

2006

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Recommended Citation

Caravaggio, Angelo N. (2006) "The Attack at Taranto," *Naval War College Review*: Vol. 59 : No. 3 , Article 8.
Available at: <https://digital-commons.usnwc.edu/nwc-review/vol59/iss3/8>

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THE ATTACK AT TARANTO

Tactical Success, Operational Failure

Lieutenant Colonel Angelo N. Caravaggio, Canadian Forces

The lack of a decisive British victory in the Mediterranean theater fundamentally affected British maritime strategy throughout the Second World War. The Royal Italian Navy, or Regia Marina Italiana (RMI), exerted a disproportionate influence on British strategy and fleet disposition, because its existence could not be ignored and British operations to eliminate it failed. On 11 November 1940, Admiral Andrew Cunningham, the British commander of naval forces in the Mediterranean, had the opportunity to eliminate the entire complement of battleships from the Italian order of battle, at Taranto. However, questionable decisions in the planning process, combined with Cunningham's decision to launch a considerably reduced strike force, succeeded in only temporarily reducing the Italian battle fleet from six to two battleships. More importantly, the British failed to capitalize on the operational-level opportunities resulting from the success of their attack. Britain held the initiative, but the window of opportunity to decisively shape the conditions in the Mediterranean theatre after Taranto was finite, and it closed with the arrival of the German Fliegercorps X in January 1941.¹

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Naval War College Review, Summer 2006, Vol. 59, No. 3

The widely accepted assessment of the outcome of the British attack at Taranto as a decisive victory with strategic implications, then, is wrong.² The failure to exploit the favorable conditions generated by the attack represented a missed opportunity that had significant ramifications for the disposition of British fleet resources across all theaters, theater logistics within the Mediterranean, and ultimately in the execution of the British land campaign in North Africa. The failure

to deliver a decisive blow at Taranto obliged the British to tie up in the Mediterranean naval forces that otherwise could have been deployed to the Atlantic, Indian, or Pacific theaters. The lack of British strategic and operational focus at this critical juncture of the war squandered vital resources and resulted in missed opportunities.³ Consequently, the Italians were allowed to recover from what was seemingly a decisive British victory and, in the following three years, force Britain to commit, and subsequently lose, a sizable portion of its surface fleet to contain the Italian “fleet in being.” By measuring success gained against operational objectives assigned, this article will argue that the British attack at Taranto was a tactical success but one that did not significantly alter the strategic balance in the Mediterranean, because the British failed to capitalize on the operational opportunities resulting from their attack.

STRATEGIC OVERVIEW: BRITAIN

Since the eighteenth century it had been British policy to maintain at least a one-power standard of naval strength (that is, determination to exceed the forces of any other single power) in the Mediterranean. With the opening of the Suez Canal, the Mediterranean became the main artery of imperial sea lines of communication, raising significantly the importance of this region.⁴ In the interwar period, British naval planners were faced with the question not merely of what sort of fleet they needed but also of how to balance commitments and resources in an era of considerable political and technological uncertainty. The decision was made to base much of the British fleet in the Mediterranean, a strategically sound position from which to move either to home waters against the Germans or to the Far East against the Japanese.⁵

The key to the Mediterranean theater was the island fortress of Malta, some sixty miles south of Sicily. The former had been under the British flag since 1800. It supplied a refuge and refueling point for warships and merchant ships midway between Gibraltar and Alexandria, and it served as a forward base for submarine and light surface forces. Initially, Malta was considered indefensible in a Mediterranean war, but this belief changed quickly once hostilities began and Italy failed to invade it. Malta became the focus of British strategy in the Mediterranean.⁶

From the fall of France to May 1943, the Mediterranean was the main theater for Britain and Italy. Prime Minister Winston Churchill believed that the British position in the Mediterranean and the Middle East had to be maintained and strengthened, with seapower as the decisive factor. The operational objectives provided to Cunningham as Commander in Chief, Mediterranean, could be summarized as follows:

- Destruction of the Italian fleet and merchant vessels, and German ships if they appeared
- Support for the army in North Africa or for any expedition it might undertake
- Safe conduct of British and Allied merchant ships through the Mediterranean and Red Sea
- Prevention of enemy attack by sea on Gibraltar, Malta, Cyprus, Egypt, or the Levant coast.⁷

To accomplish these objectives, the British decided to split the theater and establish two fleets. The first, under Cunningham and stationed in Alexandria, was responsible for the eastern Mediterranean as far as the Sicilian narrows, a zone that included Malta. The second, a new fleet called Force H, was established at Gibraltar on 28 June 1940 under Vice Admiral Sir James Somerville. Force H was to operate in the western basin of the Mediterranean and be available for operations in the Atlantic as required. Both fleets reported to the Admiralty in London.⁸

Even with the declaration of war by Italy on 11 June 1940 and the collapse of France on 22 June, the fleet balance in the Mediterranean favored the British. At that time, the British had available in the Mediterranean seven battleships, two carriers, six cruisers, one anti-aircraft cruiser, twenty-nine destroyers, and ten submarines. Against this force, the RMI could array two battleships, nineteen cruisers, fifty destroyers, and 115 submarines.⁹ Even though three of their battleships were “unmodernized,” the British held a significant operational advantage, since the Royal Navy could reinforce the Mediterranean as required from other fleets outside the theater.¹⁰

STRATEGIC OVERVIEW: ITALY

Italian strategic planning in the interwar period had precluded war with England. It was assumed that Italy would have to face only France, which at most could count on the support of Greece and Yugoslavia. Even after 1936, there was no reason to believe that war with Britain was imminent.¹¹ However, as Italian lines of communication with their African colonies intersected the important British routes from Gibraltar to the Suez Canal, any conflict in the Mediterranean would draw in the British, to ensure the safety of their strategic lines of communication.¹² The British viewed Italy’s interior position as an advantage; the Italians, however, viewed their geographic position as a disadvantage, seeing themselves essentially locked in the Mediterranean with the British controlling the exits.¹³

After learning of Benito Mussolini's plans for war, Admiral Domenico Cavagnari, the Italian chief of naval staff, sent Mussolini a lengthy memorandum arguing that Italy was not yet prepared for war. Cavagnari made it clear that the Italian navy could not sustain a prolonged war and that Italy did not have the industrial base to replace ship losses in such a war. Italian naval operations had to be planned and conducted with the knowledge that losses could not be made good.¹⁴ Perhaps most critical of all, a concern that would play a major role in the coming campaign, was the fact that the Italians were almost completely dependent for fuel on German stocks. The RMI would begin with oil reserves sufficient to support only nine months of operations.¹⁵

The Italian military lacked well-defined strategic objectives beyond Mussolini's desire for offensive action "at all points in the Mediterranean and outside."¹⁶ Operational directives issued by the Naval High Command (Supermarina) on 29 May 1940 established a defensive posture in both the eastern and western basins, leaving the Sicilian Channel as the principal theater for offensive fleet operations. Operational-level tasks assigned to the RMI included protecting the Italian coastline and the sea lines of communication with North Africa, Albania, and the Aegean. Fleet engagements were to take place only on terms favorable to the Italians.¹⁷

Italian naval doctrine was based on the assumption that convoys and convoy protection would not be required; protecting merchant shipping would not be a primary task except on specific and infrequent occasions. However, by the middle of July 1940 the requirement for a permanent convoy organization was clear; the RMI had to adopt convoy escort tactics, both air and sea, which had not been originally contemplated.¹⁸ A major problem, however, was that the RMI did not have aircraft carriers or its own naval air arm. It had to rely on the air force (the Regia Aeronautica Italiana, or RAI) for air support.

