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OCT-DEC 2013

THE NAVY

SPECIAL
EDITION

THE MAGAZINE OF THE NAVY LEAGUE OF AUSTRALIA

VOL 75 No4

INTERNATIONAL

FLEET

REVIEW
2013



ISSN 1322-6231



9 771322 623000



AUSTRALIA'S LEADING NAVAL MAGAZINE SINCE 1938

\$5.95
INCL. GST



To Commemorate
the Arrival of
The Australian Fleet
Sydney, October 4th, 1913





Volume 75 No.4

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THE NAVY

THE MAGAZINE OF THE NAVY LEAGUE OF AUSTRALIA

02 Navy Day

By Mr Graham Harris, President
Navy League of Australia

03 Fleet Entry – National Awakening 4 October 1913

By Greg Swinden

07 The 2013 International Fleet Review - Synopsis

08 Schedule of Events

10 Fleet Entry 2013 Map

12 Fleet Review 2013 Map

16 RAN ships of IFR 2013

26 Foreign ships of IFR 2013

36 League Policy Statement

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Deadline for next edition 5 February 2014

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Front cover: The FFG HMAS SYDNEY (IV) seen here at sea. SYDNEY will lead the ships into Sydney Harbour for the Fleet Entry and the Fleet Review. (RAN)

NAVY DAY

By Graham Harris RFD

President Navy League of Australia

On 4 October 1913 the Australian Fleet made its entry into Sydney Harbour. This was a day of significance not just for the new Royal Australian Navy. It was also a day of great significance for the young Australian nation.

The national significance was widely proclaimed. The *Sydney Daily Telegraph* stated that *"it was truly Australia's national day, a day which meant much in its history"*. The *Sydney Mail* wrote that *"the sight of the Fleet meant more to the Australian people than the visit of any foreign fleet. It was our expression of patriotism, ships of defence bought in love of country and empire"*.

The Prime Minister, Joseph Cook, said *"Since Captain Cook's arrival, no more memorable event has happened than the advent of the Australian Fleet. As the former marked the birth of Australia so the latter announces its coming of age."*

The Australian people too looked upon the arrival of the Australian Fleet as the day on which the new Australian nation came of age. In describing the Fleet entry as Australia's coming of age the Prime Minister was expressing the national feeling.

The Navy League was established in Australia in 1900. Its purpose was to promote interest in naval defence. There can be little doubt that the League members of 1913 would have shared the national feeling of pleasure and pride in the entry of the Fleet.

For the Royal Australian Navy the entry of the fleet was the culmination of a sequence of steps begun in 1909 when the Australian Government agreed to the proposal by the First Sea Lord that Australia should have its own "fleet unit". In a remarkably short four years the Australian Fleet was created.

The centenary of the arrival of the Australian Fleet is to be celebrated in Sydney this October.

The Chief of Navy, Vice Admiral Ray Griggs, AO, CSC, RAN, has extended an invitation to over 50 nations to send a warship and/or a tall ship to participate in an International Fleet Review (IFR) to be held in Sydney from October 3 – 11. The IFR has been planned in partnership with the Government of New South Wales and the City of Sydney.

It is anticipated that some 40 warships and 20 tall ships will take part. The RAN SeaPower Conference and the International Maritime Conference and Exposition are also scheduled to take place to coincide with the IFR.

The Navy League Annual Conference, which ordinarily is held in Canberra, will this year be in Sydney at the time of the IFR.

All the warships participating in the IFR will enter Sydney Harbour on Friday 4 October 2013, exactly 100 years after the first RAN Fleet entry. To mark this historic occasion the Governor General will welcome the Fleet from Bradley's Head. On Saturday 5 October Her Excellency, onboard HMAS LEEUWIN, will officially review the Fleet as part of the Ceremonial Fleet Review. The Review will include a moving line of seven RAN ships to symbolise the 1913 entry.

Saturday's events will include fly-pasts by fixed and rotary wing aircraft, naval displays and demonstrations, naval gun salutes and naval band performances.

On Saturday evening a spectacular pyrotechnics and light show will take place on the harbour. Among other spectacular effects, the White Ensign is to be projected onto the sails of the Opera House. It is understood that this event is to be telecast nationally.

Other activities planned for the week long celebrations include a combined naval march through the CBD, ships open to the public, inter-navy sporting competitions naval memorial and religious services and a range of community and cultural events.

The Navy League is delighted that the Fleet entry of 1913, which was an event of great national pride and importance, is to be so comprehensively celebrated.

In 2011 the readers of *THE NAVY* were asked suggest a suitable date for "Navy Day". From the reader responses, and from discussion in the navy community it was clear that 4 October was the preferred date.

One reply, which was subsequently published in *THE NAVY* said:

"4 October 1913, the day the first Australian fleet entered Sydney Harbour was celebrated by the RAN as "Navy Day", but while still observed perhaps requires some reinvigoration.

Prior to the Gallipoli landings and subsequent myths emerging from them over the ensuing years the public had looked upon the arrival of the ships of the Australian fleet as the day on which the new Australian nation came of age. On that day the responsibility for the defence of Australia and its waters, exercised by the Royal Navy since European settlement, was transferred to the Australian owned and controlled RAN answering directly to the Commonwealth Government perhaps all we need to do is reinvigorate what the RAN has traditionally celebrated in its past"

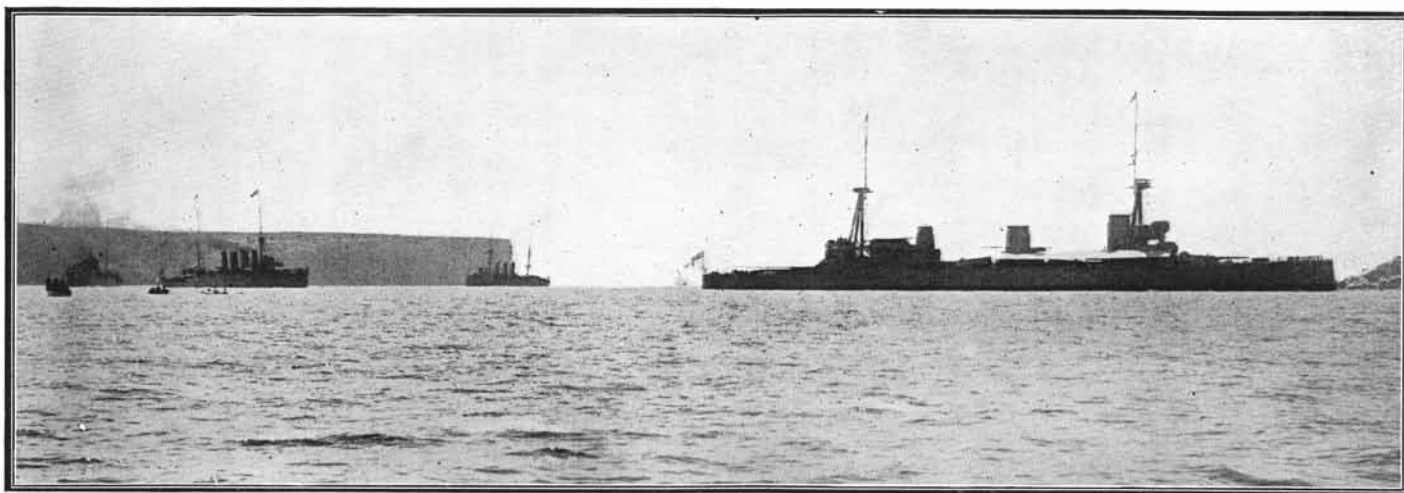
The events to take place in Sydney this October, in particular the Fleet Entry on Friday the 4th, followed by the Fleet Review on Saturday the 5th and the spectacular pyrotechnics and light show that same evening will represent a magnificent reinvigoration of "Navy Day".

Fleet Entry – National awakening

4 October 1913

By Greg Swinden

Greg Swinden takes a look back at the origins of the Royal Australia Navy in the lead up to the arrival in Sydney Harbour of the first RAN fleet of warships. A significant and momentous day in Australia's maturity to sovereign nationhood.



HMAS AUSTRALIA leading the fleet into Sydney Harbour for the first time in 1913. (The Sunday Mail 8 Oct 1913)

On the morning of 4 October 1913, seven warships of the newly formed Royal Australian Navy (RAN) steamed out of the haze of the Tasman Sea and entered Sydney Harbour. In doing so they signalled not only that the Australian Navy had come of age but also that Australia, after 125 years of British control, was now well and truly responsible for its own defence. Over 300,000 men, women and children lined the shore to welcome the ships while hundreds of small vessels and private boats escorted the grey warships to their anchorage near Farm Cove. The Minister of Defence, Senator Edward Millen, was so moved he stated – *'Since Captain Cooks arrival no more memorable event has happened than the advent of the Australian Fleet. As the former marked the birth of Australia; so the later announces its coming of age'*. The Fleet Entry was truly a moment of national significance as, in the space of four short years, the RAN had grown from a hodgepodge of left over vessels from the former colonial navies to a modern ocean going fleet which was to prove itself highly capable in the Great War soon to come.

Creating an Australian Navy

In 1901 the colonial navies of Queensland, New South Wales, Victoria, Tasmania and South Australia became the Commonwealth Naval Forces (CNF). In reality the newly formed states continued to control their own coastal defence until 1904. The naval commandants in each state were left in place, but a Minister for Defence was created and Captain William Creswell, then Commandant of the Queensland Marine Defence Force, was selected for the daunting position of

Director of the Naval Forces. He inherited a mixed bag of ships, about 240 regular personnel, and hundreds more reservists and cadets from the naval brigades and it took time to sort out what to do. Some ships were clearly of limited use and were quickly disposed of while others, such as CERBERUS, PROTECTOR, GAYUNDAH, PALUMA, CHILDERS and COUNTESS OF HOPETOUN, were still useful and were retained.

The real naval defence of Australia still rested firmly with the Royal Navy (RN) squadron based at Sydney and the Naval Agreement Bill of 1901 confirmed the Australian Governments desire for the RN Squadron to remain. The bill provided £200,000 per year for the upkeep of these British ships and the debate commenced in earnest as to whether the former colonial naval forces should become a fully fledged Australia Navy or subsumed into an Australian branch of the RN Reserve. Each side had its advocates and money was the principle driver – could Australia really afford to go it alone and provide its own navy. Creswell thought yes, and wrote several papers on the subject and lobbied his political masters, but his opponents were many both in Australia and Britain. The discussion was to ensue over the next eight years at various Imperial conferences.

Fortunately Creswell never swayed in his determination to create an Australian Navy and he gained the support of both sides of politics in particular Prime Ministers Alfred Deakin (1903-04, 1905-08 and 1909-10) and Alexander Fisher (1908-09, 1910-13 and 1914-15) who were both ardent nationalists and supporters of an independent Australian Navy. Additionally George Foster Pearce, who was Minister for Defence in 1908-09 and 1910-13, was another keen advocate for an entirely Australian Navy. In reality there were many fathers of



Oh how times have changed. A very crowded boat of well-wishing onlookers on Sydney Harbour to greet the new fleet. (The Sunday Mail 8 Oct 1913)

the Royal Australian Navy, as it succeeded, but had it failed the blame would have rested squarely with Creswell.

Following the 1902 Colonial Conference, in London, the Naval Agreement Acts 1902-1903 committed the Admiralty to provide training facilities in the RN for a reserve of Australian and New Zealand naval volunteers. This was to become the Australasian Naval Forces (ANF) in 1904 and over the next ten years nearly 1,800 boys and men, from Australia and New Zealand, were enlisted. These men were effectively Royal Navy ratings who signed on for an initial period of five years service and served mainly in the Royal Navy ships of the Australia Squadron. In January/February 1913, hundreds of ANF personnel were still serving in the Royal Navy and they were formally transferred to the RAN with most allocated as commissioning crews to the newly built ships and submarines of the RAN. This was a highly successful scheme as it provided the RAN with a ready source of highly trained Australians just as the first of its modern ships were being commissioned.

Finally the Commonwealth Defence Act 1903 came into effect on 1 March 1904 and the following year the Commonwealth Naval Board was formed to oversee the new Australian Navy. The board comprised the Minister for Defence, the Director of Naval Forces and a Finance Member. The activities of the CNF were limited in these early years due to funding but regular training cruises were still conducted and maintenance when finances permitted.

