It took a decade to regain the edge at sea. The question now is how to hold on to it.

Back Into Harm's Way

BY ROBERT S. DUDNEY, EXECUTIVE EDITOR

US NAVAL forces are in the throes of what may prove to be a major challenge to their newly re-established command of the seas.

The Navy and Marine Corps face problems that could undermine the maritime supremacy of today's rebuilt, 568-ship armada of fourteen carriers, 100 submarines, four battleships, and amphibious and other units.

Unless the erosion is checked, argues Adm. Carlisle A. H. Trost, Chief of Naval Operations, "much of what we have gained over the past years could . . . be dissipated."

Even as President Bush reviewed US defense policy, concerns for the future of US dominance at sea were being fueled by:

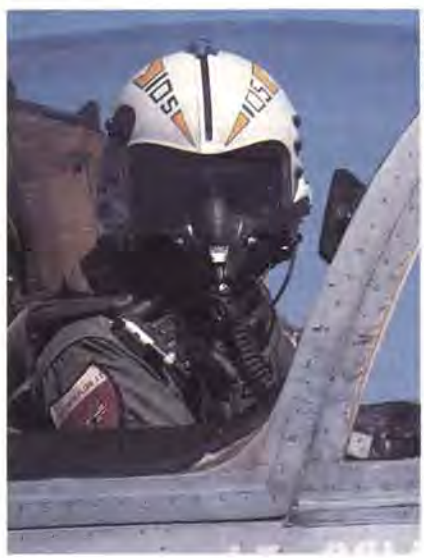
- Pressure on force structure—especially aircraft carriers.
- The persistence of gaps in surface warship capabilities.
- A far-reaching Soviet challenge in antisubmarine warfare.
- Problems acquiring new aircraft and ships for amphibious war.
- Political and diplomatic threats to naval weapons.

Navymen, determined to protect the fleet, are preparing for a protracted fight to arrest the trends. They expect heated controversies in Congress, the Pentagon, and their sister services.

What they want to preserve is the global supremacy of today's force. The fleet has staged an abrupt turnaround since 1981, when Adm. Thomas B. Hayward, then CNO, charged it had lost even a "slim margin of superiority" and was in fact "on the ragged edge of adequacy."

Today, by contrast, Admiral Trost reports the Navy "has never been more ready." Even against massed Soviet might in the Northwest Pacific or Norwegian Sea, notes Adm. William Crowe, the Joint Chiefs of Staff Chairman, "we would fare well." Marines win similarly high praise.

Central to the fleet's revival has been its expansion in size. Compared with the 475-ship Navy of 1980, today's is larger by a net of nearly 100 warships. Added to the fleet have been two massive aircraft carriers, USS *Carl Vinson* and USS *Theodore Roosevelt*; four battleships packing sixteen-inch guns



—Photos © Lans Stout 1989

Fourteen carrier battle groups form the heart of today's US naval strategy. The flattops are potent conventional weapons, and the size of the carrier fleet determines the size of the entire Navy. At right, catapult officer Lt. Steve Tobia gives the two-finger signal indicating final readiness before the Grumman KA-6D is shot off the deck of the USS Forrestal (CV-59). Meanwhile (above), an A-7D aviator from VA-105 "Gunslingers" waits to be readied for his "cat shot."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and cruise missiles; and twenty-five more nuclear-powered attack submarines, among other ships.

Equally critical to the turnaround was a decade of success in recruiting and retaining top-caliber servicemen and women. The result, say officers, is that the quality of today's force of 592,000 sailors and 197,000 Marines is at an all-time high.

Headaches on Three Fronts

Naval forces also have benefited from vastly improved readiness. Since 1980, the proportion of materially ready surface ships has risen to seventy-five percent, up from fifty percent. Measurements of overall ship readiness are up 100 percent. For aircraft, the figure is 250 percent. The Navy has largely completed building stocks of war reserve spares and expanded its stockpile of munitions by fifty percent.

Tomorrow's problem can be put in a phrase: events in the Soviet Union. The adroit diplomacy of President Mikhail Gorbachev, plus major Soviet military advances, are creating headaches on three fronts.

