Naval War College Review

Volume 51
Number 3 *Summer*

Article 7

1998

The Dardanelles Campaign

E.Michael Golda

The Dardanelles Campaign
A Historical Analogy for Littoral Mine Warfare

E. Michael Golda

EFFECTIVENESS IN FIVE WARFARE ELEMENTS is necessary for the United States Navy to achieve the maritime dominance discussed in the strategic vision of littoral warfare, "Forward . . . from the Sea": surface warfare, undersea warfare, amphibious warfare, combat logistics, and mine warfare.[1] The first four elements became mainstays of the U.S. Navy during World War II. The fifth element, mine warfare, has been elevated from its traditional, often neglected, supporting role. The Navy has started to make significant improvements in its mine warfare capabilities, guided by the lessons learned in DESERT STORM and the requirements of the new amphibious maneuver warfare concept, "operational maneuver from the sea."[2] A Mine Warfare Command has been created. A substantial research and development effort has begun to address technological shortfalls.[3] Senior Navy and Marine Corps mine warfare leaders have initiated a "campaign plan" to develop a common vision to guide the integration of all mine warfare efforts.[4] Yet the Navy has no adequate example to display the strategic importance of mining in war.

"Historically, the Navy has quite correctly associated the development of only minimal MCM [mine countermeasures] capability as less risky than limiting other warfare areas."[5] That estimation is no longer correct. The sea-mine threat is proliferating at the same time the U.S. Navy is preparing for increased littoral

Dr. Golda is the head of the Electrical Machinery Technology Branch at the Naval Surface Warfare Center Carderock (Maryland) Division. For the past five years his efforts have focused on large-scale naval applications of superconductivity, including mine countermeasures. He is a 1977 graduate of the U.S. Naval Academy. He holds M.S. and Ph.D. degrees in materials science and engineering from Stevens Institute of Technology. Dr. Golda is also a commander in the U.S. Naval Reserve; as a Naval Reserve Engineering Duty Officer he has commanded units assigned to the Naval Sea Systems Command and Norfolk Naval Shipyard.

Naval War College Review, Summer 1998, Vol. LI, No. 3

operations. In 1992 the Office of Naval Intelligence reported that more than forty-five nations had sea-mining capability and that at least twenty-three "are known to be capable of producing mines."[6] Failure to correct the traditional low-risk perception of mine warfare traditionally held by the Navy could have strategic consequences. Indeed, only when naval officers recognize that an enemy's mines can be more than an inconvenience, more than an embarrassment, and more than a tactical impediment will the U.S. Navy comprehend that in an age of littoral warfare mines are *strategic* weapons.

Education will play an important role in establishing mine warfare as a fundamental element of maritime dominance. Naval officers must not only understand the increased magnitude of the threat that sea mines pose to their ability to conduct littoral operations but also take the steps necessary to improve mine warfare capability. The leadership of the Navy's mine warfare community is trying to create a new attitude among operational commanders—that mine warfare is an integral part of littoral warfare.[7] This change in attitude was supported in a white paper by Admiral Jeremy Boorda, writing as Chief of Naval Operations.[8]

Historical analogies can be a valuable tool in the educational process. They demonstrate important trends and lessons that result from the connected happenings that make up the Navy's past.[9] Such analogies are already a significant part of a naval officer's education. As the armed forces of the United States reorient their missions after the Cold War, historical models are routinely incorporated as illustrative examples in both high-level guidance and doctrine. Examples include the chapter "Joint Campaigning in the Solomons, 1942–1943" in Joint Publication 1, and those entitled "The Battle of the Atlantic: Using Attrition Warfare" and "Midway: The Principles of War Applied at Sea" in Naval Doctrine Publication 1.[10] Selection of appropriate historical analogies was an integral part of the development of the concept of maneuver warfare, and it remains prominent in current discussions and formal instruction.[11]

This article addresses the question, What would be an appropriate historical analogy for littoral mine warfare? First we examine the fundamental characteristics of a useful mine warfare analogy; next we discuss the shortfalls of the traditional U.S. Navy littoral mine warfare models. Finally, we review the Royal Navy's Dardanelles campaign as a more relevant analogy, useful for study and discussion within the United States Navy to make mine warfare an integral warfare element in littoral operations.

Characteristics of a Littoral Mine Warfare Analogy

At the most general level, a useful historical analogy broadens the general perspective of naval officers about the importance of mine warfare, raising their

professional competence. At a more practical level, it offers a model against which to evaluate a proposed course of action. A valid analogy helps to define the situation and test presumptions, helping a service arrive at the best possible choices in its mine warfare efforts.[12]

To be useful, a historical analogy must reflect six characteristics of mine warfare in the littoral as the U.S. Navy is likely to conduct it. The first four arise from the world order, current and projected fleet capabilities, anticipated capabilities of potential adversaries, and the new strategic and tactical concepts guiding the Navy. The fifth proposition addresses the risk that mine warfare poses to littoral operations. The final factor has to do with the impact of littoral mine warfare on the exercise of command.

