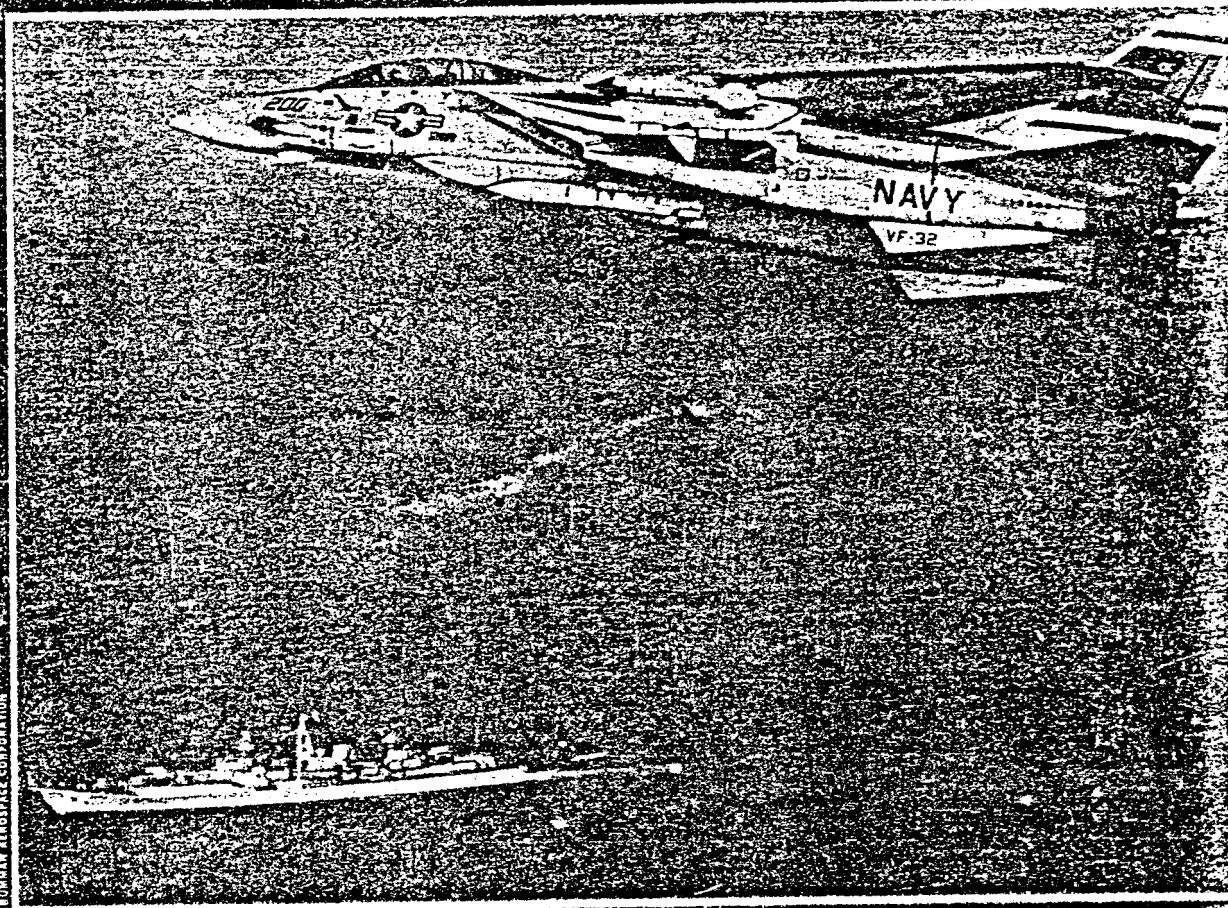


U. S. NAVY INSTITUTE PROCEEDINGS
JULY 1977

Countering the Soviet Threat in the Mediterranean

By Admiral Stansfield Turner, U.S. Navy, and Commander George Thibault, U.S. Navy



Sea-based air power occupies center stage in the Mediterranean theater since carriers are essential both to the sea control and projection of power roles. In one of the innumerable dress rehearsals performed almost daily, an F-14 and a Kresta II's cruiser practice their respective roles of predator and prey.

Every operational commander, from a ship's commanding officer to a fleet commander, must know his capabilities, correctly assess the enemy's capabilities, and think through the tactics he will use if the two forces meet. In the past, overwhelming superiority of force sometimes made up for poor leadership or bad tactics, though seldom without great sacrifice of men and ships. Today, no one nation possesses that much of a power advantage at sea. Good tactics are essential, and that means more than looking for a handy compendium of standard tactics to see a commander through every situation he may face. The days of the off-the-wall tactical solution are past—if, in fact, they ever existed. Certainly, the wisdom of the past must be recorded and learned, but success in future naval engagements will favor the commander who has dissected his problem into its basic elements, who has analyzed the fundamental physical principles that will govern anticipated interactions, and who has established realistic options with criteria for their use, whenever possible.

