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Vol. 32

FEBRUARY-MARCH-APRIL, 1970

No. 1

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When the Ports Were filled with Loveliness

ALLAN FRASER

(Reproduced from Hemisphere—an Asian-Australian magazine).

Carry-on-an'-break-her ships—shake-her-up-and-wake-her ships—

Crammed with Southern fleeces for the Sou' West India Dock—

The westerlies to hustle 'em and the steady Trades to bustle 'em

Ei^ghty days from Melbourne to the chime of Lime-house clock!

These were the ships—the fine ships, the fair ships, Golden Fleece and Cutty Sark and swift Thermopylae;

Sailors they were sailors then—ay, and ships they were ships,

When the ports were filled with loveliness and sails were on the sea.

—C. FOX SMITH.

Sightseers gather to watch a squadron of ships in Sydney Harbour in 1882.



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In 1885,, the two ships raced from Australia to catch the London wool sales held in January. *Cutty Sark* won by a week. This was sweet revenge for her crew because a few years earlier the two clippers had raced from Shanghai with cargoes of tea; *Thermopylae* had then won by a week after *Cutty Sark's* rudder had been carried away. But of these things, more anon.

Today, when the luxury liners, the floating hotels on the England-Australia run, range from 20,000 to 30,000 tons, it is instructive to recall that up till 1850 the ships coming to Australia were from 250 to 300 tons and not much more than a hundred feet long.

The gold rush brought the demand for larger and faster ships; the *Sovereign Of The Seas*, diverted from the Californian run in 1852, was perhaps the first of these. But other fine vessels were quickly built to carry eager passengers to Australia and soon the influx grew to thirty thousand a year.

By 1860, the mass migration was falling away and the demand was for smaller ships. Sailing now saw, in contrast to the towering softwood vessels of the 1850s, the advent of composite clippers with their iron frames planked with teak. They brought out passengers and then raced home with wool to catch the London sales. Much was at stake; if they were late, the wool had to wait several months until the next sales.

Sobraon, built in 1866, was the largest of the composite clippers—2,131 tons, 317 feet long, and with a 40-foot beam. She was one of a fleet of swift and graceful clippers owned by Devitt and Moore, others including *La Hogue*, *Parramatta*, *Macquarie*, *Medway*, *Rodney* and *Collingwood*.

In the nineties *Sobraon* was acquired by the New South Wales Government as a training ship for boys, and in 1911, when the Australian Navy was established, she became a naval training ship with a new name, *Tingira*. Upon her re-



The *Joseph Conrad* on the high seas.

In the days when Australia was a collection of colonies, and its trade was mainly with Britain, the clipper ship *Thermopylae* established the record sailing time from England to Australia—sixty days from England to Australia—sixty-two days from Gravesend to Melbourne or, as her admirers liked to put it, sixty days from pilot to pilot. The year was 1868.

But *Cutty Sark*, launched in 1869, was the most famous of all the sailing ships and registered the most sensational performances.

tirement she lay at rest in Sydney Harbour with another famous clipper, *Fortuna*. In 1929 she was sold, then resold in 1935 and subsequently broken up. It was a pity.

Cutty Sark, launched exactly a hundred years ago, continued her remarkable exploits in the Australian trade until 1893. Her tonnage was 921, her length 212 feet, her breadth 36 feet and her depth 21 feet. She carried a cloud of sail—as much as many vessels double her tonnage. In 1880 she was considerably cut down, but after this she made her speediest passages.

The figurehead of *Cutty Sark*, one of the most remarkable ever placed on a ship, was considered a masterpiece. It showed the winsome but immodest wench of the poem *Tam o'Shanter* by the Scots writer, Burns, with her 'cutty sark'

(short skirt) blowing in the wind. The figure's creator succeeded admirably in giving her an expression of fierce intent, streaming hair, bared shoulders, flowing draperies, and hand outstretched in vengeful pursuit of the peeping Tam o'Shanter on his old mare Meg. Behind her on the tailboard danced witches, more abandoned still; behind them again sat the Devil, watching the proceedings in high glee.

Alas, this fine interpretation of the poem was doomed almost immediately to partial obliteration: mid-Victorian moralists succeeded in persuading her owner, Captain Willis, to remove the offending witches.

Cutty Sark was specially built to lower the colours of *Thermopylae*, as she sometimes did. The young men who designed her were also given the commission to build her. They

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went bankrupt in the process because of the rigid manner in which the owner, fiercely intent to have a peerless ship, held them to the letter of their contract.

She had many captains; one of them, Wallis, described as a good sailor but temperamentally unsuited to control a crew, disappeared over the side one dark night.

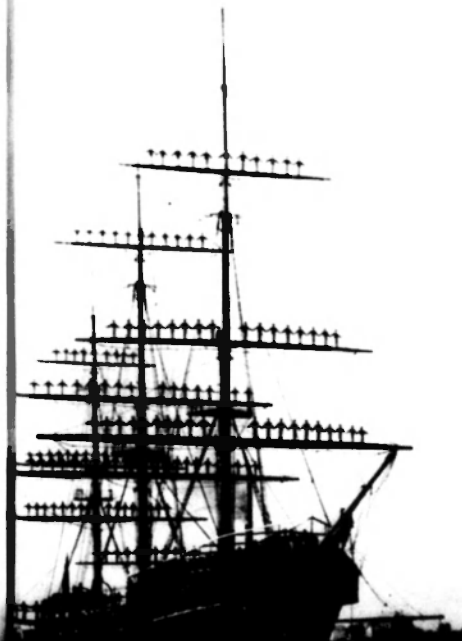
On a voyage to Australia in 1888, *Cutty Sark* was partially dismasted, but Captain Woodget drove her on with splintered spars and topmast and a tangle of rigging and torn canvas about the deck. He steadfastly refused to cut anything away, made temporary repairs during calmer weather and drove her on several runs of over three hundred miles in twenty-four hours.

In the following year, Captain Woodget delighted the hearts of the true lovers of sail by racing the mail steamer *Briannia* from Gabo Island, off the coast of Victoria, to Sydney. In the early stages *Briannia*, logging fifteen knots, maintained a good lead, but with the assistance of a nice blow *Cutty Sark* achieved a steady seventeen knots, passed *Briannia* and reached Sydney four hours ahead.

On Christmas Eve 1893, *Cutty Sark* bade farewell to Sydney. Her cargo on that last voyage worked out at over two million pounds and its value was approximately £100,000. The cost of putting the wool aboard exceeded £800 and freight amounted to £4,000 at one-halfpenny a pound for washed wool and three-eighths of a penny a pound for scoured wool.

With freights diminishing and steamship competition growing ever keener, *Cutty Sark's* owners, despite all protests, sold her in 1895 to the Portuguese. From the limelight

A dressed ship: the S.S. *Sabraon*, in 1898.



she passed into obscurity. A similar fate overtook her rival, *Thermopylae*, at much the same time.

But that was not the end of *Cutty Sark*. Like a ghost ship, and bearing the name *Ferreira*, she reappeared in a British port in 1914. Her return, after years of wanderings, aroused widespread interest. Again in 1919 she turned up in the Port of London, now rigged as a barquentine.

A cry went up that *Cutty Sark* should be saved for the British nation. In 1922 Captain Walter Dowman, himself an old windjammer skipper, bought her, sailed her to the port of Falmouth and lovingly began to recondition her. She was recently given a new home in the Naval Museum on the bank of the Thames at Greenwich, where she is still a great public attraction.

Just as *Cutty Sark* was built to lower the colours of *Thermopylae*, so *Thermopylae* had been built in 1868 to defeat a still earlier clipper, *Sir Lancelot*, which was launched in 1865.

Many stories have been told of *Thermopylae's* extraordinary speed and some are not easy to verify. Certainly, on her second voyage to Australia she came close to repeating the record created on her first. And in January 1870, with wind strong abeam, she ran by the log 330 knots (or 380 statute miles) in twenty-four hours.

She also broke the record from Newcastle, New South Wales, to Shanghai, taking only twenty-eight days to make a passage for which forty days had always been considered excellent. She made a third record by travelling from Foo Chow to London in ninety-one days. Ironically, this last record was soon afterwards beaten by *Sir Lancelot*, the very clipper which *Thermopylae* had been built to challenge.

Thermopylae ended her days as a training ship in the Portuguese Navy under the name *Pedro Nunes*. When she had outlived her usefulness they gave her a naval funeral: in October 1907 she was towed out of the Tagus river and sunk by gunfire. At least she was spared the shame of some fine sailing ships which still exist, even today, as coal hulks serving the steamships which drove them off the ocean.

In the 1870s, ships constructed wholly of iron replaced the composite clippers. Perhaps the fastest of the iron clippers was *Hallowe'en*, although maybe *Salamis*, a little Aberdeen clipper, could successfully have disputed the claim. There is no evidence, however, that they ever met on equal terms to settle the point.

Hallowe'en came just too late for the great days of the China tea racing, which ended with the opening of the Suez Canal and the advent of steam. Nevertheless her sailing in the tea trade was second to none, her fastest passage from Shanghai to London being eighty-nine days.

An extraordinary contrast existed between *Hallowe'en* and her sister ship, *Blachadder*. Although the term sister ship is very elastic, these two clippers were in fact identical twins. They were built on the Thames, side by side in the same yard, from the same plans, from the same materials; there was a difference of only one ton in their dimensions. Yet *Hallowe'en* was a famous clipper while *Blachadder*, 'built in th' eclipse and rigged with curses dark' carried a veritable hoodoo from the day of her launching. She was a man-killer, she was dismasted, all kinds of ill luck attended her. Sailors have their own explanations of these things.

Golden Fleece, launched in the same year as *Cutty Sark*, had the curious distinction that she was built to the specifications of Noah's Ark but half as large. If the building

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dimensions of *Golden Fleece* are multiplied by two, the comparison (see Genesis) comes out as follows:

Noah's Ark: length 450 feet, breadth 75 feet, depth 45 feet.

Golden Fleece: length 446 feet, breadth 74 feet, depth 44 feet 6 inches.

It would seem that the proportions of the Ark could not be much improved by modern builders, for *Golden Fleece* turned out to be one of the handiest vessels ever launched. All those who sailed in her sang her praises. She handled well both in hard weather and in light, and was as good on the wind as off it.

On one of her voyages she took the first Australian telegraph cable for Java and Europe from Sydney to Darwin.

Built with specially thick iron plates, *Golden Fleece* might have lasted indefinitely, but she was stranded off the Fly River in New Guinea in December 1885 and became a total loss.

No ship ever identified herself more closely with a port than did *Brilliant*, another of the iron clippers, with Sydney. Glossy black, with bright teak and glowing brass, she seemed almost to become part of the Harbour. *Brilliant* was built in Aberdeen in 1877; she was of 1,613 tons and ran to the agency of Dangar Gedye and Co. (as did *Cutty Sark* and many other famous clippers) on regular and consistent passages over many years.

Early in this century *Brilliant* was sold to Italy. The yards were stripped from her mizzen masts, but in compensation the lovely name *Nostra Signora del Carmine* was bestowed on her. In 1916 a German submarine sank her by shellfire: she thus escaped the ignoble fate of rotting as an abandoned coal hulk.

Of many extraordinary stories of the sea, one of the strangest concerns *Gladstone*, an iron screw barque of 1,203 tons gross with sails and compound engines generating a hundred horsepower; the engines were later placed in the steamship *Egmont*.

The story is that while *Gladstone* was running from London to Sydney one of the crew was swept overboard. After a desperate struggle he managed to free himself of his oilskins and sea boots.