Littoral operations involve limited naval forces, with modest resources. With the downsizing of the U.S. Navy and the probability of further reductions in defense funding, it is reasonable to assume that the Navy of the future will be constrained in the resources it can bring to bear in a littoral operation. Even if the current "come as you are" emphasis (with its adverse mobilization and reconstitution implications) is reversed politically, choices have already been made that will affect force structure into the far term.

Political leadership and military command are closely linked. A cornerstone of the United States government is civilian preeminence. The president, assisted by the secretaries of defense and state and by the National Security Council, formulates national security policy and makes the decision to use military force. The operating forces of the United States are assigned to the unified commands responsible for specific geographic areas or missions. When military force is employed, the chain of command runs from the National Command Authority directly to the commander in chief of the appropriate unified command. The role of civilian authority was further strengthened by the Goldwater-Nichols Department of Defense Reorganization Act of 1986.[13] Future littoral operations will be conducted under close civilian oversight; continued improvements in communications technology will strengthen civilian authority even further.

Littoral naval engagements are asymmetric. Although the U.S. Navy will have modest resources (by its own historical standards), it is unlikely that any potential adversary will be able seriously to contest control of the littoral "battlespace" using conventional naval forces.[14] Therefore, future littoral actions will be battles between forces which are quantitatively dissimilar.

Minefields are defended. Mines are a simple and economical means of contesting littoral waters, but they are only one component of an effective littoral defense against power projection from the sea. "It is those maritime and land mine fields close in and ashore, covered by observation and fire and designed to supplement rather than be the defense, that are the true challenge of littoral MCM operations."[15] This was, for instance, long-established Soviet naval

doctrine.[16] A determined adversary who has prepared in advance, adopting an appropriate doctrine that maximizes the effectiveness of his military resources, could disrupt operational maneuver from the sea.

Mine warfare operations can have significant effects on strategic outcomes. An educationally valuable historical analogy must incorporate the fundamental characteristics of a situation in a way that clearly demonstrates the high level of risk associated with littoral mine warfare.

A littoral mine threat can hinder the exercise of command. Command and control is crucial to the success of any naval operation, and a useful historical mine warfare analogy should highlight the impact a mine threat can have on a commander under the stress of combat.

Traditional Historical Littoral Mine Warfare Analogies

The episodes from American history most commonly cited as mine warfare analogies are Mobile Bay (1864, during the Civil War) and Wonsan, North Korea, in 1950. However, both of these events fail to meet at least one of the six characteristics we have listed.

In the former case, the Confederate defenders of Mobile, Alabama, a port city on the Gulf of Mexico, had at least seven months' warning, during which period Rear Admiral David Farragut was collecting the vessels he would need to make an assault. By the time he was ready, in August 1864, the defenses were at their strongest; they included a triple line of mines (known then as "torpedoes") between, and defended by, forts on either side of the single deep-water channel into Mobile Bay. The small Confederate naval force, an ironclad and three light gunboats, was outgunned 159 guns to sixteen by the eighteen Union ships—certainly a numerically asymmetric engagement.[17] Prior to the assault, Farragut directed a careful reconnaissance of the Confederate defenses to mark the minefields. His operational order clearly established that in self-protection "the vessels will take care to pass eastward of the easternmost [marker] buoy."[18] The failure of the commanding officer of the USS *Tecumseh* to follow this direction resulted in the loss of his ship and a failure of nerve on the part of the commanding officer of the USS *Hartford*. Admiral Farragut's "Damn the torpedoes!" can probably be attributed less to reckless boldness than to frustration with his subordinates, which made it necessary to exercise command constantly to achieve his objective. Farragut's force destroyed the Confederate naval squadron and captured Mobile's defenses within twenty-four hours.

Mobile Bay, however, is a poor historical mine warfare analogy. There was no direct linkage between the political leadership and Admiral Farragut. The campaign aimed at no significant outcome: "The city's importance to the Union had already passed, for Mobile was no longer needed as a Union base for a land

campaign."[19] Moreover, the common misconception that Farragut's famous command reflected a "heroic" disregard for mines eliminates the episode's usefulness for present purposes.