First, a sharp decline in public anxiety about the "Soviet threat" has sparked growing resistance to defense outlays. Budget-cutting fever brought a cumulative $5.8 billion cut in Navy and Marine Corps budgets for Fiscal Years 1990 and 1991.

Second, despite US resistance, Moscow is stepping up pressure to include certain US naval forces in East-West arms negotiations.

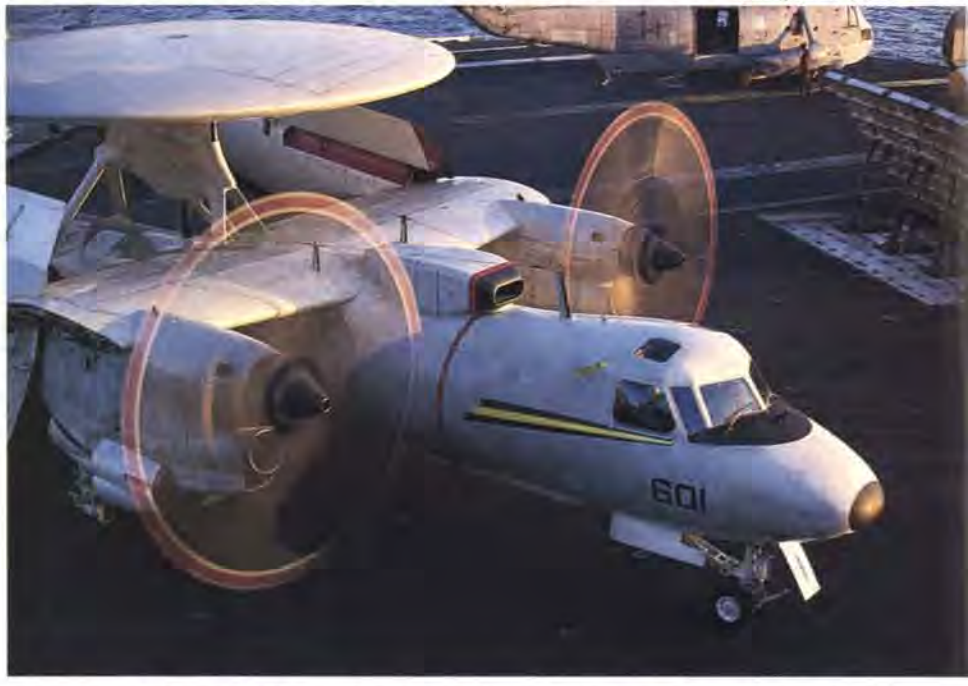
Third, Soviet technological advances strike at the heart of Navy might—in particular, its power to wage undersea warfare.

The combination of fiscal, diplomatic, and technological threats, experts agree, poses a big challenge to maintaining the seapower that the Navy and Marine Corps insist the US must have.

Few problems are viewed with more alarm than pressure on force structure—the far-flung collection of ships and aircraft that backs up commitments from the nearby Caribbean to the distant Indian Ocean.

Budget woes are raising risks. Some foresee a rerun of the time in the 1970s when, in Admiral Hayward's words, Washington was "trying to meet a three-ocean requirement with a one-and-a-half-ocean Navy."

—Photo by William G. Lotz



A basic tenet of carrier aviation: If you need it for the mission, you have to bring it with you. Deck space must be allotted to mission-support aircraft as well as to fighters and attack aircraft. Here, a Grumman E-2C Hawkeye early warning radar aircraft taxis up to the starboard catapult on the USS* Midway *(CV-41).

This concern might be only slightly exaggerated. Already abandoned are plans for further fleet expansion. The goal of a "600-ship Navy"—set by Adm. James Holloway in 1974, embraced by President Reagan in 1981, pursued by former Navy Secretary John F. Lehman, Jr., and recently within the Navy's grasp—is in history's dustbin. Achievement of the goal, first frustrated by the earlier-than-planned retirement of sixteen frigates in 1988, was stopped dead in program revisions carried out by Defense Secretary Richard B. Cheney in April. In coming years, for example, the Navy will shift up to twenty-four more FF-1052-class frigates to the reserves and retire DDG-2 and DDG-37 destroyers earlier than planned.

