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NAVAL OPERATIONS IN THE NORTH ATLANTIC

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by

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(RESERVE OFFICER LECTURE PROGRAM)



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Lecture #3

"NAVAL OPERATIONS IN THE NORTH ATLANTIC"

by Fredrick J. Brazil
Commander, U.S.N.

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NAVAL OPERATIONS IN THE NORTH ATLANTIC

INTRODUCTION:

SLIDE #1 (E56-97) ON

Tonight I will talk about Naval Operations in the North Atlantic. In order to provide you with a better understanding of the overall problem of gaining, maintaining and exploiting control of the sea in the North Atlantic, I will discuss these main points:

SLIDE #1 (E56-97) OFF

SLIDE #2 (E56-139) ON

- I. The Naval Problem in the North Atlantic
- II. The Naval Threat and other factors affecting naval operations in the North Atlantic
- III. Naval Strategy as applied to the North Atlantic
- IV. Naval Operations Required for Gaining, Maintaining and Exploiting control of the North Atlantic

SLIDE #2 (E56-139) OFF

Even though I mention only some phases of naval operations in this lecture, there are many other important functions, such as communications and logistics, to name two, which are just as important and necessary for the success of any naval operations.

Just what is the basic problem in the North Atlantic that confronts the U.S. Navy? Stripped of all its trimmings it is:

SLIDE #3 (E56-140) ON

"Control of the sea and denial of its use to the enemy."

By control of the sea, I mean use of the sea in time of war, for our commerce and the transportation of our military needs.

SLIDE #3 (E56-140) OFF

In time of war we must have control of the sea, but the early stages of the conflict will determine whether we will enjoy this condition or require the gigantic task of regaining control of the sea.

CDR Mayer pointed out in his lecture last night, the strong military capabilities of the Soviets. If they apply their military strength against our weak points at the proper time, they have the capability of forcing us to start the war on the defensive and then

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shifting to the offensive. We could prevent this condition from ever becoming a reality, if we employ our military and naval forces and the forces of our allies, in rapid, aggressive, offensive action.

It is this offensive action that I will stress tonight and cover only some portions of defensive actions that are important because of their direct bearing on the maintenance of our offensive power, such as the defense of the U.S. and the defensive portion of A/S operations.

Those of you who served in the Atlantic during WW II, recall the Battle of Europe and the Battle of the Atlantic. British naval forces were barely able to maintain control of the seas and Britain was almost strangled, but later when joined by U.S. naval forces, this control was strengthened, enabling American productive capacity and man power to swing victory to the side of the Allies.

Although the Allies maintained control of the seas, control of the continent was lost because military strength could not be brought to bear in sufficient amounts soon enough. This was the costly and time consuming action of starting a war on the defensive and then later shifting to the offensive. Profiting from this past experience, we must hold a strong line in Europe and mount an aggressive offensive. Therefore, it is essential that we maintain our control of the sea in the North Atlantic, to support this action with the necessary equipment and supplies from the North American continent.

For the benefit of any of you that are asking the question, "Why the Atlantic first again?", after GDR Southard's illumination of the importance of S.E. Asia, try to keep this in mind. While the loss of S.E. Asia would deny us many raw materials and a vast reservoir of man power, compared to Western Europe its importance is overshadowed. The skilled labor, industrial capacity and strength of NATO contained in Western Europe are essential to the defense of the free world, therefore Europe and the Atlantic will get primary consideration in any war plans.

Since the problem is affected by whatever moves the Soviets make, let's examine some of the capabilities of the Soviets if they decide to go to war with the West.

SLIDE #4 (E56-108) ON

Here we see the alignment of East and West, showing also the satellite nations and the neutrals. One of the most likely moves of the Soviets could be to attempt to overrun Western Europe. They are interested in incorporating the industrial capacity of Western Europe into the Soviet system or at least denying it to the West. The acquisition of Western Europe would also give them sorely needed airfields and submarine bases to use against the West's sea lines of communications in the Atlantic and against the North American continent.

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They are also interested in moving into the Scandinavian Peninsula and the Danish Peninsula, in order to break the West's control of the Baltic exits and free their Baltic Fleet for operations in the North Atlantic.

