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Winter 2010

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Cover

A plane captain “walks down” the wing of an F/A-18C Hornet of Strike Fighter Squadron 113 on the flight deck of the aircraft carrier USS Ronald Reagan (CVN 76), operating in the Gulf of Oman in September 2008. This stringent safety inspection, conducted before and after flight operations, exemplifies the new practicalities that will face the navy of the People’s Republic of China if—as our lead article, by Professors Nan Li and Christopher Weuve, argues is likely—it decides to build and operate carriers of its own. U.S. Navy photo by Mass Communication Specialist 3rd Class Torrey W. Lee.

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FROM THE EDITORS

That the People's Republic of China has long toyed with the idea of building aircraft carriers is widely known. It is also clear that a consensus within the Chinese military and political leadership on such a course has proven elusive. There are increasing signs, however, that the long-standing debate on this issue has been resolved in favor of a decision to embrace the aircraft carrier. The questions that remain concern the scope and purpose of a Chinese carrier program (or programs), what it might reveal about current Chinese naval or grand strategy, and what implications it will have for the U.S. Navy over the coming decades. These questions are addressed by Nan Li and Christopher Weuve in this issue's lead article, "China's Aircraft Carrier Ambitions: An Update." Professors Li and Weuve, both of the Center for Naval Warfare Studies at the Naval War College, conclude that for reasons of affordability and technological complexity as well as strategic calculation, the Chinese effort will concentrate initially on a medium-sized carrier dedicated primarily to an air-defense mission on China's southern maritime frontier. Nevertheless, they do not rule out the possibility of China's eventually developing large, nuclear-powered carriers on the American model for projecting offensive power in the "far seas."

The U.S. Navy's recently articulated maritime strategy places special emphasis on the need for enhanced cooperation with foreign navies in the interests of global maritime security. Such a strategy presupposes that we know our maritime partners and friends at least as well as we know our potential adversaries. It is, to say the least, not obvious that this is currently the case. Two articles in this issue have been specially commissioned to help address this situation. In "Great Britain Gambles with the Royal Navy," Geoffrey Till, director of the Corbett Centre for Maritime Policy Studies at the University of London and the United Kingdom's foremost commentator on naval and maritime affairs, provides a comprehensive survey of the current condition and future direction of the RN. Many will be surprised to discover that the closest ally of the United States has embarked on an ambitious program of fleet recapitalization in spite of the severe and continuing fiscal challenges it faces. Next, Jack McCaffrie and Chris Rahman, of the Australian National Centre for Ocean Resources and Security, University of Wollongong, New South Wales, provide an informed analysis of

the Australian defense white paper of 2009, a document that marks a watershed in Australia's strategic outlook and signals a significant commitment to upgrading that nation's naval capabilities and reach. It is our intention to feature additional articles on allied navies in future issues of the *Review*.

Any discussion of the state of American alliances must pay particular attention to Japan, especially given recent political developments there. The resounding victory of the Democratic Party of Japan in the 2009 general election and the formation of a new government under Prime Minister Yukio Hatoyama with a broad mandate for policy and administrative reform has potentially large implications for the American presence and for American interests in East Asia, as underlined by Secretary of Defense Robert Gates's visit to Tokyo in October. This important evolution in Japanese politics and its likely impact on Japan's foreign and national security policies are examined by Tobias Harris in "How Will the DPJ Change Japan?" Though it is too early to tell what reality there is behind the DPJ's stated commitment to working toward the creation of a new security "community" in East Asia, the DPJ is plainly prepared to challenge aspects of American leadership in the region—in particular, previously negotiated arrangements with respect to the U.S. military presence on Okinawa. As his title suggests, Harris is persuaded that significant departures in Japanese security policy should indeed be expected.

In "Engaging Oceania," Captain Sea Sovereign Thomas, USMC, provides a useful reminder of the continuing importance of the small island states of the Pacific for the security of the United States and its allies in the region. Particularly in the light of the active economic and diplomatic presence in Oceania of the People's Republic of China, Thomas argues, it is essential that the United States visibly engage with these states more than it is now doing, and he suggests ways in which the U.S. Pacific Command could be the vehicle of that engagement.

Finally, Milan Vego, professor in the Joint Military Operations Department at the Naval War College, offers a detailed analysis of operational-level joint warfare in the Mediterranean during World War II in defense of the strategically situated island of Malta from Axis attack. Vego argues that military planners today can learn important lessons from this history, especially in calculating acceptable levels of loss against the importance of the strategic objective.

NEW FROM THE NAVAL WAR COLLEGE PRESS

Policy Studies Series, Number 4

Our first publication in a language other than English has recently appeared: Paul D. Taylor, editor, *Perspectivas sobre estrategia marítima: Ensayos de las*

Américas, la nueva estrategia marítima de EE UU y comentario sobre Una Estrategia Cooperativa para el Poder Naval en el Siglo XXI (Perspectives on Maritime Strategy: Essays from the Americas, the New U.S. Maritime Strategy, and Commentary on A Cooperative Strategy for 21st Century Seapower). The book collects essays written by representatives of Western Hemisphere navies during the preparation of the U.S. 2007 maritime strategy (published in English as our Newport Paper 31) and commentaries written after its appearance (published in various issues of this journal), as well as the text of the strategy itself. U.S. Southern Command has supported the project throughout, and the book is being distributed throughout its area of responsibility; Admiral James G. Stavridis, then Commander, U.S. Southern Command, contributed an introduction. The book is also available for sale online by the U.S. Government Printing Office, at <http://bookstore.gpo.gov>.

Historical Monograph 16

Dr. Evelyn Cherpak's *Three Splendid Little Wars: The Diary of Joseph K. Taussig, 1898–1901*, is now for sale by the U.S. Government online bookstore. This diary, Professor John B. Hattendorf writes in his foreword, is “a valuable glimpse of the initial stage of a naval officer’s professional military education just a little over a century ago.”

Newport Paper 34

Somalia . . . From the Sea, by Gary J. Ohls, also in press, is available in print and on our website. Dr. Ohls, of the Naval Postgraduate School, has written an account of the repeated U.S. attempts in the 1990s, in the framework of newly developed expeditionary doctrine, to rescue Somalia from the chaos and starvation that had engulfed it.

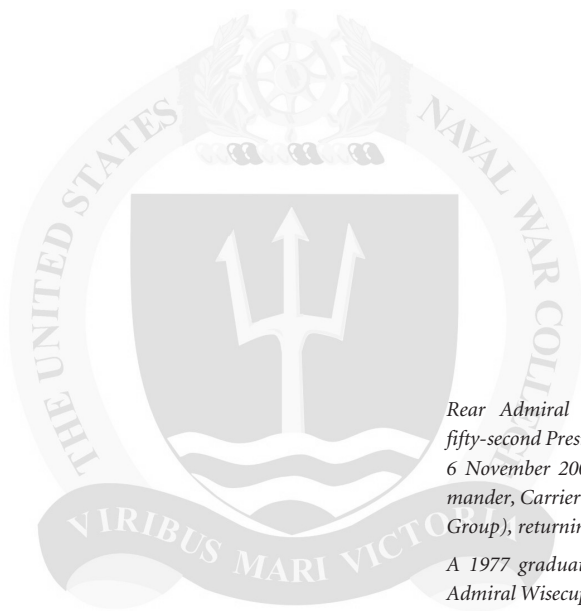
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Pelham G. Boyer, Managing Editor





Rear Admiral James “Phil” Wisecup became the fifty-second President of the U.S. Naval War College on 6 November 2008. He most recently served as Commander, Carrier Strike Group 7 (Ronald Reagan Strike Group), returning from deployment in October 2008.

A 1977 graduate of the U.S. Naval Academy, Rear Admiral Wisecup earned his master’s degree in international relations from the University of Southern California, graduated from the Naval War College in 1998, and also earned a degree from the University of Strasbourg, France, as an Olmsted Scholar, in 1982.

At sea, he served as executive officer of USS Valley Forge (CG 50) during Operation DESERT STORM. As Commanding Officer, USS Callaghan (DDG 994), he was awarded the Vice Admiral James Stockdale Award for Inspirational Leadership. He served as Commander, Destroyer Squadron 21 during Operation ENDURING FREEDOM after 9/11.

Ashore, he was assigned to NATO Headquarters in Brussels, Belgium; served as Force Planner and Ship Scheduler for Commander, U.S. Naval Surface Forces, Pacific; and served as action officer for Navy Headquarters Plans/Policy Staff. He served as a fellow on the Chief of Naval Operations Strategic Studies Group; as Director, White House Situation Room; and as Commander, U.S. Naval Forces Korea.

Rear Admiral Wisecup’s awards include the Defense Superior Service Medal, Legion of Merit, Bronze Star, and various unit, service, and campaign awards.

PRESIDENT'S FORUM



Newport: Where the Navy Connects to the World

THE EPIGRAPH ABOVE is what the Chief of Naval Operations, Admiral Gary Roughead, told me within a month or so of my arrival as President of the Naval War College. Frankly, I had very little idea of how true this statement is until I witnessed the Nineteenth International Sea Power Symposium (ISS), which took place in Newport from 6 to 9 October. This conference was the brainchild of Vice Admiral Richard G. Colbert, who was President of the Naval War College at the time the first one occurred, in 1969. Admiral Arleigh Burke was in attendance and spoke at this inaugural event, now forty years ago. After World War II, Admiral Burke had been convinced that many tough issues could be worked out among serving naval officers if they had developed personal relationships. It was this idea that led him to create the international course, known as the Naval Command College, back in 1956, with Colbert as its first director. In 1969, Burke said, “When an old sailor looks back, he finds that the majority of his friends are other naval officers, from his own country and from other countries. People he relies on, people he trusts absolutely, people he likes, and has fun with—whom he knows, respects, and admires—and above all, people he trusts.”

The ISS occurs every two years. It has no mandate, it has no authority to propose action as a body, and it derives no authorities from international law or the UN Charter. It is simply a gathering of naval professionals who get together every two years to discuss issues of common interest and, above all, to get to know each other. Normally, about sixty or so navies show up at these events; however, the publication of the *Cooperative Strategy for 21st Century Seapower* (CS21) changed all that dramatically. In 2007, knowing that the strategy would be rolled out at the ISS, almost a hundred navies attended to hear Admiral Roughead, General James Conway, and Admiral Thad Allen announce it. The subsequent response to the strategy has been dramatic. This year, with 104 nations represented (Vietnam and

the Russian Federation attended for the first time), including ninety-four heads of service, the ISS constituted the largest single gathering of senior international naval leadership in history, and what these leaders had to say was equally dramatic. There was a common theme for this gathering—"Connecting Navies, Building Partnerships"—and much of the discussion of speakers, panels, and "breakouts" centered on the participation of maritime forces in voluntary networks to increase security in the maritime domain. Such networks increase maritime domain awareness (MDA) and maritime security, and often these regional networks are a shared responsibility, including interagency and often intergovernmental cooperation. Chiefs of navies from every continent and others were on stage in the newly refurbished Spruance Auditorium describing how actively their services were involved in MDA. Not so many years ago, MDA was a term viewed with skepticism by many of them. At this ISS, not only was there a common use of the term but many were pointing with pride to the strides they and their regional partners had made in trying to achieve it, while working to overcome national "sea-blindness." You might even say that at ISS XIX we were witnesses to the beginning of a global maritime security partnership. The CNO suggested to the chiefs that the Naval War College gaming center be used to work through scenarios and solutions in the year between ISSs—a suggestion that was well received.

For the first time, addresses to the assembled group by the Secretary of the Navy, the Honorable Ray Mabus, and the CNO, Admiral Roughead, were streamed live on the Internet (see www.usnwc.edu/ISS2009). Since the conference was conducted using interpreters in about ten languages, it will take some time for the transcript of the proceedings to be produced, but conference participants should have their copies in the next several months. Beyond the conference panels and keynote speakers, there was much substantive business conducted at ISS in the "white space" in the corridors and during one-on-one meetings between chiefs. More than one told me, "I just took over recently, and imagine, this is where I met all the chiefs of my region for the first time—in Newport." A senior U.S. naval leader indicated that he was able to meet with all the navy chiefs in his region with one single trip—"It would cost the taxpayers much more for me to fly to each individual nation to conduct this type of business." Normally the Naval War College in Newport has between 80 and 120 officers from over 50 countries in attendance, and many of these officers were able to meet with their chiefs of navy during the recent symposium. ISS and its connection with CS21 is a huge good-news story for everyone in the world. From where I sit, maritime security is improving, with a view to obstructing terrorists and criminals, and perhaps even making war less likely. The faculty here at the Naval War College is pleased and proud to have played a part in all this, and we enjoy a very close working relationship with the Navy Staff; it's an exceptional team effort. I think Arleigh Burke is smiling today.

Of course, ISS, while of global importance, is not the only event that occurs here in Newport. It's another example of the rich and varied activities that go on at the Naval War College, as we enter the 125th anniversary of the founding of this professional graduate institution. Recently we co-sponsored a conference on the Arctic with the Woods Hole Oceanographic Institute, sponsored a conference on irregular warfare, hosted the editor of *Fortune* magazine (who spoke to our students and supporters), and co-sponsored a conference with the Atlantic Council centering on maritime domain awareness. As I write this, our international students are heading out to visit the western part of the United States, and we have a delegation of Mexican Navy officers observing our Joint Military Operations planning exercise to learn how we use joint war gaming to support our teaching curriculum.

As we did with our participants in the International Sea Power Symposium, I would like to encourage our readers as well as our students to speak up, to speak their minds, to talk about some of these issues that are central to the future of our navy and our nation. It is not enough to be interested; I would go farther, to say you must *engage*. I say this especially to naval professionals—especially our students, in residence and in our distance education programs, American and international, any service or agency. For you naval officers, it will soon be your navy, and the U.S. Navy does not have all the answers. We must absolutely learn from the experiences of others, and we must learn to collaborate with other navies at national and regional levels, to reach out to others working on things of interest to us. Contribute a paper, write an article together—I have told the students they should show me their published articles or rejection slips by the end of the school year.

By the time you read this, we should have up and running our new website “look” and a moderated blog (discussion group) sponsored by the Naval War College, as well as the “President’s Book Club.” (As I pointed out in my “President’s Journal” blog, the first book we’ll discuss is *World War Z*, by Max Brooks; it’s science fiction, but those whom I’ve talked to who have read it, get it.) Let’s get the discussion going about things that matter to us as naval professionals and to the nation. Read, Think, Discover, and Engage. The stakes are too high not to.



JAMES P. WISECUP

*Rear Admiral, U.S. Navy
President, Naval War College*

Nan Li is an associate professor at the Strategic Research Department of the U.S. Naval War College and a member of its China Maritime Studies Institute. He received a PhD in political science from the Johns Hopkins University. His writings have appeared in China Quarterly, Security Studies, China Journal, Armed Forces & Society, Issues and Studies, Asian Security, and many others. He has contributed to several edited volumes, has published a monograph with the U.S. Institute of Peace, and is the editor of Chinese Civil-Military Relations (2006).

Professor Weuve is an assistant research professor at the U.S. Naval War College's War Gaming Department. He holds a master of arts degree, with distinction, from the Naval War College. Previously he was a senior research specialist, game designer, and analyst at the Center for Naval Analyses in Alexandria, Virginia. He is the author of numerous game and exercise reports at the Naval War College and Center for Naval Analyses.

CHINA'S AIRCRAFT CARRIER AMBITIONS

An Update

Nan Li and Christopher Weuve

This article will address two major analytical questions. First, what are the necessary and sufficient conditions for China to acquire aircraft carriers? Second, what are the major implications if China does acquire aircraft carriers?

Existing analyses on China's aircraft carrier ambitions are quite insightful but also somewhat inadequate and must therefore be updated. Some, for instance, argue that with the advent of the Taiwan issue as China's top threat priority by late 1996 and the retirement of Liu Huaqing as vice chair of China's Central Military Commission (CMC) in 1997, aircraft carriers are no longer considered vital.¹ In that view, China does not require aircraft carriers to capture sea and air superiority in a war over Taiwan, and China's most powerful carrier proponent (Liu) can no longer influence relevant decision making. Other scholars suggest that China may well acquire small-deck aviation platforms, such as helicopter carriers, to fulfill secondary security missions. These missions include naval diplomacy, humanitarian assistance, disaster relief, and antisubmarine warfare.² The present authors conclude, however, that China's aircraft carrier ambitions may be larger than the current literature has predicted. Moreover, the major implications of China's acquiring aircraft carriers may need to be explored more carefully in order to inform appropriate reactions on the part of the United States and other Asia-Pacific naval powers.

This article updates major changes in the four major conditions that are necessary and would be largely sufficient for China to acquire aircraft carriers: leadership endorsement, financial affordability, a relatively concise naval strategy that defines the missions of carrier operations, and availability of requisite

technologies. We argue that in spite of some unresolved issues, these changes suggest that China is likely to acquire medium-sized aircraft carriers in the medium term for “near seas” missions and for gaining operational experience, so that it can acquire large carriers for “far seas” operations in the long term.

These four major conditions, or variables, can be either dependent or independent, depending on circumstances. Generally speaking, central leadership endorsement of the idea of acquiring aircraft carriers may depend on whether the required money and technologies are available and whether an appropriate naval strategy is formulated. There are some circumstances, however, in which central leadership endorsement may in fact make money and technologies more readily available and appropriate strategy more forthcoming.³ Because of such variation in the relationship among these four major conditions (variables), each will be discussed separately.

The article has five sections. The first four examine changes in the four major conditions of leadership endorsement, financial affordability, appropriate naval strategy, and requisite technologies. The concluding section discusses the major implications if China actually acquires aircraft carriers.

LEADERSHIP ENDORSEMENT

Liu Huaqing, the People’s Liberation Army Navy (PLAN) commander 1982–88 and a CMC member (and its vice chair 1992–97) from 1988 to 1997, strongly advocated carrier operations;⁴ however, this idea was not endorsed by members of the central civilian leadership, like Jiang Zemin. Lack of funding and requisite technologies may have played a role, as well as a relatively low dependence of China’s economy on external sources of energy and raw materials. More important, however, the proposal contradicted the “new security concept” Jiang endorsed in 1997, which highlighted “soft” approaches to China’s maritime as well as land neighbors. This concept contributed significantly to China’s signing of a declaration of code of conduct over the South China Sea in 2002 and the Treaty of Amity and Cooperation in 2003 with Association of Southeast Asian Nations (ASEAN) members, as well as to the founding of the Shanghai Cooperation Organization in 2001.⁵ Because of these political and diplomatic initiatives, the primary missions Jiang assigned to the People’s Liberation Army (PLA) during his reign were rather narrow and limited, confined primarily to the defense of national sovereignty; the integrity of China’s territorial land, air, and waters; and deterrence of Taiwan from declaring formal independence.

Hu Jintao succeeded Jiang as the Chinese Communist Party general secretary in 2002 and became the CMC chair in 2004. He has required the PLA to fulfill more expansive and externally oriented missions that were absent in Jiang’s era: to secure China’s newly emerging interests in outer, maritime, and

electromagnetic space, and to contribute to world peace through international peacekeeping and humanitarian relief. Hu has also endorsed a “far-seas operations” (远海作战) concept for the PLAN, one that implies some new level of power-projection capability.⁶

Such a change is understandable for two reasons, both due to recent years of rapid economic growth. First, China has begun to develop a stronger sense of vulnerability stemming from its growing dependence on external energy and raw materials, and it has become more interested in the sea-lanes that bring in these resources. Second, investments overseas and the number of its citizens working there are both growing. These factors should have made the idea of acquiring aircraft carriers more acceptable to the central civilian leadership following Jiang’s retirement.

There are several indicators that this idea has been endorsed by the central civilian leadership. On 6 March 2007, a PLA lieutenant general revealed to the media at the annual National People’s Congress that a project to develop aircraft carriers was proceeding smoothly. Ten days later, the minister of China’s Commission of Science and Technology in National Defense, Zhang Yuchuan, stated that China would build its own aircraft carriers and that preparation was well under way.⁷ More recently, a spokesperson of China’s Ministry of National Defense, Major General Qian Lihua, claimed that China has every right to acquire an aircraft carrier.⁸ But more important, China’s defense minister, General Liang Guanglie, recently told the visiting Japanese defense minister, Yasukazu Hamada, that China will not remain forever the only major power without an aircraft carrier.⁹ All of these statements suggest that China has the intention to acquire aircraft carriers. These forthright comments on such a politically sensitive issue would have been impossible had they not been endorsed by the central party leadership.¹⁰

FINANCIAL AFFORDABILITY

One major reason for China’s past hesitation to acquire aircraft carriers was a lack of funding. When Mao proposed at a CMC meeting on 21 June 1958 to build “railways on the high seas”—oceangoing fleets of merchant ships escorted by aircraft carriers—China’s defense budget was a mere five billion yuan/renminbi (RMB). Of that, only RMB 1.5 billion could be allocated to weapons acquisition, and out of this share the PLAN received less than RMB 200 million. A 1,600-ton Soviet-built Gordy-class destroyer cost RMB 30 million, and the PLAN could afford only four of them.¹¹

The carrier project was again placed on the policy agenda in the early 1970s, but financial constraints still prevented the initiation of a serious program. From 1971 to 1982, China’s annual defense budget averaged about seventeen

billion RMB. Out of less than six billion allocated for weapons acquisition each year, the PLAN could expect to receive only several hundred million, whereas one Type 051 destroyer cost RMB 100 million. With the endorsement of party leader Hua Guofeng in the late 1970s, China planned to acquire an eighteen-thousand-ton light aircraft carrier, either through import or coproduction, and it was to carry the British vertical/short-takeoff-and-landing (V/STOL) Harrier aircraft. The project had to be scrapped, because the price asked by British suppliers was too high. Furthermore, Deng Xiaoping, succeeding Hua as the paramount leader, decided to cut defense spending in order to free up resources for the civilian economy.¹²

From the middle to late 1980s, Liu Huaqing lobbied feverishly for carrier operations. He proposed feasibility studies in the seventh five-year plan (FYP), for 1991–95; research and development on key aspects of platform and aircraft

It appears that in the short run China is likely to acquire a medium-sized carrier for limited, air defense–dominant missions.

in the eighth FYP; and production in the early 2000s. His plan was shelved, partly because of insufficient funding.¹³ While the defense budget had been increasing since

the early 1990s, its growth could not catch up with the rising cost of aircraft carriers, as modern designs integrated more advanced aircraft, air-defense systems, and electronics. Funding priority was instead given to developing submarines.

By 2007, however, China's finances had improved remarkably, with government revenue reaching \$750 billion—lower than the \$2.6 trillion for the United States but higher than Japan's \$500 billion. China's foreign exchange reserve now ranked first in the world, reaching \$1.4 trillion. As a result, China's annual formal defense budget had grown to \$46 billion (RMB 350.9 billion). According to official estimate, about a third of China's formal defense budget, or \$15.3 billion that year, was used for weapons acquisition. Given that naval modernization is currently a high priority, the PLAN is probably now receiving several billion dollars a year just for weapons acquisition, and this figure is likely to grow in coming years.¹⁴

Aircraft carriers come in a wide variety of sizes, costs, and capabilities. Taking into consideration the lower labor and material costs in China, the cost of building a medium-sized, conventionally powered, sixty-thousand-ton carrier similar to the Russian *Kuznetsov* class is likely to be above two billion dollars.¹⁵ But that cost is just the start, as a carrier needs aircraft and escorts. A Russian Su-33 carrier-based combat aircraft costs fifty million dollars, so a notional carrier air wing of about fifty Su-33s, several airborne early-warning (AEW) planes, and a number of antisubmarine warfare (ASW) and search-and-rescue helicopters may cost more than three billion. A Russian *Sovremenny*-class guided-missile

destroyer costs about \$600 million, so an escort force consisting of a number of guided-missile destroyers, frigates, and supply ships may cost more than four billion dollars. That makes the likely total cost of one carrier battle group about ten billion dollars; the price of two carrier battle groups, which is the number that China is likely to acquire, would be around twenty billion. That cost, spread over a period of ten years of development, would constitute only a moderate proportion of the projected naval weapons acquisition budget during that time. The annual cost for regular training, maintenance, repairs, and fuel for two carrier battle groups can be estimated at about 10 percent of the construction cost of the carrier, or \$200 million for each of the two battle groups. This is based on a useful rule of thumb derived from U.S. experience. Such a figure can be readily covered by another third of the annual naval budget, which is specifically allocated for such a purpose. This proportion, like the weapons acquisition proportion, is also likely to grow over the years as the defense budget grows because of rapid economic growth.¹⁶

NAVAL STRATEGY

Leadership endorsement and financial affordability are necessary for China to acquire aircraft carriers, but they are not sufficient. A fairly concise naval strategy that defines the missions of the carrier battle groups is also needed. It is, however, more problematic than the two previous conditions.

“Near-coast defense” (近岸防御) defined China’s naval strategy from the 1950s until the early 1980s. It highlighted counter–amphibious landing operations earlier against the Taiwan Guomindang government’s attempt to recapture the mainland and later against a possible Soviet invasion from the seas, and as a result it did not require aircraft carriers. In the late 1980s, a “near-seas active defense” (近海积极防御) strategy, largely operationalized by Liu Huaqing, was endorsed to replace near-coast defense. This strategy requires the PLAN to develop credible operational capabilities against potential opponents in China’s three “near seas”—the South China Sea, East China Sea, and Yellow Sea—or the space within and slightly beyond the “first island chain,” which extends from Kurile Islands through the main islands of Japan, the Ryukyu Archipelago, Taiwan, and the Philippines to Borneo.

According to Liu, at least two major issues within this expanded operational space require aircraft carriers: “to solve the need for struggle against Taiwan [independence] [解决对台斗争需要] and to resolve the dispute over the Nansha [Spratlys] Archipelago [解决南沙群岛争端].” In operational terms, Liu believed that “whether the attack type or the V/STOL type, they [aircraft carriers] are for the purpose of resolving issues of [fleet] air defense and sea attack” (防空和对海攻击问题). Liu particularly stressed that “the objective for us to acquire aircraft

carriers is not to compete against the U.S. and the Soviet Union.”¹⁷ This implied that what Liu wished to acquire was a medium-sized, conventionally powered platform for limited, air defense–dominant missions, not a large, nuclear-powered one for expansive, sea/land-attack-dominant missions.¹⁸

Of the two major issues, Liu clearly privileged the Spratlys dispute. For instance, he highlighted the need to compare the cost-effectiveness of employing carriers and carrier-based combat aircraft as opposed to land-based aviation

Leadership endorsement and financial affordability are necessary for China to acquire aircraft carriers, but they are not sufficient. A fairly concise naval strategy is also needed.

divisions, combat aircraft, and air-refueling tankers. This shows that he was particularly concerned about lack of air cover for distant naval operations over the Spratlys.

However, naval operations over

Taiwan can be covered by land-based combat aircraft, even though, as Liu mentioned, without carriers, air operations over Taiwan could be more costly because more airfields and land-based combat aircraft are needed due to the reduced loitering time in the air.¹⁹ The 1996 Taiwan Strait crisis and the 1997 retirement of Liu Huaqing, which helped to consolidate further Jiang Zemin’s position as the CMC chair, clearly contributed to the shelving of the PLAN’s carrier project.²⁰

While articulating the near-seas active defense strategy in the 1980s, Liu Huaqing stated that the PLAN would operate within and around the first island chain, or in China’s near seas, for a long time to come. But he also suggested that the growth of the economy and strengthening of science and technology would translate into expansion of Chinese naval power in the long run. This in turn would allow the PLAN to extend its operational range from the near seas to the “middle and far seas” (中远海), or the space between the first and second island chains, the latter stretching from northern Japan to the Northern Mariana Islands, Guam and farther southward, and beyond. This would also allow the PLAN to “strike the enemy’s rear” through exterior-line operations if China’s coast, or interior line, were attacked by an opponent. Liu, however, placed emphasis on the primacy of “near-seas operations” (近海作战为主) and regarded “middle- and far-seas operations as [only] supportive and auxiliary” (中远海作战为辅).²¹

By 2004, however, such an emphasis seems to have shifted somewhat. China’s naval analysts, for instance, now argue that China’s naval strategy should shift from near seas to far-seas operations.²² They hold that such operations are necessary because of China’s increasing vulnerability relating to distant sea-lanes and choke points. China’s ever-expanding oceangoing fleet of merchant ships, especially tankers, also needs to be protected, as does China’s growing overseas investment, and as do the increasing number of Chinese citizens living and

working overseas. Moreover, China's prosperous coastline and resource-rich exclusive economic zones and territories need to be secured where in dispute. These areas, however, are difficult to secure, because they are so long and wide and their flanks are so exposed. This problem extends into such close forward positions as China's near seas, which are partially blocked by the first island chain, and the few exits through straits and channels are mostly narrow and controlled by others, making it difficult to gain initiative by maneuvering out through them. Many of the navies operating in these near seas are quite formidable, including the U.S., Japanese, Russian, Taiwanese, ASEAN-state, and Indian navies. They render the PLAN more vulnerable, and they limit, and even reduce the effectiveness of, the near-seas active-defense strategy for both deterrence and war fighting.²³

According to China's naval analysts, to alleviate vulnerability and enhance effectiveness the PLAN needs to break out of interior-line constraints associated with the narrow and near seas within and around the first island chain. Acquiring capabilities to operate in the far seas, the vast space beyond the first island chain, would allow the PLAN to regain initiative and momentum. While "interior-line operations require near-seas capabilities, exterior-line operations are based on far-seas capabilities. . . . Far-seas capabilities make it possible to carry out offensive operations and ambush and sabotage operations in the far and vast naval battle-space beyond the first island chain, and would have the effect of shock and awe on the enemy." Forward operations and offense are central to naval combat, because oceans have few invulnerable physical objects on which to base the defense, whereas naval platforms, once crippled, are hard to restore. An emphasis on offense also helps to optimize naval force structure. It is also more cost-effective, because as strikes become more long-range, precise, and powerful, and therefore more lethal, defense becomes more expensive to maintain. History also shows that a strategy of close and static defense led to the decisive defeat of the Qing navy in the first Sino-Japanese War, in 1894.²⁴

Far-seas strategy suggests that the PLAN needs to develop power-projection capabilities that can operate effectively in the more distant western Pacific and the eastern Indian Ocean. It also implies that the PLAN may come in direct confrontation with the U.S. Navy in the western Pacific—in, for instance, a competition for sea access and denial in a crisis over Taiwan. Moreover, in the worst case, the PLAN may come into direct contact with the U.S. and Indian navies in competition for vital sea-lanes in the South China Sea and eastern Indian Ocean and for such choke points as the Malacca Strait. These scenarios may require the PLAN to acquire large, nuclear-powered aircraft carriers, very different from the medium, conventionally powered carriers for limited missions envisioned by Liu Huaqing. A key variable that may determine whether China

would acquire medium, conventionally powered carriers or the large, nuclear-powered ones is whether requisite technologies are available.

AVAILABILITY OF REQUISITE TECHNOLOGIES

Before discussing the specific carrier development route that the PLAN might follow, it is useful to spend a moment talking about aircraft carriers in general.

Thinking about Aircraft Carriers

There are four main types of aircraft carriers operating worldwide today, as defined by their method of launching and recovering aircraft. The first—the most capable but also the most expensive—is the “catapult-assisted takeoff but arrested recovery” (CATOBAR) design. Originally created by the United Kingdom but perfected by the United States, this design philosophy is currently employed by the United States and France. Because catapults (currently using steam, though electromagnetic catapults have been proposed) are necessary for heavy aircraft capable of long range or heavy payloads (which in turn can perform a wider variety of missions at greater range), the CATOBAR carrier is generally considered a prerequisite for a significant carrier-borne power-projection capability.

The second carrier design is the “short takeoff but arrested recovery” (STOBAR) type. This design uses a rolling takeoff—often assisted by a ski-jump ramp—but aircraft return on board via arrested recovery. Most current non-U.S. aircraft carriers are of this type, including the Russian *Kuznetsov* class, a unit of which, *Varyag*, has been acquired by China. A STOBAR carrier is generally much simpler to build and maintain than a CATOBAR design but less capable, though it may still be a large, fast ship. STOBAR is less appropriate for the strike role, so a decision to forgo catapults may indicate intent to not perform the strike mission.

The third design, “short takeoff vertical landing” (STOVL), combines a rolling takeoff—often assisted by a ski-jump ramp—with vertical recovery. This is the system Spain and the United Kingdom have used on their most recent units. Britain is currently evaluating a variant called “shipborne rolling vertical landing,” or SRVL, for its new *Queen Elizabeth* class.²⁵ As a general rule, aircraft capable of vertical landing can also take off vertically, but the performance penalty is high; a rolling, ski jump–assisted takeoff maximizes load or range. A STOVL design is likely to be smaller than other types, but it still requires high speed to generate wind over the deck. The STOVL design severely limits strike and long-range missions, but it is easier to build and maintain than types better suited to those tasks. STOVL generally represents the minimum capability needed for fighter-based air defense.

The fourth and final type is the “vertical takeoff and landing” (VTOL) carrier. Compared to STOVL, a VTOL design forgoes even more aircraft operational

capability and allows for a slower (and thus less expensive) ship. Selecting VTOL over STOVL generally means either that the ship is intended to operate only helicopters, is designed for a function (e.g., amphibious assault) that constrains performance, or is really envisioned only for noncombat or general support missions. For fixed-wing aircraft, the difference between STOVL and VTOL is generally the presence in the former of a ski-jump ramp at the front of the flight deck and the ability to make enough speed to generate wind over the deck.

Several general rules of thumb are useful when thinking about aircraft carrier size and capabilities:

- The more missions a carrier is to perform, the more aircraft it needs and the bigger the ship must be.
- The longer the range or heavier the payload of the aircraft, the more likely the carrier will need catapults and arrested recovery.
- The bigger the flight deck, the bigger the aircraft that can be operated. Also, the faster the carrier, the bigger the aircraft that can be operated. (Faster carriers require bigger propulsion spaces, so these factors are complementary.) Some missions are best performed by bigger aircraft.
- Strike is a long-range, heavy-load mission, as is aerial refueling.
- One pays a penalty for VTOL capability. Even if the design of the aircraft does not involve performance compromises, which is a big assumption, it still takes extra fuel to take off vertically, because “there’s no such thing as a free launch,” and there will be much more restrictive weight limits on what one can “bring back” on landing—unused ordnance may have to be jettisoned. VTOL is at best inefficient, and at worst affects overall combat capability.
- A large carrier is more efficient—that is, it carries more aircraft per ton of displacement and can handle planes on board better than a small carrier.

Taken together, these considerations are powerful tools in analyzing what a PLAN carrier might look like, based on discussions of design features on the one hand—that is, “What can they do with what they intend to buy?”—and missions on the other—that is, “What do they need to buy to do what they say they want to do?” For example, the Russian-built *Varyag* is a ski jump–equipped STOBAR design, displacing sixty to sixty-five thousand tons and with a long, thousand-foot flight deck. This makes it a relatively large carrier, smaller than an American *Nimitz* but larger than the French *Charles de Gaulle*, roughly comparable to both the American *Kitty Hawk* class and the British *Queen Elizabeth*. Note that one must be careful comparing displacements: with large, capacious

ships like carriers, the difference between empty, full, and standard loads can be tens of thousands of tons.

Due to the lack of catapults, fixed-wing aircraft on *Varyag* are essentially constrained to air superiority—fleet air defense or offensive air—or relatively short-range strike.²⁶ *Varyag* was intended to operate with a steam propulsion plant capable of thirty-two knots, but when sold to China it reportedly had no engines.²⁷

Russia officially categorizes this type as a “heavy aircraft-carrying cruiser”; the limited abilities of its embarked aircraft and its Russian-style heavy missile load are consistent with this description.²⁸ Its usual suggested role is to support and defend strategic missile-carrying submarines, surface ships, and maritime missile-carrying aircraft. In other words, while it may have some antiship capability, both in its aircraft and its missiles, it is not really designed to support long-range strike missions.

Medium-Carrier Options

Major General Qian Lihua stated, in his November 2008 comment already cited, that if China acquires an aircraft carrier, it will serve mainly the purpose of near-seas active defense. Thus it appears that in the short run China is likely to acquire a medium-sized carrier for limited, air defense–dominant missions. For a medium, conventionally powered carrier intended for these purposes, the requisite technologies are generally available. China has been analyzing *Varyag* since 2002.²⁹ The Chinese design and construction of super containerships, tankers, and liquefied-natural-gas carriers should also be useful experience for building the hulls of aircraft carriers, although carriers are much more complex ships. China also has the simulation and testing facilities necessary for research and development, such as large-scale ship-model basins and wind tunnels, and it has been gaining engineering and technical assistance from Russia and Ukraine, countries that have experience in designing and building medium-sized aircraft carriers. Furthermore, specialized construction materials, such as high-grade steel, can either be indigenously developed or acquired through import. Moreover, China has made substantial progress in information, automation, new materials, and maritime and space technologies, many of which can be integrated into carrier construction. Finally, while major technical bottlenecks exist and need to be resolved, China has experience in producing heavy steam and gas turbines, of which several units can be grouped together to provide sufficient speed and range.

For takeoff and landing, China is likely to choose a STOBAR design. China’s naval analysts have identified several benefits of a STOBAR design over a CATOBAR design. A STOBAR design, for instance, minimizes the space needed for water and fuel storage, maximizes the energy available for ship’s propulsion,

offers simpler production and maintenance, and reduces vulnerability to mechanical breakdowns, because of the absence of the steam catapult.³⁰

Because the missions for medium carriers are more those of air cover for naval operations than those of more distant sea and land attack, air superiority fighters with some sea/land-attack capabilities would be sufficient. In this case, purchasing the Russian STOBAR-capable Su-33 combat aircraft, which can carry eight air-to-air missiles and one or two antiship cruise missiles (ASCMs), seems to be a realistic option, and indeed China has been negotiating with

China's aircraft carrier ambitions may be larger than the current literature has predicted.

Russia for such a purchase.³¹ In the meantime, China may also attempt to upgrade a land-based combat aircraft of its own, such as

the indigenous J-10 or the J-11B (a Chinese variant of the Russian Su-27), into a carrier-based aircraft. At a minimum, such an attempt would probably involve reinforcing the landing gears, wings, and fuselage of the aircraft for arrested recovery, which puts heavier stress on these components than standard runway landings.³²

Similarly, China may purchase carrier-based Ka-31 AEW helicopters from Russia. The Ka-31 can patrol for two to three hours on end, with a detection range of 150 kilometers for sea targets and 100–150 kilometers for low-altitude aircraft and ASCMs, and it can direct engagement against fifteen targets at one time. Assisted by shipborne phased-array radars, these ranges and capacity are sufficient for limited missions in the near seas. It is also likely that China may upgrade its shipborne Z-8 (a variant of the French Super Frelon) to a carrier-based AEW platform and develop carrier-based unmanned aerial vehicles (UAVs) with electro-optical, infrared, and radar sensors for intelligence collection, surveillance, and reconnaissance at sea. UAVs can patrol for a long time at high altitude and are difficult to detect.³³

The Chinese approach to carrier development is likely to be incremental. Therefore, China may attempt to gain engineering and operational experience by moving from smaller and simpler platforms to larger and more complex ones. This means that the option of building small V/STOL carriers should not be completely excluded.³⁴ On the other hand, many Chinese naval analysts argue that the missions that small carriers can accomplish are too limited, because the number and types of aircraft they carry and their operational radii are too limited. To secure China's eighteen-thousand-kilometer coastline, the "three million square km of maritime territories," and the nation's expanding maritime interests, as well as to further learning and adaptation, these analysts believe, building medium-sized carriers is more appropriate as the first step in realizing China's aircraft carrier ambitions.³⁵

Large-Carrier Options

For far-seas operations, a medium-sized carrier may not be adequate. A STOBAR design, for instance, limits aircraft takeoff weight and shifts the full burden of takeoff propulsion onto the aircraft, thus increasing the amount of fuel consumed at that stage. This restricts the fuel and weapons payload that an aircraft can carry, thereby reducing its range, loitering time, and strike capabilities. STOBAR is also more affected by wind, tide, rolling, and pitching. Furthermore, it needs more flight-deck space for takeoff and landing, thus limiting the parking space and having an adverse effect on takeoff frequency-based crisis reaction. In comparison, the CATOBAR design, which is mostly associated with large carriers, minimizes aircraft fuel consumption on takeoff, thus enabling better payload, range, loitering time, and strike capability. Its runway requirement, while greater than in a V/STOL design, is also minimal, thus allowing more flight-deck parking and faster launches, even simultaneous launch and recovery, resulting in quicker crisis response.

CATOBAR designs can also launch heavier fixed-wing AEW and ASW aircraft.³⁶ For far-seas operations, AEW platforms are particularly indispensable. China's military analysts, for instance, are impressed by the American E-2C, which can patrol up to six hours, monitor a sea area of 12.50 million square kilometers, and track two thousand targets, directing engagements against forty of them simultaneously. They believe that with its detection range of 741 kilometers for surface targets, 556 kilometers for aircraft, and 270 kilometers for missiles and its ability to patrol 180–200 kilometers away from the carrier battle group, the E-2C, together with the combat patrol aircraft, establishes a three-hundred-kilometer outer air-defense perimeter, deeper than the range of most ASCMs.³⁷ Without a similar air-defense perimeter, Chinese analysts believe, a Chinese carrier battle group would be a "sitting duck," particularly if it engages highly stealthy U.S. combat aircraft.

Similarly, far-seas operations require far-more-capable carrier-based combat aircraft than does near-seas active defense. Such an aircraft should be capable of high speed, large combat radius, long-range sea/land attack, and stealth.³⁸ Finally, the tremendous thermal energy that a large carrier consumes, particularly for propulsion and catapult-steam generation, suggests that a nuclear power plant is preferable to a conventional one.

Because China has had no experience in building and operating an aircraft carrier, acquiring a working, medium-sized carrier may be a necessary stage to gain such experience in the near future. Nonetheless, China's naval analysts are particularly impressed by the large U.S. carriers, including their most advanced iteration, the *Gerald R. Ford* class, and its related technologies.³⁹ Further, there are indicators that research has been done on tackling some major technical

issues for constructing large carriers.⁴⁰ The process of acquiring such carriers, however, is likely to be costly and protracted.

WHAT ARE THE IMPLICATIONS?

In spite of unresolved issues, China is getting closer to realizing its aircraft carrier ambitions in terms of leadership endorsement, financial affordability, naval strategy, and requisite technologies. China is likely to develop medium-sized aircraft carriers in the medium term for near-seas missions and to gain operational experience so that it can develop larger carriers for far-seas operations in the long term. In this section we offer some thoughts on the potential missions of such ships, the factors that go into defining those missions, and the regional implications.

An aircraft carrier is not a solo-deploying ship. To be survivable in an intense combat environment, it needs escorts to protect it. While China has acquired new surface combatants with sophisticated antisurface and anti-air capabilities, it continues to lag behind in the area of ASW. Unless one is willing to assume that the PLAN does not believe in the antisurface utility of submarines—a conclusion at odds with its own submarine acquisition efforts—the lack of anti-submarine escort capability implies at least one (and perhaps all) of the following:

- China intends to address its lack of ASW capability in the future and is willing to accept increased risk in the short term, or
- China thinks that it has a solution to the ASW problem, or
- China does not envision its aircraft carriers as becoming the targets of submarines.

All three are likely true to some degree, and indeed they may be interrelated. Aircraft carriers are long-lead time projects, and it may be that China's decision makers have decided to start that program first, accepting that they may end up fielding a carrier before its ASW support is ready. Or they may have decided that they have a solution to the ASW problem in the form of mines—implying in turn that they believe they can control the location of the battle—or through speed and maneuver, which itself may be an argument for a big, fast nuclear carrier.

Or perhaps China does not expect to use its aircraft carriers against a first-class opponent with submarine capability. For that matter, perhaps China does not expect to use its carriers in combat at all. Many missions (such as those detailed below) would either involve smaller regional powers, unable to mount a significant submarine threat, or be strictly for peacetime. The United States has traditionally viewed aircraft carriers as instruments of high-intensity combat, but their utility in other areas is significant. Imagine, for instance, a carrier

providing surface-search capability via a small number of airborne assets. While high-intensity carrier operations require frequent replenishments of jet fuel, low-intensity ops could continue for weeks with minimal support, while maintaining a surge capacity if needed.⁴¹ Since China lacks overseas bases, it may be willing to make do with a relatively small increase in capability in a given situation and hence be willing to operate carriers in ways the U.S. Navy is unlikely to consider. For this reason, it will be very interesting to see how many and what types of aircraft the PLAN decides is appropriate for its carriers.

It is important to note that while China understands the potential vulnerability of aircraft carriers to concerted attack, the problems facing China and those facing the United States are not similar.⁴² U.S. Navy aircraft carriers operating in the western Pacific face a sophisticated reconnaissance-strike complex of over-the-horizon radars, supersonic cruise missiles, and antiship homing ballistic missiles. A PLAN aircraft carrier operating in the same geographic area has none of these concerns; rather, a PLAN carrier has these systems backing it up.

With the above points as a backdrop, one can readily envision five PLAN carrier missions:

1. *SLOC protection.* In recent years China has become concerned regarding its sea lines of communication through the Strait of Malacca and other areas outside the range of its land-based airpower. Even more recently, Chinese warships have undertaken antipiracy missions in the Gulf of Aden. Whether the mission is constabulary or combative in nature, an aircraft carrier provides useful capabilities, including facilitation of extended surface-search capabilities via fixed-wing and helicopter assets, and “visit, board, search, and seizure” via helicopter. Moreover, such a mission would likely be welcomed by the international community—including the United States.
2. *Deployment to overseas crisis locations.* Because Chinese overseas interests have grown extensively, such deployment serves to deter threats to Chinese overseas interests and reassure security of these interests.
3. *Exclusive economic zone/territorial enforcement.* China has extensive territorial claims in the South China Sea, including the Spratly Islands. Small amounts of airpower in these areas—even just to maintain a surface picture—could confer a tremendous advantage.
4. *Humanitarian aid and disaster relief.* The 2004 Indian Ocean tsunami demonstrated the utility of aircraft carriers in disaster relief operations, both as helicopter-staging platforms and for the use of the power-generation, water-purification, and medical capabilities aboard. Using a

Chinese carrier in such a contingency would potentially produce a great deal of prestige and goodwill for China, perhaps even more than would a ship specifically designed for disaster relief, reassuring regional neighbors as to Chinese intentions. Again, such a humanitarian deployment by the PLAN would likely be welcomed by the international community.

