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CSA Systems Engineering Division
Developing better systems for Australia

HMAD DARWIN, seen here on trials was commissioned into the Royal Australian Navy on 21st July, 1984. (Photo - RAM)

HMAD STALWART, an S class destroyer, served with the Royal Australian Navy from 1919 to 1925. She is depicted in this fine painting by naval author and marine artist John Bastock.

(Painting - Courtesy John Bastock)
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THE EDITOR'S COMMENTS

LEADING the way in this issue of “The Navy” is another article in the series of new or possible warship acquisitions for the Royal Australian Navy. Previous magazines have described the Type 2400 submarine and the locally-designed Mine Hunter Catamaran project.

This quarter British Shipbuilders have prepared an interesting description of the Royal Navy’s new Type 23 frigate, its operational requirements, machinery and weapons. News from Canada details that country’s naval activities during 1983-84 and plans for the Canadian Patrol Frigate. From across the Tasman the Royal New Zealand Navy makes a welcome appearance with a pictorial update of the refit of the Kiwi frigate HMNZS WELLINGTON, ex HMS BUCCHANTE, purchased in 1972.

The major feature article for October focuses upon HMAS STIRLING and was prepared by Western Australia’s Navy Public Relations Officer, Vic Jeffery.

FOREIGN AND DEFENCE POLICIES NEED TO BE BROUGHT INTO LINE

ONE of the less spectacular but most important features of Australian development over the years has been the realism with which successive governments, of no matter what political persuasion, have viewed world events during their period of office and planned their foreign and defence policies accordingly.

With some exceptions, notably involvement in the Vietnam war which started with public acceptance and ended without it, foreign and defence policies have developed with the consent of the Australian people.

The foreign policy of the present government as expressed by the Prime Minister and the Foreign Minister, appears by and large to be appropriate to the times and acceptable to most but not all Australians as was made clear at the National Conference of the Labor Party in July. In effect, it is recognition by the majority of the fact that Australia is a part of the West and a potentially important part of its region.

Defence objectives on the other hand appear to be much more limited and to fall short of supporting foreign policy objectives. While lip service is paid to assistance for our allies in the daily business of keeping the peace, in practice our main contribution is to allow the United States to operate and use our naval facilities in Australia — and even then with reluctance on the part of some State governments. If the NATO countries had similarly restricted mutual aid over the past thirty years it is doubtful that we would be the relatively free society we are today.

Defence planning at the present time is clearly focused on the direct defence of Australia and greater self-reliance is sought. This has some appeal to nationalistic instincts, but apart from the difficulty of becoming self-reliant when much of our weaponry is obtained overseas, one gains the impression of planning to fight a war rather than following the more sensible course of trying to prevent war from starting in the first place by deterring would-be aggressors.

In this day and age however a deterrent strategy is likely to be successful only if countries are prepared to restrain desires for military independence and agree to work together in the common interest. Far from demonstrating a willingness to contribute to regional security, has by drastically reducing the capability of its navy — and this is an essentially maritime environment — displayed a shortsighted and selfish attitude which has not gone unnoticed by our allies.

It is high time our defence policy was brought into line with foreign policy.

GEOFFREY EVANS, Federal President of the Navy League of Australia.

October, 1984
Your communications are only as good as your antennae.

The difference between life and death could depend on a few lengths of tube. Every signalman knows the importance of a high performance antenna to achieve maximum reliability under the toughest conditions. This is often taken for granted, but the key to effective communications depends on an antenna of optimum design and construction. To achieve this, requires a high degree of manufacturing skill and ability.

Tubemakers of Australia Limited, BTM Division with over twenty years experience, excel in this aspect of radio communications. Tubemakers lightweight antennae currently in wide use in the Australian, British and NATO armies involve production to the finest tolerance and the highest quality standards. The next generation of Tubemakers antennae will soon be seen in Project RAVEN.

The Yarrow Type 23 Frigate

Early in 1981, the British Ministry of Defence (Navy) and UK Warshipbuilders met to discuss a new frigate project with the objective of producing a design which would be equally acceptable to the Royal Navy and other navies of the Free World. The result of that meeting was the Type 23 Frigate, now emerging as the solution to a cost problem that has for so long denied the UK a place in the warship export market.

Yarrow Shipbuilders Limited was awarded the Design Contract for the new frigate and is expected to produce the First of Class. Most of YSL's work is carried out for the British Ministry of Defence. The Company is lead yard for the Type 22 Frigate and has successfully completed and handed over six ships of this Class within the targeted delivery times. A further four are under construction at present.

All major facilities at the Company's 64 acre site are indoors, including a multi-million pound complex for building glass reinforced plastic ships. The most recent development is an extensive steelwork preparation complex which makes use of the latest techniques in computer numerically controlled machinery. YSL has a large ICL mainframe computer and the Design Department has the latest Computer assisted Design and Computer aided manufacture equipment, both of which are heavily involved in the design of the new ship.

The Type 23 Frigate is by no means the over sophisticated design that the UK media has been promulgating in recent times. Indeed, the pressures of strict cost and weight controls on both the British MOD and the shipbuilder have resulted in a relaxation of standards which, while still satisfying Royal Navy requirements, represents a welcome move towards simplicity in design. There are no compromises, however, in the standards which are crucial to the operational effectiveness of this ship. In fact, recent Falklands experience and the current Naval Staff Requirements have dictated necessarily higher standards for many aspects of the design, such as noise control, NBCD and damage control, smoke control etc. Key design issues have been satisfied by attention to naval architecture, improved production methods and better subcontracting procedures.

**OPERATIONAL REQUIREMENTS**

The main task for the Type 23 Frigate is anti-submarine warfare; however the ship also has the capability for defence of shipping, deployment of amphibious forces and shallow water operations and shore bombardment. These are key operations, central to maritime strategy, whether in tension or in support of the land battle. The major threat to all these operations, and certainly the most difficult to counter is the submarine.

The scale of ASW operations has grown very significantly over the past 20 years. The submariner can now fire missiles from extreme range. Consequently, since the Second World War, the tactical arena has moved from an area of 500 sq kilometres or so to an area the size of Continental Europe. This enormous change has been brought about by advances in technology.

As can be appreciated the Type 23 Frigate will be operating far from base when a towed array is deployed, and will require an organic weapon system to localise and attack the enemy. The ship has to be able...
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October, 1984 THE NAVY Page Seven

Sea power, of course, is about control of sea areas vital to a country's interests and denial of such areas to an enemy. These areas change with the needs of military operations. Depending on the circumstances, an area can be dominated by mines, submarines, task groups or even single vessels of quite modest capability. However, so long as the enemy needs to be attacked directly, or the land battle supported or supply lines guaranteed, then Frigates will be required. It is these realities which have dictated Ship Requirement for the Type 23 Frigate.

NAVAL ARCHITECTURE

With a waterline length of 123 metres, the Type 23 is slightly shorter than a Batch I Type 22 Frigate. The general configuration locates the main surface armaments up forward and the major anti-submarine features down aft. Accommodation is organised to locate personnel close to their action stations and is mostly on No 2 deck and above. This gives quick access to the main passageway for safety and easy escape.

Stores and provisions are also grouped on No 2 deck for easy access to galleys and Replenishment at Sea points.

Structural principles embodied in this design differ from past practice. For the first time in recent British warship construction there is a departure from the exclusive use of close frame spacing and long stalk T sections. The reason for this is cost reduction and ease of construction. The structure combines use of commercially available offset bulb sections and a significant reduction of intermingled longitudinal and transverse stiffening. This provides considerable simplification and a reduction of connections with consequent savings in construction cost. The designers are confident that the structure matches all of the strength requirements with only a slight penalty in additional weight. This hybrid hull structure and the superstructure are of all-steel construction.

In view of the Type 23's main ASW role, noise reduction is perhaps the most important parameter of the design. Of the noise characteristics displayed by different main propulsion configurations, only that from diesel electric drive coupled with extensive noise reduction methods can achieve the required sonar performance over the relevant frequency range. Equally important to the achievement of low noise is a good noise hygiene system to apply during building. This will be done in a similar way to that used in submarine construction.

POWER AND ENDURANCE

The total power available gives a top speed of around 28 knots. Cruising speed is about 17 knots. To carry out its operational role, the ship is required to have a long endurance. This is over 7000 nautical miles at 16 knots.

The performance of the ship in head seas has been assessed using a well proven theoretical analysis and compared with the Leander against criteria of slamming, subjective motion, bow immersion (green seas) and involuntary speed reduction. The results show that the Type 23 will be at least as good as the Leander in all aspects.

The Type 23 has the ability to operate a helicopter in higher seas states even whilst operating towed array and therefore with unfavourable restrictions on speed and heading. The stability characteristics of the Type 23 are good and it is expected that the ship will exceed the standards achieved in the Type 22 and Leander Classes when all margins are consumed.

ACCOMMODATION

In comparison with Leander and Type 22 Frigates the Type 23 has a little more area allocated per man. The operational complements of the
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other capabilities exist in such critical areas as aircraft launch Seawolf, Vortical launch Seawolf, and other Navies are following suit. The Japanese Navy are also committed to Spey (SMIA) for future naval construction and other Navies are following suit.

Our marine systems technology runs deep.

The basic machinery fit for the Type 23 was conceived by MOD and has been engineered by YSL over the past two years into a detailed working arrangement. The requirements were derived from low speed operation, flexibility of operation, high endurance and low noise. The installation selected to satisfy these requirements is the CODLAG configuration (Combined Diesel Electric and Gas Turbine). The layout was influenced by a large number of factors including available space, system design, vulnerability and submersibility, etc.

In the motor gear room, space and stiffness requirements dictated that the thrust block should be integral with the gearbox. This led to better use of the main shaft in the gearbox and also reduced overall costs. A separate drain tank was chosen to lead to more flexible layout and allowed a more compact arrangement from the point of view of axial vibration.

For driving speeds in excess of 17 knots, two Rolls Royce SPEY Gas Turbines will be used. The turbines drive through non-reversing gearboxes onto fixed pitch propellers, astern power being achieved through the reversing capability of the electric motors. It may be of interest to note that Spey Turbines have been put into T.22-07, HMS BRAVE and arc being fitted in the Batch III T.22 Frigates. The Japanese Navy are also committed to Spey (SMIA) for future naval construction and other Navies are following suit.

