodate the support of the Army.

Second, the numbers of bombers which could act in a maritime strike role supporting bastion defense exceeds the number of units assigned to a Soviet Naval Aviation. Bombers or fighters from the Air Force can act in a fleet support role. This apparently happened in the Spring 1984 exercises. 14/

Third, the use of the fleet as a first line of defense against bombers and cruise missiles of the Western Air Forces cannot be ruled out. The newest surface to air missiles (SA-N-6) carried aboard Kirov cruisers reportedly has an effective ceiling of 100,000 feet and a speed of Mach 6. This is comparable to the Soviet's land SA-10 surface to air missile which has been described as being capable of destroying cruise missiles. 15/ Jane's 1983-84 credits the SA-N-6 with an anti-missile capability but does not say against what type.

From a hardware perspective alone, there is nothing to prevent Soviet ships with surface-to-air missiles from engaging incoming bombers and cruise missiles. Fleet weapons may not have been developed for this mission but one cannot deny that the capability is in fact there. Thus, bastion defense may not only be to protect the subsurface forces but to add to the layered air defense of the homeland.

Fourth, there is no question that the Soviet fleet has a tactical nuclear capability. Most standard reference works in Soviet hardware list nuclear warheads for their cruise missiles and depth bombs. The presence of nuclear torpedos was confirmed during the 1981 episode of a Whiskey class submarine aground in Swedish waters. The importance of tactical nuclear war at sea is its relationship to possible escalation to global nuclear war.

When a Navy ship goes to sea on an operational deployment, it needs to have all of its weapons already on board. It is highly impractical for a forward-deployed ship to return to home bases to load out nuclear weapons and then return to station to fight.

Similarly, there are limits to the amount of weapons that can be carried on any ship. Soviet ships have been notoriously deficient in their lack of re-loads. Even in a non-nuclear war, the longer the conflict, the more conventional ammunition would be used. At some point, a local commander might be faced with the situation of having no conventional weapons but with perfectly useable nuclear ones. 16/ A frequently overlooked point is that Naval weapons are frequently dual use, nuclear or conventional. Will the Soviet Navy commander be authorized to initiate tactical nuclear war on his own in the face of certain destruction?

Fifth, the subject of Soviet fleet exercises. Combined amphibious exercises involving Warsaw Pact nations and multiple Soviet Armed Services are often conducted in the Baltic and Black Seas. The details of larger theater or world wide exercises have been leaked to some degree. The latest two major exercises of this type were the April 1975 Okean and the Spring of 1984. 17/

In Okean-75 the fleet formed into 12 task groups and emphasized world-wide ocean surveillance, ASW, and interdiction of mid-ocean sea lines of communication

(SLOCs). Prime targets includes submarines, convoys, carrier and other surface task groups. Attacks against surface ships were executed primarily by aircraft but perhaps coordinated with submarine attacks. "Preliminary" attacks in the North Atlantic appeared designed to attrite "enemy" carriers outside of a defense line along the G-I-UK Gap. Heaviest interactions occurred in the Norwegian Sea. 18/

The Spring 1984 exercise was not world-wide although a greater number of ships was involved. The primary scene of operations was the Norwegian Sea, again with an outer line of defense along the G-I-UK Gap. 19/ Although the increase in air striking range allowed by the new Backfire bomber was widely reported, the "enemy" task group subjected to attack was within the defense perimeter of the G-I-UK Gap. Apparently no attacks occurred south of this line in North Atlantic shipping lanes.

Primary emphasis in this newest exercise appeared to be defense of home waters and denial of the enemy's attempt to penetrate the Norwegian Sea. Ships were deployed in three major task groups including one group of 15 ships (of all types) centered around the new Kirov class cruiser. Undoubtedly this latter

group included auxiliaries. Thus, from the perspective of observed behavior in exercises, as well as from the limited number of surface combatants on forward deployment, the theory that the Soviets plan to defend ocean bastions appears to be substantiated.

Sixth, the numbers of task groups of any composition in varying locations may or may not be fully combat-capable. Just because a ship has the mobility to get underway does not mean all of its weapons systems are operational. A more normal state of affairs is that operations will ensue in which major systems are degraded or inoperable from the start. In strategic systems, this was factored in as a reliability of around 70% with general purpose forces, it would be much more complex and will not be undertaken herein.

Seventh and finally, the ability of the Soviet general purpose fleet to perform strategic ASW against Western and Chinese SSBNs should be addressed. In general, surface and air ASW assets of the Soviet Navy would probably not deploy in a war in areas where U.S./U.K. submarines equipped with long range Trident missiles can deploy. This is simply due to the lack of survivability of such Soviet forces and no organic

sea based naval air power. The Soviet Navy might be more successful against the few NATO or Chinese submarines equipped with medium range missiles if those submarines chose to enter defended bastions to fire their missiles.

The number of total aim points confronting the Soviet Navy would be at least 21 SSBNs. 20/ It is the author's opinion that with so few quiet nuclear attack submarines (SSNs) in the Soviet inventory (22 Alfa and Victor III classes), and the need to use quiet SSNs to protect Soviet SSBNs, the strategic ASW threat is minimal. Not only is there no surplus but there is not enough to put even one Soviet submarine (given a maximum of 75% mobilization) in trail of every Western SSBN on patrol. One unit per SSBN would certainly be insufficient. Multiple assets in trail should be considered a minimum requirement.

Having now presented findings on declaratory employment policy and the hardware capabilities and exercise/deployment evidence, further consideration of the hardware data will be undertaken by sensitivity analysis. A comparison of hardware capability and declaratory policy will be given in the findings section.

Notes

1. "Soviet Navy Data Base: 1982-83," Professional Paper P-6859 (Santa Monica, CA: The Rand Corporation, April 1983).
2. In The Spring 1984 exercises conducted by the Northern and Baltic Fleets, an East German frigate and the Polish destroyer sortied with units of the Soviet Baltic Fleet. See report by Hans Holler, "New Soviet Strategy in the North Sea," Berlingske Tidende (Copenhagen), May 29, 1984, p. 13.
3. Lieutenant Commanders Bruce W. Watson and Margurite A. Walton, USN, "Okean-75," U.S. Naval Institute Proceedings, Vol. 102, No. 7, July 1976, p. 94.
4. Watson, Red Navy at Sea: Soviet Naval Operations on the High Seas, 1956-1980 (Boulder, Co.: Western Press, 1982), Appendix Tables 2-8, 10-25. In fairness to Commander Watson, this practice appears fairly common. A recent exception was DOD's Soviet Military Power, 2nd Ed. (Washington, D.C.: U.S. Government Printing Office, March 1983), p. 60 which separates out-of-area ship days into submarine, surface combatants, auxiliaries,

and others. Watson credits the Soviets with 57,800 out of area ship days in 1980. DOD breaks that same total down listing around 28,000 coming from combatants.

5. Soviet Military Power, 2nd Ed., p. 60.
6. According to Danish authorities, reported by William Tuohy "Soviets in Major War Games Off Coast of Norway," Los Angeles Times, April 4, 1984, Part I, p. 1.
7. Figures based on totals released by the Pentagon and reported in "A Test for NATO at Sea," Newsweek, April 16, 1984, p. 46.
8. R. W. Apple, Jr., "Soviet is Holding Big Naval Games," New York Times, April 4, 1984, p. 4; and "NATO Watching Hugh Soviet Exercise in North Atlantic," Philadelphia Inquirer, April 4, 1984, p. 2.
9. Los Angeles Times, Philadelphia Inquirer, *ibid.*, and Gerald F. Seib, "Soviet Maneuvers Puzzle U.S. Analysts," Wall Street Journal, April 9, 1984, p. 38.
10. V. I. Achkasov and N. B. Pavlovich, Soviet Naval Operations in the Great Patriotic War 1941-1945, (Annapolis, MD: Naval Institute Press, 1981, a translation of the 1973 Russian original), p. 205.

11. Watson and Walton, p. 94.
12. A practice in the Great Patriotic War According to Achkasov and Pavlovich, p. 207.
13. Admiral A. I. Sorokin, Ed., The Navy of the USSR (Moscow: Planet Publishing, 1982), pp. 178-179.
It is not clear if the exercise in this photograph was the recent Zapad-81 but a NATO Press Release of December 8, 1981 specifically pointed out the embarkation of Ground Forces in merchant ships during that exercise.
14. According to the April 9 Wall Street Journal and April 16 Newsweek articles, the Soviets used Backfires from Central Europe in the Navy exercise. This strongly implies the use of Air Force assets although Soviet Naval Aviation should have been able to mobilize the widely reported 50 Backfire and Badger bombers involved in the exercise.
15. John W. R. Taylor, "Gallery of Soviet Aerospace Weapons," Air Force Magazine, Vol. 67, No. 3, March 1984 (Soviet Aerospace Almanac), p. 127.
16. Admirals Elmo R. Zumwalt and Worth H. Bagley raise this issue in "Russia's Policy and the Swedish Incident," Navy Times, December 28, 1981, p. 19.

17. Following commentary on both exercises is based upon previously cited secondary sources.
18. Donald C. Daniel, "Trends and Patterns in Major Soviet Naval Exercises," Naval War College Review, Vol. XXX, No. 4, Spring 1978, p. 37.
19. G-I-UK refers to a line drawn from Greenland, to Iceland to the United Kingdom. This is similar to behavior reported in the Okean-70 exercise where the outer defense line was the "enemy" units crossing those lines were subject to heavy attacks.
20. Assumes 55% of 34 U.S. submarines on patrol and at least one British and French.

CHAPTER 14

SENSITIVITY ANALYSIS OF GENERAL PURPOSE FORCES

Deployment Patterns

The major assumption in the presentation of a "normal" deployment for general purpose forces in a surge or mobilization was that the first priority of ships in the Northern and Pacific Fleet was to form into task groups maximized to protect ballistic missile submarines in bastions. Task groups were created that would counter Western submarines in Arctic areas and U.S. aircraft carrier task groups attempting to fight in the Norwegian Sea or northwestern Pacific Oceans.

If all SSBNs were to depart from these bastions, however, the fleet would have a definite surplus capability above and beyond what could reasonably be expected as necessary for coastal defense and assisting the Army.

The key questions regarding the general purpose forces are whether or not there exists a surplus of assets above and beyond that necessary for bastion defense. If such a surplus exists, then the West would have to prepare for offensive Soviet naval operations on the high seas.

The limiting factor in offensive general purpose Soviet fleet operations in other than home waters remains, however, the lack of fixed wing airplanes capable of supporting distant-water naval operations. Thus, even if the primary mission of the general-purpose fleet (bastion defense) were eliminated, the Soviet Navy would still be incapable of sustained, open-ocean, offensive operations against a major maritime enemy.

This assessment could be reversed, however, if Western aircraft carriers and supporting land based aircraft were eliminated. If the West could no longer use crucial air fields in Iceland, Norway, Japan, Alaska, etc. the effect might be decisive in the theater. Lacking opposition from Western air power, even the Soviet Navy might successfully dominate the Norwegian Sea, northern Pacific, and elsewhere.

The Soviets could extend their naval operations if it has use of Western bases in Norway, Iceland, Alaska, etc. Similarly operations would be enhanced if the Soviet Navy had fully capable aircraft carriers of its own, which it is reportedly building.

Hence, even if the general-purpose fleet were relieved of a mission to protect its own SSBNs, and even if it sent all its surface ships from all four

fleets out into mid-ocean, its lack of air power would limit its war-time effectiveness unless Western air power was neutralized.

SLOC Mission

Soviet submarine operations would be less hampered by a lack of air power in distant waters. As assigned in the "normal" posture with ballistic missile submarine protection the primary mission, there appears to be a surplus of attack and strike submarines. In a mobilization, the Northern Fleet would have some 49 and the Pacific Fleet would have around 46 submarines not otherwise employed in task groups.

One might posture these "surplus" submarines along a defensive barrier or alternately one could expect them to deploy in distant ocean waters where they could threaten the sea lines of communication (SLOC). Either case can be argued. What is significant is that the SLOC threat is not hundreds of submarines but just under 50 (assuming no extra units can exit the Baltic).

In 1968, Commander Robert W. Herrick attempted to measure the surplus in Soviet submarines in a future war and concluded it was around 100 submarines. 1/ At

that time there were few SSBNs to protect. Even given the 100 submarine threat to the Atlantic, Herrick calculated that the steady state SLOC threat was 20-25 submarines since it would take roughly 4 or 5 Soviet submarines to keep one on station at all times in a long war.

If the base is around 50 surplus submarines per major ocean, in a short war, they would probably all deploy. If the deployment to the SLOCs were less, it might indicate posturing for sustained operations. Assuming as few as ten submarines routinely along the SLOCs, it is noteworthy to recall German wartime experiences. From 1915 - 1916 the average number of U-boats in the Atlantic was 15. From September 1939 - June 1940, it was 6, from July 1940 - March 1941, it was 10. 2/

Average monthly shipping losses from those first two periods of World War II were 106,000 and 224,000 gross tons, respectively. Germany started World War II with only 30 serviceable ocean-going U-boats. During the initial period of the war, U-boats sank an average of 60 ships per month.

The Atlantic Council's Working Group on Securing the Seas also attempted to measure the surplus Soviet

Navy capability in order to quantify the SLOC threat. Michael McGwire, a well known analyst, was credited with doing most of the work in a presentation of Soviet naval force allocation. 3/ Their findings included 30-60 submarines for an Atlantic SLOC campaign with some 50-60 bombers. The Pacific SLOC threat was 10-30 submarines and 30-60 bombers.

In a subsequent attempt to quantify the sealane defense problem, Charles Di Bona and William O'Keefe "conservatively" assumed sixty Soviet submarines against the Atlantic SLOC and thirty in the Pacific. 4/ Since the Atlantic Council Study Group convened in 1976, some data base time difference problems are expected. However, their total SLOC threat was 90 submarines and in this present study, the "normal" threat assumed is 95 (49 Atlantic, 46 Pacific).

If the defense of the nuclear powered ballistic missile submarine (SSBN) fleet mission were to disappear due to their deployment into the mid-ocean areas, the likely high mobilization threat would be a maximum of 73 general purpose submarines in the Atlantic and 58 in the Pacific.

Estimating the amount of damage a conventional SLOC campaign could do is extremely scenario-dependent. Not

only must the numbers of submarines be assumed but whether or not they deploy prior to hostilities, for a long or short war, as well as the allied convoy posture needs to be assessed. One must also consider that if the war has gone nuclear ashore, the SLOC threat is also likely to include tactical nuclear weapons from submarines and Soviet Naval Aviation as well as possible use of ballistic missiles against convoy formations.

The Atlantic Council's assessment of merchant ship attrition is based upon computations performed in a 1976 MIT Master's Thesis 5/ and Alan C. Enthoven and K. Wayne Smith's logic outlined in their 1971 How Much is Enough? 6/ This researcher is convinced that these approaches are flawed and that no satisfactory model exists for a future SLOC campaign. In general, all models are for non-nuclear war.

Unfortunately this does satisfactorily answer the question of the credibility of a conventional SLOC campaign. Yet for a threat to the SLOCs to be effective, how many submarines actually need be deployed? It is doubtful that NATO would risk the loss of modern merchants used for resupply due to the large size of newer container ships, roll-on/vessels, and especially

tankers, and the fewer number of hulls available.

A loss of one ship today is much more serious than the loss a Victory Ship in World War II.

The SLOC problem of sea lane defense only presents itself in an extended war. In short nuclear wars, terminals can be destroyed by ballistic missiles negating the need for a "Battle of the Atlantic." Since Soviet declaratory doctrine includes conventional-only operations or a possible extended period of armed struggle it seems logical that a sea lane interdiction threat to the SLOCs remains a required mission for the Soviet Navy. Such a mission is a strategic mission and could be undertaken using tactical use of nuclear weapons to avoid targeting the U.S. itself.

There appears to be no doubt that sufficient surplus exists in the Soviet fleet to at least threaten the SLOCs with 10 submarines for an indefinite period or upwards of 50 if a short conflict is assumed. There also appears to be a surplus in bombers but more pronounced in the Pacific. More bombers would be available if the anti-carrier problem had already been solved. No matter what the number of submarines is, if the West perceived a SLOC threat, NATO would probably form convoys and divert substantial naval assets from other missions.

NATO has long recognized this problem and feels that a Western maritime offensive in the Norwegian Sea is the best alternative. The West feels that with operations so close to the USSR, most of the Soviet Navy would be kept in home waters defending SSBNs thus making the SLOCs less vulnerable. 7/ The only serious question to this strategy is whether or not the Battle for the Norwegian Sea need involve U.S. aircraft carriers or whether or not the same effect can be had by using primarily submarines in Arctic waters.

The SLOC campaign and bastion defense are therefore intertwined which is a primary reason for considering it herein. Overall, it appears that with their surplus submarine and bomber assets, the USSR can force the West to take a SLOC defensive posture. This, in turn, means that reinforcements and resupply to Europe would be delayed and delivery not guaranteed. On the other hand, the West can probably minimize the SLOC threat by exerting pressure on the bastions.

Elimination of the bastion defense mission does not seriously impact the SLOC threat. For example, if all submarines were released in the Atlantic from other missions, the SLOC threat merely goes up from 49

to 73. This could mean a change from as few as 10 to 15 general-purpose submarines routinely on station in a long war.

Conversely, even if the SSBN defense mission remains and half of the surplus is assigned to additional defensive barriers, the Soviets have alternative options to maintain a high SLOC threat. There are as many as 16 submarines in transit to/from the Mediterranean that could commence operations in the Atlantic. The Baltic Fleet has an apparent surplus of some 14 submarines conveniently located near the European terminals.

Rather than using torpedos or cruise missiles as the primary weapon, mines can also cut the SLOCs and could be placed by submarines or Soviet merchant or fishing ships. The conclusion must be that sufficient and varied conventional capability exists in the Soviet fleet to make a SLOC campaign possible without the use of nuclear weapons on U.S terminals and despite the need to provide protection for SSBNs.

Fleet Transfers

In the Great Patriotic War, the Soviets transferred major surface warships from the Pacific to the Northern Fleet via the Arctic Northern Sea Route. 8/ Submarines

were also transferred but via the long way around the world including though the Panama Canal. 9/ There is no question that Pacific to Atlantic transfers could happen again in a future war if the Soviets could once again be assured of no major armed struggle in the Pacific or vice versa. Minor warships are capable of inter-fleet transfer via internal canals.

Two other inter-fleet transfers are more generally discussed. The first is the exit of naval forces out of the Baltic Sea prior to a war. By looking at the composition of the Baltic Fleet and allies in the Warsaw Pact as well as the geographical considerations of Sweden as a potential threat, and the need to secure Bornholm Island, this researcher concludes that the Baltic surface and air fleets will probably not exit.

The Baltic fleets appear to be maximized and exercised for amphibious operations and denial of entry by major NATO fleet units. Mine warfare appears logical by all sides. Perhaps a few submarines would successfully exit into the North Sea for local or special operations.

The other widely discussed fleet transfer would involve surface ships out of the Black Sea into the

Mediterranean. In order to allow additional units to transit the Turkish Straits, advance notification must be given to Turkey in accordance with the Montreaux Convention. The USSR routinely files contingency notifications which would allow them to reinforce the Mediterranean "Squadron" within a few days. 10/

Although such a scenario cannot be ruled out, it should not necessarily be anticipated. The Black Sea Fleet has few surplus assets above the number necessary to carry out obvious amphibious operations. Removal of anti-air platforms from the sea would degrade air defense against strikes originating in Greece or Turkey or from cruise missiles transiting the Black Sea.

If the Soviets were to strengthen their forces in the Mediterranean, they would have a logistics problem as well as a shortage in supporting air power. Mediterranean geography favors NATO making Soviet units extremely vulnerable over time.

The seeming surplus of submarines in the Black Sea may in part be explained by their use as training vessels. In any case, Montreaux Convention restrictions and the relative ease of mounting a campaign against

submarines transiting from the Black Sea through to the Western Mediterranean make even this possibility a local threat and unlikely to directly impact operations in the North Atlantic.

Forward Deployments

The role of German naval forces on forward deployment in both World Wars is similar to that facing the USSR in the future. Soviet naval units on forward deployment are not survivable in the long run. They can either run for home or internment at a neutral port or seek out the enemy and extract the highest possible price for their eventual destruction.

An advantage of their engaging Western forces is that it complicates NATO strategy by diverting attention to possible peripheral areas. From an analysis of Admiral Sergi Gorshkov's views of past wars, it is likely that forward deployed forces will fight no matter how hopeless their strategic predicament.

