

to-one. But during the past five years, our forces have shrunk at about 7%, per year, resulting in our loss of numerical superiority. However, with Congressional support we can experience a moderate growth in our forces over the next five years, compared with a very small predicted Soviet growth, and the combination could give us a slight edge in the number of ASW units by 1978. Since the margin is so slight, it is imperative that we continue with the previously mentioned ASW programs.

D. COMPARING OFFENSE VERSUS OPPOSITION

(Slide #17) Here we can see the number of offensive systems on each side in proportion to the number of high priority targets they would have to attack. The United States in 1968 had a superiority over the Soviet Union of more than two-to-one. With the reduction in our offensive capability resulting from the decline in our carrier attack forces, as well as the gradual growth in the number of Soviet ships with which they had to contend, the Soviets achieved numerical parity in 1971. Now they have a superiority [of about 50%. In the next five years however, if Congress approves our planned programs, we should not only regain numerical parity, but achieve an even greater numerical superiority than we started with in 1968] This results, of course, from the introduction of Harpoon, which increases our offensive firepower, and dilutes the Soviet offensive firepower by presenting them with more opposing high-threat platforms.

(Slide #18) Looking at this comparison in another way, we can see the number of offensive systems, in proportion to the

number of opposi, defensive systems. The(ives may be interpreted as a measure of each side's ability to penetrate the other's defenses.

[On the U.S., side the net result has been a very sharp drop in our ability to saturate their defenses--this is followed by an even more rapid recovery over the last three years of the period--but not enough to recover the 1968 advantage which we had over the Soviet defenses.

On the Soviet side, the net result is a gradual gain in their ability to saturate our defenses over the first four years, followed by a steady decline over the rest of the period to a point roughly 25% below their 1968 capability.

The United States has a clear advantage throughout the entire period, though far greater at the beginning and at the end than it is now.]

(Slide #19) Here is the final comparative plot, which shows the number of ASW systems in proportion to the number of submarines with which they have to cope. We have included only general purpose submarines in this comparison, excluding those which launch strategic nuclear ballistic missiles. The curves can be interpreted as a measure of each side's ability to suppress the other's submarines.

On the U.S. side, the result is an essentially steady ratio throughout the period, although the character of the U.S. ASW force changes from surface ship intensive to a balanced air, surface and sub-surface force. With continued Congressional support, we will maintain our clear advantage in attrition ASW

with the Captor Line augmenting the already impressive capability of the SSN in ASW barrier operations and with SOSUS improvements and the P-3 holding their own in ASW area search operations. The Sea Control Ship operating to protect shipping, assisted by patrol frigates and DE's will provide an order of magnitude increase in protection ASW capabilities where the balance had begun to swing so markedly toward the Soviet submarine force in their SLOC interdiction role.

On the Soviet side, their ability to suppress us rises rapidly over the first six years of the period as we retire almost all our diesel boats, and then turns downward as we approach an all nuclear SSN force. However, the Soviets, by virtue of their larger diesel submarine force, maintain a clear numerical superiority throughout the period, though the difference decreases in the later years.

In retrospect, the last three plots show a generally similar trend. United States capabilities against their Soviet opponents show a marked decline over the past five years, and, under the assumption of Congressional support for the 1975 and subsequent budgets, a general recovery in the next five.

E. COMPARISON OF PROJECTED CAPABILITIES

There is yet another element of Soviet naval capabilities that reveals an important trend in their naval thinking. We have witnessed a dawning interest on their part in the projection of naval power far from their home waters. Ambitious construction programs in underway replenishment ships, aircraft carriers,

command and control ships, and amphibious ships and an operational pattern of steadily increasing overseas deployments provide evidence of this interest.

As recently as 1963, there was no permanently deployed Soviet naval force, even in the Mediterranean. Today, they have deployed forces, not only in the Mediterranean, but also in the Caribbean; the Indian Ocean, and off the west coast of Africa. You can see the history of this buildup here (Slide #20).