SLIDE #4 (E56-108) OFF

The Soviets know that the armed forces of the West can only resist the advance of the Red armies as long as they can count on and receive support of food, equipment and men from the North American continent.

Although some of the urgently needed items will be airlifted to Europe, the bulk of this logistic support will be waterborne. The Soviets know that for the accomplishment of their objectives, they need to reduce or eliminate this ocean shipping to Europe. In order to prevent the Soviets from attaining their objectives, we must maintain full control of the sea in the North Atlantic.

II. The Naval Threat and other Factors Affecting Naval Operations.

Before discussing the collective security of the North Atlantic or the operations to be employed there, I want to talk about some of the natural factors that have a bearing on the problem, such as physical features, weather and operating conditions, and also cover the Soviet naval threat.

SLIDE #5 ON (E56-264)

Geographic circumstance has made the North Atlantic the most important of the great oceans. It is surrounded by the majority of the present and potential great industrial civilizations of the earth, and handles about three quarters of the world's overseas transportation. Within the limits of this ocean area are located such strategic bases as Bermuda, the Azores, Newfoundland, Iceland, and Greenland, that play so important a part in the defense of this area.

SLIDE #5 (E56-264) OFF

The North Atlantic and its littorals are important to us because it not only provides us with a transportation avenue to Europe, but militarily it is a buffer area that affords us bases for rapid retaliation in the event of a Soviet attack, as well as providing a means of projecting our military forces close to the source of Soviet military power.

SLIDE #6 (E53-998) ON

The feature of hydrography that is of the most interest is the location of mineable waters. By mineable waters, I mean depths of 100 fathoms or less. Note that most of the east coast of North

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America has a fairly wide shelf of mineable water and the area around the British Isles has extensive mineable waters as well as the coast of Europe from the Baltic into the Bay of Biscay. This is important when you consider the mining problem.

SLIDE #6 (B53-998) OFF

Since the present day naval power depends largely upon the coordination between naval surface units and air units, the effects of weather on air operations and thus on naval activities, is of the utmost importance.

The principal factors affecting the climate and weather of the North Atlantic are the high latitudes, the configuration of land and water, the ocean currents and the movement of the principal air masses. As a result of these various influences, we find a climate of storms, fog and ice coupled with moderate temperatures in certain parts of the area.

The winter gales are frequent and severe in this area. During the winter season the North Atlantic is rarely without at least one gale area between Newfoundland and Ireland. Rapid and violent changes of wind direction, accompanied by blinding rain and snow, characterize the winter weather.

The seas in the North Atlantic are rough and stormy in the winter and make the operation of ships and aircraft difficult. Sonar ranging is reduced as well as the efficiency of all other types of A/S operations. The rough seas, low visibility and icing seriously handicap carrier operations and limit somewhat, the effectiveness of land based aircraft.

Just how great is the Soviet naval threat? As CDR Mayer pointed out in his lecture last night, the Soviet Fleet is the second largest in the world and is still growing. It is supported by a formidable air arm that is capable of supporting the fleet surface and sub-surface units, within the radius of action of the aircraft from their land bases.

The modernization program of the Soviet navy, commenced at the end of WW-II, included construction of small naval units, numerous destroyers, modern submarines and new cruisers. The emphasis was first placed on the submarine construction program and later partially shifted to the cruisers.

SLIDE #7 (B54-366 ON)

Here we see one of these new light cruisers of the Sverdlov class. These 14,000 ton cruisers are modern in all respects and compare favorably with cruisers of the West. The overall length of this cruiser is 665 feet and she is armed with four triple 6-inch gun turrets. Her speed is about 34 knots and she can operate to a

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range of well over 6,000 miles. This ship is capable of conducting mining operations as well as commerce raiding.

These cruisers are a great threat to our control of the sea not only because of their numbers, but because they can operate in a large portion of European waters and still remain under the protection of their land based aircraft. Unlike World War II, when British naval forces were able to keep German ships confined to the harbors, it will be difficult to keep these Soviet cruisers from ranging far out to sea, conducting offensive operations against naval units of the West and shore installations on the Western European coast.