This article is an attempt to do just that for one particular situation, that which the U.S. Navy now faces in the Mediterranean. It reflects an assessment of the situation in one of the most complex areas in which the Navy operates today. It is not meant to be definitive, but instead is offered as a challenge, particularly to junior officers, to think through this tactical problem and challenge the authors in subsequent interchange. Clearly there are other solutions, and we hope this one will stimulate discussion, generate ideas, and most important, demonstrate that tactical thinking in the Navy rightfully belongs at all levels of rank and command.

In time of war, allied naval forces in the Mediterranean are charged with establishing sea control and projecting power. Each can be divided into two basic tasks:

Sea Control:

- ▶ Establishing an acceptable level of risk for naval forces
- ▶ Keeping the sea lines of communication open for all allied shipping

Projection of Power:

- ▶ Tactical air projection
- ▶ Amphibious assault projection

Of these four tasks, priority must always be given to establishing an acceptable level of operating risk for naval forces. This is analogous to an air commander requiring air superiority before he can proceed with other tactical air missions. The threat in a given sea operating area must be reduced to a degree that some of our naval combat capability can be

spared to conduct the other three naval tasks in support of our land forces. Until that point is reached, all naval assets that can play a role will necessarily be dedicated to establishing a naval operating environment.

Establishing an acceptable level of risk does *not* mean that nothing else will be pursued until the probability of survival is total. There will always be a risk. The urgency of the land commander's requirements will largely determine what level of risk is acceptable in a particular circumstance. Deciding when assets can be spared and other missions attempted will be one of the most difficult judgments to be faced in wartime. If the naval commander's judgment is wrong, his forces may not survive long, and their potential support to the ground campaign will be lost in short order.

Once an acceptable level of sea control risk has been established by the naval commander, the needs of land and air commanders must then figure into establishing the relative importance of the remaining tasks. Naval assets may be available to accomplish all of them simultaneously, but chances are that this will not be the case. Which of the other missions should be undertaken first? The kinds of choices for support of the land campaign include:

- ▶ Carrier air support—Daily sorties of attack aircraft
- ▶ Amphibious reinforcement—The safe movement into the theater of a Marine amphibious force, for example, with 40-50,000 troops, 300 aircraft, and all the follow-on support would require many ships, all of which must be protected by control of the sea lines of communication.
- ▶ Other reinforcement—The safe movement, for example, of one air squadron into the theater as external reinforcement would also necessitate the assured arrival of four or five cargo ships daily to bring the ammunition and spare parts necessary to support it at normal operating levels. Such movement would require control of the sea-lanes.
- ▶ Normal resupply—The safe movement of merchant shipping to meet the minimum daily needs of allied military forces in the Mediterranean theater would require as many as 20 tankers and cargo ships a day. This does not include the support for reinforcement forces or for civilian requirements. Obviously, one can live off stocks for a while, but in the long run, 10-20 ships must berth each day, or ground and air forces will quickly grind to a halt.

Traditionally in the Mediterranean, it has been assumed that Commander Sixth Fleet in his NATO hat as Commander Striking and Support Forces Southern

continued

Europe (ComStrikForSouth) could handle the two projection of power functions (tactical air and amphibious support), and the allied navies could handle the two sea control functions (establish acceptable level of risk and sea lines of communication control).¹ The change in today's threat, however, makes the combined efforts of these forces necessary. On the one hand, ComStrikForSouth will need all the help he can get from the allied naval forces to establish that acceptable level of sea control risk for his carriers early in the game because those carriers will be a primary target of the enemy attack. On the other hand, the change in the nature of the threat at sea is such that eliminating it will depend much more than ever before on the presence of aircraft carriers. Since these will belong to ComStrikForSouth, his support will be essential for any allied operation.

The threat today is primarily from missiles and, to a lesser degree, from torpedoes. This missile threat implies that the enemy can attack us from much greater range. The aircraft is one of our best means of responding to the increased range of the threat. With its speed of reaction, range of operation, and capability to take sensors up in the air, the aircraft can extend the range at which we can detect the enemy and take counteraction. Hence, any concept of operations in the Mediterranean must concentrate on the role of sea-based tactical air power in countering missiles and even torpedoes. There is also a threat from guns and bombs, but it is pointedly ignored here because these weapons must be used at very close range, and we should be able to deny the enemy that opportunity.