ZONING

The zoning concept has been adopted in the Type 23 Frigate. The ship is physically divided into effective zones for ventilation and air conditioning to prevent the spread of smoke and fire following action damage. Another zoning feature is the careful distribution of key equipment. The provision of emergency functions is in separate zones, eg. for pumps, emergency fire pumps, messing facilities, etc.

Linked very much to the zoning concept is the need for smoke control and smoke clearance. It is a very long time to clear a large volume of smoke from a ship, even with powerful fans fully open and the problem is greater in a closed down action state. It was considered feasible only to clear limited spaces. Each zone has its own dedicated smoke clearance fan and smoke control facilities will be used between zones when watertight doors have to be opened in emergencies. Following Falklands experience, greater priority has been accorded to passive protection measures.

MACHINERY

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The gas turbine change unit is changed by sideways removal and turning through 90° before being taken out through a removal soft patch on No 2 deck and on up through the superstructure to the upper deck. It is then rotated through 90°, picked up by the ship's davits and swung onto a jetty.

The four Diesel Generators are Paxman Valenta and can be removed from the ship by direct lift from a dockside crane. Portable plates are arranged directly over each unit through the decks above. In general, the majority of equipments can be removed as a complete unit or sub-assembly through the standard access hatches.

Normal engineering watchkeeping will be carried out by two watchkeepers resident in the Ship Control Centre (SCC) and a third who may be in the SCC or machinery spaces. The main switchboards are unmanned unless action damage dictates otherwise.
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The all-weather Harpoon missile can be launched from forty different types of aircraft, ships, patrol boats and submarines. Still more types are being qualified.

Once launched, Harpoon flies to the target on internal guidance, staying low to escape detection. Its jam-resistant onboard radar manoeuvres it through the final attack.

Harpoon missile systems are built on a single, economical and efficient assembly line. Harpoon requires little maintenance, minimal training and no specialized manpower. New technologies can be readily adapted without costly or time-consuming development programs.

For control of the ship-to-ship anti-ship missile system covers the project. The Harpoon, from McDonnell Douglas.
WEAPONS
Recent events in the South Atlantic have emphasised the need for ships to have effective defence against both the most sophisticated weapons and more conventional attack. It has also emphasised the need for an independent capability in limited engagements, as well as the ability to function as part of a task force in a major conflict.

A Cardinal Point Specification, or CPS procedure as it is known, has been introduced by the by the MOD with the joint objectives of transferring responsibility for design development from the Ministry to Industry and also drastically reducing the time from the issuing of a Naval Staff Requirement to production of equipment.

The technique employed is to issue a specification in which the major requirements of performance and other factors, such as reliability, are specified as guidelines. Industry is then free to respond with the best solutions which the firms can put forward, but these solutions must be for equipment which is in a sufficiently advanced state of development to be available within a relatively short timescale. Points are then awarded to the various submissions, resulting in the most cost effective solution being selected, i.e. performance alone is no longer the sole criterion and cost, reliability, maintainability, ship service demands, development risk and so forth are all considered. As a result, much of the new weaponry in the Type 23 has been selected by this procedure.

Post Falklands, the requirement for guns has been revised and it is intended to fit both a Vickers 4.5" MK.8 medium calibre gun and secondary guns. The medium calibre gun system is capable of receiving target information from the forward Seawolf tracker, an electro-optical sight or for surface engagement from the navigation and surveillance radars and CACS. The secondary guns are likely to be high rate of fire, 30mm, single barrelled mountings.

The ship's towed array sonar system is complemented by a helicopter with sonobuoys and maritime aircraft links. Targets can be attacked using the helicopter or magazine torpedo launching system, whilst decoys provide protection for the ship. Attack at long range can be executed using a variety of helicopter carried weapons. The Type 23 is capable of operating, arming, fuelling and maintaining the Lynx, Sea King or its replacement, the new EH101 helicopter, with changes only to hangar equipments for each aircraft type. These helicopters can carry Torpedoes, Air to Surface missiles and sonobuoys, and are powerful and flexible additions to the strength of the ship.

Vertically launched Seawolf, controlled by a double headed tracker system differs from the original system in that it has dual tracking radars which ensure satisfactory engagement of low flying missiles. The conventional launcher is being replaced by a vertical launcher to fire missiles which are provided with an appropriate boost motor and the necessary turnover capacity. This latter capability was demonstrated some years ago at Woomera, therefore the development risk is low whilst the constraints of launcher arcs and slow manual loading procedures are eliminated. The system is interfaced with a new surveillance radar, providing fully automatic fast-reaction point defence.

The new Surveillance Radar will provide both high and low beam coverage together with an indication of elevation. Surface surveillance features are the electro-optical sight on the forecastle and the addition of simple optical sights to control the close range guns.

Main HF/MF communications will be based on existing RN equipment with common aerial working. The overall capability will meet the NATO requirements for a helicopter carrying frigate. In addition, there is SATCOM, a comprehensive cryptographic outfit, a digital facsimile facility and automatic message handling. Navigation aids include log, windspeed, MF/DF receiver, SATNAV and Omega. Two NCSI vertical reference and azimuth gyros and a digital distribution system provide ship's attitude information. The usual internal communications, have been modified to provide more readily re-configurable intercom and interphone facilities and a de-centralised main broadcast system.

BATCH ORDERING
In January 1982, MOD placed with Yarros Shipbuilders Limited, a Shipbuilder Involvement Contract designed to lead to the construction of the First of Class Type 23 Frigate. With competitive tendering in mind, the Ministry has also adopted a 'batch ordering policy' for several sets of ship's equipments. This has enabled YSL to go to the market and negotiate with sub-contractors favourable terms, not only for price, but also in other contract terms such as guarantees, terms of payment, damages, etc. All of this will ensure that the Type 23 Frigate represents the best value for money in the field of sophisticated warships.

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THE role of Canada's Maritime Command (MARCOM) is to provide an operationally ready maritime force to meet the country's defence commitments. This includes:

- Surveillance, control and defence of Canadian territorial waters, adjacent ocean areas, and the Arctic Archipelago.
- Defence of North America, in co-operation with US forces.
- Contribution to North Atlantic Treaty Organisation (NATO) collective defence measures.
- Assistance to the United Nations and other international bodies.

To meet these commitments, MARCOM forces air command (AIRCOM) aircraft, under the operational control of MARCOM, operate from a total of seven bases, five stations, and two detachments, primarily on the coasts, and extending as far north as Frobisher Bay and as far south as Bermuda. Bases and units comprise dockyards, training schools, supply installations, airfields, communication facilities, and Naval Reserve units. They provide support for an operational force of 20 destroyers, three support ships, one diving support vessel, and three submarines. In addition, there are 12 vessels, including gate vessels and the HMCS Fort Steele, located at Reserve training units on the east and west coasts, plus 18 minor vessels located at Naval Reserve units across Canada.

Three maritime patrol aircraft squadrons, two Sea King helicopter squadrons, and one Tracker medium-range reconnaissance squadron comprise Maritime Air Group (MAG).

ACTIVITIES
During 1983 and early 1984, MARCOM continued to meet the Canadian NATO commitment of supplying a destroyer to the NATO Standing Naval Force Atlantic (STANAVFORLANT). The destroyers ALGONQUIN, MARGAREE and SKEENA are in this operational and highly visible multinational squadron. ALGONQUIN and
The Type 2400 is not only a strike weapon - it can also offer long-range reconnaissance and surveillance capabilities, making it a versatile and effective deterrent. The British Type 2400 diesel-electric submarine has been developed to fulfill the roles of a replacement for the now ageing Oberons of the Royal Navy. It is designed for long life - well into the 21st Century.

Vickers have offered an even more powerful variant of the Type 2400 to the Australian Government, who are currently considering this in relation to future RAN needs. The Type 2400 has a massive punch and unrivalled silence in operation and the first-of-class is now under construction for the Royal Navy by Vickers Shipbuilding and Engineering in England. Replacement of British Oberons by the Type 2400 provides a guarantee of continued support, in all its many aspects, to all our customers throughout the life of these boats.

Possession of a high-quality submarine fleet will force any potential aggressor to expend effort of considerably greater magnitude to mount an effective threat. The modern submarine and especially the Type 2400 - offers unique cost-effectiveness in the future defence of Australia.

VSEL
Vickers Shipbuilding and Engineering Limited
Bournemouth, Dorset, England

For further information please contact Mr. E. G. Brinkley.

The modern submarine and especially the Type 2400 - offers unique cost-effectiveness in the future defence of Australia.

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Apart from attack, the best defence is DEFENCE IN DEPTH.
Type 2400
2400

offers facility for both.

ATHABASKAN had the honour to serve as flagship during Canada's period of command of STANAVFORLANT. In the summer and early autumn, the fleet replenishment ship PRESERVER also provided fleet support to STANAVFORLANT.

For the Canadian destroyers in STANAVFORLANT the past year's schedule had sixteen medium-size exercises involving interplay with maritime forces of NATO members. The spring of 1983 was extremely busy with the squadron participating in four major exercises including Exercises ROCKET, Springtime, Bright Horizon and Ocean Safari.

As well as the Pacific coast HMCS PROVIDER in 1983. She supported both Exercise Far Horizons from March to June. The exercise provided an opportunity to hone tactical skills through participation in advanced exercises which included three US Navy carrier battle groups comprising a total of 34 ships in the largest concentration since the Second World War. Canadian ships visited ports in Korea, Japan, Hong Kong, The Philippines and Hawaii and made a historical visit to Shanghai, China, in support of the Departments of External Affairs and National Defence.

In October, the Second Canadian Destroyer Squadron deployed to the Southern California US Navy operating area to exercise with a US Navy battle group and improve individual ship and formation combat readiness training. The ships of Training Group Pacific continued to ply Pacific waters carrying out basic training for reservists.

MARPAC and MAG also participated in joint Canadian/US surveillance of the Soviet intelligence collection ship BALZAM, stationed during the summer off the entrance to the Strait of Juan de Fuca on an intelligence gathering patrol.

Variable operational requirements were completed by the West Coast Fleet Replenishment Ship PROVIDER in 1983. She supported both Esquimalt based destroyer squadrons during major deployments and embarked US Navy Reserve S.A. KING helicopters for flying training on three occasions. PROVIDER visited countries as far apart as Shanghai, People's Republic of China and Mexico and operated in conditions varying from Sub-Artic gales in the North Pacific to tropical monsoons off Hong Kong.