To support their burgeoning distant operations, the Soviets have correctly perceived the need for an effective mobile logistic support capability. They have embarked, therefore, on an accelerated program to develop the capability for underway replenishment. (Slide #21) This year, for the first time, they have matched us in total numbers of underway replenishment ships capable of refueling at sea. At predicted building rates, they will exceed us in total numbers by next year. Our ships are, in general, larger than theirs and have greater deadweight tonnage. This is balanced, however, by an advantage to the Soviets in the ratio of combatants to refueling ships. (Slide #22) If we consider the total underway replenishment capability of both sides and include the ability to replenish stores, repair parts and ammunition, the U.S. emerges with the greater out of area resupply capability today. However, the Soviets will reach a position of numerical parity [by 1978] (Slide #23).

Because of their lower priority, the large scale modernization of the U.S. support ship forces has been deferred for many years and now lags modernization of the combatant forces by a significant margin. The situation promises to be further strained in the long run by our withdrawal from or denial of foreign bases for logistic support. (Slide #23A) At the same time, we may be called upon to operate in remote areas such as the Indian Ocean. We cannot, with an acceptable degree of reliability, conduct sustained operations of this nature without a modern and capable mobile logistics support force. This was the backbone of our operations in the Pacific in World War II. Therefore, we plan with your support to pursue a building program, over the next five years, which will remedy this deficiency.

Coupled with their developing blue water experience and their expanding capability to support combatant forces in distant areas is the evidence of a Soviet trend toward a power projection capability.

Since 1965, the Soviets have placed increasing importance on their "naval infantry"--which we would call marines. From a small force, they have now grown to about 10,000 men--still far from the size of our Marine Corps, but undeniable evidence of a serious interest in building this kind of capability.

In addition, to support their naval infantry, the Soviet force of major amphibious assault ships (i.e., LST size) has grown from only 5 ships in 1968 to 12 today. We estimate continued growth [to 25 ships] within the next five years. This,

combined with other amphibious lift assets, translates to the lift capability shown here. (Slide #24) As the slide indicates, U.S. lift capability has dropped approximately 40% since 1968, but will rise toward the end of the period as the last of the LHAs enter active service. Thus, by 1977, we shall reach a 1-1/3 MAF lift capability in 20 knot, modern ships.

In addition to the two cruisers converted for command purposes, the Soviets have retained 7 other post-World War II cruisers whose military capability rests primarily on their 152mm guns. While it is perhaps conceivable that these ships might be used in a WW II-like anti-ship role, a far more likely employment in this age of anti-ship missiles is in gunfire support of operations ashore. When these assets are combined with the remainder of their naval guns suitable for gunfire support, we see this trend (Slide #25). The U.S. will regain a position of parity in overall numbers [by 1978] only if the proposed 30-ship DD-963 program continues to receive Congressional support.

F. COMPARISON OF SEA BASED AIR

And finally, to insure that we keep these trends in perspective, we should look at the great equalizer in the current relative posture of our two asymmetrical navies--sea based tactical air. (Slide #26) While still in the embryonic state in the Soviet's otherwise impressive array of naval weapons systems, it is within their technological and industrial capability to develop an impressive sea based tactical air system in the next decade. It is my firm conviction that they intend to assure

the capability for the projection mission through the same avenues that we have--sea based tactical air, backed up with the required supporting capabilities--command and control and underway replenishment. But they will enjoy the supplementary advantage of much more access to overseas bases for supportive land-based air.

V NET ASSESSMENT: WARFARE AREAS

A further insight into net assessment was recently provided in the process of preparing our annual program review. An appraisal was made of the major warfare areas indicated on this slide. (Slide #27) An assessment of our capability vis-a-vis the Soviets in each of these areas was developed for the current time frame (through 1975), for the 1976-1979 period, and for the post-1979 period. Grades of adequate, marginal, and inadequate were assigned based on the results of studies, fleet exercises, and military judgment. (Slide #28) This slide summarizes my assessment of today's forces.

In anti-shipping missile defense, I evaluate our overall capability today as [inadequate and inferior to the Soviets. We are deficient in active and passive detection systems. We have only outdated active electronic warfare systems. Installed ship-board systems have little or no capability to defend against cruise missiles which have penetrated our fighter and SAM system defenses.]