Fault for the lack of aircraft carriers in the RMI has been assigned to both Mussolini and his admirals.¹⁹ Regardless, all Italian military aircraft were placed under the control of the RAI, and all aircraft development as well. The RMI assumed that the air force would take part in maritime operations, but there was no attempt on the part of senior officers or their staffs in either service to discuss how operations would be coordinated. As it was, any air-related mission in support of the fleet and fleet operations had to compete for resources with other operational tasks. The lack of operational-level cooperative arrangements between the RMI and RAI and the complete absence of any clear doctrine for air support of maritime operations significantly hindered the overall effectiveness of these two services.²⁰

The lack of a naval air arm also had an impact on harbor defense, in particular anti-torpedo netting. Since the RAI had no dedicated torpedo bombers or



doctrine for their employment, it did not understand the requirements for defense against such an attack. The navy felt relatively safe having its ships in the forty-foot-deep waters of Taranto Harbor, believing that air-dropped torpedoes could not be effectively launched in waters so shallow. The Italians did not know that the Brit-

ish had overcome the problem of the initial sudden diving of a torpedo released from an airplane. In addition, the RMI grossly overestimated the minimum launch distance from the target required for the arming of a torpedo. Also unknown to the Italians was the fact that a torpedo could now be triggered in two ways: by contact, or by proximity to the magnetic field of a ship's hull, using a device called a duplex pistol.²¹ These factors all influenced Italian defensive planning and created opportunities for exploitation by an enemy.

Anti-torpedo netting was considered the main defense for a ship in harbor against an air-launched torpedo. Italian anti-torpedo netting of 1940 suffered from two problems: the Italians did not have enough of it, and what they had was of an inadequate design. Taranto, for example, required 12,800 meters of anti-torpedo netting, but only 4,200 meters were in the water at the time of the attack.²² The deployed netting was designed to protect against torpedoes armed with contact pistols; it protected only the sides of a battleship, and only to the depth of its maximum draft. Because it did not prevent the passage of a weapon beneath the ship, this netting provided practically no defense against the duplex pistol-armed torpedoes in use by the Swordfish aircraft of the British Fleet Air Arm (FAA). The main component of Italian harbor defense, therefore, was based on flawed assessments derived from incomplete knowledge of torpedo warfare. The conditions at Taranto Harbor on 11 November 1940, then, were ripe for a decisive British victory.

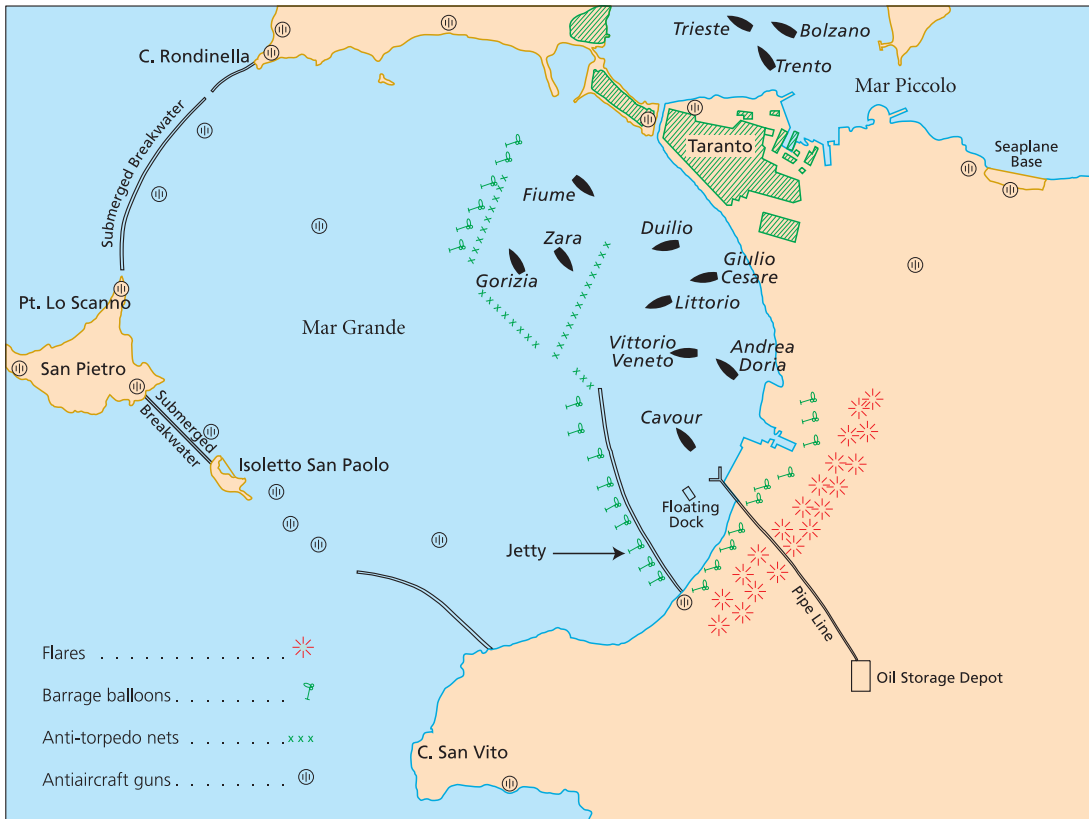
THE PLAN

The naval war in the Mediterranean up to November 1940 involved many of the functional roles of seapower. The first instances of power projection by naval aircraft, which occurred here, presaged the center stage this capability would take in the Pacific, while the attacks on trade and defense of shipping in the Mediterranean exhibited the characteristics of the convoy war in the Atlantic. Aircraft, submarines, and escorts played major roles in the interdiction of seaborne communications.²³ The heavy losses by the opposing navies made it apparent that neither side had a definitive superiority over the other. Everything depended on which side could more successfully exploit the other's weaknesses in order to achieve naval supremacy.²⁴

Cunningham saw his principal tasks as the disruption of Axis convoys to Africa and the protection of British convoys to Malta.²⁵ He felt that in order to accomplish these tasks he had to neutralize or destroy the Italian fleet at its main operating base at Taranto. The only viable option available to him was an attack by carrier-based planes of the Fleet Air Arm. The FAA possessed adequate numbers of only one type of attack aircraft, the Fairey Swordfish, which could carry either bombs or torpedoes.²⁶ Despite its age and slow speed the Swordfish could operate at night, a unique attribute for its time and one that provided the British with the vital capability necessary to launch an operation against Taranto.

Taranto Harbor lay in the Gulf of Taranto some 320 miles from Malta. The inner harbor (Mar Piccolo) was completely landlocked except for a narrow channel, which would admit ships only of cruiser size or smaller. It contained extensive dock facilities, and its small size made surface ships within it virtually safe from attack with torpedoes. The larger outer harbor (Mar Grande), which opened to the west and where capital ships were obliged to moor, was protected from surface attack by long breakwaters.²⁷ Taranto's location was a key element of its value to the Italian navy—it was conveniently close to the British Malta-to-Suez run yet sequestered enough to be easily guarded by land-based planes.

The idea of an airborne torpedo attack at Taranto had its genesis in 1935 after Italy invaded Abyssinia. Admiral Dudley Pound, then commander of the British Mediterranean Fleet, ordered the preparation of a plan for such an attack. The resulting plan sat in a navy safe until 1938, when Captain Arthur L. St. George Lyster arrived to take command of *Glorious*, then the only British carrier in the Mediterranean. Lyster reviewed the plan, updated it, and tested its precepts. After extensive testing and training, Lyster and his senior officers decided that the scheme was plausible, given surprise and luck. In September 1940, Lyster presented the updated plan to Cunningham at a meeting in Alexandria.²⁸



In general, Lyster's plan envisioned a moonlit attack against the harbor, with torpedo-equipped planes striking the battleships moored in the outer harbor while bombers would aim for ships and installations in the inner basin. It envisioned a force of thirty Swordfish in two waves of fifteen aircraft. Each wave would have nine aircraft armed with torpedoes to attack the battleships, five with bombs to dive-bomb the cruisers and the destroyers, and one armed with a combination of bombs and magnesium parachute flares. The plan called for a repeat of the operation the following night with a single strike force of fifteen aircraft comprising six torpedo aircraft, seven dive-bombers, and two flare droppers.²⁹

The torpedo attack was to be made from the west and toward the rising moon. The date for the attack would, therefore, be dependent on the phase of the moon and time of moonrise. Based on the time and distance factors required to achieve surprise—getting the carriers to the launch point under the cover of darkness, launching and recovering aircraft in darkness, and then exiting the area—the planners determined that the carrier force could not be north of a line from Malta to Kithera before dark. The run north had to be made before moonrise and the aircraft launched by 9 PM. A further restriction involved the

speed and endurance restrictions of the aircraft; their return trip could be no greater than four hundred miles. The launch point for the attack was established as forty miles from Kabbo Point, just west of the Greek island of Cephalonia, about 170 miles southeast of Taranto.