An albatross which had been following the ship swooped down on him, so close that he was able to grasp it by the neck and to hold its head under water till it drowned. The albatross was the means of saving the man's life, for, by its buoyancy, it kept him afloat until he was picked up by the ship's

Medway, raising a bow wave.



Sovereign Of The Seas.

boat, which had been launched with extreme difficulty and danger.

In later years, the sailor, a Norwegian, would frequently display the scars he incurred on his hands while struggling with the albatross, as evidence of the truth of his story.

Year by year the competition of steam became more formidable. Constant improvements in steamships gave them increasing advantage. The last sailing ship specially built for the Australian passenger service was *Harbinger*, launched in 1876. As the eighties dawned, the era of sail gradually faded.

Yet, for many years more, the sailing ships tramped the seven seas for cargo ever more difficult to find. Well into the 1920s, some sailing ships still made at least annual voyages with wheat from South Australia to the United Kingdom. Their number declined as disaster overtook them or they became training ships—or, most inglorious fate, were sold for scrap.

In both 1892 and 1893 the remaining ships of the wool fleet found their way blocked by tremendous barriers of ice along the parallel of 45 degrees south. *Strathdon* dodged icebergs, in a vain attempt to find a way through, from March 18 continuously until May 21. Her captain reported the ice cliffs as rising a thousand feet above the sea.

These extraordinary heights were confirmed by many other ships, including *Liverpool*, a full-masted iron ship of 3,400 tons which continued to be a familiar sight in Australian ports until early this century. In 1893 *Cutty Sark* reported ice cliffs also a thousand feet high at 50 degrees south 43 degrees west, while *Loch Torridon* reported ice fifteen hundred feet high in the same region. These two ice fields of 1892 and 1893, representing a tremendous breakthrough of the Antarctic ice barrier, are by far the largest ever recorded.

In the final days of the battle against steam the sailing ship owners had to impose every possible economy to stay in business. A graphic illustration of the hardships faced by the attenuated crews is given by the historian of steam, Basil Lubbock; he sailed in *Ross-shire*, which made her first appearance in Sydney in 1895.

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'Even to square the yards when it was blowing hard not only required all hands but became a desperate fight between man and the elements. She was not a ship that had any mercy on her crew but then those who went to sea in the latter days of sailing ships did not expect mercy. They expected to have to endure hard work, hard knocks and hard living.' And they did.

On Ross-shire's last voyage she carried coal across the Pacific from Newcastle, New South Wales, to Valparaiso. After discharging most of the coal, she took aboard salt-petre. A great explosion of gases occurred in the hold, set fire to the ship and destroyed her. Captain and crew were saved.

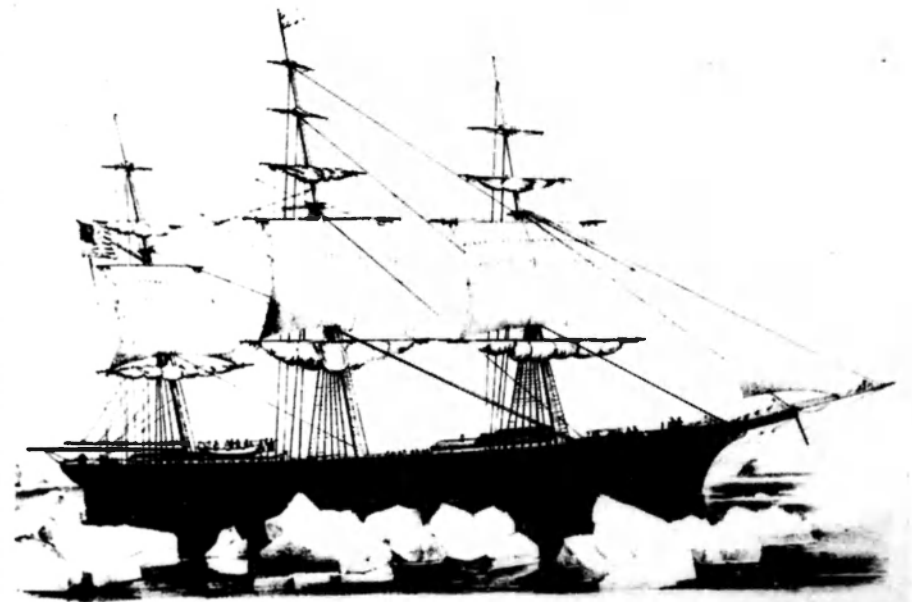
So the era of sail ended. Each year had seen the host of flyers spread their wings on the long race home around Cape Horn to London, and,
*With tallow casks all dunnaged tight with tiers and tiers of bales
With cargo crammed from hatch to hatch she's racing for the sales.*

Those fine ships are gone, but it is good that the sparse records which remain of them and the stories which we have of them should be handed down.

But long after the great days of sail had ended, their glory was kept alive by ocean training ships specially built to carry cadets. Still in service for their navies are *Deवारुजी* (Indonesia) and *Esmaralda* (Chile), graceful ships which have visited Australian ports in the last decade. Unfortunately, an earlier visitor, the German ship *Pamir*, went down not long after the war.



Pamir showing a good turn of speed.



The clipper *Red Jacket* in ice off Cape Horn during a passage from Australia to Liverpool.

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One of the last of the training ships to be built was a magnificent steel four-mast barque launched in 1902 to the order of a Uruguayan company and first named *Amu Begonakoa*. The new cadet ship registered 2,511 tons gross, with a length of three hundred feet. In 1910 she was bought by Devitt and Moore to add to their fleet of ocean training ships, re-named *Medway*, and placed under the command of Robert Jackson, who had been chief officer of the *Port Jackson*.

At a luncheon given by Lord Brassey to mark the end of *Medway's* first voyage under her new owners, made in ninety-five days from Australia, Captain Jackson made a remarkable declaration on the superiority of sail training over steam training for the future officers of the Mercantile Marine. He said that a first-voyage cadet was fit to go through the second mate's examination, a second-voyage cadet could pass a mate's examination, and a third-voyage cadet could beat any old shell-back at pure sailoring.

'Til the outbreak of war in 1914, *Medway* voyaged regularly in the Australian trade, with general cargo out from London and wool and grain home from Sydney. She always had a full complement of cadets.

In 1914 *Medway* sailed from Sydney a few days before the declaration of war and arrived at Falmouth, 116 days out, on November 13. Very shortly after her arrival Captain Jackson died.

Now placed under the command of Captain David Williams, *Medway* performed remarkable war service, sailing again and again in defiance of German submarines which were then thick in the English Channel. At the beginning of 1916 all her cadets with twelve months' service or more were drafted into the navy as midshipmen.

On one occasion *Medway* sailed without escort or armament from Falmouth to Bordeaux, her grain having been bought by the French Government. After discharge, she left Bordeaux with a cargo of pit props; again her luck held in extraordinary fashion, for this time she was becalmed for several days. During this time Captain Williams and his crew enjoyed bathing over the side, notwithstanding the fact that a submarine might have sent their ship sky high at any moment.

In May 1917 *Medway* completed an encirclement of the globe in 105 days from northern Chile to the south round the Horn, then eastward to the Cape, and on again round New Zealand and across the South Pacific to her starting point.

Thermopylae.



Dewarati, the Indonesian naval training ship which visited Australia in 1961.

In his account of *Medway's* final days, Basil Lubbock says that though she was never torpedoed she fell a victim to the war just as surely. It happened because in 1918 the Ministry of Shipping was at its wit's end for oil carriers. With unlimited resources and powers it bought up sailing ships and converted them into diesel-engined tramps.

Despite the resistance of Devitt and Moore, who were aided by the Admiralty, the Ministry took possession of *Medway* and sent her in ballast to Hong Kong. There her masts were cut down, diesel engines were embedded in her hold, and she was converted into an oil carrier. The transition was from a beautiful four-mast barque into a monstrosity, a nightmare of a ship.

The tragedy was that by this time the Armistice had been signed, and the Ministry had no further need of poor *Medway*.

For many years she traded under the flag of a petroleum company as the *Myr Shell*. At last hearing, she was an abandoned coal hulk somewhere on the China coast.

(The sailing ship depicted on the back of the Australian five-dollar note is the clipper brig *Waverley*. The name can be read on her pennant. She first traded in the China ports and then around Australia. In July, 1871, she made the record passage of six days from Adelaide to Sydney.)

THE AUTHOR: Allan Fraser has written a book and many articles on Australia's early history. He acknowledges the valuable help of Mr. C. L. Hume, of Sydney.

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The Australian Sea Cadet Corps is a voluntary organisation administered by the Commonwealth Naval Board and The Navy League of Australia.

The aim of the Australian Sea Cadet Corps is to provide for the spiritual, social and educational welfare of boys and to develop in them character, a sense of patriotism, self-reliance, citizenship and discipline.

Uniforms are supplied free of charge.

Cadets are not required to undergo any medical examination and are fully insured against accident while on duty.

Parades are held on Saturday afternoons and certain Units hold an additional parade one night a week.

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Cadets, if considering a sea career, are given every assistance to join the Royal Australian Navy, the Mercantile Marine or the Royal Australian Naval Reserve, but there is no compulsion to join these Services.

For further information please contact the Divisional Senior Officer in your State, using the Form provided below.

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TO: The Senior Officer,
Australian Sea Cadet Corps

I am interested in joining the Australian Sea Cadet Corps and would be pleased to receive further information.

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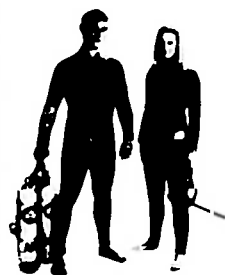
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The most complex and expensive (\$22 mill) warship ever built in an Australian dockyard, *H.M.A.S. Swan*, was commissioned at Williamstown, Victoria, on Tuesday, 20 January, 1970, a little over two years after having been launched (16 December, 1967) by Lady Fairhall, wife of the then Minister for Defence.

Similar in many ways to the existing four Type 12 destroyer escorts in the Australian Fleet, *H.M.A.S. Swan's* design includes many improvements to increase the ship's fighting efficiency and to reduce weight, size and cost.

Among new features in the ship are

improved navigational and gunnery radars, stabilisers, remote control of machinery and boilers, and improved accommodation for officers and sailors.

H.M.A.S. Swan is the first ship in the Australian Fleet to be fitted with automatic steering.

Displacing 2,700 tons and carrying a complement of 250 officers and sailors, she is capable of speeds in excess of 30 knots.

The ship has several weapons systems. Primarily an anti-submarine vessel, she carries the Ikara anti-submarine missile system and a three-barrelled mortar for close range anti-submarine attack. *Swan* has been fitted with a Sea-cat close range anti-aircraft system controlled by digital radar and computers, and one turret (forward) with two 4.5 inch guns.

Members of the ship's company of *H.M.A.S. Swan* file on board.





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The Navy's latest fighting ship, H.M.A.S. *Swan*, undergoes acceptance trials in Victorian waters following completion of construction at the Williamstown Naval Dockyard. The most obvious difference between *Swan* and the early ships in her class is the positioning of the large radar scanner amidships instead of atop the foremast. A sixth ship in the same class, H.M.A.S. *Torrens*, is still building at Cockatoo Island Dockyard in Sydney.



Attention Navy Men

A number of Naval Cadet Units are in need of additional Officers and Petty Officer Instructors with Service background to instruct Cadets. Anyone who may be prepared to give of his time on Saturday afternoons is asked to please contact the Cadet Liaison Officer, Lieutenant McPherson, H.M.A.S. WATSON, Telephone 37-1311, extension 256, between 0800 and 1530 for further particulars.