5. *Taiwan contingency.* The prospect of the use of an aircraft carrier in support of an invasion or coercion campaign is often cited. Given the PLAN's lack of proficiency in ASW, a PLAN carrier participating in such a scenario would make a tempting target for opposing forces. Nonetheless, it would have the potential to complicate the problem by increasing the axes of attack, especially if U.S. entry into the conflict could be forestalled. Even if a feint (after all, China's close mainland air bases could generate far more sorties than could one or two carriers), a carrier's presence would likely prompt the United States or Taiwan to "honor the threat" and allocate forces accordingly, which could be significant in a short conflict.

For the first four missions listed above, a carrier seems like overkill, or at best a suboptimal use of resources. In strict terms that is true, but China attaches great symbolic value to a Chinese aircraft carrier as physical evidence of the nation's coming of age as a great naval power. China may feel it gains more through incidental use of an aircraft carrier in humanitarian aid/disaster relief or other noncombat missions than it would with purpose-built (but less prestigious) platforms.

FINAL THOUGHTS

For regional conflicts short of full-scale warfare, a Chinese aircraft carrier has the potential to complicate seriously the calculations of competitors in the region. The only nations in the region likely to be able to stand up against even a modest Chinese air wing are Japan, South Korea, and, going a little farther afield, India. A PLAN carrier would have the effect of extending Chinese air capabilities without requiring overseas air bases. Nonetheless, while a nuclear carrier may be homeported in China, supplying it with jet fuel, food, ammunition, and other consumables becomes harder with distance. The U.S. Navy solves this problem with an extensive series of overseas logistics bases and large, fast replenishment ships that support the operations of carriers, themselves operating largely from the continental United States. Lacking such support mechanisms, a Chinese carrier is likely to stay closer to home, but it may still require a Chinese support presence overseas.

For the United States, a PLAN aircraft carrier is probably of little day-to-day concern, at least until the PLA develops an ASW capability. In peacetime, the

U.S. Navy is unlikely to consider a Chinese carrier a threat, and it may perhaps even welcome Chinese assumption of great-power naval responsibilities in such maritime constabulary operations as counterpiracy. In wartime, for the foreseeable future, a Chinese air wing is unlikely to threaten U.S. naval forces seriously, and China's limited ASW capability provides persuasive options to an American commander. This is not to say that a Chinese carrier would not complicate American planning, however, as even threats that can be neutralized require allocation of resources to do so.

In the short to medium terms, therefore, China's acquisition of aircraft carriers offers more opportunities than challenges. Medium-sized carriers would be for limited, air defense–dominant missions in local conflicts within the first island chain. They could be easily contained, being exposed and made vulnerable by their large profiles in so limited an operational space. Developing such carriers would also divert funding from building advanced submarines or advanced missiles that arguably pose greater threats. Also, carriers could perform nontraditional security missions that are compatible with the goals of other navies in the Asia-Pacific region, thus contributing to maritime security cooperation.

In the long term, however, if China can overcome the technological obstacles and gain the operational experience needed to build large, nuclear-powered carriers in substantial numbers and correct the deficiencies in its antisubmarine capabilities, the PLA Navy may pose more challenges than opportunities. Several such carrier-based strike groups could project Chinese power beyond the “far seas” to the still more distant and vast “near oceans” (近洋) and “far oceans” (远洋). The much improved sensors, sustainability, stealth, networking, range, and strike capabilities and self-protection of such highly integrated battle groups could drive the cost of containing and fighting them much higher.

NOTES

- This article is adapted from a chapter that will appear as “Chinese Aircraft Carrier Development: The Next Phase,” in *Evolving Maritime Roles for Chinese Aerospace Power*, forthcoming from the Naval Institute Press in 2010. The authors thank Dean Robert Rubel and Professor William Murray for their insightful comments.
1. See Ian Storey and You Ji, “China's Aircraft Carrier Ambitions: Seeking Truth from Rumors,” *Naval War College Review* 57, no. 1 (Winter 2004), pp. 77–93.
 2. See Andrew S. Erickson and Andrew R. Wilson, “China's Aircraft Carrier Dilemma,” *Naval War College Review* 59, no. 4 (Autumn 2006), pp. 13–45.
 3. Besides these two types of circumstances, there is one very exceptional circumstance in which the central leadership may endorse a particular naval platform in spite of lack of money and appropriate technologies and naval strategy. An example is Mao Zedong's endorsement of China's strategic ballistic-missile submarine program in the

- mid-1960s, which proved to have very little operational value but incurred tremendous cost. This article, however, will discuss necessary and sufficient conditions under more normal circumstances of the first two types.
4. See Liu Huaqing, *Liu Huaqing huiyilu* [Liu Huaqing's Memoirs] (Beijing: Liberation Army Press, 2004), pp. 477–81.
 5. This organization includes China, Russia, and the Central Asian countries that separated from the former Soviet Union.
 6. Hu Jintao, as cited in Tang Fuquan and Wu Yi, "A Study of China's Sea Defense Strategy," *Zhongguo junshi kexue* [China Military Science], no. 5 (2007), p. 93.
 7. See *Wen Wei Po* (Hong Kong), 7 March 2007; and *China Review News*, 17 March 2007, available at chinareviewnews.com.
 8. "China Hints at Aircraft Carrier Project," *Financial Times*, 16 November 2008; "Experts Defend Naval Rights," *China Daily*, 19 November 2008.
 9. See "China Confirms Intent to Build Aircraft Carrier," Agence France-Presse, 23 March 2009.
 10. According to informed sources in Guangzhou, at least one high-ranking PLAN officer from the South Sea Fleet was reprimanded and discharged for advocating in front of Jiang Zemin the development of aircraft carriers to handle the Spratlys issue. This had happened during one of Jiang's inspection tours of the fleet.
 11. See Lu Ting, "China's Finance Is Sufficient to Fulfill the Aircraft Carrier Dream," *Junshi wenzai* [Military Digest], no. 5 (2008), pp. 12–13.
 12. *Ibid.*, p. 13.
 13. See Liu, *Liu Huaqing's Memoirs*, p. 480; "Lay a Good Basis for Naval Arms and Equipment Modernization Construction" (speech delivered to the First Navy Conference on Armament and Technologies Work, on 11 January 1984), in *Liu Huaqing junshi wenxuan, shangjuan* [Selected Military Works of Liu Huaqing, Book One] (Beijing: Liberation Army Press, 2008), pp. 269–70; "Naval Strategy and Future Sea Operations" (report delivered at National Defense University on 29 April 1986), in *Selected Military Works*, pp. 473, 477; and "Employ Navy Development Strategy to Guide Arms and Technologies Research and Development Work" (speech delivered to the Fourth Navy Conference on Armament and Technologies Work, on 10 January 1987), in *Selected Military Works*, pp. 522–23.
 14. China's 2008 formal defense budget was \$57.229 billion (RMB 417.969 billion), a 17.6 percent increase from 2007. The figure had risen to \$70.3 billion (RMB 480.6 billion) for 2009, a 14.9 percent increase from the previous year. For 2008, government revenue had reached RMB 6.1317 trillion, or about \$897.76 billion, a 19.5 percent increase from the previous year. China's foreign exchange reserve had grown to \$1.95 trillion for the same year. See "China's Defense Budget to Grow 17.6% in 2008," Xinhua, 4 March 2008; Ministry of Finance, "A Report on 2008 Central and Local Budgetary Execution and Draft Budgetary Plan for 2009" (delivered to the National People's Congress), Xinhua, 15 June 2009; and "2008 Chinese Foreign Exchange Reserve Capital Stays Safe in General," Xinhua, 13 March 2009.
 15. The *Kuznetsov* class can also be considered a large-sized carrier, comparable to the U.S. *Kitty Hawk* class but much less capable.
 16. For a Chinese estimate of operational cost, see Lu, "China's Finance," pp. 14–15. See also Meng Fansheng, "Budgetary and Management Research on the Operating Cost of Aircraft Carrier," *Shengcanli yanjiu* [Productivity Research], no. 14 (2007). Lu concludes that the cost of operating two Chinese aircraft carrier groups would be more than ten billion RMB, or about \$1.5 billion per year. This number appears high to the American authors of this paper, and we suspect that it includes infrastructure and other factors not usually included in U.S. estimates.
 17. Liu, *Liu Huaqing's Memoirs*, p. 479. Liu also mentioned the role of carriers in sea-lane control operations in times of war. Such a role is not discussed here, mainly because it is more or less related to naval and air operations conducted to resolve the issues of Taiwan and the Spratlys. See Liu Huaqing, "The Question on Operations concerning

- Sea Transportation Lines” (speech delivered at the Navy Conference on Campaign to “Protect and Sabotage Transportation,” 20 June 1987), in *Selected Military Works*, p. 581.
18. To operate heavy strike aircraft in large numbers, a carrier needs to be big, fast, and able to generate copious quantities of steam for aircraft catapults. These attributes heavily favor a large, nuclear-powered ship.
 19. Liu, *Liu Huaqing’s Memoirs*, p. 480.
 20. See Storey and You, “China’s Aircraft Carrier Ambitions.”
 21. See Liu, *Liu Huaqing’s Memoirs*, p. 437; Senior Captain Wu Dianqing, “Xiao Jinguang and Liu Huaqing: Conception of China’s Aircraft Carriers by Navy Commanders of Two Generations,” *Zhishi bolanbao* [Extensive Knowledge News], 19 November 2008. For the role of carriers in sea-control operations within the first island chain, see also Liu Huaqing, “The Situation Requires Us to Handle Well the Research on Naval Development Strategy” (speech delivered at the Navy Research Seminar on Naval Development Strategy, January 1987), p. 528, and “Naval Armament Plan Needs Long-Term Consideration,” 31 March 1987, both in *Selected Military Works*.
 22. Ye Xinrong and Zuo Liping, “Strategic Reflections regarding the March of the Navy from Near Seas to Far Seas,” *Junshi xueshu* [Military Art Journal], no. 10 (2004).
 23. *Ibid.*, p. 31; Zhang Wei and Zheng Hong, “On Strategic Necessities and Opportunities for Developing Our Navy,” *Military Art Journal*, no. 10 (2004), p. 34; Liang Fang, “Status and Role of the Oceans in National Security and Policy Response,” *Military Art Journal*, no. 1 (2005), p. 66.
 24. For quotation, see Ye and Zuo, “Strategic Reflections,” p. 31. For others, see Cheng Xiaochun and Hu Limin, “Revelations of the Sino-Japanese War on Rejuvenating the Navy in the New Period,” *Military Art Journal*, no. 10 (2004), p. 29; and Liang, “Status and Role,” p. 67.
 25. This is specifically to increase “bringback,” the amount of weight (e.g., ordnance) with which the aircraft can land. SRVL involves landing the VTOL-capable aircraft (e.g., the F-35), while moving forward at thirty-five knots relative to the ship, to increase the amount of lift produced by the wings. This could be expected to affect adversely the ability to park aircraft on the deck.
 26. *Varyag* does have an oddly positioned jet-blast deflector—an essential determinant of where an aircraft can be positioned to start its takeoff run—a considerable distance from the bow, possibly indicating a capability to operate heavy aircraft requiring a longer takeoff run. See en.wikipedia.org/, s.v. “Russian Aircraft Carrier Admiral Kuznetsov,” for an illustration.
 27. Frankly, this claim is problematic. The propulsion machinery for a ship this size is large and heavy; it is installed early in construction, with the rest of the ship built around it; and without its weight the ship would have serious stability issues. It is more likely the ship has at least some propulsion gear but that the plant is inoperable due to incomplete manufacture, later salvage, or some manner of vandalism. Alternatively, it is possible the engineering spaces are filled with concrete or other ballast, but this begs the question of why the ship was completed in the first place.
 28. The Montreux Convention, which prohibits the transit of aircraft carriers through the Dardanelles, is often cited as the reason for this designation. While that is no doubt a factor, Russian naval doctrine emphasizes that aircraft carriers support other surface units, not the other way around. In other words, the category accurately describes the function of the vessel.
 29. Note that while *Varyag* is a large ship—larger than the French carrier *Charles de Gaulle*—the air wing complement of the *Kuznetsov* class is relatively small, at about fifty aircraft, of which half are helicopters.
 30. See Li Jie, “Aircraft Carrier-Based Aircraft: Catapult or Ski-Jump Takeoff?” *Xiandai junshi* [Contemporary Military], no. 6 (2006); Liu Jiangping, Jiang Yongjun, and Yang Zhen, “Medium-Sized Aircraft Carrier Has Prominent Advantages,” *Dangdai haijun* [Modern Navy] (November 2006). Senior Captain Li is an analyst at the PLAN’s Naval Military Art Studies Institute in Beijing; *Modern Navy* is a publication of the PLAN’s Political Department.

31. Reuben Johnson, "China Considers Next-Generation Su-33s for Aircraft Carrier Programme," *Jane's Defence Weekly*, 28 October 2008.
32. See Wei Xiaohui and Nie Hong (Nanjing Aeronautics and Astronautics University), "Research on New Technologies to Attenuate the Landing Impact on Carrier-Based Aircraft Landing Gears," *Hangkong Xuebao* [Aeronautics Journal], no. 2 (2007); Bi Yuquan and Sun Wensheng (Aeronautical Mechanics Department, Qingdao Campus of the Naval Aeronautical Engineering Academy), "Preliminary Analysis of the Ski-Jump Takeoff Performance of a Type of Aircraft," *Feixing lixue* [Flight Mechanics], no. 4 (2006).
33. Huo Ke, "China Should Study and Produce Ship-Borne AEW Aircraft on Its Own," *Jianzai wuqi* [Shipborne Weapons], 12 December 2007.
34. See Erickson and Wilson, "China's Aircraft Carrier Dilemma."
35. Anonymous naval specialists cited in "Is China's Aircraft Carrier Journey Still Very Long?" *Zhongguo guofang bao* [China National Defense News], 7 April 2009; CCTV *Jinri guan Zhu* [Today's Concerns], interview with Zhang Zhaozhong and Li Jie, 20 April 2009. *China National Defense News* is a franchise of *Liberation Army Daily*; Zhang, a rear admiral, is a professor at China's National Defense University.
36. See Deng Taihong and Wang Yingchao, "Exploring the Origins of the Differences between U.S. and Russian Aircraft Carriers in Active Service," *Shipborne Weapons*, 6 June 2008; Liu, Jiang, and Yang, "Medium-Sized Aircraft Carrier."
37. Deng and Wang, "Exploring the Origins"; Hou, "China Should Study and Produce Ship-Borne AEW Aircraft on Its Own."
38. Liu, Jiang, and Yang, "Medium-Sized Aircraft Carrier."
39. See Li Jie, "Future Aircraft Carriers Are More Powerful," *Jiefangjun bao* [Liberation Army Daily], 16 March 2009, p. 8.
40. See Li Meiwu, Cui Ying, and Xue Fei, "Electromagnetic Catapult System: The Optimal Takeoff Method for Aircraft Carrier-Based Aircraft," *Jianchuan kexue jisu* [Ship Science and Technology], no. 2 (2008); and Ding Guoliang, Hu Yefa, and Liu Xiaojing, "Maglev Electromagnetic Catapult System Structure Design and Magnetic Field Analysis," *Jijie gongchenshi* [Mechanical Engineer], no. 7 (2008). It is also believed that the heavier and stealthier J-14 fourth-generation combat aircraft, which is under development, has a carrier-based variant.
41. There are issues with maintaining pilot proficiency in such a mode, which may limit surge capacity.
42. See Andrew S. Erickson and David D. Yang, "Using the Land to Control the Sea? Chinese Analysts Consider the Antiship Ballistic Missile," *Naval War College Review* 62, no. 4 (Autumn 2009), pp. 53–86.





GREAT BRITAIN GAMBLES WITH THE ROYAL NAVY

Geoffrey Till

The news late last year that the Type 23 frigate HMS *Northumberland* was to be replaced on the Falklands patrol by the Royal Fleet Auxiliary *Largs Bay* in order to join the international counterpiracy effort in the Gulf of Aden raised quite a few eyebrows. This was not because anyone seriously thought that Argentina would seek to profit from the absence of a British warship in these contested waters for the first time since 1982 but more as it seemed to show just how bad things were getting for the once-mighty Royal Navy that its first-line fleet could not apparently cover both commitments at once.¹ Worse still had been the

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sad story of the ambush by the Iranian Revolutionary Guard Corps of a boarding party from HMS *Cornwall* in 2007, described by the then First Sea Lord, Admiral Sir Jonathon Band, as “one bad day in our proud 400-year history.” Subsequent investigations showed that there had simply not been time or resources for the boarding party to be sufficiently trained in the requirements of operating in that particularly difficult situation. Such events led to a spate of articles that the Royal Navy was in serious trouble, “on the brink,” heading into stormy waters, or had even “strangely died.”²

To many observers, these incidents seemed to illustrate a chronic and worsening problem—the drastic decline in the numbers of warships available to the Royal Navy, compared to its inexorably rising number

of commitments.³ The Royal Navy now comprises just 101 units, including sixteen inshore patrol boats used only to train university cadets. Every year the Royal Navy seems to have had one hull less on the water. In 1980 there were sixty-seven frigates and destroyers; by 2020 the figure could be as low as eighteen. Even in the past ten years, destroyer and frigate numbers have shrunk from thirty-five to twenty-three, despite the recommendations of the 1998 Strategic Defence Review. Six nuclear-powered attack submarines (SSNs) have been decommissioned in the same period. But at the same time, among the effective ships remaining in “extended or reduced readiness” (or more cynically, “in mothballs”) in Portsmouth were the carrier *Invincible*, three air-defense destroyers (*Exeter*, *Nottingham*, and *Southampton*, nearly two years before their time), two offshore patrol ships, and four Royal Fleet Auxiliary logistic ships. At least two Type 42 guided-missile destroyers have gone on operations with their Sea Dart air-defense missiles disabled. In recent times other modern vessels have been disposed of prematurely: the *Upholder* SSKs (conventionally powered hunter-killer submarines) to Canada (which meant the abandonment of the Royal Navy’s conventional submarine capability), three of the first generation of Type 23 frigates to Chile, and others. And so it seems to go on. . . .

Questions naturally arise, not least for Americans concerned at the possible fate of one of their leading naval allies, especially given their own budgetary problems at a time of considerable commitment around the world and the relative rise of the maritime powers of the Asia-Pacific. Is this just a part of a dramatic shift of naval power from West to East? If so, to what extent? How bad are things generally—and how much worse are they likely to get? What will it mean for the U.S. Navy?

Trying to answer these questions requires us to look at what the British seem to think their Royal Navy is for and then to gauge the gap between its commitments and its current and future resources. We will find that the gap is wide and probably unsustainable. We will review and reassess all aspects of British defense, the Royal Navy’s commitments, and its most important programs (Trident replacement, the *Astute* SSNs, Type 45 destroyers, carriers, afloat sustainability, and plans for future surface combatants). Given the bleak state of Britain’s public finances, the point that emerges is that the Royal Navy is currently engaged in the hardest part of one of the longest and most challenging campaigns in its illustrious history, the outcome of which is at the moment too close to call. The Royal Navy may emerge from this, one of its greatest battles, as a totally transformed and still globally significant navy, ready to “fight and win” in the conditions of the twenty-first century. Certainly, if it doesn’t, the world will be a different place, not least for the United States.

SO, WHAT IS THE ROYAL NAVY FOR?

The apparent decline of the Royal Navy seems strange, since the British have always been regarded as a particularly maritime nation, with a long-standing interest in the defense of the maritime trading system upon which the prosperity and security of the country has always been seen to depend. “The UK is,” admits the country’s new National Security Strategy, “and ever has been, a distinctively maritime nation.”⁴ According to the A. T. Kearney/*Foreign Policy* Globalization Index, the United Kingdom is the twelfth-most-engaged country in the world economy. If one excludes the factors that disproportionately skew the calculations toward countries with very small populations, the United Kingdom rises to third position, behind only the United States and Canada.⁵

Defending trade and market access has accordingly long been a major role for the Royal Navy. In the language of its own traditional prayer, the Royal Navy itself has acted as “a security for such as pass on the seas upon their lawful occasions.” For all his fame in winning decisive battles, even Admiral Horatio Nelson accepted that the fundamental justification for the Royal Navy was to defend trade. “I consider,” he told one of his captains, “the protection of our trade the most essential service that can be performed.”⁶ And yet, despite all these centuries of tradition, the ancient emphasis on the direct defense of trade at sea has over the years been quietly airbrushed out of the list of the country’s main military tasks.⁷ This is largely the product of a risk-management decision-making system at the Ministry of Defence (MOD) in which maritime affairs in general and the Royal Navy in particular seem to command much less attention than they did.

There is a curious disconnect here between objective reality and the decision maker’s perception of it. The apparent relegation of maritime affairs is not due to any actual decline in Britain’s sea-dependence—far from it, in fact. The United Kingdom remains a preeminent trading nation. By volume, 92 percent of British trade is conducted by sea. So used are the British to laments about their declining financial and maritime status that the rapid growth of their shipping industry is hardly noticed. After a twenty-year decline in British shipping, a government-inspired major reformulation of regulations and taxation arrangements have led to a merchant fleet now 170 percent larger than it was in 2000. The shipping industry employs forty thousand people in the United Kingdom directly, as well as another 212,000 indirectly, and brings £4.7 billion to the country every year.⁸ This sea dependence is, moreover, beginning to percolate into public consciousness more than it used to. When the *MV Napoli* grounded off the Devon coast in January 2007, thousands of tons of valuable imported goods washed up onto the beaches—and with them came a sudden, belated, and unexpected recognition of just how dependent every aspect of British life is on the safe and timely arrival and departure of merchant shipping.

Nowhere is this more true than in the field of energy security. The United Kingdom is already a net importer of natural gas and will soon become a net importer of oil. Lamentably low stocks ashore mean that were there to be any significant interruption of this trade, it would not be long before Britain's lights would go out. The National Security Strategy recognizes the fact that the United Kingdom's energy security needs to be seen against a global background in which, before the recession hit, world energy consumption was increasing at a rate of 2.6 percent per year, twice as fast as in the previous decade. "Supplies," it says, "may not be able to keep up, intensifying competition for energy and leading to instability and conflict."⁹ From every angle, then, the worldwide market shapes Britain's energy interests. Whether it likes it or not, in this as in so many other ways, the United Kingdom is enmeshed in the consequences of globalization. It sees itself as a constituent in a supranational economic system that operates above and beyond the traditional purview of the nation-state. Because this can become a source of vulnerability, the United Kingdom has a "particularly large stake in the success of the international rules-based system."¹⁰

Globalization, of course, is the product of a system that depends absolutely on seaborne trade, and as Albert Thayer Mahan reminded us over a century ago, it is vulnerable and faces a range of threats: "This, with the vast increase in rapidity of communication, has multiplied and strengthened the bonds knitting the interests of nations to one another, till the whole now forms an articulated system not only of prodigious size and activity, but of excessive sensitiveness, unequaled in former ages."¹¹

The threats and challenges that the system faces are wide and varied. They include the prospect of conflict between various types of sea users (disputed jurisdictions, fishermen against the oil industry, etc.), all forms of maritime crime, the depletion of sea-based resources, and environmental deterioration. Sometimes trade can suffer, as it did in the Iran-Iraq war of the 1980s, from inadvertent involvement in the quarrels of others. The global trading system indeed could be destroyed by large-scale interstate warfare, as it nearly was before and after the First World War.¹² These days the system can be the subject of exploitation or even direct and premeditated attack from groups or states hostile to its intentions or its effects. Finally, the system can be at risk to a global pandemic or a financial meltdown in response to what Karl Marx called capitalism's "internal contradictions."

Any of these threats can disrupt trade and, importantly, the conditions for trade. Because the United Kingdom is part of the sea-based trading system, its economic security will be affected too, directly or indirectly. This is not a matter of choice for the United Kingdom, but whether it chooses to play its part in the defense of the system and how it chooses to do so most certainly are. Accordingly, there is a general

consensus that “preserving the trading environment should be recognised and prioritised as a fully justifiable military task for the new millennium.”¹³

The British choice has been to be a full participant, not merely a bystander, in the world’s events. The latter approach is explicitly rejected: “Our approach to the global era is an internationalist one, and we are committed to working with partners to develop and adapt the rules based international system to meet the demands of the twenty first century.”¹⁴

. . . AND FROM THIS DEVELOPS THE ROYAL NAVY’S TASKS

The recognized role of the United Kingdom’s armed forces in general, and of the Royal Navy in particular, flows from all this. “Preserving the trading environment” calls for the Navy to defend trade and, less obviously, the conditions for trade, both directly by what it does at sea and indirectly by what it does *from* it.

This is generally seen to require the development of four different sets of capability:

- Fighting and winning wars
- Staging distant expeditions
- Defending good order at sea
- Preventing and deterring conflict.

Fighting and Winning Wars

Fighting and winning wars remain a high priority even in the age of globalization. Globalization might fail—it has before. Today’s variant has systemic weaknesses, as is all too obvious, and faces potentially well-equipped adversaries. It will be under a particular strain in the 2030s, when some predict a “perfect storm” resulting from a coincidence of global warming, possible pandemics, and gross shortages in oil, food, and water. National competitiveness, already evident in the consequences of recession, is likely to increase.¹⁵ While according to the National Security Strategy there is no such serious threat today, it is not possible to rule out the reemergence of a major state-led threat to the United Kingdom, its dependencies, or its allies over the longer term.¹⁶

But even if globalization doesn’t fail so catastrophically, the capacity to fight and win wars remains vital, because, after all, serious interstate conflict not involving the United Kingdom directly still poses a critical level of threat to the system as a whole. The Royal Navy continues to make the case that maintaining the capacity to fight and win is still the most effective deterrent to war in an uncertain future.¹⁷ Moreover, the Navy’s argument runs, the standards associated with the capacity to engage in high-intensity conflict usually offer high levels of precision, effect, and (very important from the political point of view)

protection for the British forces engaged with lower-intensity, asymmetric opponents.

For all these reasons, the Royal Navy takes the retention of its world-class capabilities in such high-end disciplines as antisubmarine and antiair warfare (ASW and AAW) as critical to its present and future strategic effectiveness. Hence the appearance of the *Daring* Type 45 destroyer, the *Astute* class of submarine, and the Navy's long insistence on a recapitalization of its existing aircraft carrier fleet. For all that, there is a concern that the Royal Navy has not been able to pay as much attention as it would wish to some of these disciplines, because of the passing distractions of Afghanistan.

Although much of the popular debate still tends to focus on traditional platforms, the British recognize that future effectiveness, precision, and maneuverability may depend in large measure on a network-centric approach, unmanned vehicles, robotics, loitering systems, precision systems, engineering, signature reduction, the consequence of increasing ranges of weapons and sensors, and so forth. Part of its case for the hugely sophisticated and so far highly successful *Daring*-class destroyers is the aspiration to stay up with the hunt in technological innovation, even to lead it in some areas, expensive though this might be. If the Royal Navy is to continue as a significant naval player, the argument goes, it really has little choice about this, given the rising capacity of adversaries to challenge even complex networks, sensors, and weapons.

Staging Distant Expeditions

Here is the obvious response to the impulse to “go to a distant crisis before it comes to you” in order to defend the system by liberal intervention ashore.¹⁸ This capability focuses more on the protection of the conditions for trade ashore than on the trade at sea itself. This traditional focus in British strategy is unlikely to change. “We remain committed,” says the National Security Strategy, “to retaining robust, expeditionary and flexible armed forces for the foreseeable future.”¹⁹

The 1998 Strategic Defence Review pointed out that “maritime forces are inherently well suited to most force projection operations. Their reach, ability to sustain themselves without reliance on host nation support and flexibility are invaluable attributes. A joint maritime force often provides the opportunity for early and timely intervention in potential crises.”²⁰ The Royal Navy, indeed, demonstrated the advantages of maritime power projection of this sort in the first and second Iraq wars, the opening Afghanistan campaign, and the now almost forgotten but highly successful Sierra Leone operation of 2000.²¹

British maritime power projection, usually but not always in consort with others, has taken a variety of forms, from the capacity to conduct, or threaten, amphibious assaults to the delivery of ordnance from the sea, at one end of the

spectrum, to the conduct of humanitarian relief operations, at the other. It all depends, however, on the kind of assured access to be expected from the capacity to fight and win wars discussed earlier.

Depending very much on the scenario and particularly the level of opposition to be expected, mounting “expeditions” of this wide-ranging sort may call for the capacity to sustain, transport, and support civilian populations or landed forces or both; to engage in amphibious operations; to develop specialist forces for riverine and lacustrine pre- and postconflict stabilization operations; and, if necessary, to strike adversaries ashore with sea-launched missiles and naval gunnery. Hence the British focus on Carrier Strike and Littoral Manoeuvre task groups to secure sea control and project power ashore.

In recent years, and in conformity with the 1997 Strategic Defence Review, the Royal Navy’s amphibious capabilities have been completely transformed and revitalized with two new 14,600-ton assault ships (HM Ships *Albion* and *Bulwark*), the helicopter carrier HMS *Ocean* (twenty-one thousand tons), and four new sixteen-thousand-ton Bay-class landing ships, supported by six Ro-Ro ferries for strategic sealift. But even with recent enhancements a Littoral Manoeuvre Group cannot provide the personnel, vehicles, and stores required for a full maneuver brigade. At the same time, the Royal Navy’s Carrier Strike Task Group depends on the invaluable *Invincible*-class carriers, now only with ground-attack Harriers—these are clearly at the end of their operational careers. With the contentious early retirement of Sea Harrier FA.2 fleet in March 2006 and having no deployed air-defense fighter at sea, the Royal Navy is in the midst of an embarrassing “capability holiday” until the Joint Strike Fighter (or JSF, the F-35) arrives.²² Nonetheless, the Royal Navy’s recent development of capabilities for what it calls “littoral manoeuvre” and its ambitious carrier replacement program are predicated on the assumption that an uncertain future demands the development of a much enhanced capability for *sea-based* force projection.

The perceived cost and debatable effects of the Iraq and Afghanistan operations have sparked a certain wariness in some quarters about a continuation of the United Kingdom’s expeditionary impulse.²³ Despite this, it seems highly unlikely that Britain will turn away from its long-term policy of supporting military interventions in support of a rules-based international system—even in some circumstances without the specific approval of the Security Council, but only once all other options have been exhausted.²⁴ The Iraq and Afghanistan experiences are, however, likely to reduce greatly a future British government’s appetite for large-scale and open-ended interventions of this sort while increasing its longer-term interest in the more limited liabilities (and, admittedly, aspirations) of distinctively maritime conceptions of expeditionary operations.²⁵

Here, sea-based expeditionary forces obviously come into their own, with their capacity to project power in their own right—to insert, support, and extract landed forces into and from areas of concern, which are mostly near water.²⁶ Hence the increased political salience of the Royal Navy’s interest in all types of expeditionary activity, including sea basing, the capacity to operate sustainably at sea with a much reduced physical and political footprint ashore. The Royal Navy is not slow in making such points.

As part of its determination to foster the mentality of deployability, the Royal Navy has for decades staged regular group deployments around the world, even when its equipment and maintenance state and the government’s political will to engage “out of area” were low—as was the case in the 1970s after the decision to withdraw “from East of Suez.” Despite that injunction the Royal Navy continued to foster its global presence, and with all its difficulties, commitments, and operational stretch, it continues to do so.²⁷ The previous First Sea Lord made the point that “only by genuinely deploying ships on operational tasks will they play to their inherent strengths of poise, presence and inbuilt sustainability. Navies are for using—they are not just insurance policies.”²⁸

The Royal Navy has, for example, just completed Operation TAURUS, an ambitious group deployment of one of its amphibious task groups. At its peak it was led by *Bulwark* and *Ocean* and was accompanied by two Type 23 frigates, HM Ships *Argyll* and *Somerset*; a French frigate, FS *Dupleix*; an *Arleigh Burke*-class destroyer, the USS *Mitscher*; a *Trafalgar*-class SSN, HMS *Talent*; two Bay-class landing ships; three Royal Fleet Auxiliaries; and the survey ship HMS *Echo*. The force conducted amphibious operations in Turkey and the Gulf and riverine operations in Bangladesh and Brunei, and it interacted with seventeen other navies around the world. The force included both Royal Marines and Royal Air Force (RAF) units, nicely illustrating what the Royal Navy considers to be the strategic versatility of a properly constituted and all-round joint and combined maritime force.

Defending Good Order at Sea

The defense of good order at sea—or to give it its more contemporary label, maritime security, as against terrorists, criminals, and the careless—is an immediate precondition for the effective operation of the global trading system. Moreover, as an island nation heavily dependent on seaborne trade, Britain is more economically dependent on good maritime order than are many other states.²⁹ But good order at sea is also critical for wider concepts of national security. About thirty tons of heroin, for example, enter Britain every year (mainly from Afghanistan), together with vast quantities of cocaine from South America; this clearly represents a threat to the peace and prosperity of every British

citizen. Intercepting the passage of illegal drugs at sea—and of illegal immigrants too, for that matter—therefore constitutes a significant contribution to individual human security in the United Kingdom. The Royal Navy has been active for years in the rarely publicized campaign to intercept and disrupt the drug trade in the Caribbean and across the Atlantic to Europe.³⁰ The current emphasis on the threat to the homeland posed by al-Qa‘ida and its affiliates has further reinforced the importance of maritime security operations.

Some argue that if handled sensitively, this growth of interest could be good for the Navy—at least, if the fortunes of the navy next door in Ireland are anything to go by. The Irish navy has risen from two to eleven platforms in fifteen years, solely on the basis of its task of maintaining good order in the country’s territorial sea and exclusive economic zone. Perhaps the Royal Navy might benefit in like manner? The difficulty is that forces designed for the preservation of good order in home waters are unlikely to have the sailing and fighting characteristics required for the first two tasks just discussed and so, given the Royal Navy’s overall proclivities, are bound to take a second place in that service, if one of increasing importance.

This inclination is further reinforced by the United Kingdom’s general acceptance of the fact that the globalization of such maritime threats means that the first line of defense of Britain’s home waters has to be much farther forward. “The distinctive characteristics of the UK as a nation mean that it is impossible, when thinking about our own national security interests, to separate the ‘domestic’ and the ‘international.’” For this reason, the National Security Strategy concludes, there is an important “away game” aspect to the enforcement of good order at sea.³¹ “This implies a strong case for investing in certain kinds of naval forces, such as frigates, capable of playing a role in both interdiction at sea and maintenance of maritime law and order.”³²

The task calls for collective and cooperative maritime domain awareness across the world ocean, not just at home. This mandates close habits of cooperation with other navies, coast guards, and maritime security agencies. It demands sophisticated, flexible, and adaptable legal regimes to deal with pirates, drug smugglers, and human traffickers operating across possibly ambiguous national jurisdictions. Through ISTAR (Intelligence, Surveillance, Target Acquisition, and Reconnaissance), it requires an emphasis on thoroughly integrated surveillance to track down mobile and covert adversaries, as well as a structured and balanced sufficiency of cheaper frigates, corvettes, ocean and offshore patrol vessels, helicopters, unmanned aerial vehicles (UAVs), and even submarines on occasion, to intercept wrongdoers and enforce jurisdiction. Given the vastness of the oceans and the ranges of tasks and of possible adversaries, numbers have a quality all of their own in the preservation of good order at sea.

Preventing and Deterring Conflict

Prevention and deterrence may well head off incipient problems before they become crises for the system. Here the main naval contribution to national and global security could well lie in what does *not* happen. Maritime power is as much about preventing conflict as about winning it. The Royal Navy's role in helping guard Iraq's two critical oil platforms against attacks by insurgents and its successful training program to prepare the Iraqi navy and marines to assume that responsibility themselves illustrate deterrence and prevention, respectively. Together they reduce the future need for external countries to concern themselves with Iraqi and Gulf security.

The prevention of conflict is seen to depend in large measure on the benign presence of naval forces able to develop sustainable relationships with local states; to help states build up their capacity to defend themselves against such major problems as climate change, humanitarian disaster, poor governance, and the like; and, if necessary, to reassure them against prospective adversaries. Prevention may also call for constructive capacity-building engagement, especially in the good-order tasks discussed earlier, since, as the piracy problem in the Gulf of Aden shows, a lack of good governance in one area may result in security threats that challenge the system.

The piracy situation off Somalia and in the Gulf of Aden illustrates the consequence of a failure of governance at sea. The Royal Navy is taking a leading role in this long campaign to address the consequences of this; it established and led the European Union (EU) Operation ATALANTA and until recently provided the flagship for the Standing NATO Maritime Group 2 in the Gulf of Aden.³³ The United Kingdom was also instrumental behind the scenes in setting up the legal arrangements with Kenya that allowed the authorities there to prosecute captured pirates on behalf of the international community. Better by far, however, would it have been for naval forces to have contributed proactively to Somalia's capacity to defend and exploit sustainably its own marine resources, thereby preventing the situation from arising in the first place. "Stabilization," the argument goes, should be about *preventing* conflict rather than restoring the situation afterward.

Ensuring good order at sea calls for the development of jurisdictional and enforcement capabilities in the countries of relevant regions, since disorder at sea often follows deficiencies of this sort. Although sometimes constrained rather than encouraged by the Ministry of Defence, the Royal Navy therefore takes capacity building very seriously and has demonstrated an impressive ability to get things done. The successful cruise and capacity-building port calls of HMS *Endurance* (far removed from its normal role in the South Atlantic) around the coast of Africa last year was, like the U.S. African Partnership Station, which it

partly inspired, intended to reduce the prospects of the Somalia situation recurring elsewhere in the continent.³⁴

And where there *is* an adversary to be deterred, early demonstrations of force can nip the problem in the bud. Potential wrongdoers ashore and afloat are identified and deterred by the presence of naval forces clearly able to limit their chances of success. What constitutes a successful deterrent will depend in large measure on the nature of the prospective adversary, but in most cases short of interstate war it resides in a regular naval presence in areas of concern of vessels appropriate for the tasks in hand. Frigates and ocean-capable patrol vessels for visible presence and submarines for covert surveillance are most commonly used for this purpose, and they are most effective when acting closely in consort with the vessels of other like-minded nations.

Finally, of course, there is deterrence at the top, nuclear end of the spectrum. For all its interest in limiting or even reversing nuclear proliferation, the current British government remains set on the country's maintaining the independent nuclear deterrent now exclusively provided by the Royal Navy's four *Vanguard* submarines.³⁵ With this continuous aspiration, of course, comes a requirement for the sustainment of certain specialist types of defense industrial expertise and operational skills, such as deepwater ASW.

SO, GIVEN THE NEED FOR THESE TASKS, WHAT'S THE PROBLEM?

Even in today's contentious and difficult times, relatively few people involved in or merely observing the British defense debate would seriously dispute very much of this, but for all that there remain the serious problems of paying for it all and deciding priorities—that is, the problem is a resources-commitments gap.

For much of the twentieth and early twenty-first centuries, the biggest problem confronting Britain's naval planners has been a sometimes acute shortage of resources and a seemingly ever-widening gap between these and a level of commitment significantly higher than originally envisaged in the Strategic Defence Review. British defense spending, at £38 billion in 2008, is now estimated to represent a mere 2.1 percent of gross domestic product (GDP), its lowest rate since the early 1930s and less than half of what it was in the late 1980s. Nevertheless, the consensus view is that especially in the current recession, no significant uplift of this level seems in prospect. Although absolute cuts are unlikely in the near term, defense inflation on its own could inflict real cuts of some 10 percent over the next five years. For the medium to longer term, the government has inaugurated a strategic-review process that could well add further real cuts to this. Either way, the challenge will be to do more with less, very possibly much less.

As a result, the Royal Navy faces two distinct challenges. The first is how to get through the next couple of almost certainly bleak years of severe constraint, and the second will be how to respond to the resource implications of the expected new strategic defense review of 2010–11, whatever they are.

The existence of a resources-commitments gap is not, of course, new, and in the past a number of ways of bridging the divide have been tried, and these will certainly be relevant for the next few years.

“Can Do.” “Working extra hard” is traditionally seen as the Royal Navy’s way of getting through a difficult situation—in other words, a policy of expecting a temporary level of performance from people and equipment well above what was originally considered sustainable and then spinning that program out still farther. The Royal Navy has always been most reluctant to refuse a commitment even in circumstances that would make that seem reasonable, even sensible. The most famous recent example of this occurred in 1982, when the First Sea Lord, Sir Henry Leach, donned his uniform and demanded to see the prime minister, the uncharacteristically uncertain Mrs. Thatcher, in order to assure her and the country that the Royal Navy was able and willing to lead the campaign to retake the Falkland Islands, despite every prospect of significant loss. As befits this “can do” tradition the Royal Navy’s current operational tempo is extremely high, some 40 percent of its force being committed to current operations.

But there are problems with this. Even when such operations are successful, as they generally have been, the tempo inflicts personnel stresses, a higher rate of equipment wear-out, reduced operational life for ships, weapons, and aircraft, and, finally, skill fade in unexercised disciplines. For example, ships deployed as singletons in order to maintain as much global coverage as possible may lose some of the “edge” they need as constituents of a task force. More insidiously, when the service so often delivers the apparently impossible (or at least the very difficult), politicians, the public, and the Treasury come unreasonably to expect that. Sympathetic critics argue that a few refusals might have a salutary effect, leading to more resources or fewer commitments—the latter possibility, of course, being the worry.

Combining with Partners. Responding to financially induced shortages mandates working in coalitions of the willing. The Royal Navy argues that high-intensity capabilities at sea confer status in alliances and greater influence over events. The fact that, like the French, the British “do” nuclear deterrence, carrier strike operations, and amphibiosity puts their influence and their general contribution to alliances in a different category from those of the rest of the Europeans (many of whom face similar problems). The British aspiration is not just to participate in coalition operations but to lead them. Hence the EU’s

counterpiracy campaign off Somalia and in the Gulf of Aden, *ATALANTA*, is effectively run by the Royal Navy from NATO's Allied Maritime Component Command Headquarters at Northwood.

For the past century or so, the British have been well aware that "strategy" is as much about influencing the behavior of allies as it is that of adversaries. For this reason the Royal Navy puts considerable stress on the importance of maintaining a credible global presence and of retaining a fleet sufficient in quality and quantity to continue to command the levels of respect it has been used to in decades past. The numerical decline in the fleet, however, makes that more difficult, because inevitably it reduces the Navy's level of operational presence.

Joining with the Other Services. For years the British armed forces in general, and the Royal Navy in particular, have consistently advocated the joint approach, for its now-obvious synergies of effort, resource, and effect.³⁶ By offering the opportunity to make the most of what each service can offer, close interservice cooperation clearly means that more can be done with less. But as a solution to the resources-commitments gap, British jointness is also revealing its limits. First, the ferocious assaults apparently launched by both the Army and the Royal Air Force on the carrier replacement program show that reducing resources actually decreases the prospects for real jointness, certainly at the strategic level, and so the latter is unlikely to be necessarily the solution to the former. It may be, but often it won't be. Second, there are areas in the spectrum of conflict that continue to require dedicated single-service specializations that cannot safely be traded away in the name of jointness or economy. Third, the shortage of resources leads to unsatisfactory risk-management compromises that in fact satisfy the aspirations of none of the services, the Royal Navy included.

Seeking Other, Cheaper Ways of Doing Things. In return for a promise of a "core work load" of naval production every year to help planning, the MOD expects from industry significant improvements in efficiency, productivity, and profitability. Much of this transformation in Britain's shipbuilding capacity has been driven by the requirement to tool up for the *Queen Elizabeth*-class aircraft carrier (CVF) and Future Surface Combatant (FSC) projects. As Lord Drayson, the Defence Procurement Minister, stated in 2005, "The level of warship building over the next 10 years is the largest the UK has seen for many years. . . . [W]e need to find new ways to get the yards to work together, to pool resources and provide investment so we have an industry which is more efficient and effective than it is now. We have an opportunity to change ship-building in this country."³⁷

"Quite simply," Archie Bethel, chief executive of Babcock Marine, has remarked, "we must continue to attack support costs, otherwise we will end up with a smaller navy."³⁸ This followed Babcock's acceptance of responsibility for

operating a number of naval dockyards, bases, and depots, and it is an important part of a determined campaign to transform, reduce, and simplify both the Royal Navy's support costs and its equipment-acquisition processes. Some of these innovations have seemed radical. The Royal Navy's hiring of the four River-class ocean patrol vessels (HM Ships *Tyne*, *Severn*, and *Mersey*) for fishery protection and HMS *Clyde* for the Falkland Islands Patrol from BVT Surface Fleet (which still "owns" these ships) has proved a great success in cost-efficiency terms, providing through a multiple-watch system completely predictable platform availability for the MOD. Conversely, Vosper Thornycroft operates but does not own the two survey vessels, HM Ships *Echo* and *Enterprise*, but is still contracted to deliver 334 sea days a year. By these and a host of other reforms, the Royal Navy now gets far more out of its ships than it used to. These days the number of "operational" units generated by a given pool of ships is higher, and modern technology often reduces operating costs too. A Type 45 destroyer, for example, with its all-electric drive is expected to use half the fuel required for a Type 23 frigate.