Air-to-Surface Missiles: To develop an overall concept of operations, we must look successively at each threat. Let's start with the threat from missiles launched from aircraft. The Soviet air-to-surface missile inventory over the past decade and a half has increased only slightly in quantity. The quality will improve markedly as the "Backfire" aircraft enters naval service more and more.² Today, sizable numbers of aircraft-launched missiles could be directed simultaneously at allied naval forces in the Mediterranean by Soviet land-based naval aircraft. How many raids they could send in one day, or how long they could sustain such raids with attrition and the

normal decline in the availability of aircraft is uncertain.

Older Soviet naval aircraft flying a low profile from existing bases in the Crimea could cover the Mediterranean as far west as Sardinia. If they wanted to come in high, exposing themselves more to land- and sea-based air defense networks, the range could be extended all the way across the Mediterranean. The newer "Backfire" can cover the entire Mediterranean at will. Once in the area of our forces, Soviet

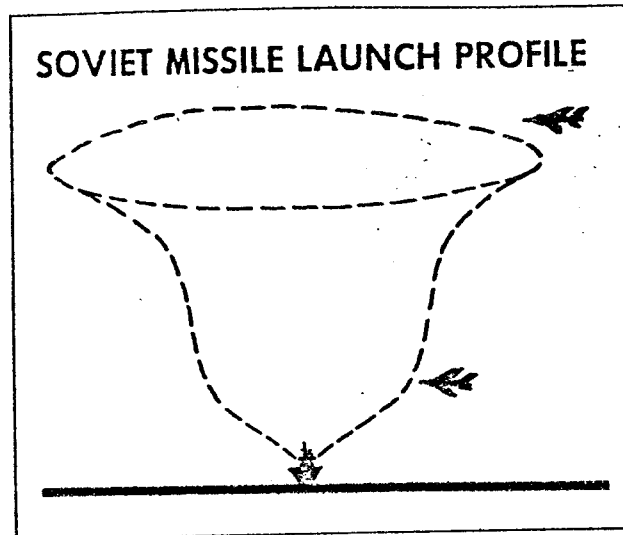


Figure 1

aircraft can theoretically target and launch weapons from as far as 200 miles.

Figure 1 shows the pilot's theoretical choices. He could come in high and launch from far away but would be quite vulnerable to detection. Or, he could come in low and be less detectable but would need to close his target before launch. Neither is a simple problem. First, he must locate his target. Either he must use his radar or electronic sensing devices, if we are emitting electronic information which he can use; or he must work with preprogrammed information from satellites or reconnaissance aircraft. However, even when he has located our task force, he then must identify the specific target which he wants most to destroy. If we are disciplined and minimize the use of electronic devices characteristic of specific types of ships, all targets on his scope will look much the same, making the target choice difficult. So, while our facing large missile raids perhaps twice a day is a formidable threat, his picking out the prize targets can be a formidable problem as well.

The fleet has three counters to the air-launched missile threat: to destroy the aircraft before it launches its missile; to destroy the missile before it

¹For a description of the NATO role of U.S. naval forces in the Mediterranean, see Admiral Means Johnston, Jr., USN, "NATO's Southern Region: Problems and Prospects," *U.S. Naval Institute Proceedings*, January 1975, pp. 47-51.

²See William D. O'Neil, "Backfire: Long Shadow on the Sea-Lanes," *Proceedings*, March 1977, pp. 26-35.

continued

hits its target; or to deceive or decoy either one.

There are four methods of destroying the aircraft:

► The first is to intercept it with carrier aircraft. If the enemy can launch his missiles from approximately 150-200 miles, carrier aircraft must establish a defensive perimeter around the naval force to detect the incoming raid and engage it before it reaches launching range. If the defensive perimeter is established at 100 miles, and the fighters dash out to intercept at 200-250 miles, that perimeter will be about 625 miles in circumference. If each aircraft on that perimeter can cover a circular search area of about 100 miles diameter, half a dozen aircraft on station 24 hours a day would be required to provide 360° defense. That degree of coverage would stretch the capability of any aircraft carrier operating today. Hence, the naval commander must space his aircraft thinly on the defense perimeter, accepting gaps between search areas. Alternatively, he can hope to define more precisely the direction from which the threat is expected and favor that part of the defense perimeter with a higher density. At the moment, the air threat in the Mediterranean can probably come only from the Crimea. It is relatively safe for the naval commander to concentrate his limited air surveillance assets toward that side of his defense perimeter. In the future, should the Soviets gain access to air bases in North Africa or Yugoslavia, shorter flight distances would extend the threat sector to a full 360° around the force, creating greater problems for allied naval commanders.