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Nautical Notes from all Compass Points

By "Sonar"

CANADA

Newest addition to Vancouver Sea Cadets house flag collection was presentation of flag from E & A Line brought to Port of Vancouver by the P & O liner Canberra. (photo below).

Making presentation on behalf of the company was Canberra Staff Captain A. H. W. Dallas (left). Others in picture (from left) are Lt. Comm. W. J. Walmsley, CO of cadet group; Petty Officer Richard Harrison; Cadet Robert Tennant; and P & O Vancouver manager Donald Palmer

* * *

Canadians Developing Frigates

The Canadian Navy is continuing frigate development from a concept of missions based on World War II experience and initiated 20 years ago. Now under construction are four units which will be commissioned this year (see photo). Twenty units have been built during the past two decades and have largely been modernized through extensive modifications.

The development of A.S.W., with the help of helicopters and variable depth sonar (V.D.S.) have been important factors in the development of the Canadian frigates. The V.D.S. can be trailed to a depth of over 328 feet for ranging in depths out of the unfavourable warm water layers at the surface by means of a cable. At the same time, sonar locations can be made from the apparatus fixed to the stern of the ship, whose 3,800-ton displacement is about 900 tons more than her predecessors. She has a length of 396 feet, a breadth of 37.9 feet, and a draft of 14 feet.

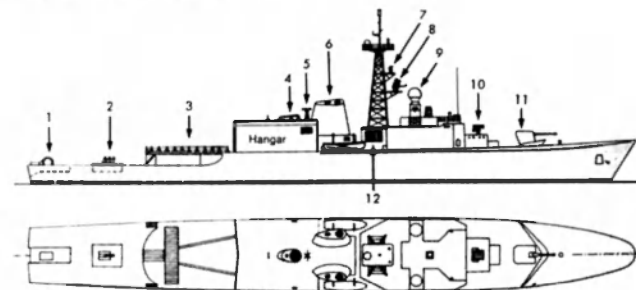
The propulsion plants of the frigates will have two driving and two main-gas turbines, which will have a total output of 50,000 h.p. for a maximum speed of about 30 knots.

In contrast to the old type, the units have only one gun. However, it is a 12.7 calibre, rapid-fire cannon of a new Italian design. For close anti-air

defense, there is a "Sea-Sparrow" launcher.

The Sea King helicopter to be used aboard the ship is versatile, having a "dipping sonar" with its own computer for searching out submarines independently. For weapons, it has an

option of depth charges or homing torpedoes. In rough seas, the helicopter can be hauled aboard with lines. The lines can be fired from the helo and winched to the platform with the deck lines. When secured to a dolly or wagon, it moves into the hangar on the mechanized wagon.



Canadian ASW Frigates

- | | | |
|-------------------------|------------------------|--------------------------------|
| 1. Variable depth sonar | 5. Radar | 9. Radar fire control |
| 2. Limbo" launcher | 6. Gas turbine exhaust | 10. "Sea Sparrow" launcher |
| 3. Helicopter platform | 7. 3 cm. radar | 11. 12.7 cm. rapid fire cannon |
| 4. Diesel funnel | 8. 23 cm. radar | 12. Gas turbine intake |





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NEW GUN

Developed for the Italian and Canadian Navies, this compact, light-weight 76-mm. gun (see photo) is well-suited for use on gun boats, fast patrol boats, and hydrofoils. The fully-automated feeding, loading, and firing cycles permit an 80-rounds-per-minute firing rate.

★ ★ ★

FRANCE

Submarine Missile

France has joined the United States, Britain, and the U.S.S.R. with the capability of launching nuclear-armed missiles from submarines. The French Armed Forces Ministry has announced the firing of a ballistic missile from the submarine *Gymnote* off southwest France to a target area 1,100 miles towards the Azores.

Current plans call for a fleet of five ballistic-missile submarines in the 1970s which will place France third after the United States and the U.S.S.R.

The British plan only four such submarines. The French missiles have a 1,600-mile range, somewhat shorter than that of the early U.S. Navy Polaris missiles.

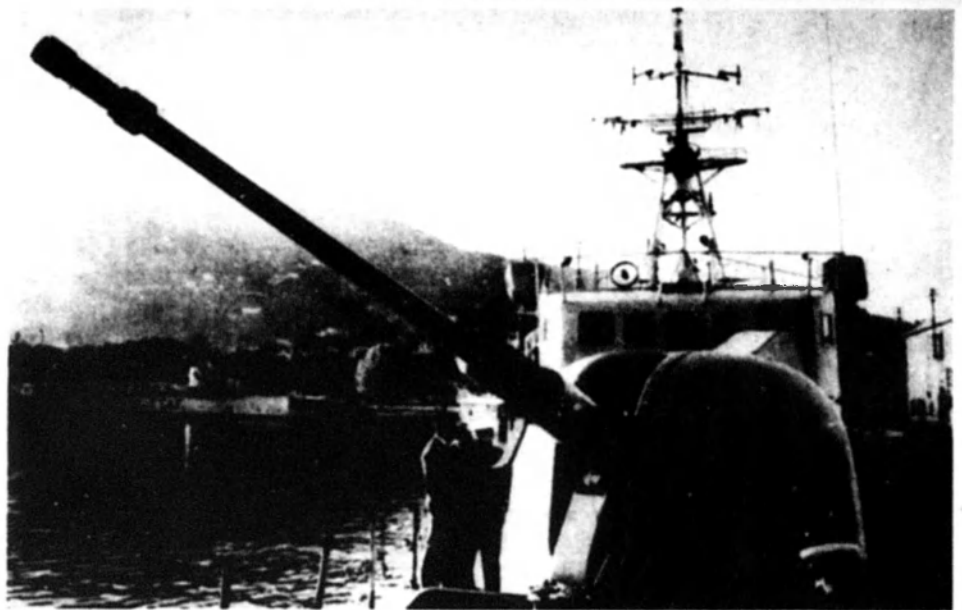
★ ★ ★

WESTERN GERMANY

FGN Construction Programme Approved

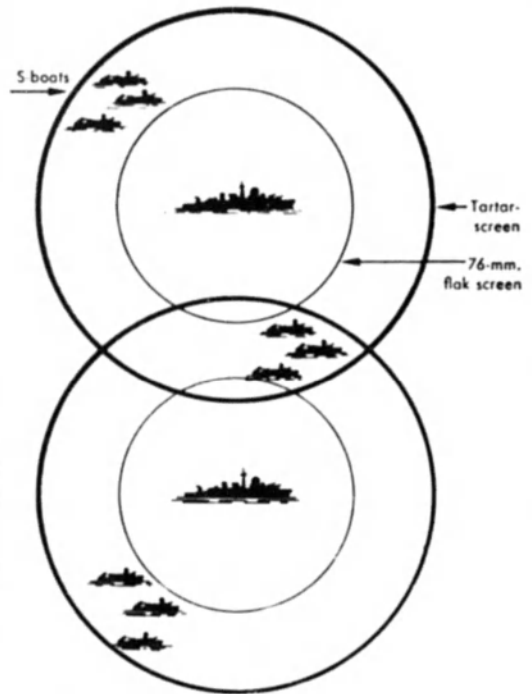
The budget committee of the German Bundestag has approved the new naval construction programme. Thus, the final hurdle has been cleared prior to beginning this urgently needed programme (for essential units). The relative strength of naval forces *vis-à-vis* the Baltic, will be raised to a modest extent, enabling the people faced with the growing threat in this area to breathe a bit more freely. To this end, NATO has been demanding the strengthening of German naval forces in the area for some time.

In addition to the construction of four rocket frigates, 12 additional submarines are assured. However, priority goes to the four rocket frigates, which will release the five leased destroyers of the U.S. *Fletcher* class to be retained until 1974. By that time, the *Fletchers* will be retired as over-age.

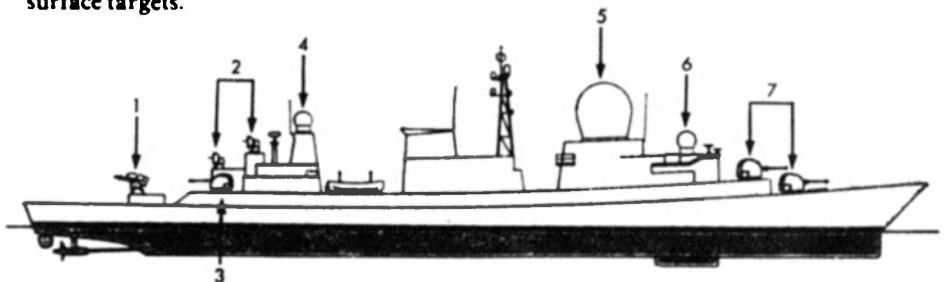


The "frigates of the '70," with their great battle power and many-sided operational possibilities in all weather, will with the missile destroyers of the *Lutjens* class constitute the nucleus of a modest German naval force (see photo). At most, these destroyer and frigate forces make up the lower limit of a component within the framework of the Federal defence and the future obligations of Allied forces. In contrast to the missile destroyers of the *Lutjens* class, the "frigates of the '70s" will be built in German yards. Several thousand jobs will thus fall to German industry.

The units will have a displacement of 3,600 tons and attain a sustained speed of 30 knots. The 250-man crews will serve in ships having the most modern missile systems (surface-to-air and surface-to-surface) for 40 missiles of the Tartar-type on a further developed model from the "Standard-missile 1A." In addition, there are four 76-mm. rapid-fire cannons firing either against air or land targets, plus four torpedo tubes for modern AWS and surface targets.



Depiction of Federal German frigate and PT boat formation compares missile and flak screens.



Federal German Navy's "frigate of the future"

- | | | |
|---------------------|-------------------------------|-------------------------------|
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| 2. 7.6 cm. guns | 4. Gunnery fire control radar | 7. 7.6-cm. guns |
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UNITED KINGDOM

Seacat's Successor

A new generation successor to the Seacat anti-aircraft missile is being worked on by Short Bros. & Harland as a private venture. Aimed as a command-link missile for the late 1970s, it will be kept simple, for operation without skilled manning, but will have higher speed, greater manoeuvrability, and be armed with a different type of war-head able to divert or damage smaller, harder targets. Naval ships now armed with Seacats will probably be able to take the proposed new weapon with modification of existing launchers.

* * *

AUTOMATIC BUOY FOR NAVIGATION

Europe's first full-automatic unmanned replacement for a lightship—a 40-ft.-diameter, 84-ton, navigational buoy—was handed over to Trinity House by Hawker Siddeley Dynamics Limited at a launching ceremony at London's Royal Albert Dock on 3 December.

This prototype, known as the Hawker Siddeley Dynamics Lanby buoy (Large Automatic Navigational Buoy), is to be evaluated by Trinity House (the general lighthouse authority for England, Wales and the Channel Islands), to find an economical means of replacing a number of the authority's 32 lightships.

The buoy's capital cost, which includes its shore-based monitoring and control equipment, is about half that of a modern lightship. Its running costs are expected to be about 90 per cent less than the £29,000 required to keep a conventional manned vessel at sea each year.

The navigational aids, fitted to a lattice mast on top of the buoy, consist of a main light beacon 40 feet above sea level giving a luminous range of 16 miles, and a powerful fog signal which is audible over three miles away.

At a later date radar and radio beacons may be fitted, and there is provision for accommodating meteorological or oceanographic data-reporting equipment if required.

The automatic operation of these aids and their power supplies—three 5-kW diesel powered generating sets—is monitored every 30 minutes by the buoy's shore control station using a radio telemetry link.

Should any failure occur, standby

services operate automatically, and indication of the fault is relayed to the control station.