For the past fifty years a succession of major institutional reforms to the manner in which ships, weapons, and sensors are designed and built—to correct for past inefficiencies and partially compensate for ruthless defense inflation—have been put in place, with varying success. A procurement system that delivers good ships on budget and on time has long appeared to elude the Royal Navy. Partly this has been a consequence of unsustainably optimistic projections of anticipated cost (no doubt in part intended to help secure political approval) and partly because of the inherent problems of a maritime defense industry not sufficiently tailored to suit modern conditions.³⁹ The result in the 2004–2006 period was something of a procurement crisis, resulting in cost and time overruns that seriously threatened important shipbuilding projects.⁴⁰

An official Defence Industrial Strategy that was finally issued in 2005 and a Defence Technology Strategy in the following year have indicated a real determination to get to grips with this problem. It has led to a constructive rationalization and consolidation of British defense industries, with, for example, a great emphasis on teamwork among various providers, as demonstrated by the formation of BVT and the Aircraft Carrier Alliance. This in turn promises to facilitate more cost-effective procedures, such as performance-based agreements, and to help stabilize the maritime supply chain in the future. Progress in the reorganization of the British defense industry and the development of the notion of partnering between customer and supplier allowed the placing of major orders in 2007.⁴¹

How effective these reforms will prove in the long run remains to be seen, although initial prospects seem favorable.⁴² But a basic problem remains. The

United Kingdom's maritime defense industry is now, after a long period of famine, grappling with something like a feast in orders but suspects that in the longer term these orders could well drop off substantially. The industry is thus still far from securing the steady and predictable flow of future orders that it would like to have. For such reasons the instituted reforms have, for all their promise, so far ameliorated rather than solved the real problem of a gap between commitments and resources.

More Networking. An alternate way of making the most of fewer platforms is to ensure that those few act together more coherently. Some have gone on to argue that with network-enabling technologies there could be a shift in the composition of the fleet away from fewer large platforms to larger numbers of smaller combatants gridded to operate together. The Royal Navy has not gone so far as to accept the more radical of these views but nonetheless has put a good deal of effort into this non-platform-centric approach to the future fleet.⁴³ In July 2004, the "promise of a Co-operative Engagement capability (CEC) was used to justify reducing destroyer and frigate numbers from 31 to 25."⁴⁴ Nonetheless, and despite the service's long experience in this field, the introduction and support of these potentially transformational technologies are more likely to increase raw costs for the Royal Navy than to reduce them. The full-blown CEC scheme sketched out in July 2004 was in fact postponed for five years, in early 2005.

THE NEED FOR A MAJOR REVIEW

Given the failure of these palliatives to solve the United Kingdom's long-standing resources-commitments problem, there is a general recognition, across the political spectrum and among all the services, that in the current financial and strategic environment the country needs the kind of major rebalancing of commitments and resources that only a rigorous strategic defense review can provide. The last one of these was in 1997–98, with a "new chapter" added in 2002 in light of the focus on counterterrorism created by 9/11. The history of British defense since 1945 shows something of a pattern of a review every decade or so. Indeed, some believe Britain should adopt the more regular course corrections provided by the American Quadrennial Defense Review process.

It was no surprise, then, that the government announced on 7 July 2009 a wide-ranging consultative "green paper" (i.e., a preliminary government report without commitment to action) on defense to be completed by the spring of 2010, when a new general election is widely expected. This will act as the foundation for a full-blown strategic defense review through 2010–11 that will set the agenda for the succeeding decade or so. The Conservative opposition has likewise announced its intention to follow much the same course, and a number of

private organizations have already published significant contributions to the debate.

Of these, perhaps the most comprehensive has been the Institute for Public Policy Research's very wide-ranging report *Shared Responsibilities: A National Security Strategy for the UK*. Its emphasis is on defining security in the widest way and on considering the defense dimension within that much broader context. It also puts a good deal of stress on developing closer security relationships with the rest of Europe in a much more unstable, multipolar world.⁴⁵ Finding what it calls "a black hole in the defence budget," the IPPR report recommends a close review of Britain's projected defense-equipment requirements with a view to "capability downgrading and quantity reductions, as well as for complete cancellation of some equipment programmes."⁴⁶ Significantly, the candidates offered up for illustrative purposes were all naval: the Future Carrier program, the Joint Strike Fighter, the Type 45 *Daring*-class destroyer, and the *Astute*-class submarine. If it serves no other purpose, the report at least identifies some of the areas that the Royal Navy will need to defend in the coming round.⁴⁷

The Strategic Deterrent

The Royal Navy has successfully operated Britain's continuous-at-sea deterrent for the past forty years and believes that none of its patrols have been detected, even when one of its SSBNs (ballistic-missile submarines) was involved in a minor but extraordinary collision with a French SSBN in the Atlantic in February 2009!⁴⁸ Each boat sails in "relaxed" mode, carrying forty-eight detargeted warheads that are on several days' notice to fire. The Trident missile will not reach the end of its operational life until around 2042, and the *Vanguard* submarines, on current estimates, will require replacement in 2024.

The long lead time needed to build a new generation of ballistic missile-firing submarines led the British government to outline plans in a December 2006 white paper and then in May 2007 to authorize design and concept work for a new class of submarines. The new submarines are expected to have twelve rather than the current sixteen missile tubes, and a British-led contract has been awarded to General Dynamics Electric Boat to design a "Common Missile Compartment" for both the United Kingdom's successor submarines and the U.S. Navy's projected *Ohio*-replacement SSBNs.⁴⁹ This followed a year of intensive review by the Ministry of Defence of over a hundred alternative ways of maintaining a deterrent. The conclusion of the review was that only a Trident-like system would produce the necessary capabilities at bearable cost. The highly classified nature of much of the evidence considered in this review greatly limited its visibility and contributed to quite a widespread perception that the decision was more of an instinctive reflex than the result of a rigorous analysis of

all the issues.⁵⁰ Also, although spread over many years, the program, at an estimated £24 billion, seems to many extremely expensive at a time of major constraint. Accordingly, many have argued that the decision ought to be put back on the table for a second look, given that contracts for the build of the new submarines may not need to be placed until perhaps 2014.⁵¹

So far, though, the government has, uniquely, excluded the possibility of a reconsideration of this program from the green-paper process. The National Security Strategy was quite clear that “a minimum strategic deterrent capability is likely to remain a necessary element of our national security for the foreseeable future.”⁵² Even the rather more skeptical IPPR report has concluded that development work should continue and that consideration be given to “a further run-on, beyond 2024 of the existing *Vanguard* hulls,” since “a minimum UK deterrent is still needed.”⁵³ The Conservative opposition has in theory acknowledged the necessity of a degree of reconsideration;⁵⁴ nonetheless, it is still likely to accept the need for a submarine-based system of some sort, although there is an appetite within the party for much cheaper solutions. There remains, furthermore, the wider skepticism about whether the United Kingdom needs an independent nuclear deterrent at all. The prime minister’s recent decision to delay Trident design work and his apparent readiness to consider such various “Trident Lite” alternatives as three rather than four SSBNs and a reduced number of warheads may prove significant.⁵⁵

The Astute-Class Submarines

The 7,400-ton *Astute* SSN, the first of which is expected to be delivered by the end of 2009 (at the time of writing), is closely related to this issue. Three others have been laid down and long-lead orders given for two more; an order for the seventh boat, to be delivered around 2020, should be issued next year. An eighth boat seems problematic.⁵⁶ This constitutes a significant drop in SSN numbers since 1998 from fourteen to perhaps eight. Originally scheduled to produce the first *Astute* in June 2005, the program has been subject to delays, cost increases, and constructional problems that are partly attributable to a certain fading in skills as a result of the long gap since the early 1990s, the construction of the last *Vanguard*. The delays and difficulties are also due to the determination to give this submarine some extraordinary, world-class capabilities. Finally, the *Astute* program exemplifies one of the most difficult problems facing the British maritime defense industry—the fact that the SSN building industry is highly specialist, with only one supplier (once Babcocks, now BAE Systems at Barrow), one customer, and no prospect for export. As a result, the program has also to support the costs of retaining the industry.

Perhaps unsurprisingly, the program was in real trouble in the 2002–2005 period, but it has now, with the negotiation of new agreements and procedures between the MOD and BAE Systems, been successfully turned around. As Murray Easton, managing director of the project at Barrow, remarked, “We were in a marginal situation with *Astute* and just survived. If we were to go through anything like that again, then we almost definitely wouldn’t recover.”⁵⁷

For this reason, going instead for a regular, plannable, and predictable drumbeat of nuclear submarine construction would have many advantages for industry. The Defence Industrial Strategy agreement of 2005 sought to solve this problem for BAE Systems at Barrow with a long-term agreement to deliver one submarine every twenty-two months. After the Future Attack Submarine project, which was intended to be a follow-on to the *Astute* class, was quietly terminated in 2001, the future of the SSN building industry seems linked to the Trident replacement project. Were it decided *not* to build successors to the *Vanguard* SSBN, the likely atrophying of submarine design and construction skills would make a longer-term replacement for the *Astutes* highly problematic.⁵⁸

The Type 45 Daring-Class Destroyer Program

The *Daring* Type 45 destroyer was another extremely complex and ambitious program, one that pulled together the productive efforts of over seven thousand defense firms. Adam Ingram, Minister for the Armed Forces, stated in 2003 that

the principal role of the Type 45 Destroyers will be antiair warfare. However, these ships are being built with significant space and weight margins to enable incremental acquisition should an emerging requirement necessitate a different equipment fit. Our requirements are being kept under review, and the design could be modified to incorporate improved land attack capabilities, including a cruise missile system such as *Tomahawk*.⁵⁹

Perhaps inevitably, its costs increased over budget, and six ships rather than the twelve originally envisaged were decided upon—contributing, of course, to each ship’s being significantly more expensive than originally planned for. About three years late, this program is now nearing completion, and the Royal Navy claims with some justification that the result has indeed been what is, in many respects, a world-beating AAW destroyer. With its Samson radar, a single *Daring* will be able to monitor all takeoffs and landings from every major airport within two hundred miles of Portsmouth, including London Heathrow and Gatwick. Able to engage twelve air targets simultaneously, a Type 45 could single-handedly protect London from air attack.⁶⁰ The design, moreover, is spacious, with all the growth potential anticipated by Adam Ingram in 2003.

Nonetheless, criticisms of the project have been made. Its Sea Viper principal antiair missile system has not yet been fired from the ship, although extensive

trials (including a first sea-firing on 4 February 2009) have taken place. A cross-party committee of members of Parliament has been critical of the MOD's project management for its alleged deficiencies.⁶¹ Another criticism has fastened onto the fact that the *Daring* has not been fitted with land-attack missiles, as a result, some say, of a blocking operation carried out by a Royal Air Force concerned about the survival of its deep-strike role.⁶² The vessel's highly sophisticated Samson radar system would allow it to grow into a highly effective ballistic missile–defense role; given the proliferation of missiles around the world, this seems a likely requirement.

The Carrier Program

The program for two sixty-five-thousand-ton CVFs originally announced in the 1998 Strategic Defence Review has now been confirmed, much subcontracted work has already been completed, and the first steel was cut ceremonially on 7 July 2009, but these ships remain controversial. The British press has reported widespread opposition to them within Army and Royal Air Force circles and itself has exhibited skepticism about whether they really constitute good value for money. The IPPR report also identified the carrier and the associated JSF programs (138 aircraft for the Royal Navy and for the RAF, at an estimated five and ten billion pounds, respectively) as major sources of significant future savings on the defense budget.

The in-service dates of the two carriers were originally 2012 for *Queen Elizabeth* and 2015 for *Prince of Wales*. The decision in December 2008 to delay the completion of the two carriers by approximately two years, in order to “reprioritise investment to meet current operational priorities and to better align the programme with the Joint Strike Fighter aircraft,” added at least £600 million to the £3.9 billion already envisaged.⁶³ Now HMS *Queen Elizabeth* is due for completion in 2016 and *Prince of Wales* two years later in 2018. Each will be able to take from thirty-five to forty fighter aircraft and a large number of helicopters and UAVs.

The arguments against the completion of the project are fairly familiar.⁶⁴ Given their high-seeming cost and the likely presence of allied carriers and friendly land bases, some believe that the need for such an ambitious capability is overstated. The IPPR report makes the point that since Britain is likely to engage in major combat operations only in coalitions led, most likely, by the United States, investment in capabilities already held “in abundance, relative to any adversary,” seems unwise.⁶⁵

The worst aspect of this controversy has been the reappearance of destructive interservice tribalism. The British Army's position is that current expenditure for the forces actively engaged in Afghanistan should take priority for the next

ten years or so, rather than weapons systems, “relics of the Cold War,” which it claims are primarily intended for high-intensity interstate warfare. The RAF has attacked the carriers more insidiously, first arguing that the Harrier force on the Royal Navy’s existing carriers should be scrapped, thereby opening up a serious gap until the putative arrival of the JSFs. Beaten off in this attack, the RAF then argued that it should take over entire responsibility for naval aviation, promising to make nonspecialist aircrew available as and when necessary. This threat to return to the dreadful days of “Dual Control” in the interwar period has likewise been defeated, at least for the time being.⁶⁶

The carrier program’s heavy reliance on the prompt arrival of the vertical/short-takeoff-and-landing (V/STOL) version of the JSF F-35B as the answer to the RAF/Royal Navy requirement for perhaps 138 Joint Combat Aircraft remains a source of danger, and any significant delay could hugely complicate the carrier project.⁶⁷ The V/STOL ramp could be removed and replaced by conventional catapults, but this would cost considerable money and time. The fact that the United Kingdom has invested enough in this project to become a Level 1 partner (that is, to have a significant role in the project’s direction) with the United States indicates in itself, however, the priority currently attached to it.

The CVF’s defenders point to the manifest utility of the carrier in most war-fighting, expeditionary, and conflict-prevention situations. Britain’s capacity “to deliver airpower from the sea wherever and whenever it is required” until about 2070 will facilitate “strategic effect, influence and, where necessary, direct action [that] will give us an unprecedented range of options to deal with the challenges of an uncertain world at a time and place of our choosing.”⁶⁸ The Navy has argued that the experience of the past fifty years amply demonstrates the advantages of sea-based aviation in a manner likely to be confirmed in the next fifty.⁶⁹ The CVF and its air group could be flexibly tailored to cope with activities in all of the four main task areas identified earlier.

Moreover, given the inability to run the elderly *Invincible* carriers and Harrier fleet still further and the absence of a “Plan B,” the loss of this program would put the Royal Navy at a major disadvantage relative to all the world’s other carrier navies (including several European ones)—a position from which it would be very difficult indeed to recover. Given the increasing domestic and international challenges facing the U.S. Navy’s carrier program in the next few decades and the rising naval powers of the Asia-Pacific, the loss of these two “medium” carriers would materially change the global naval balance for “the West.”

With Quentin Davies, the Minister for Defence Equipment and Support, announcing at the steel cutting that aircraft carriers “are a corner-stone of British Defence,” the naval view seems to have prevailed for the moment, but few doubt that the way ahead will be rocky. The industrial side of the argument, often

overlooked, may prove decisive. The carrier project employs ten thousand shipyard workers directly (mainly in Glasgow and Rosyth, in politically sensitive Scotland) and an estimated forty to fifty thousand more workers among the many subcontractors spread around the rest of Britain and, indeed, abroad. The Aircraft Carrier Alliance, largely comprising a functional merger of BAE Systems and Vosper Thornycroft, the two largest shipbuilding concerns in the country, is, as we have seen, represented as an imaginative rationalization in support of the government's Defence Industrial Strategy of keeping world-class defense technologies in Britain.⁷⁰

Although the completion date of the carriers has been put back two years, the project has advanced since the contract was signed on 3 July 2008 more than is generally recognized. Work has gone ahead on the generators in France and Italy, on the shaft lines in the Czech Republic, on the rudders and propeller blades, on the aircraft lifts, the automatic weapons-handling system, bridge and antennae design, and so on, alongside heavy investment in infrastructure, especially in the No. 1 Dock at Rosyth. Numerous suballiance contracts have been signed—for example, to de-risk interface problems between the carriers and its aircraft and to deliver the propulsion systems needed to drive what will be the world's biggest all-electric ships.⁷¹ Given such sunk costs, cancelling the project at this stage would be very expensive in financial terms. For the time being, at any rate, the National Security Strategy emphasizes “continued commitment to renewing the Royal Navy, through Type 45 destroyers, *Astute* submarines and the Future Aircraft Carriers.”⁷²

All the same, the new First Sea Lord, Admiral Sir Mark Stanhope, has admitted that the carrier program *could* be overturned. In the meantime, industry is forging ahead, and with the return of the British Harrier force from its diversion to Afghanistan, the necessary work on regenerating carrier-strike capability on HMS *Invincible* and then *Ark Royal* has now resumed. Exercise AURIGA, the group deployment for 2010, will be important from this point of view.⁷³

The MARS Program

The Military Afloat Reach Sustainability (MARS) program attracts much less attention than the Royal Navy's other, higher-profile projects, but it is critical to the support of the service's sustained global presence, to the development of British concepts of sea basing, and to the logistic support of British joint forces ashore.⁷⁴ The Royal Navy's current tankers and solid-support ships are ageing fast, find it difficult to keep up with modern task groups, and include single-hulled tankers of dubious legality. Originally the program was intended to produce a total of eleven new ships between 2011 and 2021 at a cost of some £2.5 billion, but delays have been experienced, partly because of the program's

concurrency with the CVF, Type 45, and *Astute* projects. Two Wave-class auxiliary oil tankers have been delivered, but the overall series is worryingly late.

The Future Surface Combatant

The “hi/lo mix” issue (that is, the idea of combining sophisticated but expensive units with forces less capable but affordable in greater numbers) is exactly illustrated by the current debate over the Future Surface Combatant. This program, intended to replace the Type 22s, 23s, and lesser types as well, started in the mid-1990s but failed in 1999 and had to be resurrected in 2003.⁷⁵ The cancellation of the last two Type 45s (numbers 7 and 8, known colloquially as HM Ships *Dubious* and *Doubtful*) in the original plan provided headroom for the resuscitation and indeed partial acceleration of this project, but the accumulated delay makes an eventual shortfall in destroyer and frigate numbers almost inevitable. The precise mix of ships to be adopted has always been a very complex matter, but since these ships are to be the mainstay of the Royal Navy for decades, it was, and indeed remains, clearly important to get the project right.

Some argue that this family of ships should include a sizable investment in new, less capable, and cheaper—if not “cheap as chips”—warships, more modular and fitted for, but not with, specialist equipment. This thinking reflects a concern that the reduction in numbers brought about by an insistence on high quality in warship design dangerously reduces the geographic coverage that the fleet provides. However good it is, a warship can only be in one place at one time. Having secured just six of the *Daring* class, these people think, there is now a need for a bigger focus on simple numbers.

A second school of thought is somewhat less concerned about the drop in numbers, having greater faith in the compensating effect of high quality. With technical advances and the astonishing speed at which first-line warships can move, the coverage afforded by a modern warship amply compensates for a drop in numbers, its adherents say. Pointing to the deeply impressive capabilities of the Type 45, they conclude, “Measuring the capability of our Armed Forces by the number of units or platforms in their possession will no longer be significant.”⁷⁶ For such reasons, this school continues to uphold the traditional Royal Navy policy of placing its major investments in capable, high-end war-fighting platforms. They also maintain that governments would be less willing to use the second-rate ships of a two-tier navy in any but the most benign of environments, when, in fact, support ships might offer greater capability.

At the moment, there is a broad balancing consensus that the FSC family should comprise three classes of ship:

- C1: large, capable warships intended for ASW and land attack, with organic mine countermeasures (MCM) and a limited capacity to carry a military

force. The C1 should be big, with a large flight deck and growth potential. It would be able to join a deployed task group. The aspiration is for the first of these to be commissioned in 2017, an ambitious target indeed.

- C2: smaller, less sophisticated, and so cheaper general-purpose vessels, possibly with the same hull as the C1, intended for lower-scale stabilization and maritime security operations.
- C3: a diverse family of significantly smaller ships capable of operating on the open ocean and of being configured for a variety of roles, including off-shore patrol, MCM, hydrography, and oceanography. These ships, in effect, are now regarded as a distinctive group in their own right, but alongside the C2s they could provide presence and often be entrusted with conflict-prevention and maritime security operations around the world.⁷⁷

The notion that we will see a blurring of the differences between simpler frigates and minor war vessels and a trend toward more multipurpose vessels making use of modular and unmanned technologies is part of this debate. The thinking behind the C2 variant is particularly revolutionary, since it approaches the controversial notion of building a major warship that from the war-fighting point of view would be second-class by design. Admiral Sir Jonathon Band was “much more interested in something which is designed first and foremost to perform maritime patrol and presence tasks, with the ability to contribute to ‘classic’ warfare tasks if required.”⁷⁸

By such innovative thinking the planners hope to be able to help solve the numbers problem; to reduce the current diversity in platforms, weapons, and sensors; and to do both at sustainable cost. Early progress in this project is also seen as essential as a means of providing the British warship-building industry with a sustained basis for sensible planning. For the same reason it is important that some of the variants have export potential. Thinking about all of this, especially the C3 variant, is quite tentative at the moment, however, and no quick or easy solution to the Royal Navy’s numbers problem is expected. In the meantime, plans exist to upgrade and run on some of the Type 22 and Type 23 frigates as a way to keep frigate numbers up until the 2030s.⁷⁹ Some of these hulls are likely to remain in service for between thirty-two and thirty-six years—nearly twice as long as originally envisaged. The FSC program attracts nothing like the public attention given to the carriers and Trident, but it is hard to exaggerate its importance for the Royal Navy as an oceangoing force in the longer term.

AIMING FOR THE VERY BEST

The conclusion that emerges is that for all its apparent reductions in size, the reported death of the Royal Navy has as yet been considerably exaggerated. Instead

what the world may be watching is a major process of transformation, and in some ways rebirth, of what is still and will remain one of the world's significant navies.

A succession of British defense policy makers over the past ten or fifteen years have collectively taken, under extreme financial and operational pressure, a real and potentially risky gamble for their navy's future. They have decided that the Royal Navy *must* stay in the front line—the premier division, in soccer terms—and to that end they have set going the most ambitious program of fleet recapitalization for perhaps forty years, at a time when naval defense spending is less than half of what it was in the Cold War era. The price deliberately and consciously paid for this ambitious renewal has already been severe in numbers of ships, submarines, aircraft, and people. But insofar as the tonnage of frontline ships is concerned, today's built and building fleet is appreciably larger than it was in 1997, even without the Future Surface Combatant. The final rewards of this Nelsonian policy of aiming for the very best will be apparent only when the major programs described above complete or start to come through.

The problem for the Royal Navy is that the general situation has greatly worsened since this long campaign began. The so-called War on Terror has produced two conflicts in which the United Kingdom has found itself in savage and expensive land-based wars, in Iraq and Afghanistan, whose needs command the attention of governments, politicians, and the media. The facts that over half the air strikes in Afghanistan are from carriers and that 40 percent of the British personnel engaged in that unrelenting campaign have at various times been naval (counting the Royal Marines as such) make no difference. At a time when journalism, the defense variant included, can be likened to the “industrialization of gossip,” the facts are less important than the narrative—it is the impression that counts. And the impression is that the Army is doing all the fighting and so deserves the resources. Given the very short political horizon of most politicians and media folk, this is potentially a very dangerous development for the Royal Navy.⁸⁰

However, a growing public distaste for engagement in large-scale, open-ended conflicts on, and garrisoning of, parts of the Asian mainland (or anywhere else, for that matter) will probably militate against the assumption that the strategic future should be merely the strategic present extrapolated forward. Accordingly, one of the most contentious and critical issues in the Strategic Defence Review will therefore be the extent to which current experience should act as a template for defense preparation in the medium and longer terms. It may well be that the review will herald a marked shift away from fighting future Afghanistans and back toward the traditional, more modest, maritime conceptions of strategy that have served Britain rather well over the past three hundred years.

The new review will certainly need to address the extraordinary disconnect that has developed over the years between a growing awareness of Britain's

dependence on the sea for its safety and security, on the one hand (as exemplified by the government's rejuvenation of the British shipping industry, the attention paid to maritime security in the *National Security Strategy*, and today's very high levels of directed naval engagement), and, on the other, a continued shortfall in the allocation of resources needed to sustain it.

On top of all that come the effects of the worst economic recession for the United Kingdom in three-quarters of a century. The United Kingdom's national debt is now some 12 percent of GDP, and government revenues are some £175 billion overdrawn. Accordingly, significant reductions in medium-term government spending can be anticipated, not least in defense. Although both major political parties have suggested that they will seek to protect the defense budget, estimates of the size of prospective defense cuts vary widely; the newspapers talk of 10, 15, even 30 percent reductions. At the moment no one knows, nor will they until the new Strategic Defence Review is completed. Nor do we know which government will make the next round of decisions in 2010. The political certainties are few. If past history and current political attitudes to national spending and borrowing are anything to go by, we can expect a Conservative government under David Cameron to be significantly less sympathetic to the Royal Navy than the current administration. All in all, it would be wildly optimistic to imagine the Royal Navy's emerging completely unscathed from this deadly barrage of unexpected and unpredictable fire.

All this may make the chances that this, Great Britain's greatest gamble with its navy, will actually come off seem quite remote, but the successfully completed transformation of the United Kingdom's amphibious capability (once long despaired of) and the appearance of the *Darings* and the *Astutes* may suggest, for all the contention, that as so often before the Royal Navy will prevail against the odds. Certainly, for the long-term prosperity and security of the country and for the rules-based maritime order of which it is a part, one must hope so.

NOTES

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8. "Making Waves," *Defence Special: Newsletter of the Chamber of Shipping* (Spring 2009), pp. 1–2, 4.
9. NSS2009, p. 54.
10. *Ibid.*, p. 39.
11. A. T. Mahan, *Retrospect and Prospect* (London: Sampson, Low Marston, 1902), p. 144.
12. Jeffrey Frieden, *Global Capitalism: Its Fall and Rise in the Twentieth Century* (New York: W. W. Norton, 2006), pp. xvi–xvii.
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20. SDR98, introduction, para. 6, and "Supporting Essay Six: Future Military Capabilities," para. 22, p. 6.6.
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22. Richard Scott, "Briefing: Retirement of the UK Sea Harrier Force," *Jane's Defence Weekly*, 8 March 2006.
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24. *Shared Responsibilities: A National Security Strategy for the UK* (London: Institute for Public Policy Research, June 2009) [hereafter IPPR report], p. 24.
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45. IPPR report, p. 57.
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AUSTRALIA'S 2009 DEFENSE WHITE PAPER

A Maritime Focus for Uncertain Times

Jack McCaffrie and Chris Rahman

As a significant medium power in the Asia-Pacific region, Australia inescapably is a participant in the most politically, economically, and strategically dynamic part of the world. The region is a vast and politically complex area, one that is increasingly prosperous, confident, volatile, and potentially dangerous in almost equal parts. Situated at the nexus of the Pacific and Indian oceans, Australia must share in both the opportunities and challenges thrown up by these two great maritime stages for geopolitical interaction.

As a maritime trading state highly dependent upon secure sea lines of communication stretching from the Middle East to North America, Australia is tied comprehensively and profitably to Asia's economic success. Yet Australia must also suffer the less positive implications of such dynamism, including growing

strategic competition among the region's major powers, an increasing competition for resources, active Islamist terrorist threats, unpredictable and unsatisfied states in combination with the related danger of weapons of mass destruction and missile proliferation, and the consequences of failing or troubled states unable to cope with political, economic, environmental, or demographic stresses.

The impact of such factors has been especially evident for the Australian Defence Force (ADF), which over the past decade has been operating at a constantly high tempo in response to strategic crises, disintegrating societies, or grave natural disasters—from East

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Timor to the Persian Gulf and the Solomon Islands, Afghanistan, Iraq, Sumatra, and Pakistan. Indeed, there have been many other, lesser ADF deployments over that time as well, along with the added importance of border security in the post-9/11 world.

THE 2009 WHITE PAPER IN BRIEF

Yet Australia's official defense policy and long-term planning to shape the ADF for the looming challenges in the decades ahead had, until this year, not changed for nine years. This situation was rectified in May 2009 with the release of a new defense white paper, after a prolonged gestation period. It is a significant document, with important implications for Australia's status as a regional medium power, its ability to respond to future threats and project influence in a fundamentally maritime region, and its future utility as a leading ally to the ultimate arbiter of regional order, the United States.

National Security and Defense Policy

Elected in November 2007 the Labor government, under Prime Minister Kevin Rudd, issued its defense white paper *Defending Australia in the Asia Pacific Century: Force 2030*, to take account of the evolution in strategic circumstances and to differentiate its defense policy from that of the previous Liberal-National Coalition government. The paper was drafted by a team led by Mike Pezzullo, seconded from his position as Deputy Secretary Strategy in the Department of Defence. The writing process appears to have been more robust and inclusive than in previous such documents, with a notable use of war gaming, involvement of the individual services, and regular government oversight.¹

At the outset the white paper acknowledges the complexity of global affairs today and the consequent need to balance the demands on the ADF. These are generated by the need to be able to respond to interstate and intrastate conflict and the need to contribute to support operations against nonstate global forces. Essentially, the relatively small Australian Defence Force needs to be able to contribute significantly, even decisively, in operations ranging from humanitarian assistance to major interstate conflict.²

Thus the 2009 white paper aims for a balance between resources available for defense and desired strategic weight and reach.³ It highlights Australia's reliance on a continued U.S. willingness and capacity to provide stability in the Asia-Pacific and categorizes strategic risk as needing either a nondiscretionary response from Australia or allowing a more selective approach.⁴ Furthermore, the white paper establishes a strategic risk-based approach to defense planning, founded on the five-yearly production of white papers—each preceded by formal risk assessments and force structure reviews.⁵

The white paper's strategic outlook reflects Australia's continuing interest in seeing the United States retain global primacy but also notes the rise of both China and India as potential great powers, with particular emphasis on China's potential to challenge the United States economically.⁶ It further identifies the potential for violence or political instability in a range of countries from the Middle East to Northeast Asia and the probability that the United States will need greater support from allies and potential partners like Australia. Finally, there is recognition of "new security risks," including climate change (with its potential for major problems in the South Pacific) and the supply of energy, food, and water.

Notwithstanding the broad geographical reach of the outlook, the white paper geographically bounds Australia's main strategic interests: the defense of Australia and security in the immediate neighborhood—that is, Indonesia, East Timor, Papua New Guinea, New Zealand, and the South Pacific. This is based on the premise that Australia's capacity to influence events is greatest closer to home.⁷ The white paper does, however, confirm that Australia will deploy farther afield and continue to support U.S. efforts—but not unconditionally—in maintaining a rules-based global order.⁸ It reiterates the long-standing principle of defense self-reliance: Australia expects to meet most direct military threats without combat support from America but notes the significant advantage that accrues from access to U.S. intelligence and technology.⁹

Future Force Structure

Development of the white paper incorporated a force structure review, from which has emerged "Force 2030"—a future ADF optimized to deter and defeat attacks against Australia but capable of contributing to domestic security and emergency response as well as to regional stability and security.¹⁰ Force 2030 is expected to be more potent than the existing ADF, especially in all aspects of maritime warfare, air superiority, strike, and information operations. The planned improvements in maritime warfare capabilities are particularly significant. The intent is for the ADF to maintain a strategic capability edge in the region, by continuing to exploit and apply advanced technologies.¹¹

The ADF is expected to maintain a level of preparedness that will allow the government to respond to a broad range of contingencies. Among the specific government demands are the ability to establish and maintain sea control and air superiority in key places in the primary operational environment near region and the ability to project maritime and airpower beyond that if necessary.¹² Significantly, there is a stated need to be able to deploy and sustain a brigade group and, possibly simultaneously, an additional battalion group in a different location—both potentially for prolonged periods.¹³

Complicating Issues

Concluding the white paper is a brief exposition of the financial plan underpinning the force structure and other initiatives. There is no cost assessment for any individual initiative, simply commitments to funding levels to the year 2030: 3 percent real growth in the defense budget to 2017/18, 2.2 percent real growth from 2018/19 to 2030, and 2.5 percent fixed indexation to the defense budget from 2009/10 to 2030.¹⁴ The government has also stated that the planned force structure depends on the success of the A\$20 billion Defence Strategic Reform Program, which is intended to generate internal savings for reinvestment in capability over the next ten years. Emphasizing the importance of the Strategic Reform Program, the funding statement also points out that any funding shortfalls in the white paper plan will be found from within Defence.¹⁵

While the white paper promises much for the planned force, recent history is sobering. For example, the 1987 white paper indicated that the surface combatant force would be expanded to sixteen or seventeen ships.¹⁶ It remains at twelve. The 1987 white paper also acknowledged the need to allocate 2.6 to 2.9 percent of gross domestic product (GDP) to support the proposed program.¹⁷ From that point, defense spending as a proportion of GDP began a gradual decline until it reached a low of 1.9 percent just a few years ago. In all likelihood, a different government will enact or otherwise amend this program, in economic and strategic circumstances that no one can predict today.

Attention will also focus on the personnel demands of the future force structure. The Royal Australian Navy (RAN) is still critically short of some categories of officers and sailors, with particular problems in the submarine arm and with technical personnel overall. The Navy can crew at best only three of the current six *Collins*-class submarines. There is a plan to recover the submarine arm personnel situation;¹⁸ general recruiting and retention figures are showing some promise. The RAN should be able to generate the necessary personnel numbers over the next fifteen years or more. Nevertheless, a nationwide skills shortage that was experienced before the onset of the global economic crisis may again put pressure on personnel numbers when the anticipated economic recovery appears.

STRATEGIC DRIVERS

The strategic thinking informing the 2009 white paper is perhaps the most controversial element of the document. In particular, the role of China has dominated not only the public debates leading to the white paper's formulation and release but also reportedly the internal debate within Australia's national security establishment.¹⁹ Indeed the influence of China upon Australia's threat perceptions has been a difficult issue for Canberra's policy makers for over a decade,

as the potentially destabilizing growth of Chinese material strength and its political assertiveness throughout Australia's wider region have been balanced by an increasingly entangling economic embrace, one that matches Australian resources to China's insatiable demand and deep pockets. Chinese resource hunger, especially for Australian iron ore, played a major role in feeding Australia's economic boom until the onset of the global economic crisis, and continuing Chinese demand may yet prove sufficient to cushion the Australian economy from the worst of the global recession. These economic ties have driven a strong pro-China business lobby and bolstered bipartisan political support for deepening ties at all levels of engagement, including the political and strategic.

In the realm of public defense policy, the potential threat to Australia and Australian interests from an authoritarian, strategically ambitious, and geopolitically unsatisfied China has largely been downplayed, even rejected, as a matter of underlying principle for the last decade. A perception that Australia might attempt to balance its international relationships by drawing closer to China was exacerbated by the election in November 2007 of a new government led by the Mandarin-speaking, self-professed Sinophile former diplomat Kevin Rudd. However, Rudd has increasingly demonstrated himself to be rather more realistic and circumspect about China and a stronger supporter of the global role of American power and of the centrality of the U.S. alliance for Australian security than initially appeared to be the case.²⁰

Indeed, in statements made in the months leading up to the final drafting of the white paper he seemed to be establishing the case for a revision of Australia's stated defense policy. At the heart of his concerns were the risks to regional stability caused by the economic and strategic dynamism of the region's major powers. In particular, he noted in a landmark speech in September 2008 to the Returned Services League National Congress in Townsville, northern Queensland, that the rise of China is "driving much of the change in our region."²¹

Prime Minister Rudd further declared that the ADF will need to develop in response to changes in the regional security environment that include the rapid modernization of military capabilities, especially "significant improvements in air combat capability, and naval forces—including greater numbers and more advanced submarines."²² The modernization of regional maritime capabilities in turn presents "challenges in terms of Australia's ability long term to defend its own sea lines of communication."²³ Although several states in the Asia-Pacific are developing such capabilities, including India, South Korea, and Singapore, it seems clear that in the context of the speech, both in the singling out of China and its reiteration of Australia's commitment to the Australia/New Zealand/United States alliance as the first-named of "three pillars" of Australia's strategic policy, China represented the prime strategic concern.²⁴

The general China theme in driving the risk assessments for the white paper was continued by Air Chief Marshal Angus Houston, Chief of the Defence Force, who publicly raised concerns over China's January 2008 antisatellite missile test and Beijing's alleged reticence to explain the rationale underpinning aspects of its strategic modernization.²⁵ This concern with China's military transparency, commonly raised by many states, should be viewed in euphemistic rather than literal terms: it is the capabilities being developed and the strategic objectives driving their development—many of which are in fact quite evident—that worry China's neighbors and its strategic rivals.

Further, two other factors contribute to the elevation of China's position in Australia's threat perceptions. The first comprises China's increased espionage activities and cyber-warfare attacks against the Australian government, allegedly including electronic spying against Prime Minister Rudd himself, in addition to targeting over the past several years expatriate Chinese within Australia, Australian businesses, and sources of both commercial and strategic technologies. This has led to heightened counterespionage activities by both the Australian Security Intelligence Organization and the Defence Signals Directorate.²⁶ Cyber attacks are acknowledged in the white paper to be more substantive and serious than previously assumed, with significant resources now allocated to cyber-warfare needs, including the establishment of a Cyber Security Operations Centre.²⁷ Although there are multiple sources of cyber attacks, it is well understood that the primary threat currently is posed by China.

Second, the white paper reiterates a long-standing policy that no major power "that could challenge our control of the air and sea approaches to Australia" should be able to access bases in the immediate neighborhood "from which to project force against us."²⁸ Realistically, there is only one major power that potentially could pose such a problem. China already has military outposts deep in the South China Sea and allegedly maintains listening posts and has designs on basing privileges elsewhere in Southeast Asia and throughout the Indian Ocean region. Nevertheless, the prospect of China establishing actual bases anywhere in Southeast Asia, let alone in the immediate neighborhood, must remain only the slimmest of possibilities. However, Chinese political and economic influence itself is increasingly problematic, particularly in the South Pacific and Papua New Guinea, where Chinese money, directed toward gaining access to resources and countering Taiwan's diplomatic presence, has fostered corruption, instability, and wider challenges to good governance.

In nominal terms at least, the white paper is understandably diplomatic when it comes to the China factor. However, China is the only regional power to receive extended treatment in the document. The white paper continues the theme set by Rudd's Townsville speech, noting China's rapidly growing power

and its central role in the future stability of the region. It projects that China will become the “strongest Asian military power, by a considerable margin,” but notes that the “pace, scope and structure” of Chinese strategic developments, including expanding power projection capabilities, may “give its neighbors cause for concern.”²⁹

In some parts of the Australian defense establishment, the attitude toward China is believed to be even more hawkish, with a draft internal Australian Army document reportedly identifying Chinese, and potentially also Indian, military ambitions as destabilizing and a challenge to the dominant U.S. role throughout the Asia-Pacific: “Of particular concern is an increased likelihood for dispute escalation as a result of changes to the perceived balance of power with the real potential for a return to major combat operations involving states.”³⁰

This prospect is consistent with the white paper’s acknowledgment that “shows of force by rising powers” over both political disputes and resources are increasingly likely and that interstate war, including between the major powers, cannot be ruled out in the future. As a direct result of such pessimistic, yet understandable, judgments, the white paper’s assessment of the contribution of Defence to Australia’s national security concludes that “*the main role of the ADF should continue to be an ability to engage in conventional combat against other armed forces.*”³¹

In fact, taken in context, other leading regional states are treated in stark contrast to China. For example, Japan’s continued role as the leading regional alliance partner to the United States is viewed as a fundamental aspect of regional stability. The white paper further describes Japan as a “critical strategic partner” and notes the deepening practical defense relationship between the ADF and the Japan Self-Defense Forces, underpinned by the 2008 Memorandum on Defence Cooperation.³² The white paper likewise acknowledges Australia’s shared democratic values with India and the two nations’ common security interests and growing practical defense cooperation, especially in maritime security.³³ This latter point also reflects the emphasis given by the prime minister in 2008 to the importance of Australia’s sea-lanes and the need for enhanced naval power to protect those maritime interests.

Indeed, the white paper rather belatedly elevates the importance of the Indian Ocean in Australia’s strategic thinking, noting its growing importance as a trade route, especially for energy supplies. *Defending Australia in the Asia Pacific Century* recognizes the consequent growth in strategic competition among major naval powers and states clearly that “the Indian Ocean will join the Pacific Ocean in terms of its centrality to our maritime strategy and defence planning”;³⁴ strategy and planning, in turn, will have to “contemplate

operational concepts for operating in the Indian Ocean region, including with regional partners with whom we share similar strategic interests.”³⁵

Canberra’s usual statement on the continued importance of Indonesia’s internal stability to Australian security is repeated, but unlike in the 2000 white paper, which was promulgated in the diplomatically fractious wake of the Australian-led intervention in East Timor, the new document is able to strike a more positive note on Indonesia’s internal political development.³⁶ Consequently, the document reflects the strengthening of bilateral political and security ties exemplified by the Lombok Treaty on Security Cooperation and the January 2009 Joint Statement on Defence Cooperation.³⁷

If Indonesia’s democratic development has been a positive factor in Australia’s security environment, instability elsewhere in the near neighborhood continues to create headaches for Canberra policy makers. In particular, ongoing problems in East Timor, the Solomon Islands, Fiji, and Papua New Guinea will require continuing attention.³⁸ The white paper also reiterates Australia’s commitment to assist in stabilizing the security situation in Afghanistan.³⁹

Islamist terrorism, including possible terrorist attacks involving weapons of mass destruction, is still viewed as a significant threat, although the white paper is more sanguine regarding the threat within Southeast Asia than in earlier security policy documents—post-9/11 and soon after the October 2002 terrorist bombing on Bali—suggesting that while the threat will remain extant, the spread of regional extremist networks will be constrained by ongoing counterterrorism efforts.⁴⁰ Lastly, the white paper notes—rather too briefly, given the issue’s domestic prominence in recent years—the ADF’s role in border protection and support for domestic security and its unique capabilities for responding to humanitarian assistance and disaster relief missions throughout the region.⁴¹

A BALANCED MARITIME FORCE

Taking into account the strategic drivers, regional geography, and Prime Minister Rudd’s stated emphasis in 2008 on naval power, it should come as no surprise that by far the most significant force-structure initiatives in the white paper relate to maritime capability. Nevertheless, land and air forces do receive due attention. No major size or structural changes will be made to the Army, but it will receive new troop-lift helicopters, artillery, and deployable protected vehicles;⁴² it will receive as well “enhanced communications, networking and battle management systems.”⁴³ Combined with the previously announced Abrams main battle tanks, C-17 airlifters, and big-deck amphibious ships (LHDs), these force-structure improvements will enable the ADF to deploy and sustain a substantial combat force in the future.

Air combat capability will be updated with the announced purchase of up to a hundred F-35 Joint Strike Fighter (JSF) aircraft in the next decade. While the Air Force's long-range strike capacity will be reduced with the 2010 withdrawal from service of the F-111, the capability gap will be filled to an extent by the previously approved purchase of twenty-four F/A-18F aircraft, twelve of which will be wired for conversion to EA-18G electronic attack configuration, should that be required at a later date.⁴⁴ Airlift capacity is to be further increased with an additional two C-130J and up to ten light tactical transport aircraft.

Almost certainly the most far-reaching force-structure decision is the commitment to long-range land-attack cruise missiles (LACMs), all of which will be sea based: on the already approved, Aegis-equipped air warfare destroyers, the new (*Anzac*-class replacement) frigates, and the next generation of submarines.⁴⁵ This represents a dramatic shift and will give the naval surface force, and the ADF jointly, an offensive role and capacity beyond anything previously imagined. It will also add more flexibility to the submarine's existing roles and will provide a range of strike options to any operational commander.

Although the introduction of LACMs may draw some criticism for introducing a new capability into the region (assuming that the missiles will be of up to 2,500-kilometer range, and thus presumably the Tomahawk), it is merely a different way of achieving the capability that will be lost with the retirement of the F-111 strike aircraft.⁴⁶ It is also consistent with the strategy enunciated in the 2000 white paper that "we would . . . seek to attack hostile forces as far from our shores as possible, including in their home bases, forward operating bases and in transit."⁴⁷ Unlike that document and its intellectual predecessor of 1987, however, the 2009 document actually provides for the force structure to accomplish those missions.

The decision to double the submarine force to at least twelve boats is almost as significant.⁴⁸ The new submarines will be conventionally powered and locally built, and they will have greater range and capability than the *Collins* class. They will, therefore, almost certainly be the largest conventionally powered submarines in service and will be a fresh design. The technical and personnel problems that have dogged the *Collins* class from introduction into service will ensure that the new submarine project receives unprecedented scrutiny during development. The close U.S.-Australian collaboration in undersea warfare is expected to be central to the development and sustainability of the new capability.

The new submarine force, which will begin to enter service late in the 2020s, will be capable of land attack, antisubmarine and antishipping warfare, support of special forces, and operations with unmanned underwater vehicles.⁴⁹ The white paper notes that for the new submarine, "long transits and potentially short-notice contingencies in our primary operational environment demand

high levels of mobility and endurance.” Those are demands ideally suited to a nuclear-powered submarine, which the government expressly rules out.⁵⁰ The limited submerged speed of conventionally powered submarines does restrict their mobility and capacity to respond to short-notice demands. Nevertheless, the force of new submarines will be a substantial deterrent and sea-denial asset for Australia.

One of the white paper’s real surprises is the prominence given to naval surface combatants. Many defense commentators in Australia, especially those who favor a continental strategy of sea and air denial, have long criticized surface combatants for their supposed limited utility and vulnerability in high-threat environments, albeit without providing realistic alternative capabilities or evidence to support their claims.⁵¹ The three Aegis destroyers, based on a Spanish-designed hull, will be joined by eight frigates (which will be larger than the *Anzac* class that they will replace) and by about twenty offshore combatant vessels, which in time will replace the current mix of patrol boats and hydrographic and mine warfare vessels.⁵²

In addition to their land-attack role, the air warfare destroyers will be armed with the SM-6 long-range surface-to-air missile and with the U.S. Cooperative Engagement Capability (CEC), which, if fitted to the soon-to-be-fielded Wedgetail airborne early warning and control aircraft, will provide an over-land defensive capability against cruise missiles, as well as a very long-range (two hundred nautical miles or more) air defense capacity.⁵³ This combination will also produce the kind of sensor grid necessary to maximize the range of the SM-6.⁵⁴

The force of eight large frigates will be optimized for antisubmarine warfare. The first *Anzac* frigate entered service in 1996; the first of these new ships could appear as early as 2021. Although the white paper is not specific as to their size, they could share a common hull with the destroyers. This would make sense in several respects, not least the flexibility that that hull volume would provide for sensor and weapon fits.