"There is no way that you can make the decisions I've made," says the Secretary, "and reach a 600-ship Navy anytime in the near future."

Indeed, the question now is whether the Navy can escape a decline that would hamper forward operations underlying its maritime strategy.

One source of concern: leaner shipbuilding budgets, which provide the funds for future warships to offset retirements. Though the Navy faces block obsolescence of some surface and undersea ships, there will be a drop in the notional purchase rate of about twenty-five ships a year to twenty in FY '90 and fifteen in FY '91. Already lost in FY '90 are two mine-hunters and one SSN-688 submarine.

Challenge to the Carriers

The Navy frets, too, about an essentially political threat—the prospect that Bush policymakers will choose to make do with a smaller fleet. In its defense review, the Administration explored options for placing many ships in reserve and deploying the rest closer to home.

A developing challenge to the great aircraft carrier—the sun around which all US maritime schemes orbit—lies at the heart of Navy unease about the future of its force structure.

Controversy over the carrier fleet, which seemed to die out in the mid-1980s, has been resurrected. Future numbers and tasks more and more are called into question.

The reason Navy concern focuses on the carrier is simple. Not only is it the most potent conventional weapon afloat; in addition, the carrier fleet determines the size and

budget of the entire Navy. Each ship, with ninety airplanes and 5,000 men, puts to sea with surface escorts, submarines, and trains of supply ships. When a carrier goes down, its task force sinks too.

Now, Navy worries along these lines increasingly appear to be justified. The country's relentless, ten-year pursuit of a big carrier build-up—from twelve deployable decks to a fifteen-carrier level it was to have achieved this year—has been thrown into neutral, if not reverse.

One major setback: Secretary Cheney's cost-cutting order to accelerate retirement of two World War II-vintage decks. His new timetable calls for retiring USS *Coral Sea* this fall, two years earlier than planned, and USS *Midway* in 1992, five years ahead of schedule.

Under the Navy's now-defunct plan, later retirements would have allowed attainment of a fifteen-deck force and left it intact in the 1990s. Now, the retirements of *Coral Sea* and *Midway* will coincide, respectively, with the commissionings of USS *Lincoln* and USS *Washington*, two Nimitz-class ships. This one-for-one tradeout will freeze the force at fourteen carriers at least until 1997, the earliest date that another new deck will go to sea.

The schedule is but one problem. Even the fifteen-carrier goal has been abandoned. Cheney has reset the objective at fourteen. His decision—if it holds—will slow the pace of new carrier buys.

Internal Navy plans call for seeking at least one carrier in Fiscal '96 and more later, to hold its numbers. The Navy faces the start, in 2000, of massive carrier retirements. Because they take years to build, replacements must be started soon.

However, some Navy analysts report sentiment among White House aides for keeping as few as twelve decks. Rep. Les Aspin, the Wisconsin Democrat who chairs the House Armed Services Committee, seems similarly inclined.

Apprehensions are compounded by trends enveloping carrier air wings. The number of fighter and attack planes, long on a downward trajectory, might now be going into a steep fall.

Many experts say today's aircraft purchases are insufficient to support even the truncated force structure of thirteen active and two reserve wings that budget austerity has obliged the service to accept and that it views as a minimum for fourteen carriers.

"It looks to me," Aspin informed the Navy hierarchy, "like you're setting up for a smaller fleet than fourteen carriers."

Pain of the Budget Cuts

While the Navy disputes his assessment, there is no denying the pain inflicted by budget cuts that chopped $1 billion from Navy tactical aircraft funds for FYs '90 and '91. Each year, for example, the Navy will buy six fewer F/A-18 strike fighters than planned.

Taking the biggest blow, however, is Grumman's F-14 Tomcat air-superiority fighter, the Cadillac of Navy warplanes. New production of 127 advanced F-14Ds, a $6.3 billion program, was axed. What is left is a modest plan to upgrade 400 existing F-14As into D models. Service lives are not extended.

With Grumman leading a battle in Congress to save the F-14D, the Tomcat's prospects are uncertain. The Navy predicts that, without the new aircraft, it will be fifty-six Tomcats short by 1999. The Congressional Research Service puts the figure at 110 F-14s.