The First Hurdle

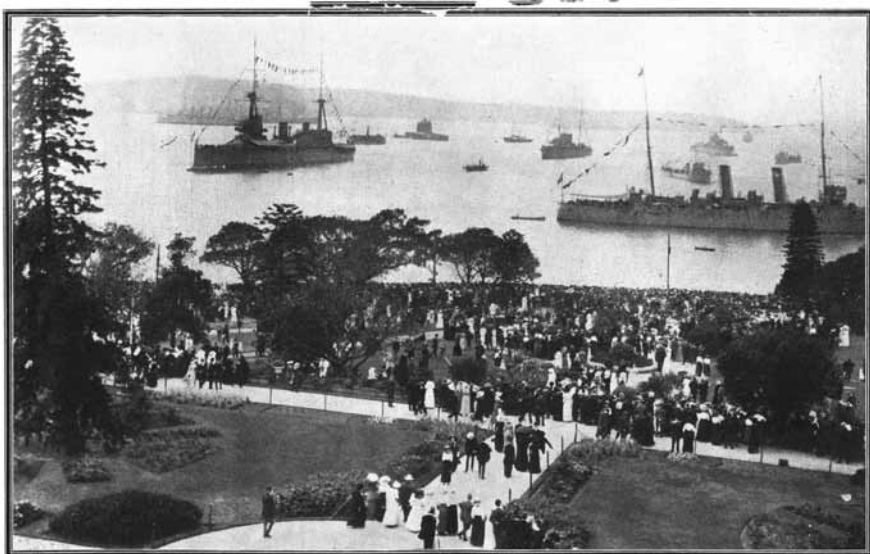
At the April 1907 Imperial Conference on the Naval and Military Defence of the Empire, Prime Minister Deakin and Captain Creswell put forward their plans for an independent naval defence force for Australia. They met with substantial opposition from the British Government; in particular the First Sea Lord, Admiral Sir 'Jackie' Fisher. Fisher saw little benefit in an independent Australian Navy and pushed the Australians to obtain only coastal destroyers and submarines, for local defence, and leave the main defence of Australia to the RN Australia Squadron. Upon return to Australia Deakin was criticised in both the press and political circles for what was seen as

giving in to British pressure. Australian nationalism was on the rise and a strong navy was seen by many as part of the nation's rite of passage to being recognised as a strong 'white' nation.

Deakin further upset the British Government, in January 1908, when he directly invited the US Government to send its Great White Fleet to visit Australia later that year as part of a planned world tour. Only after the invitation had been sent did Deakin use 'normal channels' via the Governor General to advise the British Colonial Office of Australia's intentions. The British were dis-pleased but it was too late to withdraw the invitation. For today's reader it would seem at odds that Australia, after Federation, was still required to gain British approval for such an activity, but the ties of Empire still bound the nation very closely to Britain.

The visit of the US Fleet, of 16 white painted battleships, to Australia took place in August/September 1908 with the Americans visiting Sydney and Melbourne with great pomp and ceremony. Overall the visit was a great success and further enhanced the debate for Australia to form her own navy. It also came at a time when there were increasing concerns regarding Japanese and German expansion in the Pacific. In November 1908 Deakin's government fell and he was replaced as Prime Minister by Andrew Fisher.

Fisher was also well aware of the national concerns regarding defence and in early 1909 he allocated funding for the building of three modern torpedo boat destroyers for the CNF; noting this was money



The view from Government House into Farm Cove of the fleet with thousands of spectators in the grounds. (The Sunday Mail 8 Oct 1913)

already allocated to naval defence by Deakin. Two of the destroyers (PARRAMATTA and YARRA) were to be built in England while the third (WARREGO) was to be pre-fabricated and the pieces shipped to Australia for assembly at Cockatoo Island Dockyard. The three ships became the first new vessels built for the Australian Navy in decades and PARRAMATTA earned the title 'First Born of the Commonwealth Navy' when her keel was laid in March 1909. PARRAMATTA and YARRA were both commissioned in September 1910, followed by WARREGO in June 1912.

The matter concerning the future of the Australian Navy came to a head in July 1909 at the Imperial Conference in London. The outcome



The view from a crowded foreshore of Mrs Macquarie's chair of HMAS AUSTRALIA.
(The Sunday Mail 8 Oct 1913)

was a change of heart by the British Government which was now concerned with maritime defence of the Pacific region. There had been a growing belief amongst British policy makers that each colony in the Empire needed to be part of the general defence of the Empire. Basically the naval arms race between Britain and Germany was now well under way and if the Australians were prepared to fund their own navy, as part of the ultimate defence of the British Empire, then they should be allowed to do so. Germany maintained a squadron of six cruisers at her colony in Tsingtao (China) and there were also concerns that Japan's naval might was also growing and, despite the Anglo-Japanese Alliance of 1902, that Britain's naval strength in the Pacific might be challenged.

Building the Fleet Unit

In August 1909 discussions between the Australian and British Governments ensued. The end result was the Australians agreed to fund the construction of a Fleet Unit consisting of a battle cruiser, three cruisers, six destroyers and three submarines at a cost of nearly 4 million pounds. The Australians would also pay an additional £750,000 for maintenance, training costs in England and pay and allowances for loan personnel from the RN. In December 1909 orders for the construction of the battle cruiser (AUSTRALIA), two light cruisers (MELBOURNE and SYDNEY) and two submarines (AE 1 and AE 2) were placed with British shipyards while one light cruiser (BRISBANE) and three more destroyers (HUON, SWAN and TORRENS) were to be built at Cockatoo Island.

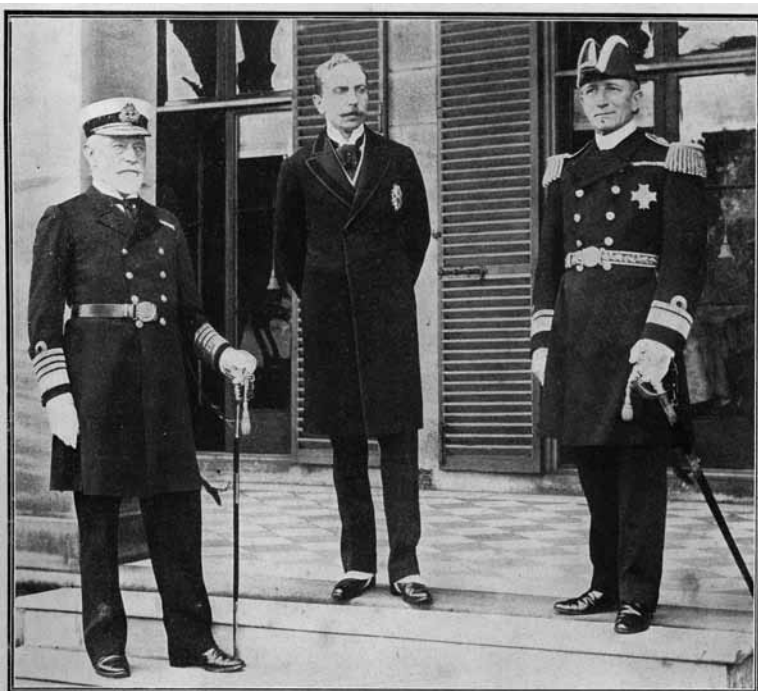
The Naval Defence Act was passed in 1910 and this was effectively the agreement that the Australian Government would assume full responsibility for the naval defence of Australia. All British naval forces would be withdrawn from Australian waters and re-allocated to other areas; particularly the East Indies and China Stations. Creswell had won and the modernisation of the Australian Navy had begun. Manning the ships however, was going to be a problem and the recruiting of officers and rating (sailors) was a major task. Australian born personnel serving in the ANF who could be transferred were one source, as were men from the CNF and ex colonial navies, but recruiting both within Australia and of ex RN personnel was

going to be required. The use of RN officers and ratings on loan, however, continued to be the mainstay of the RAN for some years to come.

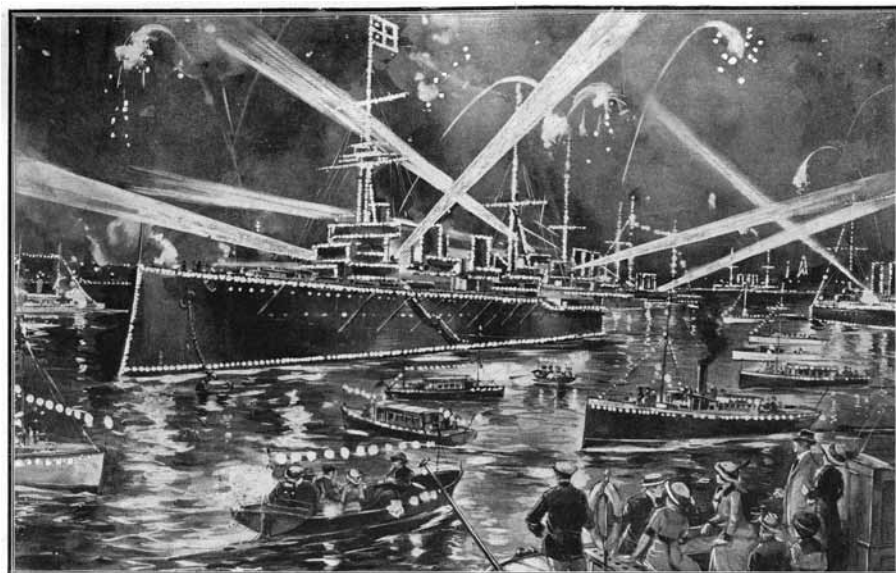
In June 1910, Admiral Sir Reginald Henderson was invited by the Australian Government to visit and provide advice on the infrastructure needed to create the new Australian Navy. Henderson travelled widely throughout Australia and proposed a 52 ship fleet manned by 15,000 personnel spread across the length and breadth of Australia at 16 bases. This was an extravagant plan that Australia could not afford but some of his recommendations regarding a Naval College for training Australian officers, a dedicated training depot for ratings and a major base in Western Australia were quickly acted upon.

After the arrival of PARRAMATTA and YARRA in Australia in December 1910 the pace of naval activity increased exponentially and on 10 July 1911, King George V formally granted the title Royal Australian Navy to the Commonwealth Naval Forces. The long hard road to create an Australian Navy had reached a major milestone. Also in 1911 the Commonwealth Defence Act 1909-10 introduced compulsory service under the Universal Training Scheme. The effect was thousands of Australian boys and young men, aged 12 years and older, now had an obligation to serve in the Citizen Forces (Navy or Army) as cadets (12 - 18 years old) or in the Reserve forces (18 years and older). The previous volunteer cadet and reserve force number swelled and were in due course to provide a steady stream of trained men to the RAN Brigade and sea-going Navy.

Construction of the main training depot (Flinders Naval Depot) at Westernport commenced in January 1912 but it was to be September 1920 before the base was ready for use. Construction of the base in Western Australia was commenced, in the area now known as Henderson/Naval Base, but it petered out in the 1920s and it was not until 1978 that the base, HMAS STIRLING, was finally opened in Western Australia.



(from left to right) Admiral Sir George King Hall with the Governor General Lord Thomas Denman GCMG, KCVO, PC and Rear Admiral Patey at Admiralty House Sydney. (The Sunday Mail 8 Oct 1913)



An artist's impression of the night time "Venetian Carnival" on Sydney Harbour to celebrate the fleet entry complete with ships lights, searchlights and fireworks. (The Sunday Mail 8 Oct 1913)

In April 1912 the training ship HMAS TINGIRA was commissioned in Sydney and her first batch of 78 Boy Seaman commenced training in June. Also in June 1912 the old British cruiser ENCOUNTER was transferred to the RAN as a training ship and was soon training Ordinary Seaman fresh out of basic training at Williamstown Depot. In January 1913 the first of the RAN's modern cruisers, HMAS MELBOURNE, was commissioned in England and arrived in Australia shortly afterwards. In March 1913 the ex RN cruiser HMS PIONEER was commissioned into the RAN and that same month the first intake of 28 Cadet Midshipman commenced their training at a temporary naval college at Osborne House in Geelong (the college moved to its permanent home at Jervis Bay in 1915).

The battle cruiser HMAS AUSTRALIA was commissioned in England in May 1913 and was followed a month later by the cruiser HMAS SYDNEY. Soon both ships were on their delivery voyage to Australia. In early July 1913 all RN establishments and property in Australia, including the depot ship HMS PENGUIN at Garden Island, were handed over to the RAN. Thus the RAN quickly obtained a working dockyard, ammunition storage depots, stores and victualling warehouses, a hospital, detention quarters, an accommodation ship, barrack buildings and recreational facilities which the RN had built up over the preceding 80 years. The RAN's two new submarines, AE1 and AE2, were nearing completion in England and would arrive in Australia in early 1914.

4 October 1913

On 2 October 1913 AUSTRALIA and SYDNEY arrived at Jervis Bay south of the city of Sydney. Here they rendezvoused with the other major units of the RAN and prepared the ships with much paint and elbow grease for the coming fleet entry. On 4 October 1913 the ceremonial entry of the first Australian Fleet Unit occurred at Sydney Harbour when the battle cruiser AUSTRALIA lead MELBOURNE, SYDNEY, ENCOUNTER, PARRAMATTA, WARREGO and YARRA into port for the first time. Rear Admiral Sir George Patey, in command of the RAN Fleet, ordered a ceremonial salute to be fired and Admiral Sir George King-Hall, commanding the Australia Station, embarked in his flagship HMS CAMBRIAN, ordered a return salute to be fired as the Australian ships passed by.