The Mediterranean "Squadron" is a well formed "fleet" in the Western sense of the word. It seems ideally suited to conduct anti-carrier warfare (ACW) against the 2-3 US/French carriers in that sea. A modest campaign could be conducted against ballistic

submarines or cruise missile carriers attempting to use the Eastern Mediterranean. The Eastern Mediterranean offers an excellent launch point for a NATO "warning shot" missile against Eastern Europe territory. The Soviets could detect the trajectory or flight path of the missile and see quickly that the intended point of impact was not the USSR.

The importance of the Mediterranean theater in a major war is frequently misunderstood. Despite public statements designed to reassure Southern flank allies (Greece and Turkey), the result of emphasizing a Mediterranean maritime campaign and risking loss of NATO carriers could well be placing the Atlantic SLOC strategy in jeopardy. This opinion has been voiced at the highest NATO circles. 11/ Thus, a fundamental NATO dilemma is that pre-war political assurances may be at odds with actual wartime necessity.

There has been running controversy over the years between those who believe that units of the Soviet Navy forward on forward deployment were sent on a political naval diplomacy mission and those who have felt that the primary reason was defense against carriers and SSBNs. The reason for the deployment is of only passing concern to this study. The gains that

the Soviet Navy has obtained in naval diplomacy have been recognized by numerous studies. The benefit of having these units in place would also be obvious if a war were to actually occur and Soviet strategy succeeded.

Should the number of surface units on forward deployment be increased, it might be as a result of total growth of the Soviet Navy or due to improvements in technology making bastion defense possible with fewer assets. The number of units on forward deployment is of interest to this study since such forces must be subtracted from the totals available for bastion defense.

On the other hand, since the Soviets know this also, any unexplained recall of non-vital forward deployed ships to home waters should be viewed by the West with alarm. Recognizing that the West would be able to observe such an action and might conclude it was strategic warning of a war, the West should not count on such action. Forward deployed assets are thus probably expendable.

Task Group Composition

A final manipulation will be mentioned briefly since in itself it could be the subject of a major

study. One of the obvious driving assumptions in this analysis was the composition of Soviet Navy task groups. If these task groups were configured differently, would the analysis be different?

Ships can be aggregated in a virtually unlimited number of ways. In a real war, the "typical" formations used herein would certainly be replaced by logical collections of forces actually on hand and useable.

It is the author's conclusion that no matter how the ships would be aggregated, (1) sufficient capability exists to defend bastion areas where SSBNs could be protected, and (2) sufficient submarine surplus capability exists to ensure a conventional SLOC campaign is permissible.

The only major alternatives to the existing Soviet strategy for employing their Navy are to allocate more surface and air units to assist the Army or to mount modest offensive amphibious operations against outlying areas in the North Atlantic or North Pacific. Even if this accounted for a shifting in forces, the submarine surplus should essentially remain.

It is beyond the scope of this research to manipulate general-purpose force task groups to vary

these threats and measure the capability to perform other missions. This would be an interesting but complicated task, since a net assessment of likely opposition forces would be required.

Notes

1. Commander Robert W. Herrick, USN (Ret.). Soviet Naval Strategy, (Annapolis, Md.: Naval Institute Press, 1968), pp. 76 and 133.
2. Charles M. Sternhell and Alan M. Thorndike, Anti-submarine Warfare in World War II, OER 51 (Arlington, Va.: Center for Naval Analyses, 1946), pp. 1, 6, 14, 83-84. All statistics on U-boat operations are from this study.
3. Paul H. Nitze, Leonard Sullivan, Jr., and The Atlantic Council Working Group on Securing the Seas. Securing The Seas: The Soviet Naval Challenge and Western Alliance Options (Boulder, Co.: Westview Press, 1979), pp. 111 and 114.
4. Ibid., pp. 351-352.
5. Christopher C. Wright, "Developing Maritime Force Structure Options for the U.S. Defense Program," (unpublished M.S. Thesis, Massachusetts Institute of Technology, May 1976), pp. 49-64, 164-165.
6. Alain C. Enthoven and K. Wayne Smith. How Much is Enough (New York, N.Y.: Harper Colophon Books, 1971) pp. 225-234.

7. North Atlantic Assembly. NATO Anti-Submarine Warfare: Strategy, Requirements and the Need for Co-operation, North Atlantic Assembly Papers, 1982, p. 25. SACLANT apparently listed his requirement for 4 aircraft carriers to perform this mission.
8. Admiral Arseni Golovko, With the Red Fleet (London: Putnam and Co., 1965, a translation of Vmeste S. Flotom first published by The Military Publishing House of the USSR, 1960), pp. 117, 131.
9. Golovko, pp. 148-149 and Rear Admiral I. Kolyshkin, Submarines in Arctic Waters (Moscow: Progress Publishers, 1966), pp. 183-186.
10. Jesse W. Lewis The Strategic Balance in the Mediterranean (Washington, D.C.: American Enterprise Institute for Public Policy Research, 1976), p. 72.
11. North Atlantic Assembly, pp. 26-27. The wording is very diplomatic . . . "Given present naval force levels, however, offensive operations in the Norwegian Sea would have to come about at the cost of maintaining adequate forces in the Southern Flank." The context is carriers and their use in the Norwegian Sea to ensure the SLOCs are maintained.

CHAPTER 15

FINDINGS

The evidence of the content analysis and that of the hardware analysis (including deployment patterns and exercise behavior) has been presented and the evidence to tests of using multiple methods and sensitivity analysis, this chapter will summarize the findings. Findings blend the evidence from both content and hardware analysis. They are concerned with a policy/capability match or mismatch and whether or not the probable employment of the Soviet Navy in a strategic nuclear war and nuclear deterrence of a U.S. attack on the USSR has been determined.

Rather than repeat the details contained in the findings presented in the analyses, this chapter will briefly summarize the evidence found therein. Each major issue will be itemized, the content analysis findings will be presented, followed by the hardware evidence and a comparison with the synthesis. In each discussion, a summation will be given on whether it was the content or hardware analysis that drove the researcher's findings.

In specifying whether it was primarily the content analysis or the hardware analysis that drove

the researcher's findings, the author will in a sense be conducting a final sensitivity analysis. For example, if a major finding is based upon one or the other but not both, the level of certainty of that particular finding might be reduced than if there is no mismatch. A mismatch might not reduce the uncertainty of findings, however, for example, if the researcher can demonstrate Soviet manipulation of the literature evidence.

By specifying the driving factors in reaching conclusions, the researcher is further subjecting himself to scrutiny by the informed reader. Too often the basis for reaching conclusions/findings is not specified by analysts making independent oversight and/or review difficult. The follow-on Chapter 16 will then take the authors of the probable employment of the Soviet Navy and present the researcher's view of conclusions, implications for the West, and policy recommendations.

Navy Strategic Nuclear Forces

The obvious starting place is to define what Navy forces are included in the triad of Soviet strategic nuclear forces. From both the content and hardware analysis, the finding is nuclear powered

ballistic missile submarines (SSBNs) and diesel powered submarines (SSBs) carrying submarine-launched ballistic missiles (SLBMs) are a part of the Soviet triad.

Older, even obsolete SSBNs and SSBs are not normally considered part of the strategic nuclear forces by most Western analysts and the media but this distinction is probably not valid from a Soviet prospective. In the first place, the Soviets use the term strategic in a completely different context than does the West.

Second, some SSBs and old SSBNs carry SLBMs that are capable of reaching North America. Thirdly, it ignores the strategic importance of theater strikes including strikes against U.S. territory (Alaska, etc.) or U.S. forces on forward deployment.

Although the Soviet Navy has the largest Navy cruise missile capability in the world and at one time did have submarine sea-launched cruise missiles (SLCMs) capable of shore bombardment, these forces were not part of the strategic nuclear triad at the end of 1983. New developments in SLCMs seem likely to change this in the near future. SLCMs could have contributed to the attainment of strategic goals and

even have been used in strategic missions during the study period (1965 - 1983) but during this time none were associated with direct strikes against the shore. We can anticipate shore bombardment SLCMs being added in the future to the Soviet strategic nuclear forces.

Navy strategic nuclear forces are capable and tasked with executing certain types of missions controlled and directed by the ruling political-military leadership of the USSR. Their use is not authorized by the individual services. Navy strategic nuclear forces are a part of a triad consisting of land-based missiles of the Strategic Rocket Forces (SRF) and Long Range Aviation (LRA) units of the Air Force.

Not all Soviet Navy strategic missions are performed by Navy strategic nuclear forces nor could these forces perform all strategic missions even if tasked. There are other Navy strategic missions that are normally associated with general purpose naval forces (such as defense of the borders and destruction of enemy nuclear forces at sea), that might include the involvement of tactical nuclear or conventional weapons. The strategic nuclear mission associated with the Navy is participation in nuclear strikes on

the enemy shore in order to crush/undermine his military-economic potential which is a strategic goal capable of influencing the outcome of a war.

Forward Based Systems

A clear distinction must be made in considering Soviet SSBNs due to their deployment area. Those units deployed near the U.S. shores carrying medium-range missiles are forward-based systems whose first strike function is certain from the available evidence.

In the content analysis, both from manifest themes and latent themes, the Soviets emphasize the initial period of war, especially the initial period of a nuclear war. Specific targeting objectives of these Soviet SLBMs include military bases, especially bases that can be considered a springboard for attacks against the USSR. The literature does not specify what constitutes such bases.

Prevention of strikes by an enemy against the territory of the USSR is a frequent theme in speeches and the literature. Frustration of enemy strikes (active damage limitation) is a major mission of the Armed Forces. From the evidence of the hardware analysis and certain statements in the literature,

success need not be total. Each segment in layered defense has a role in weakening the attack as best possible.

Another important theme in the literature is the need to ensure command and control of strategic nuclear forces. Implicit in this theme is the recognition that disruption of communication can have the same effect as destruction of the force itself.

The Soviet literature downplays certain innovative hardware contributions. In fact, the hardware analysis reveals that the USSR pioneered submarines with ballistic missiles (in 1955), years before Polaris. This surface launch may not have been technologically as advanced as Polaris but it demonstrates a Soviet willingness to experiment with innovative techniques.

Comparison of the content analysis evidence with the hardware reveals that actual force capability parallels declaratory policy. The Soviets have, in fact, deployed SSBNs off the U.S. shores since 1969. By considering the capability of the missiles and the lack of survivability of forward deployed submarines once a war begins, it is possible to assess the most likely military use for these systems: first strike damage limitation.

Soviet SSBNs in North American waters can successfully strike U.S. Air Force bomber and tanker bases, U.S. Navy SSBN ports, and the command, control, and communications (C3) infrastructure that controls the triad of U.S. strategic nuclear forces. Whether or not such an attack would succeed is beyond the scope of this research effort. At worst, one 400-kiloton warhead would explode over each bomber airfield. At best, three warheads of up to 1 megaton apiece would arrive at each airfield. Damage to all nonalert aircraft is virtually certain. Damage to alert aircraft which may have been already launched is extremely scenario dependent.

The forward-based Yankee class SSBN is not the only threat to the U.S. bomber force. Those alert aircraft surviving the initial submarine attack must successfully refuel, perhaps be subjected to ICBM barrage attacks along the flight path, and penetrate the world's most sophisticated air defenses. If the Yankee mission was to totally neutralize the U.S. bomber force, the number of deployed submarines would have to be higher.

By deploying missiles at sea along the U.S. shores, U.S. warning systems (with nonexistent active

missile defenses) are degraded and bombers/tankers forced into a launch on warning posture. Fortunately, airplanes may be launched on warning and recalled if in error. The close-in SLBM is a credible threat to C3 resulting in frequent academic and press consideration of launch on warning as an option for intercontinental ballistic missiles (ICBMs). The credibility of the SLBM pin-down threat to ICBMs is beyond the scope of an unclassified project but it is recognized that the same result can be achieved by C3 disruption.

The findings on the use of forward-based systems come from an analysis of statements and the literature in which generally, a distinction is not made between submarines on forward deployment and those found in Soviet home waters. The major driving factor in assessing the probable missions for the forward-based systems is therefore the hardware and deployment analysis for which there is parallel supporting evidence in the literature.

Long Range Systems in Soviet Waters

The other major type of Soviet SSBN operations are patrols and deployment in home waters adjacent to the USSR. In these home waters, the Soviet Navy

deploys both submarines with long-range missiles capable of reaching the U.S. as well as medium-and-short range SLBMs capable of theater strikes. Each type must be considered individually.

Targeting for Navy strategic missiles, according to the literature, would include political-administrative centers, military-industrial centers, military bases, and terminals for the sea lines of communication (SLOCs). Targeting is designed so that the strikes by strategic nuclear forces would result in the strategic goal of undermining the military-economic potential of an enemy which can affect the outcome of a war.

The targeting of SLOC terminals by ballistic missile is a result of both the increased capability of military hardware and the recognition that what happens at sea can have a direct influence on operations ashore even in a continental war. Admiral Sergei Gorshkov has described SLOC disruption as part of the overall effort to undermine the military-economic potential of an enemy which is a strategic goal.

The distinction between targets for long range SLBMs and those aboard forward-based systems is time urgency. The overwhelming advantage of forward-based systems is their ability to frustrate an immediate

U.S. attack on the USSR. No such time requirement exists for long range missile targets nor can long range SLBMs offer any striking potential which is superior to that already contained in the SRF.

Hence the underlying question of why the Soviets put long-range missiles on submarines instead of only on the land must be viewed in relationship to missile survivability. The literature reveals that the Soviets are not completely assured that their land-based systems are fully survivable. From the manifest evidence of the need to perform the strategic nuclear strike no matter what happens and the latent evidence of the need for a strategic reserve, we can conclude that the major advantage and reason for deployment of long-range missiles aboard submarines is to ensure there is a survivable nuclear reserve that can carry out the nuclear strike/or threatened strike no matter what else happens.

It is the researchers opinion that the literature evidence does not point to the Navy as the only strategic nuclear reserve. That would be contrary to the need for all services to participate in victory. The researcher rejects previous findings that the latent evidence in the literature supports a conclusion

that the Navy's major or only contribution would be to provide the strategic nuclear reserve for inter or post war negotiations or bargaining. A strategic reserve might be used for this purpose but to simply assign it to one service is not consistent with Soviet declaratory policies.

The researcher recognizes the large amount of previous analyses that demonstrate the use of latent historical surrogates that explain how navies have won wars, can influence the outcome of wars and can be used for political coercion. This researcher found additional evidence to support the view that Navy missiles are a hedge against a successful attack on the USSR in which their land systems were neutralized. By considering the hardware and deployment patterns evidence, a similar pattern emerges. By deploying submarines in home waters, survivability is maximized and closer control is maintained over weapons of mass destruction. Maintenance of command and control over strategic nuclear forces is a strong theme in the literature.

Very few SSBNs are actually at sea on routine patrol. Yet the potential exists to rapidly increase

the SSBN force in local waters which does present a threat to North America. Hence the fleet in port is the real fleet-in-being. The targeting possible by long-range SLBMs does not include time urgent targets nor hard-target counterforce, yet would include targets identified in the content analysis. Hence, it appears that Admiral Gorshkov, whose targeting statements were more explicit than those of his seniors, is the authorized spokesman for this matter.

An unresolved issue from the content analysis section was if cities were not targets, per se, then was non-combatant collateral damage unfortunate, something to avoid, or a bonus. The continued decrease in yields and increase accuracy in Soviet Navy SLBMs over the years supports a finding that civilian collateral damage avoidance must be a goal although one that has not yet been achieved. If cities were the target, yields would remain high and accuracy need not be increased.

Increasing accuracy alone can be explained as a goal in order to achieve hard target kill. Increasing accuracy and decreasing yield however, may be required in order to further increase missile accuracy by

carrying more internal mechanisms. Since it was shown that Soviet hard-target kill capability is not increasing with newer SLBMs, it must be concluded that decreasing yields and increasing accuracies may be an effort to minimize collateral damage.

If collateral damage avoidance is a goal of Soviet Navy strategic nuclear forces, this supports a finding that targeting cities and civilians is not military strategy. Navy nuclear weapons appear not to be consciously designed in support of the Western concept of an assured destruction of the Soviet society.

A related finding from the hardware analysis is that the Soviets pioneered the development of long range SLBMs. The SS-N-8 and SS-N-18 appeared years before comparable long range missiles in the U.S. Reference to action/reaction to the U.S. development of long range missiles alone is incorrect. If any action/reaction is justified, it would be a Soviet reaction to U.S. ASW capability necessitating survivability by changing deployment area.

From hardware sensitivity analysis of the minimum possible amount of deliverable warheads or

megatonnage, it was shown that the long-range SLBM threat is not overwhelming but is still respectable. It was also shown that the Soviet land forces survivability problem was also not overwhelming, i.e., the West cannot perform a disarming first strike on the USSR. Hence, the Soviet Navy would never have to act as the total strategic nuclear reserve.

The fact that the USSR routinely deploys such a minimal assured retaliatory strike by long-range SLBMs is probably indicative of their recognition that their land-based systems are actually not in serious jeopardy and that they can count on strategic warning from the West. Long-range SLBMs are currently maximized as second-strike weapons but are not capable of hard-target or prompt counterforce.

As was the case with forward-based systems, findings for long-range force utility is driven by the hardware and deployment analysis supplemented by strong supporting evidence from the literature. Attempting to reverse this and to let the content analysis drive the problem results in a number of possibilities, only one of which is militarily sound: the one outlined above. The findings include

a shift in emphasis from the opinion of numerous analysts that the Soviet Navy constitutes the nuclear reserve to a part of the nuclear reserve. This finding is based upon the content analysis herein and on supporting hardware evidence.

Theater Systems

Those submarines that deploy near the USSR but carry missiles incapable of reaching the continental U.S. have been the subject of much debate by Western analysts. The literature evidence is extremely thin since as was mentioned before, distinction between varying submarine systems is rarely made.

The literature evidence does contain reference to strikes against naval bases in the European Theater and against springboards for attacks against the USSR. Related themes are the need for all services to participate in operations resulting in victory and the need for reserves.

From the hardware, deployment, and sensitivity analysis, it was concluded that the most logical use of submarines carrying medium-range systems but surged or mobilized in nearby waters was to participate in theater attacks. This researcher found the incremental

increase in strike potential against the U.S. neither timely nor sufficient to warrant sailing these submarines through choke points in order to reach North American waters.

Hence, this research rejects the credibility of a mass deployment of submarines in mid-ocean waters for military purposes. However, exactly such a limited deployment has taken place and probably will in the future but for political and not sound military reasons.

The most logical use of theater submarines is against naval bases, ships in ports, at anchorages. One problem with this idea is that all these missions could be performed by land missiles. Perhaps the submarines are solely for a theater reserve. The evidence is inconclusive regarding these systems to make a definitive stand, although use and reload seems more likely than simply a reserve.

Miscellaneous Nuclear Issues

Ballistic Missiles Versus Fleets at Sea

The possibility that Soviet ballistic missiles will be used against naval forces at sea has not been cleared up by this research effort. The literature evidence is contradictory, elusive, and slim. Gorshkov

made one historical reference to the incorrect views of the Khrushchev era thinking land based missiles could be used against surface ships and submarines.

Marshal Grechko, on the other hand, made a subsequent direct statement that the SRF was tasked with attacking naval forces in the theater. Did he mean in European ports and anchorages or at sea? A few years later Gorshkov discussed Soviet SSBNs as a counter balance against Western systems. Is this counter-battery or deterrence?

The hardware evidence is equally thin, although better data is probably available within the intelligence community. In theory, land-based missile systems could be developed for use against naval forces, including submarines, at sea.

There is no doubt that ballistic missiles can already be used against known concentrations of fleet units at anchorages or in ports or against mass concentrations of ships in convoys. Targeting these forces could appear to be relatively easy since the Soviet Navy routinely shadows Western high-value units and could identify large convoys using a variety of intelligence platforms.

The issue remains unresolved, and the author suspects that there would be a built-in bias in the West against releasing a finding of an ICBM capability against ships even if it existed. Key indicators to look for would be surplus capability in land systems, deployment of medium range systems in an area where no land targets exist, deployment of space systems capable of more than simple radar contacts (such that identification is possible using other electronics sensors), and obviously testing of land based missiles against sea targets.

Limited Nuclear War/Tactical Nuclear War at Sea

From the evidence developed by the content analysis, a strong tendency was uncovered to refer to the initiation of the nuclear phase of a future armed struggle as inevitable but not automatic. The need for conventional operations as an alternative or as a complement to a spasmodic nuclear response in war is a constant and recurring theme. There appears to be strong support for avoiding a nuclear war but if one were to be fought then obviously the Soviets feel it should be terminated on terms favorable to the USSR. Nuclear superiority allows escalation domination. Parity prevents domination by an opponent.