Tomcat woes come on top of the death, in 1988, of Navy plans to buy new F-model A-6 medium bombers. A-6Fs were to replace A-6Es, which, aging none too gracefully, won't last much longer. Prospective shortages pose what Former Navy Secretary William Ball calls "a certain risk."

The gamble, in both fighter and attack areas, is that a new generation of stealth airplanes will come along as advertised. Navymen concede that, without the F-14D or A-6F, they must hope that the navalized variant of the USAF Advanced Tactical Fighter (ATF) and the Navy's own A-12 medium bomber won't hit performance, schedule, or cost snags. Both are richly funded to keep them on course for the mid- to late 1990s.

Even if the Navy remained at present size, future domination at sea might be threatened by a gaping hole in capability that stems from spot shortages of certain surface combatants.

The most optimistic plans provide no early solution to the fleet's insufficient numbers of cruisers and destroyers cast for major roles in fleet air defense and antisubmarine warfare. The Navy has little alternative but to live with a weakness that, while manageable today, could grow more serious in the future.

Budget pressures are key. The Navy's Surface Combatant Force Requirements Study, finished in 1988, sets a revised objective of 224 vessels, down from 242 in the preceding plan and far under needs. A reduced total of 120 is to be cruiser or destroyer "battle force combatants." In practical terms, however, the plan is moot.

"Fiscal constraints," former Defense Secretary Frank Carlucci conceded in his last Pentagon budget report, "continue to preclude the achievement of even the Navy's reduced . . . objective of 224 ships."

A deficit in antiair warfare combatants, now at but sixty-four percent of required numbers, is seen as especially acute. The mounting threat of high-speed cruise missiles, says Admiral Trost, makes wider deployment of new AEGIS air defense systems "my top surface-combatant priority."

But procurement of AEGIS-equipped DDG-51 Burke-class destroyers is faltering. The Navy, which wants to buy twenty-five in the next five years, is sixteen months behind schedule on the lead ship. The other part of the AEGIS team, the twenty-seven-ship force of CG-47-class cruisers, is paid for but will arrive late. Delays and overruns are afflicting construction.

Soviet Submarine Stealthiness

Another threat to US power—potentially the greatest—can be seen in the increasing stealthiness of Russia's 300-strong submarine force. At issue may be the US Navy's very ability to operate beyond home waters in a global war.

Today, notes Admiral Crowe, Russia's wolf pack could be overcome only after "an all-out effort by the bulk of [US] Atlantic and Pacific fleets." It is still possible because the typical USSR sub, fielded in greater numbers, is noisy and can be "heard" and located by acoustic listening devices of US antisubmarine warfare (ASW) forces.

Now, this edge is eroding and may be headed for oblivion. Future USSR boats, say experts, will be difficult if not impossible to hear. If intelligence estimates are any guide, recent submarine types are displaying big gains in acoustic dampening. The trend first became apparent with the Soviet launchings, in 1983, of Sierra- and Mike-class boats. The emergence one year later of superquiet Akula-class subs, comparable in stealthiness to the best US boats, confirmed it.

The trend is a body blow to US ASW power. That power is deeply reliant on passive acoustic devices—underwater microphones that detect sounds of engines and propellers—which quiet subs would make obsolete.

The danger, concludes a recent study for Congress by a high-level panel of experts, is urgent. "We must build what will amount to an entire new ASW capability by the time the Soviet Union has built a significant number of new submarines," the group reports.

Costly though that may be, the price of not doing so might be higher still. Experts say that, in a general war, hundreds of Soviet submarines roaming free might cut sea-lanes over which the US could reinforce European and Far East allies, sink carriers and other warships, and even launch missile attacks on US coasts.

Admiral Trost concedes the severity of the ASW challenge, which he terms his "top warfighting priority." Though the US lead in ASW continues to be "substantial," he asserts, it is now "narrowing more rapidly than [had been predicted in] earlier estimates."

Future ASW techniques, always a closely guarded activity, are impossible for an outsider to discern. What is clear is that the US is spending billions. Prospects cited in open studies range from greater use of active sonar to nonacoustic techniques such as magnetic anomaly detection.