Hundreds of thousands of Australians met the arriving warships. There were official calls by Patey on Admiral King-Hall, Rear Admiral Creswell and the Naval Board, the Governor – General (Lord Thomas Denman) and the NSW Governor Sir Gerald Strickland. The next five days were a whirlwind of social activity for the fleet with banquets and balls for the officers and racing carnivals, sporting programs, church parades and lunches for the sailors. At night the ships were illuminated and by day bands played in Hyde Park. The ships were open to visitors and thousands of school children were shown through the warships and many issued with a commemorative coin. It was a tired but proud Australian Fleet that put to sea later that month to commence training exercises and on 21 October 1913 HMS CAMBRIAN departed Australian waters for the last time. The naval defence of Australia was now fully in the hands of the RAN.

Less than a year later, on 4 August 1914, Australia went to war with Germany. The RAN

had been advised of this eventuality several days before and the ships of the Fleet were already at sea; on their way to war stations around the Australian coast. Within six weeks the RAN was in action at the successful capture of German New Guinea; where the nation's first losses were incurred, on 11 September, when five RAN Brigade personnel were killed in action ashore at Rabaul. Three days later the submarine AE1 was lost, with her entire crew of 35 men, when she failed to return from a patrol off New Britain. Australian warships also supported the capture of other German colonies including Nauru, Ocean Island and Samoa.

The German East Asian Fleet commander, Admiral Von Spee, decided not to attempt to attack Australian shipping as he rightly decided that his force was out-gunned by the RAN; particularly the battle cruiser AUSTRALIA with her eight 12-inch guns. Instead von Spee chose to return his ships to Germany and steamed away from Australia. His squadron was later destroyed at the Battle of the Falkland Islands on 8 December 1914.

At the outbreak of war in 1914 the RAN had not been found wanting. Decades of hard political lobbying, ship building, preparation and training had ensured that the naval defence of Australia was secure when it was most required. On 9 November 1914 while escorting the first convoy of Australian and New Zealand troops across the Indian Ocean the cruiser SYDNEY fought the RAN's first action at sea; when she single handed destroyed the German commerce raider EMDEN at Cocos Island. A cartoon published soon after, in the Melbourne Punch, showed an Australian rating onboard SYDNEY, with broken German flag in hand, pointing to the battered wreck of EMDEN aground on Cocos Island; the caption read 'Alone I did it – What price me now?'. ■

International Fleet Review Sydney 2013 - Synopsis

From 3-11 October 2013 the Royal Australian Navy (RAN) will commemorate the centenary of its first fleet of warships entering Sydney Harbour with an International Fleet Review (IFR). The IFR is a high profile international event and the RAN's signature commemorative event for 2013. At the invitation of the Chief of Navy (CN) - Vice Admiral Ray Griggs, AO, CSC, RAN, over 40 warships, 17 Tall ships and 8,000 navy personnel from 20 nations will be coming to Sydney for the IFR. There are many activities and events happening across the nine days of IFR, including a symbolic seven ship representation of the original fleet entry but current RAN warships.

On 4 October 1913 HMAS AUSTRALIA, led the new Australian Fleet Unit commanded by Rear Admiral Sir George Patey, Royal Navy, and comprising seven HMA Ships MELBOURNE, SYDNEY, ENCOUNTER, WARREGO, PARRAMATTA and YARRA into Sydney Harbour. These ships were greeted by the Governor and the Premier of New South Wales, and tens of thousands of enthusiastic, cheering citizens lining the harbour foreshore. This was only a decade after federation, and a few months after Canberra was announced as the name of the new Australian capital. It was a time of great optimism and national pride for Australia.

Exactly one hundred years later, on 4 October 2013, the namesake ships from the original seven: SYDNEY (IV), PARRAMATTA (IV) AND YARRA (IV), along with the DARWIN, PERTH (III), BUNDABERG (II) AND DIAMANTINA (II) will follow the same route as the first RAN fleet recreating the original fleet entry into the harbour. Crowds will once again gather around the harbour, whilst the Governor-General of the Commonwealth of Australia, Her Excellency Ms Quentin Bryce, will welcome the fleet from Bradley's Head and receive a 21-gun salute. Unlike 1913 however, this time, the seven ships will be followed by a fleet of more RAN and visiting warships; including the Nigerian Navy, visiting for the first time and the Russian Navy, which is visiting Australia for the first time in 110 years – the last time was in 1903.

The following day the formal ceremonial fleet review will be undertaken by the Her Excellency the Governor-General, embarked in HMAS LEEUWIN. A moving column of seven RAN ships, representing the original fleet, will sail past her. She will then navigate past the warships at anchor or berthed in Sydney Harbour to allow the Governor-General to 'review' each participating warship, as their crews man and cheer ship. The review will be followed by military band recitals and military displays, which will include flypasts and aerial displays by Australian and visiting aircraft. Saturday's events will culminate with a spectacular fireworks and light show over the harbour. The International Fleet Review Spectacular will include imagery projections on to the Sydney Opera House sails and the Sydney Harbour Bridge pylons, and fireworks fired from the decks of warships anchored in the harbour. This entire event is being held in partnership with the NSW State Government and the City of Sydney Council.

Other activities around Sydney running across the eight days of the IFR include: Freedom of Entry Parades in Mosman and Parramatta, a

Naval Memorial Service at the Cenotaph in Martin Place on Tuesday 8 October; and a parade by 4,000 navy personnel from the participating navies through the Sydney CBD on Wednesday 9 October.

A number of RAN, visiting navy warships, and tall ships will be open to the public at Garden Island, Barangaroo and Darling Harbour. The open days are being held on Sunday 6 and Monday 7 October. These will be via a ticketed process, and those interested are advised to check for information on the IFR website – <http://www.navy.gov.au/ifr>, as previous Navy open days have proven to be extremely popular. This is a rare opportunity to see not only a variety of ships from the RAN up close, but also from navies around the world, along with historic tall ships. Tickets are a must from <http://premier.ticketek.com.au/>.

The RAN Sea Power Conference 2013 and Pacific 2013 International Maritime Congress and Exposition, will also be on at Darling Harbour from 7-9 October 2013 to coincide with the IFR.

In lead up to the IFR, a number of the visiting warships and tall ships will be visiting ports around Australia on their way to Sydney. Exercise TRITON CENTENARY 13, will be taking place in the Eastern Australian Exercise Area, near Jervis Bay on the NSW south coast. Other activities, including the activation of the heritage listed Point Perpendicular lighthouse are being planned in the Shoalhaven region for the IFR.

As part of the IFR, the RAN is encouraging those who attend the Fleet Review and number of activities going on around Sydney to capture the spirit and experience through art and photography competitions. It is hoped this will develop into a visual memory to provide future generations with an archive of the commemoration, as much as the photos, art and newspaper reports from 1913 do for us today.

The IFR has a dedicated website, www.navy.gov.au/ifr, and is on Facebook and Twitter, so everyone can check the website for up to date information – there will be details on activities, when and where and how to get there, along with any registration and other information that might be needed. A free iPhone and android app, detailing ship information, activity and event locations for the IFR will also be available for download from the Apple Store and Google Play from early September. ■



2013 INTERNATIONAL FLEET REVIEW SCHEDULE OF EVENTS

THURSDAY 3 OCTOBER 2013

- 1100:** Tall ships entry. **Location:** Sydney Harbour.
- 0700:** Warships depart Jervis Bay for passage to Sydney.
- 1830:** Tall ships welcome reception. **Location:** Australian National Maritime Museum (Invited Guests).

FRIDAY 4 OCTOBER 2013

- 0600-1600:** Warships enter Sydney Harbour.
- 0930-1030:** Air displays by Navy Squirrel Display Team and RAAF Roulettes.
- 0930-1700:** Tall Ships open to the public. **Location:** Cockle Bay/Darling Harbour.
- 1000:** Ceremonial Fleet Entry and 21 Gun Salute. HMA Ships Sydney, Darwin, Perth, Parramatta, Bundaberg, Diamantina and HUON. **Location:** Sydney Harbour.
- 1100-1600:** Australian Surf Rowers Reception. **Location:** Sydney Opera House.
- 1830-2030:** Visiting Ships Welcome Reception. **Location:** Garden Island (Invited Guests).

SATURDAY 5 OCTOBER 2013

Dress ship. **Location:** Sydney Harbour.

- 1100-1430:** Ceremonial Fleet Review. **Location:** Sydney Harbour.
- 1120-1135:** Formation flypast by rotary and fixed winged aircraft. **Location:** Sydney Harbour.
- 1400-1745:** Air Displays by Navy, military and civil aircraft, including heritage aircraft from Australia's maritime history and Naval band performances. **Location:** Sydney Harbour.
- 1940-2010:** Pyrotechnics and Lightshow. **Location:** Sydney Harbour.

IFR SPECTACULAR - Key Information

Show time

7:40pm-8.10pm Saturday 5 October 2013

Best public vantage points

Dawes Point, Overseas Passenger Terminal, Bradfield Park, Mrs Macquarie's Chair, Circular Quay, Sydney Opera House

Radio simulcast

Listen to the soundtrack via live radio simulcast.

SUNDAY 6 OCTOBER 2013

- 1000-1130:** HMAS SYDNEY Memorial Service. **Location:** Naval Memorial, Bradley's Head.
- 1300-1800:** Tall ships open to the general public. **Location:** Cockle Bay/Darling Harbour (TBC).
- 1300-1800:** Warships Open Day. **Location:** Fleet Base East, Garden Island/Barangaroo.
- 1400-1530:** Ecumenical Service. **Location:** St Mary's Cathedral.

MONDAY 7 OCTOBER 2013

- 0800-1700:** Sea Power Conference 2013 and Pacific 2013 International Maritime Exposition.
Location: Sydney Conference and Exhibition Centre, Darling Harbour. Royal Australian Navy Band recitals.
- 0800-1800:** Warships Open Day. Location: Fleet Base East, Garden Island/Barangaroo.
- 0800-1800:** Tall ships open to the general public. Location: Cockle Bay/Darling Harbour.

TUESDAY 8 OCTOBER 2013

- 0800-1700:** Sea Power Conference 2013 and Pacific 2013 International Maritime Exposition continue.
Location: Sydney Conference and Exhibition Centre, Darling Harbour. Royal Australian Navy Band recitals.
- 1230-1400:** HMAS PENGUIN Freedom of Entry to Mosman. Location: Mosman Central Business District.
- 1230-1400:** Navy Memorial Service. Location: Cenotaph, Martin Place.
- 1300-1430:** HMAS PARRAMATTA Freedom of Entry to Parramatta. Location: Parramatta Central Business District.

WEDNESDAY 9 OCTOBER 2013

- 0800-1700:** Sea Power Conference 2013. Location: Sydney Conference and Exhibition Centre, Darling Harbour.
- 1230-1430:** Combined Navies Parade. Location: George Street - The Rocks to Town Hall.
- 1400-1630:** Pacific 2013 IFR Ships Companies Lunch. Location: Sydney Conference and Exhibition Centre, Darling Harbour. Closing of Pacific 2013 International Maritime Exposition. Location: Sydney Conference and Exhibition Centre, Darling Harbour.
- 1500-1730:** Twilight sailing with RAN Sailing Association. Location: Sydney Harbour.

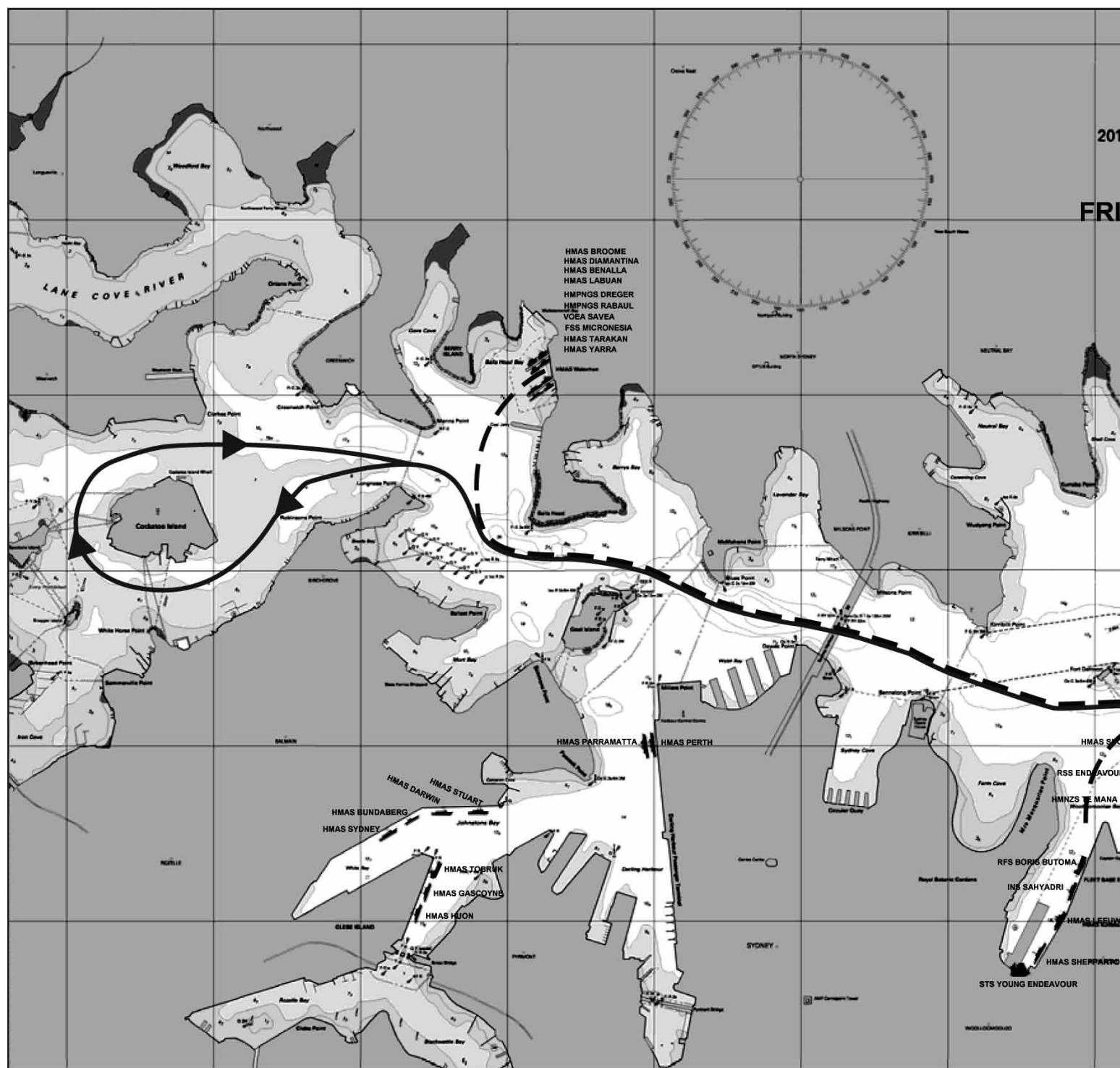
THURSDAY 10 OCTOBER 2013

- 1100:** Tall ships depart. Location: Sydney Harbour.
- 1000-1500:** Combined Navies Sporting Competition. Location: Randwick Barracks/Macquarie Park.
- 1500-1730:** Sailing Regatta with RAN Sailing Association. Location: Sydney Harbour.