SLIDE #7 (B54-366) OFF

Let's examine closer now, one of the capabilities of Soviet submarines, cruisers and aircraft; the mining capability. Mine warfare is one phase of operations that is sometimes not given stress commensurate with its importance to the overall problem of control of the sea. It is not generally known, but from the point of view of weapons, the mine during World War II, in certain areas, had the greatest number of kills per shot, with the highest score of any other weapon used at sea.

Some of you remember what the Germans were able to do to the U.S. in World War II, with even a very limited mining program. Over a two-year period, German submarines conducted less than 20 sorties and laid less than 200 mines in the American Atlantic area. There were 7 ships sunk and 2 damaged as a result of this mining, and in addition, we were required to keep a sizeable force of minesweepers employed, and some of our major ports were closed for days while the mines were swept. This occurred during a period when we could sweep all types of mines employed by the Germans. Today we are faced with a far graver problem because the Soviets have an abundant supply of the latest types of mines and an adequate delivery capability.

Just stop to think what would happen if the Soviets conducted an aggressive mining program against North American and Western European ports, as part of the opening phase of a war against the West. If the program was successful enough to close the bulk of the major ports for a period of just three weeks, it could have a severe crippling effect on the West in the early stages of the war. When you consider that this mining could be accomplished prior to the opening of hostilities, using mines with time delay mechanisms and planted by submarines, the mine problem rapidly moves from a nuisance item to a matter of utmost importance. So much for the mine threat.

The biggest and most immediate threat to our control of the seas in the North Atlantic, is posed by the Soviet submarine force. The success or failure of their attempt to challenge the West's control of the seas, I think, lies with their submarine force.

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Until the recent announcement that the Soviets now have over 400 submarines, their submarine count was carried at around 375 units for quite some time. The reason this figure remained constant for a considerable period of time, in spite of their huge submarine construction program, was that the Soviets were probably replacing old units of World War II vintage or earlier, with new construction. The new figure of 400 submarines is a fair indication that their submarine modernization program is nearing completion and we should see a steady rise henceforth.

Since we do not have access to definite information on their latest submarines, a brief review of the characteristics of the German type XXI boat, that the Soviets acquired at the end of World War II, will give us a base for comparison.

SLIDE #8-a (B56-324) ON

They also acquired the German designers and builders so I think that it is safe to assume that the post war submarines of the Soviets are at least equal to the type XXI in performance and most probably superior. This snorkeling submarine was the best the Germans had at the end of the war. It had a submerged speed of 16 knots at the one hour rate and could patrol to a radius of 4,000 miles.

SLIDE #8-a (B56-324) OFF
SLIDE #8-b (B56-323) ON

These characteristics are really not too impressive when compared to our new TANG and NAUTILUS class submarines, but when you remember that we still have a lot of 8.5 knot shipping in the Atlantic, the characteristics appear more ominous. As far as I know, the Soviets do not at this time, have any nuclear powered submarines under construction.

SLIDE #8-b (B56-323) OFF
SLIDE #9 (B56-266) ON

From their northern bases, their medium range submarines can reach the coast of the British Isles and their long range boats, without refueling, can cover all of the North Atlantic.

The Northern Fleet and its bases present the greatest threat to the North Atlantic sea areas, since the West now controls the Baltic and Black Sea exits. This fleet might be bolstered by deploying boats from the Baltic and Black Sea during the opening phase of a war, taking advantage of the confusion. To conceal their intentions, they will most probably move some units from the Baltic to the Northern Fleet via the canal system, prior to the commencement of hostilities.

SLIDE #9 (B56-266) OFF

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Let me give you one idea on how they might use these submarines in the North Atlantic, based on their capabilities. The Soviets can precede hostilities with an all-out mining effort and most probably will attempt to have the bulk of their submarines on station for the commencement of hostilities or at least dispersed away from their bases to minimize losses from early retaliatory attacks.