The first step in Pacific Fleet improvement was achieved in 1983 with the return to operational status of GATINEAU, an improved Resurgence class destroyer, after a year long conversion and refit. Improvements were completed in KOOTENAY and started in TERRA NOVA. As well, the Mackenzie class destroyers started a similar update by virtue of their Destroyer-Life Extension (DESLEX) Program. QU'APPPELLE was also the first of a four ship re-fit contract set to the Burrard Yarrows Corporation that began in 1984.

The highlight of 1983 for the west coast was the visit of Her Majesty The Queen and His Royal Highness Prince Philip to British Columbia in March. Military participation was evident throughout the visit from the usual Guard of Honour and Gun Salutes to the organisation and provision of ground transportation, band engagements, hosting duties and escort responsibilities for HMY BRITANNIA.

Their Royal Highnesses the Prince and Princess of Wales visited the four Atlantic Provinces in June, 1983. Escort by AS-SINIBOINE, HMY BRITANNIA provided the main means of transportation and accommodation for the Royal Couple during their stay in the Maritimes.

PATROL FRIGATE
The Canadian Patrol Frigate Project (CPF) is now proceeding on schedule. Saint John Shipbuilding and Dry Dock Co Ltd, was selected as the prime contractor in June 1983, to design and construct six fully-supported frigates to replace the old St Laurent class destroyers.

Production of the leadship is scheduled in 1989 and the final ship by 1992 at an estimated total project cost of $3.4 billion in 1983/84 dollars. Taking into consideration the naval practice of assigning the 300 series of numbers to frigates and the fact that it was desired to have nationwide representation, the following hull numbers and names were approved for the ships:

- 330 HMCS HALIFAX
- 331 HMCS VANCOUVER
- 332 HMCS VILLEDE QUEBEC
- 333 HMCS TORONTO
- 334 HMCS REGINA
- 335 HMCS CALGARY

These were all names of former Royal Canadian Navy Second World War vessels. The new generation of Canadian ships will have a full range of capabilities, permitting them to perform both their national and NATO maritime tasks with emphasis on anti-submarine warfare.

ARTIST'S IMPRESSION OF HMCS HALIFAX, THE FIRST OF THE NEW PATROL FRIGATES.

October, 1984
THE NAVY
Sting Ray explodes the myth of the torpedo-proof submarine.

A fully autonomous underwater guided missile, Sting Ray signals—quite clearly—the end of submarine invincibility. It is a deadly combination of lethal warhead and sophisticated computer. A propulsion system of extraordinary reliability in all operational situations. It can be deployed by ships, helicopters, missiles or aircraft. Whether pulling out in the shallowest water or diving deep, Sting Ray quickly and implacably pursues the fastest, most powerful modern submarines. Once it has its teeth into a target, it simply doesn't let go.

A torpedo-proof submarine.

Sting Ray from Marconi. The end of submarine supremacy.

THE NAVY

October, 1984

THE SEAPLANE TENDER

By CHARLES H. MANN

Military and Naval seers throughout history have endeavoured to devise ways to navigate through the air. The devices attempted have been many and varied. Also, nearly all were ahead of their time.

As early as 1794 the French Republican Army successfully used a Hot Air Balloon in battle against the Austrians. The Austrians felt that the French knew every move they made and were demoralised. Eventually, four such balloons were created. But Napoleon, in 1805, disbanded this "Flying Corps.'

Balloons were also used in the American Civil War and in the siege of Paris (Franco-Prussian War). All these events were exquisitely documented in a patriotic exhibition of historical pictures presented in London by the Countess of Drogheda in 1917. Her descriptive catalogue was praised by the editor of JANES, ALL THE WORLD'S AIRCRAFT—1918 as "historically accurate". But Balloons are neither aircraft nor airships.

By 1900, Count Zeppelin had shown that rigid airships could operate with battle fleets, this stimulated both France and England to establish developmental programmes to test Dirigible airships.

Then in 1904 and 1905, a Mr E. T. Willows, of Cardiff, successfully flew his own private experimental airship in England. In 1909 he flew to London and in 1910, with his mechanic as a passenger, he flew to Paris. But the year 1910 completely changed airplane history. Captain Washington Irving Chambers (USN) somehow managed to persuade the US Navy Department to build an 86ft long wooden platform on the foredeck of the obsolete light cruiser USS BIRMINGHAM. He then contacted the Wright Brothers to attempt to "take off" from this platform. The Wrights refused!

Captain Chambers next contacted America's second most famous aviator—Mr Glenn Curtiss. Mr Curtiss courageously persuaded a student pilot, Mr Eugene Ely, to attempt the stunt.

On 14/11/1910, Ely rose off the deck of USS BIRMINGHAM and flew to Hampton Roads Va. where he landed safely. The world now knew that a Curtiss Biplane could operate from a ship. The next question was, "could the pilot get back on board safely?" This question was answered on 18/1/1911 in San Francisco Bay on board the armoured cruiser USS PENNSYLVANIA. A 140 foot platform had been erected on the stern of the vessel and Ely was to land a Wright Pusher on this platform while the ship lay at anchor. The method he chose to achieve this feat was very prophetic.

Ely arranged to have 22 lines erected astwritehship. The lines were raised about 12m above the deck and separated 3ft apart along the beam.

A 50ft sandbag was hung from the ends of each line. Three "arrester hooks" on the landing gear were to "catch" these lines so that the drag could halt the forward motion of the airplane. But in case the lines failed to do their job, a canvas "bounce-off" screen was also provided.

As Ely approached the small deck at nearly 50 mph, the fast cai'h had too much altitude. Ely crossed nearly 86ft of deck before a hook finally caught the 12th line. Fifty feet later, the landing was deemed a success. Ely had landed in 86ft of distance! Aircraft carriers were (now) a possibility!

Ely received no compensation for either his risks or his feat. The (US) Secretary of the Navy did write him a letter expressing his gratitude, but that was all. History does not record whatever else Mr Ely may have done. He simply fades away.

Glen Curtiss, now returned to the foreground. He equipped his biplane with floats and on 7/7/1911 landed beside the PENNSYLVANIA. The biplane was hoisted aboard, placed on a droppable trolley and took off again. Curtiss' round trip from Horn Island to the PENNSYLVANIA and return to Horn Island proved that the seaplane had the range to operate with ships. But for better or worse, the US Navy did nothing further about this.

Lord "Jackie" Fisher is the next hero of this story. The innovator of the dreadnought wanted to repeat Captain Chambers experiments for the Royal Navy.

At this time, a Mr Frank B. McClean of the Eastchurch Aero Club offered his services and a Model 27, 50hp, Short Pusher biplane. The offer was gratefully accepted and Lt Charles R. Samson (RN), Arthur Longmore (RN), Reginald Gregory (RN) and Eugene Gerrard (RMC) were seconded for the purpose. The obsolete battleship HMS AFRICA was made available for modification and a take-off ramp (winch tracks) was constructed on her forecastle.

The training programme, which began in March 1911, was completed rapidly. Samson, Longmore, Gregory and Gerrard became the first pilots in the Royal Navy.

Also available was a Model 27, 50hp, Short Pusher biplane. This aircraft could mount three, airbag pontoons as well as wheels and could land on or rise from either water or land. Lt Samson used this airplane.
In 1912, the Admiralty had wisely organised the Royal Naval Air Service. However, the RNAS did not become fully operational until July 1st, 1914. The RNAS became responsible for Coast Defence. But when war came, none of the RNAS aircraft were considered to be suitably combat-proven.

The first Zeppelin raid was over, the Squadron Commander Charles Samson was ordered to patrol the coast channel from Newcastle to 100 miles around. For this task, he selected the aircraft in their squadrons' wooden hangars and dropped a bomb against the Zeppelin sheds at Cuxhaven.

The Zeppelin raid was a failure. While the Zeppelin sheds were not destroyed, an inaccurate bomb landed near them. The shed was not particularly damaged, but the German airships had been warned that their targets were safe.

However, the Zeppelin raid was a failure. While the Zeppelin sheds were not destroyed, an inaccurate bomb landed near them. The shed was not particularly damaged, but the German airships had been warned that their targets were safe.

The new era in warfare had arrived on the scene. The Royal Navy was given the choice: Dirigibles, seaplane carriers, or aircrat carriers.
Submarines will form a significant part of Australia's deterrent capability for many years to come and plans are well advanced for the design and construction of a new class of conventionally-power ed (diesel) submarines to replace the existing six OBERON-class vessels in the nineteen-nineties. It is necessary however to think even further ahead and in this regard the Navy League established a small group of members with appropriate qualifications to consider the advantages or otherwise of introducing nuclear-powered submarines into the RAN.

The paper published hereunder was prepared by Mr Peter Scott-Talbot, formerly Managing Director of Vickers Australia Ltd, and a member of the team involved with the construction of the British VALIANT-class submarines; Rear Admiral Andrew Robertson, RN, who retired from the RAN as Assistant Chief of the Naval Service Command, 1982, after a distinguished career in the RAN; and Tom Miller A. W. Graebe, RN, well-known writer on naval affairs.

IMPORTANT DECISIONS TO BE MADE

Over the next year or so Australia must take a decision on the type or types of new submarines to be built for our Navy. The decision must look well forward and encompass much wider issues than the replacement of the six OBERON-class submarines now ordered will enter service in the 1990s and can be expected to operate in the navy until 2020 or more. They must be not only operationally highly effective, but must also give Australia a maximum chance of survival in the face of the advancing technology of the 21st Century.

The question must therefore be posed whether conventional submarines or nuclear powered submarines should be adopted. Both types have enjoyed success and may be expected to have a role in the future of our armed forces. However, the requirements of the future may not be the same as those of the past and hence the very question of their adoption must be thoroughly examined.

The question is not only one of the best submarines for the Royal Australian Navy but also of the most effective way of providing a credible deterrent to any potential aggressor, thereby ensuring the safety and tranquillity of our citizens and the continued advancement of our nation. It is time serious, well informed and unemotional decisions are made on this vital question.

