STATEMENT OF ADMIRAL ELMO R. ZUMWALT, JR., U. S. NAVY

CHIEF OF NAVAL OPERATIONS

BEFORE THE COMMITTEE ON ARMED SERVICES

UNITED STATES HOUSE OF REPRESENTATIVES

CONCERNING FY 1975 MILITARY POSTURE AND BUDGET OF THE

UNITED STATES NAVY

21 FEBRUARY 1974

BRIEF BIOGRAPHY OF ADMIRAL ELMO RUSSELL ZUMWALT, JR., USN

Admiral Elmo R. Zumwalt, Jr., was born in San Francisco, California, on November 29, 1920. He attended the U. S. Naval Academy and was graduated with distinction and commissioned Ensign on June 19, 1942. He attended the Naval War College (1952-1953) and the National War College (1961-1962). He advanced to the rank of Admiral on July 1, 1970.

Admiral Zumwalt assumed command as the nineteenth Chief of Naval Operations on July 1, 1970. Prior to his present assignment, he served as the Commander Naval Forces, Vietnam and Chief of the Naval Advisory Group, U. S. Military Assistance Command, Vietnam. Other significant positions of responsibility have included Director of the Systems Analysis Group in the Office of the Chief of Naval Operations, Executive Assistant and Senior Aide to the Secretary of the Navy, and Director of Arms Control and Contingency Planning for Cuba in the Office of the Assistant Secretary of Defense for International Security Affairs.

He has commanded Cruiser-Destroyer Flotilla SEVEN, the guided missile ship USS DEWEY, the destroyer USS ARNOLD J. ISBELL, and the destroyer escort USS TILLS.

During World War II, he served on the destroyer USS ROBINSON and saw action against enemy Japanese battleships during the Battle of Leyte Gulf on October 25, 1944. After the cessation of hostilities in August 1945, and until December 8 of that year, he commanded, as prize crew officer, the HIMJS ATAKA, a 1200-ton Japanese river gunboat. In that capacity, he took the first ship flying the United States flag up the Yangtze River since the outbreak of World War II.

Admiral Zumwalt's decorations include: The Distinguished Service Medal with a Gold Star in lieu of Second Award, the Legion of Merit with Gold Star, and the Bronze Star medal and the Navy Commendation Ribbon, each with the Combat "V". In addition, he holds twelve campaign, service and theater medals, and awards or decorations from the Republic of Vietnam, the Philippines and Korea.

Admiral Zumwalt is married to the former Mouza Coutelais-du-Roche of Harbin, Manchuria. They have two sons, Elmo R. Zumwalt, III, and First Lieutenant James Gregory Zumwalt, U. S. Marine Corps, and two daughters, Ann F. Zumwalt and Mouza C. Zumwalt.

Good morning Mr. Chairman and Gentlemen of the Committee,

I INTRODUCTION

As a basis for my posture statement this year, I have prepared a comprehensive net assessment of U.S. Navy capabilities relative to those of the Soviet Navy. I will present, within this context, the Navy's programs as contained in this year's budget. I will show how these programs have been structured to correct, insofar as possible, the relative weaknesses in our own forces.

This net assessment compares our two navies over a ten year period--the past five and next five. I will not add here to the testimony that the Secretary of Defense and the Chairman of the Joint Chiefs of Staff have given to support the requirement for naval power for deterrence to general nuclear war, conventional war, or war limited to conflict at sea. But I feel that this comparison of our relative naval capabilities is particularly appropriate at this time:

(1) Three years ago, I pointed out that this country was--and would be--highly dependent upon petroleum imports. We are witnessing today just how dependent on them we really are.

(2) The industrialized world faces a similar producer consumer imbalance in many raw materials. The United States consumes over a third of the aluminum produced in the world; Western Europe and Japan slightly under a third. Three countries, Australia, Jamaica and Surinam, produce two-thirds of the non-communist world's aluminum ore. The United States, Western Europe and Japan have negligible tin resources, yet these three

regions consume over three-fourths of the tin produced in the world.

(3) That same fraction of the world's tin is produced by four other countries: Malaysia, Bolivia, Thailand and Indonesia.

(4) A third critical resource worthy of our careful consideration is food. Of the five major food producing regions on earth, only two have any long term exportable food potential--the Soviet Union and North America. If current history is any indicator of future events, then the United States may expect to play a leading role in the world's food supply.