In protection ASW, I evaluate our overall capability as [inadequate and inferior to the Soviets.] The ability of surface ships to detect submarines varies from good to poor depending

upon environmental conditions. ASW aircraft have a marginal capability to place a torpedo accurately on those targets which they detect with sonobuoys. In addition, surface and air launched torpedo performance is degraded by recent advances in Soviet submarine technology.

In anti-air warfare, I evaluate our overall capability as [inadequate and inferior to the Soviets]. The F-4 has a marginal capability to counter cruise missiles and we haven't yet got the F-14 to sea in numbers. Our missile ships are severely limited against the same type of threat.

In attrition ASW, I evaluate our overall capability today as [adequate and better than the Soviets]. Our SSN technology and our SOSUS/VP capabilities provide us [with a commanding lead over the Soviet threat].

In anti-surface warfare, I evaluate our overall capability as [marginal and inferior to the Soviets]. We are clearly adequate wherever our carriers are employed. On the other hand, the remainder of our surface forces [lack adequate offensive weapon systems to counter the Soviet missile ships].

In strike warfare, I evaluate our current overall capability for FY 74-75 [as adequate and well superior to the Soviets]. At present procurement rates, we are able to maintain adequate attack aircraft force levels consistent with the reduction in number of carrier decks. [Our adequacy is based on the assumption of low aircraft attrition and a short conflict].

Electronic warfare in the FY 74-75 period is assessed as [inadequate and inferior to the Soviets]. Our primary EW deficiency is in passive surveillance and active countermeasures. [To improve this capability, new equipment is currently being produced in unsatisfactorily small numbers.]

In command, control & communications, I evaluate our current overall capability as [inadequate and inferior to the Soviets]. Our primary intra-force and ship-shore-ship means of communication is degraded by radio frequency propagation phenomenon, vulnerable to enemy intercept, to jamming and to deception and cannot be considered a truly survivable system.]

Combat Direction Systems (CDS) are defined as the method by which target information acquired by sensors is stored, processed and disseminated. Current fleet-wide CDS capability is considered [marginal but somewhat better than the Soviets]. It ranges from automated digital systems such as NTDS down to manual systems in DDG/DE classes. Present automated systems interface with sensors of lower data rates and capabilities, and service weapon systems which have reached the limits of their capabilities. Search radar improvements or replacements are required to provide increased rates of target information. [NTDS missile ships do not have the reaction time or fire power to respond to a concerted ASM attack. Ships with manual CDS are almost completely inadequate.]

Our current capability in surveillance is assessed as [marginal and inferior to the Soviets]. Major areas of weakness include degraded SOSUS performance as demonstrated by decreased [

[YANKEE detection over the last few years, and the limited surveillance capabilities of the tactical commander. Another ~~concern~~ is the limited geographic coverage of some systems.]

In amphibious lift we evaluate our current capability as [inadequate but better than the Soviets.] We are deficient in helo assault ships. In addition, to lift one marine amphibious force, we must recall deployed ships and swing some of our ships from one ocean to the other.

In naval gunfire support, we evaluate our overall capability as [marginal and a little inferior to the Soviets.] We have only one major caliber gun ship in the fleet. In addition, as WW II destroyers were retired, our medium caliber support capability decreased to a low level.

Our current mine countermeasures capability is [inadequate and inferior to the Soviets.] We do not have sufficient numbers of dedicated mine sweeping helicopters. [Hence, we would be unable to complete a large scale sweeping operation in the time required to permit achieving tactical surprise in a marine division size assault.]

In mine warfare, we evaluate our present capability as [marginal and greatly inferior to the Soviets although] we have better than adequate delivery capability.

In mobile logistics support, we evaluate our overall capability as [marginal but slightly better than the Soviets. We are adequate for the major war scenario, given availability of forward bases, and marginal for a limited (non-mobilization) U.S. involvement without forward bases.]