Shore control can carry out 40 separate checks on the equipment and can control 22 different operations on the buoy.

The Lanby buoy, which can be moored in depths from 30 to 300 feet, weather conditions—winds up to 100 m.p.h., waves up to 40 ft. high, and tidal currents up to seven knots.

On completion of full operational trials in the North Sea, the Lanby buoy will be towed to its permanent site off Portland Bill (on England's south coast) to replace the Shambles lightship.

The order for the buoy was placed with the industrial automation division of Hawker Siddeley Dynamics at Cheadle Hulme, Cheshire, which had previously carried out a design study.

HARRIER FIGHTER

Sea trials of the British V-STOL Harrier fighter will begin fully in March, when a Harrier—probably from the squadron operated by No. 38 Group, R.A.F.—will go aboard H.M.S. *Eagle* for a series of day and night tests to be jointly undertaken by the R.A.F. and Fleet Air Arm. The tests, to be continued possibly over a period of years with regular deployment of Harriers to carriers and other naval vessels either for special trials or during maritime exercises, are expected to provide a basis not only for the evolution of a pattern of naval V-STOL operations but also for studies contributing to future developments both of new combat aircraft of the type, and of ships to carry them.

NEW PATROL BOAT

Siernview of *Tenacity*, the prototype built by Vosper Thornycroft to their new 142-ft. patrol boat design, showing, in mockup form, the Contraves Sea Killer missiles, and Sea Hunter fire-control equipment. Other alternative weapons can, of course, be carried. Late last year this fine craft demonstrated her speed and extreme manoeuvrability to the press on the calm waters of Spithead. As this class is designed very much for long-range, deep-water operations, it would be interesting to see how she behaves in a Western Ocean gale.

UNITED STATES

S-3A A.S.W. Aircraft

Lockheed California has awarded three further sub-contracts associated with development of the U.S.N. S-3A carrier-based A.S.W. aircraft—planned replacement for the Grumman Tracker—for which it is the prime contractor. Loral Electronic Systems has a contract, valued at \$U.S.4 million, for development of integrated tactical display systems. A \$3 million contract goes to Lear Siegler for an attitude heading reference system and inertial navigation system interface. Kineloc has been awarded a contract of unstated value for a recording system for the S-3A.



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The S-3A all-weather carrier-based A.S.W. plane is being developed to replace the Grumman S-2 Tracker. It will be powered by two G.E. TF-34 high-bypass turbofan engines, capable of speeds of more than 400 knots and a range of over 2,000 nautical miles. First flight of the S-3A is expected in early 1972, with fleet introduction in 1973.



Wings, Hydrofoils in Sub. Concept

A Navy programme of concept formulation for modular fleet submarines, stressing the safety features of a detachable minisub, has produced ideas in including wings and a tail section for greater stability while running submerged, and retractable hydrofoils for greater speed on the surface.

Ben L. Friedman of the Operations analysis section, Office of Naval Research (O.N.R.), currently is involved in weighing the prospective functions of a new generation of fleet submarines. Friedman said that this will determine how many jobs can be automated, and the crew size, which in turn will be the basis of the weight requirements. He expects to arrive at a

crew of 25, compared to a crew of about 100 on the present ballistic submarines.

Involved in different approaches to the problem are Westinghouse Electric Corp., and Lockheed Missile & Space Co. Lockheed is performing a research and development study. Westinghouse is examining relationships of payload to displacement, costs to savings, and noise signature possibilities.

Drawings done for Friedman show a fleet submarine with retractable legs or hydrofoils under the wings. This would allow the submarine to sit on the bottom while the escape chamber, an area at the bow where all the crew would live except during maintenance excursions to the after part of the vessel, would be discharged.

The chamber, powered by batteries, could be used as a reconnaissance vehicle, with a range of around ten miles.

★ ★ ★ U.S.S.R.

Shakedown for New Soviet Sub.

Russia's new Y-class nuclear-powered, missile-firing submarines have been detected for the first time on the high seas. Two Y-boats, similar to the U.S. Polaris, are undergoing shakedown cruises in the North Atlantic off Norway.

The Soviets have a total of five operational Y-class submarines in their northern fleet. Each can carry 16 SS/6 nuclear missiles of 1,500-mile range. The Russians are believed capable of turning out eight missile submarines each year—which would bring them up to the present U.S. total of 41 Polaris in five years.

OUR COVER

WINNER OF QUEEN'S medal

The Governor-General, Sir Paul Hasluck, presented the Queen's Medal to Midshipman John Robert Lord, of Joondanna, Perth, at a Promotion Parade at the R.A.N. College, Jervis Bay, on 5 December, 1969. He was among 13 midshipmen at the college who were promoted to the rank of Acting Sub-Lieutenant. Midshipman Lord, 20, the son of Mr and Mrs Robert Lord, of Osborne Street, Joondanna, has already won the Governor-General's Cup for Sport awarded to the best all-rounder in sport at the college. The Queen's Medal is awarded to the Acting Sub-Lieutenant of the promotion year who during his training has exhibited the most exemplary bearing, conduct, performance of duty and good influence among his fellows. The 13 officers journeyed to Britain in January to continue their training.

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News from . . .

BRITAIN

(The Editor is indebted to the officers of the Information Service of the British High Commission in Australia for their ready assistance in the compilation of this article.)

Ejector Liferrafts under Test

A self-inflating rubber liferaft that is automatically catapulted out of a sinking ship in the way that an aircraft seat is ejected has been under test in Britain.

The liferaft is stored in a torpedo-shaped container and mounted in the stern of the ship. In an emergency, compressed air "fires" the container into the sea. Water and wind are kept out of the "torpedo" tube by means of a plastic cover over the opening.

Laboratory and water tank tests have been carried out by the British Aircraft Corporation and the Palmer Aero Products Company. Further testing will follow in the B.A.C. chamber where the liferaft will be subjected to icing conditions.

★ ★ ★ Distress Signal Flare also Visible on Radar

A low-cost distress signal that is detectable by radar in conditions of poor visibility has been developed by a British firm.

A rocket, containing red flares, is fired by hand to a height of 1200 ft., which it reaches within 5 seconds. It also carries three packs of radar reflective dipoles, tuned to the X-band (3 cm.) radar frequency.

The rocket is fired by means of a lever operated ignition device in the base of the container. At the height of trajectory, the burning flares and dipoles are ejected. Echoes lasting up to 15 minutes may be detected on aircraft radar screens 20 miles distant and by ships up to 12 miles.

The signal, the Radaflare, in its weatherproof cylinder, measures only 10.5 in. long by 1.8 in. diameter and is therefore suitable for use in personal survival equipment.

★ ★ ★ Mini-fin Stabilises Small Boats

Effective stabilisation on small boats is made economically possible with a

low-cost stabiliser unit which was recently demonstrated off the south coast of England.

Developed by Vosper Thornycroft, the international marine engineering group, the "Mini-Fin" considerably reduces severe rolling and makes it practicable for motor cruisers to undertake heavy passages in more reasonable comfort than at present.

A pair of the non-retractable fins, Gyro controlled and hydraulically operated, was fitted to a 48 ft. demonstration motor yacht which moved smoothly through medium seas in the Solent.

The units, which are increased as linked pairs according to size and speed of vessel, have been tested for over 300 hours in weather up to gale conditions.

Quantity production is now starting to make the "Mini-Fin" a standard off-the-shelf unit which can be fitted to any small motor vessel, except fishing boats, ranging from about 75 feet down to 30 feet.

★ ★ ★ Marine Radar Trials "Highly Successful"

A marine radar set that instantly displays hazards likely to be met on any number of courses selected by navigating officers has just completed a series of exacting sea trials in one of the most crowded sealanes.

After using the liquid natural gas tanker *Methane Progress* as a test-bed, the builders of the set, Britain's Marconi Company, announced that the trials had been "highly successful".

The "Predictor" radar is a self-plotting system, enabling a navigator to select a choice of course and have before him on display screen the relative tracks of all other ships resulting from the new heading.

The system is the only one of its kind giving fully automatic plotting of all "targets" on the screen in either true or relative motion. It is operated by push-button controls and the ship's position remains fixed at the centre of the

screen, even when Predictor is displaying true motion. Predictor will also detect and plot new hazards as they come into range and will give up to six minutes of past information from a constantly up-dated electronic store. The prediction ability, from which the system takes its name, permits any proposed alteration of course and speed to be evaluated in terms of possible dangers. There is no limit to the number of "targets" that can be tracked.

The tests of Predictor were carried out on routine voyages from the Thames Estuary to Arzew, a natural gas terminal in Algeria. The *Methane Progress's* officers reported that Predictor, on several occasions, enabled them to save time in manoeuvres to avoid potential collisions.

★ ★ ★ New Marine Radar Gives Audible Danger Warning

A new marine radar display, claimed to provide the clearest and most accurate information that has ever been available on the bridge of a ship, has been developed by GEC-Elliott Automation Ltd. It greatly simplifies the guidance of a vessel in poor weather conditions such as fog, and also through crowded waters.

Already this equipment has been installed aboard the *Queen Elizabeth 2*, and has been specified by other leading shipping companies in Britain.

The new equipment uses a dual electronic presentation system in two colours to convey key information in the simplest form, eliminating the need for laborious manual plotting. One colour presents conventional radar information on the position of ships and other hazards; superimposed on this display in the second colour is information predicting the future course of up to a maximum of twelve ships.

This prediction is provided by built-in computer equipment, which also ensures that if any ships are on a collision course with "own" ship, an audible

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warning note is sounded, and a flashing "halo" appears on the display around the radar echo from the other ship involved. A further facility enables a proposed change of course to be set up on the display. The computer then predicts whether this new course would be the optimum to follow, avoiding any new hazards. These, and a number of other features, make the equipment one of the most sophisticated aids ever produced provided to the mariner, say the manufacturers.

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A PAGE IN Australian Marine History

A page in Australian Maritime history was turned in December, 1969 when the first navigational chart portraying depths and heights in metres was released by the Hydrographic Office of the Royal Australian Navy for issue to naval ships and for sale to the merchant marine and the public.

The term "fathom" has been used by British seamen for depth measurement for possibly a thousand years and, with its subdivision of feet, has been referred to both in sailing directions and charts, since such aids to Mariners were first introduced. However, with faster travel giving the effect of a shrinking world it is becoming increasingly more important that standardisation in various fields of transport should take place in the interests of world-wide efficiency. One of these areas of standardisation is in linear measurements, and almost universally it has been decided that these measurements should be standardised on decimal units (see photo).

The first Australian chart to be issued in this form is chart No. Aus. 58, for the newly developed iron ore port of Dampier in North Western Australia. In the next three months this will be followed by the chart for Port Hedland and the coastal charts between Port Hedland and the Monte Bello Islands. It is hoped that by the end of 1972 all large-scale charts of Australian ports will have been converted, and inroads made into the medium-scale coastal charts. The full conversion programme is, of course, a long one and it may be up to ten years before all the small-scale general and planning charts have been converted.

The next important item for conversion will be the Australian National Tide Tables and the 1972 Edition will express tidal heights, etc., in metric form.

To help the mariner during the transition period when charts in both metric and fathom units are in existence together, certain devices have been introduced. On the metric charts the land is coloured with a new distinctive yellow tint, while outside the top and bottom borders, the notation DEPTHS IN METRES in large block letters should be sufficient warning to the mariner that his chart is in metric form. The tide tables will include a stiff card book mark carrying conversion tables from both fathoms to metres and metres to fathoms.

