

Preface

*The nations not so blest as thee,
Shall in their turns to tyrants fall;
While thou shalt flourish great and free,
The dread and empy of them all.*

*Rule, Britannia! rule the waves:
“Britons never will be slaves.”*

—From the poem “Rule Britannia” by James Thomson (1700-48),
put to music by Thomas Augustine Arne (around 1740)
and sung as an unofficial British national anthem.

It would be idle to suggest that we made no mistakes, or to claim that the British mines were necessarily better than the German. But the cold fact remains that our mines defeated their minesweeping organization, while our minesweeping and degaussing organization defeated their mines. We were not merely ‘swapping pawns’, for the total effect expended by both sides, compared with the results, left a balance in our favour not far short of two to one.

—Capt. J. S. Cowie, RN, in his seminal book, *Mines, Minelayers and Minelaying*, published by Oxford University Press in 1949.¹

This book takes readers vicariously to sea with mine forces of Allied nations—principally those of Britain, aided by the United States, Canada, Norway, South Africa, Australia, the Netherlands, and the Free French—as they combatted German and Italian forces in the European, African and Mediterranean Theatres in World War II.

As an example of WWII mine warfare activity in all theatres, over the course of the war, the United States and United Kingdom laid a combined 300,000 mines, 100,000 for offensive purposes. U.S. efforts were almost entirely against the Japanese in the Pacific, a theatre not covered in this book. British and Allied minelayers (including U.S.) sowed 263,850 mines in areas under British control. Of these, 77,312 mines were employed offensively—nearly 55,000 mines laid by aircraft, 11,000 by purpose-built cruiser-minelayers (“fast minelayers”) and destroyers modified to lay mines; 6,500 by Coastal Forces; and 3,000 by

submarines. German and Italian figures are not readily available, but the Axis powers laid 55,000 mines in the Mediterranean alone.²

EXPLANATION OF THE COVER ART

Those familiar with the fine art of Richard DeRosset which graces the covers of my books, might well expect to find for this one, a painting of a minelayer or minesweeper under fierce attack by enemy air or surface forces. In this case, the cover art is a superlative painting by Richard of the Battle of Taranto. During the night of 11 November 1940, twenty-one Fairey Swordfish torpedo-bombers launched from HMS *Illustrious* struck the battle fleet of the Italian Navy at anchor in the harbour of Taranto. The attack was carried out using aerial torpedoes, despite challenges to their employment. Torpedoes dropped by aircraft over shallow waters like those of the Italian harbour, tended to strike the bottom and fail to operate correctly. The British were able to overcome this problem, which led senior Japanese naval officers to study the attack closely—and use it as a model for the attack on Pearl Harbor.

Photo Preface-1



Aircraft carrier HMS *Ark Royal* with a flight of Fairey Swordfish aircraft overhead. Naval History and Heritage photograph #NH 85716

The attack on Taranto (in which three Italian battleships were hit by torpedoes, one was sunk, and two others seriously damaged) established beyond a doubt the potential of aerial-launched torpedoes, even in relatively shallow waters. Equally important, the raid by slow, virtually obsolete bi-planes of the Fleet Air Arm shattered many greatly cherished beliefs about the dominance of battleships and naval gunnery.

More immediately, the air raid benefited the British by knocking out of action a significant part of the Italian fleet. It also facilitated relocation of many of the remaining ships to ports farther north; safer from another attack, but more distant from their main area of operations.³

In contrast to World War I, where nearly all the mines had to be laid by ships or submarines, in WWII a majority were sown by aircraft, but ships, coastal forces, and submarines still had an important role. Royal Air Force twin-engine Hampden medium-bombers, and Coastal Command Beaufort torpedo bombers carried out most of the aerial-mining, aided by antiquated Swordfish torpedo-bombers of the Royal Navy's Fleet Air Arm, the type aircraft depicted in the painting.

By 1940, the era of the biplane was long over, and the beloved Swordfish was a relic of the past with her agonisingly slow speed, open cockpit, fixed landing gear, and canvas skin. Yet, her importance during the war would rival that of any other combat aircraft owing to her great versatility. Because the lumbering biplane could carry a variety of ordnance, some wag likened it to a popular shopping bag used by British women known as a "string bag"—and the nickname stuck.⁴

The Swordfish could carry a 1,610-pound torpedo, or anti-ship mines, bombs, flares, or depth charges, and perform a variety of missions. These included reconnaissance over land or sea, aerial spotting of naval gunfire (to provide reports of the accuracy of falling rounds), convoy escort duty, attacks on U-boats, and dropping mines into enemy harbours. Mining of German ports was done at night when the slow biplanes could hide in the dark with relative impunity. Nearing the designated area, the pilot typically throttled back the engine and glided the encumbered aircraft silently down to the target.⁵

The bi-planes could fly from land bases or be launched off a ship's catapult as floatplanes; but proved most valuable to the fleet operating from carriers such as HMS *Illustrious*. Despite many previous successes, the tragic loss on 12 February 1942 of all six Swordfish of No. 825 Squadron, while carrying out a torpedo attack on a group of enemy ships, exposed weaknesses of the aircraft. With a top speed of only 138 mph, an equally unimpressive rate-of-climb of 1,220 feet/minute, and for self-defence, a single forward firing Vickers machine gun and a single flexible Lewis machine gun for the rear gunner, the Swordfish had no chance.⁶

In a "suicide mission" on 12 February, the squadron was sent out to oppose a group of German warships—centred around the battleships *Scharnhorst* and *Gneisenau*, and heavy cruiser *Prinz Eugen*. In addition to the threat posed by the ships themselves, and E-boat escorts, two Staffels (squadrons) of Messerschmitt Bf 109 fighters were sent up to

intercept the British planes. All six aircraft were shot down, with only five of the total eighteen aircrew members surviving. (A three-man aircrew consisted of a pilot, an observer, and a telegraphist air gunner.) Thereafter, Swordfish were relegated to mining operations only. Details about the breakout of these ships from Brest, France, and ensuing dash up the English Channel to Germany are provided later in the book.⁷