The literature analyzed in this study suggests that if a war were to occur, Soviet strategy would be to routinely utilize nuclear strikes. In other words, if the political decision is made to initiate armed conflict, then we should expect Soviet use of nuclear weapons based upon the military advantages of doing so. If the U.S. were to somehow initiate nuclear warfare, the declaratory policy appears to be a massive response on the U.S. This is not to say they would not absorb a modest warning shot.

When release is authorized, Soviet nuclear weapons will be utilized to terminate the war quickly. The question remains, however, of an armed conflict in which the Soviets would make the first moves. From the author's reading of literature outside the scope of this study, he concludes that nuclear use ashore should be expected from the outset. If this is the case, there would be no reason to assume restraint on nuclear weapons at sea.

An issue that remains inconclusive is the potential for a tactical nuclear war only at sea. The obvious advantages of tactical use at sea are that collateral damage to non-combatants may be nil, and

residual damage to the environment is minimal. Furthermore, uncertainties against poor weapons performance can be compensated for if just one warhead is needed to destroy a target.

The Soviet Navy says it is prepared to go nuclear at sea but the evidence of the political-military leadership literature analyzed in this study includes rejection of limited nuclear war or war by pre-arranged rules. The researcher therefore cannot conclude that a nuclear war would be fought only at sea.

The major issue of a limited nuclear war (whose emphasis is a Eurasian land campaign) being limited to that theater and not involving U.S. soil is outside the scope of this study. A case can be made for the Soviets contemplating theater-only use as well as a case for NATO Europe theater use requiring a simultaneous attack on the U.S. The researcher's concern was simply to analyze the literature to ascertain if the war were nuclear ashore would it be nuclear at sea (yes) and could it be initiated at and limited to the sea (inconclusive).

From the evidence of hardware, we find a match in Soviet Navy capability to actually fight a nuclear

war at sea. The USSR does have tactical nuclear weapons at sea. Detailed evidence from exercise observations could tell us if Soviet delivery crews routinely practice the special procedures which would need to be followed if the weapon produced fallout or a base surge. Ships and aircraft would maneuver around temporarily contaminated areas.

A navy must deploy with all of its weapons already on board. The nuclear torpedo on the Whiskey aground in Swedish waters should have surprised no one. Yet capability does not equate to intent, unless forces have been developed which are nuclear only (not dual capable). Most Soviet weapons which could be nuclear are also capable of conventional warheads.

It is the political leadership, not Navy officers, that should be watched for future evidence in public statements. A tendency to continually practice nuclear delivery at the expense of conventional or the deployment of systems which are nuclear only would be an alarming situation. The Soviet Navy is obviously prepared for tactical nuclear war at sea and the West must prepare for it.

General Purpose Forces

Not all forces of the Soviet Navy associated with the term strategic are armed with nuclear missiles nor are all ballistic missile submarines. To the Soviets, the need to attain strategic goals, such as undermining the military-economic potential of the enemy and defending the state from attacks, are requirements for its armed forces in conditions of either conventional or nuclear war. Strategic goals and missions have nothing to do with the type of weapon involved. The participation of the Navy in nuclear strikes (a major strategic mission) directly involves the success of the general purpose forces missions in protecting the SSBN fleet.

Bastion Defense

From both the manifest and latent evidence uncovered by content analysis, there is no doubt that the Soviets say they are going to actively defend SSBNs from attack. According to their literature, many of the surface and air forces will perform defensive missions supporting SSBNs implying the need to withhold some for a reserve role.

Cross-checking with hardware reveals that the Soviet surface Navy is comprised of forces that make

open-ocean distant-water operations unlikely. The limiting factor is the lack of air power. Should Western air power be eliminated or neutralized, then the Soviet surface fleet would be capable of distant-water operations. Soviet use of Third World airfields probably is a plan to compensate for the lack of sea-based airpower.

Most major Soviet naval surface forces can be viewed as anti-carrier, ASW, or for amphibious support. They are routinely deployed in areas and exercised in such a manner that priority seems to be given to bastion defense of home waters specifically against aircraft carrier supported task forces and Western submarines attempting to sail in Soviet home waters and threaten Soviet SSBNs.

The evidence supports the finding that the Soviets could probably succeed in their defense of bastions. Their strategy appears to ensure survivability of sufficient numbers of SSBNs (to constitute a portion of a reserve), preclude attacks by Western carrier forces against the Soviet maritime flanks, and contribute to homeland defense against strategic bombers and cruise missiles.

If bastion defense were the sole mission for Soviet general purpose forces, there would not need to be the current surplus of submarines that exceed any logical possible defense requirement. There is a similar policy/force mismatch regarding the existing few deep-water amphibious, hospital, and logistics ships and the planned aircraft carriers capable of handling conventional airplanes. These units do not belong in a defensive Navy as that term is understood in the West. The Soviet concept of defense, however, includes offensive first strikes on enemy forces capable of striking the USSR or its SSBN assets.

A bastion defense strategy is strongly supported in the literature and hardware. Neither drives the analysis, which is why the West appears so certain that this will be the actual employment of general purpose forces in a major war. Bastion defense baits the West to fight on Soviet turf and terms.

Anti-Carrier Warfare

Implicit in the bastion defense literature and hardware evidence is the Soviet strategy for anti-carrier warfare (ACW). The literature describes such attacks as part of fleet-versus-fleet operations. The Soviets do not appear to view the Western carrier as a major threat against the Soviet homeland.

ACW is routinely practiced by the Soviet Navy and deployment patterns suggest that carriers would be amongst the first units to be targeted if armed conflict arose. Forward-deployed ACW forces are essentially throwaway assets.

The Western carrier is viewed in the West as a major force frustrating any Soviet Navy plan to exit home waters. Carriers may also be crucial to NATO success on the Atlantic SLOC and can be used in a campaign against Soviet SSBNs. Carriers also have the capability of attempting to launch conventional strikes against the Soviet maritime flanks, or conducting nuclear attacks on Soviet soil although the Soviets devote much less attention to these in the literature. Carrier survivability is crucial for the U.S. in support of post-war foreign policy.

The evidence in both the content analysis and the hardware analysis was overwhelming that ACW is something on which the West can count if war were to occur. All the evidence is strong, and neither methodology drives the analysis. The Soviet plan of attack will be overwhelming numbers of all available types of forces.

Strategic ASW

Content analysis supports the contention that the USSR will attempt an ASW campaign against enemy SSBNs in a future war. Prevention of attacks on the USSR is a mission for all Soviet Armed Services. The potential payoff in terms of warheads destroyed if the Soviets were to neutralize a U.S. Ohio class submarine are so high to make this mission likely to increase in the future.

Despite the priority in declaratory policy, there is a distinct mismatch in surface ship, submarine, or air, open ocean, distant water, ASW by the Soviet Navy. The Soviets do have methods to combat Western submarine systems but these methods do not parallel similar Western plans. Mirror-imaging strategic ASW to assure Western methods is just as dangerous as mirror-imaging overall strategy or doctrine.

There are two major problems in the Soviets conducting distant-water ASW in areas patrolled by U.S. submarines equipped with Poseidon or Trident missiles. The first is that Soviet surface and air ASW forces would not be survivable to U.S. naval or land-based forces given the lack of sea-based air

power. The second is that there are insufficient numbers of quiet ASW submarines both to protect Soviet SSBNs and successfully trail all Western SSBNs on routine patrol.

Nevertheless, there are other capabilities that may be employed. Conventional anti-satellite measures can be taken to decrease U.S. SLBM accuracy and frustrate communications. Surplus submarines in the Soviet Northern and Pacific Fleets could attempt to destroy even one or two Western SSBNs. The potential pay off is high enough to make this a worthwhile mission. Such actions might be conventional and not require nuclear release authority.

Should the war involve the U.S., ballistic missile strikes on bases can be expected to destroy or damage SSBNs in port, eliminating their later use or in the next inter-war period. A bonus would be destruction of missile re-load facilities. A C3 attack might succeed in severing the links between the U.S. national command authorities and the SSBNs themselves.

Should the West choose to use SSBNs to fire warning shots or otherwise participate in a limited

nuclear option, there is the risk that by revealing their presence they will be subject to effective Soviet ASW counteraction. Once SLBMs have been fired they are then subject to active anti-ballistic missile (including surface to air missiles) and passive civil defenses.

If the U.S. plans to withhold a significant portion of its SLBMs as a strategic nuclear reserve for inter-or post-war bargaining and war termination, it can no longer expect to dominate the talks from a position of unmatched strength. The strategic reserves of the USSR, including some of their SSBNs, allow the Soviets a similar card to play.

In short, the doctrine/capability mismatch found regarding strategic ASW as it is practiced by the West is compensated for by the potential to achieve similar results via different methods. Due to the emphasis on this mission in the literature, we should expect continued Soviet research and deployment in this area. The total Soviet system of defenses against Western SSBNs or missiles is currently not capable of undermining our second strike capability.

SLOCs

Finally, interruption of SLOCs receives much more attention in the Soviet literature than many Western politicians care to admit. There is no question from the manifest and extremely strong latent evidence that the SLOC mission exists no matter the conditions of war (nuclear conventional). What was unclear from the content analysis was if Gorshkov was arguing for the mission or announcing it.

As was mentioned earlier, the SLOCs can be cut at the terminal ends using ballistic missiles. During a nuclear war involving strikes ashore, this would appear to be the logical method. Such an attack is likely to destroy ships and the unique facilities used for loading and unloading.

The Soviet Navy has a distinct surplus of submarines which can be used to interdict the mid-ocean SLOCs. A surplus capability in bombers is less evident, however, if bombers did not need to be used against Western aircraft carrier task groups, they would be available for a SLOC campaign. This researcher concludes that Admiral Gorshkov announces this mission since the USSR has the capability to successfully interdict the SLOCs by other than ballistic missile strikes.

A SLOC campaign would obviously not be crucial in a short war or one in which ballistic missiles would be used on the U.S. If the political decision were made, however, to attempt to confine the land warfare to the Eurasian land mass, the Soviet Navy must still have the capability to sever the SLOCs by means other than ballistic missile strikes. The means exist in the form of submarines (primarily) armed with mines, cruise missiles, and torpedoes with conventional or nuclear warheads.

The evidence most supporting this mission is the content analysis. Capability cannot solely determine intent. Multi-purpose submarines and bombers can be used in a variety of ways. From the hardware alone, one cannot say for certain what wartime missions would be. The capability is there for a SLOC campaign, and this is what the Soviets say they are going to do. One should expect it.

Soviet Military Strategy for Deterrence

The researcher finds that deterrence of a major (especially nuclear) war with the U.S. is an objective of Soviet military doctrine. The military strategy associated with attaining that objective appears to be

to have the capability to use nuclear forces in a manner in which the potential aggressor cannot achieve his aims and the USSR maximizes its opportunities to conclude a war on favorable terms.

Soviet military strategy for deterrence is based upon preventing damage to the homeland and ensuring survival of essential assets. It recognizes both the possibility of a short war or a long war. Although a land war might be enhanced by quick nuclear use, the option of not going nuclear immediately appears to also be in the literature. This non-nuclear armed struggle could mean Afghanistan-type operations.

The Soviet Navy strategic nuclear forces appear to be designed for a purpose and that purpose does not seem to be "punishment" of an aggressor if deterrence were to fail. Forces are capable of sound military missions which can attempt to prevent Western war aims. There does not appear to be a distinction between deterrence and the capability to fight a war.

Under the concept of assured destruction (AD), a superpower should be able to absorb a surprise first strike and still respond with an unacceptable amount of damage to the other. Western advocates of AD argue

that holding Soviet cities as hostage is a sufficient enough threat of punishment to deter nuclear war. AD advocates generally then take the next step to claiming that a unilateral AD posture (significantly less capability) by the U.S. would convince the Soviets that their following our lead would result in a mutual assured destruction (MAD) state of the world in which strategic stability (neither side need fear nuclear attack) will be ensured.

In reviewing the findings presented in this chapter and the previous analysis, one cannot help but notice a number of Soviet inconsistencies with the AD concept. In other words, the Soviets have made statements and deployed forces that are not compatible with AD.

In the first place, content and hardware analysis supports a finding that military and related industrial targeting can be expected from Soviet Navy strategic nuclear forces. If the SSBNs withheld in bastions protected by general purpose forces as a part of the strategic nuclear reserve were to only constitute an assured second strike on cities, yields would not be lower in newer missiles nor would accuracies continue to be increased.

The Soviet literature does not support targeting cities nor did the researcher find any themes which support leaving Soviet cities open to a Western assured second strike. On the contrary, active defense of the homeland is an extremely strong theme in the literature. Active defense of withheld SSBNs is not incompatible with MAD nor strategic stability since it ensures a survivable second strike.

The hardware analysis reveals that successful active defense of most Soviet SSBNs in bastions can probably be achieved. However, other Soviet Navy forces have been designed to defend the Soviet homeland. The forward-deployed Yankee system is maximized to prompt counterforce against the U.S. which inhibits the U.S. assured second strike. This is incompatible with leaving one's cities hostage.

Since the U.S. maintains most of its strategic nuclear reserve capable of delivering an AD response on its SSBNs at sea, the continued efforts of the USSR to improve strategic ASW might actually be considered so contrary to the essence of MAD that strategic stability might be upset if the Soviets could succeed. Fortunately, this is not the case yet, although if we take the Soviets at their word, they are giving

high priority to strategic ASW. Strategic stability has not been upset due to the lack of a Soviet open ocean ASW capability and current U.S. deployment practices.

The pattern of Soviet words and deeds is not indicative of a nation which supports MAD. If anything, the finding must be that the minimal amount of forces necessary for an AD response on U.S. cities has been fielded by the USSR and then exceeded. Their active defense damage limitation program is not compatible with MAD.

CHAPTER 16

CONCLUSIONS AND IMPLICATIONS

This final chapter will present the author's conclusions based on the evidence developed by this research and the findings outlined in the previous chapter. Implications for the West will then follow, and an end note contains final thoughts about the methodology.

The distinction between this chapter and the previous is that findings are tied directly to the evidence of the research effort. Conclusions and implications draw upon those findings and present opinions of the researcher based upon his knowledge of issues broader than what has been addressed directly herein.

Soviet Political-Military Doctrine

1. The Soviet Union deters nuclear war with the U.S. by having the capability to fight one.

This conclusion appears valid over the long term (it is valid for two years plus). There is no Soviet declaratory policy to initiate a major war but rather to deter war as that term is understood in the West. Military forces appear to be designed to

support deterrence although through different methods than generally accepted by many "strategists" in the West.

Should a nuclear war come about, there is a strong doctrinal tendency to conclude the war on terms favorable to the USSR. If anyone is to blame for initiating the phrase "winning" a nuclear war, it is the Soviets themselves. Their literature bounds with rejection of any notion that such weapons are "absolute" or not useable to obtain the political goal of ending war in their favor. A nuclear war may or may not be "winnable," but it was the Soviets who openly used such themes for years, until they finally realized how it was being viewed in the West. Since then, they have taken the stand that a nuclear war is not "winnable" but that they will conclude the war on terms favorable to themselves.

The oft used Bolt from the Blue surprise attack by the USSR on United States strategic forces without strategic warning is one which must continue to be used by analysts. It represents the worst case (for us) if the Soviets provide no strategic warning. Hence, it is a baseline against which further analyses can be measured.

First strikes must be separated into whether or not they are nuclear Bolts out of the Blue or conventional surprise attacks. The Soviet literature abounds with the recognition of the tactical advantages of striking first. One should realize, however, that most of the Soviet literature evidence of the advantage of striking first involves tactical surprise.

If the Soviets have confused the West by their continued references to surprise being interpreted as their intent to initiate a nuclear war without warning, again they have no one to blame but themselves. One can interpret the literature evidence this way.

The discussions on conventional war fighting in the literature reviewed in this study and in actual force development supports the conclusion that a future war at sea may start with or without the use of nuclear weapons. If the war were immediately to go nuclear, the Soviets appear to be in a position to do so with their strategic nuclear systems targeted on the U.S. Yankee submarines are routinely deployed in areas where their first nuclear strike potential is maximized.

The Soviets are not adverse in using nuclear weapons for peacetime coercion as witnessed by their deployment of nuclear powered ballistic missile submarines (SSBNs) as a "counter" against U.S./NATO theater systems early in 1984. This deployment served no significant military purpose and was clearly a case of using nuclear weapons to coerce the West. Having the existing forces in their Navy allowed the USSR to make a political statement that was otherwise virtually impossible to do.

1. Should a nuclear war come about, the objective will be to terminate it quickly.

Implicit in this conclusion is the realization that nuclear weapons must have a political utility. This utility may only be quick war termination on favorable terms, but nevertheless it is there. Soviet Navy strategic nuclear forces appear to have been designed with the possibility that a nuclear war might actually be fought. They have distinct military utility and serve the political purposes of quickly ending war favorably and minimizing damage to the homeland.

Of extreme interest is that there is little doctrinal/force mismatch. They have the types of forces necessary to carry out the missions that

they advertise. This would indicate a high probability that the decisions were reached some time ago and objectives were slowly achieved. This is also indicative of strong resolve. The similarity between current declaratory policy and capability with Marshal Sokolovskiy's Military Strategy declaratory policy of the early 1960's is especially interesting. This is in sharp contrast to the U.S., which has a marked mismatch in strategy (countervailing) and deliverable forces (probably no better than assured destruction). U.S. doctrine and strategy have not remained static but rather have been evolving over the years.

The Soviet Navy appears ready to contribute to the deterrence of war in peacetime as well as nuclear deterrence during the initial phases of a conventional war. Should deterrence fail, the Soviet Navy can perform militarily significant functions. The USSR obviously takes nuclear war quite seriously and does not subscribe to the Western tendency to consider politics and nuclear force as mutually exclusive. This conclusion also appears to be valid over the long term.

3. The Soviet Union has not accepted Mutual Assured Destruction (MAD).

Overwhelming evidence exists to demonstrate the Soviet view that defense of the homeland and damage limitation/avoidance are not only good ideas but an integral part of deterrence. Rejection of MAD does not imply a rejection of deterrence, only the method of achieving it.

Rather than base all of their hopes for deterrence upon offensive weapons that threaten an assured second strike, the Soviet Union includes weapons usable specifically in a first strike. They further appear to accept defense against first, second, and additional nuclear strikes from her enemies as an integral part of deterrence. Efforts to counter Western SSBNs, which might be held in reserve or aircraft carriers, which could only strike the USSR in a long war indicate a preparation for a long war although preference is for a quick resolution.

The Soviet concept of deterrence of war is not based upon the threat to punish an aggressor but rather the ability to deny its attempt to achieve its aims, to use weapons including nuclear weapons to achieve its own aims, and if all else fails, then to

punish. These concepts are traditional methods of warfighting.

Leaving the homeland or its military forces open to attack by an enemy is simply not in observed Soviet behavior or in their literature. Active defense of the homeland is seconded by hardware capability and deployment patterns. This does not preclude the USSR from being converted to MAD, but one must remember that their "education" to MAD began before SALT I. If the Soviets are swinging around to MAD, it is not obvious.

If minimal numbers of offensive nuclear forces are implicit in MAD, then obviously the USSR has built up through this level and beyond. Their submarine force alone can field what many Americans would feel is the necessary amount of deliverable damage to constitute an assured destruction to the U.S.

Building beyond the assured destruction level allows the ruling circles in Moscow greater flexibility and increased options. Those SSBNs used for coercion in early 1984 in "response" to new U.S./NATO systems in Europe were a mere drop in the bucket of total capability. They could afford to be risked to make a political statement.

4. The USSR has given priority to its America problem.

In order to build the forces now on hand in the Soviet Navy and in the other military services, the Communist Party of the Soviet Union (CPSU) must have decided its American problem was great enough to warrant a major commitment of resources over a long period of time. The Soviet Navy is not maximized for distant water operations against the Third World. It is maximized against the U.S. (and NATO) which represent the principal threat to the CPSU and any further plans it might have.

This is not to say that the fleet is not usable against or in the waters of the Third World or that it has not already been successfully used there. Rather, the author accepts the conclusions in numerous previous studies which show how the USSR has used their fleet for coercive or influencing naval diplomacy.

One limiting factor in such Third World use, however, has been the preoccupation with the U.S. As the Soviet Navy has had its direction focused on the main enemy, it has not been afforded the opportunities nor resources possible if not so constrained. One can only speculate on the possible composition of the

Soviet Navy if it were maximized for distant water offensive operations in the Third World.

As long as resources made available for the Soviet Navy remain relatively constant, the Soviets are vulnerable to manipulation which would limit the utility of their fleet for other Third World missions. A strong U.S. Navy which can threaten the Soviet SSBN fleet will probably continue to result in Soviet concentration on defended bastions. The more the Soviets devote to this mission, the less is available for distant-water adventurism. If Soviet submarine technology were developed to a point that their preoccupation with the bastion defense would change, their surface fleet would be a surplus asset whose loss would be more able to be risked in time of peace.