FRIDAY 11 OCTOBER 2013

- 0730:** Warships begin to depart. Location: Sydney Harbour.

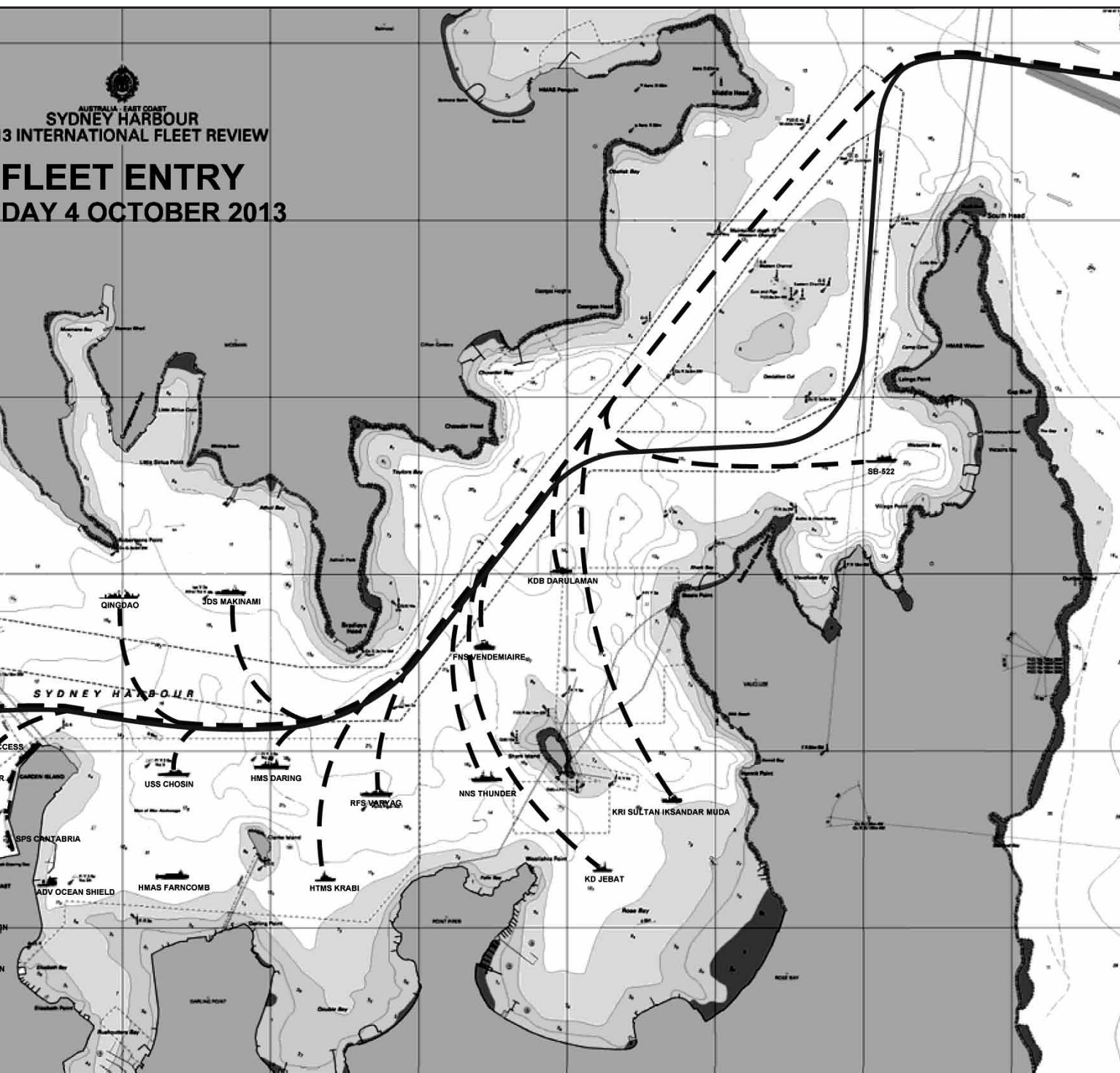
Fleet Entry Map



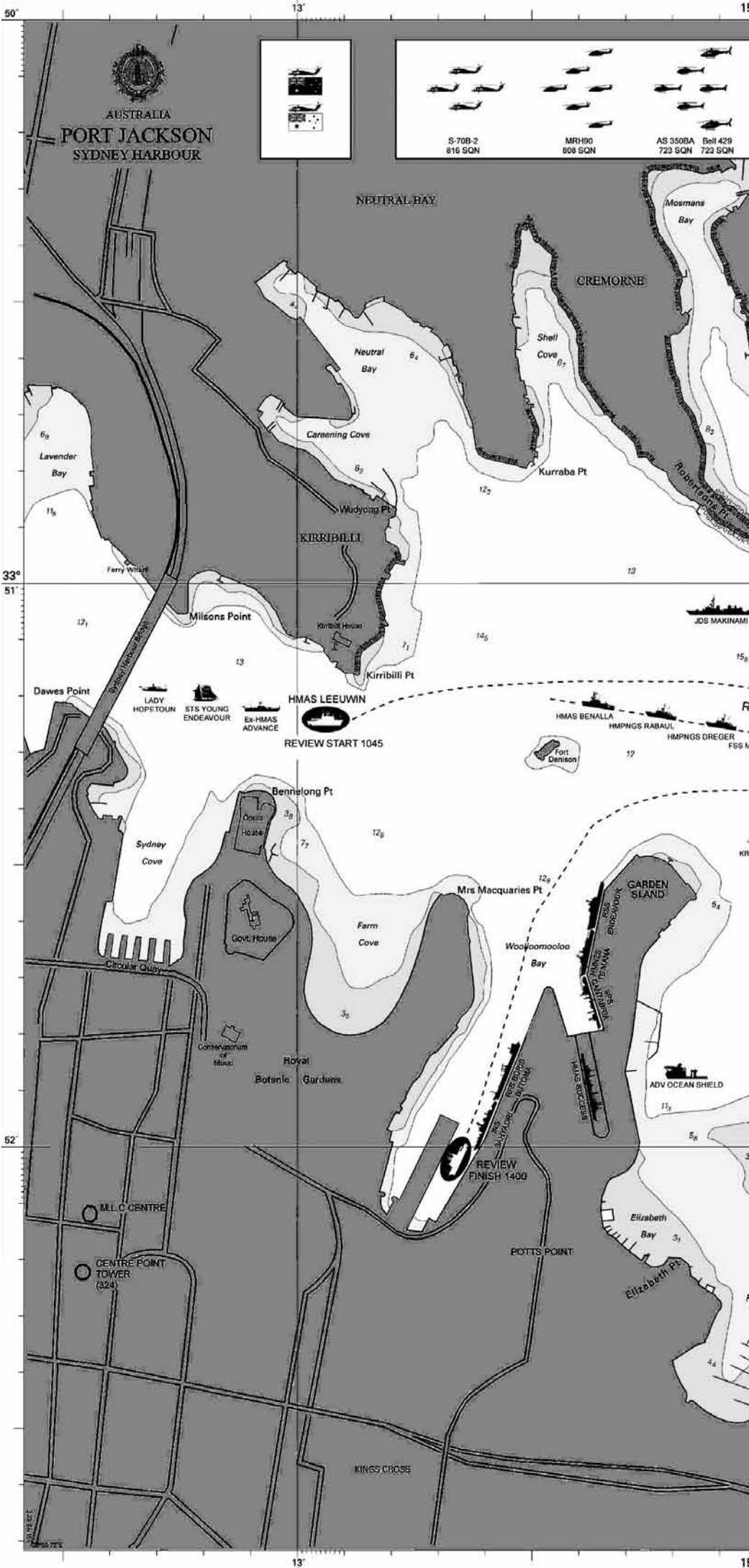
Ceremonial fleet entry of seven RAN warships

International warships

AUSTRALIA - EAST COAST
SYDNEY HARBOUR
 3 INTERNATIONAL FLEET REVIEW
FLEET ENTRY
DAY 4 OCTOBER 2013



Fleet Review Map



*The Battle Cruiser HMAS AMSTRALIA
passing HMS VICTORY in the UK.*



HMAS MELBOURNE.



The ships of the First

October

*HMS ENCOUNTER
(on loan to the RAN).*



HMAS WARREGO.





t RAN Fleet Entry

1913



RAN SHIPS OF IFR 2013

HMAS SYDNEY (IV)



Type Adelaide class Guided Missile Frigate (FFG).
Pennant FFG-03.
Builder Todd Pacific Shipyard Corporation, Seattle.
Launched 26 September 1980.
Commissioned 29 January 1983.
Displacement 4,267 tonnes.
Length 138.1 metres.
Beam 13.7 metres.
Draught 4.5 metres.
Speed 29 knots.
Range 4,500 nautical miles.
Crew 210.
Machinery 2 GE LM 2500 gas turbines.
Missiles 1 x Mk-13 launcher for a mix of 40 Harpoon Block 2 &/or Standard SM-2 Block IIIA. 1 x 8-cell Mk-41 VLS launcher for 32 anti-air/missile ESSM.
Guns 1 x OTO Melara 76 mm/62 gun. 1 x 20 mm Mk-15 Vulcan Phalanx anti-missile system. 6 x 12.7 mm MGs. 2 x Rafael Mini-Typhoon 12.7 mm remote-controlled guns.
Torpedoes 6 x Mk 32 (2 triple) tubes for Mk-46 ASW torpedoes.
Countermeasures 4 x Loral Hycor SRBOC Mk 36 or TERMA SKWS. 2 x Rafael long-range chaff rocket launchers. LESCUT torpedo countermeasures.
Electronic Countermeasures Elbit EA-2118 jammer. Rafael C-Pearl electronic surveillance.
Radars Raytheon SPS-49A(V)1. ISC Cardion SPS-55. Lockheed SPG-60. Sperry Mk 92 Mod 12.
Sonars Thales Spherion (TMS 4131). Petrel (TMS 5424) mine avoidance. Albatros (TMS 4350) towed-array torpedo warning system. Combat Data Systems ADACS. Link 11. Link 16.
Weapon Control Systems Sperry Mk 92 Mod 12 gun and missile control. Radamec 2500 optronic director with TV, laser and IR imager.
Helicopters 2 x Sikorsky S-70B-2 Seahawks.