For the Wonsan case, the necessary background is that the North Korean offensive that began in the summer of 1950 had been reversed by the amphibious assault of United Nations forces under the command of General Douglas MacArthur at Inchon on 15 September 1950, "a triumph of joint operations in the most difficult circumstances."[20] After Inchon, the North Korean collapse appeared to offer the possibility of unifying the Korean peninsula. With the concurrence of the Joint Chiefs of Staff, General MacArthur planned an encirclement of the retreating North Korean forces. One U.S. Army corps would advance up the west coast; a second force (made up primarily of the 1st Marine Division) would conduct an amphibious landing on the east coast, at Wonsan, and then drive across the peninsula, cutting North Korea in half.[21]

The few mine countermeasures units that reached the operational theater after the Inchon landing began operations ten days prior to the amphibious assault on Wonsan, sweeping a thirty-mile channel to the landing beach. There had been little advance reconnaissance, the planners believing that the relatively few mines present would be found in the harbor's choke points. The mine countermeasures forces were "stunned" when minefield reconnaissance finally revealed that the North Koreans, under the direction of Soviet advisors, had laid more than three thousand mines over four hundred square miles in approximately three weeks.[22] When magnetic-influence mines were encountered, the landing force of nearly twenty-nine thousand troops was kept at sea aboard the seventy-two ships of Joint Task Force 7 for six extra days.[23] By the time the Marines finally came ashore, Wonsan had already been taken by South Korean troops, and Bob Hope was performing there for the U.S. Army.[24]

Wonsan, too, is a poor historical analogy for mine warfare. In this case there was an engagement of a U.S. Navy task force with limited resources against defended minefields. However, once again, the mine warfare operations did not have a significant effect on the campaign, nor could they have had. Also, the fact that other forces already ashore were able to achieve the objectives at Wonsan minimized any challenge the mine threat might have posed to the exercise of command.

Within its own littoral mine warfare experience, then, the United States Navy has no example that conclusively demonstrates the need to make mine warfare a coequal and fundamental warfare element in the Navy's littoral operations. As a result, the Navy's traditional response in dealing with littoral mine threats has been a short-term flurry of activity. Nothing has justified the value or necessity of sustained support of mine warfare as a primary warfare element. Senior naval

officers who have recognized the magnitude of the mine threat and have attempted to alter the status quo have met with little long-term success. Often their efforts have been reduced to memorable quotes, as the Navy procurements they helped initiate of mine countermeasures ships and equipment failed to receive the continued budgetary support necessary to maintain an increased capability in mine warfare.[25]

We must therefore broaden the scope of the search to the experiences of other navies. The Royal Navy's Dardanelles campaign comes immediately to mind as a compelling example of littoral mine warfare, one that meets all six of our criteria. The failure of the Royal Navy in this littoral mine warfare operation not only lost the campaign but directly affected the course of World War I. It has had an impact on history that is evident even today. What should U.S. Navy officers learn from the Dardanelles case to help them conduct future littoral operations?

The Dardanelles Campaign, 1915

Failure of British diplomacy resulted in a treaty between Germany and Turkey, signed on 2 August 1914, that gave the Germans de facto control of the Dardanelles, the long and narrow passage between the Aegean and the Sea of Marmara (which is connected in turn to the Black Sea by the Bosporus). The Turks began mining the Dardanelles on 3 August, and the pace of their work accelerated when Rear Admiral Wilhelm Souchon of the German navy (who had commanded the cruisers *Goeben* and *Breslau*, "purchased" by the Turks after evading British patrols in the Mediterranean and arriving in Constantinople on the 13th) was appointed commander in chief of the Turkish navy on 15 August 1914. On 27 September the Turkish commandant responsible for the defense of the Dardanelles closed the strait by completing the minefields.

The Turks used the word "fortress" to describe their defenses, which consisted of outer, intermediate, and inner forts on both sides of the strait. The reality was quite different. Rear Admiral Souchon found poorly trained Turkish gunners with out-of-date equipment (old guns of different types and caliber, with poor range finding, fire observation, and control). He requested additional support, and approximately four hundred German naval artillerymen and mine warfare experts under the command of Vice Admiral Guido von Usedom were dispatched to Turkey.[26] These men were integrated into the Turkish service, with the concurrence of Kaiser Wilhelm II, in order to maintain the appearance of Turkish neutrality. Von Usedom's Turkish military title was "Inspector General of Coastal Fortifications and Minefields." The actual command of the Dardanelles was given to another German vice admiral, an artillery expert who

had accompanied Von Usedom to Turkey; his Turkish title was "Inspector of Coast Artillery."[27]

During their initial inspections the Germans found that the shortage of large-caliber ammunition was so severe that, as Von Usedom reported in October 1914, there was only enough on hand to meet one major assault. Von Usedom determined that "he must trust mainly to the minefield for the protection of the Straits."[28] He expanded the initial Turkish mining effort, creating a defensive minefield of 343 mines in ten lines. The minelines were spaced at fairly regular intervals over the ten-thousand-yard approach to the narrowest part of the Dardanelles. The mines were defended by the fixed guns of the intermediate forts and by mobile artillery.