Let's assume that the Soviets are able to concentrate 80 long range submarines and 20 medium range submarines in the Northern Fleet for the opening phase of a war with the West. Using figures based on German experience in the same area during World War II, we can assume that the Soviets can have 55% of these subs at sea for the commencement of hostilities. As the war progresses, this will drop to about 45%. In other words, they can have around 55 subs on station to start the war. You may recall that the Germans commenced submarine operations at sea against the Allies in September of 1939 with only 60 submarines, of which only half were ocean-going and only 6 were at sea. It wasn't until 1942, the year of our greatest loss of shipping, that the Germans were able to get anywhere near the total number of submarines that the Soviets have available today.

Following the outbreak of hostilities and after the initial mining is over, the Soviets can then concentrate on attacking shipping and naval forces of the West operating in the Atlantic. A small number of submarines can also be employed for missile launching against targets in the U.S. and Western Europe. They may even divert some of their long range submarines to operate in remote areas, at the extreme range of the submarines, just to force the West to spread out its naval effort.

Let's leave the submarines now and look at the threat from another quarter. Besides the surface and sub-surface threats, there is also a threat from the air. We cannot overlook the threat of the Soviet Naval Air Arm to our control of the seas. This force of 3600 aircraft is equipped with such modern types as MIG 15 and 17 fighters, medium and light bombers and well over 2/3 of this force is made up of jet aircraft.

The Germans in World War II made the mistake of not employing aircraft extensively with their submarines and raiders and attributed the lack of greater success of these operations to this error. The Soviets are well aware of this German mistake and I assume they are conducting coordinated training operations involving air, surface and sub-surface units, to avoid making the same mistake.

Soviet aircraft and submarines have the capability of using coordinated operations for:

SLIDE #10 (E66-110) ON

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1. Mining
2. Attacking carrier forces and other naval forces
3. Attacking amphibious shipping and merchant shipping
4. Interdiction of areas contiguous to Soviet territory
5. Screening the seaward flanks of Soviet territory

SLIDE #10 (B56-110) OFF

Soviet aircraft also have the capability of using coordinated operations with surface units, for raiding missions and operations against Western bases and naval forces.

This covers in general the Soviet naval threat in the North Atlantic.

III. Naval Strategy as Applied to the North Atlantic.

CDR Southard covered Maritime Strategy last night, but I will devote some time now discussing briefly our North Atlantic strategy.

Knowing the magnitude of the task of control of the sea in the North Atlantic, the U.S. was quick to see the advantages that could accrue to the U.S. and the Navy, from an alliance with the other countries of the Atlantic Community of Free Nations, when this alliance was first discussed in 1948. These nations located in and around the Atlantic area recognized the growing threat to their freedom and banded together, for mutual protection against aggression, in a common defense pact called the North Atlantic Treaty Organization.

SLIDE #11 (B56-141) ON

The original members of the pact were the U.S., Canada, Iceland, Portugal, Britain, France, Norway, Italy, Denmark, and the Benelux countries. They were later joined by Greece and Turkey and only recently followed by Western Germany.

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Although NATO was created for more than just military reasons, such as the promotion of the stability and well being of the North Atlantic peoples, I will only make limited reference to its military aspects in connection with naval operations in the North Atlantic.

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Have you given any thought to what NATO means to the Navy and its mission of control of the seas in the Atlantic? Under present conditions we have both ends of the North Atlantic sea lanes in Western control and have NATO Allies committed to assist us in preventing Soviet interruption of our sea communications. Without NATO the Navy's task would be considerably greater. NATO forces other than U.S., will conduct close in A/S operations, mine sweeping operations, and in general, naval control in Western European waters. By integration and distribution of tasks, NATO naval forces have become a major tool for exercising control of the sea in the North Atlantic.

The conditions that exist today as far as disposition of forces, both U.S. and other NATO members, will probably prevail when war occurs. U.S. forces are projected across the Atlantic in Europe, Africa, the Mediterranean and our island bases. In conjunction with the other members of NATO, we are in a position to establish immediate control of the sea, at the outbreak of war, if we exploit our present positions through rapid offensive use of our naval forces. If we cannot establish full control of the sea at the outset of the war and maintain it, we might not be able to sustain our forces overseas or support our NATO Allies, and without our NATO Allies, our control of the Atlantic would be further reduced.