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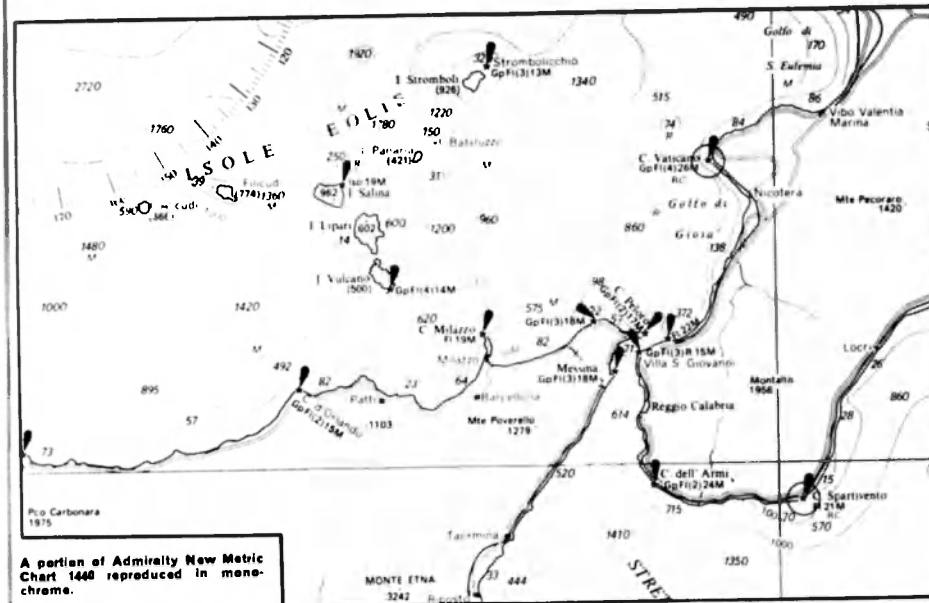
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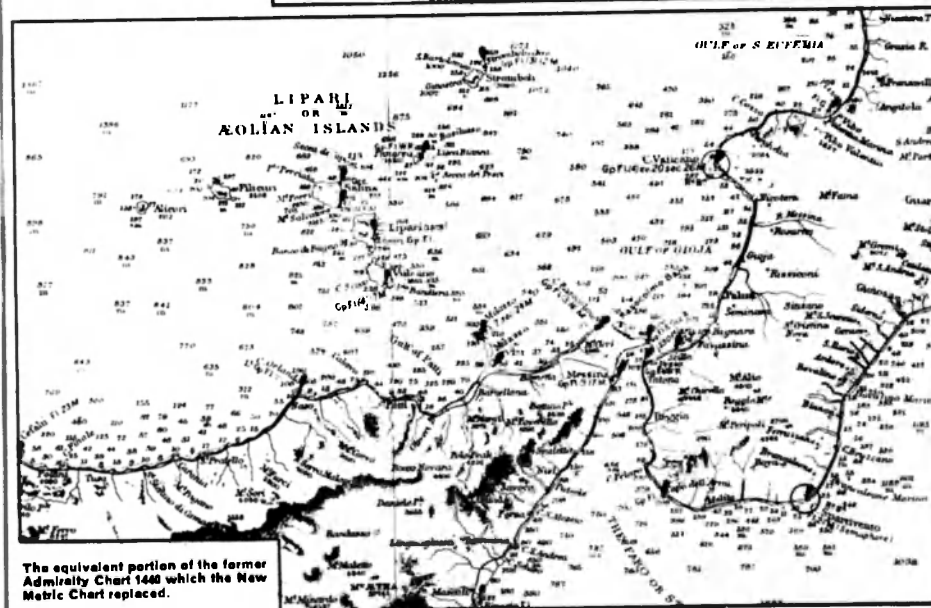
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A portion of Admiralty New Metric Chart 1446 reproduced in monochrome.



The equivalent portion of the former Admiralty Chart 1446 which the New Metric Chart replaced.

As new metric charts of Australian waters were not available at time of print, opportunity was taken of effecting a comparison of the old type of Admiralty navigational chart with an equivalent new metric chart.

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What the World Owes . . .

CAPTAIN COOK

by Rear-Admiral G. S. Ritchie
Hydrographer of the Royal Navy

1970 marks the 200th anniversary of Captain Cook's first sighting of Australia. Today his surveying methods have been superseded; his regimen of a weekly airing for sailors' hammocks is out-dated by bunks and air-conditioning, and scurvy is a thing of the past. But Captain Cook's determination and achievement still stand as an example.

Captain Cook was more than a gifted explorer. He was a surveyor who charted with remarkable accuracy the coast-lines, the bays and the anchorages he discovered; and he taught British seamen who sailed with him the technique of the "running survey" which he developed as an art.

But first Cook, a Master in the Fleet, had to learn the rudiments of surveying for such were neither used nor understood by British sailors in the mid-18th century.

A happy chance set Cook on the right road, when in 1758 he landed from his ship *Pembroke* in Kensington Cove, Nova Scotia, during the Seven Years War against France and her allies

Here he met Samuel Holland, a Dutchman serving as a surveyor in the British North American Regiment. Holland was using the plane table, a portable plotting board upon which the land surveyor may plot from a number of selected and inter-related "stations" prominent features in the landscape.

This he does by sighting the features through the alidade, a telescope mounted on a straight edge to which a magnetic compass is attached; the line of sight is transferred to the plot by means of the straight edge, and when three or more such lines are seen to intersect, the feature may be laid down on the plot.

Cook invited Holland on board to meet his Captain, Simcoe, who was himself intensely interested in navigation.

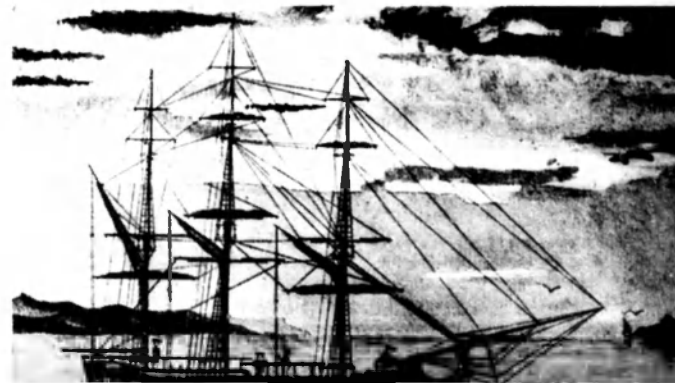
the great surprise of the French, the Royal Navy guided ships carrying troops for the successful assault on the Heights of Abraham.

The three men had many discussions that winter and, by the following spring, Cook had gained sufficient insight into survey work to enable him to sound out and chart the Narrows in the St. Lawrence River through which, to

Cook further gained in experience and stature as a surveyor in Newfoundland which led to his selection for command of the *Endeavour* commission, to carry astronomers to Tahiti to observe the Transit of Venus; for his selectors at the Admiralty knew that he

CAPTAIN COOK'S SHIP "RESOLUTION"

Captain Cook set off on an expedition to search the southern hemisphere of the world for a continent which people believed to be there. He was in command of two small ships, the *RESOLUTION* and the *ADVENTURE*. The former, illustrated below, was of 462 tons, and carried a crew of 112 men, twelve guns and a large number of animals for landing on the islands.



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would carry secret orders bidding him go in search of the "Great Southern Continent" generally believed to exist in the South Pacific, as soon as the observations in Tahiti were complete.

For this second task Lieutenant James Cook was undoubtedly the man.

Thus it was that 200 years ago, in October 1769, Cook fell in with the east coast of New Zealand, the west coast of which had been briefly sighted by Tasman 127 years earlier.

BRILLIANT

Cook was now able to put into brilliant practice the knowledge gained by studying Holland's plane table.

To lay down a long coastline it would be necessary to intersect by magnetic compass bearings recognisable features along, or in close proximity to, the coast from the ship as she sailed offshore.

The stations from which the intersecting bearings would be taken would not be onshore but would be on the deck of the ship herself, and thus her position must be continuously known.

Celestial fixes were made whenever possible, and with no chronometer on board for the first voyage, lunar sights had to be worked out in all their laborious detail to find longitude.

Between sights, the ship's changes of course, often dictated by the wind, and the distance run by log, had to be meticulously recorded so that the position of each "ship station" might be known, both in latitude and longitude and in relation to adjacent stations from which the same features ashore were being fixed by intersecting bearings.

SURPRISINGLY FEW MISTAKES

This was the technique of "running survey" which enabled Cook, within the space of a few brief months, to lay down the entire coasts of the North and South Islands of New Zealand.

On-shore gales and thick weather necessitated leaving the proximity of the coast for days at a time, but Cook endeavoured to reach the coast again where he could recognise land features previously fixed so that he might sail on without a break in the plot, which was slowly revealing the shape of New Zealand as we know it today.

It was on such occasions that his surprisingly few mistakes were made, such as his description of Stewart Island as a peninsula and Bank's Peninsula as an island; pos-



In The Bay of Adventure

Captain Cook in his good ship RESOLUTION, reached Tasmania in 1777, and at once annexed it for England. It was then called Van Diemen's Land, after a governor of the Dutch East Indies, though actually discovered by the man whose name it now bears, A. J. Tasman, in 1642. Captain Cook landed in Adventure Bay and the natives stared in positive amazement, shielded their eyes and dropped to the ground at the first sight of a white man.

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sibly his failure to find the great Hauraki Gulf, at the head of which the great harbour of Auckland is situated today, was due to poor visibility or lack of time to investigate.

Not only did Captain Cook develop during his three great voyages the running survey, but he also came to realise that the work of one day must be set down the same night while all was fresh in the mind, and before details were confused with the work of the following day.

TRADITION OF DEDICATION

Cook established not only a technique but a tradition of dedication which must go with it; officers who sailed with him and whose names were subsequently scattered about the world on the features they themselves charted, learned from Cook's example.

Such men were Bligh and Vancouver, who in turn passed their learning on to Flinders and Broughton, and so down the years even to the present generation of Britain's sea surveyors.

The techniques have been improved by changes in ship propulsion and modern survey instruments, including many electronically operated or controlled, but Cook's example of dedication and hard work remains for us today and must still be followed by all who essay to chart the seas.

FIGHTING SCURVY

More is known about the work that Cook performed in reducing the ravages of scurvy on long sea voyages and in generally maintaining the health of his men.

In his brief periods between voyages he consulted medical opinion, both British and Continental, and arranged that sauerkraut should be provided for his men and that the brewing of spruce beer would be facilitated, and when these were served he encouraged the taking of them by the crew by his own obvious relish.

He established in his ships the weekly airing of bedding on the upper deck, and the drying out of tarpaulin messdecks with stoves, and the sprinkling between decks with vinegar to keep them sweet.

Flinders was closely following these practices thirty years later in *Investigator*, having learnt them from Bligh in *Providence* during the second, and successful, breadfruit voyage.

Airing of bedding continues to the present day and is only now going out of practice with the replacement of sea-



Mapping New Zealand's Seaboard

In the year 1769 Captain Cook sailed southwards to New Zealand and spent over six months in surveying the coast, making maps, and so on. It was he who proved the country to be formed of two islands separated by a strait which still bears the name of the great navigator. From New Zealand he went on to Botany Bay, now a suburb of Sydney, imagining the coast thereabouts to be like that of the north of the Bristol Channel, he called it New South Wales.

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men's hammocks by bunks and the general adoption of air conditioning in Navy ships.

Perhaps it could be said that Captain Cook gave to the world his discoveries of the two islands of New Zealand, and New South Wales, but after all, these were but re-discoveries.

The Maoris and the Aborigines had found them long before, and another European navigator would undoubtedly have made such discoveries by the end of the eighteenth century had Cook never sailed.