The next-generation frigate’s antisubmarine warfare fit is to comprise an integrated sonar suite, incorporating a long-range active towed array, and a combination of helicopters and unmanned aerial vehicles (UAVs).⁵⁵ Provision has been made in the white paper, “as a matter of urgency,” for twenty-four new helicopters that will be antisubmarine and antisurface capable. Their design will almost certainly be based on either the U.S. MH-60R or the European NH-90.

The Air Force operates Australia’s maritime patrol aircraft, currently two squadrons of AP-3C aircraft. These are to be replaced by a mixed force of eight new maritime patrol aircraft and up to seven high-altitude and long-endurance UAVs. Given that the UAVs will be able to contribute little to antisubmarine

warfare, the number of dedicated maritime patrol aircraft may not be consistent with the white paper's emphasis on undersea warfare.

A force of about twenty offshore combatant vessels—corvettes of up to two thousand tonnes—will complete the major maritime force initiatives.⁵⁶ The intent is to develop a single multirole hull that will incorporate modular (containerized and portable) combat suites suitable for constabulary, mine-warfare, and hydrographic roles.⁵⁷ Most of these corvettes will be employed in the peacetime constabulary role, but unlike any of their recent predecessors, they will be large enough and well enough equipped to undertake war-fighting tasks.

The maritime force structure will be rounded out with the acquisition of a replacement replenishment ship, a medium-size sealift ship, and six new and more capable heavy landing craft. Together with the already contracted LHDs and the other initiatives listed in the white paper, they point toward the RAN's being a well-balanced but vastly more capable and flexible regional naval force in the future.

Implications for Australia's Strategic Doctrine

The implications of defense policy, as articulated in the white paper, upon what may best be described as Australia's strategic doctrine—a subject of considerable debate over the past quarter century—are less avoided than politically fudged in *Defending Australia in the Asia Pacific Century*. That debate, although seemingly interminable, has been central to the shape, capabilities, and strategic posture of the ADF since the Dibb Report of 1986 and subsequent 1987 white paper, which emphasized the "Defence of Australia" focus for ADF force structure.⁵⁸

Briefly, the "Defence of Australia" doctrine adopted a minimalist approach to defense strategy, with an emphasis on denial capabilities in the so-called sea-air gap to the immediate north to prevent any physical attack against the continent itself. This continentalist doctrine led to the development of a highly unbalanced and inflexible force structure. In fact, the inadequacies of the force of that era were quite debilitating to the strategic options available to the Australian government. It was dominated by the limited denial capabilities of the F-111 strike aircraft and submarine forces, supported by F/A-18 fighters; by a surface fleet that lacked area-defense capabilities and combat power; and by an army that was too small, too light, and almost undeployable in strength outside of Australia. The limitations of this force were demonstrated by the difficulties experienced in deploying even a relatively small peacekeeping force to neighboring East Timor in 1999.

Despite the reiteration of the continentalist doctrine in the 2000 white paper, the actual direction of defense policy, strategy, and eventually also force

structure changed quite significantly in practical terms, perhaps as the result of post-9/11 and IRAQI FREEDOM contingencies rather than genuine strategic insight.⁵⁹ The result, however, was a commitment to a more powerful and deployable force, including a larger army with greater protection and firepower, three new destroyers to assert sea control and provide air defense for deployed sea and land forces, enhanced combat capabilities for both classes of frigates, and four C-17 airlifters, and two large LHDs with new MRH-90 helicopters for mobility.

The 2009 white paper, perhaps in homage to the lore of the previous Labor government and its “Defence of Australia” doctrine, treats the continental-versus-expeditionary approaches as “a false distinction,” in part by misrepresenting the latter strategy.⁶⁰ “Defence of Australia” always was something of a conceit, in that the alternative model of a balanced, mobile, more “maritime” joint force in fact would have been both more capable generally and better able to defend Australia and its interests than the denial model. Nevertheless, despite rhetoric to the contrary, the new government in the 2009 white paper very much takes an evolutionary approach to force-structure development, accepting all the more “expeditionary” force additions made by its predecessor and further enhancing the overall combat power, reach, and deployability of the ADF.

Regional Reactions

Officials in several countries were briefed on the contents of the white paper prior to its release, and the reaction seems to have been muted, except in China. There the official response has been limited and “subdued”;⁶¹ however, media reports suggest that initial Chinese reactions were “incandescent,” implying an inability to see the need for the proposed ADF plans.⁶² Other reports suggest confusion at the apparent Australian hawkishness in relation to China.⁶³ Some Chinese academics were strident in their criticism of the white paper, but one, Rear Admiral Yang Yi of China’s National Defense University, may well have encapsulated the Chinese position best in claiming that China was less concerned by the scale of the “force build-up” than by the China-threat argument that underpinned it.⁶⁴

By contrast, the initial official Indonesian reaction was very positive. An Indonesian Defence Ministry spokesman, Brigadier General Slamet Heriyanto, saw the force-structure plans as perfectly normal for an economically successful nation.⁶⁵

IMPLICATIONS FOR THE U.S. ALLIANCE

While the plans detailed in the white paper may have been influenced by rising powers in the Asia-Pacific, they have significant implications for the United

States, on whose strategic primacy Australia's strategic outlook and defense planning have depended since the Second World War.⁶⁶ Increasingly since the end of the Cold War, Washington has sought to deepen its relationships and share its international security burdens with partners like Australia. Over the last decade especially, Australian maritime forces have operated within U.S.-led coalitions during operations in and around the Persian Gulf, contributing primarily surface combatants, amphibious ships, and maritime patrol aircraft. Numerically, the contributions have been small, and the combatants in particular have had limited capability—both the *Anzac* and *Adelaide* classes, the latter of the U.S. *Oliver Hazard Perry* (FFG 7) design. Substantial ground force deployments have also contributed to these coalitions, in both Iraq and Afghanistan.

A possible challenge for the alliance lies in the discrepancy between the areas identified as the ADF's primary operational environment and those volatile parts of the world—such as Northeast or Southwest Asia—where the outbreak of conflict might require an American intervention, thus potentially also generating requests for Australian assistance as a close alliance partner. However, while the geographical areas for future potential ADF operations may be focused upon Australia's near neighborhood, this is likely to be a discrepancy on paper rather than in practice.

Recent, ongoing, and future (Force 2030) ADF capability developments will dramatically enhance the potential for Australian maritime forces to contribute to U.S.-led coalitions in future contingencies. The air warfare destroyers and, especially, the new frigates—with their LACMs, SM-6 missiles, CEC, possibly theater-ballistic-missile defense, and advanced antisubmarine warfare systems—would add measurably to any U.S. Navy-led maritime force.⁶⁷ The addition of new submarines (with the *Collins* class already arguably Australia's most valued maritime capability) would undoubtedly make Australian contributions to any maritime coalition even more attractive.

Australia's 2009 defense white paper is a wide-ranging document that reaffirms certain long-standing elements of Australian defense thinking and also breaks much new ground. In setting the scene for defense planning over the next twenty years, the white paper confirms reliance on the U.S. alliance while emphasizing the need for Australia to deal with most local security challenges without external combat assistance.

The white paper affirms that Australia will continue to contribute to U.S.-led coalitions but asserts that it may have to focus many of its defense efforts closer to home than has been the case in the recent past. Nevertheless, the white paper proposes a robust future defense force with a very strong maritime emphasis, including a sea-based strike capacity and the ability to deploy, protect, and sustain

a substantial land force. The increasingly potent and deployable ADF Force 2030 will thus likely be in high demand by future Australian governments, to enhance Australia's own regional influence, respond to crises, and when deemed appropriate, support the role of its alliance partner in maintaining international order.

Whether the proposed Force 2030 is affordable remains uncertain, and whether the government's assessment is valid that interstate conflict will continue to be the primary concern of the nation's military preparations also remains to be determined. Certainly, *Defending Australia in the Asia Pacific Century* is Canberra's first concerted attempt in defense policy and strategy terms to address the security challenges posed by a rising China and regional great-power dynamics. The Australian government has presented a sober view of the future and an indication of its determination to prepare for whatever that future may bring.

NOTES

1. Commonwealth of Australia, *Defending Australia in the Asia Pacific Century: Force 2030* (Canberra: May 2009) [hereafter *Defending Australia*], p. 17, available at www.defence.gov.au/whitepaper/.
2. The total uniformed strength of the three services (excluding reserves) is about 55,100 men and women. Commonwealth of Australia, *Budget: Portfolio Budget Statements—Defence Portfolio* (Canberra: May 2009), p. 33.
3. *Defending Australia*, p. 26.
4. *Ibid.*, pp. 27–28.
5. *Ibid.*, p. 29.
6. *Ibid.*, p. 34.
7. *Ibid.*, p. 45.
8. *Ibid.*, p. 44.
9. *Ibid.*, p. 50.
10. *Ibid.*, pp. 58–59.
11. *Ibid.*, p. 66.
12. *Ibid.*, p. 88. The ADF's "primary operational environment" is defined in the white paper (p. 51) as extending "from the eastern Indian Ocean to the island states of Polynesia, and from the equator to the Southern Ocean."
13. *Ibid.* An Australian army brigade comprises three battalions with attached supporting arms. Joan Beaumont, *The Australian Centenary History of Defence*, vol. 6, *Australian Defence: Sources and Statistics* (South Melbourne: Oxford Univ. Press, 2001), p. 99.
14. The fixed indexation is a means of compensating Defence for exchange-rate variation. According to Mark Thomson of the Australian Strategic Policy Institute, the white-paper commitment was deferred for four years in the budget brought down by the government just two weeks after release of the white paper. Mark Thomson, "Defence's Black Op: Keep the Public in the Dark," *Canberra Times: The Public Sector Informant* (June 2009), p. 16.
15. *Defending Australia*, p. 137.
16. Commonwealth of Australia, *The Defence of Australia 1987* (Canberra: 1987), p. 43.
17. *Ibid.*, p. 112.
18. Royal Australian Navy, *Navy's Response to the Submarine Workforce Sustainability Review* (Canberra: 8 April 2009).
19. See "Planners Second-Guess Resurgent China," *Australian*, 16 March 2009; "Spy Chiefs Cross Swords over China as Kevin Rudd Backs Defence Hawks," *Australian*, 11

- April 2009; and "Watchdog Probes Hawks' Defence Intelligence Organisation Push on China," *Australian*, 14 April 2009.
20. See Greg Sheridan, "No Pandering to China in PM's Asia Plan," *Australian Literary Review*, 5 November 2008, pp. 6–8.
 21. Kevin Rudd, "Address to the RSL National Congress," (Townsville, 9 September 2008), available at www.pm.gov.au/.
 22. *Ibid.*
 23. Kevin Rudd, press conference held at the Entertainment and Convention Centre, Townsville, 10 September 2008, available at www.pm.gov.au/.
 24. For "three pillars," Rudd, "Address to the RSL National Congress."
 25. "China's Secrecy 'Could Affect Region,' Angus Houston Warns," *Australian*, 22 November 2008. See also *Defending Australia*, p. 95.
 26. See "Chinese Spies Target PM's Email," *Australian*, 3 April 2009; and Greg Sheridan, "Cyber Warfare a Real-Time Threat," *Australian*, 3 April 2009.
 27. *Defending Australia*, pp. 29, 83.
 28. *Ibid.*, p. 12.
 29. *Ibid.*, p. 34.
 30. Australian Army, *Future Land Operating Concept* [draft 2009], cited in "China, India May Stir Up Regional War: Army Report," *Australian*, 9 May 2009.
 31. *Defending Australia*, p. 22 [emphasis added].
 32. *Ibid.*, p. 95.
 33. *Ibid.*, p. 96. On recent developments in Australia-India maritime security cooperation see Chris Rahman, "Australia and Maritime Security in the North-East Indian Ocean," in *ASEAN-India-Australia: Towards Closer Engagement in a New Asia*, ed. William T. Tow and Chin Kin Wah (Singapore: Institute of Southeast Asian Studies, 2009), pp. 195–96.
 34. *Defending Australia*, p. 37.
 35. *Ibid.*, p. 52.
 36. *Ibid.*, p. 35.
 37. *Ibid.*, pp. 96–97.
 38. *Ibid.*, pp. 35–36.
 39. *Ibid.*, p. 37.
 40. *Ibid.*, pp. 23–24, 35, 37–38.
 41. *Ibid.*, pp. 24–25.
 42. *Ibid.*, pp. 74–78.
 43. *Ibid.*, p. 76.
 44. *Ibid.*, p. 79.
 45. *Ibid.*, p. 81.
 46. Performance details are not included in the white paper, and the supposition on range comes from media speculation. See "PM's Push for Missile Supremacy," *Weekend Australian*, 2 May 2009, p. 1.
 47. Commonwealth of Australia, *Defence 2000: Our Future Defence Force* (Canberra: 2000), p. 48, available at www.defence.gov.au/.
 48. The white paper provides an option for additional boats in the 2030s and beyond. *Defending Australia*, p. 71.
 49. *Ibid.*, p. 70.
 50. *Ibid.*
 51. See, for example, Hugh White, "Muddled Report Leaves Gaps in Our Defence," *Australian*, 4 May 2009, p. 8, and Hugh White, *A Focused Force: Australia's Defence Priorities in the Asian Century*, Lowy Institute Paper 26 (Sydney: Lowy Institute for International Policy, 2009), esp. pp. 48–52.
 52. The government has retained an option to build a fourth air-warfare destroyer; *Defending Australia*, p. 71. This option might be exercised in the lead-up to the next federal election, if at all.
 53. For over-land capability, "SM-6: Extended Range Active Missile (ERAM)," available at www.globalsecurity.org/.
 54. *Defending Australia*, p. 71.
 55. *Ibid.*
 56. *Ibid.*, p. 73.
 57. *Ibid.*
 58. Commonwealth of Australia, *Review of Australia's Defence Capabilities*, Report to the Minister for Defence by Mr. Paul Dibb (Canberra: March 1986); *Defence of Australia 1987*.
 59. For continentalism, *Defence 2000: Our Future Defence Force*, chapter 6.

60. *Defending Australia*, pp. 46–47.
61. “China a ‘Peaceful Force’ in Beijing’s Response to Defence Paper,” *Australian*, 6 May 2009.
62. “Defence Blueprint Revealed: Maritime Power at Core of Massive Capability Upgrade,” *Canberra Times*, 2 May 2009, p. 1.
63. “Defence Plan Ruffles China: Beijing Confused over Rudd Military Strategy,” *The Age*, 1 May 2009, p. 1.
64. “Military Build-Up Risks New Asian Arms Race,” *The Age*, 4 May 2009, p. 2.
65. “Indonesia No Longer Seen as a Bogy for Australia,” *The Age*, 2 May 2009, p. 7.
66. *Defending Australia*, p. 30.
67. Even without an organic SM-3 ballistic missile–defense capability, the Aegis combat systems of RAN destroyers could contribute significantly to any requirement to counter a theater-ballistic-missile threat.

HOW WILL THE DPJ CHANGE JAPAN?

Tobias Harris

By any measure, the Democratic Party of Japan (DPJ) won the 2009 general election in a historic landslide. The Liberal Democratic Party's (LDP's) seat totals fell from 219 single-member districts to sixty-four, and seventy-seven proportional-representation seats to fifty-five. Komeito, the LDP's coalition partner, lost ten seats, including all eight of the single-member districts it had won in 2005.¹ The DPJ's likely coalition partners, the Social Democratic Party of Japan and People's New Party, basically stayed put: the former returned with the same number of seats, while the latter fell one seat, to three.

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THE 2009 GENERAL ELECTION

The DPJ's victory was not necessarily a surprise—surveys of the three hundred single-member districts by major daily newspapers conducted prior to the general election had predicted that the DPJ would likely receive over three hundred seats—but it is impressive nonetheless. But what explains it? How was the DPJ able to go from a party crisis after the 2005 general election to winning the largest majority won by a party in the postwar era? After all, not only did the DPJ suffer a blow in 2005 when it managed to win only 113 seats, but within months of the election Seiji Maehara, the young party leader who took over for Katsuya Okada after the party's defeat, was forced to resign after he tried to use a fraudulent e-mail connected to the 2005 candidacy of Takefumi Horie, the

now-disgraced executive of the company Livedoor, to attack the Koizumi government. The e-mail scandal raised serious questions about the political abilities of DPJ politicians and brought the party to the brink of destruction.²

Naturally, the decay of the LDP is a major factor in explaining that party's 2009 defeat. Former prime minister (2001–2006) Junichiro Koizumi, the major factor in the LDP's 2005 victory, was out of office a year after that general election, and he was followed in the succeeding three years by three prime ministers who were notoriously unable to deliver on the party's 2005 manifesto. As the Twenty-first Century Rincho, a group of nine private-sector think tanks, industrial organizations, and labor unions, concluded, the LDP had largely failed at implementing its 2005 agenda; the group noted that in the four years since the last general election, the Japanese had become more impoverished and the government had done nothing to address widening inequalities. The government of Prime Minister Taro Aso, who had been prime minister since 2008, was criticized in particular for its economic stimulus program, which pushed back the day when the government might be able to achieve a balanced budget, without providing much help for the Japanese economy.³

This criticism gets to the heart of the Liberal Democratic Party's decline. While corruption scandals and a string of embarrassing gaffes by prime ministers and cabinet ministers undoubtedly damaged its reputation, the Japanese people deserted the LDP because of the sense that it had failed at addressing the marked decline in the quality of life of the Japanese people over the past two decades, especially the past decade. One measure of this decline is Japan's ranking in per capita gross domestic product (GDP), which was third in the world as recently as 2000 but as of 2007 was nineteenth. Despite Japan's having experienced between 2000 and 2007 its longest period of growth since the end of World War II, few Japanese benefited from the export-led boom, which constituted what Kohei Ootsuka, a DPJ member of the upper house and vice minister of the cabinet office in the Hatoyama government who had worked at the Bank of Japan before entering politics, has called an "illusory recovery."⁴ Indeed, even as Japan's economy grew, Japan rose to second in the world in its poverty rate, which measures the number of people who earn less than half the median income.⁵ During the same decade, the number of nonregular employees rose to more than a third of the Japanese labor force. Japanese, long accustomed to thinking of their society as uniformly middle class, were forced to confront serious inequalities, and they felt increasingly insecure about the future as Japanese society continued to age and shrink and as the future of the government services grew more doubtful, especially after the 2007 pensions scandal.

But many of these trends were apparent before the 2005 general election, meaning that the LDP's 2005 victory was anomalous. Arguably, independents in

particular turned to the LDP in 2005 not because of the particulars of the LDP agenda—it is unclear that voters in 2005 cared about postal privatization, despite Koizumi’s making the election “about” postal privatization—but because Koizumi signified a new type of politics in which the LDP’s traditionally “immobilist” politics would give way to more dynamic, top-down leadership. Many of the same independent, “floating” voters concluded this year that after three years during which the LDP reverted to its pre-Koizumi ways (symbolized by the readmission less than three months after Koizumi left the premiership of the “rebels” he had ousted) the DPJ was a better choice than the LDP. In both the 2007 upper-house election and this year’s general election, the DPJ has, according to exit polls, been supported by a majority of independent voters.⁶ In this year’s general election, the trend penetrated even LDP supporters, nearly 30 percent of whom supported the DPJ. Not only had the LDP lost the ability to appeal to independents—its support among independents fell from roughly 32 percent in 2005 to 15 percent in 2009—but it could not even unify its own base.

Still, the LDP’s collapse is only part of the story: after all, voters did not have to turn out and vote for the Democratic Party of Japan. They could have stayed home entirely, as many did in the elections between 1993 and 2005, turnout falling below 60 percent in 1996 and 2003, with 1996’s 59.65 percent the lowest ever for a general election. The other part of the story of the 2009 election is the transformation of the DPJ into a party that the Japanese people felt could be trusted with power “at least once.”

Much of the credit for that transformation goes to Ichiro Ozawa, who served three years as party leader from Maehara’s resignation until Ozawa himself was forced to resign in May 2009 due to a campaign finance scandal involving one of his aides. During those three years Ozawa—regarded as an electoral mastermind, due to lessons he had learned as the protégé of the LDP’s Kakuei Tanaka (prime minister 1972–74)—handpicked the party’s candidates, trained them in the art of campaigning, and traveled the country on their behalf in both the 2007 upper-house election and the general election, during which he held the party title of acting president responsible for elections.

The reality is that the DPJ forged a national brand, based upon the party’s manifesto. Regardless of the district, DPJ candidates campaigned on the same agenda. Unlike the LDP, the DPJ waged a relentlessly positive campaign, focused on its own policy proposals instead of criticism of LDP rule. A sign at a DPJ campaign office in Okayama’s second district said precisely that, reminding staffers that the campaign was “not to bad-mouth the LDP candidate and other candidates.” The DPJ’s campaign was based not only on its policy agenda but also on its desire to convey an impression of youthful vitality. It helped that a considerable majority of the DPJ’s 271 candidates in single-member districts were fifty

or younger, the largest cohort being candidates in their late thirties, followed by those in their late forties. The average age of DPJ candidates was 49.4, compared to 55.5 for the LDP. The DPJ also ran more female candidates—forty-six to the LDP’s twenty-seven—and far fewer hereditary politicians, only thirty-two versus 109 for the LDP. (Nearly 50 percent of the LDP’s winning candidates in 2009 were hereditary politicians, compared with only 10 percent for the DPJ.) At least on the symbolic level, the DPJ’s victory signifies the introduction of new blood into Japanese politics.

It is difficult to say, however, what role the DPJ’s policy proposals played in voters’ decisions to vote for the DPJ. One *Asahi Shimbun* poll found that only 24 percent of respondents felt that “regime change”—that is, a DPJ victory—would make Japanese politics better, while 56 percent felt it would leave things unchanged.⁷ Another *Asahi* poll asked respondents to comment first on whether the LDP would be able to pay for its promises, then whether the DPJ would be able to pay for those it made. The numbers were the exact same for both parties: 8 percent felt that each party would have the funds to cover its promises, while 83 percent were skeptical.⁸

That is to say not that policy was irrelevant but that the DPJ’s specific proposals arguably mattered less than its “narrative,” which can be captured in two slogans: *seiken kotai* (regime change) and *seikatsu dai-ichi* (lifestyle, or livelihood, quality of life, first). The first encapsulates the party’s plans to change Japan’s system of government, while the second stresses that its focus will be on the public’s standard of living, in contrast to the LDP’s focus on simple economic growth (“GDP-ism”) and other, noneconomic matters (constitution revision, for example, which was the number-one issue in the LDP’s manifesto for the 2007 upper-house election). Whatever voters thought about the DPJ’s specific proposals in these areas, it appeared to be more dynamic than the Liberal Democrats and promised effective leadership, with the goal of easing the public’s economic insecurities. That proved to be a winning formula.

CAN THE DPJ GOVERN JAPAN?

Now that the DPJ has taken power, with Yukio Hatoyama becoming only the fourth non-LDP prime minister since 1955, the question is whether the DPJ can deliver on its promises regarding administrative/political reform and economic reforms in the public interest.

Seiken Kotai

There is no doubt that the DPJ’s proposals related to administrative reform are central to the party’s program—without administrative reform, genuine change is impossible. As Katsuya Okada, foreign minister in the present government

(that of Yukio Hatoyama), writes in his book *Regime Change*, in order to implement reforms the DPJ will first have to reform Japan's system of government, strengthening the cabinet at the expense of the bureaucracy.⁹ Accordingly, the first major point (of five) in the DPJ's campaign manifesto concerned "cutting waste," which in practice means introducing a new policy-making system characterized by top-down political leadership by the cabinet, an arrangement that will enable the DPJ-led government to control the budgeting process and reallocate Japan's 207 trillion-yen budget as it sees fit.¹⁰

Arguably, the DPJ's proposals on administrative reform are the most developed aspect of the party's program. Perhaps this focus reflects lessons learned from the 1993–94 coalition government of Morihiro Hosokawa, the first non-LDP government, in which many DPJ leaders participated. That seven-party coalition was formed without any idea as to how to formulate policy. As one Western scholar writes of the Hosokawa government: "One important factor contributing to the coalition's collapse is that it came to power not only without an agreement on its goals other than passing political-reform legislation, but without an agreement on a process for deciding what its policies should be."¹¹ The result was a government that governed much like the LDP, with the cabinet weak relative to the ruling parties. The bureaucracy was able to exploit the confusion and interfere with the government's plans.

The DPJ has also learned from the pathologies of the Liberal Democratic system of government.¹² LDP rule was characterized by extensive collaboration between the bureaucrats and politicians. However, contrary to the idea that LDP rule meant bureaucratic rule, as has been argued, LDP rule was in fact characterized by close cooperation through backbenchers, via the party's internal organizations.¹³ The result was a proliferation of veto points within the government, what has been called Japan's "Un-Westminster" system—that is, in contrast to Britain's Westminster system, characterized by a strong executive and top-down policy making: "The executive in the Japanese governing structure is bound by this advance screening-cum-prior-approval process that makes the LDP and its PARC [Policy Affairs Research Council] a vital veto point for all major policies and legislation. Unlike the norm in Westminster systems, the party is not subordinate to the executive. It is a parallel structure with equivalent if not superior powers because of its right of veto."¹⁴

As policy made its way up the LDP's hierarchy, it also moved up the bureaucratic hierarchy, with differences among ministries being hammered out in meetings of administrative vice ministers held the day before cabinet meetings, ensuring that the cabinet's role would be perfunctory. The cabinet and prime minister under LDP rule were thus hemmed in by both the bureaucracy and the ruling party structure. As another Western scholar wrote at the time, "The

ruling party, not the executive, is the only political institution with sufficient power to bargain and negotiate with bureaucrats. Policy originates in the bureaucracy and is then subjected to political intervention by the PARC.”¹⁵

It was only the exceptional LDP prime minister who was able to circumvent this system—and once such a presidential-style leader left office, the system reverted to the status quo ante.

Accordingly, the DPJ now intends to build a new policy-making system that subordinates the bureaucracy, the ruling party, and the Diet to the cabinet, at the expense of both the bureaucracy and the ruling party, in order to produce more dynamic, top-down government. That is, the DPJ intends to build a new *system*, not simply to depend on having a capable leader in the prime minister’s chair. Most important, the DPJ wants the cabinet to be responsible for producing the budget, without which policy change is impossible.

Appropriately, given that Japan has an “Un-Westminster” arrangement, the DPJ has studied the British system as a model for what it hopes to build in Japan. It does not want to copy the American system of controlling the bureaucracy through a vast number of political appointees; instead, it wants to free political leaders from dependence on the bureaucracy while still taking advantage of Japan’s high-quality civil service for the benefit of the country. (Ozawa makes this distinction in his 2006 book.)¹⁶ More recently, Naoto Kan, a founder and former leader of the DPJ (who became famous as health minister during the mid-1990s, when he took on his ministry’s bureaucrats in response to a tainted-blood scandal), visited the United Kingdom in June 2009 and produced a report on the operations of the British executive after speaking with officials from the Labor and Conservative parties. In this report and an article in the journal *Chuo Koron*, Kan expressed his admiration for the British cabinet system. He singled out Britain’s cabinet committees as particularly worthy of emulation, as in his assessment they would enable ministers to work together in small groups to produce policy—especially the budget.¹⁷ Cabinet committees would move Japan away from the custom of unanimity in cabinet decisions, effectively giving each minister a veto.

How does the DPJ plan to move Japan in the direction of a true Westminster system? Central to the party’s administrative plan is a new national strategy bureau (NSB) that will be headed by a senior cabinet minister and staffed with roughly thirty appointees, including ten Diet members. The NSB’s primary function will be to manage the budgeting process. At this point, however, it is unclear precisely how the NSB will operate. Kan has already been named the NSB’s head; he will simultaneously serve as the deputy prime minister. Little else is known. The NSB could be a superministry or cabinet within the cabinet, directing the work of other ministries, an arrangement that could be problematic

for the new government. Alternatively, it could be a support group for the work of cabinet committees, following their leads.¹⁸

Whatever form the NSB takes, the DPJ is trying to centralize power even within the cabinet. The DPJ took a step in that direction by announcing its appointees for the top cabinet positions within a week of the election victory. According to a transition plan drafted in 2003 by a committee responsible for administrative preparations, within five days after an election the DPJ was to convene a transition team and quickly appoint party members to senior cabinet positions. It has now done so, appointing Okada as foreign minister, Hatoyama confidante Hirofumi Hirano as chief cabinet secretary, Kan as deputy prime minister and NSB chief, and Hirohisa Fujii as finance minister. The cabinet's senior officials will be at the heart of an "inner cabinet" that will move decision making away from the current system in which, as we have seen, bureaucrats can exercise effective veto power in the council of administrative vice ministers and through unanimous decision making within the cabinet.¹⁹ Indeed, upon taking power the Hatoyama government abolished the administrative vice ministers' meetings; it will likely replace them with meetings of parliamentary vice ministers. The new government also immediately established new regulations governing contact between bureaucrats and politicians not holding cabinet or subcabinet appointments. The regulations will require bureaucrats to make the contents of all requests from Diet members known to their ministers, and it bans, in principle, efforts by bureaucrats to influence Diet members. The government has also mandated that bureaucrats save records related to requests for subsidies, licenses, contracts, and the like from backbenchers or their secretaries.²⁰

Another major feature of the DPJ's administrative reform is a proposal to appoint more than a hundred politicians to government posts. Both Ozawa and Kan have expressed their admiration for the British system's inclusion of so many legislators in the executive, and the DPJ clearly intends to do the same. To enforce the idea of political teams overseeing the work of ministers, the DPJ has already stated that cabinet ministers will be free to choose their own deputy ministers and parliamentary secretaries—unlike LDP rule, under which the party's factions played dominant roles in distributing subcabinet jobs even as their power to appoint cabinet ministers and select the prime minister declined.²¹ One problem with this proposal, however, will be finding enough DPJ members qualified to take up positions in the government.

Revealingly, when the Hatoyama government took power, the DPJ dissolved its policy research council, making clear that the cabinet's role in policy making is superior to that of the party. Similarly, by giving Ozawa the position of party secretary-general, the Hatoyama government hopes to neutralize the ruling

party as a policy actor. Ozawa will be responsible for Diet affairs and election strategy, meaning that he will control what under LDP rule were four different posts, none of the occupants of which were in the cabinet. The DPJ has rolled the LDP's many "veto points" outside the cabinet into a single veto authority—Ozawa, as secretary-general. In Diet strategy, Ozawa will be responsible for assigning committee positions, appointing the leaders of the two houses, and, crucially, distributing the party's political funds. In short, he will act as the party's chief whip, ensuring that backbenchers follow the cabinet's lead; controlling the party's campaign funds, he will have the power to reward and punish. Ozawa will be the critical hinge between cabinet and ruling party, and between ruling party and Diet, the indispensable actor in moving Japan to a Westminster system, in which "the line of policy-making authority is top-down: prime ministers normally carry their cabinets, cabinets nearly always carry the parliamentary party and the parliamentary party counts on carrying parliament."²² Ozawa will be responsible for carrying the parliamentary party and parliament.

Giving Ozawa such broad powers is risky. He is notoriously mercurial and secretive in his decision making. As secretary-general of his Japan Renewal Party in 1993–94, he was instrumental, through his political maneuvering, in both building and destroying the Hosokawa government. In 2007, as the DPJ's president, he entered into negotiations with the LDP for a grand coalition without securing the approval of the DPJ beforehand, for which he resigned temporarily from the party's leadership before being coaxed back. Ozawa has said that he regrets decisions he made during the first non-LDP coalition government—especially decisions to alienate the Socialist Party, which resulted in its joining a coalition with the LDP—suggesting that he may have learned from his mistakes. Some have warned, however, that Ozawa, through his help for DPJ candidates, seeks to create an Ozawa "army" that will play a role in the DPJ similar to the role played by the Tanaka faction in the LDP during the 1970s and 1980s.²³ Although there is no evidence thus far that Ozawa seeks to build a faction that will dominate the DPJ, his past makes it difficult to rule out the possibility entirely.

Ozawa himself has said that he will respect the power of the cabinet and not use his position to veto the plans of the government. If he abides by this pledge, he will thereby make the cabinet stronger and the ruling party weaker. But there are few checks on Ozawa's power, other than the appointment to the cabinet of DPJ politicians distant from him, ensuring that the cabinet will not passively accept insubordination by him. There is no denying the risk that Ozawa could, far from unifying the cabinet and the ruling party as DPJ plans state, create a power center outside the cabinet and therefore resurrect the worst pathologies of LDP rule.

Even as the DPJ has entrusted Ozawa with the task of pacifying the ruling party and the Diet, there is still the question of how the DPJ will deal with the

bureaucracy, even with its new-model cabinet in place. It will surely face resistance from the bureaucracy. A Western scholar observes, “Japanese bureaucrats control a great deal of information due to the absence of staff support either in the party organizations or among politicians themselves. Information is power and Japanese politicians are heavily dependent on bureaucrats for information, especially given that think tanks and other alternative sources of information and expertise are so weakly developed.”²⁴ Leaks by bureaucrats to the media under the Hosokawa government were at least a factor, if not the primary factor, in its demise, and bureaucrats will certainly try again to destroy a non-LDP government through leaks and sabotage, helped by a sympathetic conservative media and the opposition LDP.²⁵

But working in the DPJ’s favor is the idea that there is no such thing as “*the* bureaucrats.” The bureaucracy is by no means a monolithic entity; opposition to the DPJ will differ by ministry. The finance ministry will likely become an ally of the new government, simply because it shares the party’s goal of cutting waste. The DPJ’s appointment of Fujii, a former ministry bureaucrat and finance minister under the Hosokawa government, sends a signal to the ministry that while the DPJ government stands for political leadership, that politicians will now take the lead on budgeting—a point that Fujii himself has made quite forcefully in his public appearances—the new government nevertheless hopes to work with the finance ministry. In the months leading up to the general election, senior finance ministry officials met frequently with senior DPJ figures, suggesting that the ministry is willing to find a way to work with its new political masters. At the other extreme are ministries like those of agriculture, forestry, and fisheries; land, infrastructure, transportation, and tourism; and health, labor, and welfare. These ministries enjoyed considerable power and sizable budgets under LDP rule and were “protected” from scrutiny by the LDP’s policy elements (many of which were among what Koizumi referred to as the “opposition forces” during his effort to change the LDP).

Agriculture, Forestry, and Fisheries is particularly threatened, as the DPJ has proposed to replace the baroque system of agricultural subsidies with a more transparent scheme of income supports that will remove much of the ministry’s discretion. This ministry was fighting publicly with the DPJ well before the general election. In June, Ichide Michio, its administrative vice minister, publicly called the DPJ’s proposal “unrealistic,” prompting Hatoyama to respond that in Britain “he would be sacked immediately.”²⁶

Demanding resignations will be one way for the DPJ to respond to bureaucratic resistance. It has dropped a radical proposal in its transition plan that the new government would demand the resignations of administrative vice ministers and some bureau chiefs and reappoint them only upon receiving

affirmations that they would accept the party's policy agenda. The proposal also called for ending seniority promotions. But even if the DPJ does not go that far, it will still try to use the cabinet's constitutionally granted right to appoint and dismiss administrative personnel in order to fight back against bureaucrats. For example, the DPJ plans to review the LDP's choice for director-general of a newly created consumer-affairs agency and possibly dismiss him.²⁷

The DPJ will have the public on its side when it comes to administrative reform. A recent Fuji-Sankei poll asked which policies should be implemented: 87 percent of respondents approved of "Reviewing the relationship between politicians and bureaucrats" and "Reviewing the compilation and execution of budgets." The DPJ will have to be skillful in communicating via the media—the bureaucrats certainly will be. But tremendous public support for administrative reform is an important weapon in the party's arsenal.

Seikatsu Dai-ichi

As Okada and others have argued, administrative reform is only a first step. What the DPJ will do once it reforms the policy-making process is more uncertain. The party faces a threefold challenge: it has to develop a sustainable basis for economic growth while building a new social safety net and reducing the government's debt burden.

The party manifesto, of course, includes pages upon pages of policy proposals under the headings of "Child Raising and Education," "Pensions and Health Care," "Decentralization," and "Employment and the Economy." Some of these proposals are quite good, provided the DPJ can find a way to pay for them. The DPJ's proposal to provide 26,000 yen per month per child until middle-school graduation should have a beneficial effect on domestic consumption and the birthrate. The income-support plan for agriculture—which will compensate farmers if the price of a commodity falls below the cost of producing it—should be a politically acceptable way of supporting Japan's aging and shrinking population of farmers. The party also has a number of apparently sound proposals for strengthening the pension and health-care systems, the top priority for most Japanese voters.

If the DPJ's proposals are strong on a new safety net, they are weaker on economic growth and fiscal reform. The statements of its leaders suggest the party recognizes that the challenge is to move Japan away from its export-dependent model of growth, the bankruptcy of which was exposed in the latest crisis, in which the American recession dragged Japan's economy into a recession of its own, thanks to a dramatic collapse of exports. Japan needs a more balanced growth strategy that features both domestic consumption—especially of services—and the export of high-value-added goods. It needs to find a way to

release the cash savings of Japanese households (roughly 1.5 times Japanese GDP) and bank reserves into the economy so as to promote more growth.

Similarly, proposals to raise the minimum wage to 1,000 yen/hour and to ban in principle the use of “dispatch” workers (temporary workers supplied to employers by private firms) in the manufacturing sector could result in more manufacturers relocating production overseas, as could the DPJ government’s insistence on a 25 percent cut in CO₂ emissions by 2020. The party’s proposal to lower corporate tax rates for small- and medium-sized enterprises could be useful for encouraging such companies, which are largely in Japan’s inefficient services sector, to become more efficient and profitable, but that will take more than tax cuts.

Also, the DPJ will still have to find a way to shrink Japan’s national debt without raising consumption taxes, which the party has promised not to do for at least four years. The party will, of course, try to cut as much waste from the budget as it can; however, according to at least one party member with a finance ministry background, the DPJ cannot be sure how much money it will be able to find and cut. Meanwhile, although the overwhelming majority of Japanese government bonds are held domestically, a fact that buys the government some time (and enables it to sell more debt, as necessary), the government cannot depend on debt financing forever.²⁸

All this may represent an impossible trinity of challenges: fixing the government’s finances while also building a safety net and shifting the economy to a more balanced growth model may simply be out of the question, whoever is in charge. Pursuing growth and fiscal balance could result in the safety net being neglected, as happened under the Koizumi government. Pursuing growth and a safety net—the latter being, perhaps, politically necessary for the former—could delay the achievement of a balanced budget even further than it has already been. (The Koizumi government set a target of 2011, which cannot now be achieved, thanks to the Aso government’s stimulus packages.) The DPJ’s focus will likely lead it to prioritize a social safety net and fiscal balance, but it is difficult to see how the government will be able to finance a safety net without growth over the medium term, as Japan’s baby boomers retire.

BECOMING A NORMAL NATION

Just as the DPJ will try to “normalize” Japan’s system of government and economy, so too will it try to normalize Japan’s foreign relations.

What exactly does a “normal” foreign policy mean for Japan? Some scholars have argued that it means a Japan freed of Cold War–era restraints on its security policy. Arguably, though, this interpretation misses what Ozawa sees as the essential point—that Japan’s external dependence on the United States has been

equivalent to its politicians' longtime internal dependence on the bureaucracy. Just as dependence on the bureaucracy has deprived politicians of the ability to make decisions necessary for Japanese society, so too has dependence on the United States interfered with Japan's foreign policy behavior.²⁹

Ozawa has at times been criticized for what some Americans believe are anti-American views. But it may be a mistake to read Ozawa as anti-American. Ozawa's goal is a Japan able to make decisions on the basis of its leaders' calculations of the national interest, not of pressure from the United States—or any other international actor, for that matter. His goal, and that of the DPJ as a whole, is to expand Japan's freedom of international action.

What will this mean for U.S.-Japan relations and Japanese foreign policy in the near term? In the first year, when the relevant enabling law expires in January 2010, the DPJ will likely bring its Maritime Self-Defense Force refueling ships home from the Indian Ocean. One month into the Hatoyama government, there has been no final decision on Afghanistan policy—and indeed, Akihisa Nagashima, the parliamentary secretary for defense, was reprimanded by Defense Minister Toshimi Kitazawa and Chief Cabinet Secretary Hirofumi Hirano for speaking out of line when he argued in a speech that the government ought to extend the refueling mission in the Indian Ocean.³⁰ The government appears to be giving serious thought to the best way to support the reconstruction of Afghanistan as the Barack Obama administration debates its own approach in light of General Stanley McChrystal's request for an additional forty thousand troops and of Afghanistan's tainted election. The Hatoyama government will likely provide greater civilian support for the governments of Afghanistan and Pakistan in place of a mission involving Japan's armed forces.

The new government has also decided that it will press for early negotiations on the realignment of U.S. forces in Japan, especially the controversial Marine Corps air station at Futenma. After a decade of talks, the United States and Japan agreed in 2006 to a "Roadmap for Realignment Implementation," which stipulated the relocation of eight thousand Marines and their dependents from Okinawa to Guam but also tied progress on relocation to the construction of a new air station at Henoko Bay—a "Futenma Replacement Facility"—on land currently part of the Marine Corps's Camp Schwab.³¹ The roadmap became law in 2009, when Secretary of State Hillary Clinton and then-foreign minister Hirofumi Nakasone signed an agreement on its implementation. Among other things the agreement reaffirmed the importance of Futenma for the realignment process: "The Relocation shall be dependent on tangible progress made by the Government of Japan toward the completion of the Futenma Replacement Facility as stipulated in the Roadmap."³²

The Democratic Party of Japan—to say nothing of the Social Democratic Party of Japan—has expressed its opposition to the roadmap. In principle, the DPJ wants U.S. bases removed from Okinawa entirely; in its 2008 Okinawa vision paper it called for the dramatic reduction of U.S. forces, first from Okinawa, then from Japan entirely.³³ While the vision paper does not constitute an official policy statement for the Hatoyama government, it shows that the DPJ is united in its opposition to the realignment as currently planned.³⁴ Even the DPJ's conservatives—the party's most enthusiastic supporters of the alliance—are opposed to the roadmap. Seiji Maehara, a leading hawk serving concurrently as the minister of land, infrastructure, and transport and minister responsible for Okinawa, said after a visit to the island in early October that it would be necessary for the Hatoyama government to launch a fundamental review of the plan to build a Futenma replacement at Camp Schwab.³⁵

At the same time, however, the new government is fully aware of how difficult it will be to revise the realignment process. The process may be delayed: as Admiral Timothy Keating, then commander of the U.S. Pacific Command, admitted in November 2008, “It’ll take a little bit longer to effect—we won’t be done by 2014, or maybe even 2015, but it’s about a decade in execution.”³⁶ With the realignment roadmap enshrined in a bilateral treaty and preparations under way on both Okinawa and Guam, the Hatoyama government will have a hard time implementing the DPJ's Okinawa vision. Acknowledging this reality, in its election manifesto the party softened the language on realignment, saying that it would “look to revise” the realignment of U.S. forces and the arrangement of American bases in Japan.³⁷ Since taking power the Hatoyama government has been no less willing to reconsider its approach to Okinawa and Futenma. The government still hopes for changes to the plan; far from dropping the issue, Okada said within days of taking office that he wants to reach a new agreement with the United States on Futenma within the year, so that necessary expenditures can be included in the 2010 budget.³⁸ Nonetheless, senior officials have clearly backed away from more radical revisions to the roadmap. After a visit to Okinawa, Kitazawa said building a Futenma replacement elsewhere would be “difficult.” Hatoyama himself has remarked, when asked about Futenma, that it may be necessary to back away from proposals included in the DPJ manifesto. The foreign ministry is currently reviewing the government's options, with an eye toward having a proposal ready for when President Obama visits Japan in mid-November.

For its part the Obama administration has softened its own tone on Futenma. A State Department spokesman shortly after the election ruled out the possibility of renegotiating the roadmap, but since then senior administration officials have stressed their willingness to listen to the new Japanese government's concerns

about the agreement. The White House may yet reject a Hatoyama government proposal out of hand—a distinct possibility after Secretary of Defense Robert Gates visited Japan and said in regard to Futenma that “it is time to move on”—but it appears that it will at least try to minimize conflict over the issue.³⁹

There is a certain political logic to the Hatoyama government’s decision to address these thorny bilateral issues in its first months in office. The closer the government gets to the 2010 upper-house election—in which the DPJ will try to win a majority to complement its majority in the lower house—the less it will want foreign-policy issues crowding its agenda. Other things being equal, the Japanese public is largely inattentive to foreign policy; foreign and security issues never rank as top priorities in public opinion polls. But the Hatoyama government could suffer political consequences if it is seen as incapable of responsibly managing Japan’s foreign relations, especially the alliance with the United States. It is unclear whether the public approves or disapproves of the government’s policies regarding Afghanistan and Futenma, but if they result in bilateral strife, the DPJ could suffer at the polls.

Accordingly, the Hatoyama government is trying to distance itself from the LDP’s approach to the alliance and to devise its own way of dealing with the United States while at the same time signaling to Washington and to the Japanese public that the relationship is safe in its hands. It is imperative that the American administration not overreact to the DPJ’s new approach to the alliance, especially with respect to the refueling mission in the Indian Ocean. That mission began in 2001, arising as much out of Japan’s lingering guilt over its “checkbook” diplomacy during the 1991–92 Gulf War as out of desire to support the United States after 9/11. By 2007, when the DPJ was able to block temporarily the extension of the enabling law, there remained little importance symbolically and even less materially; if anything, it shielded Japan from having to make a more substantive financial or political contribution to coalition activities in Afghanistan. Replacing the refueling mission with civilian assistance would be an easy way for the new government to show that, unlike recent LDP governments, it does not view every foreign policy challenge as an opportunity to stretch the limits on the use of the Japan Self-Defense Forces (JSDF). As Ichiro Fujisaki, Japan’s ambassador in Washington, reminded the Obama administration after Pentagon spokesman Geoff Morrell “encouraged” Japan to continue the refueling mission, “Japan’s international contribution is for Japan to decide independently.” Ending the refueling mission may be the most painless way for the Hatoyama government to signal a break with the past.