The lumbering aircraft's finest day was nine-and-a-half months earlier, when they were instrumental in the demise of Germany's greatest warship. Torpedo hits by Swordfish of No. 825 Squadron on the battleship *Bismarck* had jammed her rudder, leaving the formidable German battleship turning in circles, easy prey to the force of Royal Navy ships responsible for her ultimate destruction on 27 May 1941.⁸

BOOK PHILOSOPHY AND LIMITATIONS

Enemy Waters is the final book in a trilogy by the co-authors, begun with *Home Waters* and *Nightraiders*. *Home Waters* details the steadfast efforts in World War I of Royal Navy and U.S. Navy Mine Forces to battle German U-boats in British home waters. German ships and submarines embarked on an aggressive campaign to mine Britain home waters, with the goal of cutting off maritime commerce and forcing the island nation, dependent on the delivery of food, fuel, vital supplies and other materiel, to capitulate. In response, hundreds of fishing vessels from every port and harbour in Britain were pressed into minesweeping duties, and British minelayers in turn sowed fields to restrict the movement of and destroy German vessels.⁹

The efforts of British minesweeping flotillas enabled the powerful Royal Navy sufficient freedom of the sea to blockade the German Navy in port—except for occasional skirmishes, including the Battle of Jutland—and kept vital channels and harbours open. Following the war, Lord John Rushworth Jellicoe aptly described the critical importance of the fishing boats turned minesweeper, declaring that “the Royal Navy had saved the Empire, but it was fishermen in their boats who had saved the Royal Navy.”¹⁰

Late in the war, U.S. Navy minelayers began work in conjunction with the Royal Navy to create a massive mine barrier stretching from the Orkney Islands to the Norwegian coast. Although not completed by war's end, it represented a partially successful effort to bottle up German U-boats in the North Sea and curtail continued attacks on shipping in the Atlantic. (A similar British-American effort had been made in 1918 to lay a massive mine barrage from the Orkneys to Norway at Bergen, the purpose being to close the North Sea exit to the U-boats.)

U-boat activity was not confined to Europe. In 1918, across the Atlantic, minesweepers of the U.S. and Royal Canadian navies cleared mines in waters off the eastern seaboard of North America laid by enemy submarines. Attacks by five U-boats against shipping had been undertaken in an unsuccessful effort to compel the American government to bring home Atlantic Fleet destroyers engaged overseas in hunting U-boats in British waters.

This book could be wholly devoted to operations by Royal Navy minesweeping flotillas in World War II, or to British offensive or defensive minelaying operations. There is more than sufficient material, and many such books exist, including for example: *Out Sweeps! Story of the Minesweepers in World War 2* by Paul Lund, and Capt. J. S. Cowie's *Mines, Minelayers and Minelaying. Enemy Waters* endeavours to present the intertwined relationship between offensive minelaying in enemy waters, defensive minelaying in home waters, and minesweeping in home and enemy waters to counter enemy mines. While the Royal Navy and Royal Air Force were responsible for the bulk of mining in African, Mediterranean, and European waters, and the Royal Navy for sweeping enemy mines, the authors have included discussion of the contributions made by other Allied Mine Forces. These include the provision of mine warfare ships by Allies and/or in the case of dominions, service of some personnel aboard these type and other Royal Navy vessels.

Absent from *Enemy Waters* is the level of detail about the mechanics of minelaying and minesweeping found in *Home Waters* and *Nightraiders*. The latter book is devoted to mine warfare against the Japanese in the Pacific in World War II. It opens with the British and Dutch laying minefields off Hong Kong and Singapore, and in the Netherlands East Indies, in a desperate attempt to prevent their capture by the Japanese. These efforts were unsuccessful. Enemy invasion forces advanced over land to take the British Colonies, while a two-pronged naval advance overwhelmed Dutch forces in the Netherlands East Indies.

Ships employed as minelayers were commonly referred to as “night raiders” because carrying out missions under the cloak of darkness increased the odds of survival in enemy waters. As MacArthur, Halsey, and Spruance's forces advanced toward Japan, minesweepers worked with “night raiders”—clearing waters off landing beaches, while minelayers worked to deny the enemy freedom of the sea. Australian seaplanes (“Black Cats”) flew long, perilous night-missions to mine Japanese harbours, and British submarines and planes joined in attacking shipping. (There were also many U.S. Navy squadrons equipped with the same type planes—PBY Catalinas painted black for night operations—operating in the Pacific, and which had performed

mining earlier in the war. But while the “Aussie Black Cats” were mining Japan’s inner zone, they were used almost exclusively to carry out bombing attacks on enemy shipping and shore targets.) Late in the war, U.S. Army Air Force bombers ringed the Japanese home islands with thousands of mines.

USAGES OF MINES AND MINESWEEPERS

Bluntly put, the purpose of a sea mine is to destroy enemy warships and shipping—hopefully in a manner that does not accidentally backfire by destroying the proponent’s own forces, commercial shipping and fishing fleets, and those of neutral nations. In a larger sense the deployment of mines, involves certain strategies both involving stealth actions and public notifications to protect non-combatative forces including fishing fleets.