5. The CPSU's America problem can be solved.

The lack of an overwhelming nuclear strike capability on routine deployment strongly suggests that despite the unpredictability of American politics, the West is not expected to launch a surprise attack on the USSR. As a hedge, however, the nuclear strike potential of the Soviet Navy can be very quickly supplemented by additional submarines in defended home waters.

Thus the worst case for the Soviets (a first strike against them) has been managed with a backup. Their confidence in the West not striking first is typified by continued deployment of only a few relatively vulnerable Yankee submarines off the U.S. shoreline. The low number of these systems with a high payoff for preemption makes them, in theory, especially inviting to a surprise attack by the U.S. Such an attack can be done using only conventional weapons.

If the Soviets were so confident as to deploy Yankees in the early 1970's in such a manner when they had strategic inferiority, one can only wonder what their behavior will be in an era of parity or superiority. We know it will at least include the use of SSBNs for political coercion even at the price of placing them at higher risk and exposing them to greater intelligence collection efforts.

6. The CPSU will solve its America problems in ways unique to the Soviet Union.

The Soviet approach to managing the U.S. is not at all similar to the American approach of managing its Soviet problem. The Soviet interrelationship between military force and politics has been widely

commented on by others. The Soviet style of deterrence appears to reject the non-zero sum game in which both can win by reducing and instead appears to be developed using a zero sum game concept in which the Soviets will try to win regardless of impact on the U.S.

The author finds a pattern of three "responses" to perceived "threats from imperialism." The first response is military programs. Programs are always cast in the light of action/reaction but we have seen it was the Soviets who initiated both new submarine and missile programs. The Soviets appear willing to invest inordinate amounts of time and assets to research to a multiplicity of military solutions despite the potential of only limited gains.

For example, the strategic ASW threat by the Soviet Navy attack submarines is not overwhelming. If trailing U.S. SSBNs by Soviet submarines were a major goal, the Soviets would have needed to build more quiet submarines. Instead we have seen the USSR attempt to find alternative solutions, none of which have apparently yet provided them with a simultaneous disarming threat to our SSBNs on patrol, but all in combination cannot be ignored.

Similarly, rather than having an overwhelming capability and massive deployments that can crush an opponent, Soviet Navy forward based systems appear to be less than awesome. The routine Yankee threat is sufficient to do a modest attack on command, control, and communications (C3) facilities and attempt destruction of all U.S. bombers, tankers, and SSBNs in port. A crushing time-urgent capability to include ICBM pin-down additionally could have been deployed in North American waters but at the expense of more rubles and decreased control. The author's reading of Western analyses of the Soviet Ground and Strategic Rocket Forces has lead him to believe that those services deploy overwhelming and considerable surplus capability. This pattern is not repeated in the Soviet Navy except in general purpose submarines.

The second major solution to "threats from imperialism" is talk. Soviet literature is filled with numerous examples of Western military threats and how easily they can be countered. Many references by authoritative Western spokesman which stress the ease of destruction of naval ships at sea sound like they could have been taken from Soviet literature. Perhaps the West can simply be talked out of building a

weapons system. Is this not what happened to the initial deployment of the enhanced radiation or "neutron" bomb?

A good follow-on study would be of the relationship between cancelled or postponed Western military programs and Soviet propaganda/manipulation of arms control. For example, the Soviets have been placed in a position to postpone the U.S. MX program merely by engaging in arms control negotiations (mid 1984).

The third solution to a "threat from imperialism" is arms control itself. The Soviet Union cannot simultaneously destroy all U.S. SSBNs in part because they operate extremely quietly in unknown areas of the vast deep ocean expanses. The USSR keeps only a few SSBNs in relatively known areas and achieves survivability (of some) by defense. The Soviets are attempting to regulate SSBN deployments to known areas, and to regulate strategic antisubmarine warfare (ASW). Such limitations would decrease U.S. force survivability or would force the U.S. to defend its submarines. If we defend, we limit our ability to attack in wartime and to use our general purpose fleet for naval diplomacy in peacetime.

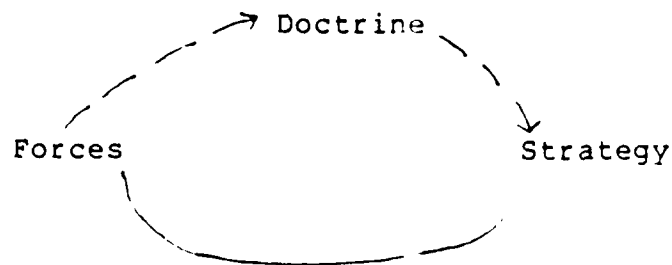
The Soviets have been successful in limiting the U.S. through arms control in the past. We agreed in SALT I not to build more than 44 SSBNs with President Nixon's private assurance not to exceed 41. The Soviets were allowed superiority in numbers of submarines (41½ more submarines) and missile launchers (34½ more launchers). Yet the USSR knew its SS-N-8 long range missiles would invalidate this "need" since they could now target the U.S. from Arctic waters. Furthermore, the Soviets totally excluded theater submarine systems from regulation.

Soviet naval arms control is a tool to limit the U.S. building of weapons in areas where the Soviets cannot compete and feel threatened. It is not surprising that their latest proposals would limit U.S. aircraft carriers, ASW forces, naval bases in foreign territories, and forward deployment. These are all areas where the U.S. is strong and a condition of parity or equality would only result in a reduction in capability and flexibility for the U.S. Based upon past success, we should expect the Soviets to continue to attempt to use arms control as a vehicle to participate in U.S. military decision-making over the long term.

Soviet Military Strategy

Conclusions regarding the strategic employment of the Soviet Navy properly fall under military strategy. The lack of the term "naval" or "navy" is intentional. There is only one strategy for the employment of nuclear and non-nuclear weapons and the conduct of operations in a major war -- military strategy.

7. Military doctrine is the basis for military strategy which in turn is a determinant of forces actually procured. However, the capabilities of those forces in turn influence doctrine and strategy.



Despite the logical progression of doctrine to strategy to forces, we have to conclude that strategy is only one of many determinants of force procurement. The inertia caused by existing weapons is a significant factor. This researcher is convinced that we simply do not know enough about the internal dynamics of previous decisions to know why certain weapons were built. For this reason, he has avoided speculating about past decisions.

The nation is limited in actual strategy by the forces it has on hand. For the USSR, there appears to be a good match between declaratory strategy and force capability. In the U.S., the mismatch is dramatic.

Similarly, the actual weapons on hand have an influence on doctrine. Having invested in an active defense force in order to support deterrence, it would appear highly unlikely that having now been paid for and the military having been trained, that Soviet deterrence doctrine would be abandoned. The U.S. dismantling of its one ABM site a month after it was completed demonstrates the difference in American attitudes.

Not only are the weapons themselves an investment that would be difficult to abandon, but the bureaucracy and resultant military manpower create a built in bias in favor of continuation of programs. Furthermore, the CPSU will probably never forget that the mere failure of the Czarist military to support the Kerensky regime was a significant enough non-action to allow the Communist October Revolution to succeed. We should not expect any long term changes

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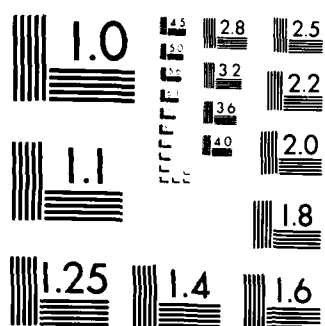
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MICROCOPY RESOLUTION TEST CHART
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in the attitudes of the CPSU towards major support for its military and to continue to provide them all that they "need."

8. The Soviet Navy can perform a variety of significant missions during a nuclear or conventional war with the U.S.

The dramatic shift over the years of the Soviet Navy from a mere coastal defense force to one of the world's two major navies is best exemplified by the capability of its hardware. The USSR can now call on its fleet to perform numerous missions which exceed any Russian fleet in the past. This is not to say that the Soviet Navy can sail at will into harms way; it cannot, but it can perform missions which the West cannot ignore and must take measures to prevent.

The Soviet Navy is not restricted to an all nuclear capability. The use of nuclear weapons is an eventuality which has been accounted for, but some major NATO related missions can be executed without their use. The notable exception has been attacks on the continental U.S., which, up until present, required the use of nuclear weapons.

The drive for a balanced Navy capable of escalating through varying levels of conflict up to nuclear war has occurred over the past 25 or so years.

The USSR does not have to go nuclear right away, but its Navy allows them some distinct advantages if nuclear war was to occur. The essential point is that the Party now has options. Strategic missions will have to be performed whether or not nuclear release has been granted.

The massive investment in conventional war fighting forces must be indicative of the resistance of the military to place all its hopes on nuclear and short wars. The sole nuclear option must have appeared as incredible to them as it did us. Yet if the decision is made to immediately go nuclear, the Navy can participate.

There are certain missions that will undoubtedly exist in the long-term future. Anticarrier warfare (ACW) is one of those in which doctrine and present capability match. The U.S. must and does take the ACW threat seriously since it is credible. Emphasis on ACW implies the possibility that the war will be long, can be used to redress the current disparity between the U.S. and Soviet fleets, and if operations are successful, may make the post-war era more palatable.

Strategic ASW is another mission that we can expect to receive emphasis over the long term. In terms of payoff, the destruction of a single Ohio class SSBN, would have a greater reward than the destruction of a single Polaris submarine, a bomber base, or missile silo. Fortunately survival of the Ohio class has been maximized. The current Soviet doctrinal/force mismatch should be a signal alarm to look for non-traditional methods. The Soviets might be more successful in operations against NATO or Chinese SSBNs due to their more limited missile ranges making missile firing positions closer to Soviet defense perimeters.

9. Only the Soviet Navy can perform certain strategic missions in the event of a war with the U.S.

One of the frequent conclusions in studies about Soviet Naval diplomacy has been that Admiral Gorshkov has been stressing the unique abilities of a fleet. There is no question that navies can perform certain non-fighting tasks easier than other military forces.

This conclusion is also valid for Soviet strategic missions in war, including a non-nuclear

war. With a Navy, certain strategies are possible or at least made easier. The most dramatic strategic nuclear mission is damage limitation by the use of forward based systems.

Deployment of Yankee submarines in North American waters allows the USSR to threaten the U.S. with a debilitating nuclear attack on its C3 systems much more quickly than could be delivered by ICBMs. Success in such an attack would affect all U.S. strategic forces. Yankee deployments also allow direct attack on time urgent military forces which could otherwise quickly strike the USSR.

Damage limiting counterforce attacks on bombers/tankers and SSBNs might not totally destroy all U.S. forces on generated alert. The Yankee systems do allow the SRF rockets to arrive with conditions made more favorable. The Navy's role appears to be to contribute as much as they can in the layered defense system and to attempt a "cheap shot" disruption of the U.S. C3 structure.

It is the author's conclusion that the contribution of the Navy is so significant that the CPSU allows nuclear weapons to be deployed in a situation where routine tight Party control is less

assured. Perhaps large KGB contingents are aboard forward-deployed Yankees.

There seems to be little doubt that the present Yankee threat will be replaced in the long term. A Typhoon through-ice replacement is a possibility but seems not as likely as continued use of deployment areas off the U.S. coastline.

The quick fix will probably be a sea launched cruise missile (SLCM), possibly deployed aboard converted Yankees. Not only might the military threat be virtually the same as from the SS-N-6 SLBM but the Soviets would be making a major political statement to the U.S. and NATO. Since the USSR is denied the use of Cuba as a platform for "theater" systems, the Soviets will justify new SLCMs as the analagous threat of "new" U.S. missiles in Europe, and then blame the U.S. for another round in the arms race. The Soviets naturally ignore the upset in the balance they caused by their SS-20 deployments.

The long-term solution will be a replacement for the Yankee hull perhaps using a derivation of the Delta or Typhoon. The Soviets would probably risk larger SSBNs for forward deployment since it is

unlikely that the U.S. will preempt with a surprise first strike on these "magnets." The problem of minimum missile ranges for North American patrols will drive the Soviets to develop a new medium range system. We must be alert for testing depressed trajectory and MIRVs on any new missiles which would result in greater capability to disrupt a U.S. second strike.

There will probably be no Soviet desire in an arms control agreement to actually reduce forward-deployed units within range of the continental U.S. to zero. If, on the other hand, the Soviets were to actually restrict submarine deployments to well outside the range of their SS-N-6 missile systems, this would be indicative of a shift in doctrine towards MAD. Official Washington can only decide if the U.S. can accept a similar restriction based upon the intended use of U.S. and NATO SSBNs and cruise missile equipped submarines.

Another unique contribution of the fleet is its future ability to deliver strategic attacks on the U.S. shores in conventional war. New SLCMs with conventional warheads would be capable of sending a major political message to the American public and

President that America will not be spared damage, even if modest. Current conventional systems (torpedos and mines) suffer the problem of naval warfare's lack of visibility. More militarily significant damage might be achieved by mining and torpedoing, but a few even conventional missiles exploding in New York or Los Angeles would certainly get everyone's attention.

A conventional campaign against the SLOCs is best performed by the Soviet Navy although it may not necessarily only limited to that service. Air Force (LRA) assets can be used in a SLOC campaign but may very well be otherwise involved with land operations. Thus, it will probably be the Navy which will have to perform this strategic mission.

We should be on guard for Soviet Navy willingness to commit large numbers of assets to a SLOC campaign. We know from reviewing the Soviet literature that surprise, innovation (when successful), maximum use of available assets, and heroic self-sacrifice are all traits stressed by the military. We should anticipate the unexpected from surplus Soviet submarine units. The SLOC mission remains high in priority and is a valid fleet requirement even in an all-conventional war or one in which attacks on the U.S. have not taken place.

Perhaps major portions of submarine fleet will be employed en-masse in order to preclude the U.S./NATO long war option. If survivability of those forces is not a consideration, the SLOC threat would be considerably higher to the U.S./NATO. Perhaps the loss of a hundred submarines is worth precluding the long war. The Soviets could succeed in destruction of the few irreplaceable NATO strategic lift hulls and present the West with a short war fait d' accompli.

10. The Soviet Navy is not a defensive Navy.

There is no question that bastions and reserves of certain SSBNs are defensive missions. There is also no question that forward deployed Yankees employed for damage limitation are offensive systems, although the Soviet official perception is that first strikes for damage limitation are a form of defense.

The surplus of Soviet general purpose submarines certainly exceeds that necessary by any logical standard for pure bastion or homeland defense. A conventional aircraft carrier is not needed for defense nor are large deep-water amphibious ships, open ocean underway replenishment ships, and hospital ships.

Sufficient surplus does not yet exist to conclude the USSR can carry out a distant water maritime operation against a major Third World power. The landing of Soviet troops can be performed in a benign environment using merchant ships. Soviet growth has been incremental but steady.

To conclude that the Soviet Navy is defensive-only is to ignore the body of evidence contained in the Soviet literature. In the literature, all operations stress the offensive. A defensive strategy such as bastions can and probably would involve offensive tactics. The employment of forward-deployed forces is likely to be also based upon the tactical offensive and represents a strategy of striking exposed enemy positions in an attempt to trade a few non-vital naval assets for destruction of crucial Western bombers, SSBNs and aircraft carriers.

The bastion defense strategy allows the CPSU to maintain closer control over Navy nuclear missiles and costs to be reduced. Bastion defense also will result in more military resources being devoted to the U.S. Navy if the U.S. government approves a policy to conduct a strategic ASW campaign. We can anticipate the SS-N-18 MIRVing to continue and SSBN building to replace older more vulnerable hulls.

Technology has allowed the Soviets to occupy more effectively the ocean spaces that comprise their bastions. However, there is a limit to the ability of any nation to occupy ocean space. Presently the Soviets are incapable of keeping out Western platforms in time of peace (unless they succeed through arms control), and they probably could not keep out all Western submarines in time of war.

Implications for the West

Implications contained herein are based upon the researcher's conclusions and his broader knowledge of U.S. and Western defense issues. They represent his policy recommendations for the U.S. defense doctrines and strategy.

1. The West must develop strategies based upon the lack of Soviet adherence to MAD.

The U.S. has been attempting to "educate" the CPSU for more than ten years to the advantages of leaving one's nation open to a nuclear attack. Having failed in this endeavor, government must provide for the defense of its citizens based upon what is, and not what could or should be. If we cannot change Russian political cultural attitudes, we can change their cost-benefit calculations, enhance deterrence, and keep the nuclear threshold high.

The West needs forces that will deter war and that will be usable if deterrence fails. Soviet Navy strategic nuclear forces are not designed for senseless punishment of an aggressor but have been clearly designed as a part of an overall system that will try to prevent the U.S. from using its forces successfully. Soviet forces are also more usable for peacetime coercion because the West would know that its threat to use nuclear weapons lacked the same credibility.

Taking a page from the Soviet book on building defensive forces would direct resources to defensive systems that kill weapons and not people. It would also result in a force which the President would find useful if Soviet Navy strategic weapons were to actually fly. Building a leak-proof defensive system is not necessary. If even 50% of Yankee SLBMs could be destroyed, the Soviets would be faced with a much higher degree of uncertainty in their ability to carry out missions they obviously think are important.

The object is to deter war and especially nuclear war. Most navies believe that the best deterrent against the use of force against their ships

at sea is a combination of passive measures and active defense. The weapons carrier is the initial target, preferably as far away from one's own shores as possible. Incoming ordnance is dealt with as required. If all else fails, damage control has saved many a ship. Layered defenses are the norm in naval warfare. Are the concepts of war at sea so different as to invalidate utility for defense of our nation?

Naturally a shift in doctrine to include active and passive defense of the nation would require a fundamental shift in U.S. arms and arms control policies. The deployment of long-range Soviet Navy SLBMs alone constitutes a fundamental strategic imbalance that justifies the U.S. ceasing to adhere to the expired SALT I Interim Agreement. There is simply no reason to continue to grant the USSR superiority in submarine systems (hulls and launchers) and total freedom in theater range systems.

Similarly, the specific conditions for withdrawal from the ABM Treaty have already been met, yet the Treaty remains in force. ABM systems located near Soviet SSBN patrol areas (especially in the Aleutian Islands) would be a significant problem for the USSR. If we cannot destroy the SSBN before it

launches most of its missiles, the destruction of those missiles should be the object. An at-sea ABM capability might be usable against SLBMs in other patrol areas, land-based systems, and missiles directed at Western ships.

2. We should attempt to push Soviet strategic nuclear forces to sea.

Implicit in the current START negotiation has been a U.S. attempt to reduce the number of land-based Soviet ICBMs and a willingness to accept more capability at sea. This push is not without risks. The sudden interest in naval systems might cause spill-over arms control regulation in areas not in the best interests of the U.S. It would also undoubtedly involve internal resistance within the Soviet military service with the most to lose--the SRF. Emphasis on submarine systems might result in opening up ASW to more Soviet scrutiny and making more resources available.

Whether or not the CPSU would allow the U.S. to enter Soviet political-military decision-making structure (as the USSR has in the U.S.), is unanswerable. The potential benefits include: forced expenditure of resources and dismantling of usable systems, immediate

reduction in the hard target counterforce threat to U.S. ICBMs, a somewhat simpler verification problem for the intelligence community, and increased vulnerability of the strategic Soviet arsenal to U.S. conventional warfare action. Any actions taken that reinforce the Soviet bastion defense problem will probably serve to limit the numbers of Soviet Navy assets available for naval diplomacy and direct additional resources for defensive-only systems.

Bastion defense by the Soviets is a strategy that the U.S. should therefore encourage. At best, it will keep Soviet Navy resources directed to systems deployed in home waters and open up new avenues of U.S. attack in the event of war. Allowing a conventional campaign against strategic forces is adding a major rung in the escalation ladder (as perceived in the West) and, therefore, raises the nuclear threshold and does not necessarily upset strategic stability.

Bastion defense will probably result in a continuation of a Soviet assured second strike capability. It is doubtful that the West could ever procure sufficient forces to mount such a successful strategic ASW campaign against Soviet SSBNs that their wholesale destruction would be an issue.

3. Extended deterrence extends to naval forces.

In sizing U.S. strategic nuclear forces, one of the criteria has been that deterrence must be extended over our allies, notably Europe. An attack on NATO is deterred partially by the threat to respond with U.S. strategic forces. Has the West accounted for the need to extend deterrence to its naval forces?

There is little preventing the tactical use of nuclear weapons against major naval forces, such as aircraft carriers in international waters. To deter the tactical use of nuclear weapons against our vital major naval forces, concealment, passive defense, and active defense are all used. The ultimate deterrent against tactical nuclear war at sea is the U.S. strategic forces that threaten escalation and retaliation.