Even so, Admiral Trost warns that "there are no silver bullets or easy, pat answers to ASW." Defeating a large submarine threat, the CNO adds, will always require superiority throughout US ASW forces—submarines, aircraft, surface ships, space systems, and tactics.

Complications of Tighter Budgets

Tighter budgets will complicate matters. For example, cost-cutting moves will compel the Navy to retire seventy-three P-3 sub-hunter planes over the next few years before the new P-7A Long-Range Air ASW Capable Aircraft phases in. Purchases of the SH-60F inner-zone antisubmarine warfare helicopter were reduced.

The newest Navy attack sub may also be sensitive to money problems. The Navy is banking heavily on the controversial SSN-21 Seawolf, which it sees as a revolutionary advance, to counter the Soviet challenge. The thirty-boat Seawolf program is projected to cost $32 billion. Non-Navy experts assert that, at that price for those numbers, the US may be hard pressed to hold a force of 100 submarines, which only recently has been achieved and which is seen as the minimum requirement.

The most singular facet of US maritime supereminence—ability to project Marine infantry ashore—may prove especially hard to sustain.

Making an opposed amphibious landing has always been a unique, dangerous task. In a future world where "smart" weaponry and effective warning sensors dominate, storming across the beach may be even dicier. The Corps says it needs swifter, longer-range transports to help Marines "hit 'em where they ain't." This type of hard-to-see, over-the-horizon assault has become a cardinal tenet of the future Marine Corps.

Now, achievement of this power looks shaky. The aircraft on which the Marine Corps has pinned high hopes, the new V-22 Osprey, is in trouble. The tilt-rotor Osprey, which takes off and lands like a helicopter but cruises like an airplane, is expensive—some $27 billion for 627 planes. It was because of cost that Secretary Cheney, last April, decided to terminate the program after the current fiscal year ends. He says that the mission, ferrying Marines from ship to shore, is too "narrow" to justify the outlay. The Marines, he says, must make do with slower current and planned helicopters.

A top naval analyst, Scott Truver, regards this move as a "grave challenge to the Marines as they ponder their ability to remain 'relevant' to naval warfare" for the rest of the century.

The Osprey program, which enjoys strong congressional support,

—Photo © Lans Stout 1989

Two mechanics duck as a Grumman F-14A Tomcat from VF-131 "Tomcatters" is catapulted off the bow of the Forrestal *on maneuvers in the Atlantic. The Navy's plan to produce a new F-14D model is in serious trouble and may be killed. The Tomcat fleet is scheduled to be replaced by a Navy version of the Air Force's Advanced Tactical Fighter.*

may be kept alive. Whatever the outcome of the furor in 1989, however, the plane is sure to remain vulnerable for years.

The same holds true for the Navy's force of amphibious warships, specialized ships needed to get Marines and supplies to a crisis zone. Plans developed early in the Reagan Administration call for sufficient sealift to move assault echelons of a Marine Expeditionary Force and Marine Expeditionary Brigade simultaneously. Capacity, which had risen from seventy-one to eighty-one percent since 1980, may be headed back down. Former Secretary Carlucci's view: "Block obsolescence of aging ships will make [such lift] a difficult capability to sustain."

Offsetting these problems, somewhat, are bright spots in Marine combat aviation *(see box)* and first deployments of what eventually may be a force of 100 sea-skimmer Landing Craft Air Cushion vehicles.

Also troubling the fleet, as it seeks continued dominance, is a danger that its power may be snarled in global politics.

Foreign political complications no longer can be written off as minor. Gorbachev's demonstrated determination to pursue his broad arms-control agenda, mixed with changing European views, creates pressures not encountered before.

Most conspicuous is Moscow's call for including US naval forces in the twenty-three-nation talks now taking place in Vienna on conventional reductions. Washington deflects the demand, saying naval power is not directly relevant to the faceoff on the Central Front. While this stance contradicts long-standing Navy claims that it would play a decisive role in defeating Warsaw Pact forces, Washington believes it can finesse the issue, for the moment.