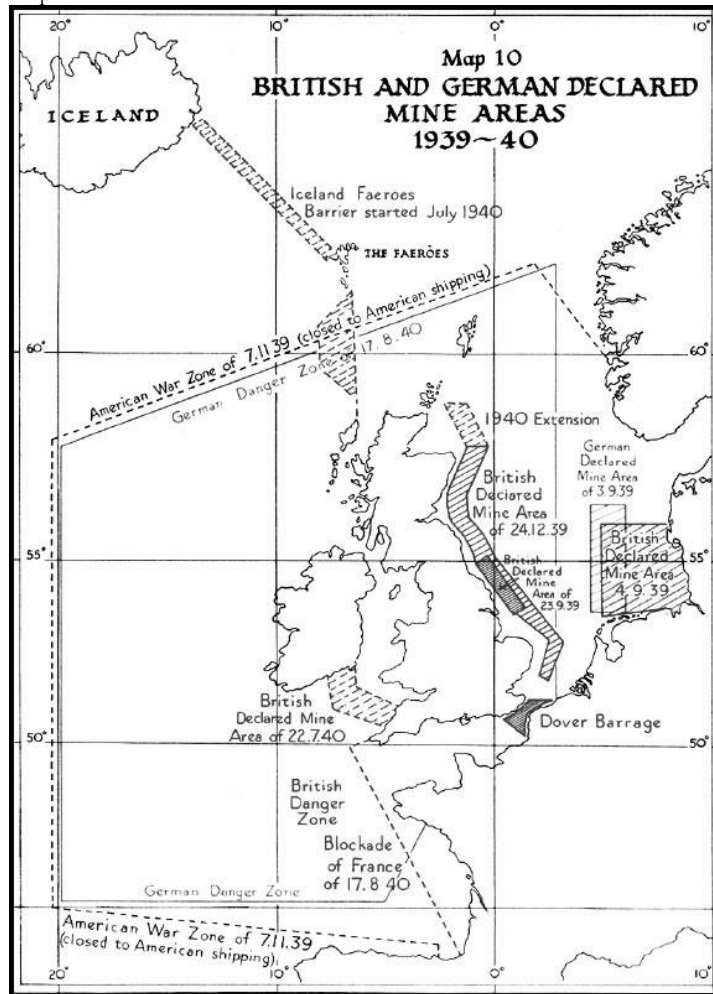
As an overview to this book, it is important to understand the offensive and defensive use of minefields, and the vital role of minesweepers in combating them. A prime use of a mine is as a sea-denial weapon; one employed to deny to an adversary the use of waters, ports or harbours—or to force enemy shipping (hugging coastlines under the protection of shore guns and shielded from attack by submarines owing to shallow waters) farther out to sea where it can be attacked. Mines are also used offensively to blockade enemy ships inside a harbour from gaining the open sea, and to prevent merchant vessels from entering a harbour to deliver vital food, fuel, supplies and other materiel to the enemy. This tactic is particularly effective if the enemy lacks sufficient resources to quickly clear the mines to open the harbour to shipping.

Current NATO definitions divide offensive mining as generally explained above, into Offensive and Tactical categories, and defensive mining into Defensive and Protective ones:

- **Offensive:** Mines laid in enemy territorial water or waters under enemy control to deny him free use of his sea lines of communication or access to his own ports, harbours and anchorages.
- **Tactical:** Mines laid for a specific purpose or operation or as part of a formation obstacle plan laid to delay, channel or break up an enemy advance.

- Defensive: Mines laid in international waters or international straits with the declared intention of controlling shipping in defence of sea communications.
- Protective: Mines laid in friendly territorial waters to protect ports, harbours, anchorages, coasts, and coastal routes.

Map Preface-1



British and German Declared Mine Areas, 1939-40
 S. W. Roskill, *The War at Sea 1939-1945* (London: HMSO, 1954)
<http://www.ibiblio.org/hyperwar/UN/UK/UK-RN-I/UK-RN-I-6.html>

Upon encountering offensive mines, the blockaded party typically despatches minesweepers, if available, to open the harbour or seaway. Mine clearance is painstakingly slow, as well as dangerous. As such, an urgent requirement to get to sea might force a ship's captain to try to run a suspected or known minefield. In recognition of the danger associated with trying to break out of a port blockaded by Royal Navy warships and/or mines, Germany authorised a special badge to be awarded to officers and men of the Kriegsmarine (German Navy) or Handelsmarine (Merchant Navy).¹¹

Photo Preface-2



Otto Burfeind, captain of the blockade runner SS *Adolph Woermann*, who scuttled the merchant vessel (disguised as the Portuguese ship SS *Njassa*) in the South Atlantic upon the approach of HMS *Neptune*. The British light cruiser *Neptune* picked up the crew and passengers and took them to England where they were interned at Seaton, Devon.
Courtesy of Dwight Messimer



The “Badge for Blockade Runners” (Abzeichen für Blockadebrecher) was instituted on 1 April 1941 and first awarded on 1 July of the same year to the merchant vessel SS *Hugo Olendorff*

The criteria for awarding officers and men of German warships and merchant vessels attempting to run the blockade, and for some other notable actions, were:

- Distinction and good conduct, and
- Run a blockade and dock in a German port, or
- Service on a ship lost to enemy action, or
- To be wounded during an action at sea, or
- Scuttle a ship to avoid its capture, or
- For sinking an enemy ship in action, or
- Otherwise prevent the taking a German ship¹²

PROTECTIVE MINEFIELDS AND MINESWEEPERS

The purpose of protective minefields is to prevent enemy ships or submarines from slipping into harbour areas to attack friendly ships in supposed safe havens. If sufficient minesweepers are available to the enemy, his warships will most likely eventually leave harbour, perhaps to mine one’s own shipping channels, ports, and harbours. In the case of enemy submarines, those configured to lay mines might do so, or torpedo or take ships under fire, or all three; being fitted with a deck gun and usually carrying some number of torpedoes. Defensive mining constituted the majority of mines laid by the Allies. As later enumerated, most were placed by surface ships.