A set of limited responses must be thought through and communicated so that a credible threat is made to destroy something the Soviets value as much as we do our aircraft carriers, SSBNs, or other major naval forces. Attacks on forward-deployed Yankees or major Soviet surface ships on forward deployment seem to be the best targets for tit-for-tat response. Such

attacks need not be nuclear if escalation control were the goal. On the other hand, a limited nuclear strike on Soviet territory should not be ruled out to signal the importance we give to deterrence of tactical nuclear war at sea.

4. Uncertainty can be dealt with.

Analysts must calculate the most optimistic case and the worst case in order to set the parameters for scenarios and analysis. Statistical probabilities and the intuitive knowledge of the area specialist can be applied to derive a set of most likely cases. If fundings were not constrained, the proper response to a perceived threat would be to tailor one's response to the worst case. As was mentioned in the analysis, the U.S. has historically adopted worst-case threat assumptions to its strategic nuclear forces.

In the real world of fiscal and similar restraints on other resources and capabilities, elected and appointed political decision-makers (who rank senior to the analyst) will prioritize military and other needs. To do this job properly, they do need the best possible information. Decisions must be made despite the quality of the information fed to the

decision maker. If the analyst can present the most accurate version possible, he will minimize the risks of adverse consequences should the decision-maker accept a version of a more optimistic threat than the worst case. The role of the analyst is to have the strongest possible support for his studies in order to reduce the uncertainty about the evidence and support his view of the likely cases.

5. The U.S. Navy cannot disrupt the Soviet strategy for employing their Navy in a nuclear war but corrections are moving us in the right direction.

The U.S. can do little to prevent a signaled Soviet nuclear first strike or one out of the blue. We must always be alert when "exercises" are held by the Soviets since in reality this generates their forces to a higher level of readiness.

The U.S. Navy has been allowed to erode from a position of clear superiority over any other Navy at the end of World War II, to a level that now allies are needed, operations must be planned sequentially, and only selected areas of the oceans will be contested. The Soviet Navy can deny our strategy by their SLOC capability, making long war reinforcements and resupplies difficult at best.

Can the West upset the Soviets their conventional or nuclear war strategy? No one can answer that for sure, but this author thinks not. Can the West prevent Yankee SSBNs from firing first? No, we can only threaten to punish if this happens. At best, with high cost, we can fight in the bastions if a war lasts that long and perhaps reduce the numbers of SSBNs.

The need to defend the nation from Soviet Navy weapons and not simply threaten reprisals needs to be further understood by the American public, who ultimately pass judgment on defense and foreign policies. Deterrence need not be upset by defense and proliferation of offensive systems. If the number of aim points is increased, this can be a stabilizing factor. Hence, more might actually be good for strategic stability.

To meet the Yankee threat, we need to improve C3 redundancy and survivability. We also must be prepared to deploy bombers to outlying airfields for lengthy periods and to launch them on warning. Has the U.S. thought through defense against new Soviet SLCMs? We must also attempt to use arms control to minimize the increased threat when Yankee is replaced by a new SSBN.

The West must think through the conventional campaign against Yankee and in the bastions which might occur prior to a nuclear war. Will the Soviets view the loss of SSBNs as a continuation of the conventional war or will they regard it as initiation of nuclear warfare? This researcher did not uncover any themes that he felt would help answer this question, hence the decision may have to be made on very incomplete supporting analysis unless classified data can illuminate Soviet policy. Perhaps the loss of a Yankee could serve as the warning shot prior to actual initiation of nuclear warfare.

The West must likewise anticipate a conventional war period in which Western SSBNs are the target. Has NATO prepared for this possibility with its deployments in the vast deep oceans or do we need to be more innovative? Should our declaratory SSBN deployment policy include deploying our sea based strategic nuclear reserve well out of missile firing range to complicate Soviet ASW and ensure survivability?

The logic of tying up the Soviet Navy in the Norwegian Sea is sound strategy. The need to conserve U.S. aircraft carriers for the post-war era and for mid-ocean wartime SLOC duty conflicts with the

pre-war need to reassure flank allies that they will not be abandoned. Perhaps when accuracies and ordnance are sufficiently developed to allow conventional warheads, we can substitute land-or sea-based theater missiles for the planned use of carrier aircraft to strike vital Soviet flank positions in support of our allies.

The need to deliver strikes against the actual territory of one's prime opponent will remain a high strategic priority. The U.S. Navy has exploited its advantage in this area for years with threats of conventional aircraft carrier strikes on the Kola Peninsula and elsewhere. We should expect a quid pro quo manipulation of the threat to conduct conventional strikes on the U.S. from the Soviets once their conventional land attack SLCMs deploy.

Methodology

Content Analysis

Content analysis is not the ultimate tool for analysis, but when properly used and cross checked, it can assist. Criticism of selective citation extraction can be circumvented and time series analysis by author demonstrates continuity of thought, changes, and who initiated themes.

In doing a post-research validity test, the author demonstrated the worth of the extra steps of the more academically correct content analysis method. Defense Minister Ustinov and Admiral Gorshkov authored at least six new articles, speeches, etc. from January - June 1984 which contain themes used in this study.

In these additional articles, there was only some new data, i.e., all themes used had historical precedent. Of interest was Gorshkov's February 17 use in a TASS release in English of the triad of strategic nuclear forces (larger units of the SRF, the Navy, and the Air Force). The Navy Chief credited the triad with being the "main component part of the combat might of the Soviet Armed Forces," and "the main factor of containing the aggressor." Up until then, Gorshkov had played down the Air Force role and not mentioned it at all in the context of deterrence. He also preferred citing the Navy as being responsible for curbing the aggressive aspirations of imperialism.

A June 1984 article by Gorshkov, in the English language journal Soviet Union contains two new items of interest. One is the use of a theme of Western aircraft carriers as a threat to Soviet and other socialist countries territory. As was pointed

out in the analysis of the Soviet perception of threats from the sea, the aircraft carrier was heretofore listed as a threat to the Soviet fleet, not shore. Is this a reorientation in thinking or the use of Western capability as a surrogate for a future Soviet threat?

The second item of interest is a boast by the Navy Chief that the Soviet Navy is now able " . . . in the event of war, to confront the enemy in strategic parts of the world ocean of our own choosing." He continues that the Soviet fleet can pose to an aggressor the problems which he poses to the USSR. Since the nuclear attack threat is not new, does this refer to a conventional strike capability?

Having the benefit of tracking themes over time, it is possible to isolate what is new and what is repeated. By considering the method of communication, additional information is gleaned. For example, the two items of interest from Gorshkov's article in June appear for foreign consumption. Virtually the same article appeared in the internally distributed Sotsialisticheskaya Industriya on May 9 without these comments.

In 1984 Defense Minister Ustinov repeated earlier statements which rejected the possibility of a limited nuclear war, made threats to the territories where new NATO missiles are deployed as well as from where orders are issued, and stated that increasing the number of Soviet submarines off the U.S. coast was a direct counterbalance to new U.S. systems in Europe. In a June 27 speech to the graduates of the military academies, the Defense Minister emphasized the need to "seek tactical methods which the enemy does not expect." None of Ustinov's comments were new.

Why do the Soviets continue openly to print their declaratory doctrine? In the deterrence of war, messages must be sent to the opposition as signals of intention and resolve. Communication must take place. Yet the extent and detail of declaratory policies is often surprising, since it contradicts Western spokesmen who are still arguing for MAD.

By inference, this means that the Soviets are not as sophisticated in their manipulation of the West as they are often credited with being. Their own literature undermines those Western spokesmen and leaders who would make unilateral reductions in military preparedness and maximize arms control

concessions to the USSR. Fortunately for the Soviets, there are few in the West who read or evaluate the available literature.

A few comments must be made about the translation materials used in the research. By and large, meaningful analysis can be done by the non-Russian speaker as long as it is subjected to a critical evaluation by others conversant in Russian. Since the author tracked themes in English, he discovered a surprising lack of standardization of terms which might be solved by stricter editorial supervision and/or the publishing of a guide for translators.

Some other more modest problems include the incompleteness of the PASKEY data base and duplicate entries. Only 66% of all Gorshkov documents from 1965 - 1983 were found in PASKEY. The occasional multiple translations encountered are understandable due to the lack of centralization over translations and afford the analyst the opportunity to cross-check words and themes.

The content analysis methodology used by this author allows him to comment on the man, Sergi Gorshkov, as well as analyze his writings. From reading hundreds of Gorshkov speeches, articles,

books, etc., this researcher was struck with Gorshkov's manipulation of material to stroke Party and Minister leaders, reinforce good decisions, and to find subtle ways to criticize poor ones. This should not be surprising considering anyone who rose to command of the Soviet Navy in a time of turmoil and survived since 1957 must be an excellent politician.

By tracking themes over time and by analysis of Politburo and Defense Minister statements, the pattern emerges that Gorshkov has said very little that was new regarding nuclear war. At best, he was allowed to publicize targeting for SLBMs and the at-sea SLOC mission. The key conclusion in this area is that Gorshkov announces or follow the established party line to a great extent. It is difficult to demonstrate Gorshkov as an advocate with regard to nuclear war issues.

By knowing what his seniors said first and then reading Gorshkov, one can observe how the party line is followed and whether subtle additions or deletions are made. A great deal of what has been taken as evidence of a debate should be viewed instead as statements of policy. One cannot, however, make the same claim about other naval issues, especially

naval diplomacy and the manipulative use of a fleet in time of peace, unless a similar systematic analysis of those themes has been undertaken. It would be interesting to see what a similar investigation of U.S. naval policies reveals.

Hardware Analysis

The hardware analysis used in this research is not necessarily innovative. Rather, it makes use of techniques developed previously. After modest improvements, what surprised the researcher was the shocking lack of calculations and sensitivity analysis in earlier analyses of Soviet Navy strategic nuclear issues. "Number crunching" is simply necessary in order to measure the varying threat scenarios.

For those who are still searching for the causal reasons for key decisions made in earlier years, aggregation of forces, best and worst case measurements, scenario variation, and sensitivity analysis might serve to generate acceptable explanations. A time series would be helpful but would be a major undertaking. Trends are often more revealing than the snapshot as was proven by the content analysis.

Use of real numbers and not artificial SALT numbers is a basic requirement when dealing with strategic nuclear forces. The multiplicity of naval force missions for the same units must be accounted for by varying assumptions. Findings of capability are obviously limited by assumptions, but too many previous analyses have not listed their assumptions. Once identified, problems can easily be reworked by simply changing the assumptions which will help determine what is it that appears to drive the problem.

General Comments

One can approach problems from the particular evidence and induce theories. On the other hand, one can have the theory and look for the evidence. This research effort has attempted to blend both methods but did have a theoretical framework for analysis prior to the start. The theory for investigation came first.

Most of the previous published studies on the Soviet Navy have been by traditional area specialists, well qualified to understand the operational aspects of the techniques and hardware of Naval warfare. Quantitative or behaviorist methodology has been used sparingly in current Soviet Navy analyses. The

current group of world class analysts doing Soviet Navy can only improve their product by including more empirical methods. Such academic rigor will not result in replacement of the area specialist, but rather it will enhance his already finely tuned awareness.

Perhaps the best advice is to not research one decision tree or scenario but rather gather the evidence for all possible explanations, present it, and then argue for one. The willingness to test new ideas and methods should not be viewed as a threat.

Some attempts have been made to judge the accuracies of the predictions of analysts who have been in the field for many years. If we have to investigate our people, perhaps it is the methods that are at fault. Fortunately, people can learn new methods. The findings and conclusions of this study will need to be examined in a few years to see how valid they were. If nothing else is accomplished by its writing, it may force improvement in current methods. The ultimate judge of the worth of methods suggested herein will have to be the current analytic community who must assess whether the extra time is worth the incremental increase in usable data. Since

analysis is only a tool for decision-makers, the answer might be that we don't need more or more precise information.

To a large degree, one can find the conclusions, findings, and implications stated herein in previous work by a variety of authors, many outside the Soviet Navy field. By using more rigorous methods, however, the level of uncertainty over those conclusions, findings, etc. has been reduced. The assumptions and evidence are carefully laid out and available for scrutiny. Admiral Gorshkov is not going to live forever. The time is now to plan for how we will analyze the Soviet Navy in the 21st Century.

Material Used for Content Analysis

Appendix A

I. Pre-Study Period (1956 - 1964)

1956

Gorshkov Navy Day Speech in Leningrad, July 26, 1956, carried by Moscow Soviet Home Service at 1720 GMT.

1957

Khrushchev Message of November 8, 1957 sent to President Eisenhower contained in TASS news release reported by Reuters and printed in New York Times, November 9, 1957, p.12.

Interview with Henry Shapiro of United Press in Moscow reported in New York Times, November 16, 1957, pp. 1 and 3.

1958

Malinovskiy Soviet Army and Navy 40th Anniversary Speech at Sports Palace, Central Stadium on February 22, 1958, carried live by Moscow, Soviet Home Service at 1405 GMT.

Gorshkov Pravda article of July 27, 1958 excerpts reported by TASS, Radioteletype in Russian to Europe at 0802 GMT.

"Faithful Defender of Our Sea Frontiers," Agitator, July 1958.

1959

Gorshkov "Mounting Guard Over The Achievements of Socialism," Sovetskiy Flot, February 23, 1959 including excerpts reported by Moscow, TASS Radioteletype in Russian to Europe at 0715 GMT.

"The Navy of the Land of Soviets," Pravda, July 26, 1959, excerpts reported by Moscow, Soviet Home Service at 0600 GMT.

Khrushchev Comments to reporters in San Francisco reported by William J. Jorden in New York Times, September 22, 1959, p. 22.

1960

Khrushchev "Disarmament Is The Path Toward Consolidating Peace and Safeguarding Friendship Among Peoples," Speech to 4th Session of Supreme Soviet, January 14, 1960, carried live by Moscow, Soviet Home Service at 0800 GMT.

Malinovskiy Speech to 4th Session of Supreme Soviet, January 15, 1960, reported by Moscow, Soviet Home Service, at 1125 GMT.

"On Guard Over Peace," Pravda, February 23, 1960 as reported by Moscow, Soviet Home Service at 0600 GMT.

Gorshkov "A Reliable Guard for the Motherland's Security," Sovetskiy Flot, February 23, 1960.

Malinovskiy Order of the Day of the USSR Minister of Defense, No. 177, Moscow, July 31, 1960 as reported by Moscow, Soviet Home Service, 2130 GMT, July 30, 1960.

Gorshkov "True Sons of Their Motherland," Pravda, July 31, 1960 as reported by Moscow, Soviet Home Service at 1200 GMT.

1961

Malinovskiy "Mounting Guard Over the Labor of the Builders of Communism," Pravda, February 23, 1961, including report of this article broadcast by Moscow in English to South and Southeast Asia at 1130 GMT.

Gorshkov "Mounting Guard Over the Soviet State's Naval Borders," Pravda, July 29, 1961 including radio reports of this article carried by Moscow Domestic Service in Russian at 0400 GMT and Moscow TASS in Russian at 0756 GMT and an East Berlin ADN report in German to East Germany at 0929 GMT on July 30, 1961.

Gorshkov Radio Address, July 29, 1961, carried by Moscow Domestic Service in Russian at 1445 GMT.

Khrushchev Report of The Central Committee to 22nd Congress of The Communist Party of the Soviet Union, October 17, 1961, reported by Moscow Domestic Service in Russian at 0600 GMT October 18, 1961.

Malinovskiy Speech to 22nd Congress of The Communist Party of the Soviet Union, October 23, 1961, read by Moscow Domestic Service announcer in Russian at 1030 GMT October 24, 1961.

1962

Gorshkov Pravda Interview February 2, 1962 including report by Moscow TASS in English to Europe at 0633 GMT.

Malinovskiy Soviet Army and Navy Day Speech in Moscow of February 22, 1962, excerpts carried by Moscow in English to Eastern North America at 2320 GMT.

"Standing Guard Over the Peaceful Toil of the Builders of Communism," Pravda, as reported by Moscow Domestic Service in Russian at 0600 GMT February 23, 1962.

Gorshkov "The Navy of the Soviet State," Narodna Armiya (Sofia), July 27, 1962.

Navy Day Speech reported by Moscow in Polish to Poland at 2100 GMT on July 28, 1962 and by Moscow TASS in Russian to Europe at 1736 GMT on July 29, 1962.

"Loyal Sons of the Motherland," Pravda, July 29, 1962 including report by Moscow Domestic Service in Russian at 0100 GMT.

Krasnaya Zvezda Interview, October 31, 1962 reported by Moscow TASS in English to Europe at 0640 GMT.

1963

- Gorshkov "The Great Tasks of the Soviet Navy" Krasnaya Zvezda, February 5, 1963 including report by Moscow TASS in English to Europe at 0830 GMT.
- Malinovskiy Soviet Army and Navy 45th Anniversary Speech at Kremlin Palace of February 22, 1963, carried by Moscow Domestic Service in Russian at 1415 GMT.
- Gorshkov "Short-sighted Strategy," Izvestiya, May 19, 1963 (condensed text).
- Pravda article July 28, 1963 reported by Moscow TASS in English to Europe at 1109 GMT.
- Navy Day Speech in Vladivostok, July 28, 1963 carried by Vladivostok Domestic Service in Russian at 1130 GMT.
- "Defender of Our Sea Frontiers," Agitator No. 7, July 1963, pp. 24-26.
- "The Party's Concern for the Navy," Morskov Sbornik, No. 7, July 1963, pp. 9-18.

1964

- Malinovskiy Soviet Army and Navy 46th Anniversary Speech at Moscow Central Theater in Moscow of February 22, 1964, reported by Moscow TASS International Service in Russian at 1510 GMT.
- "A Faithful Guardian of Peace," Pravda, February 23, 1964 including report by Moscow TASS International Service in English at 1021 GMT.
- Gorshkov "Navy on a Distant Cruise," Krasnaya Zvezda, March 21, 1964, excerpts reported by Moscow TASS International Service in Russian at 0012 GMT.

- Khrushchev Speech at Kremlin Reception for Graduates of Military Academies, July 8, 1964 reported by Moscow TASS International Service in English at 1543 GMT.
- Gorshkov Navy Day Speech in Moscow at the House of the Unions, July 25, 1964, excerpts carried by Moscow Domestic Service in Russian at 1350 GMT.
- "Guarding the Sea Borders," Pravda, July 26, 1964.
- "Participation of Soviet Sailors in Battles to Liberate the Danube Countries," Morskoy Sbornik, No. 8, August 1964, pp. 3-13.

II. Research Period (1964 - 1983)

1965

- Gorshkov "The Nuclear Fleet: Goals and Miscalculations," Za Rubezhom, No. 5, January 29 - February 4, 1965, p. 10 including report of this article broadcast by Moscow in English to the United Kingdom at 2000 GMT January 30, 1965.
- Malinovskiy Soviet Army and Navy Day Speech at Central Theater in Moscow of February 22, 1965 carried live by Moscow Domestic Service in Russian at 1430 GMT.
- "The Reliable Guard of the Homeland," Pravda, February 23, 1965 including summary report of article broadcast by Moscow in German to Germany at 1600 GMT.
- Gorshkov Interview "To Improve Combat Training of the Navy on Sea and Ocean Expenses," Kommunist Vooruzhennykh Sil, No. 4, February 1965, pp. 18-23.
- Izvestiya article reported by Moscow TASS International Service in English at 1613 GMT May 5, 1965.
- Interview with N. Mar, "Battle on the Sea," Literaturnaya Gazeta, May 6, 1965 (excerpts).

Malinovskiy "May 14 -- The 10th Anniversary of the Warsaw Pact: A Mighty Guard of the Peoples Security," Krasnaya Zvezda, May 13, 1965.

Gorshkov Victory Day Statement of May 20, 1965 carried by Moscow in Serbo-Croatian to Yugoslavia at 1830 GMT.

Malinovskiy "Historical Exploits of the Soviet People and Their Armed Forces in the Great Patriotic War," Voyennaya Mysl', No. 5, May 1965.

Gorshkov "The Soviet Navy in the Great Patriotic War," Voyennaya Mysl', No. 5, May 1965.

"The Homeland's Honored Decorations Carry Obligations," Morskoy Sbornik, No. 6, June 1965, pp. 3-4.

Brezhnev Speech at Kremlin Reception for Graduates of Military Academy, July 1, 1965 reported by Moscow Domestic Service in Russian at 1530 GMT.

Kosygin Speech at Baltiysk Presentation of the Red Banner Order to the Baltic Fleet, July 24, 1965 carried by Moscow Domestic Service in Russian at 1730 GMT.

Gorshkov "Loyal Sons of the Motherland," Pravda, July 24, 1965.

Navy Day Talk read by announcer, Moscow in English to South Asia on July 25, 1965 at 1100 GMT.

Malinovskiy Radio article of July 28, 1965 broadcast in Albanian to Albania at 1700 GMT.