In Britain, the War Cabinet approved in December an operation to open the Dardanelles using only naval forces. Several factors had led to this decision. First, members of the cabinet, including the First Lord of the Admiralty, Winston Churchill, had become dissatisfied with the nation's commitment to a war of attrition in the trenches of France that did not attempt to take advantage of the mobility offered by the Royal Navy. Second, in Russia a lack of war materials (as well as major setbacks in battle) was preventing the numerical advantage of the Russian military from being used to help overcome the stalemate on the Western Front. In turn, the British Empire was faced with food shortages that could be partially alleviated by Russian wheat. Finally, more than 120 allied merchant ships were trapped in the Black Sea, exacerbating a shortage of shipping. The Secretary of State for War, Field Marshal (and Earl) Horatio Kitchener, argued that a successful naval attack on the Dardanelles would be equivalent to winning a campaign; also, the forces could be easily disengaged at any time if progress was unfavorable.[29] Prime Minister Herbert Asquith agreed: "One must take a lot of risks in war. . . . Forcing the Dardanelles . . . presents such a unique opportunity that we ought to hazard a lot elsewhere rather than forgo it."[30]

On 3 January 1915 Churchill queried Admiral Sir Sackville Carden, commanding the combined British and French battle squadron in the Mediterranean, "Do you consider the forcing of the Strait by ships alone a practicable operation? Importance of result would justify severe loss."[31] The resulting plan was for the Royal Navy to force its way through the strait by destroying the Turkish defenses, which would also require clearing the minelines defended by the intermediate forts. Admiral Carden received additional battleships to optimize his force for coastal bombardment, but his total resources (in both ships and logistics) were few.

Royal Navy operations commenced on 19 February 1915. The outer forts were silenced on 25 February, but only after a delay of five days due to bad weather. The weather then caused another several days' interruption. On 1 and

2 March the Royal Navy attempted to bombard the intermediate forts at long range from outside the minelines. Before bad weather again halted operations on 3 March, Admiral Carden had become extremely concerned about the higher than anticipated rate of expenditure of ammunition and by ineffective seaplane spotting of the fall of shot. On 9 March he reported to Churchill that the force would concentrate on clearing the mines. The inner forts could not be reduced by long-range fire, and the battleships could not approach close enough to ensure their complete destruction until the mines had been swept.

The force's minesweepers were converted English trawlers manned by civilian fishermen. The trawlers operated in pairs about five hundred yards apart, sweeping with a single 2.5-inch wire and a one-ton, twelve-foot-long "kite" to regulate the wire's depth.[32] They were also fitted with steel plating for personnel protection. British minesweeping was ineffective on eight nights between 1 and 14 March; despite only minor losses, the trawlers repeatedly withdrew under harassing fire from the mobile batteries. Though civilian trawlermen, who formed the majority of the service's minesweeping crews, had done exceptional and heroic service clearing mines around England, they did not perform well under fire during night operations in the Dardanelles. The failure of minesweeping at night led Admiral Carden to plan a daylight action to silence the intermediate and inner forts and permit the minelines to be swept. The order was issued on 17 March by Admiral Sir John de Robeck, who had been second in command, Admiral Carden having been relieved due to ill health.

The operation commenced at 1130 on 18 March 1915. The battleships silenced the forts, and at approximately 1600 the trawlers moved forward to begin sweeping—only to withdraw again under fire from the mobile batteries, which had not been suppressed.[33] By the end of the afternoon the British and French had lost six battleships, four to mines and two to gunfire. The British thought the mine losses were due to floating mines, for which they had been unprepared, but the ships had actually been destroyed by a new and undetected mineline. A Turkish mine expert, Lieutenant Colonel Geehl, had chosen an area in which he had observed the battleships routinely maneuvering during earlier bombardments; a small Turkish freighter, the *Nousret*, had laid twenty mines during the night of 8 March, when the British picket destroyer had been forced off station by bad weather.[34]

Admiral de Robeck's after-action report stated that he intended to renew the attack within three or four days, after a reorganization of the minesweeping force. Under the forceful leadership of his chief of staff, Commodore Roger Keyes, the civilian crews were replaced by volunteers from the battleships' survivors, and modifications were begun to fit eight destroyers with minesweeping gear. The War Cabinet strongly endorsed these efforts, especially since

intercepts of German wireless communications indicated a serious shortage of ammunition in the forts.[35] Admiral Sir John ("Jackie") Fisher, the First Sea Lord, immediately dispatched two more battleships as reinforcements and instructed de Robeck, "It appears important not to let the forts be repaired or to encourage enemy by an apparent suspension of the operation."[36]

On 23 March Admiral de Robeck completely reversed his plan of action. After a conference with the senior Army officer on the scene (Sir Ian Hamilton), de Robeck proposed a joint operation in which the Army would secure the forts before the Navy tried to force a passage. Lord Fisher then changed his own position, refusing to challenge the judgment of the on-scene commander. Even with the support of Prime Minister Asquith and Lord Kitchener, Churchill could not get the cabinet to order de Robeck to renew the attack immediately. The decision to conduct a ground campaign led to the disaster known as Gallipoli.