Preliminary decisions in other countries

The question of nuclear submarines has been discussed for many years. During the 1950s and 1960s there were conflicts within the Royal Australian Navy regarding the introduction of nuclear submarines. By the late 1960s, however, it was generally agreed that the introduction of nuclear submarines was necessary to ensure a credible deterrent to any potential aggressor.

Two major nuclear submarines are currently in service in Australia, the HMAS WARRAMUNDA and the HMAS WARRAMUNDA II. The former was commissioned in 1970, and the latter in 1980. Both submarines are nuclear-powered and are capable of diving to greater depths than conventional submarines.

The advantages of nuclear submarines

Nuclear submarines have several advantages over conventional submarines. They are quieter, allowing them to stay submerged for longer periods, and they are more efficient, allowing them to travel longer distances without surfacing.

The disadvantages of nuclear submarines

Nuclear submarines also have some disadvantages. They are more expensive to build and maintain, and they are more complex to operate. Additionally, there is the issue of nuclear proliferation, as the technology required to build nuclear submarines could be used for other purposes.

Conclusion

In conclusion, the question of whether Australia should have nuclear submarines or conventional submarines is a complex one. Both types of submarines have advantages and disadvantages, and the best option will depend on the specific requirements of the Royal Australian Navy and the potential threats it may face.

It is important that the Royal Australian Navy and the Australian government carefully consider all the factors involved before making a decision on this vital question.
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HMAS STIRLING

Written and compiled by VIC JEFFERY
Navy Public Relations Officer
Western Australia

(Photos taken by POPH STEVE GIVEN and ABPH ERIC PITMAN)

Captain James Stirling, RN, the man who landed on the island in 1827 and again in 1829 to found, not only the first settlement in Western Australia, but also the first free settlement in Australia. The name HMAS Stirling was chosen to honour this man. The base's crest is based on the Stirling family coat of arms.

Alongside the destroyer wharf during Exercise Kangaroo '83 are four RAN and USN destroyer-type ships. A propeller from the formerly WA-based hydrographic survey ship HMAS DIAMANTINA is in the foreground.

HMAS Stirling from the air with the causeway linking Garden Island to the mainland in the background.

HMAS STIRLING SUPPLEMENT

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HMAS Stirling from the air with the causeway linking Garden Island to the mainland in the background.
Stirling Saw The Charms

GARDEN ISLAND in Western Australia was a haven for seals and penguins in the early 19th Century. "I have found reason to admire a magnificent sound (Cockburn Sound) between that island and the main, possessing great attractions for a sailor in search of a port," wrote Captain James Stirling after assessing the area in 1827. The first record of Garden Island appeared on a Dutch map compiled in 1700 after William Vlaming's three-ship Rotterdam visited Rottnest Island in 1698, Captain Thomas Arrowsmith and Gardens Islands were charted.

Nobody showed any interest in the area until 1772. Then the Frenchman, Captain De St Alouarn, in the ship Le Gros Ventre, claimed the entire west coast for France - an act, the British conveniently chose to ignore.

This was followed by a scientific expedition in 1801-02 under the command of Captain Nicholas Baillon. Australia's south-west coast was carefully mapped with the names of Geographe Bay, Cape Naturaliste and Point Peron being survived today. But the two islands named Bauche and Berthollet had their names changed to the more familiar Garden and Carnac by Captain Stirling.

Cockburn Sound's islands were well known to the sailors who had operated along the west coast since the turn of the century.

In 1826 Major Lockyer [here is King Sound (now Albany)] arrived with the number of attractions and destinations that the sailors who hunted for seal on Carnac and Rottnest Islands found. They had heard of Aboriginals down on the mainland, killing the men and abducting the women.

During the French scare of 1827 Captain Stirling anchored off the west coast of Swan River in HMS SUCCESS north of the sound which he named after Sir George Cockburn.

March 15 saw Stirling examine the sound and express the area's great potential.

Stirling left HMS SUCCESS at her anchorage and devoted the next four days to a close study of the sound and the islands.

When Captain Stirling returned in 1829, he had been given command of the new Swan River Colony. His grant of 100,000 acres included Garden Island together with such livestock as may be found on it, a legacy of the 1827 visit.

HMS CHALLENGER under the command of Captain Fremantle anchored off the west coast of Garden Island on April 24, 1829. The ship was moored at the mouth of the Swan River, now the port named after him.

Between June and July that year, Garden Island was the temporary home of more than 200 settlers, impatiently awaiting the allocation of their land grants on the mainland.

June 10, 1829 was a day of both rejoicing and sorrow. On board HMS SULPURI, Jane Mitchell, wife of a drummer in the 3rd Regiment, gave birth to a son - the first birth in the colony.

On the same day a sailor named William Parsons from HMS CHALLENGER died on Garden Island as the result of being accidentally killed at Woodman's Point on the mainland.

In early 1829, the 63rd Regiment, gave birth to a son - the first birth in the colony.

Between Woodman Point on the mainland and the northern end of Garden Island jarring piles were driven 5 metres into the sea bed. The piles, in clusters of four, were spaced about 100 metres apart to carry submerged nets across the entrance to Cockburn Sound.

A boom gate was built across the Parmelia Bank channel to admit shipping into the Sound.

In 1900 her masts and rigging were dismantled and the steel was used for scaffolding. Mounds of this steel was visible on the 3 kilometres separating the mainland from the island.

The work involved three stages, defences against enemy submarines to subside the northern and southern approaches to the Sound and a channel to be dredged through the Parmelia Bank to admit shipping.

Five dredges were used - four having been brought from the eastern States to assist. The crews lived onboard and worked 14 hours a day, seven days a week for the two years it took to complete the job, however, the work was completed.

The memory of the British wartime submarine HMS PORPOISE is perpetuated at HMAS Stirling with the road circling the base's oil fuel installation named Porpoise Loop, HMS PORPOISE, Fremantle anchored off the west coast of Swan River in 1829.

This was because in the northern end of Careening Bay in 1831. As late as 1900 her masts and rigging were dismantled and the steel was used for scaffolding. Mounds of this steel was visible on the 3 kilometres separating the mainland from the island.

When this hurdle was dismantled after the war, the submarine was sold for scrap. Iron bars from the ship were used to construct a. The ship was used for years as the base of the British Submarine School.
GARDEN ISLAND, the home of HMAS STIRLING, and former island paradise for those who had holiday cottages there, very nearly became an island suburb.

Around 1907, the southern portion of the island was subdivided into blocks of about one acre and offered for sale at prices, which today, seem incredibly ridiculous.

The prices started at eight pounds ($10) a lot and the terms offered by the selling agents, Peel and Co., were very attractive. For one pound ($2) deposit and ten shillings ($1) a month, a purchaser could own a choice piece of land close to where HMAS STIRLING stand to-day.

Contracts of sale for the freehold land were drawn up and the terms offered by the selling agents, Peel and Co., were very attractive. For one pound ($2) deposit and ten shillings ($1) a month, a purchaser could own a choice piece of land close to where HMAS STIRLING stand to-day.

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GARDEN ISLAND, the home of HMAS STIRLING SUPPLEMENT

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October 1984
THE NAVY
and reinforcing bar - were landed at Sulphur Bay and on May 3 Captains Hogg for the Medical Corps surveyed a site for camp hospital on the island. May was a very busy month with a 48mm Bofors gun being landed and placed in position. 60,000 bricks and blue metal, machinery, cement, hospital equipment and timber landed in large quantities for construction.

The first shoot by the 4-inch gun battery was a success. 11 rounds were fired at a splash target. Personnel of the 75th Army Hospital unit arrived to establish camp hospital and the 28th Field Engineers marched in to a water tank system. Exercises were carried out at the Warnbro range - starting a bushfire!

A 3.7-inch gun was situated on the south-east end of the island to cover the boom defence net which extended across to Point Peron. This remained on the island until the late 1960s. Work commenced on the two largest guns on the island - mounted large 9.2-inch guns which had a designed range of 34,000 yards using a 3801b projectile. It was October 16, 1943 before the 155mm guns of "J" Battery were proofed, firing a 10201 projectile. Then work commenced on the two largest guns on the island which were situated on Scrivener Hill on the centre west side of the island.

Known as Scrivener Battery, they consisted of two single-mounted large 9.2-inch guns which had a designed range of 34,000 yards using a 3801b projectile. They were never fired as work stopped on their construction late in 1944 with the war receding towards the Japanese mainland. The guns were in position, but the underground magazines and powerhouses attached to them were never completed. The guns were sold locally for scrap in 1962 when the Coastal Artillery was disbanded.

"F" Battery was withdrawn from the island in December 1944. When the guns came ashore on the mainland a final shoot was carried out at the Warnbro range - starting a bushfire!

Today, only a few overgrown concrete mountings, rusting circular steel rails and crumbling pillboxes and observation posts remain to remind us of Garden Island's role in the wartime defence of the Port of Fremantle.

THE MOTHBALL FLEET

In the immediate postwar years between 1945 and 1957 there were as many as eleven RAN warships laid-up in reserve in the sheltered water of Careening Bay, the present site of the Royal Australian Navy fleet support facility, HMAS Stirling.

With the end of hostilities in 1945, the Navy quickly set about reducing its numbers as men returned to civilian life. Like all allied navies, Australia had many fine ships surplus to peace-time requirements, therefore Reserve Fleet detachments at various points around Australia. One was designated to the ideally sheltered Careening Bay at Garden Island in Western Australia. Apart from the River Class frigate, HMAS LACHLAN, the other ships were corvette/minesweepers, of the Bathurst class. The first of these to arrive was HMAS HORSKHAM on 23rd November, 1945, closely followed by HMAS GLENELG on 12th December. It was another twelve months before the third ship, HMAS PARKES arrived on 31st December, 1946.

Units attached to the Fremantle Reserve Fleet Detachment were HMAS PARKES tally-bands and a posting to the detachment was known as a posting to HMAS PARLETS. The detachment was commanded by Lieutenant Commander Keith Gibson, RANR for ten years from 1946 to 1956.

Ironically one young officer attached to Garden Island in 1944 was Lieutenant Neil Boase who had the pleasure of coming back 30 years later to Commission the magnificent HMAS Stirling complex as NOCWA.