Gorshkov "Naval Might of Soviet Power," Soviet Military Review, No. 7, July 1965, pp. 3-6.

1966

Gorshkov "The Watch on the Sea" Sovetskaya Rossiya, February 1, 1966.

Malinovskiy "Indestructible Shield of Peace and Socialism," Narodna Armiya (Sofia), February 22, 1966.

Speech to 23rd Congress of the Communist Party of the Soviet Union, April 2, 1966 reported by Moscow Domestic Service in Russian at 1300 GMT, Krasnaya Zvezda, April 2, 1966, and Neues Deutschland (East Berlin) April 3, 1966.

- Gorshkov Krasnaya Zvezda statement of April 3, 1966 including report by Moscow TASS International Service in English at 1000 GMT.
- "The XXIIIrd Congress of the KPSS and the Tasks of Navymen," Morskoy Sbornik, No. 5, May 1966, pp. 3-13.
- Malinovskiy "Terrible Lesson of History," Voyennaya Mysl', No. 6, June 1966.
- Gorshkov Navy Day Speech at Central Theater on July 30, 1966 carried by Moscow Domestic Service in Russian at 1730 GMT and excerpts reported by Moscow TASS International Service in English at 1528 GMT.
- Pravda interview of July 31, 1966 reported by Moscow TASS International Service in English at 2145 GMT July 30, 1966.

1967

- Malinovskiy "On Guard Over the Gains of the Great October," Pravda, February 23, 1967, reported by Moscow Domestic Service in Russian at 0840 GMT.
- Gorshkov "A Glorious Battle Road," Sel'skaya Zhizn', February 23, 1967, (excerpts).
- "The Development of Soviet Naval Science," Morskoy Sbornik, No. 2, February 1967, pp. 9-21, including abridged form which appears as "Soviet Naval Art," in Soviet Military Review, No. 7, July 1967, pp. 2-7.
- Brezhnev Karlovy Vary (Czechoslovakia) speech of April 24, 1967, at Conference of Communist Workers Parties of Europe reported by Moscow TASS International Service in Russian at 2130 GMT.
- Gorshkov Komsomol'skaya Pravda interview, May 8, 1967, p.1.

Victory Day Statement of May 9, 1967 broadcast by Moscow in Macedonian to Yugoslavia at 1330 GMT.

Izvestiya interview reported by Moscow TASS International Service in English at 1459 GMT May 17, 1967 and Moscow in English to South Asia at 1600 GMT on May 18, 1967.

"Battle Training on the High Seas," Kommunist Vooruzhennykh Sil, No. 12, June 1967, pp. 16-22, extracts.

Agitator article, June 1967, pp. 21-23.

"Our Mighty Ocean Fleet," Pravda, July 30, 1967, p. 2, including reports by Moscow TASS International Service in Russian at 0402 GMT and Moscow Domestic Service in Russian at 0400 GMT.

Navy Day Speech in Leningrad, July 30, 1967, reported by Vladimir Umanskiy on Moscow Domestic Service in Russian at 1330 GMT.

Grechko Speech before Supreme Soviet regarding bill on Universal Military Service, reported by Moscow Domestic Service in Russian at 1230 GMT October 12, 1967.

"The Solemnity of Lenin's Ideas on the Defense of the Socialist Fatherland," Kommunist Vooruzhennykh Sil, No. 20, October 1967, pp. 31-39.

Gorshkov "Guarding the Conquests of the Great October," Morskoy Sbornik, No. 10, October 1967, pp. 3-15.

Grechko "The Army of October," Krasnaya Zvezda, November 3, 1967, p. 3.

Order of the Day of the USSR Minister of Defense, No. 297, Moscow November 19, 1967, as reported by Moscow, Domestic Service in Russian at 2130 GMT November 18, 1967.

Gorshkov Interview "The Fleet of Oceanic Spaces," Sovetskiy Voin, No. 24, December 1967, pp. 2-3.

1968

- Gorshkov "The Navy of the Socialist State," Voyennaya Mysl' No. 1, January 1968.
- "The Navy of Our Motherland," Krasnaya Zvezda, February 11, 1968, p. 2.
- Grechko 50th Anniversary of the Soviet Armed Forces speech at Military-Scientific Conference in Moscow of February 14, 1968 reported in Krasnaya Zvezda on February 16, 1968, p. 1.
- Gorshkov Interview "On the High Seas and the Oceans," Pravda, February 14, 1968, p. 1.
- Interview with Lieutenant Colonel Guenter Engmann of February 15, 1968 broadcast by East Berlin Domestic Television Service in German at 1202 GMT.
- Grechko Speech "Fifty Years Guarding the Gains of Great October," February 23, 1968 at Kremlin Meeting Devoted to the 50th Jubilee of the Soviet Armed Forces carried live by Moscow Domestic Service in Russian at 1429 GMT.
- Gorshkov "The Country's Armed Forces," Trud, February 23, 1968, p. 2.
- Grechko "The Fiftieth Anniversary of the Soviet Armed Forces," "Voyenno - Istoricheskiy Zhurnal No. 2, February 1968, pp. 3-14.
- "Born Under Fire," Sovetskiy Voin, No. 3, February 1968, pp. 2-5.
- Gorshkov Interview "The Navy is on the Alert," Ogonek No. 6, February 1968, pp. 6-8 including report by Moscow TASS International Service in English at 1349 GMT on February 2, 1968. Extracts of this interview appeared as articles: "A Fleet Mounting a Military Guard: Fifty Years of the Soviet Army and Navy," Narodna Armiya (Sofia), February 20, 1968, p. 1 and 2; and "An Interview With Soviet Navy Chief," Navy Magazine, Vol. II No. 6, June 1968, pp. 20-23.

"A Half Century on Combat Watch," Tekhnika i Vooruzheniye, No. 2, February 1968, pp. 12-13.

"Victory Day," Ekonomicheskaya Gazeta, May 6, 1968, p. 9.

Trud statement, June 6, 1968, p. 3.

Izvestiya statement reported by Moscow TASS International Service in English at 1006 GMT on July 12, 1968.

Izvestiya article summarized by Moscow Domestic Service in Russian at 1600 GMT on July 20, 1968.

Krasnaya Zvezda comments reported by Moscow Domestic Service in Russian at 0600 GMT July 21, 1968.

Navy Day statement of July 27, 1968 broadcast by Moscow Domestic Service in Russian at 1430 and 1600 GMT.

Navy Day comments of July 27, 1968 reported in Krasnaya Zvezda, July 28, 1968, p. 1.

Pravda, statement of July 28, 1968, p. 2.

Neues Deutschland (East Berlin) article of August 3, 1968, p. 5.

1969

Grechko "Ever on Guard," Pravda, February 23, 1969, p. 3.

"V.I. Lenin and The Building of The Soviet Armed Forces," Kommunist, No. 3, 1969, pp. 15-26.

Gorshkov Izvestiya interview with V. Goltsev April 5, 1969 including report by Moscow TASS International Service in English at 1418 GMT on April 4, 1969.

Grechko "The Great Victory," Pravda, May 9, 1969, p. 2.

Gorshkov "The People's Great Achievement," Sel'skaya Zhizn', May 9, 1969, p. 1.

Agitator article in issue No. 13, June 1969, pp. 24-27.

Navy Day Speech in Moscow July 25, 1969 reported by Moscow Domestic Service in Russian at 2000 GMT.

Navy Day Politechnic Museum Speech July 26, 1969 reported by Moscow Domestic Service in Russian at 0300 GMT.

Grechko Order of the Day of the USSR Minister of Defense, No. 177, Moscow, July 27, 1969 as reported in Krasnaya Zvezda, July 27, 1969, p. 1 and Moscow TASS International Service in Russian at 2230 GMT on July 26, 1969.

Gorshkov Interview "The Ocean Watch of the Fatherland," Pravda, July 27, 1969, p. 2, including report by Moscow Domestic Service in Russian at 0600 GMT.

Interview with A. Denisovich "The Ocean Fleet of the Soviet Country," Sovetskaya Litva (Vil'nyus), July 27, 1969, p. 3.

"The Navy Has Put Out to Sea," Starshina Serzhant, No. 7, July 1969, p. 1-2.

Novosti interview "The Ocean Guard of the Soviet Union," Rabotnichesko Delo (Sofia), September 19, 1969, p. 4.

Gorshkov Romanian Army Day Speech, October 23, 1969 reported by Moscow in Romanian to Romania at 1600 GMT on October 24, 1969.

"On the Subject of Naval Defense," La Revue Maritime, No. 269, October 1969, pp. 1139-1143.

Grechko Speech "The Growth of the Young Officers' Role, Tasks, and Responsibility at the Present Stage of Development of the Soviet Armed Forces," at All-Army Conference of Young Officers of November 26, 1969, reported in Krasnaya Zvezda, November 27, 1969, pp. 1, 3.

1970

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| Grechko | "Born in Battles." <u>Pravda</u> , February 23, 1970, p.2. |
| Gorshkov | "Battles on the Seas," <u>Izvestiya</u> , February 27, 1970, Morning Edition, p. 3. |
| Grechko | "On Guard of Peace and Socialism," <u>Kommunist</u> No. 3, 1970 pp. 51-64, including report by Moscow TASS International Service in English at 1204 GMT on February 21, 1970. |
| Gorshkov | Comments in <u>Ogonek</u> , article by Anatoliy Yelkiv, issue No. 9, February 1970, p. 5. |
| Grechko | "Loyalty to the Leninist Behests on the Defense of the Motherland," <u>Kommunist Vooruzhennykh Sil</u> , No. 7, 1970, pp. 19-26. |
| Gorshkov | Interview with V. Goltsev "A Great Review," <u>Izvestiya</u> , April 15, 1970, Morning Edition, p. 3. |
| | "Long Voyages Are a School for Naval Training," <u>Krasnaya Zvezda</u> , April 16, 1970, p. 2, including report by Moscow TASS International Service in English at 1017 GMT. |
| Grechko | "The Triumph of the Leninist Doctrine on the Defense of the Achievements of Socialism," <u>Krasnaya Zvezda</u> , April 18, 1970, p. 2. |
| Gorshkov | "Over the Seas and Oceans," <u>Narodna Armiya</u> (Sofia), May 5, 1970, pp. 1,3 (excerpt). |
| Grechko | Victory Day Speech in Kremlin, May 8, 1970 carried live by Moscow Domestic Service in Russian at 1409 GMT. |
| Gorshkov | Navy Day Speech at Central Theater in Moscow July 24, 1970 excerpts reported by Moscow Domestic Service in Russian at 1900 GMT and Moscow TASS International Service in English at 2008 GMT. |
| Grechko | Order of the Day of the USSR Minister of Defense as reported in <u>Pravda</u> July 26, 1970, p. 1 and Moscow TASS International Service in English at 2145 GMT on July 25, 1970. |

- Gorshkov "The Motherland's Ocean Guard," Pravda, July 29, 1970, p. 2 including report by Moscow TASS International Service in English at 2316 GMT on July 25, 1970.
- "The Fleet on a Great Cruise," Tekhnika i Vooruzheniye, No. 7, June 1970, pp. 1-3.
- "Navy" Great Soviet Encyclopedia, a translation of the 3rd Ed. (New York, N.Y.: MacMillan, Inc., 1974), Vol. 5, pp. 295-300.
- 1971
- Grechko "The Unconquerable Shield of the Motherland," Pravda, February 23, 1971, p. 2 including report by Moscow TASS International Service in English at 0115 GMT and radio report by Moscow in English to South Asia at 1000 GMT.
- Gorshkov "Engendered by Great October," Sovetskaya Moldaviya (Kishinev), February 23, 1971, pp. 1 and 4.
- "Born by the Great October," Vecherni Novini (Sofia), February 23, 1971, pp. 1-2.
- Grechko "The Mighty Guard of Peace and Socialism," Krasnaya Zvezda, March 27, 1971, p. 2.
- "The CPSU and the Armed Forces," Kommunist, No. 4, March 1971, pp. 38-48.
- Grechko "The Great Victory," Pravda, May 9, 1971, p. 2 including report by Moscow TASS International Service in English at 2200 GMT on May 8, 1971.
- Brezhnev Election Speech of 11 June 1971 reported in Pravda, June 12, 1971, pp. 1,2.
- Grechko On Guard for Peace and the Building of Communism: Implementing the Decisions of the 24th Party Congress. Moscow: Military Publishing House, signed to press June 14, 1971, 112 pp.
- "Destruction of the Assault Forces of Imperialism (In Honor of the 30th Anniversary of the Beginning of the Great Patriotic War)," Voyennaya Mysl', No. 6, June 1971.

Gorshkov Navy Day Speech at Central Soviet Army Club in Moscow, July 23, 1971, excerpts reported by Mikhail Levchinskiy on Moscow Domestic Service in Russian at 1300 GMT and summary by Moscow in English to South Asia at 1000 GMT on July 24, 1971.

Grechko Order of the Day of the USSR Minister of Defense, No. 151, Moscow, July 25, 1971 as reported by Krasnaya Zvezda, July 25, 1971, p. 1 and Moscow TASS International Service in English at 2138 GMT July 24, 1971.

Gorshkov Interview "An Ocean, Nuclear and Missile Fleet," Pravda, July 25, 1971, p. 2 including report by Moscow TASS International Service in English at 2352 GMT on July 24, 1971.

"Soviet Sailors Defend the Interests of Socialism," Sovetskaya Litva (Vil'nyus), July 25, 1971, p. 2.

Grechko "The Fleet of Our Homeland," Morskoy Sbornik, No. 7, July 1971, pp. 3-9.

1972

"A Trusty Guard for Socialism" Pravda, February 23, 1972, p. 2 including report by Moscow TASS International Service in English at 0613 GMT.

Gorshkov "Navies in War and Peace," Morskoy Sbornik, No. 2, February 1972, pp. 20-29.

"The Navy: Past and Present," Voyennaya Mysl', No. 3, March 1972.

"Russia's Road to the Sea, Peter I to Napoleon," Morskoy Sbornik, No. 3, March 1972.

"The Post-Napoleonic Period to Russo-Japanese War," Morskoy Sbornik, No. 4, April 1972.

"The Soviet People's Great Victory," Sotsialisticheskaya Industriya, May 9, 1972, p. 1.

"The First World War," Morskoy Sbornik, No. 5, May 1972.

"The Soviet Navy in the Revolution," Morskoy Sbornik, No. 6, June 1972.

Interview with V. Goltsev "For Security of Navigation on the High Seas," Izvestiya, July 8, 1972, Morning Edition, p. 4.

Novosti interview, "Guarding the Peace," Zolnierz Wolnosci (Warsaw), July 28, 1972, pp. 1,2.

Novosti interview, "An Oceanic Guardian of Socialism and Peace," Narodna Armiya (Sofia), July 29, 1972, pp. 1,3.

Interview, "Ruggedness of Naval Life," Ogonek, No. 31, July 29, 1972, pp. 4-5.

Grechko

Order of the Day of the USSR Minister of Defense, No. 146, Moscow, July 30, 1972 as reported by Krasnaya Zvezda, July 30, 1972, p. 1 and Moscow Domestic Service in Russian at 2130 GMT on July 29, 1972.

Gorshkov

Interview "On the Seas and Oceans," Pravda, July 30, 1972, p. 2 including report by Moscow TASS International Service in English at 2140 GMT on July 29, 1972.

"The Commanding Officer of a Ship -- The Leading Figure in the Fleet," Morskoy Sbornik, No. 7, July 1972, pp. 3-8.

"The Soviet Navy Rebuilds, 1928-41," Morskoy Sbornik, No. 8, August 1972.

"The Second World War," Morskoy Sbornik, No. 9, September 1972.

Interview "The Komsomol's Naval Watch," Pravda, October 16, 1972, p. 2.

"The Soviet Navy in the Great Patriotic War," Morskoy Sbornik, No. 10 October 1972.

"Analysis of Navies in the Second World War," Morskoy Sbornik, No. 11, November 1972.

Grechko "The Formation of the USSR and the Soviet Armed Forces," Novaya i Noveishaya Istoriya, No. 6 November - December 1972, pp. 9-26.

"A Socialist, Multinational Army," Krasnaya Zvezda December 17, 1972, pp. 1-2.

Gorshkov "Navies as Instruments of Peacetime Imperialism," Morskoy Sbornik, No. 12, December 1972.

1973

Grechko "Guardians of the Revolution and Socialism," provided by Novosti to Rabotnichesko Delo (Sofia), February 22, 1973, pp. 1 and 5.

"On Guard Over the Motherland," Pravda, February 23, 1973, p. 2.

Gorshkov Army Navy Day Speech of February 24, 1973 as reported by Moscow Domestic Service in Russian at 1530 GMT.

"Some Problems in Mastering the World Ocean," Morskoy Sbornik, No. 2, February 1973.

"Ship's Commanding Officer," Soviet Military Review, No. 3, March 1973, pp. 2-5.

Bloknot Agitatora article, No. 8, April 1973, pp. 3-6.

Grechko "On Guard Over Peace and Socialism," Kommunist, No. 7, May 1973, pp. 12-16.

Gorshkov Interview "On Ocean Watch," Pravda, July 29, 1973, p. 2 including report by Moscow TASS in English at 0710 GMT.

Interview "We Always Remember the Order of the Homeland," Sovetskiv Voin, No. 13, July 1973, pp. 2-3.

1974

Grechko Speech in Kazan at awarding Tatar ASSR with Order of the Friendship of the Peoples, January 8, 1974, reported by Komsomolets Tatarii (Kazan), January 9, 1974, pp. 3-4.

Gorshkov "Foreword," in Combat Path of the Soviet Navy, V.I. Achkasov, et. al., Moscow: Military Publishing House, 3rd edition, supplemented, signed to press February 13, 1974, pp. 3-7.

"The Reliable Guard of the Fatherland," Sovetskiy Patriot, February 20, 1974, p. 1, excerpts.

Grechko "On Guard of Peace and Socialism," Pravda, February 23, 1974, p. 2.

Gorshkov Armed Forces Day Speech at Central Theater in Moscow, excerpts reported in Krasnaya Zvezda, February 23, 1974, p. 1.

Grechko "V.I. Lenin and the Soviet State's Armed Forces," Kommunist No. 3, 1974, pp. 12-24, including report by Moscow TASS International Service in Russian at 0947 GMT on February 25, 1974.

The Armed Forces of the Soviet State, Moscow: Military Press of the Ministry of Defense, signed to press April 9, 1974.

Gorshkov "The Heroic Exploit of the People," Trud, May 9, 1974, p. 1.

Grechko "The Leading Role of the CPSU in Building the Army of a Developed Socialist Society," Voprosy Istorii KPSS, No. 5, May 1974, pp. 30-47.

Brezhnev Sejm speech carried live by Moscow Domestic Service in Russian at 1015 GMT July 21, 1974.

Gorshkov Navy Day Speech at Central Theater in Moscow, July 26, 1974, excerpts reported by Moscow Domestic Service in Russian at 1900 GMT.

Grechko Order of the Day of the USSR Minister of Defense, No. 165, Moscow, July 28, 1974 as reported by Krasnaya Zvezda, July 28, 1974, p. 1.

Gorshkov Interview "The Maritime Might of the Land of the Soviets," Pravda, July 28, 1974, p. 2 including report by Moscow TASS in English at 2234 GMT.

"The Oceanic Guard of the Homeland," Agitator, No. 13, July 1974, pp. 30-33.

"Certain Questions Concerning the Development of the Naval Art," Morskoy Sbornik, No. 12, December 1974, pp. 24-32.

1975

Grechko The Armed Forces of the Soviet State, 2nd Ed. Moscow: Military Press of the Minister of Defense, signed to press March 26, 1975.

Gorshkov "The USSR's Decisive Contribution to Victory Over Fascism," Prace (Prague), April 5, 1975, pp. 1, 2.

"The Sailors' Feat," Trud, April 11, 1975, p. 4.

Interview "The Battle Pennants of the Motherland," Izvestiya, April 29, 1975, p. 1, 5.

"Navy in Great Patriotic War," Voyenno Istoricheskiy Zhurnal, No. 4, April 1975, pp. 35-42.

"The Navy Did Its Duty for the Motherland Right to the End," Morskoy Sbornik, No. 5, May 1975, pp. 8-15.

"Historical Experience and the Present Day," Voprosy Filosofii, No. 5, May 1975, pp. 26-38.

Interview "The Navy of the Soviet Union," Soviet Military Review, No. 6 June 1975, pp. 2-5.

Navy Day Speech at Central Theater in Moscow, excerpts reported in Krasnaya Zvezda, July 26, 1975, p. 1 and carried by Moscow Domestic Service in Russian at 1530 GMT on July 27, 1975.