The Cruise Missile Problem

The problem for an important Navy weapon, the long-range conventional cruise missile, may not be so easily overcome. This weapon—either today's Tomahawk or the Excalibur planned for tomorrow—is cast for a starring role in maintaining Navy might. Deployed in thousands on aircraft, ships, and subs, the Tomahawk/Excalibur will disperse over a "triad" of forces the strike power now concentrated in a handful of carriers.

The problem is how to deploy conventional versions without upsetting Soviet ability to verify numbers of the nearly identical nuclear variant. The Kremlin insists it must be able to do this as part of a Strategic Arms Reduction Treaty. The US resists limits on conventional Tomahawks and may have to pay a price—perhaps abandonment of the Navy nuclear types.

The sum of pressures now crowding in on the Navy and Marines presents a challenge to the newly minted maritime edge bought at great cost in the Reagan years. Risks, as these organizations see it, are high. If President Bush harbors any doubts on that score, the sea services are only too prepared to persuade him.

Already, the naval services are embarked on a drive to convince Washington of the problems that they say will flow from any failure to give adequate support—and budgets—to maintain the fleet's power.

One argument is that the US could still come up short in a major war against Russia. The position of the Navy hierarchy is that Gorbachev's "new look" in military affairs is at best a modest change and at worst a ruse. Observes Admiral Trost: "We have seen little slackening in their building efforts." As a result, US naval needs are unchanged.

Navy leaders also advance a second argument: While the decline of Soviet power may be an illusion, the apparent rise of other dangers is not. They say a turbulent global environment—Third World threats to US interests, loss of foreign bases, terrorism, drug trafficking—all argue for preserving if not expanding a hard-hitting, mobile, and unilateral military force. Not doing so, in their view, may lead to a kind of strategic impotence.

In light of these and other factors, some navalists claim the Pentagon should reexamine budget allocations made to the sea services on one hand, and the Air Force and Army on the other—a scheme whose chances must be viewed skeptically on the record of the past. The outcome of that struggle will leave a lasting imprint on the course of US naval power. ■

Marine Corps Tools of the Trade

In an invasion, Marines will be the first on the beach and first over it, too. Ongoing Marine aviation programs include:

- **Bell-Boeing V-22 Osprey:** This aircraft, combining the vertical takeoff and landing capability of a helicopter with the speed and carrying capacity of fixed-wing aircraft, is top Marine priority. The Pentagon, however, is trying to cancel it. First flight was delayed eight months, but Osprey has ended first stage of flight-testing and will make helicopter-to-airplane conversion this year. The Air Force and Navy plan to buy some, but 522 of the 627 go to the Marines.
- **McDonnell Douglas AV-8B Harrier II:** The West's only production VTOL attack aircraft is made in cooperation with British Aerospace. Harrier production is to continue at a rate of twenty-four a year until FY '91. This will give the Marines 276 aircraft, forty-seven short of the requirement of 323. Production after FY '91 is possible. Delivery of first production models of the night-attack type will begin in August. AV-8Bs are stationed at MCAS Cherry Point, N. C., and MCAS Yuma, Ariz.
- **McDonnell Douglas F/A-18 Hornet:** USMC's other front-line tactical aircraft, the F/A-18 is replacing F-4s and A-7s. Marines have 140 Hornets assigned to four Marine Air Groups formed or activating. The first Marine Reserve Squadron will get its first aircraft this summer. In October, delivery of the first two-seat, night-attack F/A-18D Hornets will begin. The stick will be removed from the Radar Intercept Officer station and will be replaced by two hand-stick controllers.
- **Bell Helicopter AH-1W Sea Cobra:** The "Super Cobra" is a far cry from the AH-1s used by the Army in Vietnam. Thirty new Cobras are on order. Production may continue because the Marine Reserve needs forty-two replacements for AH-1Js. Modifications to the Super Cobra will include night-targeting sight—jointly funded by USMC and Israel—and new navigation system with Doppler radar.
- **Grumman EA-6B Prowler:** Production of the tactical jamming aircraft includes twenty-four new Improved Capability (ICAP II) jets bought in FY 1988–89. ICAP II modifications include a universal exciter, a threat identification system, and a programmable jammer.

—Jeffrey P. Rhodes