(Slide #29) Our projections for the future are shown on this slide. They assume that our proposed programs mature, that they are funded, and that we obtain approval for some restructured programs we will propose this year. ASMD remains inadequate until we get hard kill point defense systems into the fleet in numbers. Our present programs of CINS and NATO Sea Sparrow will be complemented in the future by a dual mode missile system which we are developing now, and, in the 1980s, by an advanced system which should start in R&D in FY 76. Our SPS-53 and design to price EW systems should provide major improvements in quick reaction active and passive detection, when installed in the late 70's. In protection ASW, the Sea Control Ship represents a quantum improvement. Surface ship sonar improvements, such as the SQS-26 rubber dome and towed arrays, will offer significant improvements. Continuing updates to the P-3 and introduction of the S-3 and Lamps Helicopters will expand our air ASW coverage. A MK 46 torpedo improvement program is also being vigorously pursued. In the post-1970 period, the availability of sea control ships in numbers and new families of air ASW sensors are expected to contribute heavily toward redressing the balance. In AAW, we will see dramatic improvements when F-14s and E-2Cs enter the fleet in increasing numbers. AEGIS, in the DG or DGN, will provide a quantum gain in surface to air missile capability in the early 80s. In attrition ASW, our rising submarine force levels, SOSUS and VP qualitative improvements plus the introduction of the Captor Mine are expected to keep us ahead of the threat.

The fleet introduction of the Harpoon Missile will bring force capabilities [up to adequate] particularly when coupled with the on-scene surveillance capabilities of the Sea Control Ship and Lamps Helicopter.

Our projections into the future indicate that in strike warfare our capability [will remain adequate.] Obsolete light attack aircraft will continue to be phased out until we obtain a modernized total A7E force by FY 79. The A-6 will continue to undergo modification and modernized A-6Es will be produced. This will provide for increased aircraft performance and weapon system reliability. Modern technology will provide us with an increased inventory of stand-off weapons such as Condor, Harpoon, extended range Walleye II and the newer anti-radiation missile (HARM). This will increase our effectiveness against the Soviets and would substantially reduce our own force attrition levels in a sea control scenario. In a projection of power ashore scenario, however, where attrition is higher, our capability [remains marginal.] The EA-6B, as we build up our inventory, will provide support and increase the effectiveness of our strike forces.

EW during the FY 76-79 period should improve [to marginal] by the end FY 79. This improvement is due primarily to the IOC of the design-to-price electronic warfare suites currently in development. This program is intended to provide a threat warning ESM capability to about 300 ships, a wide area surveillance capability to 175 ships, and an electronic countermeasures

capability to about 60 ships. EW assessment will improve ^{to} adequate []] in the early 80's as these systems are installed throughout the fleet.

The advent of FLTSATCOM in the 76-79 time frame will greatly improve our intra-force communications. Planned tactical secure voice systems will decrease our susceptibility to exploitation in intra-force command, control and communications. The fleet command support center concept will provide additional improvement in our capability.

In the Post-79 period, we expected our ability to remain abreast of weapon system technology. The fleet command support center in combination with the tactical flag command center concept will reduce reaction times. A significant improvement in our relative C³ capability is not expected without a technological breakthrough.

In the 1976-79 period, combat direction systems fleet-wide [[] became adequate primarily due to two factors []] increased automation of existing ships, and the introduction of the PHM, PF, DD 963, and SCS, all of which will have automated combat direction systems. Improved search radars will also be introduced as well as increased automatic detection and tracking capability.

In the post 1979 period, CDS will [[] continue to be adequate and will improve significantly []] with the introduction of AEGIS and the DG. (FY 81) AEGIS will provide a combination of automatic target detection and tracking, quick response, and high fire power. It will also provide much greater force surveillance and weapon coordination.

During the 1976-1979 period, overall surveillance capability is still marginal, although several improvements are planned. SOSUS backfit and improvements will be well underway, but the introduction of the Delta Class submarines, for example, will permit large ocean areas to be traversed without a SOSUS detection.]

The tactical array surveillance system or TASS will provide a mobile capability, and will provide tactical commanders with acoustic surveillance when a TASS equipped ship is in company.

