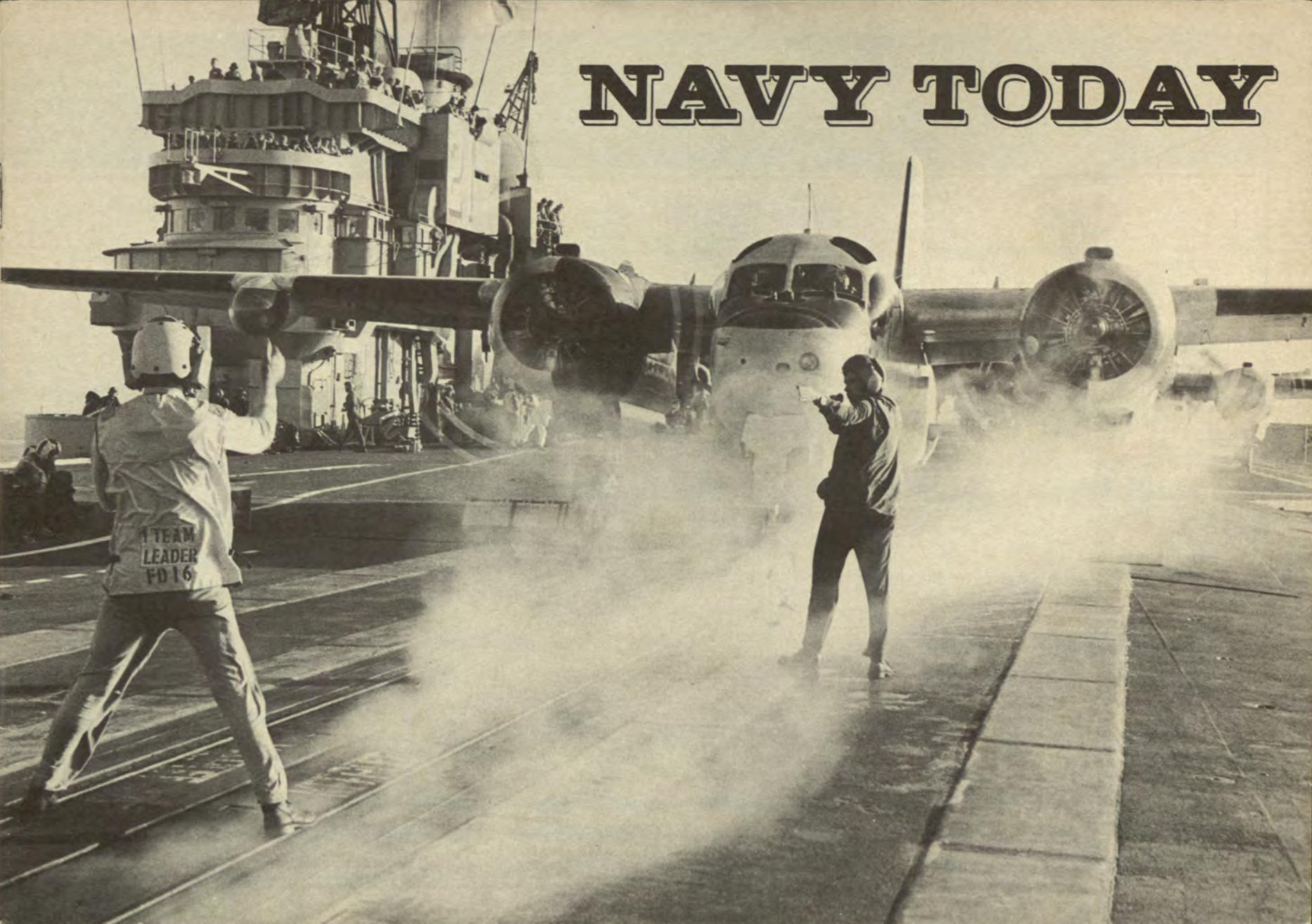


NAVY TODAY



SHIPS OF THE ROYAL AUSTRALIAN NAVY

Flagship



MELBOURNE

First Australian Destroyer Squadron (DDG).



PERTH



HOBART



BRISBANE

Second Australian Destroyer Squadron (DD).



VENDETTA



VAMPIRE

Third Australian Destroyer Squadron (DE).



YARRA



PARRAMATTA



STUART



DERWENT



SWAN



TORRENS

NEW CONSTRUCTION: Survey Ship (1), Guided Missile Frigates (3), Heavy Lift Ship (1), New Patrol Boats (15).

First Australian Submarine Squadron



OXLEY



OTWAY



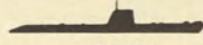
ONSWLOW



OVENS



ORION



OTAMA

First Australian Mine Countermeasures Squadron



SNIFE



CURLEW



IBIS

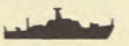
Australian Patrol Boat Squadrons



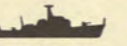
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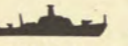
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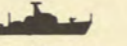
ARDENT



ATTACK



AWARE



BARRICADE



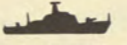
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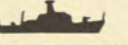
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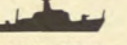
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BARBETTE



BUCCANEER



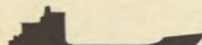
BAYONET

First Australian Training Squadron

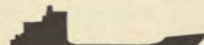


JERVIS BAY

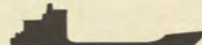
First Australian Landing Craft Squadron



BALIKPAPAN



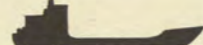
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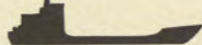
LABUAN