Originally, two carriers, *Illustrious* and *Eagle*, were to take part in the attack, and by mid-October both had completed a series of rigorous exercises, including night flying, and were considered ready for the operation. The attack was planned for the night of 21 October but had to be deferred because of a fire in *Illustrious*'s hangar that destroyed or damaged a number of aircraft. The attack was rescheduled for 30 October, but again it had to be delayed, since on that night the moon would not provide the required illumination.³⁰ Any night from 11 to 19 November would offer suitable moonlit conditions; the date was fixed for the 11th, to take advantage of the confusion among the Italians that could be expected from the larger undertaking, known as Operation MB8, of which the Taranto attack, Operation JUDGEMENT, was to be a part.³¹

MB8 involved a series of ten operations to be executed between 4 and 14 November, including:

1. Convoy AN6: from Egypt to the Aegean
2. Convoy MW3: from Egypt to Malta and Souda Bay
3. Operation COAT: passage from Gibraltar to Alexandria of Force F, comprising the battleship *Barham*, the cruisers *Berwick* and *Glasgow*, and three destroyers carrying troops and stores that were to be landed at Malta en route
4. Operations COAT and CRACK: passage of Force H from Gibraltar to the Sicilian Narrows followed by an air attack on Elmas airfield at Cagliari
5. Convoy ME3: four empty merchant ships steaming from Malta to Egypt, in conjunction with the passage of destroyers *Terror* and *Vendetta* from Malta to Souda Bay
6. Convoy AS5: from the Aegean to Egypt
7. Passage of the cruisers *Ajax* and *Sydney* from Port Said to Souda Bay with troops and equipment
8. Transit of the cruiser *Orion* from Port Said to Piraeus and Souda Bay with Royal Air Force stores and personnel
9. JUDGEMENT: passage of the Mediterranean Fleet, Force A, from Alexandria to meet Force F off Gozo, then to carry out a Fleet Air Arm attack on Taranto

10. A raid on the Strait of Otranto by the cruisers *Orion*, *Ajax*, and *Sydney* and two destroyers.³²

Altogether, British forces at sea for this operation amounted to five battleships, two aircraft carriers, ten cruisers, thirty destroyers, and a few auxiliaries.

Unfortunately for the British, *Eagle* had to be withdrawn because of serious defects in its fuel system caused by near misses in an air attack on 11 July. Five of its aircraft were flown off to *Illustrious*; this set the strength of the striking force at twenty-four planes. Further mishaps involving contaminated fuel and other technical difficulties reduced the actual number to twenty-one.³³

Using reconnaissance aircraft from Malta, the RAF kept Taranto under nearly continuous observation until 11:30 PM on 11 November. Photographs taken that day revealed that six Italian battleships and three cruisers, together with some destroyers, were moored on the shoreward side of Taranto's outer harbor, with two more cruisers, twenty-one destroyers, sixteen submarines, nine tankers, and many more smaller craft in the inner harbor.³⁴ These photos also revealed that the torpedo planes would have to fly through a barrier of balloons to reach their dropping positions. By the time the first flight left *Illustrious*, all of the observers on board the Swordfish knew the exact positions of the six battleships in the outer harbor and the latest arrangements of the balloon barrage and net defenses.³⁵ Originally, ninety balloons, tethered by steel cables, had been deployed across the harbor in three rows, but luckily for the British a lack of hydrogen had reduced the number to twenty-seven on the night of the attack: sixteen moored west and north of the ships on the Tarantola Jetty and eleven along the eastern part of the same jetty.

British planners were concerned that searchlights aimed at low angles might dazzle the pilots of the torpedo-armed aircraft. It was decided that a distraction was needed to keep the searchlights directed upward. Originally, this distraction was to have been provided by Wellington bombers from Malta that were to attack the dockyard and ships in Mar Piccolo between 8:30 and 9:15. Inexplicably, this proposal was not adopted.³⁶ Instead the British decided to use some of the attacking Swordfish as dive-bombers to provide the desired distraction. Their confidence in so reducing the strike force to only two-thirds of its original strength may have been based, in part, on experience gained in earlier operations against similar targets.

British experience, technology, and doctrine in attacking ships in harbor had in fact progressed steadily since the outbreak of the war. The event having key influence on the Taranto attack occurred at Dakar on 8 July 1940—a torpedo attack of six Swordfish aircraft from 814 Squadron of the carrier *Hermes* upon the French battleship *Richelieu* in the harbor.³⁷ Three torpedoes were armed with

duplex pistols and three with contact pistols. The duplex torpedoes were set to run at thirty-eight feet, under the ship, and those carrying the contact pistols at twenty-four feet. All six were set to run at forty knots.³⁸ French sources later revealed that *Richelieu* was hit by one torpedo that blew a twenty-five-by-twenty-foot hole in the ship. The explosion fractured the sternpost, distorted the starboard inboard propeller shaft, and flooded three compartments. Repairs to the *Richelieu* would take more than a year to complete.³⁹

The extent of the damage caused by one torpedo at Dakar was not lost on the British, whose analysis of this attack was critical to the success of the Taranto operation. Taking into consideration the shallowness of the water (forty-two feet) at Dakar and the fact that the target had been at anchor, it was determined that the torpedo high-speed setting of forty knots should not have been used. It was known that at forty knots the Mark XII torpedoes were prone to an excessive dive upon striking the water, significantly less so at the twenty-nine-knot setting. In addition, the running depth of the duplex-pistol torpedoes at Dakar was assessed as having been too deep, and thirty-two feet was recommended for future operations. Since the conditions at Taranto Harbor would be similar—ships at anchor in forty feet of water—these findings were the basis for new settings established for Taranto. All torpedoes were to run at twenty-seven knots and at a depth of thirty-three feet, and all were armed with duplex pistols.⁴⁰ British experience and planning had correctly assessed the tactics necessary to achieve the desired effect.

THE ATTACK

The twenty-one Swordfish were launched in two waves: the first, of twelve aircraft, was airborne by 8:40 PM, and the second, with nine aircraft, was away by 9:34. Six of the first wave and four of the second wave carried bombs.⁴¹ Each bomb-armed Swordfish carried six 250-pound bombs, and the flare aircraft each carried four bombs and sixteen flares.⁴² It was the first duty of the latter to lay the flares in a line so as to show up in silhouette the Italian battleships in the outer harbor.⁴³

When the last Swordfish attack was complete, Italy's serviceable battleships had been reduced from six to two—only *Vittorio Veneto* and *Giulio Cesare* had escaped damage—and all of this had been accomplished at the cost of only two Swordfish shot down.⁴⁴ In all, the British launched eleven torpedoes. *Littorio* suffered three torpedo hits, *Duilio* and *Cavour* one each. Several torpedoes became stuck in the muddy bottom of the harbor. Of the sixty bombs dropped, a quarter failed to explode, including the bombs that hit the cruiser *Trento*, the destroyer *Libeccio*, and two fleet auxiliaries. Other bombs caused fires in the dockyard and at the seaplane base, where two aircraft were destroyed. A number of bombs fell

near the Chiappare oil depot; many fell in the dockyard, but only four of these exploded.⁴⁵

The strike aircraft were successfully recovered aboard *Illustrious*. British aircrews were anxious to repeat the operation the next night in accordance with the original plan. However, on the strength of a forecast of bad weather, Cunningham decided against the idea. *Illustrious* and its escorts withdrew undetected and rejoined the fleet.⁴⁶

On 12 November the battleships that could steam—*Giulio Cesare*, *Vittorio Veneto*, and *Andrea Doria*—were transferred to Naples. Meanwhile, salvage operations began on the damaged ones. *Littorio* and *Duilio* could be moved within a few days to shipyards for repairs. *Littorio* was ready for sea by the end of March 1941, and *Duilio* was ready by the middle of May. *Cavour* had to be beached after the torpedo attack. It was refloated in July 1941 and towed to Trieste to be repaired, but the work was not complete by the time of the armistice.⁴⁷