IMPORTANCE OF MINESWEEPERS TO THE ENEMY

The scope of this book does not include German mine clearance efforts. It is important to note that Germany, like other maritime nations involved in the war, did not have sufficient numbers of minesweepers to combat her enemies. Comprising the German minesweeping forces were M-boats, R-boats, and a host of other types of ships that were pressed into service under the general designation Sperrbrecher. The larger M-boat and smaller R-boat classes were purpose-built minesweepers. The M-boats were called Minensuchboote or “Mine Search Boats,” and the R-Boats Minenräumboote or “Mine Clearance Boats.”¹³

Photo Preface-3



German M-boats under way
Courtesy of Dwight Messimer

Photo Preface-4



R-Boats off the French coast, probably 1941 or later
Courtesy of Dwight Messimer

The third type of minesweeper, Sperrbrecher, was not a class of ship, but instead vessels pressed into such duties, including merchant ships. The word Sperrbrecher translates as “barrier breaker” and “Sperrbrecher” was an assigned task rather than a specific type of ship. Sperrbrecher were employed as blockade runners and as vessels used to sweep mines—and many were lost during the war. F-boats, known as Geleitboote (escort boats), and their larger sisters, G-boats or Schnell Geleitboote (fast escorts), also fell into the Sperrbrecher category. The former vessels were heavily armed with up to ten anti-aircraft guns (20mm, 37mm, and 105mm).¹⁴

The G-boats carried up to sixteen anti-aircraft guns in the same 20 to 105mm bore sizes and were often called upon to lay mines as well as clear them. Additionally, four French boats captured at St. Nazaire while under construction, were completed as SG-boats. They were fitted with seventeen anti-aircraft mounts that carried guns from 20 to 105mm. At one time or another, all of these boats, F, G, and SG, acted as escorts for U-boats outbound from Heligoland and the German Bight (Bay) or returning, as well as sweeping or laying mines.¹⁵

As the war progressed, owing to extensive Allied mining (mostly British), the German Navy would be forced to devote more and more resources to mine clearance. In 1945 its minesweeping force involved 1,276 minesweepers and 46,000 personnel.¹⁶


The same held true for the Royal Navy, whose minesweeping force similarly grew to counter mines laid by the Axis. The number of British minesweeping vessels in commission on 3 September 1945 was 1,115—316 vessels having been lost. A comparison of minesweeper totals and cumulative losses in Home Waters and Abroad is provided in the table.

Numbers of British Minesweeping Vessels on 3 September 1945

Geographical Area	Vessels in commission	Vessel losses to date
Home Waters	654	185
Abroad	461	131
Totals	1,115	316 ¹⁷

The peak number of personnel directly engaged in British operated minesweeping was reached approximately at the time of the invasion of Normandy. The figure of 57,055 included the Royal Navy and its reserves, the Dominion navies and their reserves, and the officers and men manning ships of exiled allied navies.¹⁸

ROYAL NAVAL PATROL SERVICE (RNPS)

	<p>Unique silver badge awarded to those who served six months or more in the RNPS, worn on the sleeve of the recipient's uniform. Because a majority of RNPS members were Reservists, it became a "Navy within a Navy," one commonly referred to as "Harry Tate's Navy," "Churchill's pirates" and "Sparrows."</p>
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While Britain and other Allied forces were mining enemy waters, German aircraft, ships, and submarines were in kind mining British waters. Because of her expansive coastlines, Britain required, as she did in World War I, hundreds of minesweepers to allow the Royal Navy some freedom of movement and to keep her ports open to merchant shipping.

At the outbreak of war, the Royal Navy commandeered the Sparrow's Nest at Lowestoft, a private estate in Suffolk, to set up the headquarters for the Royal Naval Patrol Service. The Sparrow's Nest had been built as Cliff Cottage in the 19th century, a summer retreat for Robert Sparrow, the owner of a luxurious country house in nearby Worlingham. The estate became known as HMS Europa. (Unlike the names of vessels, the names of Royal Navy establishments preceded by HMS are not italicised because the 'ships' in question are 'stone frigates' to which shipboard terminology and customs still apply.) Located at the most easterly point of Great Britain on the North Sea, Lowestoft was then the closest military establishment to the enemy.¹⁹

Out of necessity, the Royal Naval Patrol Service utilised outdated and poorly armed vessels, mostly requisitioned trawlers crewed by ex-fishermen. The RNPS also helped man Royal Navy MMS (Motor Minesweepers otherwise known as "Micky Mouse") and BYMS (British Yard Minesweepers). The latter were the British-procured version of the famous U.S. Navy YMS minesweeper, to which the author's book *Wooden Ships and Iron Men Volume II: The U.S. Navy's Coastal and Motor Minesweepers, 1941-1953* is devoted.

The RNPS came to bear several unofficial titles that poked fun at it. One that gained prominence was "Harry Tate's Navy." This reference dated back to the First World War; it was jargon for anything clumsy and amateurish. It originated from an old music hall entertainer who portrayed a clumsy comic who couldn't come to grips with various contraptions, and whose act included a car that gradually fell apart.²⁰

In WWII, regulars in the Royal Navy used this reference to poke fun at the trawlers and drifters of the Royal Naval Patrol Service. Nonplused, the members of the RNPS proudly adopted the title "Harry Tate's Navy" which, as the war went on, became a worthy synonym for courage. Because the peacetime crews of fishing vessels developed into Royal Naval Reserve seamen in the minesweeping fraternity, they quickly acquired a special camaraderie with one another. This amity continued throughout the war, though by the end most RNPS members were Royal Navy Volunteer Service "hostilities only" members with little previous connection to the sea. (An explanation about the differences between the RN, RNR and RNVR follows in a few pages).²¹

Photo Preface-5



George Hunt served aboard *MMS 1084* and *HMS Sobkra* in the Second World War. There is still a monthly gathering of RNPS veterans in Portsmouth, which he attends. Courtesy of Rob Hoole, photograph taken in June 2018

In keeping home waters swept, with some work abroad, the Royal Naval Patrol Service suffered the loss of over 250 vessels, more than any other branch of the Royal Navy. After the war's end, Winston Churchill sent the following message to the officers and men of the minesweeping flotillas in recognition of their sacrifices and vital contributions to the survival of Great Britain.