TARAKAN



WEWAK

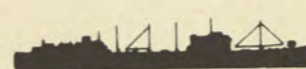


BETANO

Support ships



STALWART



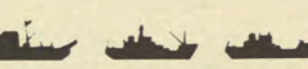
SUPPLY



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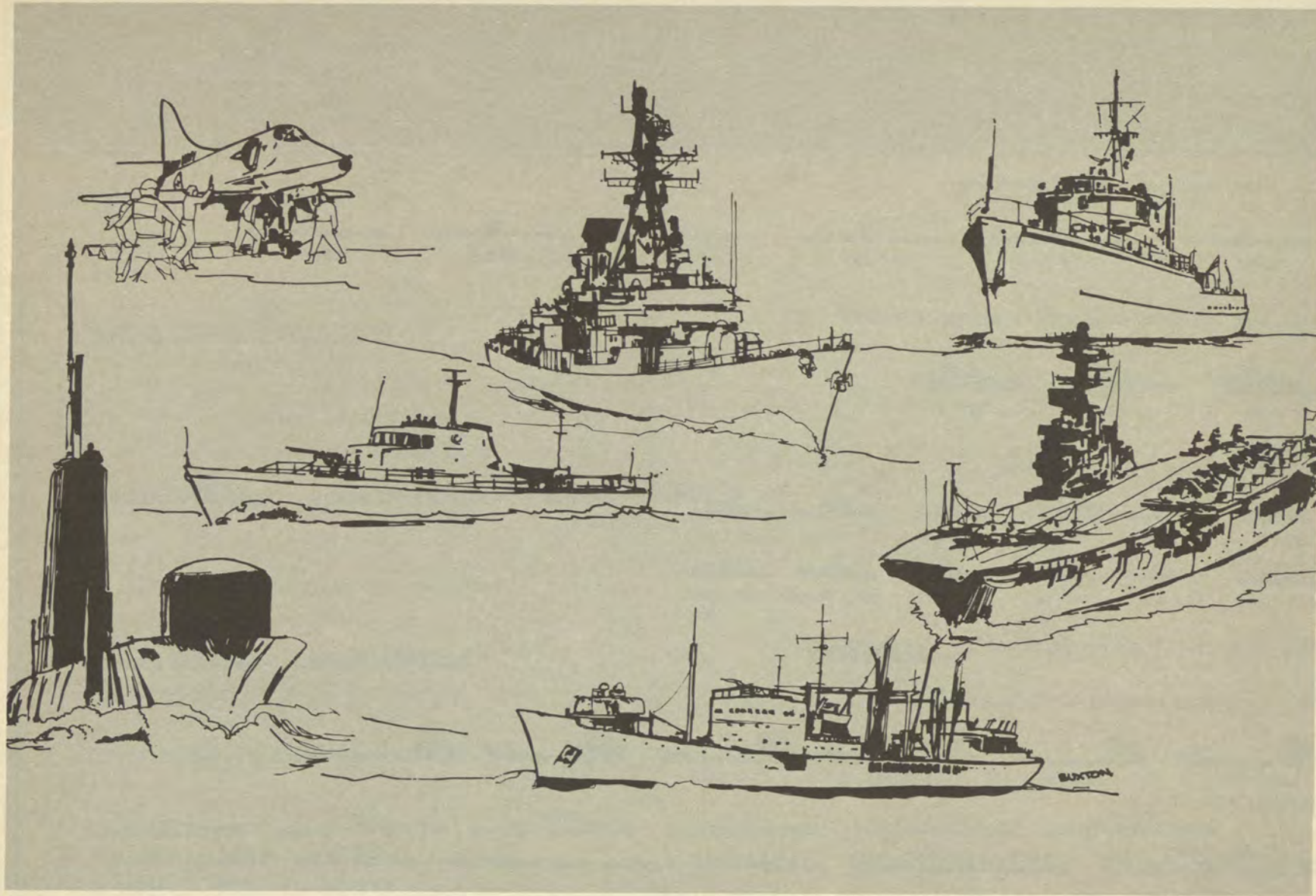
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BANKS



Navy today

Although not large, the Royal Australian Navy compares well with navies of other middle powers. It is well armed and trained, technically advanced, and possesses a wide range of capabilities.

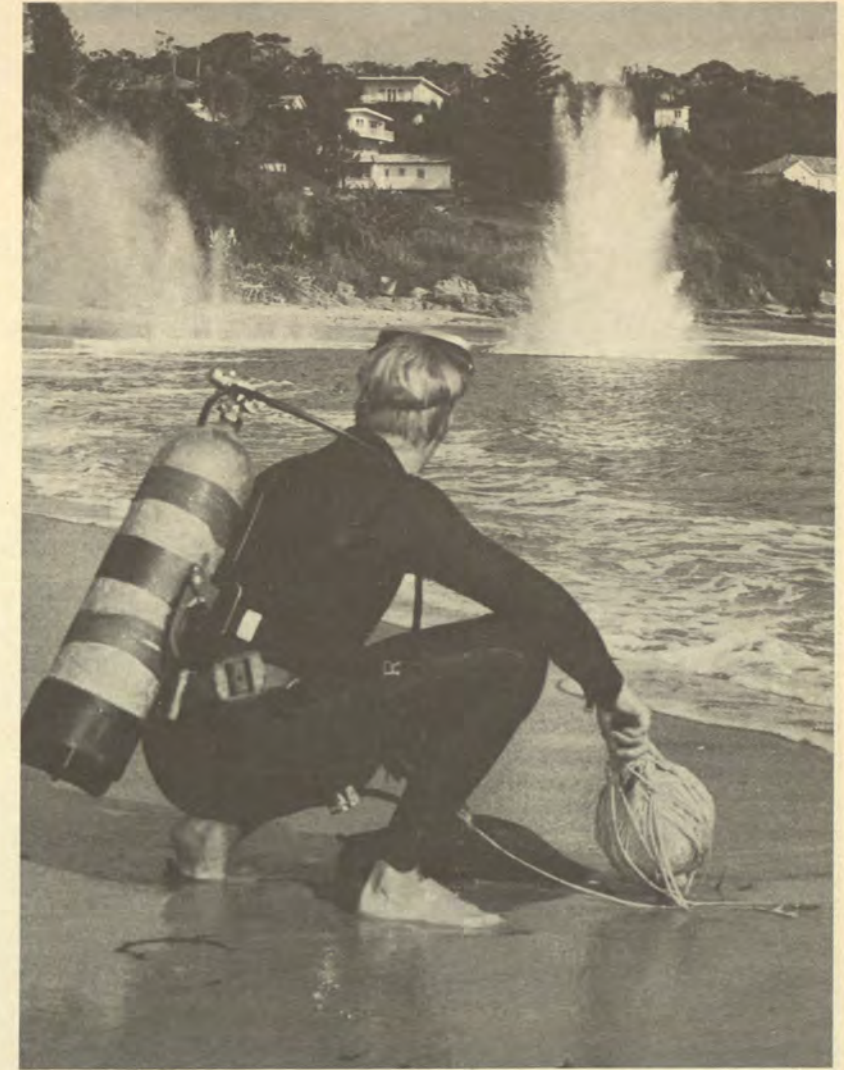
The main objective is to maintain a balanced general-purpose capability to meet all possible future operational situations. The present Fleet has capabilities in all facets of naval operations including interdiction, surface and anti-submarine warfare, naval air operations, surveillance and patrol, mine counter-measures, hydrography and oceanography and support for the other Services such as naval gunfire support and sea transport.

Briefly, the Navy's role is as follows:

- To organise, train and equip naval forces, including naval aircraft, for combat operations at sea;
- To provide naval support for land operations;
- To provide military sea transport support for the Australian Services; and
- To provide seaward defence of ports and anchorages.

In peacetime the Navy maintains operational effectiveness in the capabilities required for the above functions, including the maintenance of an effective standard for joint operations with the Army and the RAAF. In addition, as much as possible, the Navy contributes to national development and assists the civil population.

The ships and aircraft required to perform these tasks are described on the following pages.



A clearance diver at work. Clearance divers carry out a wide variety of tasks, including the demolition of underwater obstacles. Two teams, one of which is assigned to the Fleet, are based in Sydney, and one in Western Australia.

Aircraft carrier

Name	No.	Builder	Laid Down	Launched	First Commissioned
MELBOURNE	21	Vickers-Armstrong Barrow-in-Furness	15/4/43	28/2/45	28/10/55

Displacement 20,320 tonnes

Length 217.7 metres

Beam 24.5 metres

Armament 12 (4 twin, 4 single) 40/60 mm
Bofors

Machinery Parsons single reduction geared
turbines, 4 Admiralty 3-drum type
boilers

Speed More than 20 knots

Ship's Company 1,335 (includes 347 Carrier Air
Group personnel)

Aircraft Douglas Skyhawk A4G jet fighter-
bombers

Grumman Tracker S2G ASW
aircraft

Westland Sea King Mk 50 ASW and
SAR helicopters.

Westland Wessex SAR and utility
helicopters.

The light aircraft carrier HMAS *Melbourne* is the Royal Australian Navy's flagship.

With her Skyhawk and Tracker fixed-wing aircraft and Sea King helicopters, *Melbourne* combines aerial defence of the Fleet with her anti-submarine role.

She also has a formidable strike capacity which can be directed against either maritime or shore targets and can give ground support to the Army.

Melbourne embarked her present generation of fixed-wing aircraft in 1969 after an extended refit which included modifications to aid flying and aircraft handling.