The oil-producing countries have shown the way in taking advantage of a near-monopoly position in a key world industrial resource for greater profits and political gains. The recent meeting of bauxite producers and further activity by the world tin cartel can lead in the same direction. Conditions are also ripe for similar activity by producers of copper, natural rubber and timber.

I have singled out these three critical resources because they all have two elements in common:

(1) They are primarily transported in ships. Clearly, if we cannot ensure the safety and freedom of our sea lines of communication, we must be prepared, in any future conflict, to pay a very heavy price--or to negotiate on terms most favorable to our adversary.

(2) Maritime power is a relevant power factor in the mosaic of political, economical, psychological, and other factors

necessary to assure our continued access to seaborne resources in a successful foreign policy.

II HISTORICAL PERSPECTIVE

Before I proceed with the net assessment and present the Navy's planned programs, I would like to review with you the history of the change in relative capabilities. I do this so that I might better portray the rationale for my decision to accept near term risk and reduce force levels to fund necessary modernization.

The development of the United States and the USSR as super powers has been marked by their differences rather than by their similarities. The United States has always been an island nation dependent on its maritime assets for political influence. Americans have grown up with such a natural dependence on the sea that the majority of our industries and institutions can trace some portion of their origins or development to maritime influences. Our capabilities in the exercise of seapower have paralleled our development as a world power.

Russia has evolved through history as a continental nation, endowed with a great wealth of natural resources and largely independent of sea lines of communications. As a land-oriented people, the Soviets, in their quest for a dominant position in the world order very naturally developed the capabilities of their land forces as a matter of first priority. They then turned logically to the development of their air forces as the necessary complement to their ground force capability. Their Navy, on

the other hand, was developed as an adjunct to their land forces. It was a force which served to secure the seaward flank of their armies and to protect their limited coastal areas from frontal assault. As Soviet power and influence developed in the international arena and as they acquired offsetting strategic capabilities that would permit them to move into new and more distant spheres of influence, they perceived the need to redress the military balance at sea.

Two unrelated events, which occurred essentially during the same period, gave the Soviet planners the examples they needed to convince their political leaders of the necessity for a reordering of their priorities. In Lebanon in 1958, the U.S. Sixth Fleet was able to move our Marines ashore with almost complete impunity in an area that is virtually the Soviet backyard. In 1962, the U.S. Atlantic Fleet was able to enforce a turn around of their ships which were transporting land based missiles enroute to Cuba, by demonstrating under the U.S. strategic nuclear superiority, an overwhelming capability to control the sea.

The lesson was learned. The Soviets initiated the most impressive maritime program in history (with the single exception of our own WW II expansion). In the ensuing ten years they produced a Navy with worldwide competitive capability (Slide #1).

From their position at the end of WW II, their forces developed in a logical sequence. First, they modernized and

expanded their naval protective forces and offshore capabilities. Their small, high-speed missile-equipped patrol units became their insurance that we could never again operate at will within range of their continental bases. They rapidly produced a huge attack submarine fleet. To supplement the capability of their submarine forces in the sea denial role, they developed a land based maritime air capability and a family of missile equipped major and minor surface combatants.

(Slide #2) To make these ships and aircraft a viable threat to our more sophisticated Navy, they expanded and modernized their anti-ship missiles. As you can see, they have progressed from an inventory of [400 to over 1400] missiles and they are still growing. They can bring them to bear from submarines, surface ships and aircraft, and can strike targets at ranges anywhere from 30 to 300 miles.

This family of missile systems produced a major strategic shift, making every platform which carries anti-ship missiles into a significant offensive platform.

Their next move was to expand the range of their influence by acquiring base and usage rights in foreign countries to permit the extension of ships and vital land-based naval air power into wider reaches of the world. Their political system has made them much more successful in this acquisition during recent years than we have been. We have witnessed dramatic increases in Soviet access to or control of strategic places overseas. This development is traced in greater detail in Addendum II to this statement.

The final step in this sequential development, the one in which they are presently engaged, is the development of a projection capability in the form of both sea-based air and naval infantry with associated amphibious lift.