HMAS DARWIN (I)



Type Adelaide class Guided Missile Frigate (FFG).
Pennant FFG-04.
Builder Todd Pacific Shipyard Corporation, Seattle.
Launched 26 March 1982.
Commissioned 21 July 1984.
Displacement 4,267 tonnes.
Length 138.1 metres.
Beam 13.7 metres.
Draught 4.5 metres.
Speed 29 knots.
Range 4,500 nautical miles.
Crew 199.
Machinery 2 GE LM 2500 gas turbines.
Missiles 1 x Mk-13 launcher for a mix of 40 Harpoon Block 2 &/or Standard SM-2 Block IIIA. 1 x 8-cell Mk-41 VLS launcher for 32 anti-air/missile ESSM.
Guns 1 x OTO Melara 76 mm/62 gun. 1 x 20 mm Mk-15 Vulcan Phalanx anti-missile system. 6 x 12.7 mm MGs. 2 x Rafael Mini-Typhoon 12.7 mm remote-controlled guns.
Torpedoes 6 x Mk 32 (2 triple) tubes for Mk-46 ASW torpedoes.
Countermeasures 4 x Loral Hycor SRBOC Mk 36 or TERMA SKWS. 2 x Rafael long-range chaff rocket launchers. LESCUT torpedo countermeasures.
Electronic Countermeasures Elbit EA-2118 jammer. Rafael C-Pearl electronic surveillance.
Radars Raytheon SPS-49A(V)1. ISC Cardion SPS-55. Lockheed SPG-60. Sperry Mk 92 Mod 12.
Sonars Thales Spherion (TMS 4131). Petrel (TMS 5424) mine avoidance. Albatros (TMS 4350) towed-array torpedo warning system.
Combat Data Systems ADACS. Link 11. Link 16.
Weapon Control Systems Sperry Mk 92 Mod 12 gun and missile control. Radamec 2500 optronic director with TV, laser and IR imager.
Helicopters 2 x Sikorsky S-70B-2 Seahawks.

HMAS PARRAMATTA (IV)



Type Anzac class frigate (FFH).

Pennant FFH-154.

Builder Tenix Defence Systems.

Laid Down 5 June 1999.

Launched 17 June 2000.

Commissioned 4 October 2003.

Displacement 3,600 tonnes.

Length 118 metres.

Beam 14.8 metres.

Draught 4.35 metres.

Speed 27 knots.

Range 6,000 nautical miles.

Crew 177

Machinery 1 x GE LM2500 gas turbine. 2 x MTU 12V 1163 diesel engines - driving two controllable pitch propellers.

Missiles 1x 8-cell Mk-41 VLS for 32 ESSM.

8 x Harpoon Anti-Ship Missiles.

Guns 1 x 5 inch (127mm) Mk45 Mod 2 gun.

4 x 50 calibre (12.7mm) machine guns.

Torpedoes 6 x Mk 32 (2 triple) tubes for MU90 ASW torpedoes.

Physical Countermeasures Loral Hycor SRBOC decoy launchers.

BAE Nulka decoys. SLQ-25C towed torpedo decoy.

Electronic Countermeasures Thales Centaur radar intercept.

Telefunken PST-1720 comms intercept.

Radars Raytheon SPS-49(V)8. Ericsson Sea Giraffe.

Atlas Elektronik 9600. Cossor AIMS Mk XII.

Sonars Thomson Sintra Spherion. Thales UMS 5424 Petrel.

Combat Data Systems Saab Systems 9LV 453

Electro-optic Systems Saab Systems Ceros 200

Helicopters 1 x S-70B-2 Seahawk

HMAS STUART (III)



Type Anzac class frigate (FFH).

Pennant FFH-153.

Builder Tenix Defence Systems.

Laid Down 25 July 1998.

Launched 17 April 1999.

Commissioned 17 August 2002.

Displacement 3,600 tonnes.

Length 118 metres.

Beam 14.8 metres.

Draught 4.35 metres.

Speed 27 knots.

Range 6,000 nautical miles.

Crew 177.

Machinery 1 x GE LM2500 gas turbine.

2 x MTU 12V 1163 diesel engines - driving two controllable pitch propellers.

Missiles 1x 8-cell Mk-41 VLS for 32 ESSM.

8 x Harpoon Anti-Ship Missiles.

Guns 1 x 5 inch (127mm) Mk45 Mod 2 gun. 4 x 50 calibre (12.7mm) machine guns.

Torpedoes 6 x Mk 32 (2 triple) tubes for MU90 ASW torpedoes.

Physical Countermeasures Loral Hycor SRBOC decoy launchers.

BAE Nulka decoys. SLQ-25C towed torpedo decoy.

Electronic Countermeasures Thales Centaur radar intercept.

Telefunken PST-1720 comms intercept.

Radars Raytheon SPS-49(V)8. Ericsson Sea Giraffe. Atlas Elektronik 9600. Cossor AIMS Mk XII.

Sonars Thomson Sintra Spherion. Thales UMS 5424 Petrel.

Combat Data Systems Saab Systems 9LV 453

Electro-optic Systems Saab Systems Ceros 200

Helicopters 1 x S-70B-2 Seahawk

HMAS PERTH (III)



Type Anzac class frigate (FFH)
Pennant FFH-157
Builder Tenix Defence Systems, Williamstown
Laid Down 24 July 2003
Launched 20 March 2004
Commissioned 26 August 2006
Displacement 3,759 tonnes
Length 118 metres
Beam 14.8 metres
Draught 4.35 metres
Speed 27 knots
Range 6,000 nautical miles
Crew 174
Machinery 1 x GE LM2500 gas turbine.
 2 x MTU 12V 1163 diesels - driving two controllable pitch propellers
Missiles 1x 8-cell Mk-41 VLS for 32 ESSM.
 8 x Harpoon Anti-Ship Missiles.
Guns 1 x 5 inch (127mm) Mk45 Mod 2 gun.
 4 x 50 calibre (12.7mm) machine guns.
Torpedoes 6 x Mk 32 (2 triple) tubes for MU90 ASW torpedoes.
Physical Countermeasures Loral Hycor SRBOC decoy launchers
 BAE Nulka decoys. SLQ-25C towed torpedo decoy
Electronic Countermeasures Thales Centaur radar intercept.
 Telefunken PST-1720 comms intercept.
Radars Raytheon SPS-49(V)8. CEAFAF active phased array.
 Kelvin Hughes Sharp Eye. CEAMOUNT illuminators. Cossor AIMS Mk XII.
Sonars Thomson Sintra Spherion. Thales UMS 5424 Petrel
Combat Data Systems Saab Systems 9LV 453
Electro-optic Systems Saab Systems Ceros 200. Sagem VAMPIR
 IRST
Helicopters 1 S-70B-2 Seahawk.

HMAS BROOME (II)



Type Armidale class Patrol Boat (PB)
Pennant ACPB 90
Home Port HMAS COONAWARRA
Builder Austal Ships, Fremantle
Commissioned 10 February 2007
Displacement standard: 300 tonnes
Length Overall: 56.8 m (186.35 ft)
Beam Overall: 9.7 m (31.82 ft)
Draught Hull: 2.7 m (8.86 ft)
Speed Top speed: 25kt (46.3 km/h) (28.8 mph)
Range Standard: 3,000 nm (5556 km) (3452.3 miles) at 12 kt (22.2 km/h) (13.8 mph)
Crew 21
Machinery 2 MTU 4000 16V diesels; 6,225 hp (4.64 MW); 2 shafts
Guns One 25 mm Rafael M242 Bushmaster.
 Two 12.7mm machine guns
Electronic Countermeasures BAE Systems Prism III; intercept.
Radars Surface search/navigation: Bridgemaster E; E/F/I-band.
Electro-optic Systems Rafael Toplite optronic director.

HMAS BUNDABERG (II)



Type Armidale class Patrol Boat (PB)
Pennant ACPB 91
Home Port HMAS CAIRNS
Builder Austal Ships, Fremantle
Commissioned 3 March 2007
Displacement standard: 300 tonnes
Length overall: 56.8 m (186.35 ft)
Beam overall: 9.7 m (31.82 ft)
Draught hull: 2.7 m (8.86 ft)
Speed top speed: 25kt (46.3 km/h) (28.8 mph)
Range standard: 3,000 nm (5556 km) (3452.3 miles)
at 12 kt (22.2 km/h) (13.8 mph)
Crew 21
Machinery 2 MTU 4000 16V diesels; 6,225 hp (4.64 MW); 2 shafts
Guns One 25 mm Rafael M242 Bushmaster
Two 12.7mm machine guns
Electronic Countermeasures BAE Systems Prism III; intercept.
Radars Surface search/navigation: Bridgemaster E; E/F/I-band.
Electro-optic Systems Rafael Toplite optronic director.

HMAS FARNCOMB (I)



Type Collins class submarine
Builder Australian Submarine Corp
Laid Down 1 March 1991
Launched 15 December 1995
Commissioned 31 January 1998
Displacement surfaced: 3,100 tonnes
Length 77.8 metres
Beam 7.8 metres
Speed dived: 20 knots. Surfaced: 10 knots
Range surfaced: 11,500 nm. Dived: 400 nm
Crew 66
Machinery 3 Hedemora/Garden Island Type V18B/14 diesels.
3 Jeumont Schneider generators. 1 MacTaggart Scott DM 43006
hydraulic motor for emergency propulsion.
Missiles Sub Harpoon Block 1B (UGM-84C); active radar
homing Anti-Ship
Torpedoes 6-21 in (533 mm) fwd tubes. Mk 48 Mod 4/6/7;
dual purpose; wire-guided; active/passive homing
Electronic Countermeasures ESM: Condor CS-5600;
intercept and warning.
Radars Navigation: Kelvin Hughes Type 1007; I-band.
Sonars Thomson Sintra Scylla active/passive bow array and
passive flank, intercept and ranging arrays. Thales SHORTAS
retractable, passive.
Weapon Control Systems AN-BYG 1. Link 11

HMAS SUCCESS (II)



Type Fleet Support Ship
Pennant OR-304
Motto Strive To Win
Home Port Fleet Base East
Builder Cockatoo Island Dockyard, Sydney, NSW
Laid Down 9 August 1980
Launched 3 March 1984
Launched by Her Excellency Lady Stephen, wife of the then Governor General of Australia
Commissioned 23 April 1986
Displacement 18,000 tonnes (full load)
Length 157.2 metres
Beam 21.2 metres
Draught 8.6 metres
Speed 20 knots
Range 8600 nms
Crew 220
Machinery 2 x SEMT-Pielstick 16 diesels
Guns 1 x Vulcan Phalanx Mk 15 CIWS (for selected deployments)
 7 x 12.7 mm machine guns
Radars 2 x Kelvin Hughes Type 100G
Helicopters 1 x AS 350B Squirrel or 1 x Seahawk

HMAS TOBRUK (II)



Class Modified Round Table class Landing Ship, Heavy (LSH)
Pennant L 50
Builder Carrington Slipways, Pty Ltd
Laid Down 7 February 1978
Launched 1 March 1980
Commissioned 23 April 1981
Displacement 3,353 tonnes (5,791 tonnes loaded)
Length 127 metres
Beam 18.3 metres
Draught 4.9 metres
Speed 18 knots
Range 8,000 nautical miles
Crew 150
Capacity 18 tanks, 40 Armoured Personnel Carriers or 40 Australian Light Armoured Vehicles.
 2 Landing Craft Mechanical-8 (LCM-8) on specially designed cradles.
 2 Landing Craft Vehicular Personnel units (LCVP) side of the superstructure.
 300 troops (standard) 520 troops (overload).
Machinery 2 x Mirreles Blackstone KDMR8 diesels
Guns 6 x 12.7mm machine guns
 2 x Mini Typhoon 12.7 mm (for selected deployments)
Radars Kelvin Hughes Type 1006
 Kelvin Hughes Type 1007
Helicopters No hangar. Short periods ranging from the Squirrel AS350-B to MRH-90)

HMAS HUON (II)



Type Huon class Minehunter, Coastal (MHC)
Role Mine Warfare
Pennant M 82
Home Port HMAS WATERHEN
Builder ADI Newcastle
Launched 25 July 1997
Commissioned 15 May 1999
Displacement 732 tonnes
Length 52.5 metres
Beam 9.9 metres
Draught 3 metres
Speed 14 knots
Range 1,600 nautical miles
Crew 46
Machinery 1 x Fincantieri GMT diesel.
3 x Isotta Fraschini 1300 diesels.
3 x electrohydraulic motors.
Riva Calzoni retractable/rotatable APUs .
Guns 1 x MSI DS 30B 30mm
Physical Countermeasures 2 x Bofors SUTEC Double-Eagle Mk 2
mine disposal vehicles.
2 x MEL Aviation Super Barricade chaff launchers.
Electronic Countermeasures AWADI Prism
Radars Kelvin Hughes 1007
Sonars GEC-Marconi Type 2093
Combat Data Systems GEC-Marconi Nautis 2M
Weapon Control Systems Radamec 1400N optronic surveillance system

HMAS DIAMANTINA (II)



Type Huon class Minehunter, Coastal (MHC)
Role Mine Warfare
Pennant M 86
Home Port HMAS WATERHEN
Builder ADI Newcastle
Launched 2 December 2000
Commissioned 4 May 2002
Displacement 732 tonnes
Length 52.5 metres
Beam 9.9 metres
Draught 3 metres
Speed 14 knots
Range 1,600 nautical miles
Crew 46
Machinery 1 x Fincantieri GMT diesel.
3 x Isotta Fraschini 1300 diesels.
3 x electrohydraulic motors.
Riva Calzoni retractable/rotatable APUs .
Guns 1 x MSI DS 30B 30mm
Physical Countermeasures 2 x Bofors SUTEC Double-Eagle Mk 2
mine disposal vehicles.
2 x MEL Aviation Super Barricade chaff launchers.
Electronic Countermeasures AWADI Prism
Radars Kelvin Hughes 1007
Sonars GEC-Marconi Type 2093
Combat Data Systems GEC-Marconi Nautis 2M
Weapon Control Systems Radamec 1400N optronic surveillance system