[With the introduction of "Outboard", a signal exploitation and location capability will be available. Space systems will provide an improved ocean surveillance capability. In the post-1979 period, surveillance capability is still assessed as marginal.] Areas of weakness are as before.

Our amphibious lift capability will change [from inadequate to marginal] as the remaining LHAs enter the fleet. My objective is to continue building toward 1 1/3 MAF lift, while looking at ways to increase the capability of our existing ships.

Our NGFS capability will [dip to inadequate] during the 1976-1979 period, with the retirement of our last gun cruiser. However, in the post-1979 period, we show an increase [to marginal] as the DD-963 and the major caliber lightweight gun join the inventory.

Our mine countermeasure capability will increase [from inadequate to marginal] when we obtain the next generation of sweep equipment. We have already made the shift to an airborne mine countermeasure system, and expect to increase our capability [to adequate] with the development of a deep ocean MCM system.

Our mine warfare capability [remains marginal until] we can complete the development of a new family of mines which we are pursuing in research and development.

The mobile logistic support forces will improve significantly in capability during the next four to five years due to the procurement of fleet oilers (AO's) and ammunition ships (AE's). The FY 75 budget submit funds the lead ship of a new class of fleet oilers.

I have not judged it possible to predict for the future whether the U.S. will overtake the USSR in those [10] warfare areas where they are ahead or whether we will stay ahead in those [five] where we are ahead because of inadequate detailed data on Soviet developments. But it will take vigorous efforts in all areas to make the future look less bleak than the present.

VI NET ASSESSMENT: SCENARIOS

When we assess our ability, present and future, to meet our mission requirements, we must ultimately evaluate the capabilities of our units against Soviet units in a spectrum of possible conflict scenarios. This provides a level of net assessment which goes much more deeply than do comparisons of naval elements and weapons systems into the complexities of naval warfare and deals with war outcomes.

(Slide #30) Some of these are:

Direct conflict with the Soviets in Europe where, in our sea control mission, we would be confronted directly by their sea denial mission. The Soviets would attempt to deny us the use

within those scenarios figure prominently in our judgment of current capabilities.

A. UNILATERAL ACTION

In the field of unilateral action, our carrier task forces and amphibious task forces give us a comfortable edge over the comparable Soviet capability to project air and naval infantry from the sea. In this case of course, the projection forces are not opposed by the formidable sea denial forces of the other superpower. This superior naval projection capability is of more importance to the U.S. than to the USSR again because the USSR's political system makes it possible for her to have air and naval bases in ever increasing numbers in client states--a capability being increasingly denied to the U.S. Therefore, the true measure of relative projection capability in given regions of the world must be the ability of each side to bring land, air, and sea projection forces to bear. In many areas of vital interest to us, the balance is much closer.

B. CRISIS MANAGEMENT

Net assessment of crisis management capability involves calculating what might have been the outcome if opposing sides had gone to war through mutual failure to manage the crisis and therefore, I will deal with these actions under the headings of direct conflict with the Soviets with and without associated war on land. We do know that the larger numbers of ships that the Soviets have been able to bring to bear in recent crises in the Indian Ocean and the Eastern Mediterranean, coupled with their

[That the Soviet submarine force has the capability to inflict losses to our critical early shipments of military equipment and supplies of such magnitude as to jeopardize the outcome of the war in Europe. Given time, on the order of three months, our combined ASW forces in barrier, surveillance, follow-up and direct protection operations could diminish the Soviet submarine force so that subsequent operations to reenforce NATO center would be reasonably secure, but we could not keep Europe going with regard to fuel because the oil SLOCs would probably have been cut. Meanwhile we would have lost, we believe, the flank nations of Europe.

Control of the western and central portions of the Mediterranean could be secured by maintaining four carrier task forces on station there. Even so, control would be achieved only after sustaining heavy losses to this Mediterranean fleet from the combined enemy air, surface and submarine attacks. The study showed that remaining U.S. and allied forces were not adequate to insure success in any of the following areas:

Prevention of Soviet forces from severing essential shipping to Japan, forcing Japanese neutrality.

Protection of shipping to South Korea and provision of off-shore naval assistance in the event of North Korean aggression.