During this post WW II period of Soviet naval expansion, events conspired to prevent adequate modernization of U.S. naval forces. We ended WW II in a position of overwhelming naval superiority and hence felt no requirement to modernize our fleet then. We fought the Korean War with WW II ships and had inadequate funds during the war to modernize appropriately. In the post-Korean war period, we began the expenditure of vast sums for the urgently needed strategic Polaris submarine fleet. Again, we devoted inadequate sums to modernization of the rest of the fleet. Next began the decade-long period when our forces were heavily engaged in Southeast Asia while we continued to fulfill our commitments in other areas of the world. The result was that with heavy operational expenses, there was again heavy downward pressure on money available for modernization of our fleet.

Adding to the problem of an already aging fleet, was the need to defer much of our ship and aircraft maintenance because of scheduling and material priority revisions associated with the conflict. And, compounding the problem, was the forced drawdown of our ammunition and supplies.

As we approached the period when our Southeast Asia commitments would be reduced, we also entered an era when realignment of domestic priorities and shifting economic trends were operating

markedly to reduce both the overall percentage and the buying power of the military portion of the national budget.

At this point in 1970, we asked in a major review: what capabilities do we need in the future?; and, how can we achieve these capabilities within the fiscal constraints we foresee?

We analyzed our mission requirements (Slide #3) and placed the missions in this priority order.

We looked at our fleet and its increasing technical obsolescence. (Slide #4) Our 976 ships were approaching an average age of 18 years. As a comparative figure, only 3 percent of the Soviet ships were over 20 years of age at that time. It was apparent that we had allowed the massive buildup of our sea based strategic capability and the Southeast Asia conflict, to postpone modernization too long. We concluded that, at projected budget levels, we would have to give up a large number of ships and associated aircraft in order to make available, within those austere budget levels, the funds we would need for modernization.

(Slide #5) As a result of these sacrifices of current capability for modernization, this is what happened to Navy force levels. We have sustained a reduction of 47% of our ships and about 22% of our aircraft since 1968. The average age of our fleet has been reduced to fourteen years by giving nearly half of it up. (Note, however, that we can maintain that average age while the Navy increases to 61% of its 1968 numbers by 1980, if the Congress funds this years and planned outyear budgets.)

In the light of these historical trends and the future dynamics of the maritime interface between the U.S. and the Soviet Union, we in the Executive Branch and you in the Congress now face the problem of how to evaluate the balance of power, how to perceive the meaning of that balance and how to structure our forces to improve that balance. The rest of my statement is designed to deal with that problem.

III NET ASSESSMENT: GENERAL

I consider that this net assessment is an important step toward identifying our position so that we may consciously influence its future trend.

From this assessment--and placing its analyses in the broader context of my own personal vantage point as CNO--I find that the U.S. Navy is today possibly at the nadir of its capabilities vis-a-vis a Soviet Union which has embraced naval power as a major element of its foreign policy, and which has the capability to compete most effectively with us in the peacetime, paradiplomatic use of naval power. For the first time in modern history, we find ourselves denied a full range of politico-military options in responding to crises like the Arab-Israeli war. We are denied these options today because we face an opponent who has built a new Navy which is now in many respects on a technological par with our own. The Soviet Navy has steadily gained on the U.S. Navy both numerically and technologically over the past two decades. As demonstrated in Addendum VI to this statement, this technological gain appears to be on the order of half a

generation per weapon system generation--or about 10 years in technology every 20 years. Generally, the U.S. lead was 10-12 years in the 1950-1955 time frame; but, that lead has essentially vanished in many important areas today. In order to provide for future improvements in our relative capabilities, we opted to sacrifice force levels in order to gain funding for modernization programs. These programs, as I will show you, are designed to correct both the numerical and the technological imbalance--and I think it is important for you to understand why we must address both elements.

There are several reasons for the dramatic shift in naval balance. The first point upon which I need to remark is that the Soviets, having to come from far behind in maritime power, were forced to optimize their naval forces as efficiently as possible against ours. Second, I have traced how in the process of optimization they took advantage of their position as essentially a land power with concomitant freedom from a requirement to use the seas, in order to concentrate first on denial of the use of the seas to us, and only lately on control and use of the seas themselves. Third, I have indicated the major international events which accelerated, and the political opportunities which facilitated, the Soviet maritime expansion and which inhibited our ability to modernize. Fourth, I have described the major sudden decrease in current capability that we accepted in order to make the investments in modernization that had to be made in order to achieve adequate future capability.