There are naval forces of participating nations earmarked for the use of NATO in time of war, but a NATO force as such, does not exist today. NATO naval forces are brought together occasionally, for exercises such as Mariner and Mainbrace. During such exercises, national forces assigned come under the operational control of the NATO Commander assigned to head the exercise.

The NATO Commander in the Atlantic is the Supreme Allied Commander Atlantic, abbreviated as SACLant. He will be responsible for all NATO naval operations in the Atlantic in time of war. At present SACLant and CinClant are one and the same person, but he has two different staffs working for him in Norfolk. His SACLant staff contains officers from the participating nations and deals with NATO naval problems. His CinClant staff is all U.S. and does national naval planning only.

The NATO staff is working on the planning to implement the strategy that will insure our control of the sea in the North Atlantic, if we get involved in a war. This strategy in broad terms is, to make use of our present naval forces and bases to gain and maintain control of the sea in the North Atlantic, in order to support the land air battle in Europe. To apply naval force against enemy targets, and in general to keep the sea lanes

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open and otherwise exploit the use of the sea. Further exploitation of this sea area will be carried out when naval forces are expanded during hostilities. In support of this strategy we will be required to:

SLIDE #12 (B56-263) ON

1. Continue the operations of ACSF, A/S forces and other operations that we are now conducting,
2. Blockade enemy shipping moving on the high seas and near his coast.
3. Blockade the points of egress of enemy naval forces.
4. Establish convoys, provide escorts for convoys and route shipping as needed.
5. Set up harbor defense units and mine sweeping units to insure the full use of our ports.

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NATO, the acquisition of overseas bases, deploying of naval forces and a ready reserve are all preparatory steps in placing us in the best position to successfully implement this strategy. This will be accomplished by exploiting our offensive capability contained in our ACSF, Submarine Force, Surface Force and other naval forces. In the event that we suffer setbacks in the early stages of the war and temporarily lose control of the sea, we must regain control of the sea by the offensive use of these same forces. However, the amount and timing of our initial offensive action will be dependent on our readiness, prior intelligence warning, and ability to absorb and counter any early thrusts of the Soviets.

We must make certain that all of our naval forces, both regular and reserve, are in the highest state of readiness and prepared for rapid offensive action in time of war. Naval planners know that to support the strategy in the Atlantic, present naval forces must be augmented as rapidly as possible after the outbreak of war, with units from the Reserve Fleet and manned by you and other members of the Naval Reserve. The speed at which these augmented units can affectively be brought into use depends largely on the readiness and training of Naval Reserve units, and this might well mean the difference between gaining control of the sea at the outbreak of war or the costly problem of regaining control of the sea.

IV. Naval Operations Required for Gaining, Maintaining and Exploiting Control of the North Atlantic

So far I have discussed the Problem, the Threat and the Strategy in the North Atlantic. I will now cover some of the

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actual operations of U.S. naval forces and make only an occasional reference to naval forces of other NATO members.

Although we are committed to the support of NATO, CinCLant has definite national responsibilities, some of which closely parallel his NATO tasks. In preparing and training his forces for carrying out these tasks, he is not only fulfilling his national responsibilities, but is also keeping his forces in the highest state of readiness to support the Atlantic strategy both at national and NATO level.

Since the actual operations of CinCLant forces come under CinCLantFlt, a look at some of his peacetime tasks will give us an idea of what operations are necessary to support our strategy in the North Atlantic.

In addition to the normal tasks of training, development of improved doctrines, tactics and operational procedures, CinCLantFlt will:

SLIDE #13 (E56-262) ON

1. When directed, deploy naval forces to NATO commanders for training exercises.
2. Defend the United States against attack through the Atlantic Ocean.
3. Maintain surveillance of vital sea areas and protect sea and air communications in the Atlantic and sea communications in the Caribbean.
4. When directed, conduct antisubmarine warfare and control and protect shipping in the Atlantic Ocean and the Caribbean Sea.
5. Support other commanders in their missions within the scope of assigned responsibilities.
6. Be prepared to carry out the tasks assigned in current U.S. emergency war plans.