THE CONSENSUS REVISITED

The general consensus of the historical analysis from immediately after the event until now is that the attack was a decisive blow that altered the balance of naval power in the Mediterranean. “In a total flying time of about six hours,” wrote Cunningham, “twenty aircraft had inflicted more damage on the Italian Fleet than was inflicted on the German High Seas Fleet in the daylight action at the battle of Jutland.”⁴⁸ Churchill declared enthusiastically to the British House of Commons, “The result affects decisively the balance of naval power in the Mediterranean and also carries with it reactions upon the naval situation in every quarter of the globe.”⁴⁹ The German naval command mirrored Churchill’s assessment, suggesting that the British would now have complete freedom to reinforce their positions in the Mediterranean and Middle East, transfer ships to the Atlantic, and mount offensive operations that would place the Italian land operations in Egypt in jeopardy.⁵⁰

Cunningham was convinced that the attack greatly increased British freedom of movement in the Mediterranean and strengthened British control over its central area.⁵¹ Operationally, Cunningham felt, the Taranto raid reduced if not altogether eliminated the threat of the Italian fleet’s interfering with British convoys to Greece and Crete. Cunningham also claimed that the success of the raid allowed British battleship strength in the eastern Mediterranean to be reduced. The immediate tactical impact, however, was relief for the British destroyer flotillas, as fewer of them were now required to screen for the smaller battle fleet.⁵²

The current literature generally supports these deductions. The most commonly repeated statement about the effect of the raid at Taranto is that the

attack established British “moral ascendancy” over the RMI.⁵³ James Sadvovich, a historian of the Italian navy, views these assessments as part of an Anglo-American consensus that has determined that the RMI “lacked will-power,” avoided the British fleet, and was generally “inept.”⁵⁴ Sadvovich disagrees with this standard view, pointing out that despite the loss of four battleships, by 28 November the battleships *Vittorio Veneto* and *Giulio Cesare* and their escorts were again at sea attempting to intercept Force H and the Malta-bound convoy it was covering.⁵⁵

While the Italian battle fleet may have remained elusive, the Italian escort forces got on with their primary task of supplying Italian armies in Albania and Libya across the breadth of the Mediterranean, with near-daily sailings of convoys and single ships. In this task they were highly effective. The reality of the operational situation was that the continued existence of Italian battleships, even if they never put to sea, necessitated the retention of British capital ships in a state of readiness at both ends of the Mediterranean.⁵⁶ The attack at Taranto provided the British with a temporary superiority in capital ships but was far from the significant victory proclaimed. Had other options been chosen, however, the outcome could have been decisive.

Options Available to Cunningham

The decisions made in preparing the attack plan at Taranto have not received the critical scrutiny that they deserve. Wayne Hughes, a longtime scholar of fleet tactics, has stated as the great naval maxim, “Attack effectively first.” This motto is the very essence of tactical action for success in naval combat.⁵⁷ The Taranto attack, while generally successful, could have been far more effective. The plan suffered from a number of significant weaknesses, including the lack of a clear intent, questionable targeting and apportionment decisions, and lack of provision for exploiting success. Assessment of the success of the attack hinges on the answer to one key question—why was the attack launched? The answer is not as clear as might be expected.

The information available today offers conflicting evidence as to the true intent of the attackers.⁵⁸ Was the attack envisioned as a hit-and-run-type raid to inflict damage on the Italian fleet, for a temporary tactical advantage, or was it a coordinated effort to eliminate the Italian battleships, for long-term gain? The plan contained components of both types of naval actions. For example, a raid would not normally have included provisions for a follow-up strike the next evening, whereas a plan designed as a sustained effort would have done so. If sustained effort was indeed the intent, then the operation should have been delayed until more forces were available. Those allocated were woefully inadequate, due to the dispersion necessary to achieve simultaneously all the objectives of

Operation MB8. The Taranto operation was too important to conduct as a side-show of an already complicated plan. A deliberate operation against Taranto with all available resources, Royal Navy and Royal Air Force, would have produced, we must presume, the truly devastating results envisioned.

If the intent was to execute a hit-and-run attack, other options available to the British would have increased its effectiveness. The actual target-selection and arming decisions made for the attack reflect a fundamental lack of understanding of targeting.⁵⁹ Arming six of the planes with bombs for use against cruisers and destroyers in the inner harbor at the expense of six more torpedoes for attacks against the battleships diluted striking power. The decision in the planning stages of the attack to limit the number of torpedo planes to six per wave was based on an erroneous assessment that balloons and net obstructions would restrict suitable dropping places in the harbor.⁶⁰ Even though intelligence photos had revealed that the Italian balloon defense was considerably weaker than expected, the arming decisions were not changed. These decisions are indicative of the relative infancy of British strike warfare at the time.

Other decisions in force apportionment highlight the weakness in British planning in other ways. Four battleships (*Cavour*, *Littorio*, *Duilio*, and *Vittorio Veneto*) and the *Gorizia*, a heavy cruiser (that is, with a main battery of eight-inch guns), were designated for torpedo attacks. *Cavour* was targeted by three planes, *Littorio* by five planes, *Duilio* by one, *Vittorio Veneto* by two, and *Gorizia* by one.⁶¹ *Giulio Cesare* and *Andrea Doria* were not targeted either by bombs or torpedoes.⁶² *Vittorio Veneto*, as one of the two most powerful battleships in the Italian navy, should have received a greater relative weight of effort. Damage to both *Vittorio Veneto* and *Littorio* would have created severe problems for the Italians, since there was only a single dry dock in the entire country (in Genoa) capable of taking those new ships, and then only one at a time.⁶³ Arming six more planes with torpedoes would have allowed all the battleships to be targeted with multiple attacks; even this small adjustment in the plan would very likely have proven devastating.

Further, the weight of the attack could have been significantly increased by a second carrier. Admiral Lyster deeply regretted the unavoidable absence of *Eagle*. "Her fine squadrons," he wrote in a private letter, "would have increased the weight of the attack considerably, and I believe would have made it devastating."⁶⁴ In fact, however, Cunningham could have replaced *Eagle* with *Ark Royal*.

Ark Royal had been undergoing a refit for most of the month of October 1940 and had returned to Force H on 6 November.⁶⁵ The ship and its squadrons had gained considerable combat experience. They had participated in the Norwegian campaign and had taken part in the attack on the French navy at Mers-el-Kebir, Algeria, in July and again at Dakar in September. *Ark Royal* could accommodate between sixty and seventy-two aircraft. While some of its experienced

aircrew had been siphoned away during its refit, two of its squadrons, one of Skuas (810 Squadron) and one of Swordfish (818 Squadron), retained their experienced leadership.⁶⁶ The input of these veterans during the planning might have produced critical improvements in such areas as targeting and allocation that would have increased the decisiveness of the attack.

Ark Royal could have been used in two ways. First, its Swordfish squadrons could have replaced those of *Eagle*. This would have required a slight delay while the aircrews were briefed and the ships repositioned. In this case, it would have been necessary to weigh the addition of twenty-six Swordfish against the relative inexperience of the *Ark Royal* squadrons in night flying. The latter risk, however, could have been mitigated by having *Illustrious* aircraft lead the attack waves to the target. Alternatively, all of the *Eagle*'s attack aircraft could have been transferred to *Ark Royal* and flown from that ship, either alone or with augmentation from *Ark Royal*'s air group. In addition, *Ark Royal*'s radar combined with its larger complement of fighters would have provided the task group with the ability to loiter in the central Mediterranean and effectively protect itself while waiting for a decision to reattack.⁶⁷

Another option available to Cunningham was to insist on a supporting attack by RAF Wellington bombers from Malta.⁶⁸ The target would have been Taranto's port facilities, in particular the oil storage tanks; the aim would have been to deny Taranto to the RMI as an operating base. An attack on the harbor facilities by Wellingtons, with their heavy bomb loads, would have allowed the FAA, with its torpedo-armed Swordfish, to concentrate a maximum effort against the battleships. Moreover, the confusion resulting from a coordinated attack could have facilitated the attack by the torpedo planes. That the RAF was capable of conducting this operation was made evident two days later, on 13 November, when ten Wellington bombers from Malta did indeed attack the port facilities at Taranto.⁶⁹

Regardless of the type of attack envisioned, the plan should have dealt with surviving Italian ships, battleships in particular, that attempted to escape to safer harbors after the initial attack. There is no indication that the British ever considered this contingency. The British knew that there were six battleships in Taranto, but the best they could hope to accomplish, as the attack was laid out, was damage to four of them. Thereafter the two undamaged battleships and any other major combatants that could do so would undoubtedly get out of Taranto as quickly as possible. That there were no provisions for this response must be viewed as a critical flaw in the plan. Stationing reconnaissance aircraft and submarines to watch the Straits of Messina and the likely escape routes, with Force H and *Ark Royal*'s strike aircraft ready to respond to sightings, would have afforded the British the opportunity of damaging or even eliminating permanently ships not damaged in the attack itself.