Now I shall give a series of comparisons designed to demonstrate in several different ways the elements of the maritime balance that exists between the U.S. and USSR. I shall also give you assessments of the adequacy of the U.S. Navy vis-a-vis the Soviets in each major warfare area, now, and as projected for the future. Then I shall discuss the scenarios in which naval forces must be compared in order to give deeper insight into relative capabilities. Finally, I shall give you a measure of relative capability in terms of estimated war outcomes. Throughout these discussions, I will highlight for you the impact of our current programs on the restoration of the naval balance.

IV NET ASSESSMENT: COMPARISON OF ELEMENTS OF NAVAL CAPABILITY

Some of the simplest comparisons of this type were shown in the earlier slides. The types and capabilities of ships and other weapon systems that a Navy buys, indicate not only current capabilities, but give us trends that we can use in making broader comparisons in future projections. However, to gain further insight into how we compare with an enemy, we went to a higher level of complexity in our net assessment and compared specific elements of naval power. We examined the various indicators which, when taken together, gave us a picture of the trend of relative capabilities of our two navies over the past five years. We further--within limits of our ability to assess the validity of intelligence estimates and our ability to rely on our own budget projections--pushed these indicators forward five years and evaluated the viability of our own "get well" programs.

The indicators which appear to possess the most merit in describing these trends are, age of the force, the offensive power of each, the defensive capability of each, and, since the force structures are asymmetrical; the offensive power of one arrayed against the defensive capability of the other. In addition, specific warfare areas where new capabilities are emerging are worthy of careful consideration.

A. NET MODERNIZATION PROGRESS BY SHIP TYPE

There are two things one can do to offset the aging of a force: Build new ships and retire old ones. In the case of the Soviet Navy, the new construction rate of major general purpose ships has been sufficient to offset the aging of existing ships and to provide the Soviet Navy with newer more capable ships. (Slide #6) The classes of ships which the Soviets have emphasized--as evidenced by relatively high building rates, increases in force size, and decreasing average age--are:

Amphibious Assault Ships,

Aircraft Carriers,

Nuclear Powered Attack Submarines,

Missile Ships,

Underway Replenishment Ships, and

Nuclear Powered Cruise Missile Submarines.

On balance, the trends in the Soviet Navy over the past five years show an emphasis on ships to counter our own, to support operations in remote areas, and to carry out the projection mission.

In the case of the U.S. Navy, the rate of retirement of older ships has been so much higher than the building rate that the fleet has shrunk a total of 47% over the five year period. Whereas the Soviets have shown a high building rate and an increase in numbers of ships in seven classes, we did this in only one, nuclear powered attack submarines. Thus, the major trend we see over the past five years in the U.S. Navy is a large decrease in numbers as many of our older ships have been retired. In numerical terms, only our SSN force has had a relatively high building rate and an increase in numbers. All others have declined.

The building and retirement schedules I have just discussed resulted in the age distributions which are shown here (Slide #7) for major surface combatants by mid-year 1973. Both this and the next slide show that approximately one-fifth of these ships have joined their respective fleets within the past five years. The U.S. additions (Slide #8) within this time frame were primarily ocean escorts, while the Soviet additions included cruisers, frigates, destroyers and ocean escorts to fill their perceived needs.

In some of our projections for the Soviet and U.S. Navies, we went beyond the next five years. We did this because many of the shipbuilding programs now in progress will not deliver significant numbers of ships until after 1978.

Our projection of the future Soviet force structure, indicates a strong emphasis on development of amphibious and

underway replenishment capabilities and in continuing vigorous building programs for missile escorts and nuclear powered attack submarines. They also attach a high priority to carriers, presumably to redress, to an extent, the obvious imbalance in this area of naval warfare. In the aggregate, the nominal age of their fleet will decrease slightly, but their forces will grow somewhat smaller at the same time.