Now that Nazi Germany has been defeated I wish to send you all on behalf of His Majesty's Government a message of thanks and gratitude.

The work you do is hard and dangerous. You rarely get and never seek publicity; your only concern is to do your job, and you have done it nobly. You have sailed in many seas and all weathers... This

work could not be done without loss, and we mourn all who have died and over 250 ships lost on duty.

No work has been more vital than yours; no work has been better done. The Ports were kept open and Britain breathed. The Nation is once again proud of you.²²

The officers and men of the RNPS fought in all theatres of the war, earning over 850 gallantry awards as well as over 200 Mention in Despatches. A Victoria Cross (VC) was won during the Norwegian Campaign by Lt. Richard Been Stannard RNR, the only one awarded to the unit. Stannard was commanding officer of HM trawler *Arab* of the 15th Anti-Submarine Striking Force. He received his VC for gallantry under air attack during operations off Namsos, Norway.²³

Today, some of the few remaining original buildings of HMS Europa in Sparrow's Nest, Lowestoft, house the Royal Naval Patrol Service Museum and the War Memorial Museum. There is a memorial in Belle Vue Park, in the north end of Lowestoft, to commemorate members of the RNPS who died during 1939-1946 and who have no known grave other than the sea, as well as a few who died on shore and who also have no known grave.²⁴

Importantly, some of the few remaining RNPS members continue to visit one another to share memories and remember their shipmates.

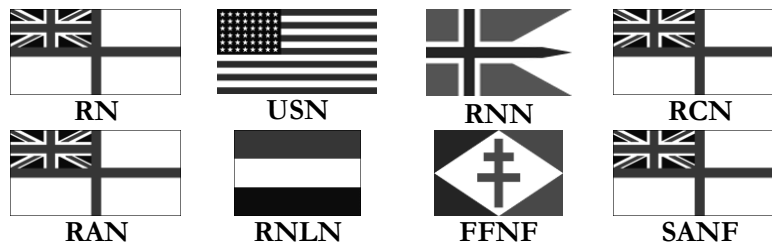
MINELAYING SERVICE RECEIVES FEW ACCOLADES

While the British public was very appreciative of the RNPS both during and after the war, the Minelaying Service and its members, to which the bulk of this book is devoted, were largely overlooked. This may have been due, at least in part, to a general belief that clearing the enemy's hated mines from home waters was good, while putting one's own into the sea (where innocent fishing vessels and merchant vessels could encounter them) was considered "odious." The British government promulgated notices identifying the boundaries of the waters it mined, but such postings were not always studied carefully by merchantmen and fishermen and losses occurred.

To illustrate this point, HMS *Latona*, one of six *Abdiel*-class "fast minelayers" (cruisers purpose-built to serve as minelayers) was not adopted by a community as part of a British Nation Savings WARSHIP WEEK campaign in 1941-1942. This may have been because of the nature of her primary mission. HMS *Abdiel* had been similarly slighted, as would be the other ships of the class. Ironically, these ships, apart from their minelaying functions, performed heroic, well-publicised

deeds. Because the ships were very fast at 39 knots, some were routinely used to make overnight runs from Gibraltar to Malta, to supply fuel and food to the beleaguered British Colony. Others transported stores and personnel to Cyprus and Tobruk, also under siege by German and/or Italian forces. Apparently, even these accomplishments could not relieve their tainted status in the public eye.

BRITAIN NOT ALONE IN MINE WARFARE EFFORTS

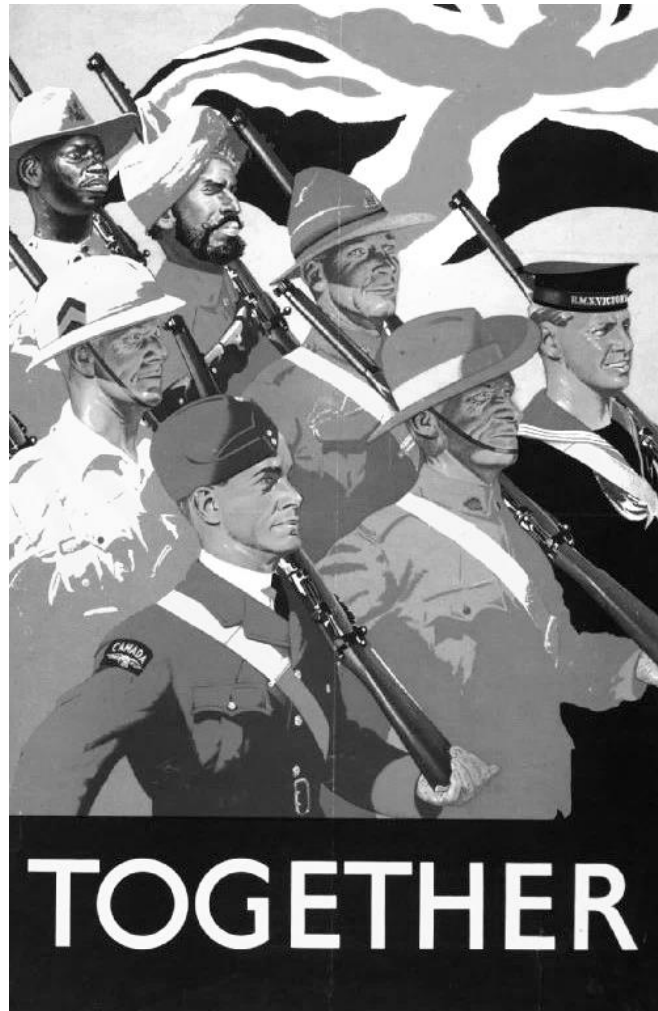


At this point, some readers may be wondering about the involvement of the other countries whose Naval ensigns are displayed on the cover. The flags in the four corners of the group were those of the Royal Navy and dominions: The Royal Canadian Navy, Royal Australian Navy, and the South African Naval Force. South African minesweepers operated with the Royal Navy's Mediterranean Fleet. Officers and men from the RCN and RAN served aboard Royal Navy minesweepers, with some officers in command. Australia's minesweepers and minelayers were occupied with American ones in the vast Pacific. (Their activities are covered in great detail in Cdre. Hector Donohue, AM RAN (Rtd.) and Mike Turner's excellent book, *Australian Minesweepers at War*.)