Countering a Soviet offensive aimed at Norway and Iceland.

Protection of oil shipments from the Persian Gulf.]

The second study examined the same scenario in 1981, with U.S. and allied naval forces opposed by the enemy forces, all projected for that year using the key assumption that the 1975

and subsequent planned budgets will be supported. [The results of this study were somewhat more encouraging, since they indicated that substantial improvements could be made in our capability to protect our trans-Atlantic shipping and diminish the Soviet submarine threat in the Atlantic, despite the projected advance in the quality of enemy submarines. The principal factors contributing to this improvement were:]

Implementation of the CV concept resulted in increased direct protection of convoys. The modernization of the CV air wings to include S-3, F-14, E-2C and SH-3 aircraft allowed the carrier force to provide significant direct protection to the Atlantic convoys against submarine attack while at the same time defending against long range Backfire aircraft and surface naval ships.

The Sea Control Ship, the Patrol Frigates, Lamps Helicopters and escorting submarines also strengthened the direct ASW protection of convoys, so urgently required when these convoys had to sail into a heavy submarine threat during the critical period early in the war.

Our anti-submarine barriers, which work to diminish the threat over time, were strengthened by Captor Mines and by submarine performance improved by the use of the Mark 48 torpedo and modernized sensors such as BQQ-5.

[Our capability to detect and kill enemy submarines in the open ocean was improved by modernization and extension of the Atlantic SOSUS system and by improved sensors in our P-3C aircraft.]

In the Mediterranean and Pacific, the F-14, with its capability to engage multiple targets at long range, together with programmed point defense systems in our ships and improvements in surface-to-air missile systems approximately offset major Soviet improvements in anti-ship capability. Soviet improvements included the long-range, supersonic Backfire aircraft firing long stand-off air-to-surface missiles, and additional new missile ships and missile systems.

On the other hand, both studies indicated that, at our programmed force levels, [we lack the depth to carry out our objectives and treaty obligations in the Pacific or to protect shipping from the Persian Gulf while fighting a main sea war in the North Atlantic and either the Mediterranean or the Norwegian Seas. In other words, we may well be faced with the unfortunate necessity to choose between losing the NATO flanks or losing our SLOCs to Japan and Persian Gulf oil.]

These studies and another series of analyses of our capabilities in the Mediterranean indicate that our most severe threat to sea control would be encountered in areas like the Eastern Mediterranean, Norwegian Sea and Western Pacific, [where Soviet missile carrying Badger and Backfire aircraft could reach our sea lanes and operating areas, and in coordination with surface ships and submarines, could saturate our defenses with large numbers of missiles arriving over a short time span.] The extended range of the Backfire aircraft alone has greatly increased the amount of ocean area in which this type of threat

might be encountered. In such a situation, a layered defense in depth would be necessary.

The first line of this layered defense would be the F-14, which intercepts the incoming missile-carrying aircraft prior to the launching of their missiles. Due to the simultaneity possible in their attacks, the high speed of their approach and the range of their missiles, our capability to engage several targets at once at long range is critical. This fighter aircraft system is the only system which could destroy the attacking aircraft prior to missile launch.

In a saturation raid, not all the attacking aircraft would be engaged, and the second line of this layered defense would be our capability to intercept incoming missiles with surface-to-air missile systems currently in our program.

Finally, hard kill point defense systems would be absolutely essential to complete our capability to defend in depth, and these systems, when installed as planned on each of our combatant ships, would form the third ring in this defensive chain.

The threat posed by Soviet surface ships during a period of confrontation would be a second major area of concern. If such a situation results in the presence of both U.S. and Soviet fleets in the same waters, a pre-emptive, surprise Soviet missile attack [could possibly cause decisive early damage.] The Harpoon missile system, employed by hydrofoil missile ships and aircraft, and our previously mentioned improvements in anti-ship missile defense systems would help [to balance the scale in this dangerous situation which has become characteristic of crisis.]

situations in the eastern Mediterranean. We have come to refer to this scenario as the D-Day shoot out.

In summary, our analyses do not paint a bright picture of either our current or projected capability, but they have served to guide us in establishing our programs to counter the disadvantages which we see in the current naval balance.