When we examine the projected U.S. force structure trends for 1973-1982, we find that if we can with the support of Congress meet the budgetary goals involved, our forces as a whole will show a building rate somewhat higher than the Soviets'. Ours will continue to grow while theirs are estimated to be reducing, [a net gain which I feel is critical to regaining our chances of success in our defense efforts.] In addition, in the future the nominal age of our ships can decrease faster than that of the Soviets--an indication that we are capable of overcoming their technological surge. I cannot stress too strongly that these increases are entirely dependent upon continued Congressional support. Specifically, our missile escort force position is dependent upon procurement of the PF and DLGN. Any reduction in the proposed building rate of these ships will impact adversely on this balance. At the present time, we are building DLGNs at the maximum rate which our industrial base will permit. At this rate of one DLGN per year, we shall achieve a level of three nuclear escorts per nuclear carrier by the time USS CARL VINSON (CVN 70) arrives in the fleet in 1980. Concurrently, however,

we must pursue the FF building program vigorously in order to achieve the balanced force which we seek. In a war at sea, numbers of ships and consequently, spacing of weapons systems, will ultimately contribute more to a successful outcome than will individual ship endurance. In this regard, I must note that this is the first time our budget has been adequate to support the procurement of an optimum proportion of both low and high mix systems.

Another low mix system which should be highlighted here is the missile patrol hydrofoil which we are pursuing jointly with our NATO allies. While this ship is admittedly limited in an open ocean environment, it has a very real and viable role in such areas as the North Sea and Mediterranean and will provide a handsome return in offensive capability in such scenarios.

B. COMPARISON OF OFFENSIVE ELEMENTS

Now to give a rough idea of the capabilities of the two fleets to contend with each other, we can go a step beyond the comparison of building programs, and consider--in the most elemental way--such things as the offensive force each might use to protect itself. Since these comparisons will necessarily be highly aggregated, and thus oversimplified, they should by no means be interpreted as accurate predictors of the outcome of any real battle between the two fleets. Rather, they are intended merely as somewhat better indicators than mere ship counts.

As offensive systems, we will be counting the weapons most likely to be used against the other side's ships. These are,

first, attack aircraft and, second, anti-ship missiles--air-to-surface missiles (ASMs) if launched from aircraft, and surface-to-surface missiles (SSMs) if launched from surface ships or submarines.

We have included Soviet naval aircraft which are missile-armed, but have omitted other naval bombers from these counts. The Soviet naval bombers not equipped with ASMs have far less capability against surface ships than do anti-ship missiles or attack aircraft. In addition, they have other roles to perform, such as electronic countermeasures, reconnaissance, and in-flight refueling. Soviet missile armed patrol boats are not included although they are very much a part of the balance in the Mediterranean, North Sea and other areas close to Soviet bases.

Before counting the numbers of offensive systems on both sides, we looked at the number of platforms on which those systems could be carried.

(Slide #9) At the moment, on the U.S. side, the platforms are mainly our carriers, which carry our attack aircraft. However, the introduction of the Harpoon anti-ship missile will allow, in the next five years, many additional ships--as well as aircraft and submarines--to carry offensive anti-ship missiles. With continued Congressional support of this important program, the Harpoon missile will redress the 4:1 numerical advantage held by the Soviets today and bring us to numerical parity in platforms [by 1979]. (Slide #10)

On the Soviet side, the majority of platforms are the SM-equipped submarines, an increasing proportion of which are nuclear-powered. Their force level will continue to rise with the introduction of new SSM-equipped surface ships. Toward the end of the 10-year period covered here, aircraft carriers equipped with fixed-wing, supersonic, V/STOL aircraft will be introduced.

The next trend indicator (Slide #11) is the trend of total offensive systems carried by ships and aircraft platforms. This of course, is a simplified comparison. We count an anti-ship missile as equivalent to an attack aircraft. We recognize that the anti-ship missile is probably more accurate and less affected by poor visibility. The attack aircraft, on the other hand, is often less vulnerable to electronic countermeasures, may provide damage assessment, and, above all, is reusable. Nonetheless, this figure does give at least a first approximation of offensive capability.

On the U.S. side, offensive firepower has suffered from the reduction in our carrier and attack aircraft forces. With your support, the introduction of the Harpoon will reverse this trend dramatically in the later years of the period.

On the Soviet side, the number of anti-ship missiles rises at an average annual rate of about 3% over the 10-year period; the increase of ship-launched and submarine-launched anti-ship missiles is more than enough to offset the slow decline in the number of air-launched anti-ship missiles. There will also

be a small increase in capability toward the end of the period in the form of supersonic V/STOL tactical aircraft operating from the new larger Soviet carriers, but their numbers will not have a large numerical impact until after 1978.