The mine warfare ships of the Royal Canadian Navy were primarily engaged off Canada's east coast, combating German U-boats, as were ones of the U.S. Atlantic Fleet farther down the eastern seaboard of North America. U.S. Navy minesweepers and minelayers sailed for Europe in October 1942 to take part in Operation TORCH, the Allied invasion of French North Africa, and later participated in other operations, including assault landings in Italy and those at Normandy and in southern France. Canada's principal mine warfare involvement in Europe came in 1944, when it despatched sixteen *Bangor*-class fleet minesweepers to Britain to clear swept paths across the English Channel ahead of the Normandy assault forces.

Following German occupation, in 1940, of France, the Netherlands and Norway, remnants of their navies fled to England and established headquarters in London. Discussion of actions by these exiled forces is largely limited herein to those of the Dutch RNLN minelayer *Willem Van der Zaan*, the FFNF (Free French) minelaying-submarine *Rubis*, and the Norwegian-manned 52nd Motor Launch Flotilla.

Photo Preface-6



Poster promoting the importance of the joint war effort of the British Empire and Commonwealth, 1939.

Lowe and Brydone Printers Ltd, London NW10 (printer)

BRITISH OFFENSIVE MINING IN WORLD WAR II

The British employed ships, submarines, planes, and coastal forces craft for offensive mining during the war. The largest effort by far, was that of aircraft which laid about 50,000 mines in northwest Europe, significantly impeding shipping traffic and naval movements. The purpose of an offensive minefield includes blockade, restricting the movement and attacks from enemy naval combatants, submarines, and merchant vessels; and endeavouring to destroy or damage such vessels in port, or at sea. No vessels would be sunk by an ideal field, because it would prevent the movement of shipping.²⁵

As highlighted on the first page, in all theatres in World War II, including the Pacific (not covered in this book), over 76,000 British mines were laid in enemy waters. Of these, nearly 55,000 were laid by aircraft, 11,000 by fast minelayers and destroyers, 6,500 by Coastal Forces, and 3,000 by submarines. British losses of vessels and aircraft performing solely minelaying were one fast minelayer, two destroyers, four submarines, and four Coastal Force craft, and approximately 500 aircraft lost in 21,000 sorties. However, these numbers do not reflect true losses of resources. Not counted are minelayers sunk by the enemy while carrying out other tasking, with their killed and wounded personnel additional losses to the mine force and to the navy.²⁶

The 11,000 mines laid by ships in enemy waters only accounted for a small portion (5½-percent) of the 199,002 mines sown. The remainder were put in defensive fields. Quantities by ship categories (with mines combined) are shown in the table.

Cruiser Minelayer (12,401 mines)		
	Mines	
Minelayer	Laid	Remarks
HMS <i>Adventure</i>	12,401	Damaged by mines
Converted Merchant Vessels (133,334 mines)		
HMS <i>Agamemnon</i>	24,216	
HMAS <i>Bungaree</i>	6,800	
HMS <i>Menestheus</i>	22,866	Damaged by bombing
HMS <i>Port Napier</i>	6,331	Destroyed by fire
HMS <i>Port Quebec</i>	33,494	
HMS <i>Southern Prince</i>	23,762	Damaged by torpedo
HMS <i>Teviot Bank</i>	15,865	
Coastal Minelayers (17,525 mines)		
HMS <i>Plover</i>	15,327	
HNLMS <i>Van der Zaan</i>	2,198	
Converted Train-ferries (7,932 mines)		
HMS <i>Hampton</i>	5,190	
HMS <i>Shepperton</i>	2,742	

Converted Car-ferry (2,755 mines)		
HMS <i>Princess Victoria</i>	2,755	Sunk by mine
Fast (Cruiser) Minelayers (18,301 mines)		
HMS <i>Abdiel</i>	2,207	Sunk by mine
HMS <i>Apollo</i>	8,361	
HMS <i>Ariadne</i>	1,352	
HMS <i>Latona</i>	0	Sunk by bombing
HMS <i>Manxman</i>	3,111	Damaged by torpedo
HMS <i>Welsbman</i>	3,275	Sunk by torpedo
Destroyer Minelayers (6,754 mines)		
HMS <i>Esk</i>	1,110	Sunk by mine
HMS <i>Express</i>	1,210	Damaged by mine
HMS <i>Icarus</i>	1,196	
HMS <i>Impulsive</i>	892	
HMS <i>Intrepid</i>	1,592	
HMS <i>Ivanhoe</i>	754	Sunk by mine
Total ship-laid mines ²⁷	199,002	

BOMB DISPOSAL AND RENDERING MINES SAFE

The RNVr (classic, wartime reservists known as ‘Saturday night sailors’) were gentlemen trying to be sailors.

The RNR (professional seamen and part-time Navy officers) were sailors trying to be gentlemen.