Aside from that, the effort against the remaining Italian capital ships could have been sustained in two other ways: targeting the ships themselves or denying them infrastructure and resources they required. As for the first, the remaining battleships could, for example, have been targeted by Operations MC2 and MC3, which were carried out between 16 and 22 December 1940. These operations had the following elements:

- Attacks on Italian bases in the Dodecanese by aircraft from *Illustrious*
- Bombardment of the port and military objectives at Port Skala, Valona
- Attacks on Italian forces and shipping in the Adriatic
- Attacks with torpedo aircraft on shipping in Port Skala
- Cover for several convoys: MW5A and B (fast and slow convoys from Alexandria to Malta), the *Ulster Prince* (with personnel from Port Said to Crete and Greece), ME5A (from Malta to Alexandria and Port Said), and AS 9 and AN 10 (Aegean convoys).⁷⁰

Here, as at Taranto, British intelligence sources provided the information needed for another attack against the remaining Italian battleships. Reconnaissance pinpointed the disposition of the three Italian battleships—*Giulio Cesare*, *Vittorio Veneto*, and *Andrea Doria*—on 15 December, confirming one back at Taranto and the other two at Naples.⁷¹ British forces were conducting operations in and near these ports, and both RAF bombers from Malta and FAA aircraft from *Ark Royal* and *Illustrious* were available for a strike. However, there is no evidence to indicate that another attack by FAA aircraft was contemplated.

Another possibility would have been to use the growing Royal Air Force resources available at Malta. A comprehensive RAF air campaign against support infrastructure, especially the dry dock in Genoa and oil storage facilities, would have hampered the Italians' ability to repair damaged ships and crippled any remaining operational capability. A comprehensive air campaign against Italian harbors was eventually initiated, in mid-December, but by that time the opportunities offered by the success at Taranto were vanishing.

One of the most important operational advantages that could have been gained from a more aggressive posture after Taranto would have been in operational logistics. Up until this point in the war, the British had been unable to use direct sea routes through the Mediterranean except for the occasional heavily defended convoy. The British success at Taranto did not change this policy. For example, of the twenty-one British supply ships destined for the Middle East that left Britain on 18 December 1940, sixteen sailed round the Cape and only five risked the Mediterranean. The majority of British supply ships destined for

the Middle East continued to be routed around the Cape of Good Hope even though this route involved as much as a four-month round trip for the ships involved.⁷² Routing convoys through Cape Town and Durban increased cycle times and was to blame, in part, for a shortage of mercantile tonnage at this stage of the war.⁷³ The proven scarcity and ineffectiveness of Italian air reconnaissance combined with a reduced surface threat should have enticed the British to send more convoys through the Mediterranean, thereby providing greater flexibility in managing their theater logistics.⁷⁴ The threat from the surviving Italian battleships and an exaggerated fear of Italian airpower continued to influence British naval operational planning inexplicably in the months following Taranto.⁷⁵

Further, there is clear evidence that British fleet resources committed to the Mediterranean after Taranto were desperately needed elsewhere. An Admiralty message to Cunningham on 22 November 1940 stated urgent considerations that demanded redistribution of the fleet. These factors included:

- The appearance of the pocket battleship *Admiral Scheer* in the North Atlantic
- Uncertainty as to whether the *Admiral Scheer* had proceeded south⁷⁶
- The existence of, probably, five disguised enemy surface raiders in the South Atlantic, Indian, and Pacific Oceans, where they were taking a heavy toll of shipping
- The need for escorts for troop convoys carrying reinforcements to the Middle East.⁷⁷

“Under these circumstances,” said the First Sea Lord, “it is considered imperative that raider hunting groups shall be formed without delay.”⁷⁸ For these hunting groups the Admiralty wanted the battleships *Renown* from Force H and *Ramillies*, either *Ark Royal* or *Formidable*, and two cruisers, *Manchester* and *Southampton*. As a contingency, the battleship *Valiant* was to be transferred from the eastern to the western basin. Cunningham responded that he would find it difficult to part with *Valiant*, because of its powerful antiaircraft armament; none of the remaining battleships were similarly armed or had radar. If *Valiant* were to be withdrawn, he would be left with only one battleship, *Warspite*, that could engage the Italians at long range. He offered to surrender instead the eight-inch cruiser *Berwick*. In the end, only the *Ramillies* and *Berwick* were made available for reassignment.

By December the Italians had recovered from the psychological impact of the Taranto attack and had greatly increased their harbor defenses.⁷⁹ *Littorio* and *Duilio* were under repair, and German air units of Fliegerkorps X, specializing in

antiship attacks, were being transferred to the Mediterranean. The balance of power, especially in the air, was rapidly changing back in the Axis's favor.

Measures of Success

In terms of the objectives of holding Malta as an advanced base of operations and keeping the Mediterranean open to maritime traffic, the raid on Taranto had little effect. In a letter to Admiral Pound on 22 September 1940, Cunningham expressed his desire to make Malta a fully operational "strike base" by 1 April 1941, capable of supporting sustained operations by all three services. In particular, Cunningham expected that Malta would have a force of cruisers and destroyers permanently based on the island; safe docking, refit, and repair facilities for warships; a submarine flotilla; airfields from which to operate bomber, reconnaissance, and four fighter squadrons; and raiding forces of troops that could operate from Malta.⁸⁰ According to Cunningham's estimate Malta would need for these approximately four hundred thousand tons of supplies.⁸¹

The aftermath of the Taranto strike presented an excellent opportunity to exploit a weakened Italian position and to bolster the British position in Malta, but the response was anemic. From the attack until the end of December 1940 the British sailed only three convoys totaling fourteen ships to Malta, approximately sixty thousand tons of supplies.⁸² The important fact buried in this statistic is that all of the merchant ships got through safely. Had a greater effort been expended to resupply Malta at this point, the island could have been in a better position to defend itself and to have become a fully operational base for the British early in 1941. Instead, Malta became a vortex that drained away vital resources as the British desperately attempted to sustain the island, its population, and the marginal operational capabilities that had been established there. Axis forces, in contrast, operated with great effect in transporting men and supplies throughout the theater.

Measured against the principal task of disrupting Axis convoys to Africa, the Taranto attack had literally no effect; it increased not at all the British ability to stop deliveries to Libya. In fact, Italian deliveries to Libya increased during the months of October 1940–January 1941 to an average of 49,435 tons per month, up from the 37,204-ton average of the previous four months.⁸³ Losses for the seven-month period of June–December 1940 were less than 2 percent.⁸⁴ The February 1941 to June 1941 statistics are even more telling, with the average monthly Italian deliveries to Libya almost doubling, to 89,563 tons per month.⁸⁵ Effective Italian intelligence enabled the RMI to route convoys to Libya and so avoid British forces. It was not until 21 December 1940 that aircraft, from *Illustrious*, sank the first two ships of an escorted convoy on the Tripoli route.⁸⁶

Even with the significant advantage of advanced warning from ULTRA, the British were unable to disrupt the German buildup in North Africa during the early part of 1941.⁸⁷ In February and March 1941, two hundred thousand tons of Axis shipping was sent from Italian ports to Libya, mainly to Tripoli. During March 1941 eighty-nine Axis merchant vessels set out in twenty-nine south-bound convoys, of which only two were intercepted. Just three ships were lost and a fourth damaged; although nine thousand tons of stores were lost, 92,700 tons arrived safely at Tripoli.⁸⁸ This strong logistical position allowed the German commander, General Erwin Rommel, to start on 31 March 1941 an offensive that would sweep the British Eighth Army back through Libya to the Egyptian frontier by 14 April.