(Slide #12) The Soviets' superiority has grown--because of gains on their side and losses on ours--to a 90% superiority today, but introduction of the Harpoon will reverse the trend and bring us to a position of numerical superiority by 1977. Although readily apparent from these and the previous graphs, the importance of the Harpoon program cannot be over-emphasized. It is the Navy's principal anti-ship missile. It is designed to be launched from all of our surface combatants, from the S-3 and P-3 ASW aircraft, from the A-6 and A-7 attack aircraft, and in a special encapsulated version, from all but the oldest SSNs. Therefore, should the program suffer any sort of reversal, whether budgetary or technological, it would reflect adversely, not only on the number of offensive platforms, but also on our total offensive capability. After 1978, we should expect to see the combination of increasing numbers of Soviet carriers and V/STOL produce a dramatic upswing in the Soviet line on this slide.

C. DEFENSIVE COMPARISONS

Here we see the relative advantage enjoyed by the U.S. in number of defensive systems (Slide #13). The capability which is displayed is the number of simultaneous intercepts possible against the other side's attack aircraft and anti-ship missiles. This capability is provided by surface-to-air missiles (SAMS)

fired from surface ships, and by interceptors. In making this comparison, we have counted only a third of the actual number of interceptors in the inventory as a way of reflecting steady-state availability. Again, as in the offensive capability comparison, there is a degree of artificality in assuming equivalence between dissimilar systems. For example, interceptors are extremely mobile, whereas missile ships are tactically stationary: interceptors have limited ammunition, while missile ships have relatively large magazines: and interceptors--at least in the case of the F-14--can shoot down at low altitude targets, while missile ships are inherently horizon limited. Therefore, what we see here is only a first approximation of defense capability.

(Slide #14) On the U.S. side, defensive capability has been relatively static in the recent past, but will double by 1978 with the introduction of the F-14, which can intercept six targets simultaneously, compared to the F-4s single-target capability. This improvement results not from a force level change, but from modernization. Our Sea Control Ship based V/STOL's will become a factor in this equation in the late 70's and will give our convoys and smaller task groups this element of in-depth air defense which they have never before enjoyed. These V/STOL aircraft are a spin-off from the larger Marine Corp V/STOL program and are one example of cost saving through adaption of existing assets to developing needs.

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On the Soviet side, capability depends almost entirely on SAM systems based on surface ships. This will rise at an average annual rate of about [15%] over the period. Toward the end, their new aircraft carriers will add some highly credible intercept capability, but not in sufficient numbers to significantly affect the total until after 1978. And even then, we do not expect that these carriers will be able to support an interceptor with capabilities like that of the F-14, although their naval V/STOL aircraft, the YAK 36, reflects the most advanced V/STOL technology in the world today . (Slide #15).

This shows a different kind of defensive capability--anti-submarine warfare (ASW) forces. Here again, to get a rough comparison, we count suitably equipped SSNs, surface ships with an ASW capability (sonar and ASW weapons), and ASW aircraft, both fixed and rotary wing, and both land and sea based.

On the U.S. side, total ASW forces have dropped markedly in the past five years. Only in the SSN category has there been growth. The retirement of our ASW carriers (CVSs) has reduced the number of sea-based helicopters and fixed-wing ASW aircraft (S-2s). We have also retired some surface combatants and land-based patrol aircraft. Over the next five years, however, the trend will be reversed. We will continue to retire more ASW-capable ships than we build, but at a rate far less than that of the past five years. The number of land-based patrol aircraft will stablize, the SSN building program will continue to enlarge that force, and our sea-based ASW aircraft forces will increase

with the introduction of the S-3 and the Lamps Helicopter, and the Sea Control Ship with its SH-3 Helos.

In performing the ASW function, our naval operations can be divided essentially into two types--attrition (offensive) and protection (defensive) operations. Our attrition operations involve such forces as P-3 patrol aircraft, SSN barriers, Captor Mine barriers, SOSUS surveillance systems, etc. Analysis shows these forces to be relatively adequate to the need. It is in our protection forces--which allow naval and troop resupply operations to be carried out in a timely manner (without waiting weeks or months for gradual barrier attrition to take place)--that our greatest deficiencies exist. It is here that we are in the greatest danger of losing control of the seas. In these protection operations, all our CVs are committed to sea lane defense. They are employed in the highest threat areas, where Soviet airpower might be brought to bear, where the largest concentrations of Soviet submarines are expected, and where we have frequent and high-intensity requirements for surface forces, naval and merchant. But the cost of a CV is simply too great to commit one to each individual force or convoy that must operate in the more distant reaches of the world--the South Atlantic, the Indian Ocean, the Mid-Pacific, the Phillippine Sea, and even in areas like the Caribbean, the Eastern Pacific, the Western Mediterranean, and the mid-Atlantic, south of 30° N. Likewise, even the smallest CVS is so big and so expensive that we cannot afford to employ it with small task groups and convoys.