SLIDE #13 (E56-262) OFF

Even though these tasks are primarily naval functions, we must remember that the Navy is only part of a combined team in the Department of Defense and CinCLantFlt may be supported by the Air Force in performing some of his tasks, and he will likewise lend support to the other services when needed, in support of the overall strategy of the United States. This support can be the defense of the U.S. or any of our overseas bases, close support of Army forces, interdiction of enemy communications, or strategic air

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strikes against enemy targets by Attack Carrier aircraft.

The success of our primary strategy in the Atlantic is dependent upon the early employment of our offensive naval forces. Of all of CinCLantFlt's forces, the ACSF contains the heaviest concentration of offensive power. It is the employment of the ACSF in the North Atlantic that I will cover first.

As you all know, the ACSF is a "Naval task force organized primarily to conduct specific battle tasks involving offensive carrier air strikes, raids and sweeps, against the enemy." This is what is known to some of you as the old "Fast Carrier Task Force." This new title was given to the force in 1952.

Even though the name has been changed, the ACSF is still composed of carrier groups built around attack carriers, supported by heavy ships and screened by destroyers. All of our attack carriers have been or are being modernized and have the ability to deliver both conventional and nuclear weapons. CDR LUCE will touch on this modernization program in his lecture.

The ACSF will have many offensive assignments, but its most important one, that will have to be performed as soon after the outbreak of hostilities as is possible, is countering the Soviet submarine threat, through the use of offensive operations. Of the three areas in which submarines can be combated, the operating area, in transit, and in the building and repair areas, attacking at the source best supports our strategy in the Atlantic. This is one of the most important phases of our A/S program. Once the Soviets have completed their modernization program and have built up their construction capacity to a wartime level, it would be quite difficult to try to combat the submarines only in the operating areas and in transit. The only way to neutralize this huge building capacity, is to destroy the source by offensive operations. This can be done by the Strategic Air Command or our ACSF.

We know that the Soviets will strongly defend their submarine bases against attack, with strong air base complexes and anti-aircraft forces. The ACSF with its speed and mobility can maneuver into position to launch its aircraft against the submarine bases, giving the enemy only a minimum of warning. With our carrier based fighters we can gain temporary air supremacy over the target area and our bombers can deliver concentrated attacks on the pens and construction areas. Even if the submarine bases are as heavily constructed as in World War II, the weapons now exist in the ACSF to effectively destroy them and our carrier aircraft can deliver them accurately.

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A good area for this type of employment of the ACSF is in the Barents Sea - North Norway area. Here they can be used to destroy the submarine bases and harbor facilities, and the combat and merchant vessels in the Murmansk-Archangel port area,

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and any areas of Northern Norway that the Soviets might occupy. Because damage to ports and facilities can be repaired, re-attacks in this area may be necessary.

If not blocked by the Strategic Air Command, the Baltic White Sea Canal can be blocked by carrier aircraft, but it would be a costly operation because of its distance from carrier operating areas at sea. The Baltic White Sea Canal is the vital link between Leningrad's submarine building and training area and the Barents Sea.

SLIDE #14 (E56-111) OFF

In the early stages of the war, Soviet forces moving into northern Norway can be attacked and destroyed by carrier aircraft. We must prevent the Soviets from taking over Norway's airfields, or using the numerous fjords along the coast of Norway for submarine operations or for the operations of other naval units. Although carrier strikes will be effective in this area, it still may be necessary to make amphibious landings with Marine or Army troops, to bolster the defense of the Norwegians or to retake vital key areas.

SLIDE #16 (E56-109) ON

Any attempt of the Soviets to make use of the Baltic to move into southern Norway, northern Germany, or the Danish Peninsula, will have to be attacked by naval aircraft because of the danger of moving naval surface units into the restricted waters of the Baltic entrance. If the Soviets are successful in their move into this area, the Kiel Canal may have to be blocked and the port areas taken under attack and kept out of use. Soviet shipping in the Baltic can also be the target of attacks of carrier aircraft as well as interdiction of all of his land communications system near the coast line and the placing and maintaining of minefields in the Baltic exits and port areas overrun by the Soviets.