► The second method of destroying the aircraft is with ship-launched surface-to-air missiles. The coverage envelopes of today's allied shipborne missile systems are limited to about 40 miles (excepting our dwindling assets of Talos). Thus, the enemy aircraft is easily capable of launching from outside our missile envelopes. To compensate for this range disadvantage, a defensive barrier can be established on some perimeter away from the carrier or other high-value unit. Again, the problem of inadequate defensive assets influences tactics. Surface escorts, like air defense fighters, are in short supply. With anti-air missile ships at 100 miles, for instance, a 625-mile defense perimeter is more than can be covered by even 15 surface escorts with missile systems that range only 40 miles. Again, gaps in the barrier must favor a specific threat sector. In either case, this defense is only marginally effective because Soviet aircraft can still launch their missiles from outside or over the top of the missile ship defense perimeter. But, because their missiles have great distances to fly, they can be detected and engaged for a longer time if we erect these barriers with fighter aircraft

and guided-missile-armed ships.

► Our third defensive capability against air-launched missiles is the NATO land-based air defense network composed of interceptor aircraft, a radar system for early warning and interceptor command and control, and Nike/Hawk missile systems. While the Nike missile sites are fixed installations that may be circumnavigated, the enemy must consider their capabilities in any penetration of these combined defenses. Even if a high-density raid against the fleet is not fully engaged by land-based air defense systems, a cross-tell network will enable land-based radars to provide early warning to ships. And, because Soviet aircraft must pass through these defense systems both en route to their targets and on return to their bases as well, there will be two-way attrition which, over time, will greatly diminish the air threat.

► Finally, the fourth way of countering the enemy planes is to strike at Warsaw Pact air bases using land- or sea-based air assets. This is a complex topic that cannot be considered in detail here, but it should not be neglected.

The second means of countering the air-launched missile is to destroy the missile in flight. Here we must rely on shipboard missile systems and particularly the small but very important inner circle of point defense missile and gun systems.

The third means of countering the air-launched missile is to deceive or decoy either the aviator before launch or the missile after launch. We can decoy with various electronic countermeasure devices which take his incoming signal, distort it, and make it look different to him. We can deceive by any number of means. One of the most important is to carefully control our own electronic emissions. As noted earlier, we don't want to identify a particular high-value unit for him with emissions characteristic of that ship alone.

Figure 2 summarizes the air-to-surface missile problem. Against the long-range missile fired from aircraft, a combination of sea-based anti-air warfare systems, carrier fighter aircraft, and the land-based air defense network can be used in a sequence of barriers which the enemy must penetrate.

Surface-to-Surface Missiles: A second major missile threat comes from those launched by surface ships. These missiles have grown from negligible numbers in the early 1960s to a peacetime Soviet inventory in the Mediterranean of about 20-30 types today. We can expect these missiles to be on launchers ready to fire, for most Soviet missile ships are one-shot affairs with no reload capabilities. Soviet ship-launched missiles are fired from two ranges. Approximately two-thirds of the inventory are short-range (30 nau-

continued

tical mile) missiles. The remainder can be launched from over 100 miles but would require intermediate targeting.

The tactical counters to these missiles are the same as against aircraft-launched missiles: destroy the ship before she has a chance to launch, destroy the weapon after launch, or deceive/decoy either the ship or the weapon. Destruction of the weapon after launch and deception/decoying are basically the same for this case as the previous one and hence will not be addressed again.

To destroy the ship, three basic fleet assets can be employed:

► Submarines: Allied submarines are more than a match for Soviet surface ships. The fundamental lim-

both it can be done successfully.

► Tactical air support of maritime operations by land-based attack aircraft of the U.S. Air Force or the air forces of our allies in Italy, Greece, and Turkey. While most of the Mediterranean can be covered by these land-based aircraft, those available in theater are in short supply and in high demand for other missions.

Subsurface-to-Surface Missiles and Torpedoes: The two remaining categories of threat can be combined: missiles and torpedoes launched from submarines.