The notable failure of British antishipping forces at this critical juncture in the war has been overshadowed by the British success at Cape Matapan on 28 and 29 March 1941.⁸⁹ The extent of the British frustration at this lack of success was vividly illustrated when on 15 April 1941 Admiral Pound directed Cunningham to take every possible step to prevent supplies from reaching Libya from Italy or by coastwise traffic, even if that resulted in serious loss or damage to His Majesty's ships: "Failure by the navy to concentrate on prevention of such movements [enemy supplies to Libya] to the exclusion of everything not absolutely vital will be considered as having let side down."⁹⁰ Ultimately the German offensive and the Italian requirement to support it were confounded by the RMI's inability to fight offensively, either at the tactical or operational level. In light of that, an antishipping surface force operating out of a fully operational base at Malta, as envisioned by Cunningham, could have been what was needed to interdict Italian convoys to Africa. Even marginal increases in the shipping loss rates in early 1941 could have impacted Rommel's ability to launch and sustain his desert offensive.

Measured against the operational objective of defeating the Italian navy, the Taranto attack was only marginally effective. Evidence of this came immediately after the attack during Operation WHITE, another British attempt to deliver Hurricane fighters to Malta from the carrier *Argus*. Somerville departed Gibraltar on 15 November 1940 with *Renown*, *Ark Royal*, two cruisers, and eight destroyers. The Italians sortied two battleships, three heavy cruisers, and a force of screening destroyers. When it became known that the Italian fleet was at large, Somerville launched the Hurricanes at the extreme limit of their range and then withdrew, resulting in the loss of eight of the twelve aircraft.⁹¹ On 28 November major portions of the RMI, including *Vittorio Veneto* and *Giulio Cesare*, six heavy cruisers, and sixteen destroyers, engaged Force H at Cape Teulada.⁹² The Italian commander, Admiral Inigo Campioni, fearing continued attack by FAA aircraft and lacking air support of his own, decided to avoid a pitched battle and withdrew his forces after

a brief exchange. This engagement established a pattern that would continue through the rest of the war—an Italian determination to engage but only when the tactical situation favored. When important combat factors such as air support, reconnaissance information, or daylight were questionable, the Italians retired to fight another day and protect their “fleet in being.” This pattern has often been used as evidence of an Italian fear of engaging the British. The Italian reality, however, was that they had little to gain from taking chances or pressing unfavorable tactical situations. The British reality was contested sea control until the Italian capitulation in 1943.

By late August 1941, London had assigned top priority to the Mediterranean. Only three of Britain’s battleships were stationed with the Home Fleet, while Gibraltar had one and Alexandria four. The remainder was split between Singapore (three ships) and the Indian Ocean (four ships), the latter conveniently placed for use in either the Middle Sea or the Pacific. Aircraft carrier deployments also favored the Mediterranean, with two each in Alexandria and Gibraltar, one in home waters, and three in the Far East. In short, nine of fifteen British battleships and four of eight carriers were in or near the Mediterranean.⁹³ In the course of 1941, actions in the Mediterranean would cost the Royal Navy a total of one battleship sunk and four badly damaged, one carrier sunk and two damaged, seven cruisers sunk and ten damaged, and sixteen destroyers sunk and twelve damaged—all with little hope of replacement.⁹⁴ Far from granting the strategic freedom claimed by Churchill, the raid on Taranto proved to be a complicated and costly affair for Britain.

After the fall of Greece and Crete there was even less hope of sending ships to other theaters, and by mid-1942 there were no capital ships left in the Mediterranean Fleet to send.⁹⁵ The Mediterranean campaign would eventually cost the British 244 merchant ships and 135 warships, representing 930,673 and 411,935 tons, respectively.⁹⁶ The Axis powers had effectively denied the British the central Mediterranean for a protracted period and exacted a terrible cost in men and ships. The positive results of the British efforts at Taranto could hardly have justified such catastrophic losses. Decisive action by the British in the two months after the attack could have turned the tactical success into a monumental victory, but in the event, it was lacking. This raises serious questions about the conduct of the British campaign in the late 1940–41 time frame. In the context of history, however, the attack at Taranto presents a fascinating insight into both the limitations and the capabilities of the Royal Navy and its Fleet Air Arm.

A PRICELESS OPPORTUNITY

The British attack on the Italian battle fleet at Taranto Harbor has been celebrated for the bravery of the pilots who flew the mission and for the great tactical victory

they achieved. This is just. However, military analysts have further claimed that Taranto changed the balance of naval power in the Mediterranean and established the moral ascendancy of the Royal Navy over the Italian navy. Unfortunately, the facts do not support this rhetoric. Despite reducing the effective strength of the Italian fleet to two battleships, the British had to mount a full-scale operation with their entire Mediterranean fleet in order to enter the central basin. Italian, and later German, land-based aircraft allowed the Italians to continue to dispute the Mediterranean even while the battle fleet was temporarily out of action.

After the attack at Taranto, British naval authorities exhibited a lack of operational insight and so failed in three critical areas: they failed to finish the destruction of the Italian battleships; they failed to eliminate the critical infrastructure support needed to sustain the battle fleet, in particular the dry dock and fuel at Genoa; and they failed to exploit their newly won operational freedom to achieve a theaterwide buildup in logistics by pushing convoys through to Malta and Alexandria. The Royal Navy had the RMI on the ropes after Taranto but failed to deliver the true knockout blow that would have changed the context within which the rest of the war in the Mediterranean was fought. Destruction of the Italian battle fleet in 1940 would have given the British outright sea control in the Mediterranean. Instead, conflict of priorities squandered a priceless opportunity.

An Italian navy without battleships would have meant a significantly lessened threat for the British during the remainder of the Mediterranean campaign. Instead, as it was, the continuing presence of the Italian battle fleet had a disproportionate influence on the balance of naval and military power in the Mediterranean. Admiral Cunningham and his staff struggled to maintain the appropriate fleet mix to counter this potential threat.⁹⁷ Simply containing the Italian capital ships put a huge strain on British resources. Italian battleships could not be discounted, and on more than one occasion their existence led the British to scuttle damaged ships that might have been saved.⁹⁸

Portrayals of the Italian navy as inept have served to mask the impact of ULTRA and excuse the British navy's failure to destroy the Italian fleet, gain control of the Mediterranean, and cut Axis supply lines to Africa before 1943.⁹⁹ A decisive effort against the Italian battleships at Taranto would have destroyed the RMI strategy of a "fleet in being" and allowed the Royal Navy greater flexibility in conducting its campaign against a reduced Italian naval threat. The critical decisions made in the planning and execution of the attack at Taranto highlight the limits of Admiral Cunningham's appreciation of the new interplay between the modern elements of sea and air power. Measuring the success gained against the objectives assigned, the outcome of the British attack at Taranto can be assessed only as a limited tactical victory with limited operational impact.

NOTES

The author expresses his appreciation to Commander Kenneth Hansen of the Canadian Forces College, whose surface warfare expertise was invaluable in this research.

1. The British Chiefs of Staff concluded that with the establishment of German aircraft in Sicily, the Axis had gained temporary control of the center of the Mediterranean. Defence Committee (Operations): Minutes (Cabinet papers, 69/2) 20 January 1941, 9:30 PM. Martin Gilbert, *The Churchill War Papers*, vol. 3, *The Ever-Widening War 1941* (London: W. W. Norton, 2000), p. 101.

2. The main conclusions and assessments of the Taranto attack are almost uniform throughout the current literature. For example, "There can be little doubt that the crippling of half the Italian battlefleet is having, and will continue to have, a marked effect on the course of the war. Without indulging in speculation as to political repercussions, it is already evident that this successful attack has greatly increased our freedom of movement in the Mediterranean and has thus strengthened our control over the central area of this sea" (Michael Simpson, ed., *The Cunningham Papers*, vol. 1, *The Mediterranean Fleet, 1939–1942. Selections from the Private and Official Correspondence of Admiral of the Fleet Viscount Cunningham of Hyndhope, O.M., K.T., G.C.B., D.S.O. and Two Bars* [London: Ashgate, 1999], p. 180). S. W. Roskill wrote, "Thus was British maritime power reasserted in the central basin," and "By the air attack at Taranto and by the two surface ship encounters with the Italian Fleet, Admirals Cunningham and Somerville had established a clear moral ascendancy within the Mediterranean" (*The War at Sea 1939–1945*, vol. 1, *The Defensive* [London: Her Majesty's Stationery Office, 1956], pp. 301 and 419, respectively).