The fourth Corvette, HMAS BENALLA arrived at Garden Island on 16th January, 1947. It was followed by HMAS TWOSVILLE a week later. Twelve months later on 16th January, 1948, HMAS Ships DELORAINE, ECHUCA, KATOOMBA, LITHGOW and MILDURA berthed at North Wharf, Fremantle. Three of these vessels were together again after sinking the first Japanese submarine by the RAN. This occurred off Darwin on 20th January, 1942. When HMAS Ships DELORAINE, KATOOMBA and LITHGOW successfully depth-charged the large submarine I-124 four months later while she was depth-charging a Freycinet Class submarine, they had lost their lights in the Exercise.

Interestingly you officer attached to Garden Island in 1944 was Lieutenant Neill Boase who had the pleasure of coming back 30 years later to Commission the magnificent HMAS Stirling complex as NOCWA.

The last ship to arrive was the biggest, the frigate HMAS LACHLAN. She proceeded to Garden Island on 6th December. HMAS LACHLAN was only at Garden Island for six months, in which time a great deal of effort went into her maintenance with the view, by the officers and men of the detachment that she was going to make a fine headquarters ship.

This was not to be, for she was taken back into Fremantle on 4th May, 1949, and transferred to loan to the Royal New Zealand Navy in August and later purchased outright by New Zealand.

HMAS MILDURA left Careening Bay after nearly three years in reserve when she was taken to Fremantle where she was re-commissioned as a training ship for national servicers in the WA area, in February 1951. She went back into reserve on 15th July, 1953, when replaced by a sister ship, HMAS JUNEE.

The next ship to leave Garden Island was HMAS ECHUCA on 5th April, 1952, when she departed under tow by the Fleet tug HMAS RESERVE, bound for Melbourne where she was...
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afternoon No maintenance crews had been onboard and neither aground on a sandbank. The two ships had been driven against when HMAS HORSHAM and HMAS TOWNSVILLE ran aground in 1955. In 1957, both ships were towed to the Dutch tug OOSTZEE and later sold for scrap on 20th February, 1958.

Before another ship left, this time HMAS MILDURA in tow by TOWNSVILLE were towed out by the Dutch tug OOSTZEE. The former lighthouse ship CAPE OTWAY and the corvette MELBOURNE were sold for scrap on 20th February, 1958. On 9th January, 1957 HMAS SPRIGHTLY, bound for Melbourne Queensland before being broken up in 1965.

The end of two fine ships in Careening Bay, Garden Island in 1966. The former lighthouse ship CAPE OTWAY and the corvette MELBOURNE were sold for scrap on 20th February, 1958.

As announced earlier in the year, the firm of Maunsell and Partners, consulting engineers of Melbourne, was engaged by the Department of Works to report on the feasibility of establishing Naval Support facilities for the RAN in Cockburn Sound, Western Australia.

The Minister for the Navy (Mr Don Chipp) said today that in accordance with the terms of their engagement, the firm had submitted a report on the first phase of the study, namely a comparison of the possible sites in Cockburn Sound for the proposed facility.

Selection of the precise site is an essential preliminary to progress on the balance of the task, as the question of site obviously must be determined before work proceeds on the preparation of detailed design studies and master plans and the production of cost estimates.

The consultants report on the site is currently being considered by the Department of Works and the Department of Navy. When this has been determined, the consulting engineers will continue with their assignment, and their final report is not expected to be ready before the end of this year or the early part of next year.

As the Prime Minister stated, the results of this investigation will be the essential basis for further consideration of the project by the Government.

A BASE BACK TO NATURE

The commissioning of the Royal Australian Navy support facility HMAS STIRLING on 28 July, 1978, was the case of third time lucky for a West Coast naval base.

Two previous decisions, one Australian, one British, to construct a much needed naval base in Cockburn Sound foundered through war-caused circumstances.

The first was the ill-fated Henderson naval base which was to be situated in Cockburn Sound in the Woodman Point area on the mainland.

The Commonwealth Government commenced work on the project in 1921 and this proceeded until the outbreak of World War One in 1914 saw construction suspended, with little to show for the considerable amount of money outlaid.

The second attempt was by the British Admiralty in the dark days of 1942 after the fall of Singapore when Britain was looking for an anchorage for its Far Eastern Fleet and selected Cockburn Sound as a suitable site, with its wide expanse of deep water and the fact that it could be secured against submarine and air attack. In 1944, the tide of the war had turned against Japan and the project was halted once more.

In 1966, the Federal Government announced that an investigation into the feasibility of establishing a Naval Support Facility for the RAN on Garden Island in Cockburn Sound would commence. In May 1967, the Department of Construction, in conjunction with a firm of civil and marine engineering consultants, commenced feasibility studies and the report was completed in November, 1967.

In November, 1969, the Government announced the intention to begin planned development of the facility, with the first stage being construction of a causeway from Cape Peron on the mainland to Parkin Point on Garden Island. The Causeway Project was then referred, as a separate package, to the Parliamentary Committee on Public Works in September, 1970. A favourable report was tabled in Parliament in October that year.

The Department of Construction was appointed by the Government to be the Design and Construction Authority for the Facility. Construction of the Causeway began in January, 1971, and was completed in June, 1973, within the time scale and estimated costs planned for the project. The Causeway cost $9.5M and is four kilometers long, with two bridge sections allowing for the movement of tidal waters to maintain the ecological balance of Cockburn Sound.

The Support Facility had originally been programmed for completion in December, 1973. However, in 1972, construction of some sections was deferred, postponing the completion date to December, 1978. This completion date was later accelerated to mid-1978. Construction of the wharves and workshop areas began early in 1973 and accommodation in 1975.

The name HMAS STIRLING was selected to honour Captain James Stirling, the naval officer who first landed on Garden Island in 1826 and founded the first Western Australian settlement in 1829. All roads in STIRLING are named after English and French navigators associated with Western Australia, and in the armament depot, after the names of allied submarines lost during World War II.

HMAS STIRLING was formerly commissioned on 28 July, 1978 when the Naval Officer Commanding WA Area at that time, Commodore N. A. Boase, RAN, in the presence of the Minister for Defence, The Hon. N. V. Killen, MP, and the then Chief of Naval Staff Vice Admiral A. M. Symon, AO, CBE, RAN, read the Commissioning Order.

Thirty-Six on the mainland and were down to 700 on the island in 1978, to preserve its soil and enhance the wildlife's habitat. An extensive environmental review was carried out before construction commenced on the island. This recognized the fragility of the island and its environment and the necessity to preserve it. Around 500,000 trees and shrubs were planted to stabilize the soil and enhance the island's habitat and environment. Eight percent of the island is still open to the boating public, but people must leave by sunset each day. The nocturnal Tammar wallabies which are almost extinct on the mainland and were down to 700 on the island in 1978, are a protected species and great caution is exercised on Garden Island to ensure they are undisturbed.

The Royal Australian Navy has gone to great lengths to preserve Garden Island since the commissioning of HMAS STIRLING and the planning of the space for both the Royal Australian Navy (RAN) and the Royal Australian Air Force (RAAF) was undertaken in 1962-63.

The entrance to the explosives area of the RAN Armaments Weapons and Equipment Depot on the northern end of Garden Island. The entrance is flanked by two former Royal Navy Harwich shells as is the entrance to the non-explosive area. HMAS STIRLING has been constructed to provide maintenance support to four destroyers and three submarines as well as assistance to naval vessels visiting or refitting in the Fremantle Cockburn Sound area. Ships berthed at HMAS STIRLING have the rare opportunity to shut down all major machinery and equipment, as STIRLING's wharves have "plug-in" facilities which can supply a wide range of electrical power, variation, salt water, fresh water, distilled water, steam, compressed air, lubricating oil, telephone and discharge facilities for sewage and oil.

HMAS STIRLING's workshops are fitted with the facilities required for the performance of maintenance on the wide range of equipment found in a modern warship. These diverse abilities cover many areas from electronics and optics, to precision machining and the heavy steel plate work required for ships' hull repairs.

Behind the scene, STIRLING has modern accommodation, recreation and sporting facilities: a small, but well-appointed hospital; and a computerised stores supply system which is the life-blood of the repair organisation.

The management of the Base is divided into four functional departments which are:

- Administrative which provides management of the day to day operations of the Base and includes the personnel services division.
- Technical which provides technical assistance to home ported, base ported and visiting ships; planning co-ordination and supervision of contract refitting of ships; and maintenance of base equipment.
- Supply which encompasses all aspects of supply support to the base and attached ships. This includes stores, victualling, clothing and personnel services.
- Naval Police who provide naval assets with physical security, as well as emergency services and fire fighting protection to the whole of Garden Island.

HMAS STIRLING is an extremely popular rest and recreation port for US Navy submarines. Rather ironically, many of the visiting submarines carry the names of US submarines which operated out of the Port of Fremantle during World War Two.

October 13, 1981, saw a major step forward for the RAN in Western Australia when the Naval Support Commander, Rear Admiral Andrew J. Robertson, AO, DSC, RAN, officially opened the new $38M RAN Armament and Equipment Depot on the northern end of Garden Island. Covering an area of 47 hectares, the new depot replaced the 39 year old Byford depot which was originally built for the British Admiralty in 1942.

In his opening address, Rear Admiral Robertson made reference to "the growing realisation of the need to stand on our own feet and to ensure adequate maritime defence of both major coasts." Tuesday, February 8, 1983, saw another major step forward.
for HMAS STIRLING when Captain D. R. O. S. Fox, AM, RAN assumed command as the first independent captain of the fleet support facility. Prior to that date, the Naval Officer Commanding WA Area had also commanded HMAS STIRLING. With the expansion of the base and increased activity in the Indian Ocean, the time had come to separate the two positions.

On July 21, 1983, the Department of Defence Support handed over control of the new $1 million recompression chamber installed at HMAS STIRLING, after successfully completing acceptance trials. Construction of the chamber had been carried out at the Government Ordinance Factory at Melbourne in Victoria.

Late 1983 saw the completion of two storage tanks at the base's oil fuel installation which were handed over in early 1984. The long time dream of home-porting destroyers on the west coast came to fruition on January 20, 1984 when the recently modernised destroyer escort HMAS STUART arrived as the first home-ported destroyer to be based at HMAS STIRLING, it was joined by the new Fremantle class patrol boat HMAS GERALDTON on February 17th. Already based at HMAS STIRLING were the hydrographic survey ship HMAS MORESBY and the Attack class patrol boats HMAS ASSAIL and the Reservist manned HMAS ADROIT. The new 550 tonne tug QUOKKA arrived on February 5 from Portland in Victoria and the 200 tonne medium lug TAMMAR.