Our counters to the submarine-launched weapons are tactically the same three as against air- and surface-launched missiles: destroy the submarine, de-

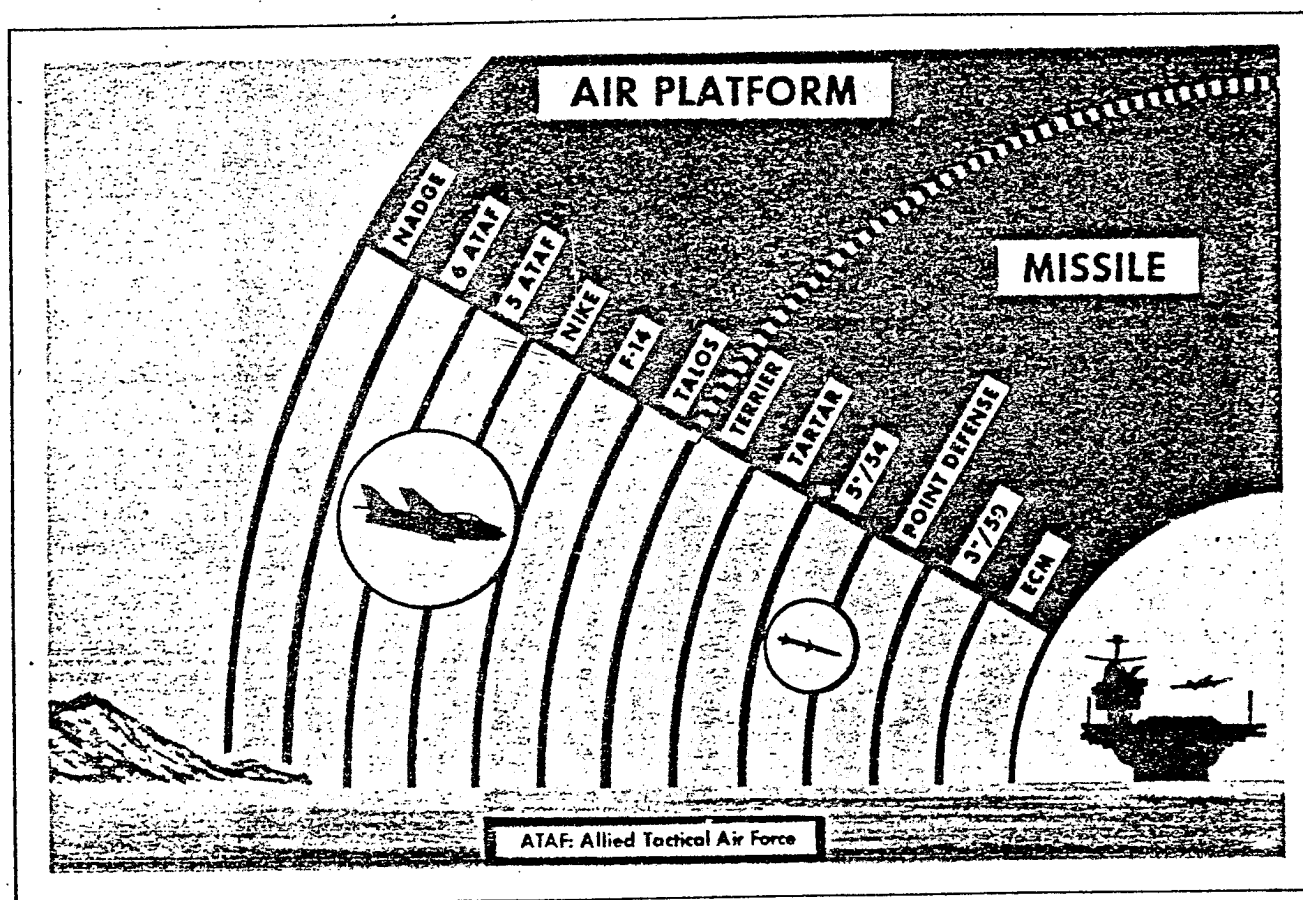


Figure 2

itation in the Mediterranean would be the availability of enough submarines to do these chores and others, and whether there would be enough time to get them into position.

► Attack aircraft from carriers: countering a heavily surface-to-air missile-equipped Soviet surface ship is not a simple-function for an aircraft. It takes skillful use of weapons and resourceful air tactics, but with

destroy the weapon, or deceive/decoy the submarine or the weapon. With respect to destroying or deceiving/decoying missiles, the tactics are similar to the air and surface problems and will not be discussed. There are different tactics for deceiving/decoying the submarine herself, however.