In 1971 the ship received a rebuilt catapult, strengthened flight deck and other changes.

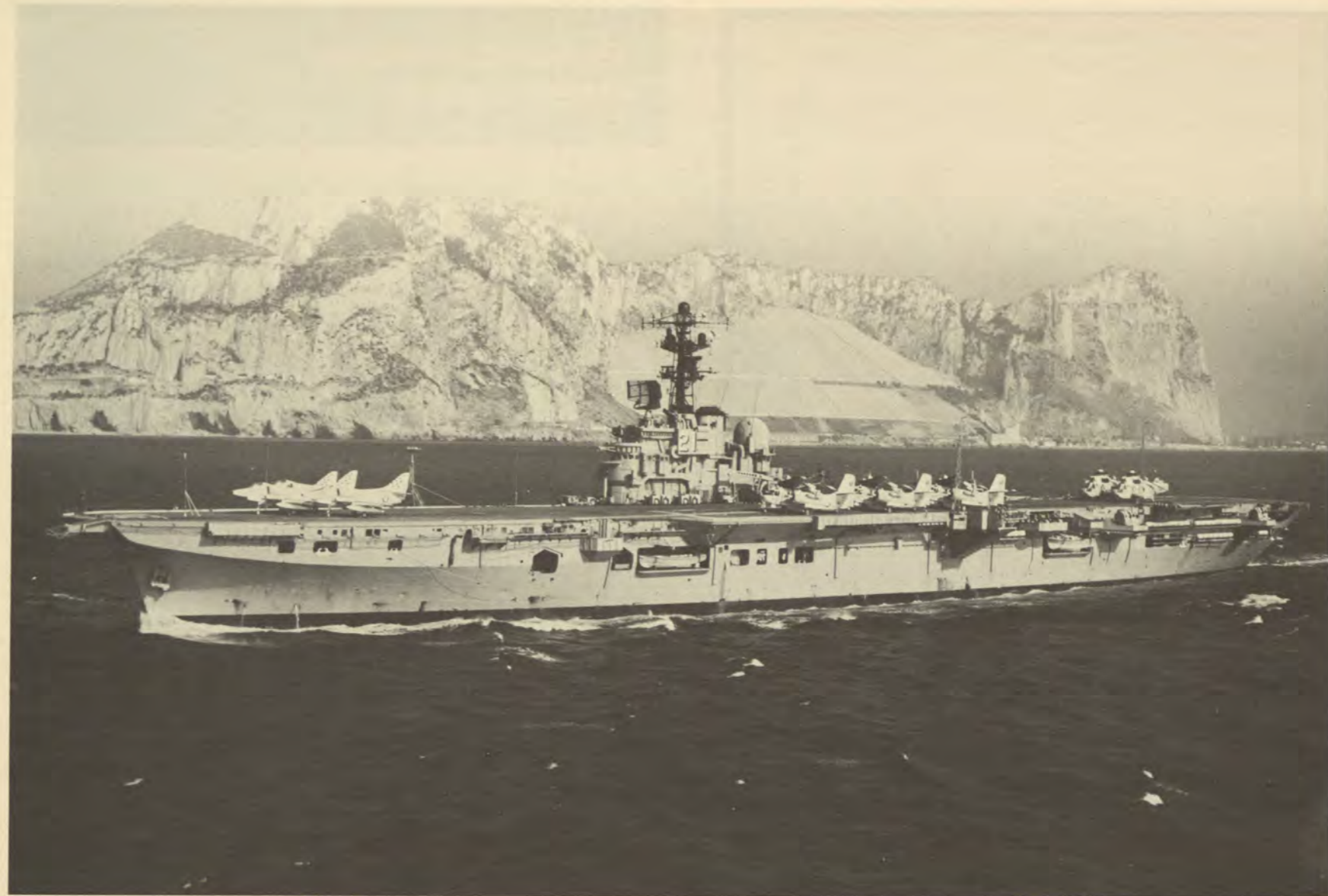
Sea King helicopters replaced the Wessex as the front-line anti-submarine helicopter in 1976. Wessex are retained in the search and rescue and utility role.

Melbourne was laid down in 1943 as HMS *Majestic*, at the same time as HMS *Terrible* (later HMAS *Sydney*) and was launched in 1945.

With the end of World War II, work on *Majestic* stopped pending a decision on future requirements. Arrangements were then made for the ship to be taken over by the RAN and renamed HMAS *Melbourne*.

Construction resumed in 1949 with modifications including increasing the size of the flight deck lifts to handle larger aircraft and later fitting an angled flight deck, steam catapult and mirror landing system.

Melbourne was commissioned into the RAN on 28 October 1955 and after working up in British waters with her Sea Venom and Gannet aircraft she sailed for Australia, arriving in Sydney on 10 May 1956.



Guided missile destroyers

Name	No.	Builder	Laid Down	Launched	First Commissioned
PERTH	38	Defoe Shipbuilding Co Bay City Mich	21/9/62	26/9/63	17/7/65
HOBART	39	Defoe Shipbuilding Co Bay City Mich	26/10/62	9/1/64	18/12/65
BRISBANE	41	Defoe Shipbuilding Co Bay City Mich	15/2/65	5/5/66	16/12/67
	Displacement	4,580 tonnes			
	Length	133.2 metres			
	Beam	14.3 metres			
	Armament	Two 5 inch automatic rapid fire guns. Guided Missile Fire Control System MK74 MOD 8. Two Ikara anti-submarine missile systems. Two sets triple mounted anti-submarine homing torpedoes.			
	Machinery	Two GE geared steam turbines driving two shafts			
	Speed	More than 30 knots			
	Ship's Company	333			

The three guided missile destroyers—HMA Ships *Perth*, *Hobart* and *Brisbane*—make up the RAN's First Destroyer Squadron.

The US-built ships are similar to the US Navy's DDG-2 class and their design is particularly versatile.

Their main task is air defence of the Fleet, but they also have formidable anti-submarine and surface gunnery capabilities.

The principal aircraft defence weapon is the MK 74 MOD 8 Guided Missile Fire Control System capable of firing either Tartar or Standard missiles from a launcher located near the stern.

The DDGs are also fitted with two Ikara missile launchers. This long-range anti-submarine system is Australian—designed and developed. The missile is automatically guided to the vicinity of a hostile submarine where a torpedo is released by parachute to home on the target.

The ships are fitted with modern long-range sonar, radar, communications and electronic equipment to provide the command with comprehensive information.

Living spaces are air conditioned.

All three ships saw action in Vietnam where they served with distinction with ships of the US Navy's 7th Fleet.

Perth completed a weapons system update in September 1974 at Long Beach Naval Shipyard in the United States. *Hobart* underwent a similar update at Garden Island Dockyard, Sydney, completing this in April, 1978.

Brisbane commenced her update at the Dockyard in October 1977 and is scheduled to complete in March 1979.

Perth, *Hobart* and *Brisbane* are the names of former RAN cruisers.



Destroyers

Name	No.	Builder	Laid Down	First Com- Launched	missioned
VENDETTA	08	HMA Naval Dockyard Williamstown	4/7/49	3/5/54	26/11/58
VAMPIRE	11	Cockatoo Island Dockyard Sydney	1/7/52	27/10/56	23/6/59
Displacement	3,670 tonnes				
Length	118.9 metres				
Beam	13.1 metres				
Armament	Six 4.5 inch dual purpose guns in twin turrets, two forward, one aft. Six 40/60 mm Bofors guns. Triple-barrel anti-submarine mortar				
Machinery	Parsons double reduction geared turbine, driving two shafts				
Speed	More than 30 knots				
Ship's Company	321				

The Royal Australian Navy's Second Destroyer Squadron is made up of the Daring Class destroyers HMA Ships *Vendetta* and *Vampire*.