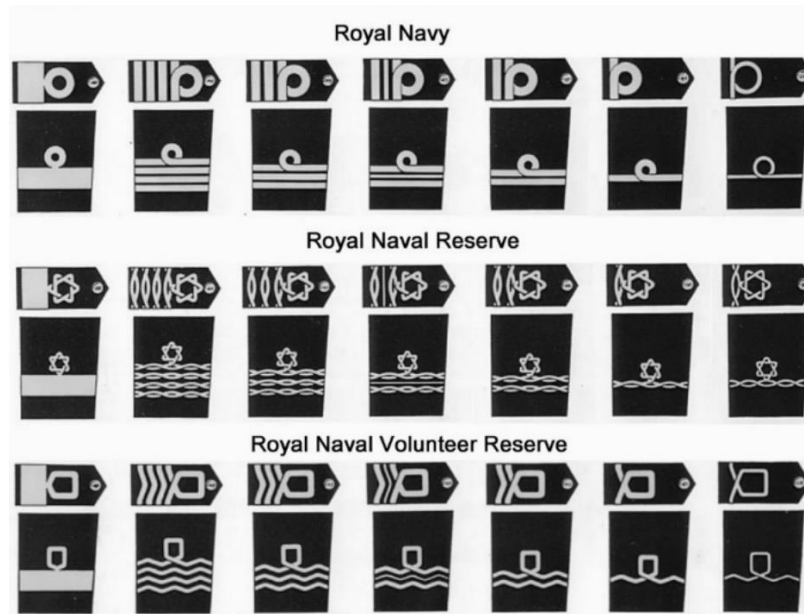
and The RN (regular Navy officers) were neither trying to be both.

—Old saying in the Royal Navy, courtesy of Rob Hoole

The emphasis of this book is surface ship, submarine, and coastal forces minelayers, consequently only a small portion is devoted to minesweepers and their stalwart crews, and practically none to “human minesweepers”—courageous divers who rendered mines safe. Co-author Rob Hoole, a retired RN Mine Clearance Diving Officer, offers in the postscript an overview of this area and associated bomb disposal in World War II.

The Naval Reserve Act of 1859 established the Royal Naval Reserve (RNR) as a reserve of professional seamen from the British Merchant Navy and fishing fleets, who could be called upon during times of war to serve in the regular Royal Navy. In 1862, the RNR was extended to include the recruitment and training of reserve officers, who wore on their uniforms a unique and distinctive lace consisting of stripes

of interwoven chain. The Royal Naval Volunteer Reserve (RNVR)—the so-called “wavy Navy”—was created in 1903.



World War II British Naval Officer shoulder boards and sleeve insignia

While the Royal Naval Reserve was composed of personnel from the merchant marine and fishing communities, members of the Royal Naval Volunteer Reserve came from other civilian backgrounds. Another difference was the gold braid officers wore on their sleeves to denote rank. Those of the RNR were in intersecting waved pairs, while the pattern of RNVR braid was single waved lines—thus the RN moniker “wavy Navy” when referring to the latter officers.

The Royal Navy’s Bomb Disposal/Render Mines Safe Community, like the Royal Naval Patrol Service, was mostly populated by RNR and RNVR members, and the same held true for the Dominion navies. At the onset of war, some regulars serving in the Royal Navy made fun of RNR and RNVR personnel, whom they termed amateurs. However, the amateurs soon became professionals in mine clearance, a warfare area generally underappreciated by “top brass” who’d gained promotion aboard battleships, cruisers and destroyers.

USEFUL INFORMATION

Before readers vicariously stand out to sea with units of the Mine Force, or enter murky depths with Clearance Divers, some explanation of language, officer ranks and awards for valour, nautical/naval terms, and the indexing of ship name entries might be in order; particularly to those not part of the Commonwealth. Those desiring more information about particular types of mines, or terminology associated with mines, minelaying and minesweeping may consult Appendices A and B.

The British spelling of particular words are used throughout as a nod to the Royal Navy and the British people to which a majority of the book is devoted. (They also apply to the Dominions generally.) The primary differences are the addition of the letter “u” in some words, and the use of “s” instead of “z” in others.

British	American	British	American
authorise	authorize	labour	labor
calibre	caliber	manoeuvre	maneuver
centre	center	metre	meter
colour	color	minimise	minimize
defence	defense	organisation	organization
despatch(es)	dispatch(es)	programme	program
draught	draft	publicise	publicize
endeavour	endeavor	recognise	recognize
favourable	favorable	utilise	utilize
harbour	harbor	valour	valor
honour(s)	honor(s)	vigourous	vigorous
italicise	Italicize		

COMPARABLE NAVAL OFFICER RANK STRUCTURE

The United States and Dominion navies were patterned after the Royal Navy and, sharing a common language, utilised a similar officer rank structure. (The Royal Canadian Navy represents other Dominions in the following table.) An RN sub lieutenant is the equivalent of a USN lieutenant (junior grade), and an RN midshipman the same as a USN ensign, because the Royal Navy does not use the latter rank. The rank of midshipman in the U.S. Navy and Imperial German Navy was below that of Ensign and Oberleutnant zur See, respectively.

Royal/Royal Canadian/U.S. Navy		Kriegsmarine (German Navy)	
Rank		Rank	
Admiral	Adm.	Admiral	Adm.
Vice Admiral	Vice Adm.	Vizeadmiral	VAdm.
Rear Admiral	Rear Adm.	Kontreadmiral	Kadm.
Commodore	Cdre.	Kommodore	Kdre.
Captain	Capt.	Kapitän zur See	Kpt. z. S.
Commander	Comdr.	Fregattenkapitän	FKpt.
Lieutenant Commander	Lt. Comdr.	Korvettenkapitän	KKpt.
Lieutenant	Lt.	Kapitänleutnant	Kpdt.
Sub Lieutenant	Sub Lt. [RN]	Oberleutnant zur See	OLt. z. S.
Lieutenant, Junior Grade	Lt. (jg) [USN]	Oberleutnant zur See	OLt. z. S.
Ensign	Ens. [USN]	Leutnant zur See	Lt. z. S.
Midshipman	Mid. [RN]		
Midshipman	Mid. [USN]	Oberfähnrich zur See	Fähn. z. S.