We have recognized from these studies that it would have been possible to retain a greater capability in the near-term by retaining more forces. Nevertheless, in order not to mortgage the future for the present, it was necessary to get on with modernization. At the budget level which could be permitted by Executive and Congressional action, we were obliged to reduce our force levels to fund the needed modernization.

D. PROBABILITIES

I have shown various comparisons of elements of naval capabilities and then referred to the results we obtained from analyzing various scenarios. The true measure of our capability can only finally be determined by fighting a war--anything short of that is judgmental. Therefore, the closest we can practically come to measuring capability is by the results of our war games and our fleet exercises. We are told by these results and by our professional judgment what the outcome will be. We cannot, however, be positive. We must still put probabilities on our estimate. With regard to these probabilities, I cannot be optimistic for the present when our fleet stands at its lowest level in almost four decades.

In arriving at my assessment of probabilities, I have considered results of systems analyses and this net assessment, results of fleet exercises, latest intelligence estimates of the Soviets' capabilities, personal discussions with the operational commanders and my own judgments based on my years of naval service.

Systems analysis and net assessment can provide many insights into the capabilities of our forces. However, analysis and net assessment cannot include all of the many uncertainties which surround warfare. Likewise, fleet exercises in which we simulate the tactics and capabilities of Soviet forces may give us a good indication of how we would fare in actual conflict, but these also have limitations in their predictive value. In making judgments concerning the overall capability of the Navy, I must take the quantitative evidence from analysis and exercises, adjust it for latest intelligence on opposing force capabilities, and take into account the judgment of our senior operational commanders. This is a process much like that of an odds-maker predicting the outcome of a football game. Like the odds-maker, we are trying to make judgments in the face of great uncertainty; and, as with the football odds-maker, a usable prediction is possible, the product of informed judgment based upon analysis of the particular offensive and defensive capabilities of the opposing sides, comparisons of their past performances, recent capability changes and, of course, relevant experience.

In 1970 when I first became CNO, it was my judgment that we had [just slightly better than an even chance (55% probability)] of winning a sea control war at that time with the Soviets. I made that judgment based on my personal knowledge of several analyses and recent experience of the fleet. One of the analyses was the Major Fleet Escort study, of which I had been study director in 1967, that indicated a [favorable] outcome for a sea war in the mid-70's with a 21-carrier force level augmented by the construction of more than 15 new surface combatants a year. By 1970, carrier force levels had been reduced to 19 and we had been averaging less than 4 new surface combatants a year. A later analysis, the War At Sea Now study, found that [we] would obtain an unfavorable outcome from a war at sea with the Soviets with existing forces. Buttressing this negative assessment, fleet exercises were showing that we were vulnerable to Soviet cruise missile attack and that our ASW systems had difficulty in handling the modern Soviet nuclear submarines. These inputs gave a very negative estimate of our chances of winning. Because of the rather narrow strategies used in studies and the limitations generally applying to fleet exercises, it was probable that we would do somewhat better than indicated; thus my assessment that we would have "a slightly better than even" chance of winning.]

(Slide #31) In the years since 1970, our chances for success have diminished. Fiscal constraints and the urgent need to fund modernization programs required budgetary offsets

in the form of force reductions. [By the year 1971 we were down about 45% probability. By 1972 we were in the vicinity of 35%.] By 1973 the number of carriers had dropped to 16; surface combatant force levels had dropped by nearly 30%; submarine force levels had dropped 20 percent. These force reductions lead me to judge our current chances for success [at about 30%. I project, however, that we have reached the low point on the curve.] Further carrier reductions will be offset by more capable aircraft in the form of the S-3 and F-14 and by completion of the CV conversions. The surface and submarine force levels will begin rebuilding and qualitative improvements will be realized as a result of DD-963 introduction, completion of the SSN 637 class and introduction of the SSN 683 class. [In 1977] we will see the confidence curve begin to improve as Harpoon is introduced to the fleet in limited numbers. [In 1978 and 1979] significant progress up the curve will be seen as our F-14 force levels fill out and as the first Sea Control Ship and Patrol Frigates become operational. [By 1981, after fleet introduction of Captor and AEGIS, we will be back at about the 55 percent level.]