These all-purpose warships have main gunnery armament comparable to a light cruiser, giving them formidable surface gunnery as well as anti-aircraft capabilities.

Anti-submarine detection equipment and weapons increase their versatility.

Vampire and *Vendetta* were built in Australia.

The ships are all-welded and light alloys have been used extensively in their construction to reduce weight.

In 1969, *Vendetta* became the first Australian-built warship to serve in Vietnam. She had the distinction, as a result, of being the first Daring Class destroyer to engage in the role for which the ships were primarily built—naval gunfire support.

Half-life modernisation of *Vampire* and *Vendetta*, completed in 1971 and 1973 respectively, included fitting new gun turrets, fire control systems, new aircraft warning and navigation radar, re-equipping the operations centre, enclosing the bridge and replacing a major part of the superstructure.

Communications equipment was renewed and living conditions on board considerably improved.

The original *Vampire* and *Vendetta* served with distinction in the 10th Destroyer Flotilla, known as the "Scrap Iron Flotilla", in World War II.



Destroyer escorts

Name	No.	Builder	Laid Down	Launched	First Commissioned
YARRA	45	Williamstown Dockyard	9/4/57	30/9/58	27/7/61
PARRAMATTA	46	Cockatoo Island Dockyard	3/1/57	31/1/59	4/7/61
STUART	48	Cockatoo Island Dockyard	20/3/59	8/4/61	28/6/63
DERWENT	49	Williamstown Dockyard	16/6/58	17/4/61	30/4/64
SWAN	50	Williamstown Dockyard	18/8/65	16/12/67	20/1/70
TORRENS	53	Cockatoo Island Dockyard	18/8/65	28/9/68	19/1/71
Displacement	2,750 tonnes				
Length	112.8 metres				
Beam	12.5 metres				
Armament	Two 4.5 inch guns in twin turret controlled by digital fire control radar and computer. Seacat anti-aircraft missile system. Ikara anti-submarine missile system. Triple-barrel anti-submarine mortar (except Yarra).				
Machinery	Geared steam turbines developing 22,370 kw				
Speed	More than 30 knots				
Ship's Company	250				

The Royal Australian Navy has six Australian-built destroyer escorts forming the Third Australian Destroyer Squadron.

The newest ships, HMA Ships *Swan* and *Torrens*, incorporate many improvements over the earlier River Class HMA Ships *Yarra*, *Parramatta*, *Stuart* and *Derwent*.

All the ships are armed with twin 4.5 inch guns which are used with digital fire control radar and computer.

The guns can be used for shore bombardment or can provide fire power against air or surface targets.

Close-range air and surface defence is provided by the Seacat missile system which is controlled by a separate radar and computer.

The Seacat missile system was developed in Britain and has been adopted by a number of navies.

A submarine threat can be met by using either the Australian-designed and built Ikara anti-submarine missile system, or the triple-barrelled mortars carried on all the escorts.

Ikara is a rocket-propelled guided missile which carries a homing torpedo towards its submarine target. The torpedo is dropped into the sea by parachute and is then acoustically homed on the submarine target.

All the ships in the squadron except *Derwent* carry the names of former RAN destroyers and sloops.

Five of the ships in the squadron are to be extensively modernised. Work commenced on *Parramatta* in 1977. HMAS *Yarra* underwent a half life refit in 1977.



Submarines

Name	No.	Builder	Laid		First Com- missioned
			Down	Launched	
OXLEY	57	Scott's Shipbuilding Greenock	2/7/64	24/9/65	27/3/67
OTWAY	59	Scott's Shipbuilding Greenock	29/6/65	29/11/66	22/4/68
ONslow	60	Scott's Shipbuilding Greenock	26/5/67	3/12/68	22/12/69
OVENS	70	Scott's Shipbuilding Greenock	17/6/66	4/12/67	18/4/69
ORION	61	Scott's Shipbuilding Greenock	6/10/72	16/9/74	15/6/77
OTAMA	62	Scott's Shipbuilding Greenock	28/5/73	3/12/75	27/4/78
Displacement	2,070 tonnes				
Length	89.9 metres				
Beam	8.1 metres				
Armament	Six bow and two stern anti-surface ship and anti-submarine torpedo tubes				
Machinery	Two English Electric main propulsion motors, with two Admiralty standard range diesel generators				
Speed	Submerged speed more than 15 knots				
Ship's Company	63				

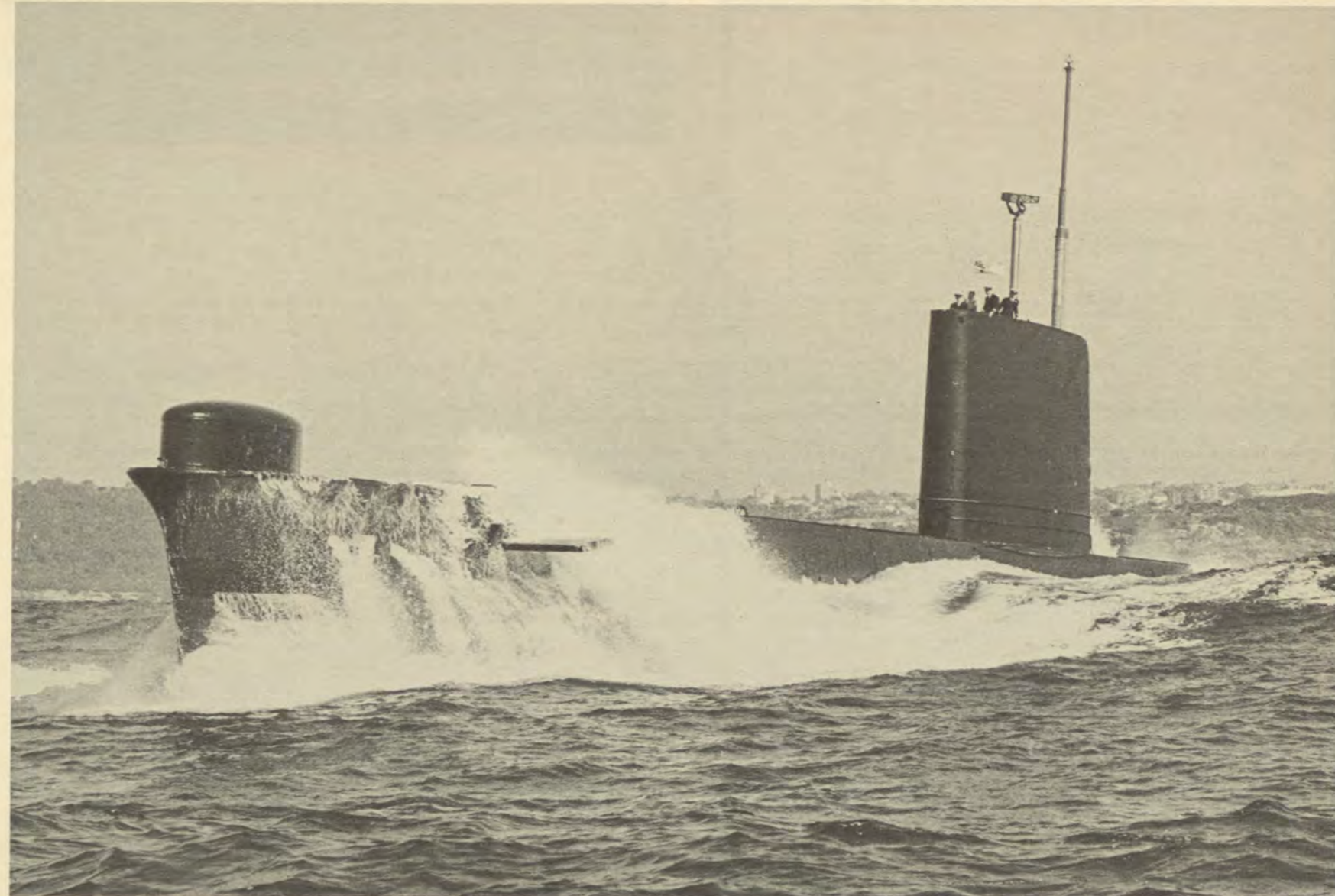
The First Australian Submarine Squadron consists of six submarines of the UK Oberon Class. The newest, HMAS *Otama*, was commissioned in the UK in 1978.