HMAS YARRA (IV)



Type Huon class Minehunter, Coastal (MHC)
Role Mine Warfare
Pennant M 87
Home Port HMAS WATERHEN
Builder ADI Newcastle
Launched 19 January 2002
Commissioned 1 March 2003
Displacement 732 tonnes
Length 52.5 metres
Beam 9.9 metres
Draught 3 metres
Speed 14 knots
Range 1,600 nautical miles
Crew 46
Machinery 1 x Fincantieri GMT diesel. 3 x Isotta Fraschini 1300 diesels. 3 x electrohydraulic motors. Riva Calzoni retractable/rotatable APUs.
Guns 1 x MSI DS 30B 30mm
Physical Countermeasures 2 x Bofors SUTEC Double-Eagle Mk 2 mine disposal vehicles. 2 x MEL Aviation Super Barricade chaff launchers.
Electronic Countermeasures AWADI Prism
Radars Kelvin Hughes 1007
Sonars GEC-Marconi Type 2093
Combat Data Systems GEC-Marconi Nautis 2M
Weapon Control Systems Radamec 1400N optronic surveillance system

HMAS GASCOYNE (II)



Type Huon class Minehunter, Coastal (MHC)
Role Mine Warfare
Pennant M 85
Home Port HMAS WATERHEN
Builder ADI Newcastle
Launched 11 March 2000
Commissioned 2 June 2001
Displacement 732 tonnes
Length 52.5 metres
Beam 9.9 metres
Draught 3 metres
Speed 14 knots
Range 1,600 nautical miles
Crew 46
Machinery 1 x Fincantieri GMT diesel. 3 x Isotta Fraschini 1300 diesels. 3 x electrohydraulic motors. Riva Calzoni retractable/rotatable APUs.
Guns 1 x MSI DS 30B 30mm
Physical Countermeasures 2 x Bofors SUTEC Double-Eagle Mk 2 mine disposal vehicles. 2 x MEL Aviation Super Barricade chaff launchers.
Electronic Countermeasures AWADI Prism
Radars Kelvin Hughes 1007
Sonars GEC-Marconi Type 2093
Combat Data Systems GEC-Marconi Nautis 2M
Weapon Control Systems Radamec 1400N optronic surveillance system

HMAS TARKAN (II)



Class Balikpapan Class Landing Craft, Heavy (LCH)

Pennant L 129

Builder Walkers Ltd, Maryborough Queensland

Laid Down 1 December 1971

Launched 16 March 1972

Commissioned 15 June 1973

Displacement 364 tonnes (loaded, 517 tonnes)

Length 44.5 metres

Beam 10.1 metres

Draught 2 metres

Speed 10 knots

Range 3,000 nautical miles

Crew 13

Machinery 2 x Caterpillar 3406 diesels

Guns 2 x 12.7mm machine guns

Radars Racal Decca Bridgemaster

HMAS LABUAN (II)



Class Balikpapan Class Landing Craft, Heavy (LCH)

Pennant L 128

Builder Walkers Ltd, Maryborough Queensland

Laid Down 1 Oct 1978

Launched 29 December 1971

Commissioned 9 March 1973

Displacement 364 tonnes (loaded, 517 tonnes)

Length 44.5 metres

Beam 10.1 metres

Draught 2 metres

Speed 10 knots

Range 3,000 nautical miles

Crew 13

Machinery 2 x Caterpillar 3406 diesels

Guns 2 x 12.7mm machine guns

Radars Racal Decca Bridgemaster

HMAS LEEUWIN



Class Surveying Ship (AGS)
Pennant A 245
Builder North Queensland Engineers & Agents
Launched 1 June 1997
Commissioned 27 May 1997
Displacement 2205 tonnes
Length 71.2 metres
Beam 15.2 metres
Draught 4.3 metres
Speed 14 knots
Range 18,000 nautical miles
Crew 46
Machinery 4 x GEC Alsthom 6RK 215 diesel generators
 2 x Alsthom electric propulsion motors
Radars STN Atlas 9600 ARPA navigation radar
Sonars C-Tech CMAS 36/39
 Atlas Fansweep multibeam echo sounder
 Atlas Hydrographic Deso single beam echo sounder
Helicopters 1 x AS 350B Squirrel (not permanently embarked)

HMAS SHEPPARTON (II)



Class Paluma class, Surveying Ship, Coastal (AGSC)
Pennant A 03
Builder Eglo, Adelaide
Launched 5 December 1989
Commissioned 24 January 1990
Displacement 325 tonnes
Length 36.6 metres
Beam 12.8 metres
Draught 2.65 metres
Speed 11 knots
Range 3600 nautical miles
Crew 15
Machinery 2 x Detroit 12V-92TA diesels
Radars Kelvin Hughes 1007
Sonars Thales Petrel three-dimensional forward looking
 active high frequency

HMAS BENALLA (II)



Class Paluma class, Surveying Ship, Coastal (AGSC)

Pennant A 04

Builder Eglo, Adelaide

Launched 31 January 1990

Commissioned 20 March 1990

Displacement 325 tonnes

Length 36.6 metres

Beam 12.8 metres

Draught 2.65 metres

Speed 11 knots

Range 3600 nautical miles

Crew 15

Machinery 2 x Detroit 12V-92TA diesels

Radars Kelvin Hughes 1007

Sonars Thales Petrel three-dimensional forward looking
active high frequency

FOREIGN WARSHIPS OF IFR 2013

KDB DARULEHSAN Royal Brunei Navy



Type Darussalam (PV 80) class Offshore Patrol Vessel
Pennant 07
Displacement 1,625 tonnes
Length 80.0m (262.5ft)
Beam: 13.0m (42.7ft)
Draught 3.0m (9.8ft)
Speed 22kt (40.7km/h) (25.3mph)
Range 7500n miles (13890.0km) (8630.8miles) at 12kt (22.2km/h) (13.8mph)
Crew 54
Machinery 2 MTU 12V 1163 TB 93 diesels; 11,400 hp (8.5 MW); 2 shafts; cp props
Missiles 4 Exocet MM40 Block 3.
Guns 1 BAE Systems 57 mm Mk 3. 2 GAM B01 20 mm
Countermeasures Terma SKWS
Electronic Surveillance EDO ES-3601.
Radars Surface search/navigation: Terma Scanter 4100; I-band. Fire control: Thales STING; I/J-bands.
Weapon Control Systems Thales STING Mk 2 optronic and radar tracker. Zeiss MEOS II EO surveillance
Helicopters Pad only

QINGDAO People Liberation Army – Navy (China)



Type Luh Type 52A class guided missile destroyer (DDG)
Pennant 113
Builder Jiangnan Shipyard , Shanghai
Launched Oct 1993
Commissioned Mar 1996
Displacement 4674 tonnes
Length 144 m
Beam 16 m
Draught 5.1 m
Speed 31 kt
Range 5,000 n miles (9260.0 km) at 15 kt
Crew 266
Machinery 2 GE LM 2500 gas turbines (112); 55,000 hp(41 MW) sustained or 2 Ukraine gas turbines (113) 48,600 hp(m) (35.7 MW) ; 2 MTU 12V 1163 TB83 diesels; 8,840 hp(m) (6.5 MW) sustained; 2 shafts; cp props
Missiles Anti-Ship: 16 C-802 (YJ-83/CSS-N-8 Saccade) range 120 km (65 n miles) . anti-aircraft: 1 HQ-7 (Crotale) CSA-N-4 octuple launcher, 32 missiles.
Guns 2 - 3.9 in(100 mm) /56 (twin) Gun mount. 2 - 30 mm Type 730.
Torpedoes 6-324 mm Whitehead B515 (2 triple) tubes.
Countermeasures 2 Type 726; 24 barrelled 100 mm chaff launchers
Electronic Countermeasures ESM: Rapids. ECM: Scimitar.
Radars Air search: Type 517B Knife Rest;. Air/surface search: Type 363S Sea Tiger;. Surface search: Type 364 Seagull C. Fire control: Type 344 (MR 34); I-band (for anti-ship and 100 mm). Type 345for HQ-7. Navigation: Racal Decca 1290.
Sonars DUBV-23; Hull-mounted; active search and attack; medium frequency. Towed array.
Combat Data Systems Thomson-CSF Tavitac action data automation. SATCOM. Link W.
Weapon Control Systems 2 GDG-775 optronic directors. OFC-3.
Helicopters 2 Harbin Zhi-9C Haitun.

FNS VENDÉMIAIRE

Marine National (France)



Type Floreal class patrol frigate
Pennant F 734
Builder Chantiers de l'Atlantique , St Nazaire
Launched 23 Aug 1992
Commissioned 21 Oct 1993
Displacement 2642 tonnes
Length 93.5 m
Beam 14 m
Draught 4.3 m
Speed 20 kt (37.0 km/h)
Range 10000 n miles (18520.0 km) (11507.8 miles) at 15 kt
Crew 83
Machinery 4 SEMT-Pielstick 6 PA6 L 280 BTC diesels; 8,820 hp(m) (6.5 MW) sustained; 2 shafts; LIPS cp props; 272 hp(200 kW) bow thruster; 340 hp(m) (250 kW)
Missiles 2 MM 38 Exocet anti-ship missiles.
1 or 2 Matra Simbad twin anti-aircraft missile launchers.
Guns 1 3.9 in(100 mm) /55 Mod 68 gun. 2 Giat 20 F2 20 mm.
Countermeasures 2 CSEE AMBL-1C (Dagaie Mk II); 10-barrelled trainable launchers chaff and IR flares.
Electronic Countermeasures Thomson-CSF ARBR 16A; radar intercept. ARBG 1A (Saigon); comms intercept.
Radars Air/surface search: Thomson-CSF Mars DRBV 21C. Navigation: 2 Racal Decca 1229 (DRBN 34A) 1 for helicopter control.
Combat Data Systems Syracuse and INMARSAT SATCOM
Weapon Control Systems CSEE Najir optronic director
Helicopters 1 AS 565MA Panther or platform for 1 AS 332F Super Puma

INS SAHYADRI

Indian Navy



Type Shivalik (Project 17) class guided missile frigate (FFG)
Pennant F 49
Builder Mazagon Dock Ltd , Mumbai
Launched 27 May 2005
Commissioned 21 Jul 2012
Displacement 6299 tonnes
Length 143.0 m
Beam 16.9 m
Draught 5.3 m
Speed 30 kt (55.6 km/h) (34.5 mph)
Range 4500 n miles (8334.0 km) at 18 kt., or, 1600 n miles (2963.2 km) at 30 kt
Crew 257
Machinery 2 GE LM 2,500 gas turbines; 44,000 hp(32.8 MW); 2 SEMT-Pielstick 16PA 6V280 STC diesels; 15,200 hp(11.3 MW); 2 cp propellers.
Missiles 8 SS-N-27 Novator Alfa Klub-N (3K-54-TE) in VLS silo. SA-N-7 Shtil (9M317E) single launcher for 24 anti-aircraft missiles. 4 octuple Barak 1 VLS anti-missile missiles.
Guns 1 OTO Melara 3 in(76 mm) /62 Super Rapid. 2-30 mm AK 630.
Torpedoes 6-324 mm ILAS 3 (2 triple)
ASW mortars 2 RBU 6000 12-barrelled launcher
Countermeasures 4 Kavach chaff launchers
Electronic Countermeasures Ellora EW suite
Radars Air search: Elta 2238 AMDR-ER; 3D. Air/surface search: Top Plate (Fregat-M2EM) 3D. Fire control: 2 BEL Shikari (based on Contraves Seaguard) (for 76 mm). 1 BEL Aparna (modified Plank Shave/Garpun B) (for antiship missiles). 4 Front Dome (for SA-N-7). 2 EL/M 2221 STGR (for Barak). Navigation: 2 BEL Rashmi.
Sonars Bharat HUMSA; hull-mounted; active search and attack; medium frequency. Thales Sintra ATAS
Combat Data Systems BEL CMS-17
Weapon Control Systems EON-51 optronic director
Helicopters 1 Sea King Mk 42B or HAL Dhruv

KRI SULTAN ISKANDER MUDA Indonesian Navy



Type Diponegoro (Sigma) class Corvette
Pennant 367
Builder Royal Schelde , Vlissingen
Launched 24 Nov 2007
Commissioned 18 Oct 2008
Displacement 1719 tonnes
Length 90.7 m
Beam 13.0 m
Draught 3.6 m
Speed 28 kt
Range 4000 n miles (7408.0 km) at 18 kt
Crew 80
Machinery 2 SEMT Pielstick 20 PA6B diesels; 21,725 hp(16.2 MW) ; 2 shafts; cp props
Missiles 2 quadruple Tetral launchers for MBDA Mistral IR homing anti-aircraft missiles.
 4 MM 40 Exocet Block II anti-ship missiles
Guns 1 Oto Melara 3 in(76 mm) /62 Super Rapid
 2 Giat 20 mm [Ref 4].
Torpedoes 6-324 mm tubes for Mu-90
Countermeasures 2 Terma SKWS 130 mm launchers
Electronic Countermeasures ESM: Thales DR 3000; intercept.
ECM Racal Scorpion; jammer.
Radars Surface search: Thales MW 08.
 Navigation: Sperry Marine Bridgemaster.
Sonars Thales Kingclip; hull-mounted
Combat Data Systems Taciticos including Link Y
Weapon Control Systems LIROD Mk 2 optronic tracker
Helicopters Pad only