The same may not apply to Futenma and realignment, which entail serious material costs for both governments. The roadmap is the result of years of painstaking negotiations by American officials, and the U.S. government is

understandably reluctant to scrap what it views as the best possible arrangement. But Washington should understand the DPJ's perspective, which sees the agreement signed by the Aso government as paying inadequate attention to the environment of Henoko Bay and the interests of local residents. Given that the realignment process is already behind schedule and that everything hinges on replacing Futenma, it may be appropriate for the United States to take seriously the DPJ's desire for renegotiation, especially since the Hatoyama government has admitted that any revisions to the deal will not involve moving remaining Marines off Okinawa.

Underlying both of these Hatoyama government policies is the idea that the U.S.-Japan alliance is on the cusp of a new era. From 1996 onward officials in both countries sought to take the Cold War alliance, once described as "a paper alliance that could be, and was, run virtually from desktops and filing cabinets," and transform it into an alliance modeled on the "special relationship" between the United States and Great Britain.⁴⁰ After the trade wars of the early 1990s, officials focused once again on the security relationship, starting with a 1996 joint security declaration and continuing with a 1997 revision of the guidelines for security cooperation.

Today it is unclear just how different the 1996 alliance was from that of the Cold War. The Koizumi government's decision to support the United States in Afghanistan within weeks was a momentous decision, but as previously argued, it had as much to do with making up for Japan's mistakes in 1991 as with fighting terrorism. The Koizumi government may have put "boots on the ground" in Iraq, but its JSDF detachment depended on the troops of other countries to defend it, suggesting that the deployment was less a departure than met the eye. Article IX of the Japanese constitution remains intact, and the efforts of the Shinzo Abe government (2006–2007) to introduce even minor modifications to the constitutional interpretation prohibiting Japan from exercising its right of collective self-defense were scrapped as soon as Abe resigned. Since the early 2000s Japan has cut its defense budget, notwithstanding several "hawkish" prime ministers.

The advent of the Hatoyama government will likely mean the end of the security-centered 1996 alliance. The United States and Japan will continue to cooperate in security affairs, of course, but the geographical and operational scope will be more limited than officials in both countries had hoped earlier this decade. The DPJ and the new government have no interest in constitution revision, an issue that vanished from the agenda after Abe made it the centerpiece of his party's losing campaign in 2007. Hatoyama and other DPJ leaders are instead interested in exploring new avenues of bilateral cooperation, notably

cooperation against climate change and nuclear nonproliferation.⁴¹ In particular economic cooperation is back on the agenda: the DPJ manifesto included a proposal for a U.S.-Japan free-trade agreement. That may be difficult if not impossible to achieve in the foreseeable future, but its inclusion in the party manifesto is revealing. For the DPJ the key to building an “equal” relationship with the United States means exploring cooperation in areas other than security, because ultimately an equal partnership with the United States in that realm is impossible, given the asymmetries in capabilities.

But the DPJ’s thinking on the alliance cannot be separated from its broader thinking on foreign policy. Hatoyama sees Japan’s foreign-policy dilemma thus: “How can Japan, caught between an America struggling to remain a hegemon and a China wanting to be and planning to be a hegemon, maintain its political and economic autonomy and defend its national interests? The international environment in which Japan will be placed from now on is not straightforward.”⁴²

The Hatoyama government, like the Abe, Fukuda, and Aso governments before it, faces a structural challenge in East Asia. Japan, like Australia, South Korea, and the countries of the Association of Southeast Asian Nations (ASEAN), has close and indispensable security ties with the United States, but it also has increasingly important economic ties with China. Japan, like the other countries of the region, is in no position to choose between the United States and China. Both Abe and Aso, despite belonging to the conservative wing of the LDP, which is notoriously skeptical of Chinese power, worked to build a “strategic, mutual” relationship with China; Yasuo Fukuda, as prime minister (2007–2008), was even more enthusiastic than the two conservatives. While Abe tried to balance a new relationship with China with efforts to enhance security cooperation among East Asia’s democracies, his successors focused more on China than on cooperation among democracies that excluded China.

Fukuda offered perhaps the most articulate vision of where Japanese foreign policy in the region ought to be going, and there are a number of similarities between Fukuda’s ideas, as expressed in a May 2008 speech on foreign policy, and Hatoyama’s, as laid out in an essay published in September 2009. Fukuda’s answer to the dilemma described by Hatoyama was remarkably similar to Hatoyama’s: his lengthy speech devoted but one paragraph to the U.S.-Japan alliance, in which he stressed the alliance’s value in providing stability and regional “public goods.”⁴³ He did not stress an alliance based on common values or on other such ideas that have been floated. Japan’s future, Fukuda argued, is in Asia, but he did not mean “Asia” as a code word for China—he meant Asia as a whole, including but not limited to China. In effect, cooperation with Asia would serve as a means of increasing Japan’s freedom of action vis-à-vis both China and the United States.

Much like Australia's Kevin Rudd (prime minister since 2007), Hatoyama has come into power pushing a vision for an East Asian community. Again as with Rudd, it is unclear just how much acceptance Hatoyama's ideas will win in the region. It is one thing to accept in principle the value of a regional community, but it would be quite another for countries to pool their sovereignty, which the ASEAN members have struggled to do even among themselves, let alone with the region's larger states. Notwithstanding, if some of Hatoyama's specific proposals for cooperation in Asia are far-fetched—Hatoyama has admitted that his ideas are a “dream”—it is clear that a DPJ government will continue Japan's movement to status as an Asian middle power, in that—like Australia, South Korea, and the ASEAN countries—Japan will have to balance its relationships with the region's two giants. As Okada said recently, “Two-sided debates like America or Asia, America or China are futile debates.”⁴⁴ Under the Hatoyama government, Japan will continue to move in the direction of what a Japanese scholar calls “middle-power diplomacy” and a Western author calls the “Goldilocks consensus”—but might be called simply the DPJ's “new realism.”⁴⁵

Japan's new leaders, taking power in the midst of wrenching changes at home and abroad, are in a position similar to that of the men who led Japan in the early years following the Meiji Restoration (in the second half of the nineteenth century), and that of Shigeru Yoshida (prime minister 1946–47 and 1948–54) and the other architects of the postwar order. They have to reconfigure Japan's institutions at home to manage the country's changing demographics and alter the obsolete postwar growth model, while also modifying the country's foreign policies (and foreign policy-making institutions) in light of China's rise. Like Yoshida, the Hatoyama government will undoubtedly find value in preserving the security relationship, in part because stagnant defense spending gives Japan few options—and because the United States still appears to be willing to allow Japan a cheap, if not free, ride on its defense spending (although one question for the future is whether the United States will be willing to tolerate this for much longer, given its own financial situation). Like Yoshida, the Hatoyama government recognizes that Japan's leadership abroad begins at home: that until Japan returns to economic normalcy, it will struggle to lead in the region. And like Yoshida (nicknamed “One Man,” for his “dictatorial” tendencies), Hatoyama and other DPJ leaders recognize that leadership at home and abroad requires institutions that enable politicians to lead.

Some analysts have argued that for better or worse, the DPJ's victory will leave Japan largely unchanged.⁴⁶ This view seems mistaken. Arguably the DPJ changed Japan simply by defeating the LDP in a general election and winning an absolute majority in the House of Representatives, showing the LDP's 1955 system had been finally and irrevocably destroyed. The Democratic Party of Japan

having won on the back of support from independents and Liberal Democratic defectors, its victory arguably suggests that Japan has entered into a period of intense partisan competition and further changes of government (once the LDP sorts itself out), a period in which successive governments will be desperate to introduce and implement new policies to sell themselves to voters and tie the hands of their successors in the event of electoral defeat.

But beyond that, the DPJ's plans for changing Japan's policy-making process constitute a genuine revolution in how the country is governed, and they open the way to far-reaching reforms in domestic and foreign policy. Whether or not its policies leave Japan better or worse off, the Hatoyama government's plans could result in an undeniably transformed Japan. At the very least, Japan is on the brink of a period of policy experimentation not unlike Japan's "openings" after the Meiji Restoration and the American occupation.

NOTES

- Japanese names are given throughout in Western fashion, surname last.
1. Turnout was 69.28 percent, the highest turnout under the electoral system introduced in 1994 and indeed the highest turnout since the 1990 general election. The DPJ received 47.4 percent of the vote in the country's three hundred single-member districts (SMDs), which translated into victories in 221 SMDs, compared with the fifty-two SMDs the DPJ won in 2005. In proportional-representation voting, the DPJ received 42.4 percent of the vote, which translated into eighty-seven proportional-representation seats. The blow to Komeito was particularly serious, as its leaders declined to run simultaneously in SMDs and proportional-representation (PR) seats, meaning that when they lost their SMDs they were not returned as PR representatives, unlike a number of LDP leaders who lost their SMDs.
 2. Usahio Shiota, *Minshuto no kenkyu* (Tokyo: Heibonsha, 2007), pp. 223–26.
 3. *Sankei Shimbun*, 2 August 2009, available at sankei.jp.msn.com/politics/.
 4. Kohei Ootsuka, "Illusory Recovery," in *Japan Missing* (Tokyo: Open Knowledge, 2008), pp. 87–89.
 5. International Monetary Fund, *World Economic Outlook* (Washington, D.C.: October 2007).
 6. *Sankei Shimbun*, 31 August 2009, available at sankei.jp.msn.com/politics/.
 7. *Asahi Shimbun*, 20 August 2009, available at www2.asahi.com/senkyo2009.
 8. *Asahi Shimbun*, 17 August 2009, available at www.asahi.com/politics/.
 9. Katsuya Okada, *Seiken kotai* (Tokyo: Kodansha, 2008), pp. 218–23.
 10. Democratic Party of Japan [hereafter DPJ], *Election Manifesto*, July 2009, available at www.dpj.or.jp/special/manifesto2009/pdf/manifesto_2009.pdf.
 11. Gerald Curtis, *The Logic of Japanese Politics* (New York: Columbia Univ. Press, 1999), p. 117.
 12. For the details of the LDP system, see Naoto Nonaka, *Jiminto seiji no owari* (Tokyo: Chikuma Shinsho, 2008).
 13. Chalmers Johnson, "Japan: Who Governs?" in *Japan: Who Governs? The Rise of the Developmental State* (New York: W. W. Norton, 1995), pp. 115–40.
 14. Aurelia George Mulgan, "Japan's 'Un-Westminster' System," *Government and Opposition* 38, no. 1 (January 2003), p. 77.

15. Ibid., p. 80.
16. Ichiro Ozawa, *Ozawa-shugi* (Tokyo: Shueisha, 2006), pp. 101–104.
17. Naoto Kan, “Minshuto seiken no mezasu kuni no katachi,” *Chuo Koron* (July 2009), pp. 172–73.
18. Conversation with a DPJ party official, 3 September 2009.
19. DPJ Administrative Preparations Committee, *Kokumin to tomo ni koudo suru “Atarashi seifu” no kakuritsu ni mukete*, 25 September 2003.
20. Office of the Prime Minister, “Roles and Responsibilities of Politicians and Bureaucrats,” 16 September 2009, www.kantei.go.jp/.
21. *Sankei Shimbun*, 27 August 2009, available at sankei.jp.msn.com/politics/.
22. Mulgan, “Japan’s ‘Un-Westminster’ System,” p. 76.
23. See Atsuo Itoh, “Ozawa chirudoren 100 nin de ‘Tanaka ha’ fukkatsu,” *Bungei Shunju* (September 2009), pp. 138–44.
24. Gerald Curtis, “Politicians and Bureaucrats: What’s Wrong and What’s to Be Done,” in *Policymaking in Japan: Defining the Role of Politicians*, ed. Gerald Curtis (New York: Japan Center for International Exchange, 2002), p. 7.
25. The conservative *Yomiuri Shimbun* has already published a series of articles about the dangers of following the British model.
26. *Mainichi Shimbun*, 22 June 2009, available at www.mainichi.jp/.
27. *Mainichi Shimbun*, 2 September 2009, available at mainichi.jp/.
28. “Japan’s Debt,” *Financial Times*, Lex, available at www.ft.com/.
29. Ozawa, *Ozawa-shugi*, p. 61.
30. *Yomiuri Shimbun*, 6 October 2009, available at www.yomiuri.co.jp/politics/.
31. Ministry of Foreign Affairs of Japan, “United States–Japan Roadmap for Realignment Implementation,” U.S.–Japan Security Consultative Committee, 1 May 2006, available at www.mofa.go.jp/region/n-america/us/security/scc/doc0605.html.
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39. “Joint Press Conference with Japanese Defense Minister Toshimi Kitazawa and Secretary of Defense Robert Gates,” Tokyo, 21 October 2009, available at www.defenselink.mil.
40. Paul S. Giarra and Akihisa Nagashima, “Managing the New US–Japan Security Alliance: Enhancing Structures and Mechanisms to Address Post–Cold War Requirements,” in *The US–Japan Alliance: Past, Present, and Future*, ed. Michael J. Green and Patrick M. Cronin (New York: Council on Foreign Relations, 1999), p. 99; National Defense University, *The United States and Japan: Advancing toward a Mature Partnership* [The Armitage Report] (Washington, D.C.: Institute for National Strategic Studies, October 2000), available at www.ndu.edu/inss/.
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42. Yukio Hatoyama, “Watashi no seiji tetsugaku,” *Voice* (September 2009), pp. 139–40.
43. Ibid.; Yasuo Fukuda, “Towards the Day on Which the Pacific Ocean Becomes an ‘Inland Sea’: Five Promises for an Asian Future in Which ‘We Walk Together,’” (speech, Tokyo, 20 May 2008, available at [www.kantei.go.jp/](http://www.kantei.go.jp/jp/)).

44. *Yomiuri Shimbun*, 2 September 2009, available at www.yomiuri.co.jp/politics/.
45. Yoshihide Soeya, *Nihon no "midoru pawa" gaiko* (Tokyo: Chikuma Shinsho, 2005); Richard Samuels, *Securing Japan* (Ithaca, N.Y.: Cornell Univ. Press, 2007).
46. See, for example, Paul J. Scalise and Devin T. Stewart, "Think Again: Japan's Revolutionary Election," *Foreign Policy* (1 October 2009), available at www.foreignpolicy.com/.

ENGAGING OCEANIA

Captain Sea Sovereign Thomas, U.S. Marine Corps

The fourteen island nations of Oceania are weak by any traditional measure of state power. They are mostly small and poor, with zero military muscle and little diplomatic clout. On a map of the Pacific these microstates appear almost like tossed sand, widely dispersed and hardly noticeable in the great blue expanse between the Western Hemisphere, Asia, and Australia. But the small size and gross domestic products of these states conceal a disproportionate economic, political, and military potential. As a consequence, this region has received considerable attention from Beijing over the past decade as it moves to expand its influence in far-flung capitals around the world. China now has more diplomats in Oceania than does any other nation, its bilateral aid is expanding rapidly, and its trade with the region is two to three times larger than that of the United States.¹ While growing competition for influence is not necessarily a zero-sum game, neither is it risk free. Washington cannot afford to neglect its long-standing links with these saltwater states and should better employ the U.S. Pacific Command (USPACOM)—its principal lever of military and diplomatic power in the Pacific—by elevating the region’s importance and making current “theater security cooperation” more robust.

Oceania deserves Washington’s increased attention for three reasons. First, its

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marine resources in fish are tremendous at a time when global stocks are on the brink of collapse. Further, it is home to some of the world’s most vibrant and healthy coral reefs, invaluable in both economic and ecological terms. Second, the states of Oceania represent a sizable bloc of nations whose collective

diplomatic weight is considerable. Maintaining strong American influence in the region, especially as Beijing moves assertively to establish itself as a new source of influence, will help to enhance regional support for Washington's foreign policy agenda. Third, the islands of Oceania straddle the geopolitically significant maritime routes between the United States, Australia, New Zealand, East Asia, and Guam, where America is significantly expanding its military presence. In the event of any large-scale U.S. military action in the western Pacific (over Taiwan, for instance), these islands could become logistically crucial.

ECONOMIC AND ECOLOGICAL VALUE: FISH

The world is facing a crisis in global fish supply. Fish stocks have collapsed in nearly one-third of open-sea fisheries (that is, they have declined to less than 10 percent of their original yield), 25 percent of the world's marine fish stocks are overexploited (depleting faster than they are recovering), and an additional 50 percent are fully exploited (depleting at the pace of recovery).² As stocks become further exhausted, competition for access to fish and other seafood will become increasingly intense.

The Pacific Ocean is home to three of the four most productive fishing areas of the world, with the northwest Pacific being the most abundant and the western central Pacific—where Oceania lies—the fourth.³ This maritime space is also the planet's most important tuna fishing area, producing about one-third of the global total.⁴ These considerable resources are contained in island states' exclusive economic zones (EEZs), which stretch two hundred nautical miles from the coastline and wherein nations enjoy jurisdiction over the water column and all seabed and subsoil resources. The microstates of Oceania, many of which include sprawling chains of atolls, control vast swaths of saltwater territory out of all proportion to their tiny landmasses. For example, the Republic of Kiribati—half the size of Rhode Island (the smallest American state)—has an EEZ more than five times the size of Texas and eight times the size of California. In total, the fourteen nations of the region have rights to twenty million square kilometers of sea, more than twice the size of the continental United States (see map).⁵ Washington's economic interests in maintaining access to these marine resources are complemented by strong ecological ones: not only is there value in supporting conservation regimes that protect fish and coral reefs from overexploitation, but there are scientific and purely environmental reasons for preserving Oceania's exceptional saltwater ecosystems. Consider the fact that President George W. Bush created the world's largest marine sanctuaries—three protected areas totaling five hundred thousand square kilometers—in the very heart of the region's saltwater expanse.⁶

PACIFIC ISLAND NATION EEZs



EEZ data obtained from "SOPAC Mapserver," *Pacific Islands Applied Geoscience Commission*, www.sopac.org/tiki-map.phtml?mapfile=pacific.map. Map produced from Google Earth.

POLITICAL VALUE: VOTES

Despite wide geographic distribution and diversity in forms of government, the nations of Oceania have broadly similar domestic concerns and foreign-policy goals. Domestically, nearly all island states confront poverty, lack of sustainable economic development, ineffective government institutions, corruption, and increasingly, transnational crime. Regionally, natural disasters, including cyclones, droughts, tsunamis, and rising sea levels associated with climate change, are significant challenges; further, poaching of marine resources—illegal, unregulated, and unreported (IUU) fishing—is a

growing problem faced by all island countries.⁷

Largely because of these shared challenges, a lack of local military competition, and a common maritime experience, there is great concert among the fourteen states of Oceania. This relative unity has spawned a considerable level of cooperation, resulting in the conclusion of several multiparty treaties (e.g., the South Pacific Tuna Treaty) and the development of healthy regional institutions, principally the Secretariat of the Pacific Community (SPC) and the Pacific Islands Forum (PIF). These long-standing international organizations (the SPC was established in 1947 and the PIF in 1971) have expansive mandates in the fields of economic growth and integration, good governance, and security, and in turn they oversee numerous suborganizations (the PIF administers eleven) that collaborate on concerns ranging from fishing and tourism to power utilities management and environmental policy. The issues of common interest are numerous, and the vigorous governmental links that crisscross Oceania are illustrative of a surprising level of regional integration. In fact, the region's economic agenda is so closely aligned that Oceania's states are currently entertaining the adoption of a common market.⁸

Because of their close association and shared interests, these nations represent a sort of "maritime bloc" likely to vote along similar lines in international forums like the United Nations. Smart American diplomacy can translate this regional diplomatic potential into broad support for U.S. positions in places like the World Trade Organization, the International Labor Organization, and the

Asian Development Bank (ADB), where Pacific island votes are highly significant. (Consider the fact that Oceania, if viewed collectively, ranks ninth of sixty-seven nations in total votes in the ADB, with 75 percent of the voting power of China or India.)⁹ Oceania's states also occupy a position of considerable collective weight within the various governance mechanisms of the United Nations Convention on the Law of the Sea (UNCLOS), which appears increasingly likely for near-term U.S. ratification.¹⁰ Besides constituting nearly 10 percent of signatory members, these countries often furnish critical leadership; for example, the first secretary general of the International Seabed Authority, one of the three subsidiary bodies of UNCLOS, was a Fijian who held the post for twelve years, from 1996 to 2008.¹¹ Given the Obama administration's renewed emphasis on diplomacy and multilateralism, the search for votes and influence in international organizations is likely to receive greater emphasis. Because of the close alignment of its governments, "winning" all fourteen of Oceania's votes is a far easier task than, say, the twelve votes of South America, a region where amity is far less common.

MILITARY VALUE: ISLAND HOPPING REDUX?

With the impending move of U.S. Marines from Okinawa to Guam—the emerging geographic linchpin of American strategy in the western Pacific—Oceania's importance grows greatly. Its sprawling island states are far closer to Guam than Okinawa is (by more than 1,200 nautical miles, the maritime distance from San Diego to Seattle), and bisect the sea lines of communication (SLOCs) between the United States and its allies Australia and New Zealand. In the event of a major conflagration in East Asian waters, perhaps involving Taiwan and the People's Republic of China (PRC), American SLOCs would pass through Oceania. Given Beijing's strategic aim of expanding its naval defensive boundaries well beyond local waters and into the Marianas and Micronesia (the Chinese operating constructs known as the first and second "island chains") and its focus on developing anti-aircraft carrier capabilities through land-based missiles and submarines, it is clear that Chinese leaders plan to contest the maritime commons in the future, if push comes to shove.¹²

If the risks to carrier operations around Taiwan became too great, American military commanders would likely be compelled to fall back and disperse their forces on China's maritime periphery rather than in concentrations that could be easily targeted. As U.S. forces "phased" into the theater, building a critical mass along China's southern flank, the islands of Oceania could provide a significant logistical function as forces "hopped" into the western Pacific, evoking memories of American experiences in World War II. The region's runways and ports, not to mention its diplomatic support, would be of tremendous value.

In the broader strategic context, Oceania provides the United States with geographic alternatives as Washington reorients its East Asian military posture, moving troops from Japanese (Okinawa) to American soil (Guam) and reducing its force structure in Korea. The ability to operate from Oceania's sea and airports could simultaneously afford strategic depth and allow the United States to remain centrally positioned within Asian geopolitics—being operationally near allies without aggravating Japanese or Korean domestic affairs.

CHINA'S INTERESTS IN THE REGION

Beijing's principal interests in the region are not military but political and economic. It is primarily concerned with reversing diplomatic recognition of Taiwan; the Pacific remains one of the last critical diplomatic battlegrounds between the two Chinas. Only twenty-three states worldwide recognize the government in Taipei, and six of them are in Oceania—Kiribati, the Marshall Islands, Nauru, Palau, the Solomon Islands, and Tuvalu. This grouping represents the world's second-largest regional cluster of diplomatic recognition for Taiwan, and Beijing is intent upon chipping away at this support for what it considers a breakaway province.¹³ Offering carrots and sticks, China has rapidly increased its economic aid to nations that recognize Beijing exclusively, giving a regional total of \$300 million in 2007 (a ninefold increase over the preceding three years).¹⁴ At the same time, nations that have switched their allegiance to Taipei have seen their economic assistance drop to zero and their Chinese embassies shuttered.

Beijing's secondary interests in Oceania are in access to natural resources like fish, timber, and minerals (prospective seabed mineral resources are also a long-term consideration). China is the world's largest producer and exporter of fish and is eager to have greater access to the region's gargantuan EEZs. It has fishing fleets permanently based in the Federated States of Micronesia (FSM) and Fiji, and it guarantees continued access by funding large-scale industry-related projects. (Examples are fish-processing plants in Vanuatu, the Cook Islands, and Papua New Guinea [PNG] and the construction of the regional Western and Central Pacific Fisheries Commission headquarters in the FSM.) Beijing has also invested substantially in the few nations with territorial resources, importing significant quantities of timber from the Solomon Islands and PNG and investing heavily in the latter's mineral sector—notably, funding the \$651 million Ramu nickel and cobalt mine in 2006.¹⁵

Chinese trade with the region has multiplied appreciably, from \$743 million in 2006 (by comparison, U.S. trade was \$393 million) to approximately \$2 billion in 2007, with a stated goal of \$3 billion in total trade by 2010.¹⁶ As aid and trade increase, Beijing seeks to build an alternative source of influence in the

Pacific—a region where governments are weary of being treated by donors as irresponsible, immature, and crooked. The PRC offers a new, attractive paradigm by granting aid, preferential loans, and tariff reductions without preconditions, all the while treating Pacific governments with respect, evinced by senior-level official visits, which have included trips by the foreign minister and premier, Wen Jiabao.¹⁷

ENGAGING SALTWATER STATES

While Beijing's economic presence in Oceania may be on the ascent, it is not necessarily at the expense of American political influence. The United States has strong and enduring ties with the nations of Oceania built on a long history of economic and diplomatic engagement, and despite the PRC's increased activity, America-friendly Australia remains the dominant power in the region. Still, while competition in this increasingly important maritime area is not inevitably zero-sum, neither is it free of consequences. To hedge against rising Chinese influence, and because of the region's growing economic, political, and military potential, it is in Washington's strategic interest to enhance its relationship with Oceania. USPACOM is best poised to strengthen American ties by augmenting current theater security cooperation.

The depth and breadth of USPACOM's Theater Security Cooperation Plan (TSCP) for its entire area of responsibility—a plan that includes at least five or six annual military exercises, frequent senior official visits and exchanges, millions of dollars' worth of humanitarian and civic assistance activities, a myriad of multinational security and health-related training conferences, and the subsidization of dozens of international students at various American military educational institutions—make it the “Cadillac” of the regional combatant commands.¹⁸ With respect to Oceania, humanitarian assistance is the TSCP's major area of focus. The annual naval PACIFIC PARTNERSHIP Program, born out of international cooperation following the 2004 Asian tsunami, has provided medical, dental, veterinarian, educational, and engineering support to seven of the nations of Oceania since 2007.¹⁹ This and other assistance programs have been received extremely well in the region and considered highly successful.

Outside of these vigorous humanitarian efforts, however, the TSCP is rather thin as it affects Oceania. There are certainly elements that deserve continuation. For example, island states are well represented at USPACOM's regularly sponsored security seminars and health workshops and in programs to support international collaboration, like the Multinational Planning Augmentation Team. Further, Pacific military officers and officials are regular students at the Asia-Pacific Center for Security Studies in Hawaii, and a handful have attended the Naval War College, in Newport, Rhode Island (four of fourteen states have

been represented there—Fiji, PNG, Samoa, and Tonga).²⁰ What the TSCP lacks for Oceania is a set of specific initiatives that treat the region as a distinct entity, aim to build upon its shared maritime identity, and address systemic problems in island government capacity.

The first order of business is to develop a regional multilateral exercise. USPACOM sponsors at least sixteen major international military exercises with relative frequency, including notables like COBRA GOLD and RIMPAC and bilateral exercises like GARUDA SHIELD (United States–Indonesia).²¹ None of them, however, incorporate any of Oceania’s nations.²² An annual Pacific-island security exercise focused on disaster response and involving government institutions, police, military forces, and nongovernmental organizations could assist states in building capacity, improving intra- and intergovernmental communications, and enhancing interoperability (especially with the United States). Branded, perhaps, “PACIFIC NAVIGATOR,” to resonate with island peoples who are immensely proud of their maritime histories, this exercise could be organized and executed under the leadership of Pacific Command’s Center for Excellence in Disaster Management and Humanitarian Assistance, an organization with experience in facilitating such drills.²³ The South Pacific tsunami of September 2009, which killed nearly two hundred, displaced thousands, and resulted in millions of dollars’ worth of damage in Samoa, American Samoa, and Tonga, could provide a ready case study in disaster response and mitigation.

Second, in anticipation of PACIFIC NAVIGATOR, USPACOM would conduct a focused infrastructure upgrade for one airfield or port within the prospective host nation (which would rotate annually). The improvement would be more than cosmetic but far less than a major overhaul (e.g., upgrading of maintenance facilities, radar, pierside storage, and the like). During the annual exercise, this improved facility would be a focal point. The infrastructure enhancement program would improve the host nation’s ability to conduct its own disaster-response operations and to receive international support in the form of supplies and relief workers delivered by aircraft and ship. The second-order benefits would include an improved facility better able to support a range of host nation missions—counternarcotics, rescue, monitoring of illegal fishing, etc.; positive local publicity for American forces; improved diplomatic relations commensurate with direct monetary assistance; and an airfield or port better able to receive U.S. military forces in the event of a contingency.

Finally, USPACOM should reshape its military exchange program for the region’s security officers. Only three of Oceania’s states have regular military forces, and as a consequence, many traditional military and naval roles fall to police units, including maritime functions associated with homeland defense.²⁴ In order to improve island states’ ability to conduct these missions, especially those

that are likely to become more frequent and difficult (the monitoring and prevention of IUU fishing, for instance), Oceania's police and naval personnel need to train with the best, the U.S. Coast Guard. While an "exchange" program as such would be inappropriate, due to the limited opportunities and platforms available among Pacific-island defense forces, a robust training program placing Oceania's security personnel on Coast Guard vessels could be highly effective. The aim would be to expose a pair (one midgrade officer, one junior officer/senior enlisted) to a Coast Guard ship or sector for a period of three to four months. Ideally, two pairs from different nations could be assigned to the same command, reinforcing regional confidence building and encouraging future collaboration. These exchange personnel would be placed with ships conducting a range of missions (perhaps focusing on the disruption of IUU fishing), all the while being exposed to the professionalism of the men and women of the U.S. Coast Guard.

Of course, any American initiatives in Oceania that fail to leverage the resources and influence of Washington's Pacific allies would be badly flawed. Australia and New Zealand, two of America's strongest partners, are also the two most influential nations in the neighborhood—trading in the highest volumes, contributing the most aid and government support to Oceania, and in some cases providing for the defense of island states. (For example, Australia provides for the defense of Nauru and New Zealand for the Cook Islands, Niue, and Samoa; Kiribati is a shared responsibility.)²⁵ In addition to their sheer presence in the region, Canberra and Wellington have long histories of military engagement with, and involvement in, island nations, most recently demonstrated by the Australian-led multinational peacekeeping operation in the Solomon Islands, which included troops from New Zealand, PNG, and Tonga.²⁶ Other allies too wield considerable influence in the Pacific as a consequence of their colonial histories (particularly France) or current economic relationships (Japan and South Korea, for instance). American policy makers would be wise to consider an engagement strategy that incorporates the unique strengths of these partners as well as their nuanced understandings of regional relationships, grounded in their long involvement in the Pacific.

REBUILDING BRIDGES

Preoccupied with counterterrorism and democracy building in the Middle East, the United States has allowed its relationship with Oceania to wither while Beijing has expanded its strategic aims and efforts in the region. As Chinese trade and aid have skyrocketed, the United States has disengaged, closing its U.S. Agency for International Development regional office, halving the number of Peace Corps missions, and eliminating its U.S. Information Agency presence in

Oceania.²⁷ It is time to renew America's relationship with this strategically crucial maritime area. By building on current successful initiatives, U.S. Pacific Command is well placed to strengthen links with and between island governments, enhance regional capacity to manage future security challenges, and, in turn, restore American influence in a region with tremendous economic, political, and military value.

NOTES

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MAJOR CONVOY OPERATION TO MALTA, 10–15 AUGUST 1942 (OPERATION PEDESTAL)

Milan Vego

The resupply convoy to Malta in August 1942 (Operation PEDESTAL) was in operational terms a major defensive naval and joint operation. It was also the largest of the many Allied efforts to ensure the survival of Malta against relentless Axis air attacks. Italian accounts referred to the Axis attempt to destroy the convoy as operation “Mid-August” (Mezzo Agosto). The Allies were well aware of the enormous risks in making a decision to mount an all-out effort to

bring badly needed supplies to the besieged island. Yet the consequences of failing to do that would have been even more disastrous for the Allied campaign in North Africa and possibly the entire Mediterranean theater. The execution of Operation PEDESTAL resulted in horrendous losses for the Allies. However, the ships that reached Malta brought sufficient quantities of fuel and food to keep the island alive until the great Allied victory at El Alamein in November 1942, which turned the tide of the war in North Africa. Despite the passage of time, the planning, preparation, and execution of this major naval operation by both sides offer many lessons on how to employ one’s naval forces in the littorals that remain valid even today.

OPERATIONAL SITUATION

The fifteen-mile-long island of Malta played a vital role in British strategy for the Mediterranean since its

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capture in September 1800. Its great military strategic importance was due largely to its commanding position in the approaches to the western and eastern Mediterranean. Malta lies near the midpoint of the Mediterranean, about 715 nautical miles from Alexandria and 860 nautical miles from Gibraltar. Only fifty nautical miles separate Malta from Sicily. The distance between Malta and the Libyan coast and Cape Bon (Tunisia) are 190 and 175 nautical miles, respectively. Malta's importance was most dramatic in World War II, when it served as an air and naval base from which the British could attack Axis convoys to Libya. For the Allies, resupplying Malta with fuel, ammunition, and foodstuffs was a major problem because of intensive efforts by the Axis land-based aircraft on Sicily and in North Africa, in combination with heavy surface forces, submarines, and mines, to cut off the island from its links with the outside world.

In the late spring of 1942, the situation in the central Mediterranean was extremely unfavorable for the Allies. The British Eighth Army in North Africa was on the defensive, and Malta was under almost constant attack by Axis aircraft based in Sicily and North Africa. By April 1942, the chances of Malta's survival were low. Reserves of wheat and flour, fodder, benzyl, and kerosene fuel would not last after mid-to-late June, while stocks of white oil and aviation fuel were sufficient only until about mid-August. Only about 920 tons of diesel fuel and two thousand tons of furnace oil for refueling warships were then available. Stocks of anti-aircraft (AA) ammunition were sufficient for only about six weeks of fighting.¹ For these reasons, the Allies attempted a dual resupply convoy operation in mid-June 1942, one from the west (Operation HARPOON) and another from the east (Operation VIGOROUS). The Allies suffered significant losses in both operations. In Operation HARPOON, of a convoy composed of six merchant ships with forty-three thousand tons, only two merchant vessels carrying a total of eighteen thousand tons of supplies reached Malta.² In Operation VIGOROUS, out of eleven ships carrying 81,500 tons only two ships with a total of fifteen thousand tons of supplies reached the island. The Germans and Italians sank two merchant ships in the convoy while seven ships received orders to return to Alexandria or were detached to Tobruk. In addition, damage occurred to three cruisers, one special service ship, one corvette, and two merchant ships.³ The governor of Malta, Field Marshal Lord Gort, reported to London on 20 June that the unloading of the ships that reached the island was almost completed and that he was actively examining how best to husband the existing supplies until late September.⁴

The Allied situation in North Africa greatly deteriorated in late June 1942. The Allied forces abandoned defensive positions in Gazala and Tobruk fell on 21 June. Seven days later the Axis forces were at Matruh and in possession of the airfields some 160 miles from Alexandria. Faced with the possibility of Axis air

attacks on Alexandria, the British dispersed merchant vessels and warships from the Suez Canal area to the ports of Haifa, Port Said, and Beirut. They also prepared to block Alexandria's harbor and port facilities. Vice Admiral (acting Admiral) Henry H. Harwood, commander in chief (CINC) of the British Mediterranean Fleet (April 1942–February 1943), moved his headquarters to Haifa on 2 July.⁵ The retreat on land and the move of the fleet from Alexandria greatly increased the distance that the Royal Air Force (RAF) and the Royal Navy had to cover in order to conduct effective attacks against the Axis convoys in the central Mediterranean.

By early July 1942, the German Afrika Korps was forced to stop its offensive in the inconclusive first battle of El Alamein. However, the Germans intensified their efforts to renew the advance in the fall of 1942 by mounting a large effort to send additional supplies by sea to North Africa. The Allies were also preparing to go on the offensive in the fall of 1942. Among the most important tasks was restoring Malta's use as a base for attacks on the Axis convoys to Libya. This was contingent on having sufficient reserves of fuel, food, and other supplies on Malta. Otherwise, these shortages would have forced the Allied submarines and bombers that returned to Malta in mid-July 1942 to leave the island again. In addition, the shortage of food supplies threatened the civilian populace with starvation.⁶ Despite the mounting losses incurred in resupplying Malta, British resolve remained unbroken.⁷

PLANNING AND PREPARATIONS: THE ALLIES

In the aftermath of the failed dual convoy operation in June 1942, the need to mount another effort to resupply the besieged island of Malta was obvious. First Sea Lord Admiral Dudley Pound (1877–1943) agreed with Prime Minister Winston S. Churchill (1874–1965) that the loss of Malta would be a disaster of the first magnitude to the British Empire, and probably would be fatal in the long run to the defenses of the Nile Valley.⁸ The Allies were willing to accept the high risks in mounting another convoy operation to resupply Malta. This decision became easier due to the suspension of the Arctic convoys after the disaster of convoy PQ-17 to Soviet Russia in early July 1942. At the same time, the easing of the situation in the Indian Ocean freed enough forces to mount a convoy operation to relieve the siege of Malta.⁹ The failed dual convoy operation in mid-June 1942 demonstrated the inability of Allied naval and air forces to ensure full protection to the Malta convoys in the face of Axis air strength in the central Mediterranean. Hence, the decision was made that the next major convoy operation to Malta would be mounted from the west only.¹⁰

One of the worst problems for the Allies was a highly fragmented command organization in the Mediterranean. Even two years after the outbreak of

hostilities in the Mediterranean, the Allied command organization lacked a single theater commander responsible for the planning and execution of operations by all three services. In June 1939, the British established the Middle East Command with the responsibility for all operations there and in the Western Desert. During the war, its responsibility extended to include Greece, East Africa, Aden, the Persian Gulf, and Libya. However, the three services were individually responsible for defense of the eastern Mediterranean and the Middle East. CINC of the Middle East had control over only ground forces. Directly subordinate to him were the British Troops in Egypt; the British 8th, 9th, and 10th armies; Persia and Iraq Command; and forces in Sudan. The other two service chiefs were Air Officer, CINC Royal Air Force Middle East Command and CINC, Mediterranean. The former had under his command air units based in the Western Desert and Malta. The principal British naval commanders in the Mediterranean in the summer 1942 were Flag Officer, Force H (Vice Admiral Edward N. Syfret), Rear Admiral 15th Cruiser Squadron (Philip L. Vian), Vice Admiral in Charge, Malta (Ralph Leatham), and Rear Admiral, Alexandria (G. A. Creswell).¹¹

What the Allies Knew

One of the key prerequisites for sound planning is accurate, timely, reliable, and perhaps most important, relevant information on the situation. In that respect, the Allies had fair knowledge of Italian and German naval dispositions and deployments of their land-based aircraft in the central Mediterranean prior to execution of the resupply operation to Malta. The most important sources of intelligence were the Allied interception and decoding of most of the German Enigma messages. They not only had solid knowledge of German naval and air dispositions, content of the Luftwaffe's operation orders, air reconnaissance reports, and U-boat observations but also the appreciation of the situation by Field Marshal Albert Kesselring, CINC South (Oberbefehlshaber Sued) and his subordinate commanders. Intelligence obtained by reading German radio traffic was distributed to major Allied commanders in the form of special intelligence summaries by the Admiralty's Operations Intelligence Centre in London.

Based on analysis of the Enigma messages, the Allies assessed that on 22 July 1942 the Italians had deployed at Tarent (Taranto) four battleships (1 *Littorio*, 3 *Cavour*); three six-inch cruisers (*Abruzzi*, *Garibaldi*, and *Aosta*) at Navarino (Pylos today), Greece; two eight-inch cruisers at Messina, Sicily; five destroyers, two torpedo boats, two submarines, and eighteen motor torpedo boats (MTBs) at various bases in Sicily; four MTBs at Pantelleria; and two six-inch cruisers, six submarines, and three destroyers at Cagliari, Sardinia.

Allied intelligence also estimated that at Naples were one Italian six-inch cruiser in dock (and not serviceable), three destroyers, and eight submarines. They noted that the number of destroyers at Tarent varied between ten and twenty according to convoy requirements from Italy to Greece, Crete, and North Africa. Allied intelligence believed that if Axis leaders suspected them of launching convoys to Malta, the Italians would most likely establish a patrol line of three or four submarines between Sardinia and the French North Africa's coast, and four submarines would probably be on patrol in the triangle of Cartagena–Ibiza–Algiers. They (incorrectly) estimated that the German U-boats did not appear “to have maintained patrols in the western Mediterranean.” In their view, the German U-boats encountered in that area “so far were apparently on transit.” Allied intelligence also provided detailed analysis of the deployment of the French Navy and French shipping routes across the western Mediterranean.¹²

As to enemy air strength, the Allies estimated that on 23 July, the Luftwaffe had 315 aircraft, including one hundred long-range and torpedo bombers on Sicily and fifty on Sardinia. In their view, the increase in the number of long-range bombers was through the movement of two air groups (each consisting of sixty-five to seventy aircraft) from Crete, due supposedly not to any operational needs but to the lack of fuel on Crete.¹³ The Allies assessed that the Luftwaffe had on Sardinia twenty Ju-88 bombers, while the Italian Air Force (IAF) had fifteen long-range bombers, thirty single-engined fighter aircraft, thirty-five torpedo bombers, twenty reconnaissance aircraft, and thirty coastal seaplanes. On Sicily, the Luftwaffe had 120 long-range bombers, twelve reconnaissance bombers, and thirty-six single- and twenty-seven twin-engined fighters. The IAF had about eighty long-range bombers, 120 single-engine fighters, twenty torpedo bombers, fifteen dive-bombers, ten reconnaissance aircraft, and fifty coastal seaplanes.¹⁴

Allied intelligence revised its estimates of enemy air dispositions on 9 August 1942. It erroneously concluded that there were no German aircraft based on Sardinia, while the IAF had fifteen to twenty long-range bombers, fifteen to twenty fighter-bombers, thirty-five to forty torpedo bombers, twenty reconnaissance aircraft, and thirty coastal seaplanes. The Luftwaffe's strength then consisted of 144 long-range bombers, twenty-seven reconnaissance bombers, and sixty-six single-engined fighters. The IAF had deployed seventy long-range bombers, thirty-five to forty torpedo bombers, fifteen to twenty dive-bombers, forty reconnaissance aircraft, fifty coastal seaplanes, fifteen to twenty fighter-bombers, and ninety-five single-engined fighters. Serviceability of the aircraft was about 55 percent of the above strength figures.¹⁵

On 5 August 1942, the Allies learned from Enigma intercepts that the Germans interpreted the reduction in RAF activity over Malta and Egypt as an indication that the enemy planned to mount a large-scale operation to supply Malta. The Germans also believed that the Allies would launch diversionary attacks on the Panzerarmee (Panzer Army) Afrika and a combined operation against Mersa Matruh. The Germans planned to counter the enemy's possible moves by redeploying Luftwaffe aircraft from Greece to Sicily and increasing combat readiness of air units in both areas. They also planned to discuss with the commander of the Italian air forces on Sicily joint bombing and torpedo attacks and training exercises.¹⁶

The Allies learned from Enigma messages that on 6 August the Germans alerted their agents at Algeciras about the possibility that a Malta-bound convoy was preparing to sail and that all reporting stations should increase vigilance. German agents reported the arrivals and departures of Allied warships from Gibraltar during the night of 8–9 August. Rome passed that information to Cagliari in its daily bulletin on 9 August. The Allies also read the Enigma report that at 0925 on 10 August Tangier informed Madrid that based on personal observation a convoy of thirty-seven ships, including two large transports, were outside the entrance to the Strait of Gibraltar sailing on an easterly course. The station in Ceuta also reported the movement of various enemy ships eastward.¹⁷

Plans

The Allies considered four variants of the plan to resupply Malta from the west, designated plans A, B, C, and D, respectively. Most of these plans revolved around the availability of the 17,580-ton (full load) U.S. aircraft carrier *Ranger* (CV 4) for the operation. The Admiralty was in favor of plan A, if *Ranger* and its five destroyers were available at Scapa Flow. Under plan A two battleships (*Nelson* and *Rodney*), deployed with the Eastern Fleet in the Indian Ocean, would also take part in the operation. In the Admiralty's view, training of the Eastern Fleet would be completed earlier if the Malta convoy were run in July instead of August and there would be no need to remove the carrier *Indomitable* from the Eastern Fleet. The Admiralty received information from Malta that the island could survive until September. Hence, there was no great urgency to run a resupply convoy in July. This, in turn, would affect the degree to which the British government would press the Americans to allow *Ranger* to be employed in the Mediterranean as envisaged under plan A.¹⁸

Plan B would also require the movement of *Ranger* to Scapa Flow. The Admiralty favored plan A and was concerned if both plans were presented to the Americans they might opt for plan B. In the Admiralty's view, if plan B were carried out in July it would not have allowed adequate time for preparations. If the

Americans rejected plan A, then the Admiralty favored a modified plan B to be executed in the August new moon period in order to allow more time for the carrier *Victorious* to become familiar with the U.S. fighter squadrons. To execute the modified plan B, it would require that *Ranger* arrive at Scapa Flow and transfer twenty-four folding-wing Martlet fighters (U.S. Wildcats) with their crews to *Victorious*; *Ranger* would operate with the Home Fleet to relieve *Victorious* during its absence from the fleet. *Ranger* would need to retain at least twelve Martlets. The modified plan B would not interfere with the schedule for PQ convoys bound for Russia. However, the execution of plan B depended on whether *Ranger* would be available for service with the Home Fleet until the end of August. Plan C was not acceptable because protection of both the convoy and the battleships by obsolete Fulmar fighters carried by *Victorious* was inadequate in the area south of Sardinia. This assessment was based on the heavy losses suffered from enemy land-based aircraft during Operation HARPOON.¹⁹

Plan D contemplated the convoy operation be executed in August using British forces exclusively. Among advantages of this plan were that it would not require American help and more time would be available for training and for the buildup of a heavy bomber force in the Middle East in support of the operation. Another advantage was that there would be one more hour of darkness in August than in July. A major disadvantage of plan D was that it would also delay relief to Malta by one month. It would delay the assembly and training of the Eastern Fleet by two and one-half months, because its sole carrier *Indomitable* and two battleships (*Nelson* and *Rodney*) would be detached for the operation in the Mediterranean. It would also entail holding up the merchant ships destined for the convoy for another month.²⁰

The Admiralty was in favor of plan A if *Ranger* could reach Scapa by 30 July. Failing plan A, it favored the modified plan B to be carried out in August and not requiring the withdrawal of the carrier *Indomitable* from the Eastern Fleet. The risks entailed in plan C were simply unacceptable. Hence, failing plan A or the modified plan B, the Admiralty had no alternative but to adopt plan D.²¹

The Admiralty assumed that it would be possible to run a PQ convoy toward the end of June and another in late July. The August PQ convoy would be delayed until the first week of September. In the Admiralty's view it would be possible to maintain a schedule of three PQ convoys every two months. Adopting plan D made it unnecessary to send *Ranger* to the United Kingdom. However, because of the severe shortage of cruisers and destroyers, British deputy prime minister Clement Attlee and the chief of the British staff, General Alan Brooke (1883–1963), suggested that the government request from the United States the loan to the Royal Navy of two heavy cruisers (*Tuscaloosa*, *Wichita*) and four destroyers until the end of August.²²

The Admiralty in London conducted the planning for the new resupply convoy to Malta, dubbed Operation PEDESTAL. This allowed it to make decisions without the extensive use of communications, enhancing operations security. In addition, the planners could easily obtain general views on policy, and the advice and help of the Naval Staff were always at hand.²³ The plan for Operation PEDESTAL was similar to the plan for the convoy from Gibraltar in mid-June 1942.²⁴ The planners assumed that surprise would be difficult to achieve because the Axis had excellent intelligence in the Gibraltar area.²⁵

In its broad outlines, the plan for Operation PEDESTAL visualized the assembly of sufficient forces to counter diverse threats posed by the Axis air and naval forces based in Sardinia, Sicily, southern Italy, and Tripolitania.²⁶ Operation VIGOROUS failed due to the inability of Allied airpower to damage enemy battleships sufficiently to force them to withdraw from the convoy. An acute shortage of AA ammunition and fuel was part of the reason that the convoy was dispatched to Malta after dark on 15 June. Because it was impossible to increase the strength of the land-based aircraft, the only solution to strengthen defenses of the next convoy for Malta was to assign much stronger naval forces to its defense.²⁷ Therefore, the plan required a sufficient number of fighter aircraft to match the enemy fighters and to deal with the enemy heavy bombers and torpedo bombers threatening the convoy.²⁸ The Admiralty made the decision that in the course of the operation damaged merchant vessels should be scuttled while all efforts would be made to preserve warships. The intent was not to lose both escorts and convoy.²⁹

The lessons of the Arctic convoys and those to Malta showed the need for tankers to accompany the convoy and escorts. However, the British merchant marine did not have fast (sixteen-knot) tankers in service. The U.S. Maritime Administration operated two such tankers (*Kentucky* and *Ohio*). After some difficult negotiations, the British government was able to lease these two tankers. One of them (*Kentucky*) was sunk during the failed dual convoy operation in June 1942 so that only one tanker, the 14,150-deadweight-ton (DWT) *Ohio* (carrying 11,500 tons of black and white oil) was assigned to the convoy.³⁰

In planning Operation PEDESTAL, the Allies correctly assumed that the enemy would concentrate its heavy surface forces in the area south of Sardinia and then either attack the convoy or draw off Allied escorting forces, leaving the convoy open to attack by its light forces. They also expected synchronized attacks by enemy high-level bombers, torpedo bombers, and dive-bombers on the third and fourth days, and high-level bombing and torpedo bomber attacks on the second and fifth days of the operation.³¹ To minimize losses from enemy aircraft, the convoy would transit the Sicilian Narrows at night.³²

The planners also made major changes in the strength of the convoy screen based on the lessons learned in the aftermath of the failed dual convoy operation in June 1942. One of the main requirements was that the convoy escorts be powerful enough to prevent a successful attack by Italian heavy surface forces.³³ The Admiralty considered employment of battleships in the Sicilian Narrows, so close to the enemy airfields in North Africa and Sicily, too risky. Hence, it deployed two battleships for a purely defensive role. The carrier-based aircraft would play the key role of inflicting damage and slowing down the Italian battle fleet.³⁴

The planners assigned all three available large aircraft carriers in support of the operation. Sea Hurricanes and Martlets replaced all obsolete Fulmar fighters. The carriers would be positioned inside the destroyer screen and in the convoy's rear; the carrier aircraft would be employed for attacking the Italian heavy surface ships based at Messina, Tarent, and Naples in case they posed a threat to the convoy.³⁵

Task Organization

The entire resupply operation to Malta was under the command of Acting Vice Admiral Syfret (1889–1972).³⁶ He was in command of Force F, composed of the convoy and naval forces of direct screen and distant cover and support. Naval forces assigned to the operation were a collection of ships belonging to the Home Fleet and Eastern Fleet. Submarines deployed in the eastern Mediterranean were subordinate to CINC of the Mediterranean Fleet in Haifa. Most of the land-based aircraft were controlled by the RAF's Mediterranean Command.