Grechko Order of the Day of the USSR Minister of Defense, No. 175, Moscow July 27, 1975, as reported by Krasnaya Zvezda, July 27, 1975, p. 1 and Moscow Domestic Service in Russian at 2100 GMT July 26, 1975 and 0200 GMT July 27, 1975.

Gorshkov Address broadcast by Moscow Domestic Television Service in Russian at 1335 GMT on July 27, 1975.

Interview "Flying the Motherland's Flag," Pravda, July 27, 1975, p. 2 including report by Moscow TASS in English at 2200 GMT on July 26, 1975.

"The Oceanic Shield of the Homeland," Kommunist Vooruzhennykh Sil, No. 14, July 1975, pp. 9-17.

The Sea Power of the State, (Oxford: Pergamon Press, 1979) authorized translation of Russian original signed to press November 27, 1975, 290 pp.

1976

Gorshkov "On Ocean Watch," Krasnaya Zvezda, February 11, 1976, p. 2 including report by Moscow TASS in English at 0953 GMT.

Brezhnev "The Report of the CPSU Central Committee and the Party's Immediate Tasks in the Fields of Domestic and Foreign Policy," Report to 25th Congress of Communist Party of the Soviet Union, February 24, 1976 reported by Pravda and Izvestiya, February 25, 1976, pp. 2-9.

Gorshkov "Greeting the 25th Congress of the CPSU," Morskoy Sbornik, No. 2, February 1976, pp. 3-13.

"The Naval Art," Sovetskaya Voenennaya Entsiklopediya, Vol. 2, signed to press July 20, 1976, pp. 231-234.

"Navy" Sovetskaya Voenennaya Entsiklopediya, Vol. 2, signed to press July 20, 1976, pp. 235-243.

Excerpts of Navy Day Speech in Moscow reported by "Ceremonial Meeting in Moscow," Krasnaya Zvezda, July 24, 1976, p. 1.

Navy Day Speech July 24, 1976 carried by Moscow Domestic Service in Russian at 0840 GMT.

Interview "The Homeland's Naval Might," Pravda, July 25, 1976, p. 2.

"A Most Important Factor of the Navy's Combat Readiness and Combat Efficiency," Tyl i Snabzheniye Sovetskikh Vooruzhennykh Sil, No. 7, July 1976, pp. 3-9 (extracts).

1977

Gorshkov Narodna Armiya (Sofia) interview with Stepan Fedoseyev, Novosti military observer, February 23, 1977, pp. 1,4, including report by Moscow in Serbo-Croatian to Yugoslavia at 1730 GMT on February 22, 1977 containing additional information.

Ustinov "The Guard of Peaceful Labor and the Bulwark of Universal Peace," Kommunist, No. 3, February 1977, pp. 11-22; including reports by Moscow TASS in English at 0819 and 0917 GMT February 17, 1977.

Gorshkov Krasnaya Zvezda comments contained in article "Friendly Meeting in Tunis," by Novosti correspondent V. Bolshakov and TASS correspondent I. Myakishev, March 31, 1977, p.3.

Interview with Stepan Fedoseyev, Novosti military commentator "We Shall Never Raise the Sword," Bratislava Pravda Slovak Weekend Supplement, April 1, 1977, p. 16 (excerpts).

Interview "On Sea Boundaries," Pravda, July 31, 1977, p. 2.

Message reported by Juventud Rebelde (Havana), August 3, 1977, p. 1.

The Navy Knowledge Press, signed to press September 22, 1977, 64 pp.

Komsomol Central Committee speech October 20, 1977 reported by Moscow Domestic Service in Russian at 1100 GMT, October 22, 1977.

"The Navy" Voenno-Istoricheskiy Zhurnal,
No. 10, October 1977, pp. 44-51.

"Guarding the Accomplishments of the Great
October," Morskoy Sbornik, No. 11 November
1977, pp. 6-12.

Speech at Cuban Naval Academy, summarized
and reported by Havana Domestic Service
in Spanish at 1100 GMT on December 22, 1977.

1978

Gorshkov

"Always on Guard," Krasnaya Zvezda,
February 7, 1978, p. 2.

Pravda comments contained in article,
"Sovereigns of the Deep," by Timur Gaydar,
February 9, 1978, p. 6.

Soviet Army and Navy 60th Anniversary
Speech of February 23, 1978 carried by
Moscow Domestic Service at 0545 GMT.

"Sixty Years of the USSR Armed Forces,"
Sudostroyeniye, No. 2 February, 1978, pp. 3-5.

"The Motherland's Naval Might," Kommunist
Vooruzhennykh Sil, No. 3, February 1978,
pp. 9-16.

Interview "Sentries of the Maritime Borders,"
Voyenny Vestnik, No. 2, February 1978,
pp. 23-25.

"Foreword to the English Edition," and
changes which appear in authorized
translation of The Sea Power of the State,
(Oxford: Pergamon Press, 1979) Foreword dated
March 31, 1978, pp. vii-viii.

Brezhnev

Speech to Personnel of the Pacific Fleet
in Vladivostok reported in Kommunist,
No. 6, April 1978, pp. 23-26.

Vorwaerts interview appearing in Pravda and
Izvestiya, May 4, 1978, p. 1 (condensed text).

Gorshkov

"The Light of a Great Feat," Nedelya No.
18, signed to press May 4, 1978, pp. 4-5.

Ustinov "Victory in the Name of Peace," Pravda, May 9, 1978, p. 2.

Gorshkov "Navy Shipboard Regulations -- Basis of a Navyman's Service," Morskoy Sbornik, No. 5, May 1978, pp. 3-7.

Interview, "Ocean Watch," Soviet Military Review, No. 6, June 1978, pp. 2-7.

Navy Day Speech July 29, 1978 carried by Moscow Domestic Service in Russian at 1330 GMT.

Ustinov Order of the Day of the USSR Minister of Defense, No. 182, Moscow, July 30, 1978, as reported by Krasnaya Zvezda, July 30, 1978, p. 1.

Gorshkov Interview "Our Power's Ocean Might," Pravda, July 30, 1978, p. 2.

"The Great Patriotic War and the Postwar Period: Cooperation of the Navy with the Ground Forces," Voyenno Istoricheskiy Zhurnal, No. 11, November 1978, pp. 18-25.

1979

Gorshkov "The CO and Combat Readiness," Morskoy Sbornik, No. 1, January 1979, pp. 3-7.

Ustinov Order of the Day of the USSR Minister of Defense, No. 175, Moscow, July 29, 1979, as reported by Krasnaya Zvezda, July 29, 1979, p. 1 and Moscow Domestic Service in Russian at 0000 GMT.

Gorshkov Interview "On the Eve of Navy Day: On The Ocean Borders," Pravda, July 29, 1979, p. 3, including report by Moscow TASS in English at 2225 GMT on July 28, 1979.

"The Navy's Ocean Watches," Morskoy Sbornik, No. 7, July 1979, pp. 3-7.

Znamenosets comments contained in article "The Initiators Report" by Captain 2nd Rank V. Nikolayev, No. 7, July 1979, p. 9.

The Sea Power of the State, 2nd Ed., Moscow: Military Publishing House, signed to press August 6, 1979, 411 pp.

Comments at Fifth Military Region reported by Hanoi VNA in English at 1544 GMT and Hanoi Domestic Service in Vietnamese at 1430 GMT on December 25, 1979.

Comments at Seventh Military Region reported by Hanoi VNA in English at 1543 GMT on December 25, 1979.

1980

Ustinov "A Source of Great Strength," Pravda, February 22, 1980, pp. 2-3.

Gorshkov "Tomorrow is Soviet Army and Navy Day: Guarding Peace and Socialism" Sovetskaya Rossiya, February 22, 1980, p. 1.

"Glorious Offspring of the Soviet People," Kommunist, No. 1, February 1980, pp. 43-56.

"Problems with Respect to Control of Naval Forces," Morskoy Sbornik, No. 5, May 1980, pp. 7-12.

"Problems With Respect to Control of Naval Forces," Morskoy Sbornik, No. 6 June 1980, pp. 3-11.

Comments in Addis Ababa reported by Moscow TASS International Service in Russian at 1106 GMT on July 9, 1980.

Comments in Addis Ababa reported by Moscow TASS in English at 1100 GMT on July 10, 1980.

Ustinov Order of the Day of the USSR Minister of Defense, Moscow, July 27, 1980 as reported by Krasnaya Zvezda, July 27, 1980, p. 1.

Gorshkov Interview "Today is USSR Navy Day: On the Ocean Watch," Pravda, July 27, 1980, p. 2.

Brezhnev India Parliament Speech of December 10, 1980 broadcast by Moscow TASS in English at 1458 GMT.

1981

- Gorshkov "The Navy -- The 26th Party Congress," Morskoy Sbornik, No. 1, January 1981, pp. 3-8.
- "The Ocean Watch of the Sailors," Kommunist Vooruzhennykh Sil, No. 2 January 1981, pp. 26-33.
- "From Congress to Congress: From Positions of Combat Readiness," Krasnaya Zvezda, February 13, 1981, p. 2.
- Ustinov "Loyal to the Cause of the Party" Pravda, February 21, 1981, p. 2.
- Brezhnev "Report of the Central Committee of the CPSU to the 26th Congress of the Communist Party of the Soviet Union and the Immediate Tasks of the Party in Home and Foreign Policy," February 23, 1981 including report carried by Moscow Domestic Service in Russian at 0720 GMT on February 23, 1981.
- Gorshkov "Today is Soviet Army and Navy Day," Sotsialisticheskaya Industriya, February 23, 1981, p. 4.
- "Feat of All the People," Ekonomicheskaya Gazeta, No. 19 signed to press May 4, 1981, p. 5.
- Ustinov "Against the Arms Race and the Threat of War," Pravda, July 25, 1981 as reported by Moscow TASS International Service in Russian at 2100 GMT on July 24, 1981.
- Order of the Day of the USSR Minister of Defense, No. 190, Moscow, July 25, 1981 as reported by Krasnaya Zvezda, July 26, 1981, p. 1.
- Gorshkov Interview "The Ocean Watch: Today is USSR Navy Day," Pravda, July 26, 1981, p. 2, excerpts.

"For Sea Cruises -- Excellent Rear Services Support," Tyl i Snabzheniye Sovetskikh Vooruzhennykh Sil, No. 7, July 1981, pp. 3-8.

"Strategic Operations in the Pacific Theater of Military Operations in World War II (Based on the Experience of the Japanese Armed Forces)," Voyenno-Istoricheskiy Zhurnal, No. 8, August 1981, pp. 58-65.

Interview with Vasilij Morozov "Myths and Reality About Naval Military Threat," provided by Novosti to Military Science and Technology, Vol. 1, No. 4 (August) 1981, pp. 18-20.

Brezhnev

Der Spiegel interview reported by Moscow TASS in English at 0530 GMT on November 2, 1981 and published in Pravda November 3, 1981, pp. 1-2.

Gorshkov

Speech Honoring 40th Anniversary of Yugoslav People's Army in Moscow on December 21, 1981, excerpts broadcast by Moscow in Serbo-Croatian to Yugoslavia at 1700 GMT on December 22, 1981.

1982

"The Commanding Officer's Personal Example," Morskoy Sbornik, No. 1, January 1982, pp. 3-8.

Ustinov

"The Army of the People's Friendship," Pravda, February 23, 1982, p. 2 including report by Moscow World Service in English at 2100 GMT on February 22, 1982.

Brezhnev

Letter to Australian disarmament organization reported by Moscow TASS in English at 1815 GMT on February 24, 1982.

Speech "Put Concern for the Working People, Concern for Production at the Center of Attention of the Trade Unions," at Congress of Soviet Trade Unions reported by Moscow TASS in English at 1000 GMT on March 16, 1982.

Gorshkov Interview "Great Victory: Its Importance, Its Lessons," Moscow APN Daily Review, in English, April 29, 1982, pp. 1-5.

Ustinov "For Averting the Threat of Nuclear War," Pravda, July 12, 1982 as reported by Moscow TASS in English at 1110 GMT and a press release from the Embassy of the USSR including another TASS release at 2138 GMT.

Gorshkov Navy Day Speech at Moscow Garrison of July 23, 1982 carried by the Vremya newscast on Moscow Domestic Television Service in Russian at 1700 GMT.

Interview with Aleksandr Abramov "On Guard of the Homeland," broadcast by Moscow Domestic Service in Russian at 1000 GMT on July 24, 1982.

Navy Day Address broadcast by Moscow Domestic Service in Russian at 0710 GMT on July 25, 1982.

Interview "Ocean Vigil," Pravda, July 25, 1982, p. 2 (excerpts) including report by Moscow TASS in English at 2039 GMT on July 24, 1982.

"Soviet Art of Warfare in the Great Patriotic War - The Development of the Art of Warfare," Voyenno - Istoricheskiy Zhurnal, No. 7, July 1982, pp. 10-13.

Novosti interview dated September 9, 1982 and distributed by press release from The Embassy of the USSR also appearing as "Whence Comes the Threat; Adm. S. Gorshkov on the true correlation of USSR and U.S. Naval Forces," Rude Pravo (Prague), September 13, 1982, p. 6, and in reworded form as APN interview with Vasilyi Morozov, Morning Star (London), November 30, 1982, p. 2.

Ustinov Interview "Answers of USSR Defense Minister Marshal of the Soviet Union Dmitry Ustinov to Questions of TASS Correspondent,"

Moscow TASS in English at 1755 GMT on December 6, 1982 including press release from Embassy of the USSR December 7, 1982.

Gorshkov

"Contemporary Problems in Studying and Exploiting the Oceans of the World," Morskoy Sbornik, No. 12, December 1982, pp. 16-26.

Foreword "The Ocean Shield of The Soviet Power," in The Navy of the USSR, Admiral A. I. Sorokin, Ed. Moscow: Planet Publishing, 1982, p. 14-15.

1983

Gorshkov

"Strong Naval Forces - An Important Factor of the USSR's Security," Naval Forces, Vol. IV No. II/1983, pp. 34-39 appearing in slightly different form as "Die Starke der Seestreitkräfte des Sowjetstaates - ein Wichtiger Faktor der Sicherheit der UdSSR," Marine Rundschau, Vol. 80, No. 1, 1983, pp. 5-7.

Soviet Army and Navy 65th Anniversary Speech of February 22, 1983 carried by Moscow Domestic Service in Russian at 0715 GMT.

Ustinov

Krasnaya Zvezda comments to Northern Fleet contained in correspondent's report "Meeting with Seamen", March 13, 1983, 1st Ed., p. 1.

Andropov

"Yu. V. Andropov Answer to a Pravda Correspondent's Questions," Pravda March 27, 1983, p. 1, also reported by Moscow Radio in English to North America at 2300 GMT on March 26, 1983, and report of TASS release contained in press release from The Embassy of the USSR (undated).

Gorshkov

Comments following visit to Peoples Democratic Republic of Yemen reported by Anden Domestic Service in Arabic at 1230 GMT on March 29, 1983.

"Bases of Aggression," Pravda April 15, 1983, pp. 4-5.

Andropov Interview with Rudolf Augstein of April 19, 1983 for Der Spiegel reported by Moscow TASS in English at 1515 GMT on April 24, 1983 and press release from The Embassy of the USSR on April 25, 1983.

Gorshkov Account "The First Salvos at Sevastopol," told to V. Goltsev Izvestiya April 27, 1983, Morning Edition, p. 3.

Ustinov "The Immortal Feat," Pravda May 9, 1983, p. 2.

Gorshkov Interview with Dimitur Kostov "Parity -- Guarantee for Peace," BTA Round the World, (Sofia) in English at 1325 GMT on May 12, 1983.

"An Example for Posterity" Sovetskiy Voin, No. 9, May 1983, pp. 1-3.

"Soviet People's Great Victory," Ekonomicheskaya Gazeta, No. 19, May 1983, p. 9.

Andropov Kremlin Speech Honoring President of Finland Mouno Koivisto reported by Moscow TASS on June 6, 1983, in a press release from the Embassy of the USSR June 7, 1983, and in Krasnaya Zvezda June 7, 1983, 2nd. Ed., pp. 1,3.

Ustinov Pravda interview July 31, 1983, p. 4.

Gorshkov Interview "Under the Motherland's Flag," Pravda, July 31, 1983, p. 2.

Navy Day Address carried by Moscow Domestic Television Service in Russian at 0650 GMT on July 31, 1983.

"Questions of the Theory of the Navy," Morskoy Sbornik, No. 7, July 1983, pp. 27-38.

"U.S. Aircraft Carriers -- An Instrument of Expansion," Krasnaya Zvezda, October 14, 1983, 2nd Ed., p.3.

Andropov

Statement in Pravda, November 25, 1983,
p. 1 also reported by Moscow Domestic Service
and Television Service in Russian at 1800 and
Moscow TASS in English at 1832 GMT on November
24, 1983 and distributed by a press release
from the Embassy of the USSR on November
28, 1983.

APPENDIX B

CONTENT ANALYSIS PROCEDURES

The subject of content analysis theory and the particular aims of using it in this research project were outlined in the text. This appendix will merely outline the specific steps undertaken to code data and will list all themes used in the research.

Having gathered the raw materials to be analyzed, the first step is to create a bibliographic file for subsequent document identification. Many of the references cited in the main text had excellent methods for coding materials by date of appearance, place of appearance, author, intended audience, method of transmission, etc. These types of entries can easily be made with alpha-numeric symbols.

The essential purpose is to create a shorthand method of referring to a document. The author began by coding all documents by date and a 0-2 letter abbreviation for the authors name. Where two documents appeared on one date, one was labeled "a" and the second "b." For example, an article appearing on January 1, 1972, authored by Admiral Gorshkov was identified as Jan 1 72. An article by Marshal Grechko of the same date was GR Jan 1 72.

All documents were arranged in sequential order with the bureaucratic precedence of author determining who was placed first on documents appearing the same date. Thus, Politburo, then Minister of Defence (MOD) then Navy documents was the fixed order for concurrently appearing works. Dates of publication, the date of the original speech (vice subsequent appearance in print), or when available, the signed to press dates were used in order to approximate what authors positions were in sequence.

Separate files were maintained by each year with notations made in that year of the comings and going of Politiburo leaders and the MOD. For each year, a master index of documents was created. The first entry was the identifier. The second entry was to catagorize the type of communication/method of transmission and the intended audience.

The type of communication was either (1) oral, (2) a brief written article in a newspaper, (3) a major article in a journal, encyclopedia, or book, or (4) a phamplet or book. The primary purpose of this step is to ensure that there are no duplicates. Many of the major speeches in the USSR are reproduced in

newspapers and occasionally appear in articles and books. The author only counted the original appearance. He used the duplicates and associated press releases to check on similarity of texts.

In doing this step, the place of appearance would be decided upon. The researcher logged the original place of appearance as the name of the newspaper, journal, or books, etc. The intended audience would also be decided at this stage. To account for multiple appearances and press releases, the primary appearance and intended audience were paralleled by coding of duplicates.

For example, if Admiral Gorshkov gave a speech in Moscow on domestic TV, that the initial coding would be an oral communication for the Soviet domestic audience. If the speech was reproduced in Krasnaya Zvezda the next day, a duplicate coding would be listed showing a newspaper article for Soviet military readers. In tabulating materials, only the primary or initial appearance was used. Duplicates were noted in order to ascertain to who else the messages were intended.

The full list of domestic military journals, newspapers, etc., used by the researcher follows. All

those not in this list are assumed to be for more general consumption. In addition there are speeches to military personnel, annual orders, and books by military personnel which the researcher tabulated under military. The Soviets obviously know the West reads their literature but what is of interest is what the authors are telling their own people. There are also some documents that do not appear internally within the USSR.

Table 1

Soviet Military Publications

Bloknot Agitatora (Agitator's Notebook)
Kommunist Vooruzhennykh Sil (Communist of the Armed Forces)
Komsomol'skaya Pravda
Krasnaya Zvezda (Red Star)
Morskoy Sbornik (Naval Digest)
Sovetskaya Voyennaya Entsiklopediya (Soviet Military Encyclopedia)
Sovetskiy Flot (Soviet Fleet)
Sovetskiy Patriot (Soviet Patriot)
Sovetskiy Voin (Soviet Soldier)
Starshina Serzhant (Starshina Sergeant)
Sudostroyeniye (Shipbuilding)
Tekhnika i Vooruzheniye (Equipment and Armaments)
Tyl i Snabzheniye Sovetskikh Vooruzhennykh Sil (Rear and Supply
of the Soviet Armed Forces)
Voyennaya Mysl' (Military Thought)
Voyenno-Istoricheskiy Zhurnal (Military Historical Journal)
Voyennyy Vestnik (Military Herald)
Znamenets (Banner Carrier)

Those documents specifically destined for foreign consumption could be identified by their place of publication and language in which they appeared. There are many duplicate entries in this area and occasionally items which appear only outside the USSR and only in a foreign language.