The Squadron is based at HMAS *Platypus*, North Sydney—a shore establishment specifically designed to support submarines.

These large diesel-electric submarines are capable of remaining submerged for several weeks using the snort system which enables diesel generators to re-charge the main batteries whilst submerged.

All the submarines are being progressively modernised with new fire control systems and modern sonars which will enable them to detect and track targets at long range. In addition very capable long range torpedoes, the US Mk 48, are being purchased, and it is envisaged that these will be complemented by the purchase of anti-ship missiles. These new measures will make the RAN Oberons one of the most capable conventional submarines in the world.

HMAS *Oxley* and *Otway* are named after earlier Australian submarines. *Ovens* and *Onslow* are named after early Australian pioneers whilst the name *Orion* was selected to preserve long-established links with the Royal Navy. *Otama* is an aboriginal word meaning dolphin—the symbol of the Submarine Arm.



Mine warfare ships

Name	No.	Builder	Laid Down	Launched	First Commissioned in RAN
SNIPE	1102	Thornycroft, UK	Jul. 51	5/1/53	11/9/62
CURLEW	1121	Montrose, UK	April 53	6/10/53	21/8/62
IBIS	1183	Montrose, UK	Oct. 53	18/11/55	7/9/62
	Displacement	489 tonnes			
	Length	46.6 metres			
	Beam	8.5 metres			
	Armament	Two 40/60 mm Bofors guns (one on minehunters)			
	Machinery	Napier diesel engines developing 2240 kw.			
	Speed	More than 15 knots			
	Ship's Company	34 (minesweeper) 38 (minehunter)			

The First Australian Mine Countermeasures Squadron is made up of three Ton Class mine countermeasure ships.

Of British design and construction, the ships were modified in the UK before joining the Australian Fleet in 1962.

Originally the squadron consisted of six ships fitted as minesweepers. The squadron has since been reduced to three ships, and HMAS *Curlew* and HMAS *Snipe* have been converted to minehunters.

HMAS *Ibis* is still fitted for minesweeping. She carries devices to explode acoustic and magnetic as well as contact mines.

The wooden-hulled mine countermeasure ships are themselves non-magnetic and are sufficiently silent not to actuate acoustic mines. Mine hunting is complementary to minesweeping and is carried out in a different way. Using a high definition sonar set, the minehunter locates mines ahead of the ship.

When a mine is located, clearance divers go into the water to identify it and decide whether to render it safe and remove it, or to blow it up with an explosive charge.

The RAN is examining a new concept in mine countermeasure vessels—glass reinforced plastic catamaran craft fitted with mine hunting and mine disposal equipment. It is planned that these craft should enter service in the first half of the 1980s.



Patrol boats

Name	No.	Builder	Laid Down	Launched	First Commissioned
ACUTE	81	Evans Deakin Ltd	Apr. 67	26/8/67	26/4/68
ADROIT	82	Evans Deakin Ltd	Aug. 67	3/2/68	17/8/68
ADVANCE	83	Walkers Ltd	Mar. 67	16/8/67	24/1/68
ARDENT	87	Evans Deakin Ltd	Oct. 67	27/4/68	26/10/68
ASSAIL	89	Evans Deakin Ltd	Aug. 67	18/11/67	12/7/68
ATTACK	90	Evans Deakin Ltd	Sep. 66	8/4/67	17/11/67
AWARE	91	Evans Deakin Ltd	Jul. 67	7/10/67	21/6/68
BARBETTE	97	Walkers Ltd	Nov. 67	10/4/68	16/8/68
BARRICADE	98	Evans Deakin Ltd	Dec. 67	29/6/68	26/10/68
BOMBARD	99	Walkers Ltd	Apr. 68	6/7/68	5/11/68
BUCCANEER	100	Evans Deakin Ltd	Jun. 68	14/9/68	11/1/69
BAYONET	101	Walkers Ltd	Oct. 68	6/11/68	22/2/69

Displacement	149 tonnes
Length	32.6 metres
Beam	6.1 metres
Armament	40/60 mm Bofors gun, machine gun and a variety of light arms
Machinery	Two 16 cylinder diesels, producing more than 2240 kw.
Speed	More than 20 knots
Ship's Company	19

Twenty patrol boats were built in Queensland shipyards for patrol and survey work in waters around Australia and Papua New Guinea. Five of these, *Aitape*, *Ladava*, *Lae*, *Madang* and *Samarai*, now form a Papua New Guinea Defence Force patrol boat squadron. Two others, *Archer* and *Bandolier*, have been presented to Indonesia, and a third, *HMAS Arrow*, was lost during Cyclone Tracy in Darwin.

The remaining 12 ships make up the Navy's patrol boat squadrons. These ocean-going ships have a variety of tasks, including the patrol of fishing grounds close to the coastline. They also assist RAN survey ships in sounding and survey work, and are used for Reserve training.

The speed and versatility of the patrol boats have made them useful for helping disabled craft, for use as sea-air rescue boats and for transporting patients from remote shallow ports.

Major excursions have been made deep into Papua New Guinea river systems.

Included in the ships' equipment is high definition navigation radar, high and ultra-high frequency radio transmitters and receivers, gyro and magnetic compasses and echo sounders.

All the patrol boats are fully air conditioned.

A new class of patrol craft will enter service in the RAN from 1979.



Name	No.	Builder	Laid		First Com- missioned
			Down	Launched	
BALIKPAPAN	L126	Walkers Ltd	May 71	15/8/71	8/12/71
BRUNEI	L127	Walkers Ltd	Jul. 71	15/10/71	5/1/73
LABUAN	L128	Walkers Ltd	Oct. 71	29/12/71	9/3/73
TARAKAN	L129	Walkers Ltd.	Dec. 71	16/3/72	15/6/73
WEWAK	L130	Walkers Ltd	Mar. 72	18/5/72	10/8/73
BETANO	L133	Walkers Ltd	Sep. 72	5/12/72	8/2/74
	Displacement	316 tonnes			
	Length	44.5 metres			
	Beam	10.1 metres			
	Armament	Two 0.5 inch machine guns			
	Speed	More than nine knots			
	Ship's Company	Two officers, 11 sailors			

Amphibious craft

For the first time since World War II, the RAN has a landing craft squadron. Called Landing Craft Heavy (LCH), the first ship, HMAS *Brunei*, joined the Fleet on January 5, 1973.

The squadron is based at HMAS *Moreton*, the RAN shore establishment at Brisbane, where the commanding officer is also the LCH Squadron Commander.