The planners had considerable difficulty in assembling a sufficient number of merchant ships for the new resupply effort due to the heavy losses inflicted by the German U-boats in the northern Atlantic in the midsummer of 1942. Based on the request by Malta's governor to the Admiralty on 3 July, the planners envisaged a convoy composed of ten merchant ships with a loading capacity of 75,000 DWT.³⁷ However, they made the decision in mid-July to run a convoy of thirteen freighters and one tanker with tonnage of about 123,000 tons.³⁸ These ships would carry mainly flour and ammunition. They allocated each ship a proportion of the total cargo so that a percentage of every commodity was certain to get through despite expected high losses.³⁹ Planners based the selection of the merchant ships on the assumption that the enemy would mount heavy attacks against the convoy. To enhance the convoy's chances of survival, the average speed of its advance had to be at least fifteen knots. Based on the lessons from Operation HARPOON, the planners assigned an ocean tug to accompany the convoy.⁴⁰ The intent was that the convoy would leave the United Kingdom about 2 August and arrive at Malta on 13 August. In an attempt to confuse German intelligence, the convoy's designation, WS.5.21.S (WS for "Winston Specials"), was

the same as for the convoys from the United Kingdom to Suez and rounding the Cape of Good Hope.⁴¹

Supporting naval forces were divided into four force elements designated Forces Z, X, Y, and R. Force Z, led by Syfret himself, consisted of two battleships (*Nelson* and *Rodney*) and three large aircraft carriers (*Eagle*, *Indomitable*, and *Victorious*) with seventy-two fighters and thirty-eight torpedo-bombers, three cruisers (*Sirius*, *Phoebe*, and *Charybdis*), and the 19th Destroyer Flotilla with fifteen destroyers. Force X, under command of Rear Admiral H. M. Burrough, was composed of three light cruisers (*Nigeria*, *Kenya*, and *Manchester*), one AA ship (*Cairo*) of the 10th Cruiser Flotilla, eleven destroyers of the 6th Destroyer Flotilla, and one ocean tug.⁴² Two of these cruisers (*Nigeria* and *Cairo*) were fitted for fighter-direction duties.⁴³ An additional five destroyers were assigned to provide antisubmarine (A/S) escort for the convoy during its transit from the United Kingdom to the Strait of Gibraltar.⁴⁴ Force Y at Malta consisted of two freighters (*Troilus* and *Orari*) and two destroyers. Force R (refueling) was composed of three fleet oilers and one ocean tug plus four corvettes for escort.⁴⁵ Malta Escort Force (17th Minesweeping Flotilla) consisted of four minesweepers and seven motor launches. In addition, the Admiralty assigned eight destroyers as reserve escorts for the operation. They were intended to provide escort for Force R and a screen for the carrier *Furious*.⁴⁶

Timing

Operation PEDESTAL depended primarily on the Allied ability to assemble a powerful force and on the timing to outwit the Italians and the Germans. To enhance the chances of success, the Allies had to choose a time during a moonless night. Hence, they considered the time between 10 and 16 August as optimal to run the convoy operation to Malta from the west. They selected 10 August as the first day of the operation, D.1 (D + 0 in U.S. terms), for the day when the convoy with accompanying escorts would enter the Mediterranean.

Other Operations

Under the cover of the convoy operation, the Admiralty also planned two other minor efforts. During the planning, the British Chief of the Air Staff, Sir Charles Portal, raised the issue of increasing the number of fighter aircraft on Malta. By the end of July, only about eighty fighters were still in service on the island; however, that number would decline rapidly because the Allies lost about seventeen aircraft per week. Hence, the planners decided to reinforce Malta's air defenses by bringing in some forty Spitfire fighters, ferried by an aircraft carrier prior to the arrival of the convoy to Malta.⁴⁷ This would also enhance the chances of success of Operation PEDESTAL. The carrier *Furious* was selected for the operation (code-named BELLOWS) because the other available carrier, *Argus*, would require

a wind speed of at least fifteen knots, which was unlikely in August in the western Mediterranean.⁴⁸ The carrier *Furious* (with four Albacores and forty Spitfires) would sail from Gibraltar and after reaching a point south of Sardinia, approximately 550 miles from Malta, would launch its Spitfires. The Admiralty directed Syfret that Operation BELLOWS should interfere as little as possible with Operation PEDESTAL. *Furious* should not stop at Gibraltar on the way out but should enter the Mediterranean with the convoy. It planned that five destroyers should escort *Furious* back to Gibraltar and the United Kingdom immediately after fly-off. Force F would provide fighter protection until *Furious* was well west of Force F. The fly-off could take place on D.2 or D.3 at Syfret's discretion and could be at any time during daylight. This would allow the Spitfires to land at dusk. *Furious* must be on a radius 296 nautical miles from position 37° 12' N and 9° 00' E at the time of fly-off.⁴⁹ A complicating factor was that the planners for Operation BELLOWS had to use signals versus radio.⁵⁰

Another element of the plan was to take two merchant ships (*Troilus* and *Orari*) that had survived the June debacle with a screen of two destroyers (Force Y) out of Malta and bring them to Gibraltar (Operation ASCENDANT). The intent was to mount this effort after dark on D.1.⁵¹ Force Y would be suitably painted and have Italian deck markings. The plan was to sortie from Malta to a position some thirty nautical miles south of Lampedusa, pass Kelibia (Kélibia), hug the Tunisian coast to Galita Channel, and then proceed to Gibraltar.⁵²

Support from Other Forces

In support of Operation PEDESTAL were employed Allied submarines and fighter aircraft based on Malta, patrol aircraft based in Gibraltar, and long-range bombers of the Middle East Command. The planners prepared an elaborate scheme for the employment of Allied submarines in support of Operation PEDESTAL. The initial plan drafted on 20 July contemplated deployment of seven Allied submarines in the vicinity of Sicily to prevent the Italian surface forces based in the Tyrrhenian Sea from attacking the convoy during its last leg of transit to Malta. Specifically, three submarines would take positions between Cape Galle and Trapani (patrols A, B, and C), three submarines between Cavallo and Marettimo (patrol areas D, E, F, and G), and one submarine between Volcano and Cape Milazzo (patrol area H). All patrolling areas would be established by D.1.⁵³ By late July, the plan for the employment of the Allied submarines was changed. One submarine would deploy off Milazzo (Sicily's northwestern coast) and one off Palermo, while six other submarines would be deployed between Malta and Pantelleria.⁵⁴ All submarines would reach their assigned positions by dawn on D.4 (13 August).⁵⁵ They would have complete freedom of action in attacking enemy ships, with Italian battleships and cruisers as their primary

targets. After the convoy passed their patrol line, the submarines would sail on the surface, on a parallel course with the convoy, and act as its screen. They would also report on the presence of enemy aircraft in the convoy's proximity.⁵⁶

The outcome of Operation PEDESTAL was also contingent on close cooperation with RAF units based on Malta and elsewhere in the Mediterranean. The Allied air strength in Malta on 3 August was 155 serviceable aircraft, including ninety to ninety-five Spitfire fighters and about fifty-five bombers. This total decreased by 10 August to 151 aircraft, including eighty Spitfires. The expected reinforcements prior to 13 August were seventy-four aircraft, including thirty-eight Spitfires from the carrier *Furious*. On D.3, estimated air strength would be 202 aircraft, including 113 Spitfires.⁵⁷ On 11 August, the Allies had about 140 aircraft organized in nine fighter squadrons, three torpedo squadrons, four bomber squadrons, and two reconnaissance aircraft squadrons.⁵⁸ On 13 August, the Allied air strength on Malta comprised 230 aircraft, of which 155 were operational. This number included ninety fighters, all Spitfires, and fifty-six long-range bombers (eighteen Beaufighters-coastal, four Beaufighters-night, four Wellington VIIIs, twenty-four Beauforts, and six Baltimores).⁵⁹

The planners intended that the Allied aircraft based on Malta would conduct reconnaissance day and night along the probable routes of enemy naval forces; attack the Italian and German bases on Sicily, Sardinia, and Pantelleria; protect the convoy after entering the effective range from Malta; and attack with torpedoes Italian naval forces entering Tarent.⁶⁰

The Allied aircraft based in the Western Desert were tasked with the following:

- Locate, shadow, and report all enemy surface forces.
- Protect the convoy from air attack when within their effective range.
- Destroy enemy surface forces.
- Dislocate enemy air forces on the ground by means of low-flying attacks by Beaufighters, night bombing of Sardinian bases by Liberators, and large-scale night bombing by Liberators from the Middle East Command.⁶¹

On 3 August, Vice Admiral, Malta requested from the Middle East Command four Liberators for bombing enemy airfields on Sardinia and Sicily during the nights of D.3–D.4 and D.4–D.5. He also suggested using an additional six Bostons or similar aircraft suitable for carrying out high-speed daylight bombing of enemy airfields.⁶² The RAF would provide long-range escort aircraft from Gibraltar and Malta to the limit of their effective range. He specifically requested air reconnaissance between Sardinia and North Africa from D.2 to D.5; between Cavallo Island Lighthouse and Marettimo (Aegadian Islands) during daylight hours on D.3 and D.5; and reconnaissance of naval bases Tarent, Messina,

Palermo, Naples, and Cagliari from D.1 to D.5 to keep track of the enemy surface vessels. Allies would conduct daylight air patrols between Cavallo and Marettimo on D.3 to D.5 and dawn patrols between Sardinia and North Africa from D.2 to D.5.⁶³ Beaufighters would protect Force X from 1930 to dark on D.3 and from daylight on D.4 until Spitfires could take over protection of the convoy. The torpedo bomber striking force would maintain readiness to attack enemy surface forces and provide cover for the westward passage of Force X to Gibraltar on D.4.⁶⁴ RAF aircraft based at Gibraltar would conduct an antisubmarine patrol east of the Strait of Gibraltar.⁶⁵

OPERATIONAL DESIGN

The Allied commanders and planners had to fully evaluate all the aspects of the operational situation in the Mediterranean prior to and during the planning of Operation PEDESTAL. In modern terms, this process is called “operational design.” In generic terms, the principal elements of design for a major naval operation are ultimate/intermediate objectives, force requirements, balancing of operational factors against the ultimate objective, identification of enemy and friendly operational centers of gravity, initial lines of operations, direction (axis), the operational idea (scheme), and operational sustainment.

The first and the most important step in designing a major naval operation is to properly determine and articulate its ultimate and intermediate objectives. The objective of Operation PEDESTAL as stated in the plan was “to pass a convoy of 14 M.T. [motor tanker] ships through the western Mediterranean to Malta and to cover the passage of two merchant ships and two destroyers from Malta to Gibraltar.”⁶⁶ Expressed differently, the main and ultimate objective of Operation PEDESTAL was to deliver a sufficient amount of fuel, ammunition, and food supplies to allow Malta to operate as a major naval/air base beyond September 1942. That objective was operational in its scale.

After the ultimate objective is determined, the next step is to derive a number of major or minor tactical objectives that would lead collectively to the accomplishment of the ultimate objective of the operation. Major tactical objectives in Operation PEDESTAL were defense and protection of the convoy, neutralization of the enemy airfields on Sardinia and Sicily, and diversion of enemy forces from the western to eastern Mediterranean. Under cover of the convoy operation, the Allies also planned to accomplish a separate major tactical objective—reinforcement of Malta’s air defenses by ferrying some forty Spitfires to the island. Another separate but minor tactical objective was to bring to safety two merchant ships that had survived the HARPOON convoy operation.

An important element of operational design is determining the overall force’s size/mix for the entire operation. The principal factors in this process are the

type of operation, the combat potential of friendly and enemy forces, the number and scale of intermediate objectives and their sequencing, the distances between the base of operations and the prospective operating area, and weather and climatological conditions. In addition, intelligence and logistics play a significant role in determining the size and composition of one's forces in a major naval operation. The operational commander's judgment and experience are often the decisive factors in determining the size and composition of the forces that take part in a major naval operation. The Allies assigned the maximum available force of aircraft carriers, cruisers, and destroyers to Operation PEDESTAL. They assigned three fast carriers to a force of distant cover and support. However, it would probably have been wiser not to conduct the ferrying operation simultaneously with the resupply effort but instead to assign more destroyers for the carrier *Furious* to Force Z or Force X, thereby strengthening the convoy's air and antisubmarine warfare defenses. The Allies failed to employ a sufficient number of serviceable long-range bombers of the Middle East Command in support of Operation PEDESTAL.

The operational commander and planners must first properly harmonize the factors of space, time, and force against the ultimate objective of the operation. This means that advantages in one operational factor must offset the deficiencies in other factors. Ideally, the operational commander should assess friendly factors of space, time, and forces individually and then balance them in combination against the respective ultimate objective. A serious disconnect or mismatch between the ultimate objective and the corresponding space-time-force factors might greatly complicate and possibly endanger the success of the entire operation. If the imbalance cannot be satisfactorily resolved, then the objective must be changed or scaled down and brought roughly into harmony with the operational factors.

Operation PEDESTAL was conducted over very long distances. About 1,370 nautical miles separates Glasgow from the Strait of Gibraltar via Bishop Rock. The distance from the Strait of Gibraltar to port La Valletta, Malta, is just over a thousand nautical miles. A convoy from Gibraltar to Malta had to sail the distance of four hundred miles (or twenty-six hours at fifteen knots) within 150 miles from the enemy airfields on Sardinia and Sicily.⁶⁷ The Allied naval base at La Valletta, Malta, was favorably located to control the central part of the Mediterranean. It lies only about eighty nautical miles from Licata, Sicily, and 360 nautical miles from Benghazi. The distances in nautical miles between Malta and the Italian naval bases at Cagliari, Sardinia; Naples; and Tarent are 330, 322, and 337, respectively. The hundred-mile-wide Sicilian Narrows posed a particular hazard for Allied ships because of numerous mines laid by the Italians and the short distances to the Axis airfields on Sicily.⁶⁸ Lack of sea room and presence

of the enemy mines made it next to impossible to use battleships and carriers beyond the Skerki Bank. Hence, for the last 250 miles of the voyage to Malta, the convoy would have to rely on protection of cruisers and destroyers.⁶⁹ The Sicilian Narrows were also a suitable area for the employment of the Italian and German torpedo craft and cruisers/destroyers. In the early days of the war, the Allies had easily swept the mines, but this became more difficult and dangerous at the later stage, when the Italians laid new and more advanced German mines.

After determining the ultimate objective of a major naval operation, the operational commander and his planners must determine corresponding enemy and friendly operational centers of gravity—a source of massed strength, physical or moral, or a source of leverage whose serious degradation, dislocation, neutralization, or destruction would have the *most decisive impact* on the enemy's or one's own ability to accomplish a given military objective. The principal utility of the concept of center of gravity is in significantly enhancing the chance that one's sources of power are used in the quickest and most effective way for accomplishing a given military objective.

For the Allies the enemy's operational center of gravity in the second phase of the operation was clearly German heavy bombers and dive-bombers based on Sicily and Sardinia. However, in the third phase, the enemy operational center of gravity shifted to the Italian heavy surface forces in case they sortied out from their bases. The Allied operational center of gravity was three large aircraft carriers with their fighter aircraft on board. After the passage of the Sicilian Narrows, the Allied operational center of gravity changed to Force X. Afterward, the operational center of gravity shifted to the Allied fighter aircraft based on Malta.

OPERATIONAL IDEA

The operational idea (or scheme) is the very heart of a design for a major naval operation. In essence, it is identical to what strategists commonly call “concept of operations” (CONOPS) (or sometimes “scheme of maneuver”). Ideally, it should be bold and provide for speedy execution. The simpler the operational idea, the higher are its chances of successful execution. The operational idea should be also sufficiently broad to accommodate changes in the situation in the course of its execution. It should be novel and avoid stereotyped patterns. The operational idea should ensure the decisive employment of one's forces. It should present the enemy with multidimensional threats that he has little or no chance of countering successfully. It should also surprise and deceive the enemy.

The idea for Operation PEDESTAL was traditional (see map 1). The unfavorable initial geographic position was a major reason why Operation PEDESTAL was bold but not novel. The Italians and Germans were neither surprised nor deceived; the objective of the operation was all too transparent. The Allies were

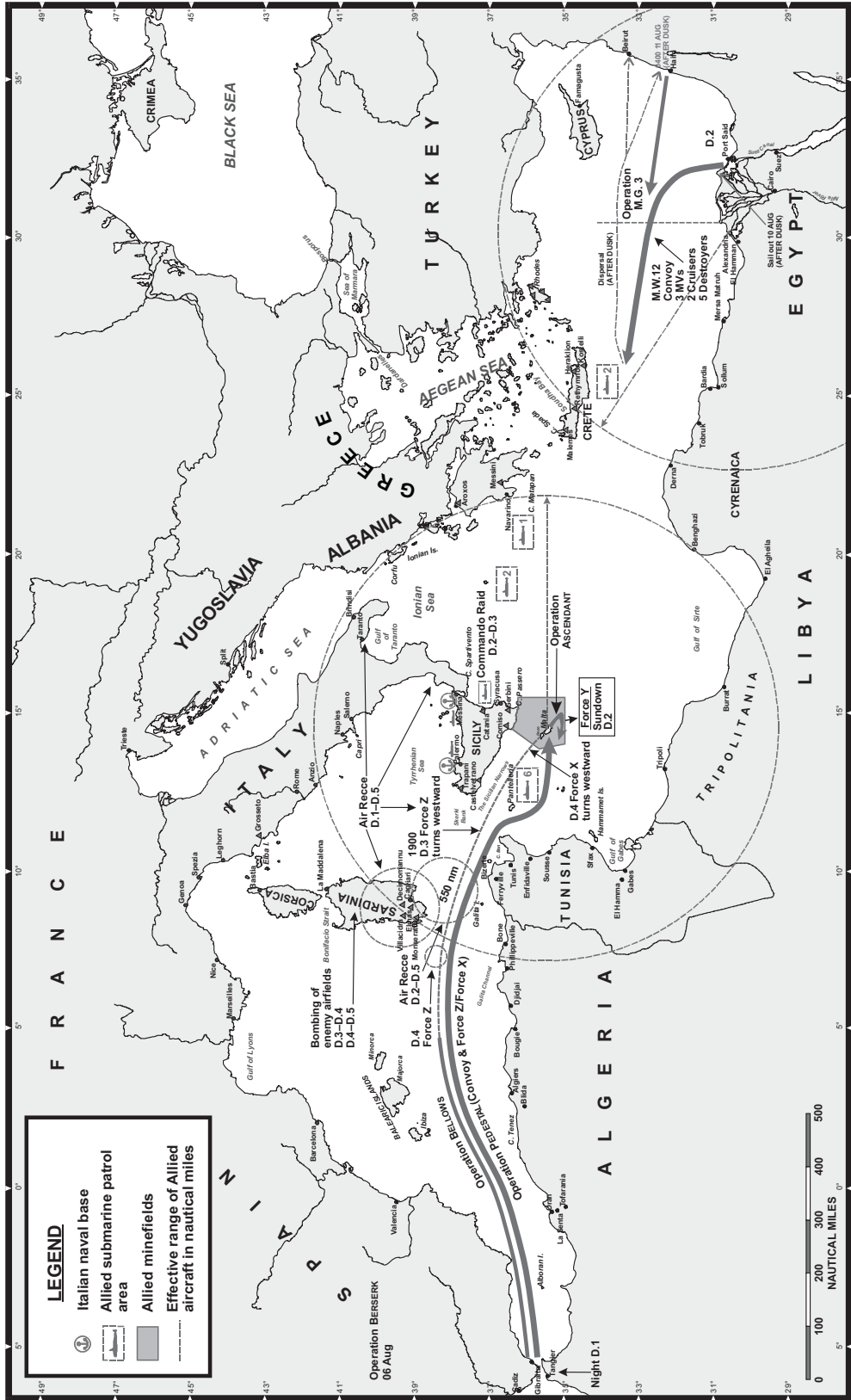
unable to achieve surprise, because the Axis had a large number of agents in the Gibraltar area.⁷⁰ The geography of the area restricted considerably the choice of lines of operation for each element of Force F. It allowed for little or no flexibility in the employment of the Allied forces. The speed of execution was limited to the fifteen-knot speed of the convoy.

The Allied operational idea envisaged both simultaneous and successive movements of several force elements in the western and eastern Mediterranean. Force F would pass through the Strait of Gibraltar on the night of D.1. Upon reaching the entrance of the Skerki Bank (an area of relatively shallow water in the Sicilian Narrows) at about 1900 on D.3, Force Z would turn westward.⁷¹ Upon arriving at the entrance to the Skerki Bank in the afternoon on D.3, Force X and convoy WS.5.21.S would proceed to Malta. Force X would proceed until the point at the approaches to Malta in the afternoon on D.4, from where the Malta Escort Force would take over escort of the convoy.⁷² Force Z, after parting company from Force X at the entrance to the Skerki Bank in the afternoon of D.3, would remain in that vicinity until the Beaufighters from Malta took over protection of the convoy and Force X. On D.4, Force Z would operate to the west of Sardinia to distract attention from Force Y. After its support was no longer necessary, Force Z would return to Gibraltar. Force X would return to Gibraltar as soon as Vice Admiral, Malta could release it from protecting the convoy.⁷³ Minesweepers would clear the channels, thereby avoiding the loss of merchant vessels as in the convoy operation in June.⁷⁴ Two merchant ships that had survived the June debacle, with a screen of two destroyers, would sail out from Malta to Gibraltar after sundown on D.1, pass through the Sicilian Narrows on the night of D.2–D.3, and thence sail directly to Gibraltar. A submarine screen of six British boats would deploy south of Pantelleria and north of the projected convoy route to intercept Italian naval forces. Two additional submarines would deploy off Milazzo, Palermo, and the Strait of Messina.⁷⁵ Under the cover of the main operation, Operation BELLOWS would be carried out to reinforce Malta's air defenses.

The Allied planners properly applied the principles of objective, mass, security, and economy of effort in Operation PEDESTAL. However, they violated the principle of simplicity by adding Operations BELLOWS and ASCENDANT.

In general, planners should assign a highly capable but not overly strong force to protecting the friendly center of gravity; otherwise, the operation would be open to a devastating enemy attack. The Allied initial operational center of gravity—the carrier forces—were well protected by the fighter aircraft and AA defenses of each carrier's screen. However, Force X—the second operational center of gravity—had to rely only on its own AA defenses.

MAP 1
OPERATIONAL SCHEME FOR OPERATION PEDESTAL
 [Deduced from Documents]



THE ALLIED FORCES

OPERATION PEDESTAL

FORCE F

Convoy WS.5.21S

13 freighters (*Empire Hope, Dorset, Wairangi, Rochester Castle, Waimarana, Brisbane Star, Port Chalmers, Almeria Lykes, Santa Elisa, Clan Ferguson, Glenorchy, Melbourne Star, Deucalion*)

1 oiler (*Ohio*)

Additional escorts from Britain to Gibraltar: 5 destroyers (*Keppel, Malcom, Amazon, Venomous, Wolverine*)

FORCE Z

2 battleships (*Nelson, Rodney*)

3 aircraft carriers (*Victorious, Eagle, Indomitable*)

72 fighters, 38 torpedo bombers

3 light cruisers (*Charybdis, Phoebe, Sirius*)

15 destroyers (19th Destroyer Flotilla) (*Laforey, Lightning, Lookout, Quentin, Eskimo, Tartar, Wilton, Westcott, Wrestler, Somali, Wishart, Zetland, Ithuriel, Antelope, Vansittart*)

FORCE X

4 light cruisers (10th Cruiser Flotilla) (*Nigeria, Kenya, Manchester, Cairo*)

11 destroyers (6th Destroyer Flotilla) (*Ashanti, Intrepid, Icarus, Foresight, Fury, Derwent, Bramham, Bicester, Ledbury, Pathfinder, Penn*)

1 ocean tug (*Jaunty*)

FORCE Y

2 freighters (*Troilus, Orari*)

2 destroyers (*Matchless, Badsworth*)

FORCE R

3 fleet oil tankers (*Brown, Ranger, Dingledale*)

4 corvettes (*Jonquil, Spirea, Geranium, Coltsfoot*)

1 tug (*Salvonja*)

Malta Escort Force (17th Minesweeping Flotilla)

4 minesweepers (*Speedy, Hythe, Hebe, Rye*)

7 motor launches (*121, 126, 134, 135, 168, 459, 469*)

Submarine Group (10th Submarine Flotilla)

2 submarines off Milazzo and Palermo (*P.211, P.42*)

6 submarines between Malta and Tunisia (*P.44, P.222, P.31, P.34, P.46, Utmost*)

OPERATION BELLOWS

1 aircraft carrier (*Furious*)

RESERVE ESCORT GROUP

8 destroyers (*Keppel, Westcott, Venomous, Malcolm, Wolverine, Amazon, Wrestler, Vidette*)

OPERATION M.G. 3

Port Said

Convoy M.W.12 (3 merchant vessels)

Escort (2 cruisers, 10 destroyers)

Haifa

1 merchant vessel

2 cruisers

3 destroyers

SERVICEABLE LAND-BASED AIRCRAFT ON MALTA

9 fighter squadrons

3 torpedo-bomber squadrons

4 bomber squadrons

2 air recce squadrons

38 Spitfire fighters from *Furious*

THE AXIS FORCES

ITALIAN MAJOR SURFACE FORCES

3rd Naval Division (Messina)

3 heavy cruisers (*Gorizia, Bolzano, Trieste*)

7 destroyers (*Aviere, Geniere, Camicia Nera, Legionario, Ascari, Corsaro, Grecale*)

7th Naval Division (Cagliari)

3 light cruisers (*Eugenio di Savoia, Raimondo Montecuccoli, Muzio Attendolo*)

4 destroyers (*Maestrale, Gioberti, Oriani, Fuciliere*)

1 destroyer for mining the Sicilian Narrows (*Malocello*)

8th Naval Division (Navarino)

3 light cruisers (*Duca degli Abruzzi, Giuseppe Garibaldi, Emanuele Filiberto Duca d'Aosta*)

5 destroyers

SUBMARINES

18 Italian submarines (*Bronzo, Ascianghi, Alagi, Dessié, Avorio, Dandolo, Emo, Cobalto, Otaria, Axum, Asteria, Brin, Wolframio, Granito, Dagabur, Giada, Uarsciek, Vellela*)

2 German U-boats (*U-73, U-333*)

LIGHT FORCES

2nd MS Squadron (*MS 16, 22, 23, 25, 26, 31*)

15th MAS Squadron (*MAS 549, 543, 548, 563*)

18th MAS Squadron (*MAS 556, 553, 533, 562, 560*)

20th MAS Squadron (*MAS 557, 554, 564, 552*)

German S-boats (*S30, S59, S58, S36*)

Total: 9 cruisers, 17 destroyers, 20 submarines, 10 MS, 13 MAS

LAND-BASED AIRCRAFT (SICILY/SARDINIA)

Italian 287th, 146th, 170th, 144th, 197th air squadrons

328 aircraft (90 torpedo bombers, 62 bombers, 25 dive-bombers, 151 fighters)

German II Air Corps

456 aircraft (328 dive bombers, 32 bombers, 96 fighters)

Total: 784 aircraft (328 Italian, 456 German)

Sources: Fioravanzo, *La Marina Italiana Nella Seconda Guerra Mondiale*, vol. 5, pp. 410–13; *Royal Navy and the Mediterranean Convoys*, pp. 129–31; “Operation Pedestal,” *Supplement to the London Gazette*, p. 4506.

Continued from page 122

The Allied sector of the main effort in Operation PEDESTAL was the western Mediterranean, while the eastern Mediterranean was the sector of secondary effort. This decision was predetermined because the convoy started its voyage in Gibraltar and headed toward Malta. The sectors of effort dictate where the principal forces and their supporting forces should be concentrated or employed in a major naval operation. In a defensive major naval operation as was Operation PEDESTAL, the main Allied forces were those that defended the convoy, Force X. Force Z, submarines, and land-based aircraft were supporting forces.

The operational idea for a major naval operation should include a plausible plan for operational deception. In general, deception is intended to mislead the enemy about intentions, future decisions, and friendly courses of action. It aims to confuse and disorient the enemy about the time and place of an attack, thereby achieving surprise. An important task for the planners of Operation PEDESTAL was to develop a plausible deception plan. Geography alone severely limited their options. The deception target, the Axis high commanders, would know that any large convoy with heavy escort starting from either Gibraltar or Alexandria was bound to the island of Malta. In other words, the ultimate objective of Operation PEDESTAL was too transparent to the enemy. The Allied planners envisaged a feint in the eastern Mediterranean (Operation M.G. 3) aimed at preventing the Axis commanders from committing all of their available forces against the Allied forces in the western Mediterranean. They contemplated a convoy (M.W.12) composed of three merchant ships under cover of a task force of two cruisers and five destroyers to sail from Port Said to a position about 100 miles west-southwest of Crete.⁷⁶ They would sail out on D.2 as soon as possible after receiving information that the WS.5.21.S convoy had passed through the Strait of Gibraltar, or on D.3 if they did not receive that report.⁷⁷ The intent was to lure the Italian 8th (Naval) Division at Navarino, and to keep down the Luftwaffe's aircraft based on Crete. One Allied submarine would be deployed off Navarino, while two other boats would be positioned further westward to intercept any Italian ship sailing from the naval base at Tarent. To divert the Italians' attention from the events in the western Mediterranean, one Allied submarine would debark commandos off Catania to conduct a raid against a nearby airfield.⁷⁸ Admiral Syfret expected the British army to help the operation by staging an attack in Egypt; however, he was disappointed at the army's refusal.⁷⁹ The British army never seemed to understand the importance of Malta for the ultimate Allied victory in the Mediterranean.

Naval forces attain the ultimate objective of a major operation by dividing it into several phases related in time and space. In general, a phase is the time between the accomplishment of two successive intermediate objectives. Depending on the success of the intermediate objectives, strategists plan phases to take place simultaneously or sequentially. The main purpose of phasing is to stagger a major naval operation into several parts to avoid overshooting the point of culmination before achieving the next intermediate objective. The operational commander should not arbitrarily break down a major naval operation into phases, unnecessarily slowing down the operational tempo. Operation PEDESTAL consisted of four related phases: assembly of the convoy at Clyde River estuary, Scotland, and its transit to Gibraltar; transit from Gibraltar to the

Sicilian Narrows; transit from the Sicilian Narrows to La Valletta, Malta; and return of forces of distant cover and support/direct screen to Gibraltar.

A major naval operation cannot be successful unless it is adequately, reliably, and logistically supported and sustained. In general, sustainment is the extension of logistical support from the start of combat actions until the ultimate objective is accomplished. Operational sustainment is required to support combat forces throughout all phases of a major operation. Because of the long distances involved, the short-legged destroyers needed refueling during the convoy's transit. Malta was not in a position to provide fuel. The lessons of the Arctic and Malta convoys showed the need to have tankers to accompany the convoy and escorts. Force R would perform this critically important task. The plan envisaged that Force R enter the Mediterranean via the Strait of Gibraltar together with the main force, and then wait near the convoy route to refuel the destroyers as needed.⁸⁰

Preparations

The Allies envisaged conducting a three-day exercise west of the Strait of Gibraltar prior to the passage of the convoy through the strait (called Operation BERSERK). The main purpose of the exercise was to rehearse fighter direction and cooperation among the three carriers.⁸¹ Forces deployed to take part in the exercise were as follows: Force M from the United Kingdom (*Victorious*, the cruiser *Sirius*, and three destroyers), Force K from Freetown (*Indomitable*, the cruiser *Phoebe*, and three destroyers), Force J from Gibraltar (*Eagle*, the cruiser *Charybdis*, and three destroyers), and Force W from Freetown (one fleet oiler and two corvettes).⁸² The exercise was to start on D-5 (6 August).⁸³

PLANS AND PREPARATIONS: THE AXIS

The Axis command structure in the Mediterranean was highly centralized at the national-strategic level and highly fragmented at the operational level. The Italian dictator Benito Mussolini concentrated all authority over Italian armed forces in his own hands. He was simultaneously Minister of War, Minister of the Navy, and Minister of the Air Force from late 1933 until the end of his regime in July 1943. He appointed undersecretaries who served as chiefs of staff of the respective services. Chief of the Staff of the Supreme General Staff (Capo di Stato Maggiore Generale) was nothing but a technical adviser without any command responsibility. Field Marshal Albert Kesselring of the Luftwaffe was in control of the German ground forces in the theater. Yet he did not have any control over the German-Italian campaign in North Africa or over the organization of convoys to Libya. Responsibility for convoying service remained in the hands of the German liaison officer to the Italian Supreme Command (Commando Supremo).

The two German air corps (Fliegerkorps), II and X Air Corps, deployed in the Mediterranean, were subordinate to the normal chain of command of the Luftwaffe. Kesselring had some responsibilities for the conduct of the German naval operations in the Mediterranean because he was nominally in control of the new Naval Command Italy (Marinekommando Italien) created in November 1941. However, that command was at the same time subordinate to the Kriegsmarine's regular chain of command. The German command structure in Italy was highly fragmented and service rivalries considerably hampered their full cooperation in the conduct of operations. To make the situation worse, there was little unity of effort in the employment of the German and the Italian forces in the Mediterranean theater. Neither the Germans nor the Italians fully trusted their nominal partners. Kesselring had the authority only to coordinate but not to prepare plans for the joint employment of the German and Italian forces. He had some influence on the employment of the Italian air squadrons for the protection of convoys to North Africa. The Italian Navy resisted all German attempts to influence its operations. Another problem with the Italian Navy was that ships from different squadrons never trained together. The Italian Navy's high command also constantly interfered with the responsibilities of its tactical commanders.⁸⁴

What the Axis Knew

In contrast to the Allies, the Italians and Germans lacked information about the Allied plans and intentions. However, they had a reasonably accurate knowledge of the enemy order of battle and movement of his forces once they entered the Mediterranean. The main sources of information for the German and the Italian commanders were reports by the Abwehr agents in the Gibraltar area and Ceuta, and reports from reconnaissance aircraft and submarines. Unbeknownst to the Germans, the Allies intercepted and read all their Enigma coded messages.

Reliable reports from the Abwehr agents concerning the activity of enemy air and naval forces in the western Mediterranean convinced Kesselring on 5 August that the Allies were preparing a large-scale operation to supply Malta from the west.⁸⁵ The Germans believed that in conjunction with this operation, the enemy would try to pin down the Axis forces by launching a simultaneous attack with limited objectives against Panzerarmee Afrika. Specifically, they assumed that the Allies would mount a combined attack from the sea, the ground, and the air to capture Mersa Matruh. The activity of the enemy air forces in Egypt and on Malta was remarkably light in view of their known strength. They took this as a sign of preparations for a large-scale operation. The enemy was holding in reserve forces on Malta to support, by bombing attacks on Italian naval forces and by fighter protection, the transit of an enemy convoy through the Sicilian

Narrows.⁸⁶ At the same time, the Germans considered the possibility of a threat to Crete by the Allied forces in the eastern Mediterranean coinciding with the passage of the convoy to Malta from the west. Hence, Kesselring ordered increased readiness of the Luftwaffe units in both Sicily and Crete. He also directed redeployment of aircraft from Crete to Sardinia and Sicily on 5 August.⁸⁷ The II Air Corps increased the combat readiness of its bombers and fighters and planned to employ its aircraft sparingly. Kesselring also ordered the II Air Corps to prepare to accommodate reinforcements from X Air Corps that would be transferred for short-term employment and would, in cooperation with the IAF, strengthen the ground organization at Elmas, Sardinia. He also directed as a preparatory measure opening discussions with the IAF about joint employment of the German and Italian forces in the pending operation.⁸⁸

The Allies learned through Enigma that the Luftwaffe had difficulty with supplies in Sardinia, which prevented the movement there of long-range bomber forces and fighter operations to the full extent intended. They also had information that the Germans transferred from the eastern to western Mediterranean forty to forty-five long-range bombers and six twin-engined fighters. This, in turn, complicated the German situation in North Africa. Air Commander (Fliegerfuehrer) Afrika was forced to shift operations on the front to provide convoy escorts in the Tobruk area. If Field Marshal Erwin Rommel, Commander of the Panzer Army Afrika (formerly Panzer Group Afrika) had been heavily engaged at the time, it seems doubtful whether even these limited reinforcements could have been spared.⁸⁹

On the morning of 8 August, a German report indicated (erroneously) that one *Argus*-class carrier and four destroyers had sailed into Gibraltar. The Abwehr reported intensive shipping traffic in the Strait of Gibraltar on the night of 8–9 August.⁹⁰

Plans

The Germans and Italians prepared their plans separately. They decided to cooperate but to employ their forces independently in the forthcoming operation. Specifically, the Luftwaffe's II Air Corps in Sicily coordinated the planning of the attacks with the sector command of the Italian Air Force in Sicily. However, they conducted the attacks independently.⁹¹

Supermarina (Italian naval headquarters) considered four possible courses of action for the enemy in the pending operation. The first course of action was to use superior naval strength for the protection of the convoy. The second course of action open to the enemy was a sortie by the main battle force to provoke the Italians to react in force. The third course of action was to use a strong covering force for the convoy to force a passage to the north of Pantelleria instead of turning

westward at the entrance to Skerki Bank. The fourth course of action open to the enemy was to carry out attacks by carrier-based aircraft on Sardinia aimed at destroying the Italian airfields there and thereby facilitating the convoy passage.⁹²

Forces Available

The Germans and Italians possessed substantial and diverse forces in the theater to inflict large losses on the Allied convoy and its covering forces. The Italians had available for the operation 328 aircraft (ninety torpedo-bombers, sixty-two bombers, twenty-five dive-bombers, and 151 fighters), while the Germans had 456 aircraft (328 dive-bombers, thirty-two high-level bombers, and ninety-six fighters).⁹³ The German II Air Corps mainly supported the Afrika Korps. The major part of the newly trained torpedo-bombers moved from the Mediterranean to Norway in June 1942 and did not return in time for the operation. About twenty Ju-88s from two air groups of the X Air Corps on Crete moved to Sicily on 11 August and were ready for the action the next morning. An additional eight Ju-88s from Crete flew to Sicily on 12 August after completing convoy escort duties in the Aegean.⁹⁴

The Italian Navy theoretically had available for the operation four battleships, three heavy and ten light cruisers, twenty-one destroyers, twenty-eight torpedo boats, and sixty-four submarines. However, the Italians were unable to deploy most of their heavy ships because of the lack of fuel and adequate air cover. The Italian Navy received only twelve thousand tons of fuel in June 1942, enough to cover about one-fifth of that consumed by convoys (fuel reserves then amounted to about 121,000 tons). The Italian battleships were directed to empty their fuel for escorts. Because of this severe shortage of fuel, Mussolini suggested to Hitler that further enemy attempts to supply Malta could be opposed only by submarines and land-based aircraft.⁹⁵ Supermarina was able to deploy for the pending operation the 3rd (Naval) Division with three eight-inch cruisers (*Gorizia*, *Bolzano*, and *Trieste*) and seven destroyers and the 7th (Naval) Division with three six-inch cruisers (*Eugenio di Savoia*, *Raimondo Montecuccoli*, and *Muzio Attendolo*) and five destroyers plus eighteen submarines, and nineteen torpedo boats (six MS [Motoscafo Siluranti] and thirteen MAS [Motoscafo Armato Siluranti]). The Germans could deploy two U-boats and four S-boats (torpedo boats).⁹⁶

The Italian and German air forces did not have a sufficient number of fighters to escort surface ships, bombers, and torpedo bombers. Mussolini favored the use of fighters to escort bombers instead, providing cover for surface forces to attack the convoy.⁹⁷ Kesselring did not approve the Italian request to provide air cover for the Italian fleet. He believed that the Luftwaffe lacked a sufficient number of fighters to provide escort for both his bombers and the Italian fleet.⁹⁸ Reportedly,

Kesselring was convinced that, based on the experience of the Second Battle of Syrte (22 March 1942) and the encounter off Pantelleria (15 June 1942), the Italian heavy cruisers would not be successful even if they had air cover.⁹⁹ The Germans used the pretext of the lack of fuel to refuse to provide air cover for the Italian heavy surface forces.¹⁰⁰ However, the German naval attaché in Rome, Admiral Eberhard Weichhold, argued that the Luftwaffe should provide air cover for the Italian ships.¹⁰¹ The Italian Chief of the General Staff, Marshal Ugo Cavallero, thought that the Italian surface forces should be employed in the forthcoming operation. However, the Supermarina did not want to take the responsibility of using its heavy surface forces without air cover.¹⁰²

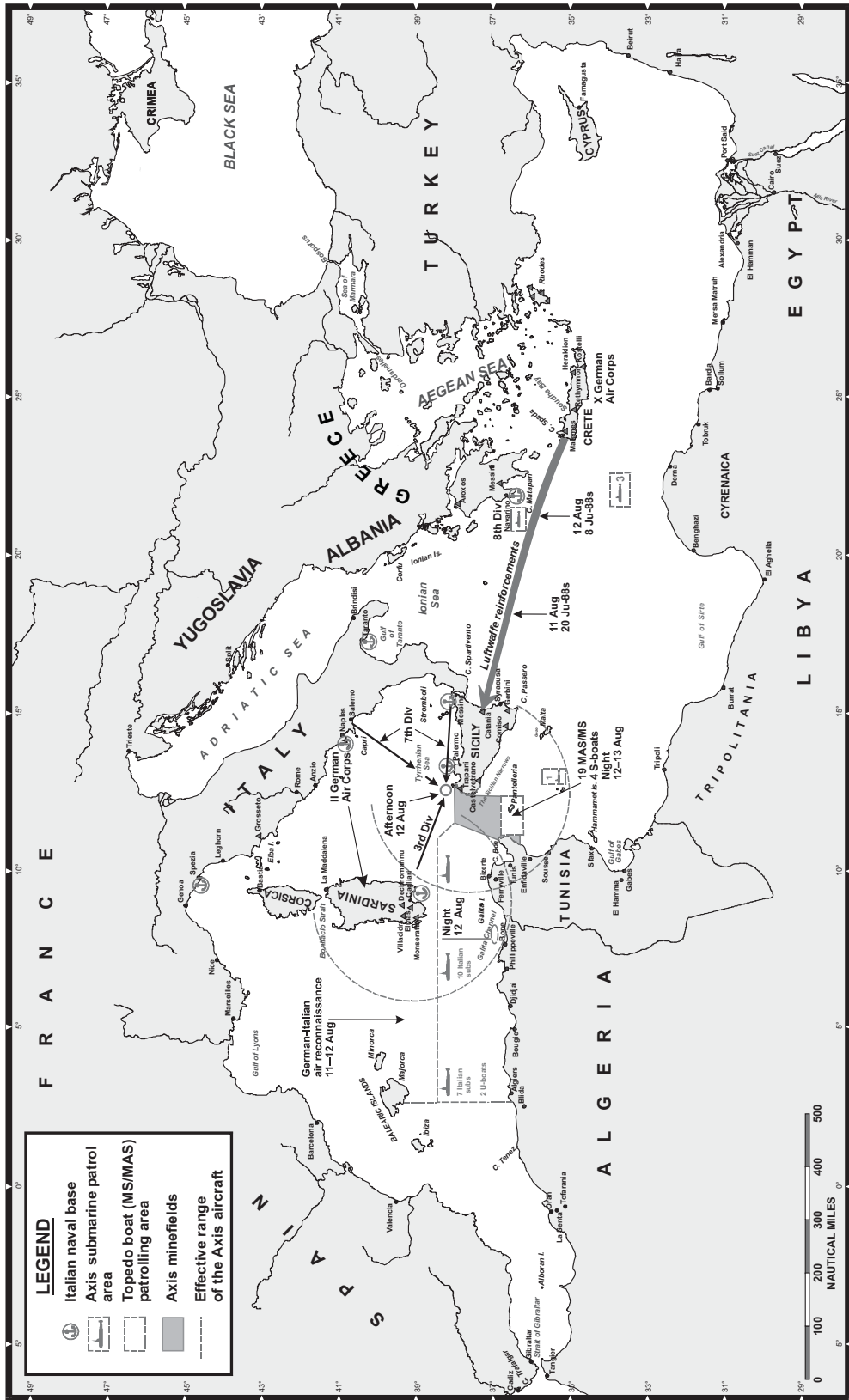
Operational Idea

The Axis operational idea was relatively simple compared to the one applied by the Allies (see map 2). The Germans and Italians essentially followed almost the same script as in their plan against the enemy major convoy in September 1941 (Operation HALBERD). Their plan envisaged a joint special air reconnaissance of the western Mediterranean by the Italian and Luftwaffe aircraft on 11 and 12 August.¹⁰³ The Italian and German aircraft based on Sicily and Sardinia, the Italian submarines and German U-boats, the Italian and German torpedo boats, and minefields would be employed in the forms of successive barriers. These four barriers were intended to cause the dispersal of the convoy and thereby allow successful attack by a powerful cruiser-destroyer force.¹⁰⁴

The intent of the Germans and the Italians was to employ a force of twenty-two torpedo-bombers heavily escorted by fighters, about 125 dive-bombers also with fighter escorts, and forty high-level bombers in a tightly synchronized attack. The IAF would conduct the main attack. The Luftwaffe's air attacks would be conducted in two waves and be coordinated in terms of time.¹⁰⁵ The principal aim would be to destroy the enemy aircraft carriers first so that they would be unable to intervene when the Italian heavy surface forces closed in on the remnants of the convoy.¹⁰⁶ The Italians planned to deploy seventeen submarines in the western Mediterranean while the Germans had only two U-boats available.¹⁰⁷ Seven Italian and two German U-boats would be deployed north of Algeria between longitudes 01° 40' E and 02° 40' E.¹⁰⁸ The Italians would deploy ten submarines between Fratelli Rocks and the northern entrance to the Skerki Bank.¹⁰⁹ Some of these submarines would be positioned northwest of Cape Bon to operate in cooperation with aircraft.¹¹⁰ In addition, an Italian submarine would be deployed west of Malta, another off Navarino, and three boats about a hundred miles west-southwest of Crete.¹¹¹

During the war, the Italians laid a large number of mines in the Sicilian Narrows between June 1940 and April 1942. About 2,320 mines were laid between

MAP 2
OPERATIONAL SCHEME FOR THE BATTLE OF MID-AUGUST 1942
 [Deduced from Documents]



Cape Granitola (at the southwestern tip of Sicily) and Pantelleria; 1,020 mines between Pantelleria and Ras el Mustafa, Tunisia; 6,880 mines between the Aegadian Islands (west of Trapani, Sicily) and Cape Bon; and 1,040 mines between Bizerte and Keith Rock.¹¹² The Italians planned to lay down a temporary minefield off Cape Bon by an Italian destroyer in the night of 12 August, or one day before the enemy convoy was expected to transit the area.¹¹³ In the night of 12–13 August, the Italians planned to deploy nineteen Italian torpedo boats (thirteen MAS, six MS) and four German S-boats south of Marettimo and off Cape Bon and eventually off Pantelleria.¹¹⁴

The Italian plan contemplated that the 3rd (Naval) Division and the 7th (Naval) Division would join about a hundred miles north of Pantelleria in the afternoon of 12 August and then sail on the intercept course south of Pantelleria All'alba through the night of 12–13 August.¹¹⁵ They would attack the remnants of the convoy and its direct screen (Force X) south of Pantelleria at first light.¹¹⁶ They based this timing on the possibility that Axis aircraft could provide effective cover with fighters because of the larger number of enemy aircraft based on Malta. Any Allied convoy from Egypt would be dealt with by the 8th (Naval) Division based at Navarino.¹¹⁷ However, the Italians changed this plan on 12 August because of its inadequate state of combat readiness. Instead, they directed this division to move into the Ionian Sea to provide indirect support to the employment of the 3rd Naval Division. Eventually, they directed the 7th Naval Division to return to its base.¹¹⁸

THE EXECUTION

Operation PEDESTAL began with the sortie of the *Victorious* group from Scapa Flow on 31 July. On 5 August, this group started to exercise with the *Indomitable* group and Force W from Freetown.¹¹⁹ A day later and for the next two days, all three large aircraft carriers with their escorts less *Furious* took part in Operation BERSERK between the Azores and Gibraltar as envisaged in the original plan.