The accommodation, messing and recreational section of HMAS Stirling was launched at Australian Shipbuilding Industries yards in Cockburn Sound on March 10. Planned for arrival in 1985 is a second destroyer escort and another Fremantle class patrol boat HMAS BUNBURY, which will replace the older HMAS ASSAIL.

Described once by a visiting senior officer as "being one of the jewels of Australia's defense", HMAS STIRLING continues to live up to its motto of "Go Forward".

Notable Dates...

PRE-COMMISSIONING

11 August, 1975. The guided-missile destroyer HMAS HOBART became the first ship to berth in the HMAS STIRLING destroyer wharf.

21 August. The submarine HMAS OXLEY became the first submarine to berth at the submarine wharf. It was in company of the Daring class destroyers HMA ships VAMPIRE and VENDETTA.

19 April, 1976. Flagship of the US Seventh Fleet, the guided-missile cruiser USS OKLAHOMA CITY berthed at the destroyer wharf and became the first foreign warship to visit the facility.

14 August. Amid a tight security screen the US nuclear-powered submarine USS SNOOK came alongside for a five day visit and became the first nuclear-powered AND FOREIGN SUBMARINE TO VISIT.

17 October. HMAS SWAN came alongside the destroyer wharf and became the first ship to plug into shore supplied, through the wharf services.

11 November. The destroyer tender HMAS STALWART accompanied by the destroyer escort HMAS TORRENS came alongside for a seven day visit.

22 November. Task group alongside - HMA ships SUPPLY, STALWART, STUART and TORRENS alongside for a 24 hour stop-over.

4 December. HMA ships SUPPLY, STUART and VAMPIRE paid a four day visit to the island.

January-March quarter, 1977. HMA ships MORESBY, CURELEW, IBS and the patrol boat HMAS ATTACK made visits.

27 August. The RANR-manned patrol boat HMAS ACUTE paid its first visit to its soon to be new home.

30 November. The submarine, HMAS DIAMANTINA, made its first visit.

21 June, 1973. The RAN's newest submarine, HMAS ORION, paid a four day visit to the base.

26 July. HMAS STUART arrived for HMAS STIRLING'S commissioning two days later, little knowing that five years later it would be the first home-ported destroyer at the base.

28 July. Commissioning Day. Ships alongside - HMA ships SUPPLY, STALWART, STUART, TORRENS and VAMPIRE.

28 August. The RANR-manned patrol boat HMAS ACUTE paid its second visit to the base.

30 November. HMA ships MORESBY, CURELEW, IBS and the patrol boat HMAS ATTACK made visits.

27 August. The first foreign warship to visit the base, USS OKLAHOMA CITY seen berthing at the destroyer wharf on 19 April, 1976 — two years before commissioning.

AUSTRALIAN

4 MAY 1972

Russians 'spy' on naval base

A Russian intelligence agent was spotted last week at a weekend cruising spot in the vicinity of the naval base at Garden Island, western Australia. The agent was later identified as Mr. V. Sh. Ullah, a 36-year-old submarine officer from the Russian Navy.

On Sunday, Mr. Ullah was seen on a yacht at Garden Island, where he is known to have a close friend. According to Mr. Ullah, his friend was a former Submarine officer from the Russian Navy.

On Monday, Mr. Ullah was again seen on a yacht, this time accompanied by a group of Russian officials.

The Russian officials, who were accompanied by a camera crew, spent several hours at the base, apparently studying the facilities.

The presence of the Russian officials caused concern among naval personnel, who were aware of the sensitive nature of the base's activities.

Despite the concern, the Russian officials were allowed to continue their visit, and they were seen leaving the base later in the day.

The Russian government has denied any involvement in the incident, and has expressed its concern about the presence of the Russian officials at the base.

The incident has caused speculation about the nature of the Russian mission, and has raised questions about the level of security at the base.

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POST COMMISSIONING

• 7 August, 1978. The US Navy nuclear-powered guided-missile cruiser USS TRUXTON became the first nuclear-powered and foreign warship to visit HMAS STIRLING since commissioning.
• 27 November. The patrol boat HMAS ACUTE was brought forward from reserve and re-commissioned at HMAS STIRLING's small boats harbour.
• 5 January, 1979. The Naval Officer Commanding WA Area and Commanding Officer of HMAS STIRLING, Commodore Neil Boas retired after a 40 year career.
• 29 January. Commodore Robert Percy assumed command as NOCWA and Commanding Officer of HMAS STIRLING.
• 19 April. USS TUNNY became the first nuclear-powered US submarine to visit since commissioning.
• 23 May. The Dutch frigate KORTENAER came alongside to change a gas turbine. This was the first Netherlands ship to visit HMAS STIRLING and the first ship to undergo this type of maintenance.
• 9 July. First visit by the Royal Navy when the frigates HM Ships DIDO and FALMOUTH came alongside.

17 September. The first National Parks Ranger was appointed on the island.

1 October. The much loved “Grey Ghost of the West Coast” HMAS DIAMANTINA departed for the last time after a 20 year career on the west coast to the strains of “Don’t Cry for Me Argentina (Diamantina).”

6 October. The first wedding in the HMAS STIRLING Chapel.

5 November. First visit by a Malaysian warship when frigate HANG TUAH (formerly HMS MERMAID) came alongside.

29 December. The Governor General Sir Zelman Cowan visited HMAS STIRLING.

17 September. HMAS DERWENT came alongside for 17 days of repair to storm damage in the Great Australian Bight.

3 September. The submarine HMAS OTAMA also came alongside to repair storm damage sustained in the Bight during Sandgroper ‘80.

10 October. The Royal New Zealand Navy survey ship TUI came alongside for a 24 hour stopover and became the first Kiwi to visit the facility.


11 October. The submarine HMAS ONSLOW became the first submarine to offload its torpedoes at the HMAS STIRLING facility prior to its slipping in Fremantle the following week.

13 October. Rear Admiral Andrew J. Robertson, AO, DSC, RAN, officially opened the Garden Island Armament Depot.

16 March, 1982. For the first time in HMAS STIRLING’s history the base had three patrol boats alongside at the island.

17 September. HMAS DIAMANTINA departed for the last time after a 20 year career on the west coast to the strains of “Don’t Cry for Me Argentina (Diamantina).”

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1 April, 1980. Two US Navy nuclear-powered submarines alongside for the first time, HADDOCK and LOS ANGELES.

24 June. The guided-missile destroyer HMAS BRISBANE became the first destroyer to be base-ported at HMAS STIRLING.
Forty-Two

**HMAS STIRLING SUPPLEMENT**

They were the Attack class ACUTE, ASSAIL (from Darwin refitted) and the RANR-manned BARRICADE. 14 May, Commodore David Orr replaced Commander Robert Percy as NOCWA and Commanding Officer of HMAS STIRLING. 20 May, HMAS BARRICADE transferred to Indonesia and became KRI SIGALD. 18 July, Exercise Beacon South which saw 1000 US Marines living in tents within HMAS STIRLING’s boundaries on Garden Island. Two US support vessels, the water tanker MV PATRIOT and equipment carrying MV LYRA came alongside during the exercise to offload and reload. 25 October, The destroyer escort HMAS SWAN became the first ship to use the RAN Armament and Equipment Depot explosives wharf when it de-stored prior to slipping in Fremantle. 2 December, The patrol boat HMAS AWARE was transferred to the Adelaide Port division of the RANR after refitting at HMAS STIRLING. 22 December, Assisted by the RAN, the WA Maritime Museum covered the wreck of the former American whaler DAY DAWN located in the HMAS STIRLING small boats harbour in Careening Bay. The 360 ton wreck was covered with 400 cubic metres of sand to preserve its timbers.

8 February, 1983, Captain Daryl Fox assumed command as the first independent Commanding Officer of HMAS STIRLING. Prior to this date the position was held by NOCWA. 21 March, The guided-missile frigate HMAS CANBERRA became the first FFG to berth at HMAS STIRLING, ironically on the ship's second birthday. 21 July, The new $1 million re-compression chamber installed at HMAS STIRLING was handed over. 28 July, The facility's 5th Birthday with the Commanding Officer, Captain Fox and the youngest sailor, Seaman Michael Vidulich (17) cutting the commemorative cake. 26 August, HMAS ADROIT transferred to the Fremantle Port Division of the RANR. The recently modernised HMAS STUART, at HMAS Sirting from January 1984.

22 September, The guided-missle destroyer HMAS HOBART had the distinction of being the 100th visitor since STIRLING'S commissioning. 23 October, Open Day, Navy Week '83. A record crowd in excess of 15,000 swarmed over the base and warships alongside. 20 January, 1984, HMAS STUART berthed at the base and became the first home-ported destroyer at HMAS STIRLING. 5 February, The new naval tug QUOKKA (110 tonnes) arrived from Victoria. 17 February, The new Fremantle class patrol boat HMAS GERALDTON arrived at HMAS STIRLING as first of her class to be based there. 10 March, The new naval tug for HMAS STIRLING, the 300 tonne TAMMAR was launched by Mrs Judith Orr, wife of the NOCWA, Commodore David Orr at the yards of Australian Shipbuilding Industries in Cockburn Sound.

**US CRUISERS IN THE THIRTIES**

In previous issues we have reviewed the publications “US Aircraft Carriers” and “US Destroyers Illustrated Design Histories, both by Norman Friedman. The latest book in the series is “US Cruisers”, as usual with ships drawings by A. D. Baker, III.

Three profile drawings from the new publication, courtesy of the artist, are reproduced here. (US Cruisers: An Illustrated Design History, 588 pages, 250 illustrations including 50 line drawings, 8½” x 11”. Published by Arms & Armour Press (UK) and the Naval Institute Press (USA).)