At the end of August 1973, four LCHs had been commissioned into the RAN—HMA Ships *Brunei*, *Labuan*, *Tarakan* and *Wewak*. Four others—HMA Ships *Salamaua*, *Buna*, *Betano* and *Balikpapan*—were commissioned in the period up to mid-1974.

Two LCHs, *Buna* and *Salamaua*, have been handed over to the Papua New Guinea Defence Force.

Balikpapan, the prototype LCH, was manned by the Army until July, 1974. She went through extensive joint Navy/Army evaluation trials in 1972.

The sea-going ships, all built at Walkers Ltd shipyards, Maryborough, Queensland, are each manned by two officers and 11 sailors. They are employed primarily in providing support for the Army, although one is occasionally allocated to the Navy for hydrographic survey work.

As the names suggest, the ships are all named after World War II amphibious operations in which RAN ships and craft put Australian Army units ashore or did surveys preparatory to the landings.

The versatile LCHs can carry the heaviest equipment in the Army's order of battle (up to three Leopard tanks, for example).



Training ship

Name	No.	Builder	Laid Down	Launched	First Commissioned Into RAN
JERVIS BAY	GT203	State Dockyard Newcastle, NSW	18/8/67	17/2/69	25/8/77
		Displacement	8,915 tonnes full load		
		Length	135.7 metres		
		Beam	21.5 metres		
		Machinery	2 x 16PC 2V 400 Crossley Pielstick 2 shafts power 4875 kw		
		Speed	17 knots sustained		
		Ship's Company	111 plus 40 trainees		

HMAS *Jervis Bay* is the RAN's training ship. *Jervis Bay*, (formerly MV *Australian Trader*), was built in Australia in 1969 as a roll-on / roll-off passenger / vehicle vessel for the Australian National Line. In 1977 she was transferred to the RAN and modified to undertake her new training role. Modification included the addition of a new training bridge on top of the existing one and the conversion of some cabins into a large and well-equipped training charthouse.

The vehicle and cargo-carrying capabilities of *Jervis Bay* have been retained to provide the RAN with a useful additional logistics support capability when needed.

The ship's primary role is to provide navigation training for young seamen officers from the RAN College and from overseas countries. Forty trainees are carried for this role but there is also accommodation on board to take young sailors and Naval Reservists to sea for general sea experience and seamanship training.

The ship's name identifies her close links with the RAN College at Jervis Bay, and also commemorates the epic battle between HMS *Jervis Bay* and the German battleship *Admiral Scheer* during World War II in which the first *Jervis Bay* was sunk while protecting the convoy she was escorting.



Name	No.	Builder	Laid Down	Launched	First Commissioned
STALWART	215	Cockatoo Island Dockyard	23/6/64	7/10/66	9/2/68
SUPPLY	195	Harland and Wolff Belfast	5/8/52	1/9/54	15/8/62
		<i>STALWART</i>		<i>SUPPLY</i>	
Displacement	15,500 tonnes		26,500 tonnes		
Length	157 metres		177.7 metres		
Beam	20.4 metres		21.6 metres		
Armament	Two twin 40/60 mm Bofors guns twin mountings. Provision for Seacat close-range missiles.		Two twin, two single mountings, 40/60 mm Bofors guns.		
Machinery	Two six-cylinder diesel engines developing 10,740 kw.		Double reduction geared turbines developing 11,185 kw. (shaft)		
Speed	More than 20 knots		More than 16 knots		
Ship's Company	396		205		

Destroyer tender

The destroyer tender HMAS *Stalwart* is the largest naval vessel wholly designed and built in Australia.

Her role is to provide destroyers with repair and maintenance facilities on a mobile basis so the ships can spend the maximum time on duty in their operational areas.

For this job the ship is equipped with extensive engineering, electrical, electronic, weapons, shipwright and other workshops, staffed by experts in a wide variety of trades and professions.

Several destroyers can be maintained by *Stalwart* at a time and three-quarters of *Stalwart's* ship's company of nearly 400 are available for repair and maintenance duties.

Fleet oiler

HMAS *Supply*, the largest ship in the RAN, has the important task of refuelling fleet units to give ships greater range and mobility.

She resupplies furnace fuel, aviation gasoline, diesel oil and water to other ships while they are underway.

In a typical operation a destroyer will steam alongside *Supply* at about 15 knots. With only about 30 metres between ships, lines are shot across, hoses are run across and connected, and pumping begins. A destroyer can be refuelled in this way in less than half an hour. It is planned that *Supply* be replaced by a modern underway replenishment ship in 1980.



Name	No.	Builder	Laid Down	Launched	First Commissioned
Adelaide	01	Todd Pacific Ship-	29/7/77	21/6/78	1980*
Canberra	02	Yard Corporation,	Mar. 1978*	Dec. 1978*	1981*
	03	USA.	Early 1980*	Late 1980*	1982*

*Planned dates

Displacement	3678 tonnes
Length	135.7 metres
Beam	14.3 metres
Main Engines	Gas Turbines, 1 shaft, power 29,828 kw
Speed	28 knots sustained
Fuel	651 tonnes, Diesel plus JP-5
Ship's Company	226

Name	No.	Builder	Launched	First Commissioned
BANKS	244	Walkers Ltd. Maryborough	15/12/59	16/2/60
BASS	247	Walkers Ltd. Maryborough	28/3/60	25/5/60

Displacement	180 tonnes (<i>Bass</i>) 148 tonnes (<i>Banks</i>)
Length	28.3 metres
Beam	7 metres
Machinery	Twin-screw engine
Speed	10 knots

Guided missile frigates

Three Guided Missile Frigates of the FFG-7 Class are being purchased from the United States. The ships, the first two of which are to be named HMAS *Adelaide* and HMAS *Canberra* are being constructed at Todd Pacific Shipyard, Seattle, and delivery is planned for the early 1980s.

In addition to escort duties, the frigates will have a capability for conducting prolonged independent patrol and surveillance type operations.