The convoy, escorted by cruisers *Nigeria* and *Kenya* and destroyers, sailed from the Clyde during the night of 2–3 August and joined the main body the next morning. Prior to the sortie Admiral Burrough held a meeting on board his flagship with the masters of all the merchant ships and explained the plan in detail. Shortly before Admiral Syfret left Scapa Flow, the Admiralty decided to execute Operation BELLOWS concurrently with Operation PEDESTAL.¹²⁰ On 9 August, Force R left Gibraltar and sailed to a position south of Majorca.

The entire Force F passed through the Strait of Gibraltar on 10 August (D.1 Day) in a dense fog (see map 3).¹²¹ Transit was uneventful. Syfret mistakenly believed that because of the poor visibility and moonless night it was unlikely that enemy agents observed the Allied convoy. However, he subsequently

acknowledged that later reports showed that the enemy was “fully cognizant of our passage of the strait.”¹²²

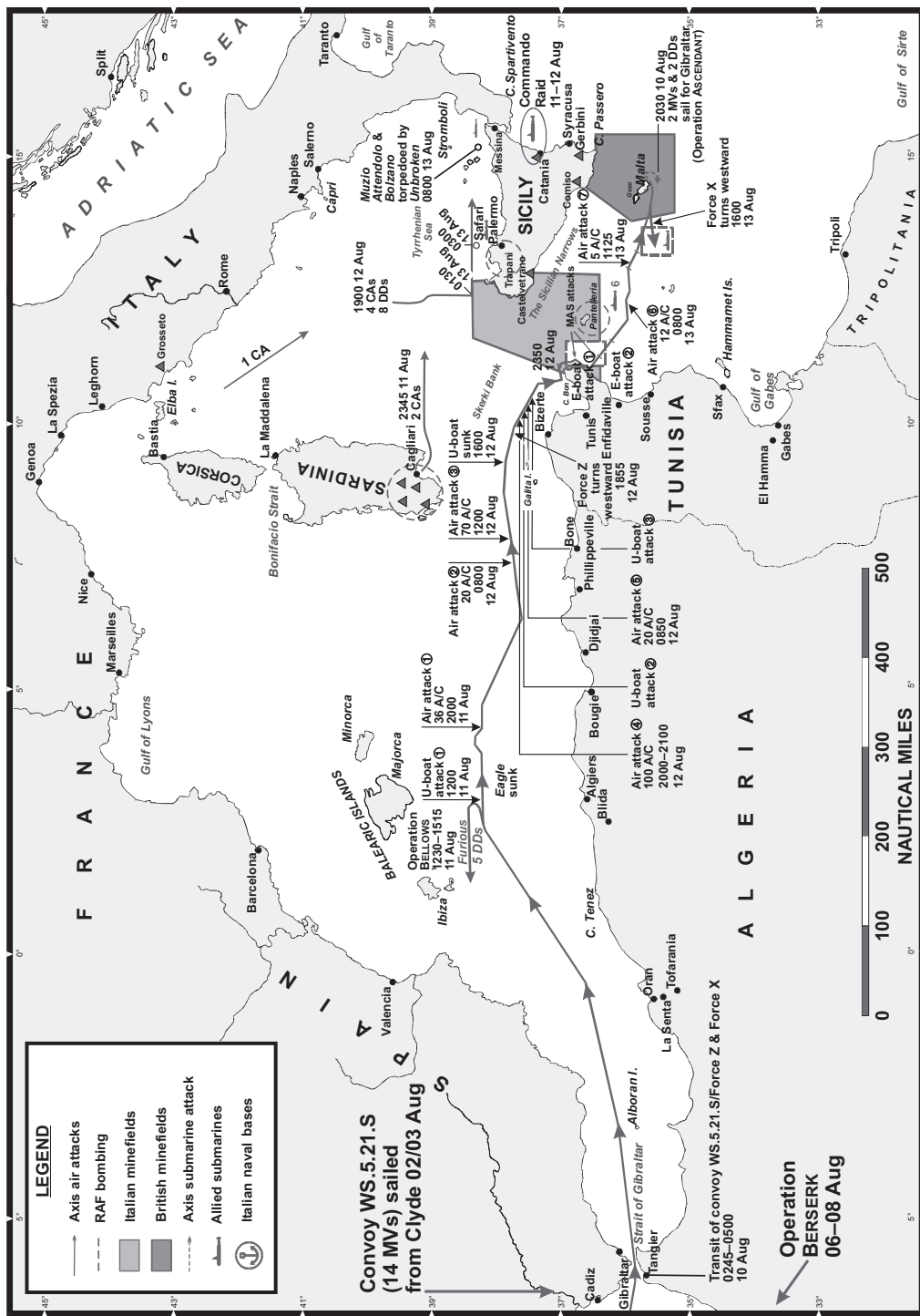
German Reports on the Convoy

The Germans had an approximately accurate picture of the movement of the enemy convoy and accompanying naval forces from their passage through the Strait of Gibraltar during the night of 9–10 August until the end of the operation. Agents in the Gibraltar area and Ceuta made the initial sightings. Afterward the Germans and Italians received a steady stream of reports from their reconnaissance aircraft and submarines. By intercepting and decoding Enigma messages, the Allies for their part had almost perfect and timely information on what the Germans knew and their planned reaction to the Allied movements and actions.

At about 0800 on 10 August, German aircraft detected the enemy convoy sailing in three groups on an easterly course. At 1130, Tetuan was directed to pass sighting reports from Alboran (Island) to Madrid.¹²³ At 1245, the Germans reported that the enemy convoy was about seventy nautical miles north of Algiers. The main group was composed of three battleships, probably *Nelson* class. The convoy was accompanied by three carriers, including what the German erroneously believed was the USS *Wasp*, plus twenty to twenty-five cruisers and destroyers and twenty large steamers westward of the van. A southern group of six destroyers was reported to be some seventy-five nautical miles northwest of Algiers.¹²⁴ Melilla reported that by 1800 there were no enemy ships in sight. Madrid directed both Tangier and Ceuta to increase a state of alertness. At 1700 on 10 August, a French aircraft reported two aircraft carriers, two battleships, two cruisers, fourteen destroyers, and twelve merchant vessels some fifty miles north of Oran. This was the first sighting of the convoy passed by the French to the Germans.¹²⁵

On the afternoon of 10 August, Kesselring learned, based on visual observation from Tarifa and Ceuta, that a large enemy convoy, appearing to be composed of forty to fifty units, including possibly two carriers and nineteen freighters, had entered the Mediterranean. The Germans mistakenly assessed that the carrier *Argus* was in Gibraltar. The enemy convoy was on an easterly course at a speed of thirteen to fourteen knots. The Germans estimated that the convoy would be south of Majorca by 0600 on 11 August and south of Sardinia by the approximately same time the next day.¹²⁶ The Luftwaffe’s reconnaissance aircraft observed at about 1900 on 10 August some fifty-five nautical miles north-northeast of Oran the enemy force composed of two battleships, two carriers, two cruisers, fourteen destroyers, and twelve steamships on an easterly course. The Germans falsely believed that the enemy ships carried about

MAP 3
OPERATION PEDESTAL: EXECUTION, 10-15 AUG 1942



twenty-five thousand men. This information was based on the Abwehr's erroneous report that thirty-seven enemy ships, including one aircraft carrier, three cruisers, ten destroyers, three gunboats, and nineteen freighters had entered Gibraltar on 25 July.¹²⁷

Around noon on 10 August, Supermarina received information that about fifty-seven British ships transited the Strait of Gibraltar on an easterly course.¹²⁸ One hour later the Italians comprehended that a large number of enemy warships and merchant vessels, including six large warships, had passed into the Mediterranean during the night of 9–10 August. At 1800 the same day, the Italians believed that an enemy force comprising one battleship, two aircraft carriers, four cruisers, twenty-three torpedo craft, and nineteen merchantmen were present in the western Mediterranean.¹²⁹ The Italians assumed that the British carrier-based aircraft would attack the Italian air bases on Sardinia. Supermarina estimated that the enemy convoy would transit longitude 10° E at noon on 11 August and would reach Cape Bon around noon on 12 August. In the following night, the convoy would pass through the Sicilian Narrows in the area of Pantelleria.¹³⁰

Based on air reconnaissance reports, Kesselring directed Luftwaffe's II Air Corps to put its long-range bombers in the highest state of combat readiness. He also ordered preparations for the transfer of aircraft from Sicily to Sardinia, including fighters. Kesselring transferred the Ju-88 torpedo-bomber squadron based at Grosseto, Tuscany, to Catania, Sicily. However, because of the shortage of fuel on Crete, it was not possible to use German transport aircraft to carry personnel and torpedoes on 11 August. The Italian fighter aircraft would be transferred from Sicily to Sardinia. It was also planned that the Italian fleet would operate against the convoy as it had against the enemy convoy from the west (Operation HARPOON) in mid-June 1942.¹³¹

The Situation in the Eastern Mediterranean

The Germans and Italians had accurate knowledge of the operational situation in the eastern Mediterranean. Based on British radio traffic, the Germans noted considerable presence of British forces in the eastern Mediterranean operating in conjunction with enemy forces in the western Mediterranean. Therefore, X Air Corps ordered a comprehensive reconnaissance of the eastern Mediterranean east of 25° E on the morning of 11 August. The Axis convoys in the central Mediterranean would continue to run for the time being according to plan.¹³² On 10 August, German intelligence reported intensive enemy activity in the eastern Mediterranean. The German aircraft detected a force of four enemy cruisers and ten destroyers about 150 nautical miles off Port Said on a westerly course. In Alexandria, the Germans observed one enemy destroyer, six smaller naval vessels, and thirteen

steamers.¹³³ The German reconnaissance aircraft reported the presence at the Suez anchorage of five enemy destroyers, one repair ship, and one *Southampton*-class cruiser.¹³⁴ The Abwehr had unconfirmed information that several loaded freighters were at Alexandria and ready to sail for Malta on 12 August. This information, coupled with several sightings of enemy submarines off Italian and Greek ports, led the Italians to believe that the enemy movement in the western Mediterranean meant more than just a relief convoy to Malta.¹³⁵

Events on 11 August

By the morning of 11 August, the Allied convoy was south of the Balearics and headed toward Cape Bon.¹³⁶ At about 0620, a U-boat sighted the enemy convoy and its screen. A German aircraft reported at 0815 the enemy convoy approximately ninety-five miles northwest of Algiers.¹³⁷ Shadowing by the Ju-88 flying between twenty and twenty-four thousand feet started at about 0830 and continued throughout the day. Despite the presence of the enemy submarines, Force R refueled all three cruisers and twenty-six destroyers.¹³⁸

At about noon, the convoy was about seventy-five miles south of Majorca and sailing straight east on a zigzag course. Operation BELLOWS was executed between 1230 and 1515 from a position of approximately 585 miles from Malta. Out of thirty-eight Spitfires that flew-off from *Furious*, all but one machine reached Malta safely.¹³⁹ The Allies suffered a major loss when *U-73* penetrated the screen and sank with four torpedoes the 27,230-ton (full load) carrier *Eagle* about eighty miles north of Algiers.¹⁴⁰ The carrier sank in only eight minutes; 260 men and all aircraft were lost. The Allied ships suffered attacks from six groups of six to twelve Ju-88s at dusk on 11 August; however, they reported no damage.

The Allies learned from Enigma that at 1155 on 11 August, the Italian six-inch cruisers *Eugenio di Savoia* and *Raimondo Montecuccoli* (7th Division) based at Cagliari were directed by Supermarina to be at two hours' notice from 1800 on 11 August. These cruisers, together with eight-inch cruisers *Bolzano* and *Gorizia* at Messina, were informed at 1300 that the Italian submarines were operating in an area sixty miles long and forty miles wide north of Bizerte. Three enemy submarines were observed leaving Cagliari at 2045 on 11 August. At 1800 on 11 August, the six-inch cruisers *Raimondo Montecuccoli* and *Eugenio di Savoia* and two destroyers sailed from Cagliari on an easterly course.¹⁴¹

Allied intelligence learned on 11 August that the Panzerarmee Afrika believed that the enemy convoy in the western Mediterranean posed a direct threat to Tobruk. Hence, the Germans issued orders for the highest degree of alert for their forces and took a series of defensive measures. Kesselring believed that the enemy might try to land on the North African coast. The next day, he issued the

order of the day, in which he suggested that such landings would influence operations in Africa, something the Axis must not allow to happen. On the same day, the Luftwaffe's air district (Luftgau) Afrika apparently believed that the landing might take place at Tripoli on 13 or 14 August.¹⁴²

Situation and Actions on 12 August

At 0020 on 12 August, the Allies learned that Italian intelligence had sighted four enemy cruisers and ten destroyers; part of the convoy from Gibraltar, the Italians thought, might be proceeding to the eastern Mediterranean.¹⁴³ They also intercepted and decoded operation orders issued by the II Air Corps for 12 August to the 77th fighter wing based at Elmas, Sardinia, to expect an enemy formation approaching the Sicilian Narrows in the early morning of 12 August. The II Air Corps would cooperate with the IAF in Sicily and Sardinia from the early morning of 12 August onward to attack and destroy enemy merchant vessels before they could reach Malta. They would operate in waves with fighter escorts.¹⁴⁴

Allied intelligence concluded that the movement of a large convoy with strong naval forces from Gibraltar, in conjunction with diversionary naval operation in the eastern Mediterranean, had a major effect on the Germans and the Italians. It induced a sense of great uncertainty and apprehension along the entire North African coast and in Crete lest a landing take place. The Allied movements also forced the Germans to take several precautionary measures. The Germans recognized by 11 August that if a threat to Crete existed it would materialize before 14 August. The Allies had little further indication that the Germans were much concerned at this possibility.¹⁴⁵ On 12 August, the Germans initiated defensive measures in the Benghazi-Tripoli area. One single-engine fighter squadron and the available long-range bombers based at Derna were prepared to move to Benghazi or Tripoli as necessary. The Ju-52s essential for the transport of ground personnel, equipment, and ammunition were put in readiness. Panzerarmee Afrika held motorized detachments ready to repel landings. It moved some forces to the Sollum–Mersa Matruh area to defend the coast east of Tobruk with three large motorized groups of artillery. At 0700 on 12 August, all the shipping from North Africa to Italy and the Aegean was suspended.¹⁴⁶ In the late afternoon on 12 August, the Luftwaffe believed that the British might attempt a landing at Tripoli on 13 or 14 August. Hence, they sent fighters and dive-bombers there from Sicily with supplies of ammunition and fuel. The Germans also took precautions in case the Allies threatened Benghazi.¹⁴⁷

On 12 August, the Allies intercepted a message from the CINC Luftwaffe Reichsmarschall Hermann Goering stating that the Luftwaffe units under CINC South (Kesselring) “will operate with no other thought in mind than the destruction of the British convoy.” He ordered the first operations directed against

enemy aircraft carriers and transports. “The destruction of this convoy is of decisive importance.”¹⁴⁸

By reading Enigma messages the Allies learned that at 1830 on 12 August the Luftwaffe was informed that an S-boat flotilla of five (actually four) boats was due to sail from Porto Empedocle, Sicily, at 1600 on 12 August on a westerly course for Cape Bon. After completing their mission, the enemy torpedo boats would leave Cape Bon at about 0430 on 13 August sailing on a northerly course as far as 39° N and then turn south toward Marettimo and then hug the coast to Augusta.¹⁴⁹ The Allies also received the information that at 2145 on 12 August, the II Air Corps assessed that the enemy forces in the western Mediterranean consisted of fifty-one ships including two carriers, two battleships, seven cruisers, and twenty destroyers. The Germans erroneously believed in the presence of one U.S. *Yorktown*-class aircraft carrier but correctly identified the presence of the battleships *Rodney* and *Nelson*. They also estimated that the convoy consisted of thirteen freighters totaling some 105,000 tons. Defense of the enemy convoy consisted of ten to sixteen fighters and strong AA fire of all calibers.¹⁵⁰

The enemy aircraft started to shadow Force F at 0500 on 12 August; throughout the day, the Allied forces were under continuous observation by the German and Italian bombers. The enemy bombers were progressively more strongly protected by the fighters. Throughout the day, there were numerous attacks on the Allied ships by the Italian high-level bombers and the German dive-bombers. In their efforts to sink as many enemy ships as possible, the German and Italian aircraft used every type of attack, including laying mines ahead of the Allied ships.¹⁵¹

On the afternoon of 12 August, the German aircraft received orders that under no circumstances were they to attack damaged ships or those left behind.¹⁵² The enemy aircraft were present in large numbers from 1600 to 2000. Between 1800 and 1850 there was a very heavy attack by about forty Ju-88s and Ju-87s coordinated with about twenty Italian Cant 1007 torpedo-bombers. Three bombs struck the carrier *Indomitable*, with two or three near misses. *Indomitable* was unable to operate aircraft but was capable of steaming at twenty-eight and a half knots.¹⁵³ An aerial torpedo hit the destroyer *Foresight* and friendly forces subsequently sank it. In the attacks during the day, the Germans believed that they damaged one enemy aircraft carrier, cruiser, and destroyer each plus one twenty-thousand-ton merchant ship.¹⁵⁴

Originally Syfret intended that Force Z would turn westward upon reaching the Skerki Bank at 1915 and he informed the fleet accordingly. However, because of the twenty-minute delay in reaching the position due to the enemy air attacks, he made a decision to turn Force Z westward at 1855, while Force X would proceed to Malta. The enemy apparently did not notice the withdrawal of Force Z until 2030. In view of the magnitude of enemy air attacks from 1830 to 1850,

Syfret believed that it was unlikely that the enemy would carry out any further major attack before dark. He also hoped, as it turned out quite mistakenly, that reaching Skerki Bank would eliminate the danger from enemy submarines. In his view, the greatest dangers to Force X were enemy torpedo boats during the night and aircraft by day. However, it was exactly after Force Z reversed its course westward that the Ju-87 attacked Force X and the convoy between 2000 and 2100. Around 2000, the Italian submarines torpedoed cruisers *Nigeria* and *Cairo* and the tanker *Ohio*. *Nigeria* was damaged but was able to return to Gibraltar, while *Ohio* was towed to Malta. *Cairo* was abandoned and eventually sank. At 2112, the cruiser *Kenya* was also torpedoed and damaged by an Italian submarine, while one freighter (*Deucalion*) was torpedoed and sunk at 2212 near the Cani Rocks in the Sicilian Narrows.¹⁵⁵

The Allies obtained information from Enigma that the eight-inch cruiser *Trieste* sailed to the southward from a northern Tyrrhenian port during the night of 11–12 August. Between 0840 and 1000 on 12 August eight-inch cruisers *Bolzano* and *Gorizia* with four destroyers sailed from Messina northward and at 0930, the six-inch cruiser *Muzio Attendolo* with two destroyers sailed from Naples.¹⁵⁶ The Enigma intercepts indicated that an unknown Italian naval force received orders at 1835 on 12 August to proceed south at twenty knots and join with other forces some ninety miles north of Trapani. These were probably cruisers from Messina and Cagliari. At 1945, Rome directed these forces to be ten miles east of Pantelleria at 0530 the next morning. Rome also informed the cruiser force that all Italian torpedo boats would patrol the area west of 11° 40' E with orders to leave their patrol at dawn on 13 August and proceed toward Pantelleria. At 2200, the cruiser force was directed to reduce speed to arrive off San Vito, northeast of Trapani, not before midnight on 12–13 August. However, at 2345 on 12 August they abruptly abandoned this operation. Cruisers *Eugenio di Savoia* and *Raimondo Montecuccoli* with three destroyers received orders to proceed to Naples, while cruisers *Gorizia*, *Bolzano*, *Trieste*, and *Muzio Attendolo* and the remaining destroyers would proceed to Messina.¹⁵⁷ The reason for this decision was probably the RAF's demonstration to convince the enemy that a much larger striking force was on the way to attack the Italian surface force.¹⁵⁸

Actions on 12–13 August

At about midnight on 12–13 August the Allied convoy passed through the enemy mine fields in the Sicilian Narrows. The attenuated line of merchant ships and the reduced number of escort ships provided many opportunities for attacks by enemy torpedo boats lying in ambushing position off Kelibia, near Cape Bon. In the subsequent attacks by the enemy torpedo boats, they torpedoed and sank the cruiser *Manchester* and three merchant ships. In the morning, another

merchant vessel was lost from either a torpedo fired by an enemy boat or a mine. These night attacks added to the convoy's disorganization. At daylight the scattered ships were comparatively easy prey for enemy aircraft. By 0700 Force X and the convoy were about 120 miles west of Malta. In the attacks by the enemy aircraft, three more merchant ships were sunk. At about 1600, the Malta Escort Force took over the protection of the convoy and Force X turned westward.¹⁵⁹ In the early morning of 13 August, a British submarine (*Unbroken*) fired four torpedoes from its ambushing position some twelve miles south of Stromboli Island, hitting and damaging heavy cruiser *Bolzano* and light cruiser *Muzio Attendolo*.¹⁶⁰

OPERATION M.G. 3 FAILS

As planned, the Allies carried out Operation M.G. 3, a feint to distract enemy attention in the eastern Mediterranean. The convoy, M.W.12, composed of three merchant ships, sailed out of Port Said after dusk on 10 August, accompanied by two cruisers, ten destroyers, and two escorts, while one merchant ship escorted by two cruisers and three destroyers left Haifa at 0300 on 11 August. These two forces were concentrated in the early morning of 11 August and sailed westward to the longitude of Alexandria; afterward they turned back and dispersed. The intention was to lure the Italian 8th (Naval) Division at Navarino and to keep down the Luftwaffe's aircraft on Crete.¹⁶¹ The German aircraft observed these movements. In the early morning of 12 August, Kesselring informed X Air Corps of the position (33° 40' N and 28° 34' E) of four enemy merchant vessels, six cruisers, and an unknown number of destroyers sailing on a northeasterly course at a speed of twelve knots. He believed that this convoy was possibly an English wireless-telegraphy spoof. However, Kesselring did not exclude the possibility of a simultaneous supply operation from the eastern Mediterranean. He ordered the X Air Corps to arrange exhaustive reconnaissance of the entire eastern Mediterranean area on the morning of 12 August.¹⁶²

In the night of 12–13 August the Allied cruisers and destroyers shelled the port of Rhodes, while the RAF aircraft attacked airfield Maritsa (on the northern tip of Rhodes) during the day. A British submarine debarked commandos at Simeto, near Catania, to put explosives to the pylons. However, the Italians were apparently not surprised by the Allied actions. Their 8th (Naval) Division remained at port. The Germans detached one of their destroyers from escort duty and sent it to reinforce the Italian forces. The Italians held up local traffic along the North African coast and stopped the shipping traffic between Italy and Greece. Operation M.G. 3 failed to deceive the Axis and reduce the intensity of its attacks on the main convoy in the western Mediterranean.¹⁶³

FINAL MOVEMENTS

The Allies also executed Operation ASCENDANT as originally planned. Force Y left Malta about 2030 on 10 August. It reached the area of Cape Bon the next day and arrived at Gibraltar at about 1000 on 14 August. The carrier *Furious* and accompanying five destroyers arrived at Gibraltar at 1900 on 12 August. Force R cruised in the western basin until it was certain that it would not be required; then it received orders to return to Gibraltar, arriving in the morning of 16 August.¹⁶⁴

Despite the enemy's all-out effort to destroy the remnants of the Allied convoy, five ships eventually reached Malta. Two of these ships had sustained so much damage that they almost sank.¹⁶⁵ The tanker *Ohio* survived but never sailed again. The Allies lost one carrier (*Eagle*), two cruisers (*Manchester* and *Cairo*), and one destroyer (*Foresight*), while another carrier (*Indomitable*), two cruisers (*Nigeria* and *Kenya*), and three destroyers were put out of commission for a considerable time. Some 350 men lost their lives. The Fleet Air Arm lost thirteen aircraft in combat and sixteen Sea Hurricanes (sunk with *Eagle*).¹⁶⁶ The Allies were unable to risk such losses again soon after the completion of Operation PEDESTAL. They would not attempt another large convoy operation to resupply Malta until November 1942.¹⁶⁷

The Axis forces did not accomplish their stated operational objective, although they achieved a great tactical victory. Especially noteworthy were the successes achieved by the Italian MS/MAS. The German U-boat sank one aircraft carrier while the Italian submarines sank one cruiser (*Cairo*) and two merchant ships. The Italian and German torpedo boats sank one cruiser (*Manchester*) and three merchant ships.¹⁶⁸ The Axis aircraft damaged one carrier (*Indomitable*) and three merchant vessels. An Italian submarine damaged one enemy cruiser (*Nigeria*), and an Italian submarine damaged another cruiser (*Kenya*). Italian and German torpedo boats crippled two merchant vessels. An Italian submarine and the German bombers heavily damaged the tanker *Ohio*.¹⁶⁹ Allied submarines damaged two Italian cruisers (*Bolzano* and *Muzio Attendolo*), and neither again put to sea. The Axis lost forty-two aircraft.¹⁷⁰ Allied destroyers sank two Italian submarines (*Cobalto* and *Dagabur*), while the Allied aircraft damaged one Italian submarine (*Giada*).¹⁷¹

Despite heavy losses, Operation PEDESTAL was in retrospect a clear operational success for the Allies. About thirty-two thousand tons of supplies arrived safely, allowing Malta to survive for another ten weeks. By 22 August, all cargo was unloaded from the five surviving ships as well as fifteen thousand tons of fuel carried by *Ohio*. The enemy did not attempt to interfere with the unloading of cargo.¹⁷² While Operation PEDESTAL was in progress, three Allied submarines

carried ammunition, torpedoes, and aviation fuel from the east to Malta. The supply trips with Allied submarines continued in September and October 1942.¹⁷³ These supplies allowed the Allied submarines and aircraft to intensify their attacks on the Axis supplies to North Africa during the most decisive phase of the campaign. The Allies were able to obtain air superiority over Malta and thereby dramatically change the situation in the central Mediterranean to their favor.¹⁷⁴ During September 1942, the Allies sank more than 100,000 tons of enemy supplies destined for North Africa. By mid-October, the Afrika Korps had only three days' supply in reserve instead of the minimum fifteen days' to start an offensive. In November 1942, the Axis lost the Battle of El Alamein and the tide of war in North Africa turned in the Allied favor.¹⁷⁵

CONCLUSION

Operation PEDESTAL took place at a time when the Allied fortunes in the Mediterranean were at their nadir. The island of Malta was close to being unable to serve as the air and submarine base for the Allied efforts against the Axis forces in North Africa. The Axis forces on the ground were forced to stop their advance after the inconclusive first battle of El Alamein. However, the German and Italian forces were still within striking distance of the Nile Valley. They were preparing to resume their advance and seize Egypt as soon as they had sufficient reserve of fuel, ammunition, and other supplies. For the Allies, it was vital that Malta remained in their hands; otherwise, the Axis would be able to resume its advance and by seizing Egypt radically improve its position in the Middle East. The operational decision to run a major resupply operation to Malta was made by the strategic leadership in London, not by the Admiralty or the fleet commanders in the theater.

In the summer of 1942, the Allied command organization in the Mediterranean was highly fragmented. No single commander had the authority and responsibility for the planning and employment of all three services. The basic plan for the operation was prepared in London. Plans in support of the operation were prepared by the respective service component commanders in the Mediterranean. These headquarters were separated by long distances. The mission's success depended almost entirely on cooperation among the services. However, strong parochialism among services made that task very difficult. The British army was unwilling to support the operation by conducting a diversionary attack although the survival of Malta was vital for the Allied campaign in North Africa.

The Allies' single greatest advantage was their ability to timely intercept and decode the German Enigma messages. This, in turn, allowed Allied commanders to obtain generally accurate and detailed knowledge of the enemy's plans,

actions, and pending reactions. The Allies possessed excellent knowledge of the strength and the planned movements of the Luftwaffe's units in the Mediterranean. They also had reliable knowledge of the strength and movement of Italian submarines and surface forces. Their assessment of the U-boats' strength was faulty.

Planning for Operation PEDESTAL was soundly based and very thorough. A major problem was to assign a sufficient number of freighters for the new resupply effort, because of the Allied commitments to supply Soviet Russia. Another problem was to assemble a powerful force for providing distant cover and support and direct screen of the convoy, because the Allies' naval commitments in the British home waters and in the Indian Ocean were stretched to the limit. The Allies learned proper lessons from the failure of the dual convoy operation in June 1942 and applied them for the planning of Operation PEDESTAL. The geography of the western and central Mediterranean was a major and negative planning factor in Operation PEDESTAL. The long distances from Gibraltar to Malta, combined with the proximity of the Axis airfields, dictated the type and number of forces for support and the method of their combat employment.

Lack of adequate air strength on Malta greatly complicated the Allied problem of ensuring the success of the operation. The Allies lacked a sufficient number of heavy bombers on Malta to inflict substantial damage to the enemy air bases on Sicily and Sardinia. They also lacked fighters to provide for the safety of the convoy once it came within their striking range.

The Allied feint in the eastern Mediterranean was poorly conceived, because the objectives in the pending operation were so obvious to the enemy. Also, forces assigned to the feint were insufficient to compel the Germans and Italians to weaken their forces in the western and central Mediterranean. Only a viable threat of the Allied invasion of Crete or mainland Greece would have forced the enemy to react operationally or even strategically. It was also quite possible that a sizable diversionary attack by the British army in the Libyan Desert might have forced the Germans and the Italians to divert some of their land-based aircraft from attacking Force F.

The Axis command organization in the Mediterranean lacked not only unity of command but also unity of effort. Both the Germans and the Italians had a separate command structure. Each coalition partner prepared plans separately. The German theater structure was also highly fragmented. Although Kesselring was nominally in command of the entire southern theater, he was not in control of the Axis campaign in North Africa, nor did he have de facto control over the employment of the German naval forces. The Italian command organization was chaotic because there were overlapping responsibilities and authority over

various service forces. The higher naval authorities also constantly interfered with the decisions and actions of subordinate tactical commanders.

The Axis powers had limited capability to intercept and decode the enemy radio messages. They relied mostly on air reconnaissance and submarine reports for acquiring information on the locations, compositions, and movements of the enemy forces. Yet they had a solid network of agents on both sides of the Strait of Gibraltar. They also apparently had some agents in the Suez Canal zone.

Because of the lack of good intelligence prior to the movement of the enemy forces, the Axis leaders made plans for the operation in mid-August largely as a reaction to enemy actions. Nevertheless, the German and the Italian plans for the employment of their forces were solidly based. They commanded an extremely favorable geographic position for the operations of their forces. A large number of the Italian airfields and naval bases flanked the route of the enemy convoys in the western and central Mediterranean. The Axis aircraft and surface forces based on Sardinia and Sicily operated from exterior positions but along the short lines of operations. The single major error on the German side was Kesselring's decision not to provide strong air cover for the Italian heavy surface forces.

The Germans and Italians had a large number of land-based aircraft available for attack on the enemy convoy and supporting forces in the western and central Mediterranean. The Germans were also able to redeploy some of their aircraft from Crete to Sicily. Despite the large number of aircraft, the Axis lacked a sufficient number of fighters to provide escort to bombers and cover to surface ships. The lack of fuel essentially immobilized the Italian battleships. The Italians were able to assemble relatively large number of submarines in the western part of the Mediterranean, while the Germans had only two U-boats available.

The Axis commanders had a reasonably accurate picture of the situation in the western Mediterranean once the enemy convoy transited the Strait of Gibraltar. Most of their intelligence came from reports from the reconnaissance aircraft. The Germans and the Italians exaggerated the true capabilities of the Allied force that entered into the Mediterranean. The probable reason for that was the sheer size of the Allied surface forces assigned in support of the convoy. Both the German and Italian pilots showed a great deal of determination, skill, and courage in their repeated attacks against the convoy and its supporting forces. The Italian submarines and the U-boats achieved great success in their attacks against both surface ships and merchant vessels. Most surprising were the successes of the Italian and German torpedo boats against the scattered convoy on the night of 12–13 August. Yet the Germans and the Italians made a major mistake in their decision to focus their attacks on the enemy's undamaged ships. This was most likely the reason that the oiler *Ohio* survived and safely reached

Malta. The Italian decision to cancel the planned attack on the remnants of the convoy by heavy surface forces was a great mistake and probably cost the Axis not only tactical but also operational success.

The Allies had an almost uninterrupted stream of decoded Enigma messages, giving them unprecedented knowledge and understanding of the enemy situation, plans, and pending actions. The Allied commanders knew the German orders of the day and their intentions. Despite great odds, the Allied airmen and sailors displayed a superb fighting spirit. This was especially true of the merchant mariners. One of the major errors on the Allied side was the decision, based on false assumptions, to turn Force Z westward. That decision resulted in heavy Allied losses. The Allied operation M.G. 3 failed to make any impression on the Axis commanders. This was not a surprise, because the Allies had based the entire effort on a faulty assumption. It represented a waste of time and sorely needed resources.

OPERATIONAL LESSONS LEARNED

One should try to identify possible lessons for the future by in-depth study of a major operation or campaign; otherwise, there is little value in studying a naval history for future commanders and planners. In general, the lessons learned should be based on one's conclusion pertaining to a certain combat action. These lessons can be tactical or operational in terms of their scope. They should be derived from the study of actions by both friendly and enemy forces. The operational lessons learned are generally more important than tactical lessons. Their value does not become obsolete with the passage of time, because they are focused on the human element, not materiel. The study of a single major operation or campaign can provide only tentative lessons learned. However, the more historical case studies are used, the more valuable operational lessons are. One can derive the following operational lessons from the study of Operation PEDESTAL of mid-August:

- A strategic leadership should not normally make decisions that rightfully belong to the operational or tactical commanders. An exception is when the strategic situation is so serious and the lack of decisive action might have a major impact on the course or even outcome of war in a certain theater. Then only strategic leadership can ensure that adequate forces are available or become available to accomplish the ultimate objective of a major operation or campaign.
- In making a decision, the operational commander should always carefully weigh the potential risks versus the benefits of not only the pending major

operation but also the effect on the campaign as a whole. In some situations, the potential losses in the pending operation might be prohibitively high. Yet taking such a high but prudent risk can be justified if the outcome of the operation would result in gaining valuable time for a campaign as a whole.

- The closest degree of cooperation among services during planning and execution of a major operation or campaign should not be left at the discretion of individual commanders but should be based on appointing a single commander, thereby ensuring unity of effort through unity of command. The lines of authority and responsibilities should be simple and clear at all levels of command, but especially at the operational and theater-strategic levels. A single commander and staff should optimally conduct planning for major operations. The commanders who planned the operations should also execute it.
- The excessive parochialism of services is one of the major factors for the lack of necessary cooperation in drafting plans for a major operation or campaign. It is also one of the major causes of duplication of effort, thereby resulting in the waste of sorely needed resources and time.
- The ability to obtain accurate, reliable, timely, and relevant information on the enemy order of battle, plans, intentions, and movements is of inestimable value during the planning and execution of a major operation or campaign. However, the importance of good intelligence should not be overestimated. Having what is today called “information dominance” is only one, and often not even the most important, among many factors in making a sound decision. Much more important is the commander’s experience, character traits, and sound judgment. An operational commander might also make a sound decision but still suffer a setback or even defeat from a weaker opponent who acts faster without waiting to have a perfect knowledge of the situation. In some situations, the weaker side can be more successful without having the knowledge of the stronger side’s plans and intentions but occupying a much more favorable geographic position, having numerical or qualitative superiority, and acting with greater speed and determination.
- In planning a major operation, the commander should avoid adding tasks unrelated to the accomplishment of the ultimate operational objective. Additional tasks not only unnecessarily complicate the basic plan but also reduce available forces for the accomplishment of the main objective. Additional tasks also usually require more time for their accomplishment

and thereby might considerably complicate or even endanger the outcome of a major operation.

- A major operation is likely to be more successful if the planners also prepare a plausible operational deception plan. Hence, various feints, demonstrations, or ruses should not be conducted in isolation but should be invariably integral to such a plan. A feint or operational deception is unlikely to be successful if the objective is too transparent to the enemy. Forces assigned to operational deception should pose such a threat as to lead the enemy to react operationally or even strategically, not tactically.
- Warfare in a typical narrow sea (enclosed or semi-enclosed sea) differs considerably from warfare on the open ocean or littorals bordering the open ocean. The successful employment of one's forces operating in a narrow sea cannot be ensured without having an adequate degree of air superiority in a given area of operations. Land-based aircraft are a formidable threat to one's surface ships operating in a narrow sea. This threat can be neutralized effectively only by having one's own superior airpower.
- Narrow seas also allow a weaker side at sea to inflict substantial losses on its stronger opponent by skillful use of favorable geographic position, submarines, small surface combatants, and mines.