What Cook gave the world was the ability to take a crew of seamen on long voyages of exploration to distant seas, and to keep them alive and in good health and spirits so that they could map distant shores using techniques developed by Cook himself.

Returning to their homelands, the fruits of their labours were charts of far-off shores which led inevitably to the colonisation of New Zealand and Australia by the British.

It is a glorious tribute to Captain Cook that he stands today in such high regard among the population of those two great countries.

About the Author—Rear-Admiral G. S. Ritchie, C.B., D.S.C., F.R.I.C.S.

The post of Hydrographer of the Royal Navy was established in 1795, and Rear-Admiral George Stephen Ritchie is the 19th holder of the office.

He was promoted to his present rank when he took over the post from Rear-Admiral E. G. Irving in January, 1966.

Born in 1914 at Burnley, Lancashire, he joined the Royal Naval College at Dartmouth in the early 1930s.

He has been in the surveying service since he joined the coal-burning survey ship, H.M.S. *Herald*, in 1937, then employed in the South China Sea.

He continued on surveying duties throughout the war and was attached to the Eighth Army for 18 months in North Africa and Italy to survey the various damaged ports and harbours which fell into Allied hands and were required for landing military stores.

SEISMIC STUDY

In 1949-51, Rear-Admiral Ritchie commanded H.M.S. *Challenger* on a world voyage with scientists who were investigating the nature of the ocean floor by seismic methods.

From 1953 to 1956 he was on loan to the Royal New Zealand Navy in charge of their hydrographic department and in command of their survey ship, H.M.N.Z.S. *Lachlan*.

During this time he carried out surveys in New Zealand and Samoa as well as undertaking a number of oceanographic cruises in the South-West Pacific.

WINNING FAVOUR WITH THE NATIVES

It was Captain Cook who laid the foundations for the taking of Australia and New Zealand into the British Empire. He also discovered a great many island groups in the Pacific Ocean, and upon these would trade with the native chieftains. On some of his voyages Captain Cook carried sheep, by means of which he won favour with the aborigines. In this illustration, from a painting by Stephen Reid, we see him presenting some sheep and a goat.



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Changeover Ceremony Aboard Flagship

Former Deputy Chief of the Naval Staff, Rear Admiral Hugh David Stevenson (at left in photo below) took over the post of Flag Officer Commanding the Australian Fleet on 6 January. Rear Admiral G. J. B. Crabb, the previous Fleet admiral, accompanied Rear Admiral Stevenson during his inspection aboard H.M.A.S. *MELBOURNE* in Sydney. Captain J. D. Stevens (right) was among the contingent of commanding officers of R.A.N. ships who attended the changeover ceremony. Rear Admiral Crabb has been appointed to the pos. of Flag Officer in Charge, East Australia Area.

Design of the vessel is complete and planning for its construction is in the final stages.

The ship will replace H.M.A.S. *PA-LUMA*, which is now reaching the end of her economic life.

Modern hydrographic equipment including highly accurate echo sounding devices and a satellite navigation system will enable the ship to carry out her functions efficiently and accurately.

Construction is expected to take about two years and the project will provide a workload sufficient to maintain the current general level of employment at the Williamstown Dockyard.

★ ★ ★ First Joint Service Staff Course

The first course of the new Joint Services Wing of the planned Australian Services Staff College commenced during January at the Wing's temporary accommodation on the Cotter Road, near Canberra.

Its establishment represents the first stage of the establishment in Australia of a Joint Service Staff College for the training of senior service and civilian officers associated with defence activities. The plan was for three single Ser-

vices Wings as well as the Joint Service Wing, the whole College being in Canberra.

Each Service has long since ceased to be distinct from itself; the three Services having become increasingly interdependent and this trend is bound to continue. Likewise Service officers are becoming more closely involved with civilian defence administrators and planners. The new College is designed to help produce officers for command and staff appointments who will have the requisite Joint Service training.

The 23 students on the first course, which will extend over five months, include senior officers of the Navy, Army and Air Force, civilian officers from those Departments and of the Department of Defence, and three officers of the New Zealand armed forces.

The students will study the wider aspects of Australia's defence planning and policy, foreign policy and regional defence arrangements. They will also do exercises involving the planning and conduct of joint operations by Australian armed forces in types of warfare.

Pending the establishment of the Australian Services Staff College in Canberra in its final form, individual Service staff college training will continue at Queenscliff for the Army, Fairbairn for the R.A.A.F. and the Navy will continue to send its officers overseas for naval staff training.

★ ★ ★ Hydrographic Ship to be Built at Williamstown

The new hydrographic ship approved for the R.A.N. (refer article on page 49, Aug-Sept-Oct, 1969 edition) will commence construction at the Williamstown Naval Dockyard, Victoria, this year.

★ ★ ★ Cooling Down After Shoot

Sailors use hoses to cool down the two 4.5-in. guns of H.M.A.S. *Vendetta*, after bombarding shore targets in South Vietnam (see photo). The 3,500 ton Daring-class destroyer, which began her first tour of duty with the U.S. Seventh Fleet in September, 1969, spent the Christmas-New Year period on patrol in the war zone. On one occasion, *Vendetta* fired 90 rounds in less than 30 minutes at three suspected Viet Cong loca-



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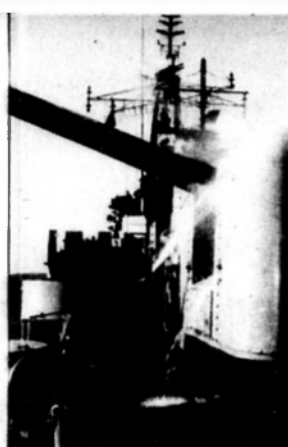
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ions. This resulted in three bunkers being destroyed, four bunkers damaged and more than 600 yards of well-used trails interdicted.

Joint Intelligence Organisation

The Joint Intelligence Organisation which became operational on 2 February, does not affect the responsibilities of the Services for operational intelligence, rather, the new organisation is an important part of the re-organisation of the higher intelligence machinery which includes the replacement of the Joint Intelligence Committee by a new National Intelligence Committee chaired by the Director J.I.O. The new arrangements involve close co-operation between the Departments of Defence and External Affairs and the Armed Services and are expected to provide better and more timely intelligence assessments to meet national and Service requirements.

Optional Discharge Scheme for Sailors

The Royal Australian Navy has introduced a scheme to enable recruits who discover that they "Don't like Navy life" to be discharged at their own request after a limited period of service.

The scheme came into effect at the beginning of 1970 and will continue in force for 12 months after which the success or otherwise of the scheme will be assessed.

In years past all recruits had to sign on for a minimum of 9 years, and al-

though discharge was possible for a number of reasons these did not include giving a recruit the option to stay in the Navy, or leave it, within a prescribed time.

Now, all male adult recruits at the training establishment, H.M.A.S. *Cerberus*, may apply on the 64th day of service to leave the R.A.N. if they so desire.

Administrative work necessary to process the Scheme, known as **Optional Discharge**, will take a further 6 days after which a recruit will be free to go.

Similar facilities have been arranged for other types of recruits, with variations in the period when optional discharge can be claimed:

| | |
|--|----------|
| W.R.A.N.S. | 30 days |
| Junior Recruits at H.M.A.S. <i>Leeuwin</i> | 6 months |
| Musicians at H.M.A.S. <i>Cerberus</i> | 6 months |
| Apprentices at H.M.A.S. <i>Nirimba</i> | 7 months |

Recruits who are optionally discharged will be able to set their period of service with the R.A.N. against any period of compulsory National Service for which they may be called.

N.S.W. Governor Reviews Parade

On Wednesday 17 December, 1969, Sir Roden Cutler, the N.S.W. Governor, took the salute at the Passing-Out Parade (see photo) at the Royal Australian Navy Apprentices Training Establishment at H.M.A.S. *Nirimba*. A total of 63 apprentices and 15 mechanics formed the graduation contingent. The



graduates are from all States and have studied subjects ranging from ships' engine room engineering to aircraft maintenance.

★ ★ ★ \$4 Million Tactical Trainer for R.A.N.

The Royal Australian Navy is to get one of the world's most versatile naval training simulators.

It will offer tactical experience to officers and sailors who will be able to conduct realistic mock exercises while shore based and will be a valuable supplement to sea training.

The simulator will be the only one of its type in the Western Pacific area.

It is a combined action information and tactical trainer and will be used to train personnel in tactical situations and radar plot sailors and ship teams in "action information organisation".

The trainer will be used to investigate and evaluate current and future naval tactics and should be operational by April, 1973.

Simulation will be controlled by a "real time, on line" computer complex.

When the trainer is operational, information from all available sources such as radar reporters and plotters, will be collated in the operations to give the exercise picture to the command team.

★ ★ ★ Combined Maritime Exercise

The combined operational training exercises conducted from 10 to 24 November, involved 25 ships of four Com-

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monwealth navies, four R.A.A.F. squadrons, one R.N.Z.A.F. squadron and elements of the Australian Army. In the week prior to the start of the maritime phases of the exercise, the ships assembled in Sydney and Melbourne for in-port maintenance and training exercises.

For the first week of the combined operational training period, each ship and air unit participated in co-ordinated fleetwork, gunnery, anti-aircraft warfare and underway replenishment at sea.

The work-up phase was followed by a tactical phase, which tested the efficiency of the combined Commonwealth Fleet.

The Flag Officer commanding the Australian Fleet, Rear Admiral G. J. B. Crabb, was in tactical command of the exercises, and flew his flag from the flagship of the R.A.N., H.M.A.S. *Melbourne*. (see photo).

R.A.N. Officer Tops Submarine Course

Acting Sub-Lieutenant B. D. H. Clarke is the 5th R.A.N. officer to be awarded the Admiral Sir Max Horton prize for obtaining the highest aggregate marks in the final examination of the course conducted at H.M.S. *Dolphin*, the Royal Navy's submarine training base.

Naval Survey in North

The R.A.N.'s hydrographic research ship H.M.A.S. *Moresby* sailed from Sydney on 10 February to survey parts



A Grumman Tracker aircraft lands on the right deck of H.M.A.S. *MELBOURNE*, during the Commonwealth maritime exercise off the New South Wales coast. The Flagship of the Australian Fleet had only a limited role in the exercise, her main activity being sea trials involving her Tracker, Skyhawk and Wessex aircraft.

of the Torres Strait and Gulf of Carpentaria, principally the areas west and south-west of Booby Island at the western approaches to Torres Strait, in order to help establish a safe route for shipping operating out of the developing mineral ports of Gove Peninsula and Groote Eylandt.

Moresby will also examine some shoal patches reported during the last two years by ships using Torres Strait.

While in the Booby Island area, small boats from *Moresby* will survey the Gannet Passage, a narrow passage containing a small sand bar. To a large degree the depth over the bar controls the size of the shipping which can use the calm inshore route through the Great Barrier Reef.

The depth over the bar changes and this is believed to be caused by sand

waves generated by the seasonal meteorological variations experienced in the area.

It is believed that her re-survey of the area at the end of the monsoon (April), will contribute useful data in support or rejection of the sand wave theory.

To Serve in Royal Yacht

Two of the nine R.A.N. sailors chosen to serve in the Royal Yacht *Britannia* during the Royal Tour this year, show their mates a picture of the Royal Yacht (see photo). They are Able Seaman Norman Bavley serving in H.M.A.S. *SUPPLY* (on the left) and Able Seaman Lyn Bavley, serving in H.M.A.S. *Nirimba* (second from the right); they are not related. Four Able Seamen, two engineering mechanics, a writer, a tactical operator and a physical training instructor were chosen from volunteers from ships and establishments of the R.A.N. They will join *Britannia* in Auckland, New Zealand, on 30 March and disembark in Britain in Mid-June.