There are large numbers of torpedoes in Soviet submarines in the Mediterranean in peacetime and

continued

modest numbers of missiles. These weapons take on enhanced threat value because the submerged submarine is so difficult to locate. We have a reasonable probability of detecting the torpedo-firing submarines out to the ranges of their firing positions. To reach that position, the enemy submarine must penetrate the numerous close-in defenses that would be around the high-value unit: antisubmarine aircraft, our own submarines, helicopters, and destroyers. Beyond that, our chances of detecting the missile-firing submarine are much reduced. For instance, in moving from 5 to 25 miles, our defensive perimeter quintuples. This forces us to extend our defensive perimeter as in air and surface defense beyond the point where all arcs are well covered. In addition, water conditions are notoriously bad in the Mediterranean, particularly in the summer. As water conditions deteriorate, submarine invulnerability increases. Year-round, the submarine has the advantage in the Mediterranean.

The main problems for even the torpedo-firing and short-range, missile-firing submarines are locating and identifying the target. They can do that with acoustics alone—from our noise. But if the water conditions are bad for us, they are bad for the Soviets too. If they want to verify their acoustical data, they must put up a periscope and look or listen. To see an aircraft carrier, usually the biggest ship they are likely to be after, they must be within 10-12 miles. If we help, however, by indiscriminate use of electronic equipment unique to particular units, the Soviet submarines can verify our identity from much farther away.

The long-range missile shooter cannot target and identify on his own. He must have some outside help—maybe an aircraft which can see or hear us from hundreds of miles. Insidious as this may seem, in fact, this vital communications link gives us another point at which we can attack his system.

Our antisubmarine assets are divided into those which are capable of direct support or defense of specific forces and those which are employed in attrition operations. The difference is important because there are several tactical ways of employing antisubmarine forces:

▶ Direct support of a task force is little more than establishing a multi-unit point defense system—distributing various combinations of defensive units around the high-value unit. Antisubmarine units that are capable of keeping up with the carrier or whatever is the high-value unit can be employed in this role.

▶ Attrition operations can be subdivided into choke point control and open area search. An example of

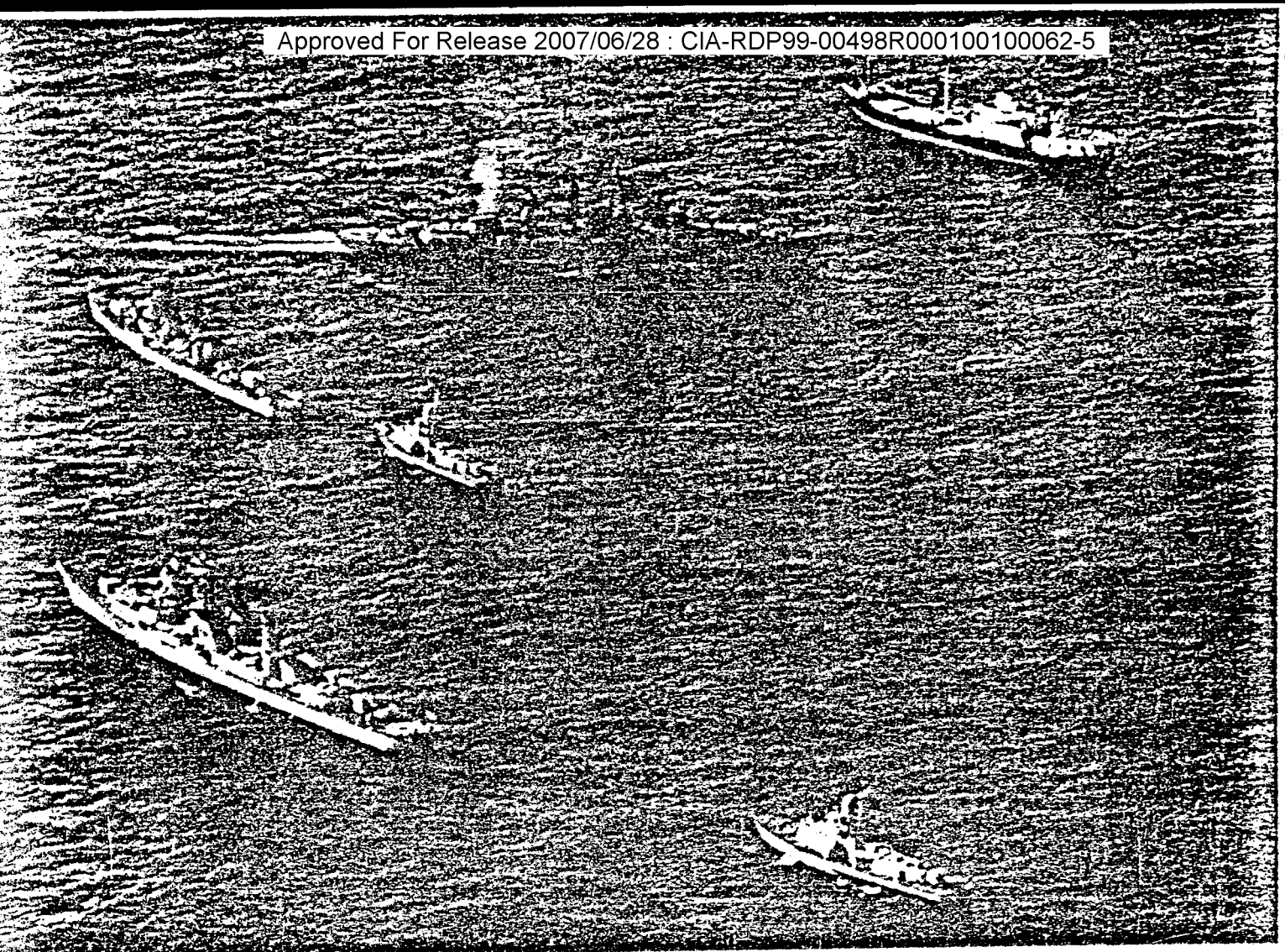
choke point control would be closing off the Sicily Straits, Gibraltar, or the Dardanelles both on and below the surface by means of submarines, maritime patrol aircraft, land-based helicopters, smaller destroyers, and mines to establish a barrier. Choke point control is an attrition tactic which wears the enemy down as he tries to come and go through these narrows. In open area search, submarines and maritime patrol aircraft can be sent ahead to search out and destroy the enemy if his approximate location is known, or if an area needs to be sanitized of any threat before its use by high-value units. This tactic could be used to establish an enclave or safe haven for friendly forces.