SLIDE #16 (E56-109) OFF

Another type of offensive operations I want to discuss are offensive submarine operations and specifically, A/S submarine operations. Since the small Soviet merchant marine limits regular patrols of our submarines, our submarine force will use their offensive capabilities to help destroy the Soviet submarine menace.

Next in importance in the A/S program, after offensive action at the source, is offensive action in the transit areas and areas off the enemy bases. Barrier patrols can be set up in the enemy submarine transit areas and areas adjacent to his bases to hunt down and destroy his submarines. Barriers can be set up with aircraft, surface craft and submarines, but in enemy waters the Killer type submarine can be used effectively alone.

Killer submarine operations is a relatively new type of operation for our submarine force. To meet the need for the new

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tactics required, the SSK or Killer submarine was developed.

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This is a small submarine especially designed and equipped for the sole purpose of detecting and destroying enemy submarines. The big hump on the bow contains the array of hydrophones of the low frequency detection gear, that enables these submarines to make contact on other submarines at such long ranges. These ranges are well beyond surface to surface visual or radar ranges and are obtainable even under adverse weather and sea conditions. Coupled with this long range detection capability, these killer submarines have the ability to press home an attack undetected, by using passive means of solving their fire control problem. They can average a better than 80% kill probability.

SLIDE #17 (B55-899) OFF

We now have only three of these small SSK type, but have other fleet type SSK's.

SLIDE #18a (B56-326) ON

The evaluation of the small SSK's showed that their effectiveness was derived from the installed equipment and not from the characteristics of the submarine itself, therefore we have converted fleet type submarines to SSK's.

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SLIDE #18b (B56-325) ON

These converted SSK's have the same effective equipment installed and are better suited for long sustained barrier patrols in the rough seas of northern waters. New SSK's are also planned for in the new nuclear submarine construction program.

SLIDE #18b (B56-325) OFF

SLIDE #19 (B56-257) ON

In the North Atlantic the most effective areas in which to set up SSK barriers will be off the ports in the Kola Inlet-White Sea area, off the coast of Norway and between Iceland and Greenland and Iceland and the British Isles. The SSK's will contribute greatly to the success of our A/S program and support our strategy in the North Atlantic.

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In defensive operations A/S operations still take the lions share of the effort. The defensive side of the A/S problem has not changed much from World War II except that it is now more difficult

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because of snorkeling submarines, atomic submarines, and other high speed submarines, using ECM gear, that can detect the approach of A/S forces at much greater distances than in the past. To offset this, we now have better sound gear, better radar, better A/S aircraft and ships, and shore based detection equipment to help locate enemy submarines operating at sea. The one thing that hasn't changed is the monotony of the long hours of patrolling and searching that is a necessary part of all A/S operations.

Although A/S operations encompass far more than the few items I mention, I will not discuss the control of shipping, harbor defense and other important phases of the problem.

Let's take a closer look now at one segment of the A/S picture, the H/K forces.

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I have placed H/K operations with defensive operations, but of course, they do perform both offensive and defensive operations. H/K forces can be made up of a carrier with its embarked A/S a/c and a surface screen of 6-12 destroyers, or surface attack units working in conjunction with long range shore based patrol a/c, either landplanes, seaplanes, or LTA. A/S helicopters are also used with H/K forces.

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H/K forces can cover all areas of submarine probability, employing shore based a/c near bases, and carrier based a/c to fill critical gaps or to provide for concentration in particularly profitable areas.

A good use for carrier based A/S a/c, is to back up a barrier patrol. These a/c can locate and destroy the submarines when they are forced to surface or snorkel to recharge batteries, after the long submerged operations used in evading the barrier patrols.

Before leaving the H/K forces, let's see what changes have taken place in the carrier H/K force over the last few years. First, they no longer use the old CVE carrier with its many restrictions, such as speed and a/c handling ability. The new H/K carriers are the unconverted ESSEX class carriers that were used in World War II as attack carriers, and now designated CVST's. The increased size of the CVS make possible the inclusion of fighters and helicopters to the a/c complement, as well as an increase in the number of A/S fixed wing aircraft.

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The S2F now used on the CVS's is the first carrier based A/S a/c to be designed and built just for A/S work. It is a single package a/c and replaces the former two plane team. This a/c carries search radar, ECM gear, searchlight, MAD gear, sonobuoys, rockets and A/S weapons.