JDS MAKINAMI Japanese Maritime Self Defence Force



Type Takanami class guided missile destroyer
Pennant 112
Builder IHI Marine United , Yokohama
Launched 29 Aug 2003
Commissioned 16 Feb 2005
Displacement 6401 tonnes
Length 151 m
Beam 17.4 m
Draught 5.3 m
Speed 30 kt
Crew 176
Machinery COGAG; 2 RR Spey SM1C gas turbines; 26,600 hp(19.9 MW) sustained; 2 GE LM 2500 gas turbines; 32,500 hp(24.3 MW) sustained; 2 shafts
Missiles 8 Mitsubishi Type 90 SSM-1B (2 quad) [anti-ship missiles.
 1 Mk 41 VLS 32 cells for Sea Sparrow RIM 162 ESSM anti-aircraft missiles and VL ASROC; with Mk 46 Mod 5 torpedo payload.
Guns 1 Otobreda 5 in(127 mm) / 54
 2 Raytheon 20 mm Phalanx Mk-15 CIWS
Torpedoes 6-324 mm HOS-302 (2 triple) tubes for Mk 46 Mod 5; anti-submarine torpedoes.
Countermeasures 4 Mk 36 SRBOC chaff launchers. SLQ-25 Nixie towed torpedo decoy.
Electronic Countermeasures Nec NOLQ 3; intercept and jammer
Radars Air search: Melco OPS-24B Surface search: JRC OPS-28D.
 Fire control: 2 FCS 2-31B [Navigation: OPS-20.
Sonars OQS-5; Bow-mounted; active search and attack; low frequency. OQR-2; towed array; passive search; very low frequency.
Combat Data Systems OYQ-9 with Link 11. ORQ-1B helicopter datalink
Weapon Control Systems Hitachi OYQ-103 ASW control system
Helicopters 1 Mitsubishi/Sikorsky SH-60J/K

KD JEBAT
Royal Malaysian Navy



Type Lekiu class frigate
Pennant 29
Builder Yarrow Shipbuilders, Glasgow
Launched 27 May 1995
Commissioned 20 Nov 1999
Displacement 2390 tonnes
Length 105.5 m
Beam 12.8 m
Draught 3.6 m
Speed 28 kt
Range 5000 n miles (9260.0 km) (5753.9 miles) at 14 kt
Crew 146
Machinery 4 MTU 20V 1163 TB93 diesels; 33,300 hp(m) (24.5 MW) sustained; 2 shafts; Kamewa cp props.
Missiles 8 MM 40 Exocet Block II anti-ship missiles. British Aerospace VLS Seawolf; 16 anti-aircraft missiles.
Guns 1 Bofors 57 mm/70 SAK Mk 2. 2 MSI 30 mm/75 DS 30B
Torpedoes 6 Whitehead B 515 324 mm (2 triple) tubes [Ref 5]; anti-submarine; Marconi Stingray.
Countermeasures 2 Super Barricade 12-barrelled launchers for chaff [Ref 6]; Graseby Sea Siren torpedo decoy.
Electronic Countermeasures AEG Telefunken/Marconi Mentor; intercept.
Radars Air search: Signaal DA08. Surface search: Ericsson Sea Giraffe 150HC. Navigation: Racal Decca. Fire control: 2 Marconi 1802.
Sonars Thomson Sintra Spherion; hull-mounted active search and attack; medium frequency.
Combat Data Systems GEC-Marconi NAUTIS-F; Signaal Link Y Mk 2
Weapon Control Systems Radamec 2400 Optronic director. Thomson-CSF ITL 70 (for Exocet); GEC-Marconi Type V 3901 thermal imager.
Helicopters Westland Super Lynx

HMNZS TE MANA
Royal New Zealand Navy



Type Anzac class Guided Missile Frigate (FFG)
Pennant F111
Builder Tenix Defence Systems, Williamstown, Vic
Launched 10 May 1997
Commissioned 10 Dec 1999
Displacement 3759 tonnes
Length 118 m (387.1 ft)
Beam 14.8 m
Draught 4.4m
Speed 27kt (50.0 km/h) (31.1 mph)
Range 5900 nm (10,926.8 km) (6789.6 miles) at 18 kt (33.3 km/h) (20.7 mph)
Crew 163
Machinery 1 GE LM 2500 gas turbine; 30,172 hp (22.5 MW) sustained; 2 MTU 12V 1163 TB93 diesels; 11,800 hp(m) (8.8 MW) sustained; 2 shafts; cp props
Missiles 8 Sea Sparrow RIM-7P from one 8-cell Mk 41 Mod 5 vertical launch system
Guns 1 5-inch (127 mm) Mk-45 Mod 2 gun. 1 Mk 15 Block 2 20mm Phalanx. 2 Rafael Mini-Typhoon 12.7 mm remote-controlled guns
Torpedoes 6-324 mm Mk-32 Mod 5 (2 triple) tubes; Mk 46 Mod 2; anti-submarine torpedoes.
Countermeasures 2 Mk 36 Mod 1 chaff launchers. SLQ-25A torpedo decoy system
Electronic Countermeasures DASA Maigret; Racal Centaur; intercept
Radars Air search: Raytheon SPS-49(V)8. Air/surface search: CelsiusTech 9LV 453 TIR (Ericsson Tx/Rx). Navigation: Atlas Elektronik 9600 ARPA. Fire control: CelsiusTech 9LV 453. IFF: Cossor Mk XII.
Sonars Thomson Sintra Spherion B Mod 5; hull-mounted; active search and attack; medium frequency.
Combat Data Systems CelsiusTech 9LV 453 Mk 3. Link 11; GCCS-M.
Weapon Control Systems CelsiusTech 9LV 453 optronic director. Raytheon CWI Mk 73 Mod 1 (for SAM).
Helicopters 1 SH-2G (NZ) Super Seasprite

NNS THUNDER Nigerian Navy



Type Patrol Frigate
Pennant F 90
Builder Avondale Shipyards , New Orleans
Launched 20 May 1967
Commissioned 1 Mar 1968
Displacement 3353 tonnes
Length 115.2 m (378.0 ft)
Beam 13.1 m (43.0 ft)
Draught 6.1 m (20.0 ft)
Speed 29 kt (53.7 km/h) (33.4 mph)
Range 9600 n miles (17,779.2 km) (11,047.5 miles) at 15 kt
Crew 181
Machinery 2 Pratt & Whitney FT4A-6 gas turbines; 36,000 hp (26.86 MW); 2 Fairbanks-Morse 38TD8-1/8-12 diesels; 7,000 hp (5.22 MW) sustained; 2 shafts; cp props; retractable bow propulsor; 350 hp (261 kW)
Guns 1 3-inch (76 mm) Mk-75 Compact gun. 4-12.7 mm MGs.
Radars Surface search: Hughes/Furuno SPS-73; E/F- and I-bands. Fire control: Sperry Mk 92; I/J-band. Tacan URN 25.
Combat Data Systems SCCS 378.
Weapon Control Systems Mk 92 Mod 1 GFCS
Helicopters Platform for 1 medium

FSS MICRONESIA Federated States of Micronesia



Type Pacific class Patrol Boat
Pennant FSM 02
Builder Australian Shipbuilding Industries
Commissioned 3 Nov 1990
Displacement 165 tonnes
Length 31.5 m (103.3 ft)
Beam 8.1 m (26.6 ft)
Draught 2.1 m (6.9 ft)
Speed 20kt (37.0 km/h) (23.0 mph)
Range 2500 n miles (4630.0 km) (2876.9 miles) at 12kt
Crew 20
Machinery 2 Caterpillar 3516TA diesels; 4,400 hp (3.28 MW) sustained; 2 shafts
Radars Surface search: Furuno 1011.

HMPNGS RABUAL
Papua New Guinea Defence Force



Type Pacific class Patrol Boat
Pennant 01
Builder Australian Shipbuilding Industries
Commissioned 16 May 1987
Displacement 165 tonnes
Length 31.5 m (103.3 ft)
Beam 8.1 m (26.6 ft)
Draught 2.1 m (6.9 ft)
Speed 20kt (37.0 km/h) (23.0 mph)
Range 2500 n miles (4630.0 km) (2876.9 miles) at 12kt
Crew 20
Guns 1 Oerlikon GAM-B01 20 mm. 2-7.62 mm MGs.
Machinery 2 Caterpillar 3516TA diesels; 4,400 hp (3.28 MW) sustained; 2 shafts
Radars Surface search: Furuno 1011.

HMPNGS DREGER
Papua New Guinea Defence Force



Type Pacific class Patrol Boat
Pennant 02
Builder Australian Shipbuilding Industries
Commissioned 31 Oct 1987
Displacement 165 tonnes
Length 31.5 m (103.3 ft)
Beam 8.1 m (26.6 ft)
Draught 2.1 m (6.9 ft)
Speed 20kt (37.0 km/h) (23.0 mph)
Range 2500 n miles (4630.0 km) (2876.9 miles) at 12kt
Crew 20
Guns 1 Oerlikon GAM-B01 20 mm. 2-7.62 mm MGs.
Machinery 2 Caterpillar 3516TA diesels; 4,400 hp (3.28 MW) sustained; 2 shafts
Radars Surface search: Furuno 1011.

VOEA SAVEA

Tongan Defence Services - Maritime



Type Pacific class Patrol Boat

Pennant P203

Builder Australian Shipbuilding Industries

Commissioned 23 Mar 1991

Displacement 165 tonnes

Length 31.5 m (103.3 ft)

Beam 8.1 m (26.6 ft)

Draught 2.1 m (6.9 ft)

Speed 20kt (37.0 km/h) (23.0 mph)

Range 2500 n miles (4630.0 km) (2876.9 miles) at 12kt

Crew 20

Guns 2-7.62 mm MGs.

Machinery 2 Caterpillar 3516TA diesels; 4,400 hp (3.28 MW) sustained; 2 shafts

Radars Surface search: Furuno 1011.

RSS ENDEAVOUR

Republic of Singapore Navy



Type Landing Platform Dock (LPD)

Pennant 210

Builder ST Marine's Benoi

Commissioned 7 April 2001

Displacement 8636 tonnes

Length 141m (462.6ft)

Beam 21m (68.9ft)

Draught 5m (16.4ft)

Speed 15kt (27.8km/h) (17.3mph)

Range 10,400n miles (19260.8km) (11,968.1 miles) at 12kt

Crew 73

Machinery 2 Ruston 16RK 270 diesels; 12,000 hp(m) (8.82 MW); 2 shafts; Kamewa cp props; bow thruster

Missiles 2 Matra Simbad twin launchers for Mistral IR homing missiles.

Guns 1 76 mm/62 Super Rapid Gun, 5-12.7 mm MGs.

Radars Air/surface search: Elta EL/M-2238. Navigation: Kelvin Hughes Type 1007.

Boats & landing craft carried 4× 13m (43ft) Fast Craft Equipment & Utility (FCEU) on davits, 2× 25m (82ft) Fast Craft Utility (FCU) inside well deck

Capacity 18 tanks, 20 vehicles and bulk cargo

Troops > 350-500

Weapon control systems CS Defence NAJIR 2000 optronic director.

Helicopters 2 Super Pumas.

SPS CANTABRIA

Spanish Armada



Type Fleet Replenishment Vessel (AOR)
Pennant A15
Builder Navantia, Puerto Real, Cadiz
Commissioned 29 September 2010
Displacement 19,813 tonnes
Length 173.9m (570.5ft)
Beam 23.0m (75.5ft)
Draught 8.0m (26.2ft)
Speed 21kt (38.9km/h) (
Range 6000nm (11,112.0km) (6904.7miles) at 13kt (24.1km/h)
Crew 122
Cargo capacity 6,400 tons dieso; 1,600 tons aviation fuel
Machinery 2 diesels; 29,200 hp (21.8 MW); 1 shaft; 1 bow thruster
Decoys 6 SRBOC Mk 36 chaff launchers.
Electronic countermeasures ESM/ECM: Indra Rigel.
Radars Navigation: 3 Indra Aries.
Combat data systems Scomba.
Helicopters 2 SH-3D Sea King or 3 AB 212.

HTMS KRABI

Royal Thai Navy



Type Offshore patrol Vessel.
Pennant 551
Builder Mahidol Royal Dockyard
Commissioned 2012
Displacement 2540 tonnes (2499.9 (uk) t)
Length 90.5 m (296.9 ft)
Beam 13.5 m (44.3 ft)
Draught 3.5 m (11.5 ft)
Top speed 25 kt (46.3 km/h) (28.8 mph)
Range 3500 n miles (6482.0 km) (4027.7 miles) at 15 kt
Crew 39
Embarked forces 50
Machinery 2 MAN 16RK280 diesels; 2 shafts
Guns 1-76 mm. 2-30 mm.
Radars Air/surface search: E/F-band.
Surface search E/F-band.
Navigation I-band.
Helicopters Platform for one medium.