It is very important that antisubmarine actions be fully integrated because antisubmarine operations are not as likely to be sequential as are anti-air or anti-ship. One unit plays his strengths to the other's weaknesses. Success in antisubmarine warfare today comes from coordinated operations, not the unique capabilities of any one system.

In sum, in seeking to destroy the submarine, we have a wide variety of weapons and sensors. Each of them has only a modest probability of success by itself. If our tactics are good, we should be able to make the cumulative probability of success of a teamwork effort quite respectable.

We also must be conscious of special things we can do to decoy or deceive the submarine. There are particular opportunities here because a submarine is reliant primarily on one sensor, her acoustics. We must look at water conditions carefully and decide whether we would be better advised to operate in areas of high shipping density and consequent confusion of sound for the submarine, or whether it would be best to reduce our noise to a minimum and operate where the water conditions give us the best opportunity of detection. We should also not neglect the potential of acoustic deception techniques.

Operational Concept: In establishing an overall defensive posture, an operational commander must consider possible conflicts between optional tactics against each of the four threats. The situation will vary with the assets available to him and the expected threat. He may not be able, for instance, to place his guided-missile ships on a 100-mile perimeter and still have sufficient antisubmarine escorts for a close-in defense against torpedo-firing submarines. Or he may not be able simultaneously to have a tight circular defense to detect torpedo-firing submarines and a random formation to confuse enemy aircraft. Numerous trade-offs will have to be made in devising a coordinated defensive disposition. That is the



U. S. NAVY

kind of trade-off which operational commanders are paid to make. They will make such decisions based in large part on their estimate of the relative danger of each of the four threats but also on their knowledge of our own force strengths and weaknesses.

In the Mediterranean, a commander must also consider the special circumstance created by the Soviet practice of trailing and even targeting our ships with "tattletail" surface combatants or submarines in peacetime. There is a critical difference between land and sea warfare. At sea there are no front lines. Allied and Soviet ships commingle in peacetime, particularly when formations are large and dispersed. The Soviets can close their targets with impunity. But, at the same time, we are forewarned by their actions which we usually can see.

We could then expect a coordinated, preplanned, initial attack from aircraft, surface ships, and submarines. However, the very coordination of the attack would alert our forces and trigger appropriate counter-tactics.

If they shoot first, we cannot afford to delay in response. Once the attack is launched, everything will hinge on how well we are trained and how well we have thought through our tactical options. There

The Soviet surface units rendezvousing at Kythira anchorage in the Mediterranean today would be foolhardy to do so should war erupt. It seems unlikely that Russia would reinforce its surface fleet in the Mediterranean if war were imminent since there is a high probability that no Soviet surface ships could survive if we controlled the air.

will be no room for misfire or miscalculation. Once the war has started, it will be too late to train, to develop tactics, or to explain options.