The Usefulness of the Dardanelles Campaign Analogy

The essential characteristics of this 1915 episode match closely those of the kind of mine warfare that the U.S. Navy probably faces in the littoral, as we have listed them. First, it was a littoral action in which a limited naval force with modest resources was engaged. The combined British and French force consisted of the battleship HMS *Queen Elizabeth* (a super-dreadnought) and sixteen pre-dreadnought battleships, a battle cruiser, five cruisers, twenty-two destroyers, a seaplane carrier, and thirty-five minesweeping trawlers. The figures are impressive but misleading. The number of cruisers, destroyers, and submarines was much smaller than was needed to escort so many capital ships. This was due to threats to the British home waters from both the German High Seas Fleet and the recently declared unrestricted submarine campaign. There was also a nationwide shortage of large-caliber ammunition. Priority for such stocks as existed went to the Western Front; Admiral Carden and the First Lord had been concerned about this matter since the beginning of the operation. It was this shortage that produced the initial attempt to sweep mines at night, when the need for covering fire against the Turkish intermediate forts would be at a minimum. In addition, and as discussed, the minesweepers, though numerous, were not effective.[37]

Second, there was a close linkage of the political and military commands. To be sure, the substance of this linkage—the interaction between the British political and military leaderships on the options, risks, and potential rewards—left much to be desired; this aspect of the operation could serve as a useful (and negative) historical analogy of civilian control. For instance, the War Cabinet conducted business very informally; significant decisions were often reached

with neither rigorous debate nor thorough examination of political and practical issues. Also, though Fisher and the vast majority of the naval experts in the Admiralty had serious doubts about the technical feasibility of the campaign, Churchill did not forward any of those dissenting opinions. Moreover, the First Sea Lord, Fisher, although present at the meetings of the War Cabinet, did not voice his opposition, believing that military experts should only give that body their technical opinions when asked. Consequently, the Commission of Inquiry into the Operations at the Dardanelles, convened in 1916, concluded that "the stress laid upon the unquestionable advantages which would accrue from success was so great that the disadvantages which would arise in the not improbable case of failure were insufficiently considered."[38]

Whatever the shortcomings of the national decision-making process, however, the First Lord of the Admiralty and the First Sea Lord communicated frequently with Admiral Carden and his relief, Admiral de Robeck. By 18 March more than 350 official telegrams had been exchanged between the Admiralty and the on-scene commander, and their delivery was timely, taking only hours. Informal communication also occurred: for instance, when in late March Fisher declined to order a resumption of the attack, he did agree that Churchill could send a personal, unofficial telegram to de Robeck urging him to reconsider his decision. (Churchill sent this telegram on 24 March, but it failed to convince the admiral to resume the attack.)

Third, the engagement was numerically asymmetric. The sixteen British pre-dreadnought battleships were outdated only in that the caliber of their guns would make them ineffective against the German High Seas Fleet; they were entirely adequate for shore bombardment. The Turkish and German forces defending the Dardanelles certainly lacked what professional military officers of the era considered adequate resources. The head of the German military mission to Turkey reported at the end of February 1915 that the Turkish General Headquarters believed the strait would be forced. "Up to the 18th of March the majority of Turks and Germans alike continued to believe in the power of the Entente [Britain and France] to force the Straits with ships alone."[39] A German journalist reported that the German and Turkish defenders were surprised that the British did not immediately follow up the actions of 18 March; "They had made up their minds the Fleet would win, and they themselves could not have held out much longer."[40]

Fourth, the minefields were defended. The effectiveness of the German and Turkish defense of the Dardanelles was determined by a collection of critical factors, the concrete and intangible strengths and weaknesses of their force.[41] Although the forces were asymmetric and the defenders lacked adequate resources, the success of the defense was determined in large part by such intangibles as doctrine, leadership, will to fight, tenacity, and ingenuity. Due to

the limitations of the Turks' capabilities, the minefields became the primary component in the German tactical doctrine for the defense of the Dardanelles. The success of the Royal Navy in severely damaging the outer forts during a bombardment in November 1914 confirmed in the minds of the Germans and Turks the need to concentrate their future efforts on the inner defenses "and more especially on protecting the minefield."[42] The twenty-one large, fixed weapons guarding the straits were supplemented with forty-four field pieces. Mobile batteries supported by searchlights were set up to provide harassing fire on predefined areas against the minesweeping trawlers and barrages.[43] To prevent the British from accurately planning counter-battery fire, the batteries were brought to the shore at night and withdrawn at daybreak. By 3 March the defenders had further confused British planning by erecting a number of decoy batteries, "mostly discarded water mains."[44] The defenders also increased the difficulty of accurately spotting their fixed positions from long range, camouflaging the battery revetments by painting black, cross-hatched patterns and building earth embankments as decoy revetments.[45] Unable either to obtain additional mines from Germany or produce them in the limited Turkish industrial base, the defenders supplemented their mine stocks by retrieving floating mines set adrift by the Russians near the mouth of the Bosporus to harass Turkish shipping. The minelines were routinely inspected, and mines swept by the British were replaced with the Russian ones.[46]