INDIANAPOLIS and her sister PORTLAND (CA32) epitomised US Navy-cruiser design concepts of the late 1920s. Displacing 11,579 tons on her trials, she could achieve 32.7 knots on the 107,000 horsepower delivered to her four propellers. Heavily modified during World War II, INDIANAPOLIS frequently served as the Regalia of Admiral Raymond A. Spruance. While returning from delivering atomic weapons to Okinawa, the ship was sunk by a Japanese submarine on 29 July 1945, the last US Navy major combatant casualty during World War II. Drawing by A. D. Baker III, from Norman Friedman, US Cruisers. An Illustrated Design History, published by the Naval Institute Press, Annapolis MD 21402.

WICHITA, launched on 16 November 1937 at the Philadelphia Navy Yard and commissioned on 16 February 1938, was the only ship of her class, essentially being a heavy cruiser version of the light cruiser Brooklyn class, with nine 8-in guns in three turrets instead of fifteen 6-in guns in five turrets. The 13,700-ton full-load displacement, 609-ft. 4-in-long ship served as a prototype for the new heavy cruisers of the Baltimore class and saw extensive service in both the Atlantic and Pacific during World War II. CA 45 was placed in reserve on 15 July 1946, was stricken from the Navy List in 1958, and later scrapped. Drawing by A. D. Baker III, from Norman Friedman, US Cruisers. An Illustrated Design History.

PENSACOLA and her sister SALT LAKE CITY (CA 25), were the first “Treaty” cruisers built for the US Navy after the Washington Naval Treaty of 1921. Commissioned on 11 December 1929, CA 24 carried ten 8-in guns in four turrets — one more such gun and one more turret than any later US Navy “heavy” cruiser. CA 24 initially also carried trainable torpedo tubes and had four 3-in anti-aircraft guns. Extensively modified, the ship saw arduous World War II service and the 1948 Bikini A-Bomb tests, finally being sunk as a target on 10 November 1948. Drawing by A. D. Baker III, from Norman Friedman, US Cruisers. An Illustrated Design History.
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2. H.M.S. 'COTTERMORE' — Hunt Class Mine Counter Measure Vessel now in service with the Royal Navy. She is in service with the Royal Navy. A further five Type 22 Frigates are also under construction by Yarrow.
3. H.M.S. 'SIR GALAHAD' — A large minesweeper. She has minesweeping equipment.
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NAVAL ROUNDUP

NAVY'S NEW SUPER GUN IN ACTION

One of the most important lessons to emerge from the Falklands conflict was the need for the modern warship to have the capability to defend itself effectively against air and ship-launched sea-skimming missiles such as the EXOCET.

SYDNEY, the RAN's latest guided missile frigate (FFG), is fitted with the PHALANX Close In Weapon System (CIWS) which is designed as the last line of defence against such missiles.

On 29th June, SYDNEY demonstrated the effectiveness of her PHALANX in trials off Jervis Bay. The system engaged a Delmar target towed by an A4G Skyhawk of the Fleet Air Arm. A large number of hits were scored on the first firing run and the target was destroyed.

The PHALANX Close In Weapon System employs a six-barrel 20mm Gatling gun with a rate of fire of 3000 rounds per minute. It is automatically aimed and fired to provide a quick reaction, automatic, defence against sea-skimming missiles. A unique feature of the CIWS is its ability to measure the amount by which the bullets are missing the target: the system then adjusts the point of aim to eliminate that error. In this way, PHALANX has a very high success rate against small targets.

Three other RAN FFGs, H.M.S. ADELAIDE, CANBERRA and DARWIN will also be fitted with PHALANX CIWS.

EXERCISE RIMPAC 84

Eighty ships, 250 aircraft and more than 50,000 sailors, airmen and marines participated in the five-nation maritime exercise Rimpac 84 during late May and June.

The five "Rim of the Pacific" nations participating were Australia, New Zealand, Canada, Japan and the United States. Australia was represented in the exercise by the ships SUPPLY, ADELAIDE, and PARRAMATTA, the submarine OXLEY and OVENS, three RAAF P3C Orion, and one RAAF B707 transport aircraft.

Rimpac 84, the ninth in a series of significant international maritime exercises of the same name, and the third to include Japanese units of the Maritime Self Defence Force, was held in both southern California waters and mid-Pacific areas.

The aim of the exercise, which came under the overall co-ordination of the Commander Third Fleet, Vice Admiral Donald S. Jones, USN, was to improve the tactical capabilities of participating nations and enhance international maritime understanding.

HMAS SYDNEY's super gun in action. Hundreds of 20mm bullets were fired against the Delmar target. (Photo — ADF Keith Cole, RAN)

USS MAHLON S. TISDALE during Rimpac 84. (Photo — RAN)

USS WILLAMETTE, a Rimpac 84 participant. (Photo — RAN)
COMMISSIONING OF NEW HELICOPTERS

Senior Defence officials attended a commissioning ceremony at RAAF Base Fairbairn, ACT, on 22nd May, to mark the introduction into RAN and RAAF service of 24 Aerospatiale AS350B3 (Squirrel) helicopters.

MINISTER KILLS CARRIER SPECULATION

The Acting Minister for Defence, Mr Kim Beazley, announced on 22nd June, that speculation about the purchase of a helicopter carrier for the Royal Australian Navy was inaccurate and misleading.

Referring to an article in the Canberra Times of 22 June, Mr Beazley said that any inference that the government was giving further consideration to the purchase of an anti-submarine helicopter platform was incorrect.

"It is public knowledge that the Navy has been directed to develop contingency plans to provide a seagoing platform for Sea King helicopters, but I emphasise that there is no intention to implement such plans unless our strategic situation were to significantly deteriorate.

Approaches have been made to Navy by a number of companies with interests in shipbuilding and conversion. This is perfectly understandable given the surplus of merchant shipping now available and recent developments overseas." Mr Beazley said.

HARPOON MISSILE SHOT ON TARGET

In Canberra the Chief of Naval Staff, Vice Admiral D. W. Leach, said news of the successful missile firing confirmed that in a comparatively new arena of naval warfare the RAN had the capability and had developed the expertise to confidently move into the new missile era of the 80s.

He said that because the Harpoon was a highly sophisticated and very expensive weapon, few opportunities were presented to RAN ships to test their capabilities. When the opportunities did arise, it was gratifying that the RAN could report a 100 per cent success rate.

Nine of the 24 helicopters had already arrived at Fairbairn, with the remaining 15 expected by the end of the year. The ceremony included a formation fly-past of the Squirrel helicopters, followed by a single aircraft-handling demonstration.

Of the 24 helicopters, 18 will replace the RAAF's Iroquois UH-1B models as training and search and rescue aircraft, and six will be used by the RAN for light utility work. Some of the six are likely to embark on the Navy's new FFGs as an interim arrangement, subject to successful trials.
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HMAS GEELOM COMMISSIONED
The Navy patrol boat, HMAS GEELOM, was commissioned into the RAN at a ceremony in Cairns on Saturday, 2nd June.

GEELOM is the twelfth of fourteen Fremantle class patrol boats to be built by North Queensland Engineers and Agents P/L of Cairns.

The patrol boat is 42 metres long, displaces 220 tonnes and has a ship's company of 22 under the command of LEUT Harold Hicmam. LEUT Hickman was born in Geelong and joined the RAN in 1967. He was commissioned in 1971.

FAREWELL FLIGHT FOR TRACKERS
Seven S2 Grumman Tracker anti-submarine warfare aircraft from the Royal Australian Navy staged farewell flights over Sydney and Canberra in early June to mark the end of operations with the Fleet Air Arm, scheduled for 15th June. After that date, all fixed-wing air support for the Fleet is provided by the RAAF.

"The Trackers have made a remarkable contribution to the nation during their 16 years of service in the RAN," the Chief of Naval Staff, Vice Admiral D.W. Leach, said. "They have flown more than 67,000 hours on a variety of tasks — anti-submarine operations and training, coastal surveillance, oil rig patrols, search and rescue missions and Fleet support."

"It is a tribute to the aircrews and maintainers that in all that time only one aircraft has been lost in a flying accident."

"Even more remarkable is that there has been no single fatality — a record which bears testimony to the skills of all concerned with their operations."

Vice Admiral Leach said that although fixed-wing flying ceased at the end of June, this did not mean the end of the Fleet Air Arm.

"The Government has given assurances that the Navy's helicopter force would continue to expand. I am confident that the Fleet Air Arm will continue to provide a valuable contribution to the Fleet, and the nation, in the best traditions of Australia's naval aviation," he said.

"The former Royal Navy aircraft, and later commando carrier, HMS BULWARK leaving Portsmouth, May, 1984, to be broken up.

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European Spotlight
Photos courtesy: Wright & Logan
HMS OPOSSUM. March, 1964. Celebrates 21 years this year and to mark the occasion she has had a facelift. Sporting her new Australian-style sonar dome makes the vessel the first of the newly designated Opossum class submarines.

One of the new Dutch Standard class, PHILIP AN ALMONDE, visiting Portsmouth, March, 1964.

Philot-built Egyptian missile corvette (fast patrol boat), AL BATNAH, during trials. A small helicopter is resting atop the platform aft.

Two views of the new Belgium frigate WESTDIEP, taken February, 1964, during a training period at Portland. Note the Exocet launchers aft of the mainmast.

REMEMBER THE GOOD OLD NAVY

The Dutch guided missile frigate DE RUYTER arriving Portsmouth.

One of the new Dutch Standard class, PHILIP AN ALMONDE, visiting Portsmouth, March, 1964.

Two views of the new Belgium frigate WESTDIEP, taken February, 1964, during a training period at Portland. Note the Exocet launchers aft of the mainmast.
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**NEW LUXURY YACHT LAUNCHED**

Martindale Ready For Cruise Soon

Before she took the water from Searles' slip, Birkenhead, yesterday, the new luxury motor yacht built for Mr J. T. Mortlock, commodore of Port Adelaide Sailing Club, was christened Martindale by Mrs R. F. Mortlock, mother of the owner.

The launching was witnessed by a large crowd, and, with a piny of visitors on board, toasts were honored and tributes paid to the product of South Australian craftsmanship.

The Martindale will be ballasted and provisioned, and the finishing touches applied, while she is at her moorings, in preparation for a several weeks' cruise of South Australian ports by Mr Mortlock and a party of friends. The trip is expected to begin in about a fortnight's time, after the yacht has been through her trials.