NOTES

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3. *Royal Navy and the Mediterranean Convoys*, pp. 78, 128.
4. *Ibid.*, p. 81.
5. I. S. O. Playfair, et al. *The Mediterranean and Middle East*, vol. 3, *September 1941 to September 1942: British Fortunes Reach Their Lowest Ebb* (London: H.M. Stationery Off., 1960), p. 31.
6. J. Caruana, "Ohio Must Get Through," *Warship International*, no. 4 (1992), pp. 334–35.
7. Playfair et al., *Mediterranean and Middle East*, vol. 3, pp. 401–408.
8. Stephen W. Roskill, *The War at Sea, 1939–1945*, vol. 2, *The Period of Balance* (London: H.M. Stationery Off., 1956), pp. 301–302.
9. *Ibid.*, p. 302; Smith, *Pedestal*, p. 33.
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24. Roskill, *War at Sea, 1939–1945*, vol. 2, p. 302.
25. Appendix M, Report on Operation Pedestal, 25 August 1942 Flag Officer Commanding Force F HMS Nelson, ADM 199/1242, Public Records Office (London), p. 2.
26. Roskill, *War at Sea, 1939–1945*, vol. 2, p. 302.
27. CINC Mediterranean to Admiralty and V.A. Malta, 17 June 1942, ADM 223/340, Public Records Office (London), p. 1.
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29. CINC Mediterranean to Admiralty and V.A. Malta, 17 June 1942, ADM 223/340, Public Records Office (London), p. 1.
30. Smith, *Pedestal*, p. 41; Roskill, *War at Sea, 1939–1945*, vol. 2, p. 303; Caruana, "Ohio Must Get Through," p. 335.
31. Operation "Pedestal" (Main Convoy), W.H. Case 8269, Part I and II, 2–16 Aug 1942, ADM 199/1243, Public Records Office (London), p. 1.
32. CINC Mediterranean to Admiralty, 17 June 1942, ADM 223/340, Public Records Office (London).
33. Playfair et al., *Mediterranean and Middle East*, vol. 3, p. 323.
34. Smith, *Pedestal*, p. 36.
35. Ibid., pp. 50, 36; *Royal Navy and the Mediterranean Convoys*, pp. 81–82.
36. Admiralty to CINC Home Fleet, CINC Mediterranean, 15 July 1942, ADM 223/340, Public Records Office (London).
37. Specifically, the governor requested the following requirements: 21,000 tons of flour, 6,000 tons of coal, 10,000 tons of army ammunition, 2,700 tons of white oil, 5,800 tons of kerosene, 7,500 tons of aviation spirit, 1,500 tons of fodder, 7,900 tons of other stuffs, 2,500 tons of cement, 1,000 tons of timber, and 9,100 of government and commercial stores. From Governor Malta to Admiralty and CINC Mediterranean, 3 July 1942, ADM 223/340, Public Records Office (London), p. 1.
38. *Royal Navy and the Mediterranean Convoys*, p. 131. Some other sources claim 140,013 GRT. James J. Sadkovich, *The Italian Navy in World War II* (Westport, Conn.: Greenwood, 1994), p. 289; Caruana, "Ohio Must Get Through," p. 335.
39. Smith, *Pedestal*, pp. 41–42.
40. *Royal Navy and the Mediterranean Convoys*, p. 82.
41. Caruana, "Ohio Must Get Through," p. 335.
42. *Royal Navy and the Mediterranean Convoys*, pp. 81, 129–30; "Operation Pedestal," *Supplement to the London Gazette*, 11 August 1948, p. 4506.
43. Smith, *Pedestal*, p. 36.
44. Operation "Pedestal" (Main Convoy), W.H. Case 8269, Part I and II, 2–16 Aug 1942, ADM 199/1243, Public Records Office (London), p. 1; "Operation Pedestal," *Supplement to the London Gazette*, p. 4506.
45. Admiralty to all subordinate commanders, 17 July 1942, AIR 8/892, Public Records Office (London).
46. *Royal Navy and the Mediterranean Convoys*, pp. 130–31, 82.
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51. Admiralty to CINC Home Fleet, CINC Mediterranean, 15 July 1942, ADM 223/340, Public Records Office (London), p. 1; Roskill, *War at Sea, 1939–1945*, vol. 2, p. 302; Giuseppe Fioravanzo, comp., *La Marina Italiana Nella Seconda Guerra Mondiale*, vol. 5, *Le Azioni Navali In Mediterraneo. Dal 1 Aprile 1941 All' 8 Settembre 1943*, 2nd ed. (Rome: Ufficio Storico Della Marina Militare, 1970), pp. 356, 403; *Royal Navy and the Mediterranean Convoys*, p. 82.
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53. S.O. (F) in Admiralty to CINC Mediterranean, F.O. C.N.A. V.A. Malta, 20 July 1942, ADM 223/340, Public Records Office (London).
54. Fioravanzo, *La Marina Italiana Nella Seconda Guerra Mondiale*, vol. 5, pp. 357, 404; Roskill, *War at Sea, 1939–1945*, vol. 2, p. 303; *Royal Navy and the Mediterranean Convoys*, p. 82.
55. Fioravanzo, *La Marina Italiana Nella Seconda Guerra Mondiale*, vol. 5, p. 404.
56. *Royal Navy and the Mediterranean Convoys*, p. 82.
57. Statement of Aircraft Position at Malta for Operation 'Pedestal,' 10 August 1942, AIR 8/892, Public Records Office (London), p. 1.
58. Fioravanzo, *La Marina Italiana Nella Seconda Guerra Mondiale*, vol. 5, p. 411.
59. V.A. Malta to Admiralty, 3 August 1942, ADM 223/341, Public Records Office (London).
60. *Royal Navy and the Mediterranean Convoys*, p. 82; Fioravanzo, *La Marina Italiana Nella Seconda Guerra Mondiale*, vol. 5, p. 404.
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63. Doc Pedestal, ADM 223/340, Public Records Office (London).
64. Operation "Pedestal" (Main Convoy), W.H. Case 8269, Part I and II, 2–16 Aug 1942, ADM 199/1243, Public Records Office (London), p. 1.
65. Doc Pedestal, ADM 223/340, Public Records Office (London).
66. Operation "Pedestal" (Main Convoy), W.H. Case 8269, Part I and II, 2–16 Aug 1942, ADM 199/1243, Public Records Office (London), p. 1.
67. *Royal Navy and the Mediterranean Convoys*, p. 98.
68. Also called in the English the Sicilian Channel, Sicilian Strait, and Pantelleria Channel. In Italian it is known as Canale di Sicilia or Stretto di Sicilia, while in French it is referred to as Cape Bon Channel or Kélibia Channel.
69. *Royal Navy and the Mediterranean Convoys*, p. 98.
70. Report on Operation Pedestal, 25 August 1942 Flag Officer Commanding Force F HMS Nelson, ADM 199/1242, Public Records Office (London), p. 2.
71. Operation "Pedestal" (Main Convoy), W.H. Case 8269, Part I and II, 2–16 Aug 1942, ADM 199/1243, Public Records Office (London), p. 1.
72. *Royal Navy and the Mediterranean Convoys*, p. 75; Fioravanzo, *La Marina Italiana Nella Seconda Guerra Mondiale*, vol. 5, pp. 355–56.
73. Operation "Pedestal" (Main Convoy), W.H. Case 8269, Part I and II, 2–16 Aug 1942, ADM 199/1243, Public Records Office (London), p. 1.
74. Roskill, *War at Sea, 1939–1945*, vol. 2, p. 303.
75. *Ibid.*; Fioravanzo, *La Marina Italiana Nella Seconda Guerra Mondiale*, vol. 5, pp. 356–57.
76. Fioravanzo, *La Marina Italiana Nella Seconda Guerra Mondiale*, vol. 5, p. 403.
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79. Appendix M, Report on Operation Pedestal, 25 August 1942 Flag Officer Commanding Force F HMS Nelson, ADM 199/1242, Public Records Office (London), p. 2.

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83. Operation “Pedestal” (Main Convoy), W.H. Case 8269, Part I and II, 2–16 Aug 1942, ADM 199/1243, Public Records Office (London), p. 1.
84. Andreas Krug, *Coordination and Command Relationships between Axis Powers in the Naval War in the Mediterranean 1940–1943* (Toronto: Canadian Forces College, CSC 31/CCEM 31, 2005), pp. 67, 77–79, 70.
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89. The Malta Convoy, August 1942: German Reactions, AIR 40/2038, Public Records Office (London), p. 2.
90. *Kriegstagebuch der Seekriegsleitung 1939–1945*, Teil A, Band 36, *August 1942* (Herford/Bonn: Verlag E. S. Mittler & Sohn, 1992), pp. 97, 84.
91. Krug, *Coordination and Command Relationships*, p. 42.
92. Smith, *Pedestal*, pp. 57–58; Fioravanzo, *La Marina Italiana Nella Seconda Guerra Mondiale*, vol. 5, p. 358.
93. Sadkovich, *Italian Navy in World War II*, p. 289; Fioravanzo, *La Marina Italiana Nella Seconda Guerra Mondiale*, vol. 5, p. 412.
94. Smith, *Pedestal*, p. 59.
95. Playfair et al., *Mediterranean and Middle East*, vol. 3, p. 323.
96. Sadkovich, *Italian Navy in World War II*, p. 289; Fioravanzo, *La Marina Italiana Nella Seconda Guerra Mondiale*, vol. 5, p. 412.
97. Fioravanzo, *La Marina Italiana Nella Seconda Guerra Mondiale*, vol. 5, p. 360.
98. Cited in Krug, *Coordination and Command Relationships*, p. 66.
99. Fioravanzo, *La Marina Italiana Nella Seconda Guerra Mondiale*, vol. 5, pp. 360–61.
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171. Fioravanzo, *La Marina Italiana Nella Seconda Guerra Mondiale*, vol. 5, 455.
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BOOK REVIEWS

“THE LATTER TEND ALSO TO BE THE FORMER”

Gray, Colin S. *National Security Dilemmas: Challenges and Opportunities*. Washington, D.C.: Potomac Books, 2009. 334pp. \$29.95

Colin Gray's highly engaging book addresses a spectrum of national security considerations that are likely to impact the United States in the coming years. Gray, who is a professor at the University of Reading and served for five years in the Ronald Reagan administration, argues that America's sports-mindedness has culturally prepared Americans to think in terms of winning and losing and of confrontations that have a beginning, middle, and end. In this light, the former expression of art “Global War on Terrorism,” one that President Obama has dispensed with, leads us to overlook the eternal nature of the struggle against individual and small-group violence. Gray convincingly observes that the conflict the United States has embarked upon after September 11 “bears more resemblance to a protracted hunt than it does to what most people understandably call a war.”

Gray warns that although we cannot control surprise, we can control our reaction to it—a particularly important observation for the current geostrategic environment. His call for the United States to develop a “detailed, culturally

empathetic understanding of its new adversaries” is particularly apt. One is left with the task of struggling to choose which arguments should be highlighted.

Even the chapter on understanding revolutionary changes in warfare, a topic that received too much attention after the 1991 Persian Gulf war, is rewarding. Gray points out that though the term is of use, one cannot assess the true nature of a potential revolution in military affairs (RMA) outside the wider political, strategic, and social context. For example, Germany's successes in May 1940 were due as much to French mistakes as to Nazi military innovation.

In addition, at a number of points throughout the book Gray makes the cogent point that the United States could easily spend too much time looking for, or attempting to create, the next RMA and put too little effort into understanding social and cultural changes in how it views war. I believe Gray coined the term “Revolution in Attitudes toward the Military” to argue that variations in acceptable military practices and the need to understand

the cultural implications of violence will be increasingly important.

I would offer two minor critiques. Gray may have set the bar too high when he argues at length that the United States suffers “a persistent strategy deficit.” Doesn’t history offer more than a handful of examples of powerful states that demonstrated superb long-range strategic planning, in particular during peacetime? I wonder if one can agree with the great majority of Gray’s individual critiques on American strategic practices and yet be skeptical that a broad-gauge indictment is warranted.

Also, when I read the brief section in which he argues that al-Qa’ida could potentially be deterred, I remained unconvinced. The facts that al-Qa’ida protects its key members and that some of the organization’s support system may be deterrable are far from demonstrating that “the organization itself . . . should be eminently deterrable.” However, these are two minor points regarding a commendable work that engages a wide array of security considerations and offers much engaging and original thinking.

As Gray notes regarding his subtitle, “the latter tend also to be the former.” Colin Gray’s work offers many important arguments and observations that will help identify both.

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Stuart, Douglas T. *Creating the National Security State: A History of the Law That Transformed America*. Princeton, N.J.: Princeton Univ. Press, 2008. 342pp. \$38.50

Douglas Stuart holds the J. William Stuart and Helen D. Stuart Chair in International Studies, Business and Management at Dickinson College and is an adjunct professor at the U.S. Army War College. He provides an insightful history of the struggle to reform completely the U.S. national security establishment from 1937 to 1960, an effort that resulted in the creation of the Department of Defense, the National Security Council (NSC), the Central Intelligence Agency (CIA), and three separate armed service departments under a secretary of defense.

This extensively researched study of the political and bureaucratic battles to establish control over the national security establishment holds invaluable lessons for those interested in the current efforts to reform the joint, inter-agency system to better develop, resource, and execute a coherent national security policy and strategy.

Prior to World War II, Edward Pendleton Herring of Harvard identified problems with the existing foreign and defense policy-making system. The United States was wedded to isolationism and antimilitarism, with narrow domestic political interests that shaped its foreign and defense policies.

Pendleton Herring introduced the “concept of national security” and was visionary in proposing an alternative national security system. Pearl Harbor quickly changed the way Americans thought about security. The fact that the United States was attacked from such distance firmly “established the concept of national security as an unchallengeable standard against which all future foreign policy decisions were to be made.”

Stuart describes the significant roles played by presidents Franklin Roosevelt, Harry Truman, and Dwight Eisenhower; secretaries of state George Marshall and Dean Acheson; Secretary of Defense James Forrestal; Congressman Carl Vinson; policy adviser Ferdinand Eberstadt; and Pendleton Herring. He explains how national security was managed during the war, how the Joint Chiefs' power grew, the marginalization of the State Department, and the lessons learned. There is also a discussion of the unsuccessful efforts made by Truman, Marshall, and the Army leadership to unify the services. Forrestal and the Navy opposed unification, proposing an alternative national security system developed by the Unification Study Group, chaired by Eberstadt, with Pendleton Herring's participation. The bureaucratic battles lasted over three years and resulted in the 1947 National Security Act, which created a National Military Establishment, National Security Council, Central Intelligence Agency, secretary of defense, Air Force, and three other institutions that soon disappeared. Stuart identifies this system's severe flaws, especially the limited powers granted to the secretary of defense and the statutory membership of the three services in the NSC with the secretary of defense. In 1949, 1958, and with Eisenhower's reorganization plan of 1953, these flaws were rectified. There follows a discussion of the reasons for this final transition from a National Military Establishment to a Department of Defense and the creation of the Office of the Secretary of Defense, with the three services removed from the NSC, becoming now departments under the defense secretary. Stuart's lucid analysis of

lessons learned is a must-read for future reform efforts.

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Tangredi, Sam J. *Futures of War: Toward a Consensus View of the Future Security Environment, 2010–2035*. Newport, R.I.: Alidade, 2008. 273pp. \$20

What Sam Tangredi offers here is not a standard attempt at predicting the near future of warfare but rather a synthesis of various competing predictions and analyses.

The book is a follow-up to his earlier book *All Possible Wars* (2004), the object of which was to inform political decision making in the realm of defense planning. One hopes that this latest effort does not follow the fate of its predecessor, which Tangredi freely admits remained largely ignored by its target audience.

A “reinvestigation and rewrite rather than a revision,” the work has as its explicitly stated purpose “to provide—not an independent forecast—but a comparative analysis of current studies of the future security environment in order to support upcoming reviews of America’s defense posture.”

Methodologically speaking, the work is comprehensive, drawing from forty different studies. Each study is rigorously surveyed, analyzed, and compared with others for points of agreement and dissent. Points of consensus and divergence are tested against the sources to distinguish dissenting positions from points of consensus and to validate consensus as a majority view.

This methodology, “Representative Source Comparative Analysis” (RSCA), identifies threats, conflicts, and drivers, the latter incorporating ideologies, economic factors, and technology. The sources are, like this study, authoritative.

Chapter 5 contains the bulk of the work by identifying “common assessments and consensus.” Dividing the analysis into categories of threats, military technology, and opposing strategies, which are then subdivided into eighteen subscenarios, Tangredi makes an effective comprehensive and succinct examination of the literature to provide a review of the various studies in each case, explaining what arises in consensus and in opposition.

The intention of chapter 6, “Divergence and Contradictions,” is to capture the essence of basic divergent views and examines ten “either-or” propositions. In this instance, these are broken into various category headings, such as nature of conflict (which replaces military technology), threats, and opposing strategies. The chapter is simple, clear, to the point, and—although the substance is more complicated than the author represents it to be—credible.

In chapter 7, “Wild Cards and Hedging Scenarios,” touching on the bane of defense planners everywhere, the book inevitably loses some of its certainty—a point not lost on Tangredi. Yet he cleverly utilizes the “wild card” and the “hedging scenario” to provide a conceptual overlay that, he argues, enables the assessment of an adopted defense policy’s flexibility and baseline assumptions.

One caveat is, naturally, that in dealing with this subject, what was once the

future quickly becomes the past. This is the case, for example, regarding wild-card scenarios, where a global economic collapse is discussed. This has arguably happened since publication.

Futures of War is certainly worthy of the attention of U.S. defense policy makers, but it is impossible to know if this work will follow its predecessor and be ignored as well.

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Graham, Gordon. *Ethics and International Relations*. 2nd ed. Malden, Mass.: Wiley-Blackwell, 2008. 223pp. \$21.95

In today’s world, citizens, statesmen, and men and women in uniform are faced almost daily with real questions about terrorism, torture, humanitarian intervention, and foreign assistance. They must return again and again to the problem of determining when the use of military force might be an appropriate response to the horrors of the day. For these individuals Gordon Graham’s *Ethics and International Relations* is an invaluable work. It is stimulating, challenging, insightful, and, perhaps most unusually, helpful. Not by any stretch of the imagination is this a “how-to” book, with explicit guidance or facile answers. Rather, it represents an understanding of the contending logics that lead to competing conclusions about right or wrong action, or nonaction, on the global stage.

Graham, a distinguished philosopher now holding the Henry Luce III Chair at the Princeton Theological Seminary,

updates and expands here his original 1997 publication, tackling issues that have emerged in the last decade. This revised work retains the extraordinary merits of the earlier. The author brings wonderful clarity of logic and presentation to what, in other hands, is often a confused mess of unconnected arguments, claims, counterarguments, and counterclaims. Graham offers his presentation without disparaging or giving short shrift to anyone, exploring realist, various moralist, and what he terms “Legalist” traditions of international ethics, the assumptions and reasoning built into them, the criticisms that have been leveled against them, and possible responses to these criticisms.

Graham himself is neither, on the one hand, utopian nor, on the other hand, dismissive of ethical concerns. In the “Legalist” tradition, Graham stresses the moral disanalogies between states and individuals (a difference that “Moralist” approaches often regard as unimportant), argues the need to consider both natural law and the law of nations in wrestling with international ethics, and uses the just-war theory as a logical starting place for consideration of other interventions. Graham is candid and thoughtful about the problems of such an approach, as well as about the strengths of alternatives.

While this volume is a tightly integrated whole, it is organized into what are essentially eight separate, carefully organized, and self-contained twenty-five-page lectures. Beginning with the rise of the state system and of the nation-state, Graham investigates the ethical assumptions built into this political framework and the challenges inherent in such an organization of political life. He explores just-war theory and

considers the ethical problems associated with weapons of mass destruction before turning to the issues that have increasingly dominated the international agenda of the post–Cold War period.

Among the joys of this wonderfully erudite but never overwhelming or condescending volume is Graham’s capacity to explain, without going off on tangents, many of the concepts and distinctions—from the differences between power and authority and between force and violence to the logic of the principle of double effect—that, left unexplained, befuddle so many analyses and discussions.

Readers are likely to realize many “aha!” moments as all sorts of nonsensical arguments suddenly make sense. Surprisingly, given the weightiness of the topic, this is a book that is difficult to put down and an important book to pick up.

EDWARD RHODES
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Kets de Vries, Manfred F. R. *Reflections on Character and Leadership: On the Couch with Manfred Kets de Vries*. New York: Wiley, 2009. 332pp. \$29.95

Reflections on Character and Leadership is not your typical book on leadership. It delves into aspects that are often neglected in both the classroom and professional press. How often do we focus on the leader who is dysfunctional and on what drives the destructiveness?

This is what Manfred Kets de Vries has set out to do. An engaging writer and scholar with a penchant for practical workplace applications, Kets de Vries

has taught at Harvard and is currently the Clinical Professor of Leadership at INSEAD in Paris, one of the world's leading and largest business schools. His background in economics, psychoanalysis, and organization research gives a holistic perspective to the material, including his recommendations for intervention.

The author opens by describing troubled entrepreneurs and analyzing the psychology of dysfunctional leaders. The examples are vivid and instructive. As individuals gain recognition, authority, and power, eventually they arrive at a fork in the road. One path commits them to serve for the greater good, while the other leads down the dark lane of hubris and malevolence. Kets de Vries then discusses how this choice can affect organizations and proposes possible remedial actions.

One reason the "dark side" of leadership is underrepresented in literature is that the genesis of a pathology is not readily assessable. Research cannot directly validate the developmental or emotional voids that lead to paradoxical behavior in the executive ranks. Unfortunately, organizations often reward personality defects and encourage the wrong role models. For example, while charismatic aggressiveness is often viewed as a positive leadership trait, it can also be compensatory cover for insecurity or paranoia, for which the organization will pay a price.

Kets de Vries draws on his clinical and psychoanalytic research to identify these pathologies and their consequences, which are frequently substantial. Arrogance, power, and a tendency to distort reality can result in oppressive micromanagement, a toxic

workplace, and insidiously faulty decisions. In this day and age, we do not have to look far to find examples.

When confronted with pathological leadership, followers have three options: flight, fight, or dependency. The author discusses the strong symbiotic dynamics between a corrosive leader and dependent followers. Subconscious identification with such a leader gives followers the illusion of control, protection, and purpose. It is a regressive way for followers to cope with anxiety and fear, and it is fertile ground for ideological manipulation.

The book concludes with a discussion of transformational leadership and the challenges confronting global organizations. Here Kets de Vries brings to bear his international leadership-forum experience, stressing the necessity of interpersonal and cultural acumen and of appropriate organizational structures. This section contains an intriguing analysis of how Russian leadership behavior and thinking has been influenced by that nation's unique culture.

Reflections on Character and Leadership is the first of a planned three-volume series. It suffers from a few irritants that haunt collected works, such as dated material, repetition, and unevenness. However, the convenience and enjoyment of reading a range of material from this influential and gifted writer more than compensate for any transgressions.

HANK KNISKERN
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Tenet, George. *At the Center of the Storm: My Years at the CIA*. New York: HarperCollins, 2007. 549pp. \$30

George Tenet's tenure as Director of Central Intelligence (DCI) was marked throughout by controversy, so it is no surprise that his memoirs face more of the same. Partisans will never be satisfied; policy and national security insiders, regardless of their depth on the inside, will find areas with which to disagree; historians will decry the lack of citations; and individuals who helped to create some of that history will be glad for that lack.

Yet for readers not looking for confirmation of their prejudices, *At the Center of the Storm* will provide an engrossing narrative of a critical time in U.S. history. This much cannot be contested: George Tenet was a key player during a period that reshaped this nation. Was he the best possible choice? Some will argue that he was not, while others who look back at the history of the CIA during the 1980s and 1990s will be grateful for his tenure.

At the Center of the Storm is above all a story of love and passion, for Tenet is not a cold chronicler who hides his emotions behind a detached, simple narrative of events. As Virgil writes, "I sing of arms and the man," so does Tenet. Just as his love for his country and for his family shines throughout this work, so does his love for the CIA and its officers. This book reads as a first-person history should. It is engrossing and fascinating, with the personal view of "this is what we were trying to do."

Tenet's strengths were as a leader and visionary, strengths that civilian agencies, unlike the military, rarely have the pleasure to experience. Tenet took over the agency during a time of demoralization and became its greatest champion, cheerleader, and advocate. If he was not as successful within the larger intelligence community, it was not for lack of effort.

Tenet's appointment showed both the advantages and disadvantages of having an intelligence outsider at the helm of the CIA. As an outsider, he was willing to challenge the old ways of doing things that any bureaucracy develops over time. Changing from a Cold War world to a multipolar world required a new perspective to meet new threats and challenges. But outsiders cannot always recognize the nuances of the intelligence craft (whether operational or analytic) and risk losing the balance necessary for producing good intelligence. The reader can decide where events like the now-infamous "slam-dunk" incident belong.

Decades from now, historians likely with no better knowledge than we have will write an objective account of DCI George Tenet. If there is a degree of justice in the world, Tenet will be rightfully acknowledged as one of the greatest DCIs in history. If these historians are faithful to their craft, however, they will also point out that George Tenet, like all great men, had an element of hubris that in the end tarnished his record.

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Huchthausen, Peter A., and Alexandre Sheldon-Duplaix. *Hide and Seek: The Untold Story of Cold War Naval Espionage*. New York: Wiley, 2009. 414pp. \$30

Contrary to the popular notions of spying as conveyed in novels and films, espionage is a difficult and frequently dangerous business. Although everyone does it, some nations are just better at it. In this work, Peter A. Huchthausen and Alexandre Sheldon-Duplaix offer a series of accounts of naval espionage after World War II.

While this reviewer cannot attest to the bona fides of Sheldon-Duplaix, I do know that Huchthausen was the consummate insider in naval intelligence, having had a diverse career during which he always seemed to be in the middle of the action. His specialty was in human-source intelligence, with a primary focus on the Soviet Union and its navy. Sadly, Peter died in July 2008, before the formal release of this book, so it seems somewhat unfair to critique his work.

To be of value to other than casual readers, a book on Cold War naval espionage should first describe the national security context to explain why these intelligence activities were undertaken in the first place and what bits of knowledge were so important that they required such great risk. Second, it should ask, what did naval espionage do to obtain the information, and what contributions did naval intelligence offer to the problem? What did naval intelligence add to the body of knowledge? Against this paradigm, *Hide and Seek* falls short of the mark.

The early chapters provide an interesting account of the competition between the United States and the Soviet Union to obtain German technology immediately after World War II. The authors go on to discuss the early stages of the Cold War, culminating with the Cuban missile crisis of 1962. Although there are numerous references to archival historical material, books, and personal correspondence, Huchthausen and Sheldon-Duplaix largely rely on anecdotes (we call them “sea stories” in the Navy), loosely strung together, and offer few conclusions. For example, one is left wondering why the Royal Navy would risk the life of the World War II hero, frogman, and MI6 diver Lionel Crabb in a seemingly failed effort to conduct underhull reconnaissance of an aging Soviet warship.

While some insights are provided into naval intelligence activities during the Cold War, especially the Cuban missile crisis, no description is offered of the enormous contributions of naval intelligence and its operations to the redefinition of the U.S. Navy’s maritime strategy in the 1980s, which focused on holding at risk the Soviet ballistic-missile submarine force.

Extensively covered is Project JENNIFER, the joint CIA-Navy venture to recover the lost Soviet Golf II ballistic-missile submarine from the depths of the northern Pacific Ocean in 1974. The authors’ unique contribution is a lengthy description of the efforts taken by the United States to provide the lost Soviet submariners dignified burials at sea when the submarine was recovered—an event that was videotaped and years later handed over to the Russians.

Huchthausen and Sheldon-Duplaix also examine a number of counterintelligence issues, such as the 1961 Christine Keeler affair in Britain and, more important, the treason of John Walker, who spied for the Soviets from 1967 to the mid-1980s and whom the authors describe as “one of the greatest espionage successes in history.”

Two concluding chapters introduce orthogonal themes, such as the 1980s Soviet operations that culminated in the “Whiskey on the Rocks” (a euphemism for the grounding of a Soviet submarine in Swedish territorial waters) and a bizarre account of how UFOs might have altered the strategic balance during the Cold War.

Huchthausen and Sheldon-Duplaix offer an interesting and entertaining read, one that shows that U.S. naval attachés at times work in difficult and dangerous circumstances. However, because of its excessive use of anecdotes, this book does not add much to the body of knowledge about naval espionage—neither that of the United States, of the Soviets, or of anyone else.

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Rhys-Jones, Graham. *Churchill and the Norway Campaign*. South Yorkshire, U.K.: Pen and Sword, 2008. 223pp. \$33

“The principle of aiming everything at the enemy’s center of gravity admits of only one exception—that is, when secondary operations look exceptionally rewarding.” This classic dictum, given to us by the great military theorist Carl von Clausewitz, provides the impetus

behind this book. Originally conceived as a case study for inclusion in the Strategy and Policy curriculum at the U.S. Naval War College, this historical work covers the operations in Norway during the spring of 1940, one of the most overlooked campaigns of the Second World War. The reader is presented with a complete account, in a fast-moving and easy format, of the strategic decision making that eventually led both Great Britain and France, on the one side, and Germany, on the other, to conclude that opening a new theater in Norway could in fact be “exceptionally rewarding.”

While Churchill figures prominently in the book’s title, the reader will find examined not only his policy decisions and strategic ideas discussed at length but also the actions and decisions of numerous other participants in the governments of the major belligerents. Most studies concerning the war in the West in 1940 focus on the French military’s epic defeat, but Rhys-Jones offers an account of French participation in the war as Great Britain’s strategic partner. The strategic partnership between the Neville Chamberlain and Édouard Daladier governments in the spring of 1940 is a subject that usually does not get much attention, but an interesting account of that short-lived alliance can be found in this book.

Rhys-Jones, a former member of the Naval War College faculty, presents his analysis in a manner that both students and faculty at the college will find familiar. He begins at the policy level, focusing on the benefits and drawbacks that each major participant concludes are relevant to undertaking operations in what was considered a secondary theater. He then outlines each belligerent’s

strategy before presenting a thorough examination of operations and tactical considerations for both land and maritime forces involved in the campaign. The outcome in Norway was never a foregone conclusion. Germany's tactical prowess and brilliant leadership at the small-unit level are conveyed nicely, leaving the reader to actually wonder throughout the narrative whether the Germans can pull off such a bold and daring feat of arms.

It is a tribute to Rhys-Jones's authoritative approach to the subject matter and his fine writing style that he has created such a useful study of the elements—the matching of strategy and policy, the conduct of joint operations, and the wisdom of opening a new theater—while at the same time telling a riveting story.

Any student of grand strategy, as well as the casual reader, will find plenty of value in this well written historical narrative. If there is a waiting list of books to be included into the curriculum at the Naval War College, this book should top the list.

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Kuehn, John T. *Agents of Innovation: The General Board and the Design of the Fleet That Defeated the Japanese Navy*. Annapolis, Md.: Naval Institute Press, 2008. 296pp. \$32.95

Skeptics of disarmament treaties, such as Richard Pearl, have long argued that these treaties make a nation weaker by depriving it of the means of self-defense. John Kuehn, former naval aviator and presently professor of military history at the U.S. Army Command and

General Staff College, in Fort Leavenworth, Kansas, is far more subtle in this excellent book. He shows how the Washington Naval Treaty of 1921 froze battleship construction and yet made the U.S. Navy stronger by 1941. While it is never easy to prove something so counterintuitive, Kuehn does it hands down.

How did this happen? First, by freezing the building of battleships the treaty drove the Navy to invest more time, money, and imagination into other projects, particularly submarines and aircraft carriers. These ships had greater potential than the battleship, which had just about reached its maximum technology by the end of World War I. In addition, by preventing the United States from enhancing its base fortifications west of Hawaii, the treaty drove the Navy to design new vessels of much greater operational radius, build floating dry docks, and enhance its total transport capabilities. By World War II, the U.S. Navy could do the seemingly impossible: beat a peer competitor in the western Pacific without permanent bases in the area of operations.

One wonders why the Japanese did not take advantage of the constraints imposed by U.S. arms limitations. Kuehn offers a convincing explanation, by focusing on the General Board of the U.S. Navy. Whereas the Royal Navy and the Imperial Japanese Navy were hierarchal and faction ridden, the U.S. General Board was collegial, collaborative, and remarkably open to new ideas from all branches of the service, virtually irrespective of rank. Both the British and the Japanese fell far behind in antisubmarine warfare. The Japanese stuck to their Mahanian dogma of decisive naval battle conducted by large battleships.

The Americans, meanwhile, built a more balanced fleet, able to starve Japan of supplies as well as defeat its forces on land, in the air, and beneath the sea.

When Kuehn writes of being collegial and collaborative, this reviewer thought of a perpetuation of the status quo, since I was of the opinion that military innovation is only the by-product of egotistic individuals who are unable get along with their fellow officers. Billy Mitchell, J. F. C. Fuller, George Patton, and Pete Ellis readily come to mind. Kuehn points out yet another irony as well—that the U.S. Navy of the 1920s thrived because of financial constraints. All naval officers with pulses and open eyes could see that they could no longer rely on their navy’s simply being bigger than its prospective opponents. Hence the institution entertained all serious ideas of reform, so that the rebels, so to speak, became the norm.

Although this is an excellent book, it is not perfect. The discussion of flying-deck cruisers (a model never put into production) is too long. Chapter 8, however, which compares innovation or lack of it in the navies of Britain, Japan, and Germany, is about the best writing I have seen on military development in the interwar years.

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Kozak, Warren. *LeMay: The Life and Wars of General Curtis LeMay*. Washington, D.C.: Regnery, 2009. 434pp. \$27.95

Warren Kozak captures the true essence of General Curtis LeMay. Like many great leaders, LeMay was a paradox, a vivid contrast of unique strengths and debilitating weaknesses. He was insecure, afraid of failure, always questioning his own decisions. LeMay hid his insecurities beneath a stern and gruff demeanor that gave the impression of confidence and strength. The antithesis of the stereotypical dashing American flyboy, “LeMay was dark, brooding, and forbidding. He rarely smiled, he spoke even less, and when he did, his words came out in a snarl.”

Always seeking to learn as much as he could, LeMay not only flew airplanes but took time to service and repair them alongside his maintenance crew. He made himself the best navigator in the U.S. Army Air Corps. For example, he successfully located the USS *Utah* in a 120,000-square-mile area of the Pacific, and he found the Italian ocean liner SS *Rex* in a large Atlantic storm. As the United States entered World War II LeMay commanded the 305th Bomber Group, which began with only three aircraft to train thirty-five crews. He was a stern disciplinarian who demanded excellence.

LeMay was always able to cut to the heart of the matter. He devised radically new tactics that improved bombing accuracy and reduced aircraft losses. To build trust and confidence within his crew, he led the missions himself. His success was noticed, and as Generals Hap Arnold’s and Ira Eaker’s “fireman” he was given the toughest challenges to overcome.

Kozak goes on to describe LeMay’s development of Strategic Air Command (SAC), which supported his long-held

vision that the best way to avoid war was through strength and readiness, as reflected in SAC's motto: "Peace Is Our Profession." LeMay felt he was one of the few people who understood that the United States was at war with the Soviet Union and that the only way SAC could provide the security that the nation needed was to be prepared to go to nuclear war at a moment's notice. Everything he did was focused on that objective.

After relinquishing command at SAC, LeMay served as the U.S. Air Force's vice chief of staff and then chief of staff during the Dwight D. Eisenhower, John F. Kennedy, and Lyndon B. Johnson administrations. In the later years, LeMay worked for Secretary of Defense Robert McNamara, who, ironically, had once worked for LeMay as a targeting analyst. The relationship between these two men was often confrontational, but despite their differences McNamara called LeMay "the finest military strategist this nation ever produced."

The last major chapter in LeMay's life is the one probably best remembered and yet least reflective of LeMay's internal values. LeMay's decision to run for vice president on the Independent ticket with Alabama's Governor George Wallace confounded everyone, including his own wife, daughter, and closest associates. Kozak maintains there is no evidence of LeMay being a racist and maintains that the only reason he chose to run was to split the vote, ensuring that Democratic presidential candidate, Hubert Humphrey, would not win the election and so continue the policies of the Johnson administration. By running, LeMay believed, he was taking "one last chance to rise up and do battle" against the "defense intellectuals,"

whom he believed would cut the U.S. deterrent until the Soviets could win a general war.

This book's greatest value might be that it offers an opportunity to consider objectively the impact that Curtis E. LeMay (the youngest general in modern American history and its longest serving) had on the events that shaped this nation for many years to come.

ROGER DUCEY
Naval War College



Willmott, H. P. *The Great Crusade: A New Complete History of the Second World War*. Dulles, Va.: Potomac Books, 2008. 520pp. \$17.60

The Great Crusade is a comprehensive military history of World War II. With a focus on strategic-level military operations and a global perspective, this work provides a particularly complete and nationally balanced account of the war. H. P. Willmott achieves his ambitious goal of providing "a basic reference and guide to the war" that offers balance among the major fronts of the conflict and illuminates "why events unfolded in the manner in which they did."

The Great Crusade discusses conflict between countries and systems, not between leaders or equipment. It is about "how states make war and the basis on which services planned, executed and either won or lost campaigns." Willmott distinguishes between the use of available forces by military commanders to win campaigns and the use of national power to win wars. National and international political factors, beginning in 1931, get the attention they deserve. How and why countries joined and left the conflict (including the

lesser Axis members) is presented in context but without excess sympathy. The ideology and associated atrocities of Germany and Japan strengthened morale at home and intimidated some, but brutality prevented any prospect of willing economic or military support from conquered areas, particularly China and the non-Russian parts of the Soviet Union. The failure of the German and Japanese governments to mobilize their economies effectively when at war contrasts with efforts by the key Allied powers.

Willmott argues convincingly against numerous popular ideas concerning the war. He attacks the “myth of German military excellence,” offering numerous examples of error and failure in military efforts and in related economic and political activities. He highlights the paramount importance of the Russian front, covering the enormous scale of combat and the tremendous improvement in Soviet military strategic and operational skill.

This work is rich with comparisons between campaigns, strategies, and countries, and it covers land, sea, and air operations with good balance. Numerous statistics illustrate key ideas and strengthen the historical narrative. Dozens of maps help illustrate key campaigns. Also, the general index is useful. Corrections to page numbers in the “Campaign Index” planned for the second printing will make this book invaluable. The bibliography organizes suggestions into fourteen categories that reflect regions or themes in a way that may compensate for the absence of citations.

Willmott’s impressive credentials include faculty experience at several universities and at the Royal Military Academy Sandhurst. He has written

nineteen books and coauthored several others. He is a fellow of the Royal Historical Society.

Because this work is “a general overview of military events” with some emphasis on correcting popular misunderstandings, it offers a great deal to readers at every level of expertise. This sweeping history provides the reader with great insights into World War II in particular but also into enduring issues, including relationships between military, political, and economic power.

BRENT BOSTON
Commander, U.S. Navy



Barritt, M. K. *Eyes of the Admiralty: J. T. Serres—
an Artist in the Channel Fleet, 1799–1800*. London: Hydrographic Office and National Maritime Museum, 2008. 144pp. \$39.95

For centuries, the port of Brest in northwestern France has been the chief naval base and dockyard for French naval operations in the North Atlantic and the Channel. For Britain, during the Napoleonic Wars—as well as in all the maritime wars between Britain and France in 1689 and 1815—the French Brest squadron was a central threat to the Royal Navy. British naval strategy to counter this threat had a number of elements. The Royal Navy’s Channel Squadron had, as a primary duty, the blockade of Brest. These operations served the strategic function of deterring the Brest squadron from leaving port and, thereby, of preventing it from launching an invasion force against Britain or its overseas possessions, attacking the British fleet, or interfering with British warships and merchant convoys that were using the nearby

sea-lanes en route to various other parts of the world. Given the central importance of dealing with the French naval threat, British naval activities off Brest are important in naval history and, not surprisingly, they feature too in the widely read historical naval novels that are set in the period of the naval wars of the French Revolution and Napoleon.

This volume is about a British naval intelligence operation off Brest in 1799–1800. The story begins at a critical moment. The Second Coalition against France had just been formed in June 1799, and in December Napoleon was making his way back from Egypt to overthrow the Directory and to make himself First Consul. In London, halfway between those events in September 1799, the First Secretary of the Admiralty, Evan Nepean, found that nothing available in any government office in London provided a detailed visual image of Brest that the First Sea Lord, Admiral Lord St. Vincent, could use to understand the operational challenges or opportunities that the port presented. To fill this gap in British naval intelligence, Nepean ordered John Thomas Serres to report immediately to a frigate with the inshore squadron on blockading duty to paint a series of views of Brest and the nearby coast of Brittany.

John Thomas Serres (1759–1825) was the son of Dominic Serres (1719–93), a French merchant seaman, who had been captured in 1748 and brought to England. Making his hobby of drawing and painting into a lucrative new career, the elder Serres had become one of the founders of the Royal Society of Art. His evocative and highly accurate depictions of naval battles during the War of the American Revolution had brought him wide praise and, at the

very end of his life, in 1791, the title of Marine Painter to King George III. On his death two years later, his son, John Thomas Serres, who was already Master Draughtsman to the Admiralty, inherited his father's position.

Serres's beautiful and informative sketches and paintings from this important mission have lain long unnoticed by naval historians at the archives of Britain's Hydrographic Office in Taunton, Devon. Captain Michael K. Barritt, Royal Navy (retired), has now brought them to light in a beautifully produced volume that is accompanied by Barritt's well researched, skillfully written, and informative history of Serres's mission. Barritt first came to learn of this material when in 2003 he retired after thirty-three years of naval service, having risen to become Hydrographer of the Royal Navy. Fascinated by a framed image from this series that he received as a retirement gift, he set out on a research quest to understand more about it. This book is the result of that research, which is informed by his naval career and professional hydrographic expertise as well as by his undergraduate education in history under Piers Mackesy at Pembroke College, Oxford. The story that Barritt tells in this volume is a valuable contribution to naval history, one that directly complements the documents in the Navy Records Society's volume edited by Roger Morriss, *The Channel Fleet and the Blockade of Brest, 1793–1801* (vol. 141, 2001). At the same time, Barritt describes in this beautifully illustrated volume a naval mission that is full of action and interest for both the general reader and the naval professional.

JOHN B. HATTENDORF
Naval War College

IN MY VIEW

“THE HEART OF AN OFFICER”

Sir:

Every successful officer considers his career path as that most appropriate and useful. So it is—for him or her. Certainly the successes of Admiral Stavridis and Captain Hagerott testify to the worth of their credentials to make the arguments in their article [see James Stavridis and Mark Hagerott, “The Heart of an Officer: Joint, Interagency, and International Operations and Navy Career Development,” in the Spring 2009 issue, pp. 27–41]. But the thrust of their argument, based upon their own histories and experiences, is not congruent with the mission of the Navy. Officer selection, training, education, and experience are not, and should not be, intended to prepare officers to serve as joint combatant commanders. The Navy needs to produce only a handful of senior officers each year for these tasks. But several hundred officers are required as commanding officers of battle groups, amphibious ready groups, ships, aircraft squadrons, and the shore stations supporting them.

These commanding officers are those who execute the actual function of the Navy—to serve at sea or in direct support of those who do. The Navy’s job is at sea, there to perform effectively and efficiently over long periods. The individual components that perform the functions are highly technical in form and substance. While a grasp of history, political science, and sociology is useful and mastery of language is extremely beneficial, these are not areas that help officers to operate and maintain complex machinery. The nod to nuclear power in their essay is an acknowledgment of this fact, but their relegating such expertise to that specialty damages the capability of the rest of the fleet.

The decision to require line officers to master the technology of ship’s propulsion—made over a hundred years ago—set the stage for a grasp of technical details in commanders. The proposal to relegate these details back to engineering duty specialists carries the second-order effect of removing technical competence from line officers just when the technologies of warfare have become more

complex than those of ship's propulsion. The expertise demanded of submarine officers in the understanding of the physics of their propulsion plant also generates understanding of the physics of sound in the ocean—a comprehension vital to that warfare specialty.

Every officer needs an honest appreciation of the laws of physics, theories of thermodynamics, the fundamentals of preventive and corrective maintenance, and some comprehension of computer technology. Previous episodes in which concerns with the machinery of the ships were relegated to the sidelines resulted in such a poor state of material conditions and upper-level supervision that Admiral Holloway, then Chief of Naval Operations, had to require special engineering training for all officers going to command at sea; the establishment of the Propulsion Plant Examining Boards and years of attention were needed to restore surface ships to reasonable standards of readiness. Today and for the future the bottom line remains: if officers cannot get their ships under way and operate them effectively, their ships are liabilities, not assets.

Legislative demands have eroded the goals of technical excellence over the past thirty years, at the price of achieving jointness. But “jointness” has little meaning at sea—other services have few functions there and even less interest. The proposal of Admiral Stavridis and Captain Hagerott to generalize the majority of naval officers serves to further this erosion.

Admiral Stavridis's career demonstrates that there are especially talented individuals who respond to the educational opportunities and who can excel at joint commands. There will always be such individuals. Constructing career paths to make every officer a potential combatant commander shortchanges the true epitome of the naval profession—Command at Sea.

W. J. HOLLAND, JR.

Rear Admiral, USN (Retired)

Vice President, Naval Historical Foundation

REFLECTIONS ON READING

Professor John E. Jackson is the Naval War College's manager for the Navy Professional Reading Program.

One of the primary goals of the Navy Professional Reading Program (NPRP) is to provide sailors with opportunities for professional development that will enable them to do better jobs as twenty-first-century warriors. Each book is a window into a world readers may have never encountered, and each conveys concepts relevant to their professional and personal lives. A topic may best be learned about by reading a number of books within the NPRP library. For example, American forces are increasingly focusing on military operations in Afghanistan. Three books in the primary library and one in the “supplemental reading” list are particularly relevant to an understanding of this ancient part of the world.

From the Junior Enlisted Collection. *The Kite Runner*, by Afghan novelist Khaled Hosseini, paints a sometimes painful and sometimes poetic picture of life in Afghanistan from the fall of the monarchy in the 1970s through the Soviet invasion and into the era of the rise of the Taliban. The story includes the protagonist's escape to Pakistan, immigration to the United States, and return to a land permanently changed by war and tribal struggles. This book will help readers understand many of the factors that continue to influence conflict in a part of the world that has seen little peace in the past three hundred years.

From the Department/Command Leaders Collection. *Imperial Grunts*, by Robert D. Kaplan, focuses on the day-to-day life and military missions of America's fighting men and women who serve on the ground in some of the world's hot spots. Kaplan spent time with the troops on battlefields around the globe, and he paints a vivid picture of life on the “tip of the spear.” His book is divided into chapters covering operations in various military areas of responsibility, and his chapter on Central Command and Special Operations Command provides an in-depth look at the work done by the “grunts” in Afghanistan in the autumn of 2003. He describes the frustration of troops over how the war was being waged

by “rear echelon” forces at Bagram Air Force Base and how the headquarters organization was consuming resources (like helicopters) badly needed elsewhere in-country. He quotes one observer’s description of Afghanistan as “a road-less, broken and under-developed country; an absence of any strategic points; a well-armed enemy with great mobility and modern rifles, who adopts guerrilla tactics. The results . . . are that the troops can march anywhere, and do anything, except catch the enemy.” What makes this quote particularly interesting is that it was written by a young Winston Churchill about conditions in 1897!

From the Junior Enlisted Collection. Lone Survivor, by Marcus Luttrell, tells the story of the sole survivor of Operation REDWING, an ill-fated Navy SEAL mission to capture or kill a notorious al-Qa’ida leader in the Afghan mountains along the Pakistani border. Readers will learn about the mission itself, how a decision to adhere to the law of armed conflict led to the deaths of three of the four team members, and how another eight SEALs and eight Army Rangers were killed in a rescue mission to reach their fallen comrades. They will also meet the Afghan villagers who took in the badly wounded sailor and hid him from the Taliban killers who were looking to finish the bloody work they had started on the mountaintop.

From the Supplemental Reading List. Three Cups of Tea: One Man’s Mission to Promote Peace, One School at a Time, by Greg Mortensen and David Oliver Relin, portrays a much more peaceful and more hopeful vision of the people of Afghanistan and Pakistan. This book is a favorite of the chairman of the Joint Chiefs of Staff, Admiral Michael Mullen, who personally visited the school built by Mortensen in the remote Afghan village of Pushgahar, one of nearly two hundred built in Central Asia exclusively with donated funds. It is also required reading for special operations forces who deal at the most personal level with local inhabitants in the region.

NPRP books, including three of the four titles mentioned above, have been provided to every major command and activity in the Navy, and they are available for sale at the Navy Exchange and from commercial booksellers. There is no better way to learn about the world around you than through the eyes of such authors.

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