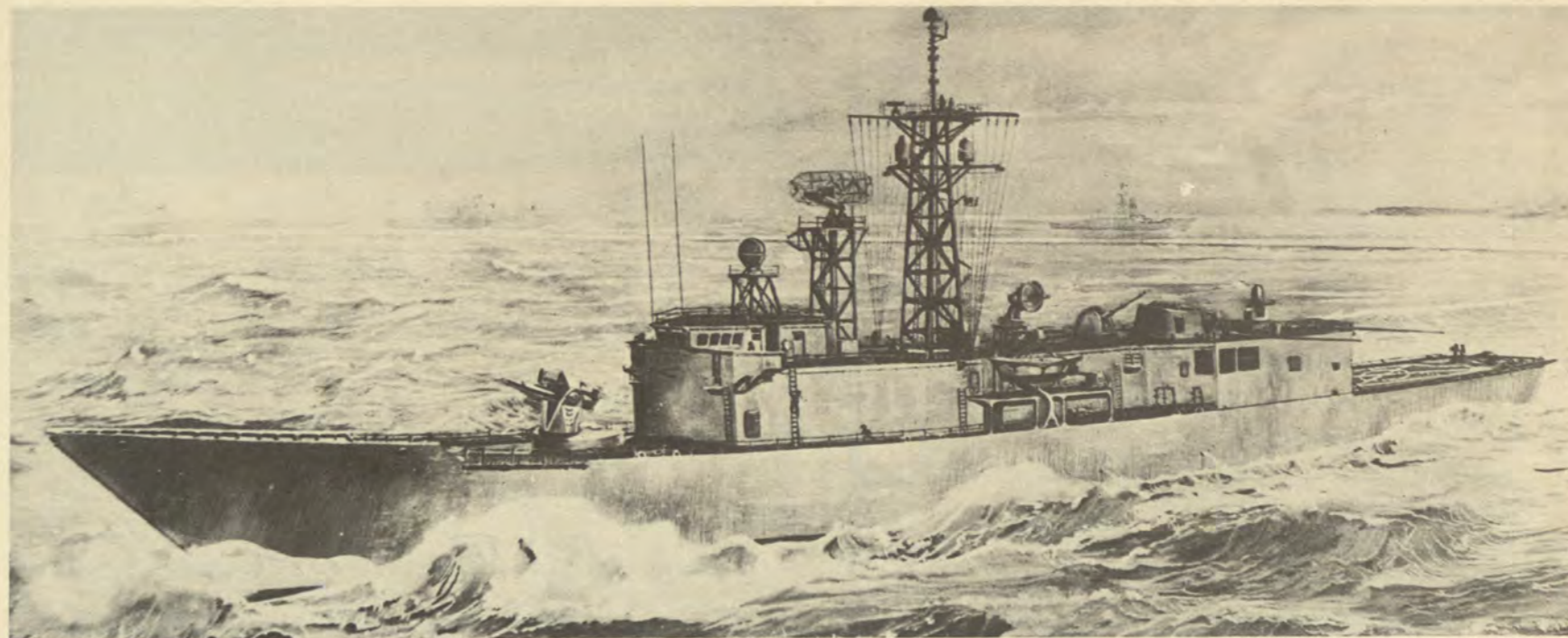
Armament includes both a surface-to-surface and surface-to-air missile system, two armed helicopters, a 76 mm gun, and two triple anti-submarine torpedo tubes.

General purpose vessels

The Royal Australian Navy has two general purpose ships, HMAS *Bass* and HMAS *Banks*, of the Explorer Class, built at Walkers Ltd. shipyards, Maryborough, Queensland.

In June 1967, *Bass* was assigned as a Naval Reserve training ship in Tasmanian waters and a month later *Banks* was assigned to similar duties in South Australian waters. Normally they have complements of two officers and 12 sailors, but during training cruises they may carry more.

Both ships provide training for officers and sailors in the seamen, electrical, engineering and communications branches of the Naval Reserve.



Above: Artists impression of a guided missile frigate

Left: HMAS *Bass*

Right: HMAS *Banks*



Amphibious heavy lift ship

Name	No.	Builder
Tobruk	L50	Carrington Slipways Pty Ltd, Newcastle, NSW
Displacement	5800 tonnes	
Length	126 metres	
Beam	18 metres	
Landing Craft	2 LCVP at davits 2 LCM8 can be carried as deck cargo	
Helicopters	flight of Wessex 31B	
Armament	2 40mm guns	
Machinery	2 diesels	
Speed	17 knots	
Complement	130	
Troops	350-550	

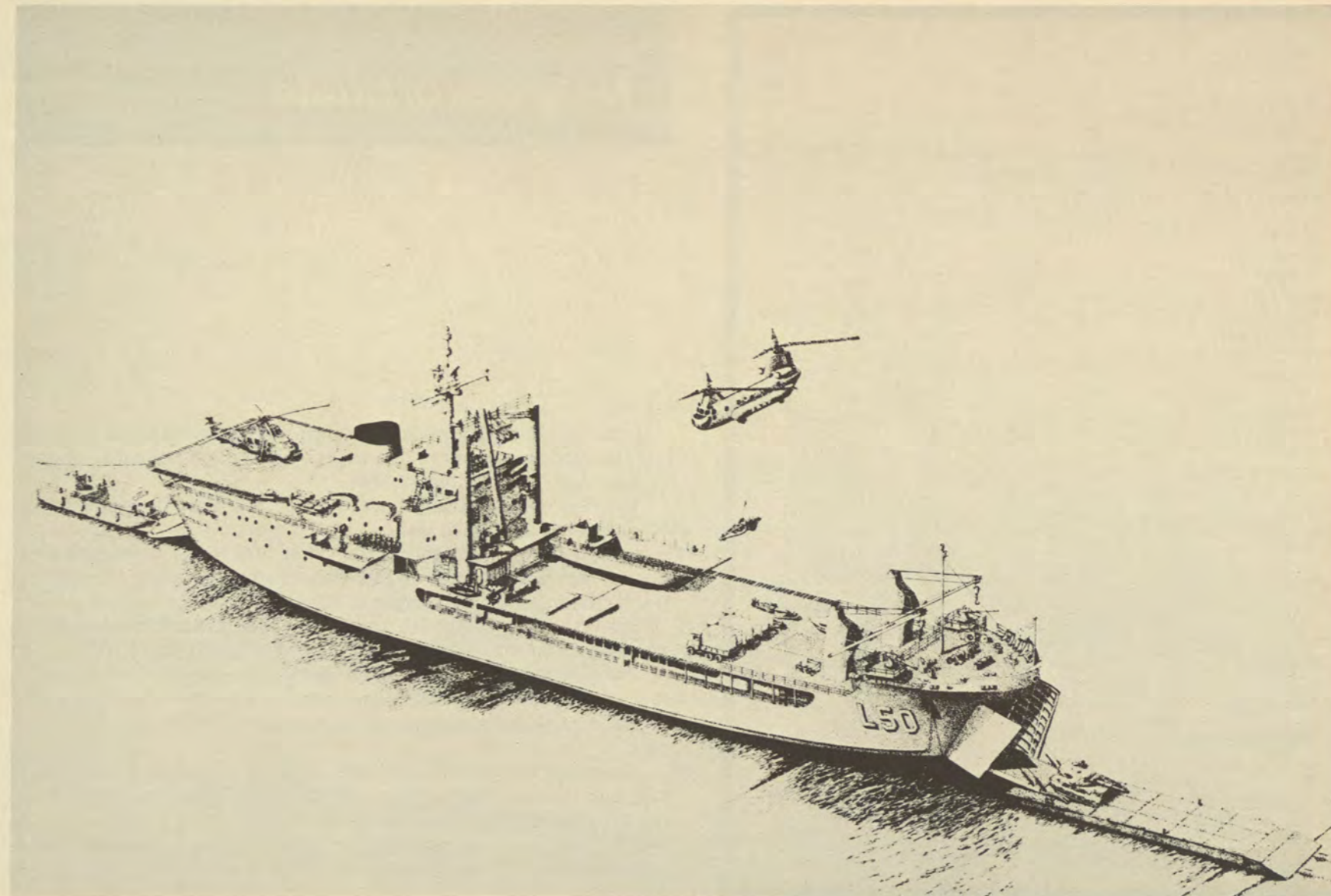
A contract to build an Amphibious Heavy Lift Ship (LSH) for the RAN was let to Carrington Slipways in November 1977.

The design is an update of the British *Sir Bedivere* class and will provide facilities for the operation of helicopters, landing craft, amphibians or side carried pontoons for ship-to-shore movement. A special feature will be the ship's heavy lift derrick system for handling heavy loads.

The LSH, to be named HMAS *Tobruk*, will be able to embark a squadron of Leopard tanks plus a number of wheeled vehicles and artillery in addition to its troop lift. A comprehensive communication fit and minor hospital facilities will also be provided.

In an established port the ship can discharge its cargo by means of its own heavy lift derrick and cranes as well as via its bow or stern ramp onto a roll on-roll off terminal. If no port facilities are available the ship can discharge by beaching, by marrying the bow ramp to a self-carried beach causeway, or by unloading cargo onto self-carried pontoon lighterage, landing craft or amphibians.