RFS VARYAG RUSSIAN FEDERATION



Type Guided Missile Cruiser
Pennant 011
Builder Nikolayev North (61 Kommuna)
Commissioned 25 Dec 1989
Displacement 11,674 tonnes
Length 186.4m (611.5ft)
Beam 20.8m (68.2ft)
Draught 8.4m (27.6ft)
Top speed 32kt (59.3km/h) (36.8mph)
Range 2,200nm (4,074.4km) (2,531.7miles) at 30kt, 7,500nm (13,890.0 km) (8,630.8 miles) at 15kt.
Crew 504
Machinery 4 gas-turbines; 88,000 hp(m) (64.68 MW); 2 M-70 gas-turbines; 20,000 hp(m) (14.7 MW) ; 2 shafts
Missiles 16 Chelomey SS-N-12 (8 twin) Sandbox anti-ship missile launchers.
 8 SA-N-20 Gargoyle (Fort-M) vertical launchers 8 rounds per launcher; 64 anti-aircraft missiles.
 2 SA-N-4 Gecko twin retractable launchers; 40 anti-air/missile missiles.
Guns 2-130 mm/54 (twin) AK 130. 6-30 mm/65 AK 650.
Torpedoes 10-21 in (533 mm) (2 quin) tubes
 A/S Mortars 2 RBU 6000 12-tubed trainable.
Physical countermeasures Decoys: 2 PK 2 chaff launchers.
Electronic countermeasures: ESM/ECM: 8 Side Globe (jammers).
 4 Rum Tub (intercept).
Radars Air search: Top Pair (Top Sail + Big Net) [3D];
 Air/surface search: Top Plate; 3D Navigation 3 Palm Frond.
 Fire control: Front Door(for SS-N-12). Top Dome (for SA-N-6).
 2 Pop Group (for SA-N-4). 3 Bass Tilt (for Gatlings).
 Kite Screech (for 130 mm). IFF: Salt Pot A and B. 2 Long Head.
Sonars Bull Horn and Steer Hide (Platina); hull-mounted; active search and attack; low/medium frequency.
Weapon control 2 Tee Plinth and 3 Tilt Pot optronic directors.
 2 Punch Bowl satellite data receiving/targeting systems.
 2 Bell Crown and 2 Bell Push datalinks.
Helicopters 1 Ka-27 Helix.

RFS BORIS BUTMONA Russian Federation



Type Project 1559V Morskoy proctor (NATO: Boris Chilikin class)
 Fleet support ship
Builder Leningrad, Yard 621.
Commissioned 10 Sept 1978.
Displacement 24,460 tonnes (full load)
Length 162.3m
Beam 21.4m
Draft 9.3m
Speed 16kts
Range 12,000nm (12kts), 10,000 nm (16kts)
Crew 75
Cargo 13,440 tonnes
Autonomy 90 (days)
Propulsion 1x9000 hp, diesel 6DNRN-74/160,
 1 turbine type generator x500 kW, 2 diesel generators x300 kW,
 1 diesel generator x100 kW.
Electronics Air/surface search: radar MR-302 (Rubka),
 Navigation: radar MR-212/201 (Vaygach-U).

HMS DARING ROYAL NAVY



Type Guided Missile Destroyer

Pennant D 32

Builder BAE Systems Marine / Vosper Thornycroft

Commissioned 20 Apr 2012

Displacement 7,570 tonnes

Length 152.4 m (500.0 ft)

Beam 21.2 m (69.6 ft)

Draught 5.3 m (17.4 ft)

Top speed 31 kt (57.4 km/h) (35.7 mph)

Range 6500 n miles (12038.0 km) (7480.1 miles) at 18 kt

Crew 191

Spare berths 41

Machinery Integrated Electric Propulsion; 2 RR WR-21 gas turbine alternators; 67,600 hp (49.7 MW) ; 2 Wärtsilä 12V 200 diesel generators; 4 MW; 2 motors; 40 MW; 2 shafts; fixed props

Missiles Space for 8 Harpoon (2 quad) anti-ship missiles. 48 cell VLS (GWS 45); typical mix of 32 Aster 30 and 16 Aster 15; anti-aircraft/missile missiles.

Guns: 1 Vickers 4.5 in (114 mm)/55 Mk 8 Mod. 2 Raytheon 20 mm Vulcan Phalanx Block 1B. 2 REMSIG MSI DS 30A 30 mm/75.

Physical countermeasures Decoys: 4 DLH (chaff, IR); DLF offboard decoys. Type 2170 torpedo defence system.

Electronic countermeasures ECM: To be announced.

RESM: Thales Type UAT Mod 2; intercept. CESM: Seaseeker-Shaman.

Radars Air/surface search: Signaal/Marconi Type 1046 (S 1850M).

Surveillance/fire control: BAE Systems Type 1045 (Sampson). Surface search: Raytheon Type 1048. Navigation: 2 Raytheon Type 1047.

Sonars Type 2091 (EDO/ULTRA MFS-7000); bow mounted; medium frequency.

Combat data systems CMS-1 (based on DNA SSCS with additional AAW functions); Links 11, 16 STDL and 22. SATCOM.

Electro-optic systems GSA 9 with 2 EO SP sensor heads (EOGCS) (based on Radamec 2500).

Helicopters 2 Lynx Mk HMA 8 or Merlin 1 HM.Mk 1.

USS CHOSIN United States Navy



Type Guided Missile Cruiser

Pennant 65

Builder Ingalls Shipbuilding , Pascagoula

Commissioned 12 Jan 1991

Displacement 10,117 tonnes

Length 172.8m (566.9 ft)

Beam 16.8m (55.1 ft)

Draught 9.5m (31.2 ft)

Top speed 30kt (est.) (55.6km/h est.) (34.5mph est.)

Range 6,000nm (11,112.0km) (6,904.7miles) at 20kt

Crew 330

Machinery 4 GE LM 2500 gas turbines; 86,000 hp (64.16 MW) sustained; 2 shafts; cp props

Missiles Two Mk-41 Vertical Launch Systems for 128 missiles consisting of a mix of Tomahawk Block III and Block IV cruise missiles; Standard SM-2 Block III and IVA anti-aircraft missiles, and, ASROC anti-submarine missiles. 8 (2 quad) Harpoon anti-ship missiles.

Guns Two 5 in (127 mm)/54 Mk 45 Mod 1 naval guns. 2 Raytheon 20 mm/76 Vulcan Phalanx Block 1B. 4-12.7 mm MGs.

Torpedoes 6-324 mm Mk-32 (2 triple) Mod 14 tubes (fitted in the ship's side aft) for 36 anti-submarine torpedoes.

Decoys Up to 8 6-barrelled fixed Mk 36 Mod 2 IR flares and chaff launchers. Mk 53 Mod 5 (Nulka). SLQ-25 Nixie; towed torpedo decoy.

Electronic countermeasures ESM/ECM: SLQ-32V(3)/SLY-2 intercept, jammers.

Radars Air search/fire control: Raytheon SPY-1B phased arrays 3D radar. Air search: SPS-49(V)7 or 8. Surface search: SPS-55

Navigation: Raytheon SPS-64(V)9. Fire control: SPQ-9A/B. Four SPG-62.

Sonars SQQ-89(V)5 and passive towed array SQR-19.

Combat data systems CEC. NTDS with Links 4A, 11, 14. GCCS (M) and Link 16. Link 22 in due course. SATCOM WRN-5, WSC-3 (UHF), USC-38 (EHF). UYK-7 computers (CG 52-58); UYK 43/44 (CG 59 onwards); SQQ-28 for LAMPS sonobuoy datalink.

Weapon control systems SWG-3 Tomahawk WCS. SWG-1A Harpoon LCS. Aegis Mk 7 Mod 4 multitarget tracking with Mk 99 MFCS (includes 4 Mk 80 illuminator directors); has at least 12 channels of fire. Librascope Mk 116 Mod 6 (53B) or Mod 7 (53C) FCS for ASW. Mk 86 Mod 9 GFCS (to be replaced by Mk-160 Mod 11 from 2008).

Helicopters 2 SH-60B Seahawk LAMPS III.

The Navy League is intent upon keeping before the Australian people the fact that we are a maritime nation and that a strong Navy and capable maritime industry are indispensable elements of our national wellbeing and vital to the freedom of Australia. The League seeks to promote Defence self reliance by actively supporting defence manufacturing, and the shipping and transport industries.

The strategic background to Australia's security is changing and in some respects has become less certain. The League believes that Australia should pursue the capability to defend itself, paying particular attention to maritime defence. Through geographical necessity Australia's prosperity, strength, and safety depend to a great extent upon the security of the surrounding seas and island areas, and on unrestricted seaborne trade.

The Navy League:

- Believes Australia can be defended against attack by other than a major maritime power and that the prime requirement of our defence is an evident ability to control the sea and air space around us and to contribute to defending essential lines of sea and air communication with our allies.
- Supports a continuing strong alliance with the US.
- Supports close relationships with New Zealand, PNG and the South Pacific Island States.
- Supports close relationships with ASEAN, Japan, South Korea, India and China.
- Advocates the acquisition of the most capable modern armaments, surveillance systems and sensors to ensure that the ADF maintains technological advantage over forces in our general area.
- Advocates a significant deterrent element in ADF capability enabling powerful retaliation at significant distances from our shores.
- Believes the ADF must be capable of protecting commercial shipping both within Australian waters and beyond, recognising that this means in conjunction with allies and economic partners.
- Endorses the control of coastal surveillance by the ADF, and the development of the capability for the patrol and surveillance of all of Australia's ocean areas, its island territories and the Southern Ocean.
- Welcomes Government initiatives concerning the recovery of an Australian commercial fleet capable of supporting the ADF and the carriage of essential cargoes to and from Australia in times of conflict.
- ship, 20 offshore combatant ships, 6 heavy landing craft and substantial numbers of naval combatant and ASW helicopters.
- Strongly supports the acquisition of large, long range and endurance, fast submarines and, noting the deterrent value and huge operational advantages of nuclear powered submarines and their value in training our anti-submarine forces, urges the continued consideration of nuclear power as an option for those vessels.
- In order to mitigate any industry capability gap following the completion of the AWD program, recommends bringing forward the start date of the planned future frigate (Anzac replacement) program, recognising the much enhanced capability projected for these ships.
- Urges that decisions to enhance the strength and capabilities of the Army and Air Force and to greatly improve the weaponry, and the intelligence, surveillance, reconnaissance, cyberspace and electronic warfare capabilities of the ADF be implemented.
- Notes the potential combat effectiveness of the STOVL version of the JSF and supports further examination of its application within the ADF.
- Supports the development of Australia's defence industry, including strong research and design organisations capable of the construction and maintenance of all warships and support vessels in the Navy's order of battle, and recognises the fundamental importance of a stable and continuous shipbuilding program for the retention of design and building skills and the avoidance of costly start up overheads.
- Supports the efforts by Navy to rebuild the engineering capability to ensure the effective maintenance and sustainability of the fleet.
- Advocates the retention in preservation (maintained reserve) of operationally capable ships that are required to be paid off for resource or other economic reasons.
- Supports a strong Naval Reserve and Australian Navy Cadets organisation.
- Advocates a strong focus on conditions of service as an effective means of combating recruitment and retention difficulties.

As to the RAN, the League, while noting the vital national peacetime tasks conducted by Navy, including border protection, flag showing/diplomacy, disaster relief, maritime rescue, hydrography and aid to the civil power:

- Supports the concept of a Navy capable of effective action in war off both the east and west coasts simultaneously and advocates a gradual build-up of the fleet and its afloat support elements to ensure that, in conjunction with the RAAF, this can be sustained against any force which could be deployed in our general area.
- Believes that the level of both the offensive and defensive capabilities of the RAN should be increased and is concerned to see that the substantial surface and sub-surface capability enhancements contained in the 2009 Defence White Paper should survive the forthcoming 2013 review of Defence capability; in particular a substantially strengthened submarine force, 3 Air Warfare Destroyers (AWDs), 2 landing ships (LHDs), 8 new frigates (Anzac class replacements), a large strategic sealift

The League:

- Calls for a bipartisan political approach to national defence with a commitment to a steady long-term build-up in Australia's defence capability including the required industrial infrastructure.
- While recognising budgetary constraints believes that, given leadership by successive governments, Australia can defend itself in the longer term, within acceptable financial, economic and manpower parameters.

The Anzac class frigate HMAS PERTH. PERTH recently tested here new radar and combat system combination against a supersonic anti-ship missile target at the Pacific Missile Range Facility off Hawaii. The target was destroyed before presenting any threat to PERTH. This is not only a first for the new radar and combat system combination but a first for the RAN. (RAN)



The Collins class submarine HMAS SHEEAN on Sydney Harbour. (RAN)



An RAN Seahawk helicopter towing a large International Fleet Review (IFR) flag over Sydney Harbour in company with a navy Squirrel helicopter in special IFR livery. (RAN)