**Martindale 1963**

**Features:**
- NON EXPLOSIVE
- VARIABLE CONTROL
- SOFT START
- AUTO LIMIT SWITCHES
- DUAL BRAKING
- COMPACT & LIGHTWEIGHT
- LOW HEADROOM
- PENDANT OR CORD CONTROL

**CAPACITIES**
- 500-5000KG
- 140-100,000g

**Fine Craft**

The Martindale is a single-screw cruiser, 66ft long, with a beam of 14ft 2in and a draught of 5ft 1in. An interesting feature is that more than 30 natural-grown "knees" were used. They are of myall timber from Mr Mortlock's station in Central Australia. A spacious and well ventilated compartment is provided to accommodate a crew of three.

There are two staterooms, one of which was designed for the owner's use. Both rooms have 6ft 6in of headroom, and are replete with every convenience, including reading lamps, wardrobes, electric fans, and bookshelves. The saloon is a spacious compartment in the afterpart of the yacht, and has sleeping accommodation for four. The saloon, staterooms, passage, and vestibule are panelled with mahogany and coloured engravings of celebrated sailing ships of the past adorn the saloon. A wireless set capable of picking up all Australian broadcasting stations is installed in the saloon. The kitchen contains every modern convenience, including an

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**HMAS MARTINDALE during the Second World War**

**MARTINDALE ANNIVERSARY**

MEMBERS of the original wartime crew of the converted luxury yacht MARTINDALE gathered in Sydney in mid-July to recreate their departure for the battle zone in 1944.

This 40th anniversary commemoration not only involved the Second World War vessel and seven of the crew, but also the identical departure point used in 1944. In that year the 20-metre craft left Sydney for New Guinea waters (including some uncharted areas), to carry out air-sea rescue duties. MARTINDALE picked up seven airmen who had been forced down off Goodenough Island during this period.

Built in 1932 for the wealthy South Australian Mortlock family, who lived in Martindale Hall at Mintaro, the 56-tonne yacht was amongst the most luxurious of her type. The following excerpts are reproduced from contemporary newspapers.

**NEW LUXURY YACHT LAUNCHED**

Martindale Ready For Cruise Soon

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Worth doing,
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DULUX Super Gloss is an interior paint with a really glossy finish, but water based, which means it's easy to use. With Dulux Super Gloss, you don't get the smell or long drying time of oil or baked paint, and your brushes come clean in water.

MARTINDALE GIVEN TRIAL RUN
Everything Satisfactory With Pleasure Yacht

The new luxury motor yacht Martindale, owned by Mr J. T. Monlock, the commodore of the Port Adelaide Sailing Club, made its first trial trip yesterday afternoon. The course was from the sailing club's mooring at Birkenhead, where the craft has been lying since she was launched about a week ago, to the Hoigamton's anchorage off Semaphore. The average speed of the vessel was eight and a half knots.

The craft was taken to the anchorage in the open sea to test her seaworthiness against the tide and the wind, and, according to her owner, the trial was a complete success.

"Her engines were not run full out at any stage," said Mr Monlock. "Some time will elapse before I do that, because I want them to be properly run in. Marine engines must be properly nursed if the best results are to be obtained from them."

He added that the sailing capabilities of the Martindale were not tested during the trip, that would be done later.

Mr Monlock was accompanied on the cruise by the master (Captain R. A. Tapley), and Messrs E. Searle, who was one of the designers of the craft, R. T. Searle (the builder), and V. A. Richards (an engineering expert).

At the end of next week it is proposed by Mr Monlock to take the Martindale on an extended cruise to the islands in Spencer Gulf and then on to Port Lincoln. The Martindale, which will be the flagship of the Port Adelaide Sailing Club, cost approximately £4000. She is fitted with all the latest equipment for pleasure cruising. She can carry enough fuel for a 1200 mile cruise.

MARTINDALE was requisitioned in 1943 by the RAN, but little is known of her fate after the war. The present owner is Sydney businessman Victor Nash, who came across the vessel in classified advertising which listed her for sale in a rather sorry condition. Mr Nash is painstakingly restoring this fine old craft to her 1930s splendour.

As part of the 40th anniversary celebrations he received permission to depart from the same wharf used four decades ago. Moreover, MARTINDALE flew the same White Ensign which signalled her departure for Milne Bay in 1944. As an added incentive, he is offering the same White Ensign to any serving naval personnel who can prove their identity. The Martindale is expected to be completed by the end of the month.

In the meantime, the Martindale will be fitted with a new electric refrigerator, and the bathroom has a full-size bath and shower with hot and cold water. She is driven by a semi-diesel engine, and the oil bunkers will carry 300 gallons, sufficient for a cruising range of 1200 miles. The steering wheel is of teak, part of which came from the old gunboat Protector and part from a yacht at one time owned by a former King of Norway.

July 19 1982

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THE NAVY

Page Fifty-Five
THE NAVY
October, 1984
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On 6 June she returned to San Carlos to continue unloading stores and remained there until 12 June. She looked after 20 casualties and 170 tons of stores. ATLANTIC CAUSEWAY had but the installations were much improved. As she was to carry Harrier, LOX plants were installed: reverse A/C fresh water generators were fitted; the AVET system had a tank farm of four tank containers and an AVCAT pump room in a 40ft container; and a number of smaller works were carried out such as converting a swimming pool into a bathroom. Her modifications took 871 man-weeks of work in five days before she sailed from Devonport on 20 May carrying six helicopters and 6500 tons of stores and equipment.

At Ascension she carried out Harrier deck landing trials and embarked four Harriers and three more helicopters. She then joined up with the carrier battle group on 13-14 June as hostilities ceased. She discharged her cargo in Port William, finding it relatively easy through her side opening ramps and with her two 8-ton cranes and helicopters assisting.

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October, 1984

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October, 1984 THE NAVY

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Page Sixty

Dear Mr Gillett,

I am firmly in favour of Australia possessing an efficient navy and indeed have some strong family connections with the RAN and RN both in World War I and World War 2. In the latter war I made several attempts to enlist in the RAN but failed to get outside my reserved occupation as a mineworker.

To meet the most urgent need for addressing our naval needs lies in Indonesia and the obvious lack of any US or ANZUS response should we become the object of that military dictatorship's aggression. While I don't accept the USSR at its own valuations, neither do I accept what might be deemed as our own posture, vide alliances based on anti-Sovietism which are indeed hollow reeds to anyone who cares to look objectively at facts. Anti-Sovietism as distinct from legitimate criticism of Sovietism which on the same level as legitimate criticism of the so-called Free World has always led to damaging results, vide Spain, Munich, the Free World has always led to damaging results, vide Spain, Munich, the

Yours sincerely,

JIM COMERFORD

Dear Sir,

I am prompted to write in this vein following the John Bird piece in your issue of July 1984. Why do we not simply tell the Soviets to take a "toss up" whether Mr H. Batt, aged 93, of East Gosford, or I, aged 90, is the "earliest living person" who joined the Commonwealth Naval Forces. I joined at the now non-existent Williamstown (CEREBUS) Naval Depot on 30th April, 1909, and understand that Mr Batt "brought out" (so the old marlins say) the battle-cruiser AUSTRALIA, in October, 1914.

Sadly, one never thought he would live to see - because of circumstances beyond its control - the gradual drift of the RAN away from the RN mother which gave it its birth and infant nurture. and is indeed have some strong family connections with the RAN and RN both in World War I and World War 2. In the latter war I made several attempts to enlist in the RAN but failed to get outside my reserved occupation as a mineworker.

Yours sincerely,

R. S. VEAL, Commander RANR Retd.

Page Sixty-One

C.A.S.A.

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HMS WELLINGTON RETURNS TO SERVICE

(All Photographs courtesy Photographic Section, HMNZS PHILOMEL)

HMS WELLINGTON, 1984

WELLINGTON in the Calliope drydock, Auckland, during her post-Royal Navy refit. The main 4-5-inch turret, all aerials and minor armament has been removed.

Back in December, 1982, some enterprising crew member aboard WELLINGTON attached the above sign to the frigate.

October, 1984

THE NAVY

Page Sixty-Three
Saturday, 17th June at 2 pm saw a marvellous turn out of distinguished guests, parents and cadets for the official presentation of the recently purchased Zodiac rescue craft.

The President of the Navy League Albany (Jan Hawkins) officially handed over the Zodiac to Commanding Officer TS VANCOUVER, SBLT Reitze who expressed thanks on behalf of Staff and Cadets.

Following the presentation of the Zodiac rescue craft by the Navy League the cadets launched their boats from off the slipway beach and gave an impressive display of their sailing skills. The main item being formation sailing behind the Zodiac with Mr Crimp, the sailing master, acting as commodore, and PO Mrs T. Madden as coxswain of the rescue craft.

The four boats with Leading Seaman Hinge, Shirley, Waghorn and Heaney as coxswains proceeded under flag signals from the commodore to sail, firstly, in line astern until they were directly out from the beach, when they turned and sailed directly to the beach, where all the spectators were present, maintaining a line abreast formation until, at the given signal they broke left and right in a Prince of Wales feather formation.

Following the formation sailing and after some individual display of sailing skills, they all carried out capsize drill showing their abilities to right their craft safely.

On returning to the Unit afternoon tea was served by the ladies of The Navy League. Later in the evening a casserole tea was held at the Unit, this was also very well attended.

Recently two of our Cadets LS John Waghorn and LS Tim Shirley have joined the ranks of apprentices at HMAS NIRIMBA, NSW. We wish them both every success for their future.

THE NAVY LEAGUE OF AUSTRALIA

Notice is hereby given that the Annual General Meeting of The Navy League of Australia will be held at the National Press Club, Canberra, on Friday, 16th November, 1984 at 8 pm.

BUSINESS

(1) To confirm the Minutes of the Annual Meeting held in Melbourne on Friday, 11th November, 1983.

(2) To receive the report of the Federal Council and to consider matters arising therefrom.

(3) To receive the financial statements for the year ended 30th June, 1984.

(4) To elect Office-Bearers for 1984/85 as follows:
   (a) Federal President
   (b) Federal Vice-Presidents (2)
   (c) Auditor

   Nominations for these positions to be lodged with the Honorary Secretary prior to the meeting.

(5) General Business: To deal with any matter notified in writing to the Honorary Secretary by 2nd November, 1984 by order of the Federal Council.

J. H. H. PATERSON,
Honorary Federal Secretary.

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THE NAVY

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