Tobruk is planned to enter service in 1980.



New patrol boats

Name	Builder
FREMANTLE	—Brooke Marine Ltd. U.K.
BENDIGO	—North Queensland Engineers and Agents Ltd

BUNBURY
CESSNOCK
DUBBO
GAWLER
GEELONG
GERALDTON
GLADSTONE
IPSWICH
LAUNCESTON
TOWNSVILLE
WARRNAMBOOL
WHYALLA
WOLLONGONG

Displacement	220 tonnes
Length	42 metres
Beam	7.15 metres
Armament	Close range general purpose gun, 81 mm mortar, 2 x 0.5 cal. Browning machine guns.
Machinery	Two MTU 538 series 16 cylinder main propulsion engines. One Dorman 12 cylinder auxiliary propul- sion engine.
Speed	About 30 knots
Ship's Company	22

In September, 1977 construction began on a new class of patrol craft to supplement and in due course replace the capability offered by the existing 'Attack' class boats.

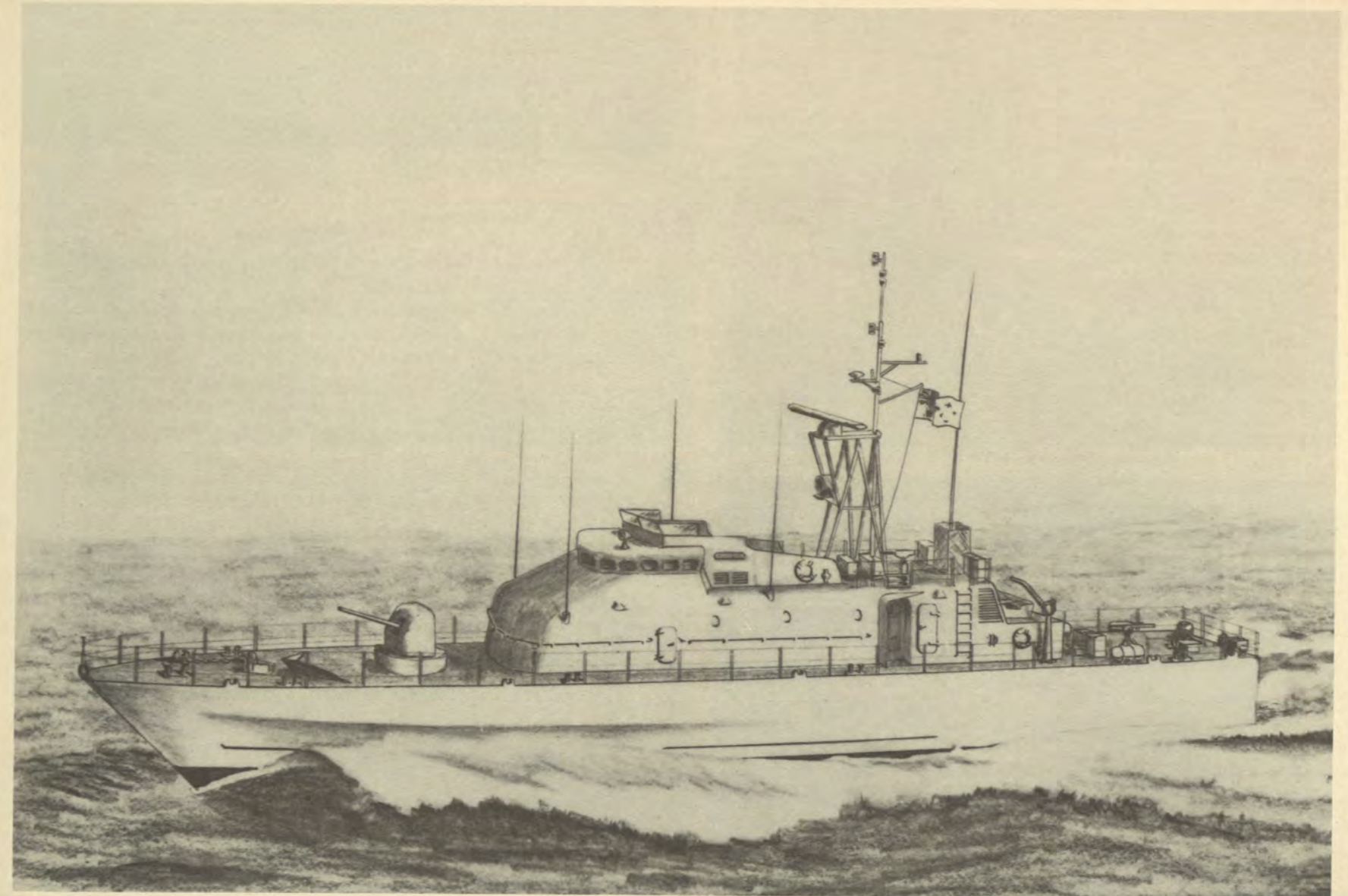
The new craft are being built to a British design, designated PCF 420, tendered by Brooke Marine Ltd. of Lowestoft, UK.

A total of 15 craft will be built, the first to be constructed by Brooke Marine in England and the remainder to be built in Australia by North Queensland Engineers and Agents Ltd. of Cairns, Qld.

The first of the class will be accepted in mid-1979 with the remaining 14 being progressively phased in between mid-1980 and 1985.

The new generation patrol craft will be employed on similar duties to the *Attack* class but will be larger, offering substantial improvements in speed, range, seakeeping and living conditions for the ship's company.

The ships will be equipped with high definition navigation radar, high and ultra high frequency communications equipment, gyro compasses and echo sounder. They will in addition be equipped with a satellite navigation system which will enable the ship's position to be determined with great accuracy and a general purpose close range gun.



Aircraft



Above: A4-G Skyhawk Below: S2-G Tracker



The Skyhawk jet fighter-bomber (top left) is the air defence and strike aircraft of the Fleet Air Arm.

These transonic aircraft are ideal for high pay load/wide radius operations in tactical air support, and they have increased the versatility of the aircraft carrier, HMAS *Melbourne*.

The Douglas A4-G Skyhawk is a relatively small aircraft (weight empty—4450 kg) but it is capable of carrying an extensive and varied war load (maximum all-up weight—11,126 kg) over a considerable distance.

Its armaments include combinations of air-to-air missiles, a variety of 250, 500 and 1000 lb bombs, 20 mm cannon and rockets.

Embarked on *Melbourne* with the Skyhawks are anti-submarine Tracker aircraft and Sea King helicopters.

The Grumman S2G Tracker (below left) is an all-weather, twin-engine aircraft. It can remain on patrol for up to 10 hours and carries a crew of one pilot, two observers and an aircrewman.

The Tracker is fitted with electronic devices for submarine detection and can be armed with homing torpedoes or depth charges.

The Westland Sea King Mk 50 helicopter, which doubles in a search and rescue role, is equipped with sonar for its anti-submarine duties and can also be armed with homing torpedoes or depth charges.

The Sea King carries a crew of two pilots, an observer and an aircrewman.

Training and support aircraft of the Royal Australian Navy include Westland Wessex 31B and Iroquois utility and search and rescue helicopters, Bell 206B helicopters, Macchi jet trainers, Hawker Siddeley 748 training aircraft and S2E Trackers.



Top left: Hawker Siddeley 748 Top right: Sea King Bottom left: Macchi Jet Trainer Bottom right: Iroquois Helicopter

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