It is well to note at this point that a simple comparison of force numbers while vital in identifying trends, is not a good way to estimate relative force capabilities. My probability estimates are based on the issue of keeping open the sea lines of communications for the prosecution of a land conflict in Europe and/or sustaining our import of critical raw materials and economic support shipping. Because the Soviets can obtain

their objective by merely preventing us from using these sea lines of communications, they have much more flexibility in selecting the time and place of conflict, to optimize their force deployments and attack us where we are vulnerable. Maintaining control of the sea requires a much larger force than attempting to deny it. Conversely, I would assess that we would certainly have the capability to deny the Soviets use of the SLOCs should they attempt a conflict requiring such use in South America or Africa, south of the Mediterranean coastal nations.

Parametric comparisons of the two navies, and the results of recent analyses, have been summarized in this net assessment, and have highlighted our relative strengths and weaknesses. More recent fleet exercises continue to show the need for anti-air missile defense, which is just beginning to reach the fleet. They also tend to show that our approach to solving the ASW problem has good promise of working. Based on my review of the more recent analyses which I discussed earlier and my review of fleet exercises, my discussions with the operational force commanders, (a summary of their latest readiness reports is contained in Addendum IV) and latest intelligence estimates on Soviet capabilities in the 80's, my judgment confirms that [by 1981, we will have regained essentially a 55% probability of winning a conflict at sea with the Soviets. My judgment of this improved outcome] assumes we get the funding to pursue our modernization programs.

I believe my estimate of our force capability in FY-70 was accurate within 10%; that is, we might have had a [slightly]

[less than even (45%) chance of winning, or as much as a "2 out of 3" (65%) chance.] Analyses conducted since that time, and subsequent fleet exercises have tended to demonstrate that my assessment was reasonably close. Further, I am quite confident in the shape of the curve. Our decision to drawdown forces in the mid years has resulted in a drop in our probability of winning, but the modernization programs which will be in the fleet by 1980-81 will clearly be more tailored to the threat at sea, with more emphasis on defeating the anti-ship cruise missile and a broader application of air ASW.

As I discussed previously, the most demanding conflict would be a major conflict at sea with the Soviets under conditions in which we must use the sea for our objective. Our relative capability in many other missions and scenarios is much greater than the Soviets, with or without opposition. Our concern is that they will soon have a usable capability worldwide except for those circumstances in which we choose to actively oppose them. [In sea denial capability, the U.S. is again definitely in the lead, with a military capability to deny Soviet use of the SLOC's (though not necessarily to use them ourselves as noted above).] Finally, in peacetime presence roles, the U.S. can maintain carrier presence in a limited number of areas at one time. In most of these areas, U.S. presence is generally superior to that which is maintainable by the Soviets. However, there are certain areas close to their bases where the Soviets can

maintain numerically superior, [and in some cases, qualitatively] superior forces. These areas include the Eastern Mediterranean, and if the Suez Canal is reopened, the Indian Ocean.

VIII THE BUDGET AND THE REAL MEANING OF NET ASSESSMENT

The present is a watershed year for the Navy. As you saw on the various graphic representations, our program of modernization for which we have sacrificed current capabilities is at the point where we will start to receive a payback. Under these circumstances, it is feasible, we think, to forecast a confidence level [of greater than 50%] in the 1980's--if the budgets planned for 1975-78 are appropriated.

In the past, as you are aware, the Navy has been frustrated in some of its efforts to gain a position of naval adequacy. I feel that the modernization and get well programs we have planned will continue on schedule--if the budget for our programs can survive the next step--Congressional approval--intact.

We stand now at our point of greatest weakness and in my estimate our greatest jeopardy. With the understanding help of Congress we can move from here into a position where our modernized, well equipped, and well trained forces will again be able to insure a military balance in support of our national interest. To do this takes authorization and appropriation of at least the amounts requested in the President's FY-75 budget, and, strong Congressional support in the years beyond.