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— BOOK REVIEWS

THE OBSERVER'S FIGHTING VEHICLES DIRECTORY— WORLD WAR II

Researched and Edited by: Bart H. Vanderveen. (Frederick Warne, London). 337 pages \$3.95. Reviewed by ENERGA.

This book is part of the excellent Observer series, whose books of Basic Military and Civil Aircraft were reviewed in this magazine about a year ago. This particular book is larger than the previous books and, if possible, even more comprehensive.

The title is a bit of a misnomer, because whilst a fair amount of space is given to armoured fighting vehicles of various types, the larger part of the book is devoted to the many types of soft-skinned vehicles used by the main combatants of the second World War.

The book itself is a masterpiece of organisation and detail. There is a section for each of the nations represented, and each section is divided into further sections for each type of vehicle, plus an introduction. The countries represented are the United States, Great Britain, the British Commonwealth Countries (in one section), the Soviet Union, Germany, Italy and Japan. France is a notable omission.

The serious reader could start right at the beginning and work through

from "USA—Motorcycles" to "Japan—Combat Vehicles". However, you can get a lot of fun by dipping into it, to see famous old vehicles, to follow the development of the Jeep, or to gaze at the various oddities that were produced.

There is a stack of information about the DC 3 of the army truck world, the 2½ ton "Jimmy". This famous old workhorse was (and still is) one of the most reliable army trucks ever made and (in its Studebaker version, at least) one of the best looking. Over 800,000 of these trucks were also made by International Harvester and Studebaker mainly for Lend-Lease). The fact that many of these Studebakers, designed in 1941, are still rendering faithful service to the Australian Army (and many other armies, I have no doubt) gives some indication of their quality.

Other old faithfuls appear, including the many forms of Jeep, the famous old "Blitz" made by Ford and Chevrolet, the White Scout Car (known as the "Can"), the Marmon-Herrington Gun Tractor and the Staghound armoured car.

In many ways, it is even more interesting to look at the oddities, the ideas which never really left the ground or were only produced in small numbers. Some of the stranger vehicles produced were the various low-silhouette cargo trucks (which sometimes had no cab at

all), the enormous Boarhound armoured car, German motor-cycles with tracked side cars, Japanese amphibious trucks with steel hulls, looking like ships with wheels, British Humber Snipes with bodywork by Karmann, of all people, and an extremely neat and ingenious self propelled 17 pounder Anti-tank gun, which (alas) never went into production. The list is endless.

Mr. Vanderveen has definitely done his homework thoroughly. The book has 900 illustrations and a great wealth of technical data, social comment, and pure items of historical interest. The quality of the production is good—the illustrations are clear, the book is well-bound and printed on good glossy paper.

Not the kind of book you would give your girlfriend for her birthday, but, nevertheless, it is to be recommended. The book is a must for any service library.

★ ★ ★

THE PRICE OF ADMIRALTY

An Indictment of the Royal Navy, 1805-1966 by Stanley Bonnett. Publisher: Robert Hales, London. 272 pages. \$3.90. Reviewed by Lieutenant Commander B. R. Nield, R.A.N.R. (Retd).

This book is a work of reference for sea lawyers, disgruntled sailors, agi-

Contributions Invited

The editor invites persons to submit articles, photographs and drawings (black ink) for inclusion in the magazine, but regrets that no payment can be made for contributions submitted. Contributions should be addressed: The Editor, "The Navy", Box C178, Clarence Street Post Office, Sydney, N.S.W., 2000, Australia.

The Editor, does not hold himself responsible for manuscripts, though every effort will be made to return these with which a stamped and addressed envelope is enclosed.

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tators, pacifists, would-be admirals, enemy agents and other haters of the Royal Navy.

At first sight, the book shows great promise. Chapter 2 is called "Rum and Madness"; Chapter 9 is called "Lunatics at Sea". Referring to Sir Gilbert Blane, whom he calls the Navy's first great doctor, Mr. Bonnett states (page 35): "Writing in 1815 he said that while there was one madman for every seven thousand people in Britain, in the Navy the proportion was one in under one thousand. The Navy by now kept its own lunatic asylum at Hexton, in London, where the number of inmates rose steadily each year."

Mr. Bonnett strongly criticizes the Navy for its delay in adopting technological improvements. Mistakes were undoubtedly made, but between 1815 and 1914 the Royal Navy was so advanced technically that it was used as a model by the navies of other countries. Mr. Bonnett consistently overlooks this fact. The officers and men of the Royal Navy were for the most part volunteers who were proud to serve in the Navy and who were admired by their fellow citizens. The learned Admiral Sir Cyprian Bridge has ridiculed the widely held belief that British warships were largely manned by unwilling conscripts rounded up by press gangs. Mr. Bonnett gives no reason for disagreeing with Sir Cyprian, but he does list two of Sir Cyprian's book in his select bibliography (page 258).

The arch villain of this book is Admiral Sir George Cockburn, who, we are told, (page 32) "was the personification of all which was wrong." In the war of 1812 against the United States, Cockburn destroyed the city of Washington. In that war Britain crushingly defeated the United States. Mr. Bonnett conceals that fact by using the phrase (page 33) "The war of 1812 having proved an Admiralty fiasco."

It is clear why Cockburn and other admirals were described as villains. Their crime was this: they made England's name feared at sea. It might be asked why this should be regarded as a crime.

An answer was suggested in 1927 in the Guards' Chapel by Prebendary Gough, in these words. "The Feminine Man is so full of pity for any spectacle which suggests hard work, and so unfriendly in his attitude towards robust strength or efficiency, especially efficiency which expects to receive any

reward for being efficient. Very strange ly he can often applaud vigorous exercises in other races which are not friendly to us, but he holds that it is irreligious to commend these things in the people of England. . . . This sort of person has a settled conviction that his country is wrong, and that any foes who rise against her, right. He is for the most part in favour of making friendly agreements with irreconcilable enemies,

even with an enemy who throughout the world is striving for the overthrow of our Empire."

This book, then, should be regarded as an oversimplified crash course in the history of naval wickedness. The Royal Navy, like any other human institution, can be criticized, but something better than this book is needed if it is to be debunked.



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Naval Cadet Force News

NEW SOUTH WALES

QUARTERLY REPORT OF PROCEEDINGS

This report covers the training and activities undertaken by the Naval Cadet Force N.S.W. Division for the period 1 October to 31 December, 1969.

Continuous training periods were carried out in the following H.M.A. Ships, H.M.A. Naval Establishments, and other approved locations:—

| Ship/Establishment/Location | Dates | Activities |
|---|--|--|
| Sydney Training Depot, Snapper Island H.M.A.S. ALBATROSS | 25.11.69 to 4.12.69 7.12.69 to 17.12.69 | Boating Course. Naval Airman Course. Physical Training Course. |
| H.M.A.S. WATSON | 8.12.69 to 13.12.69 | Higher ranks course for Senior Cadets. |
| H.M.A.S. HOBART | 8.12.69 to 17.12.69 | General Seamanship. |
| H.M.A.S. VAMPIRE | " | " |
| H.M.A.S. PERTH | " | " |
| H.M.A.S. BRISBANE | " | " |
| H.M.A.S. MELBOURNE | " | " |
| H.M.A.S. STALWART | " | " |
| H.M.A.S. WATSON | 8.12.69 to 17.12.69 | Gunnery Course. |

Weekend training was conducted in the following ships and Establishments:—

| | |
|-------------------|----------------------|
| H.M.A.S. WATSON | 10.10.69 to 12.10.69 |
| H.M.A.S. STALWART | 17.10.69 to 19.10.69 |
| H.M.A.S. STALWART | 24.10.69 to 26.10.69 |

The Division was honoured to have Rear-Admiral G. J. B. Crabb, C.B.E., D.S.C., Flag Officer Commanding H.M.A. Fleet carry out an Admiral's Inspection of over 200 Officers, Instructors and Cadets on board H.M.A.S.

Melbourne on Wednesday, 12 December. The Cadets comprised those undergoing a period of continuous training in H.M.A. ships in the Sydney area.

"Open" day to the public was held by Units on Saturday, 4 October from 1400-1600.

The Annual Pulling and Sailing Regatta was held on Saturday, 11 October. The course was laid off Snapper Island and barbeque facilities for lunch were provided by the host Unit T.S. SYDNEY.

The Senior Officer was invited to be the Inspecting Officer for the annual

passing out parade of the Mosman High School Army Cadet Unit on Thursday, 16 October.

On Sunday, 19 October on the occasion of the Annual Seafarers' Service, 100 Cadets acted as flag bearers in St. Andrews Cathedral.

A number of Boards were convened in H.M.A.S. WATSON to examine officers and instructors for promotion and also to determine the suitability of applicants seeking appointment to the Cadet Force.

(Sgd.) L. MACKAY-CRUISE
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Queensland Division Sea Cadets

During the seven days 12-19 January, 48 Cadets, with accompanying Officers and Instructors, from the eight Units of the Sea Cadet Corps in Queensland were in H.M.A.S. *Moreton*, Brisbane, for their first ever "Combined Muster".

Representatives from Units as far north as Cairns were brought into the Depot to take part in a comprehensive programme of competition and training which should benefit the Units for many months to come. All individual competitions counted towards an overall award and it was pleasing to see this trophy—the President's Cup—won by a country Unit. T.S. *Bundaberg*, who also won the Naval Association Trophy for skiff rigging and the Chief & Petty Officer Instructors' Trophy for Ropework.

The *Paluma* Cup for an S.L.R. shoot was won by T.S. *Tyalgum*, the South Coast Unit. The Naval Association Trophy for Whaler Rigging was won by T.S. *Paluma*, Stafford, Brisbane, while T.S. *Coral Sea*, the Townsville Unit, took out both the Mayne Trophy for Whaler Pulling and the Officers' Trophy for Sports.

Highlights of the week were trips in the patrol boat, H.M.A.S. *Adroit*; a range practice with the S.L.R. and a hotly contested ropework competition.

A visit was made to the Metropolitan Fire Brigade's new damage control training centre at Roma Street, Brisbane, which includes a full scale simulated ship's engine room, cargo holds and deck fittings.

One of the most pleasing features of the Muster was the way members of far distant Units combined in co-operation and friendly competition.

The friendships made and the appreciation gained of the Division as a whole could be the real benefits to come from this most enjoyable week.

Army Cadets Join Sea Cadets in Brisbane

During the Annual Continuous Training Period for the Brisbane Sea Cadet Unit T.S. *Paluma*, four Army Ca-

dets were brought into H.M.A.S. *Moreton* to learn something of the training carried out by their nautical counterparts. Sergeants Truscott and Spensley (Marist Bros. College, Ashgrove), Maxwell (C.E.G.S., Brisbane) and Cifuentes (The Southport School) were soon receiving instruction in boat handling, pulling, sailing and helm orders, and one of the greatest thrills came with a chance to handle the helm on H.M.A.S. *Adroit* during a run in Moreton Bay. Two of the lads were aboard a 40-ft. workboat which stood by a number of skiffs caught by a particularly vicious

storm which swept Brisbane, and, under-terred by the blinding rain and high winds assisted the crew in the pickup operations.

Later in the A.C.T. period, the Unit was visited by Captain I. Hauber, the Training Officer for the Cadet Brigade Headquarters. Displaying their newly found skills, the four Sergeants co-opted the assistance of two Naval Cadets to make up a whaler crew and took their visiting officer out on the river.

It is hoped that both sides in the experiment will now have a better understanding of their Service counterparts.