The intangible critical factors of the defense had a significant influence on Admiral de Robeck. In his testimony to the Commission of Inquiry he stated, "I think it was obvious [from the Turkish resistance on the 18th] then that the Turk was not going to give up easily; he was going to fight the whole way."[47] He had been surprised by the extent of harassing fire of the mobile batteries;[48] during the operation on 18 March the intensity of Turkish fire led de Robeck to doubt the accuracy of the British intelligence on the shortage of ammunition in the forts.[49] The quality of the defense influenced his decision to conduct a ground campaign to take and occupy the Gallipoli Peninsula. In a telegram to the Admiralty explaining his decision he cited the ability to destroy only a "small percentage" of the fixed and mobile guns, and also the mine menace's "being much greater than was anticipated."[50] The German and Turkish defense of the Dardanelles clearly demonstrated the ability of a determined adversary to disrupt a littoral operation by adopting an appropriate doctrine to maximize the effectiveness of available resources.

Fifth, the results of these mine warfare operations had a strategic (in this case adverse) effect. The failure of the Royal Navy to force the Dardanelles committed the British army to a land campaign on the Gallipoli Peninsula. The army in its turn failed to capitalize on opportunities in two amphibious operations, and the campaign settled into a protracted stalemate.[51] By the time

the British, Australian, and New Zealand forces withdrew in January 1916 they had suffered more than two hundred thousand casualties. The Turkish defenders endured more than 250,000 casualties, but they had prevailed: their commander, Mustafa Kemal, was acclaimed as "the Savior of Gallipoli" and in 1922 became the first president of the Turkish Republic.[52] Further, the success of the Turkish and German defense of the Gallipoli Peninsula persuaded Bulgaria to join the Central Powers. In 1916 a German and Bulgarian army defeated Romania, after which the Central Powers controlled all of the Balkan states.[53]

As for Germany, Admiral Alfred von Tirpitz, Secretary of State of the Ministry of Marine, warned on 8 August 1915 that "should the Dardanelles fall the world war has been decided against us."[54] General Erich von Ludendorff later assessed in his memoirs that "if the enemy fleets, by occupying the Strait, had commanded the Black Sea, Russia could have been supplied with the war material of which she stood in need. The fighting in the East would have assumed a much more serious character. These details clearly show the importance of the Strait, and therefore of Turkey, for the Eastern Front and for our whole position."[55]

In some small part because the tsarist and then provisional Russian regimes never received the support that would have flowed to Black Sea ports had the Dardanelles been cleared, the Bolsheviks seized power on 7 November 1917. Russia withdrew from the Entente and arranged a separate peace with Germany. The Bolsheviks and their heirs afflicted the world until 1991.

Finally, the littoral mine threat presented a significant challenge to the exercise of command. On his second day in charge Admiral de Robeck lost six of his seventeen capital ships in less than two hours. Although he reacted resolutely at first and planned to resume the operation promptly, five days later he completely altered his intentions, proposing a joint operation that surrendered the initiative and—as it developed—the possibility of a strategic victory. The War Cabinet, for its part, was willing to accept severe losses (up to twelve capital ships) to achieve the advantage to be won by forcing a passage through the Dardanelles. The losses on 18 March, approximately seven hundred sailors, were insignificant in comparison to those being suffered at the time on the Western Front. Fisher, despite his personal objections, would not intervene. Yet, notwithstanding the strategic implications of the Dardanelles operation, while "no one in London liked the idea of postponing fleet action till Hamilton opened the Strait, . . . no one pressed hard for the only alternative—a coordinated army-navy assault."[56]

The issue of courage arises. Joint Publication 1 discusses the importance of both physical and moral courage in military operations, defining the latter as both the capacity to take risks and the tenacity to "make bold decisions in the face of uncertainty[,] . . . holding to the chosen course despite challenges or

difficulties."[57] Admiral de Robeck had certainly displayed physical courage during the early phases of the operation;[58] after 18 March, however, he appears to have suffered a crisis of the moral variety. De Robeck chose to abandon the naval operation to force the Dardanelles in spite of the severe Turkish shortage of ammunition and "the need to demonstrate to Greece, Bulgaria, and Romania the military strength and staying power of the Allies."[59] Reflection on the appalling losses his ships had suffered to mines evidently skewed his command judgment.