Even Italian assessments have reflected the same general conclusions as above. In 1957, Italian commander Marc Bragadin wrote, "The Taranto attack had temporary but serious consequences in the strategic field because the Italian Navy was left with only two battleships in service" (Marc Antonio Bragadin, *The Italian Navy in World War II* [Annapolis, Md.: Naval Institute Press, 1957], p. 47). In 1966, Italian author Antonio

Trizzino begins a chapter dedicated to Taranto in his book *Navi e poltrone* with (in Cristiano D'Adamo's translation), "The defeat suffered by the Italian Navy without fighting the night of November 11–12, 1940, defined the future of the war between Italy and Great Britain. Taranto was the Italian Trafalgar." In 1976, the Italian historian Arrigo Petacco wrote, "On November 12th, the Italian ships which had survived the torpedo-bombers attack left Taranto to take cover in the ports of Naples and La Spezia. It was a retreat. After five months of illusionary superiority, the Italian Navy was already in a squeeze" (Cristiano D'Adamo, "Operation Judgment: Taranto's Night," www.regiamarina.net).

More recently, in *Air Power and the Royal Navy*, Geoffrey Till states that Taranto transformed the strategic situation in the Mediterranean (*Air Power and the Royal Navy 1914–1945: A Historical Survey* [London: Jane's, 1979], p. 179). In *The Naval War in the Mediterranean, 1940–1943*, Jack Greene and Alessandro Massignani write: "In all, the attack was brilliantly conceived and brilliantly executed" (*The Naval War in the Mediterranean, 1940–1943* [London: Chatham, 2002], p. 179). In a 2004 work, Michael Simpson states that "the crippling of half the Italian battle fleet was of infinite value" and that by December 1940 "well might Cunningham conclude that 'our control of the Mediterranean was close on being re-established'" (*A Life of Admiral of the Fleet Andrew Cunningham: A Twentieth-Century Naval Leader* [London: Frank Cass, 2004], pp. 74–75).

3. Michael Simpson states that the Commanders in Chief, Middle East, found themselves having to deal with impractical, often absurd, schemes proposed by Churchill, aided and abetted by some of his less sensible associates, such as Frederick Lindemann, Churchill's personal assistant, and Lord Keyes, the Director of Combined Operations. Simpson, *A Life of Admiral of the Fleet Andrew Cunningham*, p. 76.
4. John B. Hattendorf, R. J. B. Knight, A. W. H. Pearsall, N. A. M. Rodger, and Geoffrey Till, eds., *British Naval Documents* (London: Scolar, 1993), pp. 779–80.

5. The distance from England to Bombay via the Cape route added four thousand miles to the journey; to Singapore it meant another three thousand miles and to Sydney an extra one thousand. A. J. Smithers, *Taranto 1940: Prelude to Pearl Harbor* (Annapolis, Md.: Naval Institute Press, 1995), p. 61.
6. Correlli Barnett, *Engage the Enemy More Closely: The Royal Navy in the Second World War* (New York: W. W. Norton, 1991), p. 225.
7. G. A. Titterton, *The Royal Navy and the Mediterranean*, vol. 1, *September 1939–October 1940* (London: Whitehall History in association with Frank Cass, 2002), p. 4.
8. Donald Macintyre, *The Naval War against Hitler* (London: B. T. Batsford, 1971), p. 120.
9. Under the original naval plan for the RMI, four new battleships were to have been ready and four older ones were to have been completely modernized by 1942. In June 1940, however, only the battleships *Cavour* and *Cesare* were actually in service. *Littorio*, *Vittorio Veneto*, *Duilio*, and *Andrea Doria* were still being fitted out. The *Roma* needed two more years of work and *Impero* at least three more. The eventual strength of the Italian Navy would consist of six battleships, seven heavy and twelve light cruisers, sixty-one fleet destroyers, and 105 submarines. Bragadin, *The Italian Navy in World War II*, p. 8.
10. James J. Sadkovich. *The Italian Navy in World War II* (Westport, Conn.: Greenwood, 1994), p. 53.
11. This assumption heavily influenced Italian ship design and specifications. Sadkovich, *Italian Navy in World War II*, p. 5.
12. Admiralty Historical Section, *Naval Staff History Second World War: Selected Operations (Mediterranean) 1940, Battle Summaries No. 2, 8, 9, 10* (London: 1957), p. 1.
13. Milan N. Vego, *Naval Strategy and Operations in Narrow Seas*, 2nd ed. (Portland, Ore.: Frank Cass, 2003), p. 45.
14. Far from a responsible response and proof of the navy's interest in avoiding a war, Italian author Alberto Santoni considers it, on the basis of Cavagnari's record of "careful avoided" noninterference in Mussolini's political decisions, a "painful way of shrugging off one's responsibilities and shows up a certain class of officer as vain, unreliable, incapable and opportunist." Alberto Santoni, "Italian Naval Policy from 1930–1941," *Revue Internationale d'Histoire Militaire*, no. 72 (1990), p. 95.
15. Bragadin, *Italian Navy in World War II*, p. 5.
16. Bernard Ireland, *The War in the Mediterranean: 1940–1943* (Barnsley, U.K.: Leo Cooper, 2004), p. 24.
17. Robert Mallett, *The Italian Navy and Fascist Expansionism 1935–1940* (London: Frank Cass, 1998), p. 183.
18. Bragadin, *Italian Navy in World War II*, p. 32.
19. The traditional view in this debate is represented by Brian Sullivan, in his statement that Mussolini established an independent air force, granted it a monopoly on aircraft, ordered the transfer of all naval aviation to the new service, and forbade the navy to construct aircraft carriers ("A Fleet in Being: The Rise and Fall of Italian Sea Power, 1861–1943," *International History Review* 10, no.1 [February 1988], p. 116). Santoni, on the other hand, builds a convincing position in arguing that this was naval propaganda, unjustly blaming Mussolini and the air force, whereas unedited Italian documents prove that the Italian naval chief of staff did not want any aircraft carriers, for technical and operative reasons (Santoni, "Italian Naval Policy from 1930–1941," p. 92).
20. Titterton, *The Royal Navy and the Mediterranean*, vol. 1, p. xvi.
21. See D'Adamo, "Operation Judgment: Taranto's Night."
22. Bragadin, *Italian Navy in World War II*, pp. 45–46.
23. Sadkovich, *Italian Navy in World War II*, p. 45.
24. Eberhard Weichold, "Axis Naval Policy and Operations in the Mediterranean, 1939 to May 1943," in *Essays by German Officers and Officials on World War II* (microfilm series), roll 7, frame 0003 (Wilmington, Del.: Scholarly Resources, n.d.), p. 6.
25. Sadkovich, *Italian Navy in World War II*, p. 47.
26. The plane had a maximum speed of 125 knots and a ceiling of 10,700 feet. It could carry one 1,610-pound torpedo or three five-hundred-pound bombs. Thomas P. Lowry and John W. P. Wellham, *The Attack on*