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THE DAY 1240 DIED

by Jack Millar

Twenty-six years ago one of the most disastrous sinkings ever recorded in the War at Sea occurred

At 2.40 p.m. on the afternoon of 12 February, 1944, the 7,290 ton troopship *Khedive Ismail* and four other troopships, escorted by the old cruiser, *H.M.S. Hawkins*, and two destroyers, *H.M.S. Petard* and *Paladin*, were proceeding in convoy from Mombasa to Colombo. The convoy was in the vicinity of Addu Atoll in the Indian Ocean, in what was then considered a relatively safe area.

One minute later—2.41 p.m.—a terrific explosion shattered the *Khedive Ismail's* stern, more explosions followed in quick succession.

In less than two minutes the ship lunged to the bottom, taking with her 1,240 souls. Left struggling in the water were 23 persons—the only survivors.

The *Khedive Ismail* is well remembered by many thousands of Australian troops, having transhipped them at Bombay or Colombo from the much larger troop carriers *Queen Mary*, *Queen Elizabeth*, *Mauretania* and *Aquasania* for the run-up the Red Sea to Suez and the Middle East.

One minute later—2.41 p.m.—a terrific explosion shattered the *Khedive Ismail's* stern, more explosions followed in quick succession.

At the time of the Greek debacle, in April, 1941, the *Khedive Ismail* was there to evacuate many hundreds of hard-pressed Australian and other Allied troops from the beaches, withstanding concentrated Stuka dive-bombing on the return passage to Egypt.

By 1944 it looked as if she would safely survive the war. Events proved otherwise.

Mixed Lot

At Mombasa over a thousand troops were embarked for passage to Colombo. They were a mixed lot, comprising British, American and African. Included were many members of the women's services.

For the first few days nothing untoward happened. The meagre force of three escort vessels for such an important convoy was insufficient to afford complete protection, nevertheless they scurried around at high speed in an effort to cover ahead, astern and both flanks.

Life on board was similar to any other wartime convoy. The morning of 12 February, 1944, dawned bright and sunny, with the sea as calm as a mill pond.

Shortly after the midday meal some 400 of the passengers crowded into the main lounge on the promenade deck for a concert. On the other well deck a game of tombola—popular with the naval ratings—was in progress. Others were in their cabins or on the mess decks having a siesta. A few were in the reading rooms writing letters home—destined never to be posted—or playing cards.



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Hardly anyone was on the promenade deck and this fact contributed greatly to the loss of life.

No Warning

By 2.40 p.m. the concert was in full swing and gay laughter filled the air. There was no warning of immediate danger.

Undetected by the escorts, the Japanese submarine I 27 had crept in to close range—poised ready for the kill and with startling suddenness the first torpedo struck, quickly followed by others.

Laughter turned to fear as the cries of the injured mingled with the shattering of glass and the hiss of escaping steam. I 27 had done her deadly work only too well.

The few who were on the upper deck barely had time to jump into the water as the *Khedive Ismail's* bow reared up and she slid beneath the surface 1 min. 40 sec. after the first torpedo struck.

To the vast majority trapped below decks death was merciful and quick. Those who made the water had no time to swim clear before the ship went down. Many were dragged to their deaths by the terrific suction as the ship slid deeper into the depths.

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By the time the last bubble had subsided in those dreadful few minutes, only 23 people—one naval officer, four nursing sisters, two W.R.N.S., three petty officers, two army sergeants, two East African soldiers and nine sailors—remained struggling on the surface.

The only debris left floating from the *Khedive Ismail* was two upturned lifeboats and two rafts. The survivors—17 men and six women—managed to reach them safely, where the injured, including a girl who had been hit by the ship's mast as she went down, and the women were helped on them. The rest remained in the water, hanging on to the sides.

As the sea calmed the small band thought of what the future had in store for them. They were not pleasant thoughts. Undoubtedly the submarine was still close by—lurking beneath the depths. Would she surface and machine-gun the party, as other Japanese submarines had done, or would the commander take pity and make them prisoners?

Sea Empty

Around the survivors the sea was empty. The convoy, with many thousands of lives in their keeping, had sped away from the danger area at high speed.

When it was considered the convoy was at a safe distance the senior officer ordered the two destroyers, *Petard* and *Paladin*, to return. Knifing through the water the two ships sped back to the fray at full speed. Their high bow waves brought a cheer from the survivors in the water. They had been there an hour and a half.

The cheers turned to fear when it was realised the destroyers had picked

up the submarine on their sidics and were racing in to attack. Would they be blown to bits by their own ships?

Down went the depth charges—the concussion from the exploding T.N.T. hammering those in the water. The distance, however, was sufficiently far to avoid serious injury. After the first attack the *Paladin* swung around and headed for the survivors. Heaving to, her sailors lost no time in hauling the bedraggled 23 aboard. The ship was quickly under way again as the last one was dragged over the side.

It was at that moment the submarine broke surface. The depth charges had done their job. She was a large ocean-going submarine of over 2,000 tons. All hands soundly cursed her.

"Don't ram"

Gathering speed, the order "Stand by to ram" was given. The survivors were told to lay full length on the deck. At the last minute, the *Petard*, in a better position, signalled "Don't ram."

Full port helm was applied, but *Paladin* was not quick enough. The two craft scraped together. Under the waterline the submarine's hydrophones gouged a jagged tear along the destroyer's starboard side. She had been ripped wide open and as the water poured in she settled deeper in the water.

The Jap was full of fight and at close range a gunner in the conning tower opened fire with a machine-gun. *Paladin's* gunners were quick to return, swiftly knocking the gun out of action.

Water pouring in quickly put *Paladin's* engines out of action. Motionless, the destroyer was in danger of sinking. Bulkheads were shored up and every-

thing moveable on the upper deck was thrown overboard to prevent the ship capsizing.

As soon as *Paladin* and the submarine had drawn clear *Petard's* guns opened fire, pouring a withering hail of fire into the sub—stopping her dead in her tracks. *Petard* then came alongside *Paladin*, taking off *Khedive Ismail's* survivors and two-thirds of the destroyer's crew.

No sooner had she done this than the submarine managed to get under way again. Manoeuvring into position, *Petard* let go with a torpedo. Aim was true and it struck the sub, below the conning tower. A 50-ft. column of water and wreckage gushed into the air. When it settled the sub. had gone. *Khedive Ismail* had been avenged.

Paladin was in dire straits. A wireless message brought a salvage vessel racing to the scene. However, a Jap sub. torpedoed her. Then a rescue tug was sunk. It was left to *Paladin's* sister destroyer *Petard* to take the stricken ship in tow. Progress was slow, but the Maldive Islands were safely made.

A day after the two ships arrived the *Khedive Ismail's* survivors were transferred to the cruiser *Hawkins* and taken to Colombo.

The sinking and large loss of life, unusual in a large troop convoy, was a major calamity.

It touched off a spate of submarine activity in the Indian Ocean by both Japanese and German U-boats. The effort was short-lived, however, as Allied counter-measures very soon became effective.

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LETTERS



TO THE EDITOR..

8/17 Hipwood Street
North Sydney 2060
2 December, 1969

The Editor
"The Navy"
Box C178
Clarence Street Post Office
Sydney, N.S.W. 2000
Dear Sir,

Regarding the letter submitted by E. Bryden-Brown in the Nov.-Jan. 1969-70 issue of "The Navy". I am in all respects agreeable with this suggestion of the writer but would like to take the subject one step further and add that some of our ships could also be named after some of Australia's more predominant people, that is, those who played a part in the foundation of this fair country of ours, and no doubt there is quite a range to choose from.

Yours faithfully
(SGD) A. B. Mochler

★ ★ ★
45 Darnley Street
Gordon, N.S.W., 2072
4 December, 1969

The Editor
"The Navy"
Box C178
Clarence Street Post Office
Sydney, N.S.W., 2000
Dear Sir,

I heartily agree with Mr. Bryden-Brown's comments about the names of some of the Navy's newer ships. I feel that Australian ships should have distinctively Australian names and, at the same time, traditional names should be perpetuated. The names of the Ton-class minesweepers and minehunters (*Hawk*, *Gull*, etc.) are neither traditional nor distinctively Australian and are generally rather colourless. Names like *Shepparton* and *Launceston* would

carry on the traditional names and are more in keeping with the names of the British ships of this class.

Again, the names of the new Patrol Boats are, for the most part, pretty uninspired. From names like *Barbette* and *Barricade* one might conclude that the boats were named after streets in Castlegreg.

From a public relations point of view I feel it would be a good thing if future warships were given names which were distinctively Australian, traditional (where possible) and of interest to the general public. These names would not only include cities, towns and rivers, but would also cover Aboriginal tribes, famous Australians, and Australian birds and animals.

Yours faithfully
(SGD) S. H. Scarlett

★ ★ ★
John Paul Gauci
19 Tintern Road
Ashfield, N.S.W., 2131
11 November, 1969

The Editor
"The Navy"
Box C178
Clarence Street Post Office
Sydney, N.S.W., 2000
Dear Sir,

I would like to put my thoughts on the Navy's project to construct a light helicopter destroyer. These ships are to be built to suit our requirements of an all-purpose destroyer which will have high capabilities. Their weight must be approximately 3,000 tons, which is slightly heavier than the Type 12 destroyer escorts serving in the Navy at present. The range must be high because of the wide separation of our

major ports and also the separation of islands in south-east Asia. This also brings into consideration the wide variety in nationalities. Its speed should be between 35 knots and 40 knots. The armament must be of a high variety. This is the idea, because it must be capable of dealing with submarines, ships, aircraft and shore installations.

It is also evident that Australia has some ships coming to their end. In fact we have five early post-war ships. (They are *Tobruk*, *Anzac*, *Queenborough*, *Quiberon* and *Quickmatch*). We only have eleven modern ships in commission. (They are *Perth*, *Hobart*, *Brisbane*, *Parramatta*, *Yarra*, *Stuart*, *Derwent*, *Swan*, *Torrens*, *Vendetta* and *Vampire*). By 1980 the five early post-war ships will be out of commission. This entitles us to build these all-purpose destroyers. These ships should be completed by 1978. After 1980 there should be further construction of these ships.

LIGHT DESTROYERS. Length should be about 360 feet. The beam would be about 38 feet, while the draft would be about 16 feet. It should carry a Wessex 31-B helicopter. The complement should be about 200 men and its weight should be about 3,000 tons. The armament should consist of two single-turret 5"/54 cal. dual purpose, anti-aircraft, shore bombardment guns, one quad rail "Seacat" missile launcher—these are anti-aircraft missiles; one single-rail "Ikara" anti-submarine missile launcher; four triple anti-submarine torpedo tubes.

On the next page I have filled in details of the ship and a diagram of my creation.

Yours truly
(SGD) J. P. Gauci

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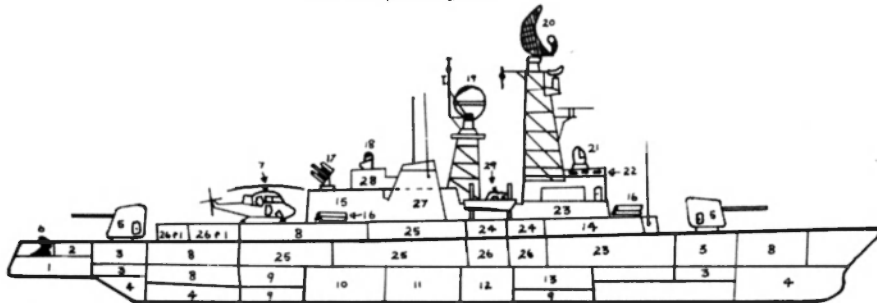
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