The failure of the Royal Navy mine countermeasures forces in the Dardanelles prevented Great Britain from achieving important operational and strategic goals, with far-reaching historical consequences. Adopting the Royal Navy Dardanelles campaign for educational purposes as a historical analogy for littoral mine warfare, and discussing the issues it suggests, could help alter the U.S. Navy's perception of the significance of littoral mine warfare. Changing this perception would further the process of making mine warfare "an integral part of our strategy and our forces."[60] Absent such compelling evidence of the value and necessity of a capability for sustained mine warfare, the United States Navy may effectively grant future enemies the power, at vital places and times, to deny the United States maritime dominance. The implications of sea denial achieved by defensive mining of critical littoral areas can reverberate far beyond the joint task force commander and regional senior commanders. As the mined waters of the Dardanelles showed, strategic plans, national objectives, and even grand historical trends may be altered.

Notes

1. Hon. J. Dalton, J. M. Boorda [Adm., USN], and C. Mundy [Gen., USMC] "Forward . . . from the Sea" (Washington, D.C.: Department of the Navy, September 1994).

2. C. C. Krulak [Gen., USMC], "Operational Maneuver from the Sea" (Washington, D.C.: Commandant of the Marine Corps, January 1996).

3. "Answers to Mine Threat Should Emerge from FY-97/98 Demonstrations," *Inside the Navy*, 21 October 1996, p. 1.

4. "Navy and Marine Officials Work to Make Mine Warfare a Higher Priority," *Inside the Navy*, 23 October 1995, p. 6.

5. T. M. Melia, *"Damn the Torpedoes": A Short History of U.S. Naval Mine Countermeasures, 1777–1991* (Washington, D.C.: Naval Historical Center, 1991), p. 134.

6. "ONI: Sub Threat Drops in Third World," *Inside the Navy*, 17 February 1992, p. 2.

7. J. M. Boorda [Adm., USN], "Mine Countermeasures: An Integral Part of Our Strategy and Our Forces" (Washington, D.C.: Chief of Naval Operations, 1996).

8. Ibid.

9. R. E. Neustadt and E. R. May, *Thinking in Time: The Uses of History for Decision Makers* (New York: The Free Press, 1986).

10. *Joint Warfare of the U.S. Armed Forces*, Joint Publication 1 (Washington, D.C.: The Joint Staff, 1991), pp. 25–9; and *Naval Warfare*, Naval Doctrine Publication 1 (Washington, D.C.: Chief of Naval Operations, 28 March 1994), pp. 32, 41–42.

11. William S. Lind, "Why the German Example?" *Marine Corps Gazette*, June 1982, pp. 59–63; and J. G. Burton, *The Pentagon Wars* (Annapolis, Md.: Naval Institute Press, 1993), pp. 257–65.

12. Neustadt and May, p. 279.

13. J. R. Locher, "Taking Stock of Goldwater-Nichols," *Joint Force Quarterly*, Autumn 1996, pp. 10–6.

14. Joint Publication 1, p. 59.

15. *Mine Countermeasures in Littoral Power Projection*, Fleet Marine Force Manual Reference Publication 14-25 (Washington, D.C.: Headquarters, U.S. Marine Corps, 1997), p. 2.

16. Milan Vego, *Soviet Naval Tactics* (Annapolis, Md.: Naval Institute Press, 1992), pp. 293–4.

17. E. B. Potter, ed., *Sea Power: A Naval History* (Englewood Cliffs, N.J.: Prentice-Hall, 1960), p. 318.

18. Melia, p. 3.

19. Potter, p. 321.

20. Joint Publication 1, p. 16. The Inchon landing itself does nothing to argue for the importance of littoral mine warfare. The operation was undertaken with no mine intelligence, other than numerous sightings of mines in the area by United States, Royal Navy, and South Korean ships. There were no mine countermeasures assets in theater, though Soviet advisors and mines made available from Soviet stockpiles in July had reached Inchon by rail prior to the amphibious landings. Contact mines encountered by support ships approaching Inchon on 10 September were effectively neutralized with gunfire. However, the scope of the minefields was not fully known until aerial mine spotting was conducted by patrol aircraft on 2 October, more than two weeks after the landing. In addition, also after the landing, ten unassembled influence mines were found on the largest island on the sixty-mile-long channel that is the only deep-water approach to Inchon harbor (Malcolm Cagle [Cdr., USN] and Frank Manson [Cdr., USN], *The Sea War in Korea* [Annapolis, Md.: Naval Institute Press, 1957], pp. 91, 133, 145, 378). Inchon is more properly cited, by the Joint Chiefs of Staff, the U.S. Navy, and the Marine Corps, as a historical analogy for joint leadership and maneuver warfare (Joint Publication 1, p. 16; Naval Doctrine Publication 1, p. 34; and Krulak, p. 71).

21. J. A. Field, Jr., *History of United States Naval Operations, Korea* (Washington, D.C.: Superintendent of Documents, 1962), p. 220.