SLIDE #21 (E55-251) OFF
SLIDE #22 (E55-254) ON

The other new addition to the airborne sub-hunters team is the A/S helicopter. The HO4S shown here with its dipping sonar is an interim a/c, but it has demonstrated the usefulness of the rotary wing a/c for A/S work. It can be used to fill holes in a surface screen or to search ahead of the screen. It can be used to develop a contact made by a search a/c, for later attack by another a/c or surface attack unit, or it can drop a homing weapon itself. Once we have a helicopter with an all weather and night capability in the fleet, its usefulness will be greatly increased.

SLIDE #22 (E55-254) OFF

Let's turn now to the escort forces. Escort forces still operate in the same manner with which most of you are familiar. Surface units screen ahead of the convoy in a regular screen and aerial units search an area 20-60 miles ahead on the bows. This aerial search is to detect submarines not yet in contact with the force, but in position to gain attack position if permitted to approach on the surface or on snorkel. If the submarine cannot be attacked by the a/c, or surface units cannot be spared for a H/K operation against the submarine, the convoy is diverted away from the submarine contact. With a limited number of surface screening units, this aerial coverage is of the utmost importance.

SLIDE #23 (E56-258) ON

Here we see the coverage available to Atlantic shipping lanes by our patrol aircraft, for escort and patrol. The solid dark blue is the area that can be covered by aircraft on a 300 mile search radius and indicates the areathat can be most thoroughly covered. The light blue is the 600 mile radius and the vertical cross-hatched is the 800 mile radius which is not too well covered. Both the southern and the northern convoy routes can be covered from our many bases in the Atlantic. On the southern route, LTA can be used for part of the coverage and in the thin areas of cover, H/K groups can be employed if the submarines move into these areas.

SLIDE #23 (E56-258) OFF

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As the last phase of defensive operations, let's look briefly at the defense of the U.S. The defense of the U.S. from the naval viewpoint, includes defense from air attack, surface attack and submarine attack. In peacetime we have radar pickets, both air and surface, on station as part of the system to prevent surprise attack, but in time of war, the effort would have to be considerably greater. More extensive patrols off of our coast would be necessary to prevent enemy submarines from launching missiles against our cities or mining our harbors. An increase in our contribution to air defense would also be required. Although air defense of the U.S. is the responsibility of the Air Force, the Navy participates in it also. There is now a system in effect that will permit the rapid utilization of naval air elements, in port, temporarily based ashore, or ashore under emergency conditions and from all shore establishment naval air activities, by the CONAD. These naval air units are placed under the operational control of CONAD during an emergency alert.

Harbor defense and clearance of mines from our ports all contribute to the defense of the U.S. All available naval air, surface and subsurface units will be used to protect the U.S. from attack, but the amount of protection will have to be balanced against the other requirements of CinCLant. Besides his naval commitments he must give the necessary support to SACEUR, to halt any movement of Soviet forces into Western Europe. These factors and directives from the JCS will dictate the amount of naval effort to be devoted to the defense of the U.S.

Tonight I have only been able to hit some of the high spots of naval operations in the North Atlantic. In summation, we have seen that weather in the North Atlantic presents a continuing problem to naval operations. In addition to the elements, Soviet naval forces threaten our control of the North Atlantic. The Soviets now have the capability to challenge our control of the seas and this capability increases daily. The greatest increase is being made in their submarine and aircraft offensive capability. The naval forces in being and planned, both U.S. and NATO, may not be sufficient for full wartime operations. They will have to be bolstered by reserve units and new units when formed, in order to accomplish the tasks that confront us in the Atlantic. In the early stages of the conflict, before these additional units can be placed in service, some of our offensive actions may have to be delayed or carried out on a limited scale. If conditions warrant, additional strength for Atlantic forces may be drawn from the Pacific Fleet.

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By maximum utilization of present forces and rapid augmentation with reserve units and new units, we can gain, maintain and exploit control of the North Atlantic and we must control this vital sea area, if we expect to emerge victorious from any conflict with the Soviets.

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