The three-dimensional threat is such that we simply must provide low-cost, sustained, sea-based airpower with essentially all our forces. A Sea Control Ship fills this need.

The Sea Control Ship (SCS) scheduled to enter the fleet commencing in FY 1978 is a relatively small, austere ship designed to support sustained sea-based air operations in low-threat environments. The Sea Control Ship will provide sea-based aircraft (V/STOL and helicopter) for the protection of underway replenishment groups, amphibious groups, and convoys in low air threat areas where protection by the more costly and capable CVs will not be available. You may recall that in World War II, even though we had vast numbers of surface escorts, a large attack carrier force and essentially unlimited budgets, we still found it necessary to develop the CVE--a low cost air capable escort which provided long-range air surveillance and defense for our convoys and shipping. The SCS grew out of a similar need in a modern era.

The Sea Control Ship gives us this lowest possible cost through a combination of V/STOLs and helos. (The smallest ship we could build with catapults and arresting gear, capable of operating conventional-takeoff-and-landing aircraft, would, if conventionally powered, cost some three times as much as an SCS and, if nuclear powered, would be much more.)

Operationally, the Sea Control Ship gives us 24-hour surveillance, surface and subsurface, many miles out from the force. Forces without carriers are now blind beyond 15 to 20

miles for surface contacts and beyond about 5 miles for submarine contacts. We can get out to about 100 miles and 50 miles respectively with the Sea Control Ship. It gives us the capability to locate and kill surface ships, missile boats, and submarines, before they can target us with their missiles; and it provides a modest capability to intercept and destroy threat aircraft.

Thus, the Sea Control Ship will provide sustained sea-based air support to the many dispersed task groups and convoys which cannot, due to lack of numbers, be provided the protection of our CVs. It forces the Soviets to react to a completely new initiative, designed to attack their weakest points--the lack of sea-based air, and the reliance on long-range reconnaissance aircraft for anti-ship missile targeting assistance. This concept is sound, proven by wartime experience, and validated by 2 1/2 years of intensive analysis and test. No other forces (ships, aircraft, submarines) above what we now plan to have could give us as much capability of this kind for the dollar.

In addition, there are other current Navy programs which merit mention as they contribute significantly to the achievement of U.S. ASW force superiority. Although the older U.S. ASW carriers (CVS) have been retired, there remains a requirement for ASW platforms to provide a viable capability in light of the Soviet technological advances. In 1972, the role of the attack carrier (CVA) was expanded to include an ASW capability (CV). By 1979, eleven of our carriers will be converted to CVs vice CVAs.

The modification of the SH-3 ASW helicopter is concurrent with expansion of the ASW platform capability and provides an effective, modern system to operate both from the CVs and from the Sea Control Ship.

The BQQ-5 sonar is a technological improvement which significantly expands the ASW capability of the SSN [to the extent that two BQQ-5 equipped SSNs can now effectively patrol an area which formerly required three SSNs.]

On the Soviet side, all categories of ASW-capable forces, and particularly the airborne components, have increased over the past five years and will continue to do so over the next five years. These total increases, however, will not be as great as ours--with the single exception of ASW surface ships--where some of the older and smaller single-purpose escorts will be retired.

These comparisons do not reflect the qualitative differences in U.S. and Soviet ASW forces, such as: (1) Surveillance capability (e.g., SOSUS); (2) Submarine self-noise levels; (3) Long range capabilities of detection sensors on ASW platforms; and, (4) variations in platform capabilities. The U.S. generally leads in the above areas, but this lead is at least partially diminished by the asymmetry in U.S. and Soviet need for use of the sea. Further, these qualitative differences do not change the principal significance of the trends indicated by the figures.

(Slide #16) This summarizes the total number of ASW-capable forces. In 1968, we had a numerical superiority of almost two-