Once there is a period of sustained conflict, the air, surface, and subsurface conflicts would proceed differently. The air-to-surface threat would be of the most concern in the short term because of the speed and quantity of attack the enemy could present. It would build quickly but then would drop off fairly quickly through attrition. While it would taper off significantly, it would never disappear entirely because there would always be the concern that the enemy might reinforce his land-based air forces from a distant area into a base within range of the fleet.

The subsurface threat would be the most difficult to handle. It would build up more slowly because submarines would have to move into position, and it

would take a long attrition operation to wear them down. But, if Gibraltar were closed, the threat could be made finite and eventually eliminated.

The surface threat would build up very quickly, but it would also wear down very quickly. Enemy surface ships could not survive in an air environment which we control. Besides, once they have fired their one load of missiles, they are eunuchs. Here again, if Gibraltar were closed, the threat could be contained and limited. An interesting question to contemplate is whether a Soviet admiral would reinforce his Mediterranean surface fleet in advance of hostilities knowing that there was a high probability that none would come out.

In summary, in the Mediterranean, sea-based air power is at center stage. Carriers are essential both to the sea control and the projection of power roles. While carriers will certainly be the honey to which the bear is attracted, they also provide the only sea-based capability to reduce the Soviet bomber force and the most flexible and rapidly moving capability to attack Soviet submarines and surface ships. They are important, therefore, for the contribution they can make to every other mission that is to follow. They are to be defended not for the sake of self-defense, but in the name of every naval mission that will follow their successful defense.

The issue which will interest ground and air commanders most is how long it will take to establish an *acceptable level of sea control risk* and get on with other tasks. The answer will depend on how well we survive the initial preemptive attack if that is how hostilities commence. If we survive well, sea control can be established quickly, at levels where naval assets can be diverted to support other operations. If we survive poorly and must wait for reinforcements or repairs, it will take longer—maybe too long. Once an acceptable level of risk is established, the priority of assignment of naval assets to tactical air support, amphibious assault, resupply, or reinforcement will depend on the remaining threat and the urgency of other ashore requirements as recommended by the land and air commanders.

There are four key points to this concept for containing the Soviet threat in the Mediterranean.

► First, an acceptable level of sea control risk must be established quickly. To do so we must pay attention to the indicators of a buildup, be alert, have

good tactics to counter the preemptive threat, and be operationally ready.

► Second, once such a level of sea control is established, the remaining enemy threat at sea can be worn down through attrition.

► Third, most of the requirements of land commanders can be met, but probably not so quickly as they would desire.

► And finally, the difficulties of the naval threat, the complexities of that threat, and the conflicting demands that will be placed on the naval commanders must be understood. There will be difficult choices to make. The wise establishment of priorities among these choices will play a major role in whether the land and air as well as the naval campaigns succeed in the Mediterranean theater.



Admiral Turner entered Amherst College in 1941 and two years later transferred to the U.S. Naval Academy. After graduation in 1946 (Class of 1947), he served a year at sea before entering Oxford University where his studies as a Rhodes Scholar led to a master's degree. After Oxford, he held a variety of sea assignments, including command of a minesweeper, a destroyer, and a guided-missile frigate which he placed in commission. His shore duties included the Politico-Military Policy Division in the Office of the Chief of Naval Operations, the Office of the Assistant Secretary of Defense for Systems Analysis, the Advanced Management Program at the Harvard Business School and Executive Assistant and Naval Aide to the Secretary of the Navy. In 1970, he assumed command of a carrier task group of the Sixth Fleet. In 1971, he served as Director of the Systems Analysis Division of the Office of the CNO and after that as President of the Naval War College. Assignments in recent years have been Commander, Second Fleet and Commander in Chief, Allied Forces Southern Europe. It was while serving in the latter billet that he submitted this article for publication in the *Proceedings*. Shortly thereafter, his classmate President Carter nominated Admiral Turner for his present billet, Director of Central Intelligence.



Commander Thibault is a native of Lexington, Massachusetts. He holds a bachelor of science degree in biochemistry from Tufts University, a master of arts in education from Boston University, a master of science in political science from George Washington University, and is a Distinguished Graduate of the Naval War College. He has served as department head in the USS *Muliphen* (AKA-61), USS *Robinson* (DD-562), USS *Soley* (DD-707), and executive officer in the USS *Barry* (DD-933). He has had duty at the French Naval Academy and has served on the staffs of the United Nations Command, Korea and the U. S. Second Fleet. Commander Thibault was executive assistant and senior aide to CinCSouth. He is now assigned as Special Assistant to the Director of Central Intelligence.