- Taranto: Blueprint for Pearl Harbor* (Mechanicsburg, Penna.: Stackpole Books, 1995), p. 22.
27. Admiralty Historical Section, *Naval Staff History Second World War*, p. 42.
 28. Lowry and Wellham, *Attack on Taranto*, 58.
 29. Simpson, ed., *The Cunningham Papers*, p. 188.
 30. Admiralty Historical Section, *Naval Staff History Second World War*, p. 42.
 31. *Ibid.*, p. 43.
 32. Titterton, *Royal Navy and the Mediterranean*, vol. 2, *November 1940–December 1941*, p. 7.
 33. Jack Sweetman, “Taranto: Baptism of Carrier Warfare,” *Naval Institute Proceedings* 116, no. 11/1053 (November 1990), p. 103.
 34. Smithers, *Taranto 1940*, p. 106.
 35. The Italian squadron at Taranto was preparing to carry out a bombardment of Souda Bay in the middle of November. Titterton, *Royal Navy and the Mediterranean*, vol. 2, p. 10.
 36. Admiralty Historical Section, *Naval Staff History Second World War*, p. 44.
 37. “If all alternatives are refused you should as soon as possible carry out an attack on *Richelieu* with torpedo aircraft and maintain this attack until it is certain she is sufficiently disabled. Approximately half your torpedoes should have Duplex pistols and half contact pistols and endeavour should be made to obtain a hit in the vicinity of propeller.” Admiralty Historical Section, *Naval Operations Off Dakar: July–September 1940, Battle Summaries No. 3 and 20* (London: 1959), p. 13.
 38. *Ibid.*, p. 19.
 39. *Ibid.*, p. 22.
 40. *Ibid.*
 41. Macintyre, *Naval War against Hitler*, p. 36.
 42. Lowry and Wellham, *Attack on Taranto*, 69.
 43. Admiralty Historical Section, *Naval Staff History Second World War*, pp. 42–43.
 44. Macintyre, *Naval War against Hitler*, p. 38.
 45. Titterton, *Royal Navy and the Mediterranean*, vol. 2, p. 11.
 46. Oliver Warner, *Cunningham of Hyndhope: Admiral of the Fleet* (London: Camelot, 1967), p. 114.
 47. Bragadin, *Italian Navy in World War II*, 47.
 48. Warner, *Cunningham of Hyndhope*, p. 114.
 49. David A. Thomas, *Malta Convoys 1940–1942: The Struggle at Sea* (Barnsley, U.K.: Leo Cooper, 1999), p. 41.
 50. Greene and Massignani, *Naval War in the Mediterranean*, pp. 107–108.
 51. Simpson, ed., *Cunningham Papers*, vol. 1, p. 180.
 52. Thomas, *Malta Convoys 1940–1942*, pp. 4–42.
 53. Titterton, *Royal Navy and the Mediterranean*, vol. 1, p. xii.
 54. Sadkovich, *Italian Navy in World War II*, 5.
 55. *Ibid.*, p. 94.
 56. S. W. C. Pack, *Cunningham: The Commander* (London: B. T. Batsford, 1974), p. 105.
 57. Wayne Hughes, *Fleet Tactics* (Annapolis, Md.: Naval Institute Press, 1986), p. 40.
 58. Michael Simpson seems to suggest that Taranto was the main objective and all other activities were diversionary. “The diversity of objectives in ‘Judgement’ deceived the enemy as to the chief offensive purpose” (*A Life of Admiral of the Fleet Andrew Cunningham*, p. 73). Roskill seems to support the raid side of the argument with the phrase, “although from the nature of this attack it was not to be expected that the ships would be permanently disabled” (*The War at Sea 1939–1945*, vol. 1, *The Defensive*, p. 301).
 59. Strike warfare is the use of tactical aircraft to strike against land/naval targets in an offensive power-projection role.
 60. Admiralty Historical Section, *Naval Staff History Second World War*, p. 43.
 61. Aircraft E4H of the second wave was targeted against *Gorizia*. Aircraft L5Q of the second wave had a technical problem and had to return to the carrier without firing its torpedo. Admiralty Historical Section, *Naval Staff History Second World War*, p. 90.
 62. The mooring location of these two ships in Taranto harbor would have made targeting with torpedoes difficult but not necessarily impossible. The size of the bombs used by the *Swordfish* for dive-bombing that night may have only caused marginal damage to the exposed portions of the more heavily armored battleships, but this targeting choice would have

been more logical since, in the end, one cannot predict or account for luck or a lucky hit.

63. Update of the facilities at Taranto Harbor to service the *Littorio* class of ships was not completed until 1942. Titterton, *Royal Navy and the Mediterranean*, vol. 1, p. xv.
64. Admiralty Historical Section, *Naval Staff History Second World War*, p. 50 note 4.
65. William Jameson, *Ark Royal: 1939–1941* (London: Rupert Hart-Davis, 1957), pp. 224–28.
66. *Ark Royal* had embarked Blackburn Skuas from 800 Squadron; 810, 818, and 820 Squadrons with TSR 1Swordfish; and 808 Squadron, armed with Fulmar fighters. The commanding officers of 818 and 820 Squadrons were new, having joined the ship during the refit. Jameson, *Ark Royal: 1939–1941*, pp. 224–28.
67. The aircraft complement on *Ark Royal* was sixty-seventy aircraft. In November 1940 it carried twenty-six Fairey Swordfish and twenty-four Blackburn Skuas. *Illustrious* normally carried between thirty-three and thirty-six aircraft, and *Eagle* seventeen. “Royal Navy and World War 2: Aircraft Carriers,” www.naval-history.net/WW2BritishShipsAircraftCarriers.htm.
68. The Royal Air Force had already cooperated with the Fleet Air Arm in attacking enemy merchant ships, supply ports, and naval bases, by providing long-range reconnaissance and antisubmarine patrols. Titterton, *Royal Navy and the Mediterranean*, vol. 2, p. 6.
69. *Ibid.*, p. 22.
70. *Ibid.*, p. 36.
71. *Ibid.*, p. 37.
72. *Ibid.*, p. 44.
73. Ireland, *War in the Mediterranean*, p. 52.
74. Bragadin, *Italian Navy in World War II*, p. 22.
75. Winston S. Churchill, *Their Finest Hour* (Boston: Houghton Mifflin, 1949), p. 450.
76. On 25 December, Force H left the Mediterranean for a five-day operation in the Atlantic concerned with the appearance of the *Admiral Hipper* on a raiding expedition. The *Admiral Hipper* on that day attacked convoy WS.5A, consisting of twenty-one ships. Titterton, *Royal Navy and the Mediterranean*, vol. 2, p. 40.
77. *Ibid.*, p. 22.
78. *Ibid.*
79. On 14, 29, and 30 December 1940, British aircraft mounted raids on Naples, badly damaging one cruiser. On 8 January 1941 another raid damaged the *Vittorio*, *Veneto*, and *Cesare*. *Ibid.*, p. xv.
80. Message from Commander in Chief, Mediterranean, to Admiralty, 2015/2218/40. Titterton, *Royal Navy and the Mediterranean*, vol. 1, pp. 99–100.
81. A notional freighter could carry approximately ten thousand tons. Cunningham would have had to steam some forty freighters into Malta to achieve these numbers by April 1941. Simpson, ed., *Cunningham Papers*, vol. 1, p. 151.
82. Thomas, *Malta Convoys 1940–1942*, p. 197.
83. Bragadin, *Italian Navy in World War II*, p. 356.
84. Titterton, *Royal Navy and the Mediterranean*, vol. 2, p. xiv.
85. Bragadin, *Italian Navy in World War II*, p. 356.
86. Titterton, *Royal Navy and the Mediterranean*, vol. 2, p. xiv.
87. For a detailed examination of ULTRA and its impact on the war in the Mediterranean, see John Winton, *Ultra at Sea: How Breaking the Nazi Code Affected Allied Naval Strategy during World War II* (New York: William Morrow, 1988).
88. Titterton, *Royal Navy and the Mediterranean*, vol. 2, p. xvi.
89. The Italians lost three heavy cruisers and two destroyers in this action. Titterton, *Royal Navy and the Mediterranean*, vol. 2, p. xvi.
90. Winton, *Ultra at Sea*, p. 165.
91. Greene and Massignani, *Naval War in the Mediterranean*, p. 115.
92. Also known as the battle of Cape Spartivento.
93. Sadkovich, *Italian Navy in World War II*, p. 169.
94. Barnett, *Engage the Enemy More Closely*, p. 377.
95. Charles W. Koburger, Jr., *Naval Warfare in the Eastern Mediterranean, 1940–1945* (Westport, Conn.: Praeger, 1993), p. 134.

96. For merchant tonnage, Thomas, *Malta Convoys 1940–1942*, p. 196; for warship tonnage, Bragadin, *Italian Navy in World War II*, p. 364.
97. Thomas, *Malta Convoys 1940–1942*, p. 34.
98. Admiralty Historical Section, *Selected Convoys (Mediterranean), 1941–1942: Battle Summaries No. 18 and 32* (London: 1957), p. 102.
99. Sadkovich, *Italian Navy in World War II*, p. 331.