22. Melia, p. 77.

23. Joint Task Force 7 was composed of 144 vessels, including the ships of Transport Squadron One. Lynn Montross and Nicholas A. Canzona [Capt., USMC], *U.S. Marine Operations in Korea 1950–1953*, vol. 3, *The Chosin Reservoir Campaign* (Washington, D.C.: Headquarters U.S. Marine Corps, 1957), pp. 25, 373–6.

24. Ibid., p. 79.

25. Examples include:

> The main lesson of the Wonsan operation is that no so-called subsidiary branch of the naval service, such as mine warfare, should ever be neglected or relegated to a minor role in the future. Wonsan also taught us that we can be denied freedom of movement to an enemy objective through the intelligent use of mines by an alert foe.
>
> Admiral Turner Joy, 1951

> When you can't go where you want to, when you want to, you haven't got command of the sea. And command of the sea is a rock-bottom foundation of all our war plans. We've been plenty submarine-conscious and air-conscious. Now we're going to start getting mine-conscious—last week.
>
> Admiral Forrest Sherman, 1951

> We have lost control of the seas to a nation without a Navy, using pre–World War I weapons, laid by vessels that were utilized at the time of the birth of Christ.
>
> Admiral Allan Smith, 1950

> Minesweeping seems to acquire sex appeal once every 25 years. The intervening hiatus is quite a hurdle to overcome.
>
> Admiral Isaac Kidd, 1973

> No element of our Navy is as deficient in capability against the threat as is the mine countermeasures force.
>
> Admiral Joseph Metcalf, 1985

> Until recently, the United States has not given sustained attention to maintaining a superior capability in mine warfare, particularly mine countermeasures. . . . I intend to keep attention focused on our

vulnerability and continue to press for resources to put us in a position where we can adequately protect our interests and deter potential adversaries.

Admiral Carlisle A. H. Trost, 1989.

26. Paul G. Halpern, *The Naval War in the Mediterranean, 1914–1918* (Annapolis, Md.: Naval Institute Press, 1987), pp. 50–1.
27. G. A. Schreiner, "Allied Naval Operations during the Dardanelles-Gallipoli Campaign 1914–1915," unpublished typescript, National Archives, Record Group 45, p. 16.
28. C. F. Aspinall-Oglander, *Gallipoli*, vol. 1 (London: William Heinemann, 1929), p. 34.
29. Sir Julian Corbett, *Naval Operations*, vol. 2 (London: Longmans, Green, 1921), p. 107.
30. J. D. Wallin, *By Ships Alone: Churchill and the Dardanelles* (Durham, N.C.: Carolina Academic Press, 1981), p. 127.
31. Aspinall-Oglander, p. 55.
32. Taprell Dorling, *Swept Channels* (London: Hodder and Stoughton, 1935), p. 156.
33. Ibid., p. 162.
34. Aspinall-Oglander, p. 97; and Alan Moorehead, *Gallipoli* (New York: Harper & Brothers, 1956).
35. On 13 March Churchill informed Admiral Carden that "we have information [in fact, radio intercepts] that the Turkish forts are short of ammunition" (Wallin, p. 155).
36. Wallin, p. 167.
37. Ibid., p. 74.
38. A. J. Marder, *The War Years: To the Eve of Jutland*, vol. 2 of *From the Dreadnought to Scapa Flow: The Royal Navy in the Fisher Era, 1904–1919* (London: Oxford Univ. Press, 1965), pp. 221–2.
39. Aspinall-Oglander, p. 36.
40. Sir Roger Keyes, *The Fight for Gallipoli* (London: Eyre and Spottiswoode, 1941), p. 71.
41. U.S. Naval War College, "Elements of Operational Warfare," unpublished course reading, NWC 4096 (Newport, R.I.: August 1996), pp. 3–4.
42. Aspinall-Oglander, p. 34.
43. Corbett, p. 162.
44. Schreiner, p. 24.
45. Ibid., pp. 24–5.
46. Schreiner, p. 28.
47. A. J. Marder, *From the Dardanelles to Oran: Studies of the Royal Navy in War and Peace, 1915–1940* (London: Oxford Univ. Press, 1974), p. 20.
48. Marder, *From the Dreadnought to Scapa Flow*, p. 205.
49. Marder, *From the Dardanelles to Oran*, p. 21.
50. Keyes, p. 82.
51. Eliot Cohen and John Gooch, *Military Misfortunes: The Anatomy of Failure in War* (New York: Vintage Books, 1991), pp. 133–65.
52. Alan Moorehead, *Gallipoli* (New York: Ballentine Books, 1991), p. 334.
53. Potter, p. 429.
54. Aspinall-Oglander, p. vii.
55. Ibid.
56. Potter, p. 420.
57. Joint Publication 1, p. 9.
58. Keyes, p. 83.
59. Wallin, p. 192.
60. Boorda.

Ψ