At this point, all documents are identified, duplicates sorted out, the place of publication known, and the intended recipient of the content determined. At this point all documents should be read through, to ascertain if they are complete and to gain familiarity with the materials. Marginal notes will aid returning to areas which appear to be of interest.

A researcher can either use themes created by others or prepare his own. This researcher has been studying intensively the secondary analytic literature for two and one-half years before attempting his content analysis, hence was familiar with the issues. During the content analysis phase itself, he reviewed the major secondary analytic sources to ensure there were no topics of interest not included in this study. The researcher allowed the Soviet literature to guide his identification of the themes.

Having read the materials through, in sequence, once for familiarity, the trial period of 1956 - 1964 was re-read again and themes were gradually created by the author. A full list of themes follows at the end of this appendix. Separate catalog pages for each theme group were made, document identification tabulated, and an initial recording of the presence of the theme done. This first cut was merely to note that theme appeared. Highlighting theme groups by color made return to the proper page easier.

The researcher then went through this trial period again, this time reading one theme at a time in sequence from 1956 - 1964. The differences in appearance, if any, were noted on each page catalog. If the theme remained intact, this too was noted.

After all themes had been tracked over time, the entire set of data was re-read sequentially to verify that no themes had been overlooked and all log entries were complete. During this trial period, themes were created, discarded, combined, etc., as the researcher gained familiarity with the technique.

At this point, analysis of the data gathered in the trial period was conducted and findings are contained in Chapter 2. This allowed the researcher

the opportunity to see if his themes were useable for the determination of declaratory policy.

The procedures for the actual period of the study, 1965 - 1983 were essentially the same with the following exceptions. In the first place, themes already existed, from the trial period. Hence for the period 1965 - 1983, the researcher only had to add new themes as they appeared, or to modify existing themes if it appeared beneficial.

The second major difference was that the author had the benefit of the PASKEY and Ketron study material which had already identified certain key passages which contained items of interest to this study. In no way did these previous studies contain sufficient material for this research effort but they were a useful cross check to ensure the researcher at least did not overlook certain documents and paragraphs.

When tracking themes over time, use was made of the multiple translations and where context was still not certain, the author consulted a number of Russian language specialists to ensure that the intended meaning was obvious. He also used Russian linguists to verify the presence or absence of themes in the two Russian editions of Marshal Grechko's The Armed Forces

of the Soviet State. That document appears in English only in a third revised edition which has deleted some sections dealing with questions of the Soviet Navy.

The final procedural step in data compilation was an independent verification of theme appearances. Fourteen documents (5%) were selected by the researcher for audit. In this group were one Brezhnev, one from each MOD, and ten Gorshkov documents. All were article size or less and selected by the researcher to ensure the entire period was checked.

The audit was not random to ensure that documents were used which contained a maximum number of themes. One document had no themes of interest and the auditor was asked to verify the presence of certain themes which did not appear. The auditor was also asked if there were any themes which he saw that were not used in this study.

The following listing contains themes used by the researcher and the general criteria for theme assignment if not obvious. Special notes of interest for each theme are included to mention key phrases or words which assisted the researcher in his analysis of certain themes. It is important to remember the

themes come from the Soviet use, not the researcher's concepts.

1. Specific Threats to USSR from Sea.

Manifest themes if the speaker states that foreign (blank) are present, being built, patrolling off Soviet shores etc. May or may not identify nationality and location. Latent theme if the target is associated with Soviet military mission in war, i.e. if Soviet naval aviation has a role against submarines, log subsurface as threat. Includes the following:

- a. Aircraft carriers
- b. Subsurface: including nuclear and missile submarines, submarine missiles, based on the ocean floor
- c. Surface Ships: general forces other than aircraft carriers, including NATO multilateral nuclear force
- d. Antisubmarine Forces: when specified including seabed detection systems
- e. Miscellaneous: sea launched cruise missiles (SLCM), neutron warheads, etc.

2. Western Use of Navy to Support Imperialist Foreign Policy. Manifest theme coded but not used in

study. Can be perceived as a latent theme expressing ability of Soviet Navy to do same. This theme is of interest to analysts researching utility of fleet in peacetime.

3. Willingness to Engage in New Naval Arms Control Negotiations. Manifest theme where speaker states willingness to negotiate limits involving naval forces or their deployment. Includes the following:

- a. Forward deployments in general
- b. Withdrawal of nuclear equipped ships from Mediterranean, etc.
- c. Limits on deployment of nuclear powered ballistic missile submarines (SSBNs)
- d. Limits on SSBNs, new or modernized submarine launched ballistic missiles (SLBMs)
- e. Limits on deployments of long range SLCMs
- f. Miscellaneous: general willingness not specified.

4. Deterrence of War/Political Objectives. Manifest theme where speaker states objective as restraint of aggressor (or similar) and Soviet means of doing so.

- a. Political objective to deter a major world war or attack on USSR includes:
- (1) Restrain desire to unleash new world war, deter war
 - (2) Restrain, hold back, deterring, curbing, rebuff, containing aggression
 - (3) Restrain (etc.) aggressive aspirations of imperialism
 - (4) Shield for socialism
 - (5) Deter (etc.) nuclear attack
 - (6) Strengthen, preserve, maintain, keep peace
 - (7) Decisively counter threats
 - (8) Prevent attack
 - (9) Influence those who would destroy balance of power.
- b. Other political objectives to deter imperialism elsewhere includes:
- (1) Restrain, hinder, deter, curb, prevent, cut short, suppress imperialistic adventurism, intervention in a region

- (2) Prevent (etc.) imperialism from lording over a region
- (3) Stabilizing situation sobering effect on imperialism in a region
- (4) Moderate zeal, futility of demonstrations or police action in a region

c. Other political objectives include:

- (1) Achieve political ends by merely threatening military force
- (2) Achieve political ends and strategic goals in war

d. Means to achieve political objectives includes:

- (1) Strategic rocket forces
- (2) Strategic rocket and naval forces (with breakdown of types)
- (3) Soviet naval forces (alone) (with breakdown of types)
- (4) All armed forces, triad of forces (with breakdown of types)

5. Main Soviet Military Service. Manifest theme in which speaker declares what branch of Soviet military is the main service, decisive arm, most

important factor, basis of combat might. Includes related theme of need for other services and in which theater of operations that service is important (not always given) on outcome or course of war or armed struggle. Includes theme of which service (or all services) are needed for victory. Includes:

- a. Strategic rocket forces (SRF) as main, decisive, etc., include ability to route in war
- b. SRF plus additional services (breakdown by type)
- c. Other services without SRF (breakdown by type)
- d. Theater in which that force(s) is decisive, important, etc.
- e. Victory needs all services (or individual force specified)

6. Advantage of Naval Forces. Manifest theme in which the advantages of naval forces (Soviet or general) is articulated by speaker. Often associated with particular types of weapons systems. Includes:

- a. Ability to form into powerful groupings
- b. Mobility and Maneuverability

- c. Ability to retaliate from direction of oceans
- d. Ability to rapidly deploy or be used
- e. Wide scope of operations
- f. Secrecy and concealment
- g. Stability against nuclear weapons, survivability
- h. Reduces nuclear attacks on own soil
- i. Ability to support Soviet foreign policy
- j. Ability to demonstrate military might beyond borders
- k. Demoralize or intimidate enemy
- l. Support allies and friends
- m. The sea as a no-man's land

7. Strategic Nuclear Reserve. Manifest theme in which a reserve of nuclear rockets is specified by speaker. Latent theme in which retribution from Soviet strategic nuclear forces is given as inevitable (but not automatic). Includes types of forces if given.

8. Importance of Conventional Warfare. Manifest theme where the speaker singles out the continued importance of conventional warfare. Includes:

- a. Conventional operations are important or even decisive
- b. No weapon can do it all, nuclear weapons are not absolute nor invulnerable
- c. Can wage war with or without nuclear weapons
- d. War can commence with or without nuclear weapons
- e. War can be conventional only

9. The Soviet Navy's Role is Expanding.

Manifest theme where speaker claims Soviet Navy's role is expanding and gives a reason. Reasons include:

- a. New weapons including ability to inevitably retaliate
- b. Enormous coastline
- c. Increased scale of operations at sea
- d. Ability to strike land
- e. Increased enemy threat

10. Theoretical Increase in the Importance of Navies or Naval Theater. Manifest theme not directly tied to USSR. Speaker discusses increased importance of naval warfare in theoretical sense. Includes:

- a. Growth of importance due to strategic nature, nuclear missiles, fleet versus shore mission, etc.
- b. Due to ability to influence course of armed struggle or war
- c. Due to ability to influence outcome of armed struggle or war
- d. In oceanic theaters
- e. In other theaters
- f. Primary mission of navies is fleet versus shore

11. Theoretical Use of Strikes Associated With Strategic. Manifest theme in which a strike is associated with word strategic or certain strategic goals. Includes:

- a. Strike associated with strategic in general (goals and missions)
- b. Association with strategic goal of crushing the military-economic potential of enemy
- c. Association with strategic goal of shattering enemy nuclear sea power
- d. Association with fleet versus shore and ability to achieve strategic results/goals by single combat unit

- e. Navies can change strategic situation
in individual theaters

12. Joint Operation of Soviet Military. A
widely used manifest theme which was cut down for use
in this study. Speaker discusses use of non-naval
forces in oceanic theaters as well as related issues.

Includes:

- a. Specific or vague use of other services
in oceanic theater
- b. Who determines/type of doctrine,
strategy, operational art for such
joint operations

13. Fleet Capability for Strategic Missions.
Manifest theme in which speaker identifies types of
strategic missions or location in which they will be
performed and associates types of forces (Soviet or
other) which will perform them. Includes the following:

- a. Types of strategic missions/locations
 - (1) General
 - (2) Defense of border
 - (3) Oceanic operations, including
targets
 - (4) Distant blows ashore, including
targets

b. Forces capable of strategic missions

- (1) Soviet fleet in general
- (2) Multiple Soviet naval forces
(breakdown by type)
- (3) Soviet submarines
- (4) Submarines in general (not tied
to USSR)

14. Speed and Decisiveness in Strategic Missions Involving Nuclear Rocket War. Manifest theme in which speaker is discussing a major nuclear rocket war and introduces time element, ability for nuclear weapons to be decisive, whether or not the aggression will be repelled or retaliatory, and if a limited nuclear war is possible. Includes:

- a. Importance of speed, initial period
- b. Nuclear weapons associated with
decisiveness, ability to crush enemy,
etc.
- c. Nuclear warfare as retaliation or
whether or not attacks by nuclear
forces can be defended against,
repelled, etc.
- d. Nuclear use en masse, global scope of
nuclear war, limited nuclear war or
war by pre-arranged rules.

15. Command and Control. Manifest theme where speaker discusses concepts on both global or local tactical level. Includes:

- a. Need to ensure control, especially of nuclear weapons.
- b. Distant deployment effect on assistance from headquarters
- c. Need for independent decision-making
- d. Type of command and control favored
- e. Need for flexibility
- f. Need to predict enemy actions
- g. Automated equipment
- h. Specific needs for future of naval warfare

16. Soviet Naval Art. Manifest themes where speaker addresses certain issues of Soviet Naval Art. Includes:

- a. Type of design and who should design naval art
- b. Application of lessons of World War II
- c. Limits of geography and lack of overseas bases
- d. Importance of tactical surprise
- e. Chief weapons of naval warfare

17. Soviet Navy Tactics. Manifest themes where speaker addresses certain issues of Soviet Navy tactics. Includes:

- a. Initiative
- b. Tempo
- c. Coordinated operations
- d. Simultaneous and prolonged combat
- e. Strike versus battle

18. Military's Role to Deliver Distant Blows. Manifest theme where speaker identifies Soviet Navy or other military forces as means and targets for distant blows primarily ashore. Includes:

- a. Means of delivery
 - (1) Soviet Navy
 - (a) Navy in general
 - (b) Specific naval weapons systems
 - (2) Other Soviet military services
 - (3) Non-specific Soviet military forces
 - (4) Naval forces in general (not tied to USSR)
 - (5) Military forces in general (not tied to USSR)

b. Targets

- (1) Strategic, vital, important
- (2) Military ashore
- (3) Economic
- (4) Administrative and political
- (5) Host nature for forward based systems/overseas bases
- (6) Oceanic/fleet targets as part of ashore target theme
- (7) Vague

19. SLOC as a Mission for the Soviet Navy.

Manifest theme where speaker identifies SLOC disruption as a Soviet Navy mission, a general mission or concept to be considered by navies and associates it with strategic goals or missions. Where identified, means of disruption is recorded. Includes:

- a. SLOC disruption as a Soviet/general mission
- b. SLOC disruption associated with strategic goal of undermining military-economic potential of enemy
- c. SLOC disruption as part of strategic mission of fleet versus shore

- d. Specific weapons systems, naval employment to be used to disrupt SLOC

20. Soviet Fleet Versus Fleet Mission. Manifest theme where speaker identifies specific Soviet Navy branch or other military force to be used against an enemy fleet. Also addresses forces to be used in cooperation with other forces and relative status amongst various naval forces. Includes:

- a. Targets (enemy forces to be engaged)
 - (1) Surface including aircraft carriers and others by type
 - (2) Sub-surface including SSBNs and others by type
 - (3) General including nuclear forces of enemy
 - (4) Fleet units in ports/bases
 - (5) Shore targets (since oceanic targets often placed in conjunction with shore targets)
- b. Means
 - (1) Soviet submarines of various types, with and without missiles

- (2) Fleet rockets with platform
not identified
- (3) Unspecified rockets or land missiles
- (4) Soviet naval aviation
- (5) Soviet surface ships
- (6) Soviet naval aviation in cooperation
with
- (7) Soviet surface ships in cooperation
with

c. Status

- (1) Soviet naval aviation paired with
other forces as the main striking
force, shock force, basis of
combat might, etc.
- (2) Soviet surface ships role decreasing/
increasing/still important

21. Defense of Soviet Maritime Border Mission.

Manifest theme in which speaker discusses need to defend Soviet maritime borders, which services are tasked with this defense, whether or not active defense is contemplated, and if protection of own assets needs to be accomplished. Includes:

- a. Defense of maritime borders as mission of
what service

- b. Defense mission includes repel or repulse
- c. Blue belt of defense, defended zones, defense lines
- d. Protection of own installations, objectives, targets

22. Need for a Balanced Soviet Navy. Manifest theme by speaker implying the need for or attainment a balanced Navy.

23. Description of Soviet Subsurface Forces. Manifest themes by speaker attributing certain characteristics to Soviet submarine forces. Includes:

- a. Under Arctic ice capability
- b. Nuclear torpedoes
- c. Subsurface launch of missiles
- d. Technical characteristics (power, speed, depth, rocket fuel, rocket range, noise, nuclear warheads on missiles)

24. Needed Improvements in Soviet Naval Forces. Manifest theme where speaker identifies certain needs for improvements to current fleet. Includes:

- a. General need to replace equipment
- b. Needs for individual types of forces

- c. Association with current needs and lessons for World War II

25. The USSR as a (Blank) Power. Manifest theme declaring the Soviet Union as a sea, land, or sea and land power. Associated theme is the West denying that Russian USSR is not in need of a Navy or is not a sea power.

26. Lessons of History: Czarist Era. Manifest themes where speaker specifies the lessons of history from the Czarist periods although not limited to Russian history. Manifest themes can also be viewed as latent messages for today. Includes:

- a. Political Value of Navies

- (1) Result in political and economic gain
- (2) Decisiveness on outcome of wars
- (3) Value in influencing peace talks
- (4) Armies are more important, however

- b. Strategic lessons

- (1) Cut SLOCs if vital to enemy
- (2) Value of bases for inter-theater maneuver

- (3) Navy permits geographic escalation
- (4) Geographical problems
- (5) Mahan thought submarines could
not dominate the seas
- (6) Do not blindly follow doctrine
- c. Preparation for war in time of peace
 - (1) The need to do so was understood by
progressive Russian leaders
 - (2) Some of Czarist autocracy misunderstood need for Navy, misused
Navy, did not prepare Navy in
time of peace
 - (3) Value of constantly building
 - (4) Value of technical superiority
- d. Lessons of World War I
 - (1) In certain areas, navies had a
profound influence on the course
and outcome of the war such as:
 - (a) Submarine blockade of United
Kingdom
 - (b) Allied blockage of Germany
 - (c) Allied reinforcement of Europe
 - (d) Allied influence on neutrals to
declare war

- (2) Battle of Jutland importance/
influence
- (3) Germany failed to coordinate
naval forces with submarines
- (4) Joint naval operations are the
most successful
- (5) Advantage of overseas bases to
West
- (6) Cost of antisubmarine warfare
campaign to West

27. Lessons of History: Interwar Years

Manifest theme where speaker discusses Soviet history subsequent to Great October Revolution. Manifest themes may also have latent messages for today.

Includes:

- a. Leninist principles governing military operations
 - (1) Determine main threat axis
 - (2) Concentrate at decisive place and
time
 - (3) Flexibility
 - (4) Seize initiative, sudden blow
 - (5) Decisiveness
 - (6) Economic reserves determine victory

b. 1920's Era

- (1) Economy limited type of Navy
- (2) 1924 Frunze criticism of those who think need only Army
- (3) Criticize Navy officers who wanted major fleet
- (4) Navy grew as economic potential increased
- (5) Mosquito fleet was defensive only

c. 1930's Political - Economic

- (1) Economy was/was not strong enough to have built a strong Navy
- (2) Navy received all that it needed prior to the war
- (3) Party made major decision prior to war of need for larger Navy
- (4) Building program interrupted by war
- (5) Importance of reserves of materials and economic base

d. Pre-war strategic military criticism

- (1) Political-military situation not properly understood
- (2) Plans to use Navy in coming war correct/faulty

- (3) Submarines mal-deployed prior to war
- (4) Insufficient attention paid to joint military operations
- (5) Criticism of General Staff for not studying lessons of early war

28. Lessons of History: World War II. Manifest themes where speaker discusses Soviet experiences in Great Patriotic War and lessons of other combatants. Manifest themes may also have a latent message for today. Includes:

- a. Criticisms of Soviet Fleet Equipment
 - (1) Amphibious units
 - (2) Naval aviation
 - (3) Anti-air warfare
 - (4) Antisubmarine warfare
 - (5) Balance of Fleet
 - (6) Miscellaneous
- b. Soviet Navy Missions
 - (1) General support to Army not in great detail
 - (2) Detailed support to Army with specifics

- (3) Maintain Soviet SLOCs
 - (4) Anti-surface ship/cut SLOCs
 - (5) Miscellaneous
 - (6) Details on how campaign at sea had effect on war ashore
- c. Positive Soviet war experience/lesson
- (1) Northern Fleet operations were strategic since kept open SLOC
 - (2) Soviet Navy diverts German Fleet from Battle of Atlantic
 - (3) Value in initial phase stressed
 - (4) Value in closing phase stressed
 - (5) Victory associated with strategic reserves
 - (6) Value of experiences of war today
- d. Negative Soviet war experience/lessons
- (1) Navy role too limited/defensive only
 - (2) Losses exceed pre-war estimates, difficult to replace equipment
 - (3) Performed missions not designed for
 - (4) Poor coordinated operations
 - (5) Limitations in maneuver/geography
 - (6) Miscellaneous

e. Western Allied experiences

- (1) Amphibious operations success due to air and naval superiority
- (2) Antisubmarine warfare ties up massive resources with limited gains
- (3) U.S. Navy in Pacific is model for today
- (4) Atomic bombs only decisive if used massively
- (5) For surface ships to succeed, need aircraft carriers
- (6) Cutting SLOC results in undermining military-economic potential
- (7) Miscellaneous

f. Axis experiences

- (1) Value of Norway to Germany
- (2) Germans fail to allocate sufficient air and surface units to ensure success of submarines
- (3) German use of non-Navy aircraft for Navy missions was not successful
- (4) Japan underestimates value of SLOC
- (5) Japanese Navy was not balanced
- (6) Miscellaneous

28. Post-War Era Lessons, Experiences. Manifest themes where speaker discusses Soviet history. Manifest themes may also have a latent message for today. Includes:

a. Stalin Era

- (1) Navy still too defensive, local operations, limited to helping Army
- (2) Artillery ships dominate scene limiting development of other units
- (3) Naval aviation defensive
- (4) Military theory deficient
- (5) Economic-technical potential to have done more with fleet

b. Khrushchev Era

- (1) "Some" thought nuclear weapons made navies obsolete
- (2) Same as above but specifies amphibious capability
- (3) Defensive mind set impacts military thought negatively

- (4) Initially planned use for nuclear weapons was simply as extension of conventional warfare
- (5) Potential to use nuclear weapons on cities considered faulty

END

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