The prefaces “A/” or “T/A” are associated with some officers’ ranks in the book. In general, ‘A’ or ‘Acting’ higher rank was appropriate when an officer was assigned to perform the full duties of a post at a higher rank because no officer of the required substantive rank and branch was available to do so. Award of the ‘Acting’ higher rank attracted the pay of the higher rank but did not accrue seniority in the higher rank.

‘T’ or ‘Temporary’ commissions were granted by the Crown to many RNR and RNVR officers, in such rank as deemed appropriate, to suitable persons who volunteered their services in times of emergency. Temporary officers in the RNR and RNVR were entitled, while so employed, to the rank, pay and allowances of the corresponding permanent rank in the RNR and RNVR and were generally treated in all other respects, and were subject to the same regulations, as permanent RNR and RNVR officers. Such officers were liable to service either ashore or afloat, as directed, until their temporary commissions were terminated.







In general, regular RN officers were granted permanent commissions by the Crown. These lasted for the duration of their lives unless forfeited (e.g., owing to some serious misdemeanour) or resigned (e.g. to serve in another nation’s forces).

A significant difference exists between references to officers in the Royal Navy and its dominions, and those of the United States Navy. Those of the former include “Sir,” if knighted (Royal Navy), following an individual’s military rank, and reference to military awards earned after surname.

Over the course of their careers, officers advance in rank and may receive additional awards. Since it is difficult to associate the latter with the former at any given point in time, the convention is to denote the final rank of an officer, and all awards they received in the first reference to that officer. So, the first reference to fictional Lt. John Smith, RN, would include in parenthesis after his surname (later Vice Adm. Sir John Smith, VC, DSO, DSC, CGM). In order to make the text easier to follow, particularly for those without naval backgrounds, this information is provided after the individuals' names in the index.

Photographs and descriptions of six of the awards most commonly referenced in *Enemy Waters* follows:

A Few British Military Awards

	Victoria Cross (VC): Highest award of the British honours system; for gallantry "in the presence of the enemy"		Distinguished Service Cross (DSC): For an act or acts of exemplary gallantry during active operations against the enemy at sea
	George Cross (GC): For acts of the greatest heroism or for most conspicuous courage in circumstance of extreme danger, not in the presence of the enemy		Conspicuous Gallantry Medal (CGM): Award for enlisted members for conspicuous gallantry in action against the enemy at sea or in the air
	Distinguished Service Order (DSO): for meritorious or distinguished service by officers during wartime, typically in actual combat		George Medal (GM): For gallantry "not in the face of the enemy" where the services were not so outstanding as to merit the George Cross

Of course, other awards existed; some with humorous acronyms describing how "other ranks" viewed those received by their seniors:

- MBE (Member) – My Bloody Efforts
- OBE (Officer) – Other Buggers' Efforts
- CBE (Commander) – Covers Bloody Everything
- Order of St Michael & St George which has three classes:
 - CMG (Companion) – Call Me God
 - KCMG (Knight Commander) or DCMG (Dame Commander) – Kindly Call Me God
 - GCMG (Knight Grand Cross or Dame Grand Cross) – God Calls Me God

NAUTICAL/NAVAL TERMS

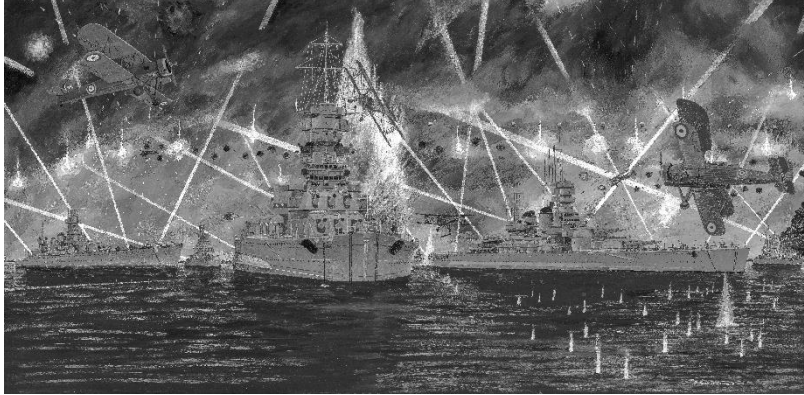
- Carley raft/float: An early life raft consisting of a large oval ring of copper tubing covered with kapok and waterproof canvas.
- Graving dock: A large basin with gates from which water can be pumped out; used for building ships or for repairing a ship below its waterline.
- Scuttle: To cause a vessel to sink by opening the seacocks or making holes in the bottom of its hull.
- Stoker: An engineering rating responsible for feeding coal into the firebox of a boiler providing steam to propulsion turbine. “Stoker” survives as an unofficial term for a marine engineering mechanic in the Royal Navy to this day.

FINDING INDEX REFERENCES TO A SHIP OR SHIPS

Former sailors, or relatives or friends of former sailors picking up a book such as this one often desire to ascertain whether or not it includes any references to a particular ship in which they or another individual served. In acknowledgement of this fact, an extensive index is included. To reduce its size, multiple ships listed on the same page or pages in the text are combined into a single entry. Entries for American ships are located under their associated ship type headings. For example, the battleship *Arkansas* can be found under Ships and Craft, and the sub-categories: United States, Navy, combatants, and battleships.

A reader searching for a particular ship of another country should review all entries under the heading for that country. For example, if searching for HMCS *Quatsino* under the sub-heading Canada, it would be found on the fourth line, as part of the entry for *Bellechasse, Chignecto, Courtenay, Kelowna, Miramichi, Outarde, Quatsino, Transcona, 227*, which are all listed on but a single page (227) of the text.

Photo Preface-7



Painting by Richard DeRosset of the Battle of Taranto, in which on the night of 11 November 1940, twenty-one Fairey Swordfish torpedo-bombers launched from HMS *Illustrious* struck the battle fleet of the Italian Navy at anchor in the harbour of Taranto.