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

All letters and contributions to:
The Office of The Editor
THE NAVY
Navy League of Australia
GPO Box 1719
Sydney, NSW 2001
E-mail to: editorthenavy@hotmail.com
All Subscriptions, Membership and Advertising enquiries to:
The Hon Secretary
Navy League of Australia, NSW Division
GPO Box 1719, Sydney NSW 2001
Deadline for next edition 5 February 2014
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 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”.

---

**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 to 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”.

---

THE NAVY VOL. 75 NO. 4

02
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...
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 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
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 Westemport 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.
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 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.

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.
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.

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
0800-1800: 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
1230-1400: Navy Memorial Service. Location: Cenotaph, Martin Place.

WEDNESDAY 9 OCTOBER 2013
1230-1430: Combined Navies Parade. Location: George Street - The Rocks to Town Hall.
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.

FRIDAY 11 OCTOBER 2013
0730: Warships begin to depart. Location: Sydney Harbour.
Ceremonial fleet entry of seven RAN warships

International warships
Fleet Review Map
The Battle Cruiser HMAS AUSTRALIA passing HMS VICTORY in the UK.

The ships of the First RAN Fleet Entry

HMAS MELBOURNE.

October 1913
HMAS SYDNEY.
HMAS PARRAMATTA.
HMAS YARRA.

First RAN Fleet Entry
October 1913
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.
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.
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.
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.
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.
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.
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.
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**: Thales Centaur radar intercept. Telefunken PST-1720 comms intercept. Raytheon SPS-49(V)8. CEAFAR 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 Seahawks.

**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. 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 Mirrlees 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
### KDB DARULEHSAN
Royal Brunei Navy

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

### QINGDAO
People Liberation Army – Navy (China)

<table>
<thead>
<tr>
<th><strong>Type</strong></th>
<th>Luhu Type 52A class guided missile destroyer (DDG)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pennant</strong></td>
<td>113</td>
</tr>
<tr>
<td><strong>Builder</strong></td>
<td>Jiangnan Shipyard , Shanghai</td>
</tr>
<tr>
<td><strong>Launched</strong></td>
<td>Oct 1993</td>
</tr>
<tr>
<td><strong>Commissioned</strong></td>
<td>Mar 1996</td>
</tr>
<tr>
<td><strong>Displacement</strong></td>
<td>4674 tonnes</td>
</tr>
<tr>
<td><strong>Length</strong></td>
<td>144 m</td>
</tr>
<tr>
<td><strong>Beam</strong></td>
<td>16 m</td>
</tr>
<tr>
<td><strong>Draught</strong></td>
<td>5.1 m</td>
</tr>
<tr>
<td><strong>Speed</strong></td>
<td>31 kt</td>
</tr>
<tr>
<td><strong>Range</strong></td>
<td>5,000 n miles (9260.0 km) at 15 kt</td>
</tr>
<tr>
<td><strong>Crew</strong></td>
<td>266</td>
</tr>
<tr>
<td><strong>Machinery</strong></td>
<td>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</td>
</tr>
<tr>
<td><strong>Missiles</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Guns</strong></td>
<td>2 - 3.9 in(100 mm) /56 (twin) Gun mount. 2 - 30 mm Type 730.</td>
</tr>
<tr>
<td><strong>Torpedoes</strong></td>
<td>6-324 mm Whitehead B515 (2 triple) tubes.</td>
</tr>
<tr>
<td><strong>Countermeasures</strong></td>
<td>2 Type 726; 24 barrelled 100 mm chaff launchers</td>
</tr>
<tr>
<td><strong>Electronic Countermeasures</strong></td>
<td>ESM: Rapids. ECM: Scimitar.</td>
</tr>
<tr>
<td><strong>Radar</strong></td>
<td>Air search: Type 517B Knife Rest; Air/surface search: Type 3635 Sea Tiger; Surface search: Type 364 Seagull C.</td>
</tr>
<tr>
<td><strong>Fire control</strong></td>
<td>Type 344 (MR 34); I-band (for anti-ship and 100 mm). Type 345for HQ-7. Navigation: Racal Decca 1290.</td>
</tr>
<tr>
<td><strong>Sonars</strong></td>
<td>DUBV-23; Hull-mounted; active search and attack; medium frequency. Towed array.</td>
</tr>
<tr>
<td><strong>Combat Data Systems</strong></td>
<td>Thomson-CSF Tavitac action data automation. SATCOM. Link W.</td>
</tr>
<tr>
<td><strong>Weapon Control Systems</strong></td>
<td>2 GDG-775 optronic directors. OFC-3.</td>
</tr>
<tr>
<td><strong>Helicopters</strong></td>
<td>2 Harbin Zhi-9C Haitun.</td>
</tr>
</tbody>
</table>
### FNS VENDÉMIAIRE
Marine National (France)

<table>
<thead>
<tr>
<th>Type</th>
<th>Floreal class patrol frigate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pennant</td>
<td>F 734</td>
</tr>
<tr>
<td>Builder</td>
<td>Chantiers de l’Atlantique , St Nazaire</td>
</tr>
<tr>
<td>Launched</td>
<td>23 Aug 1992</td>
</tr>
<tr>
<td>Commissioned</td>
<td>21 Oct 1993</td>
</tr>
<tr>
<td>Displacement</td>
<td>2642 tonnes</td>
</tr>
<tr>
<td>Length</td>
<td>93.5 m</td>
</tr>
<tr>
<td>Beam</td>
<td>14 m</td>
</tr>
<tr>
<td>Draught</td>
<td>4.3 m</td>
</tr>
<tr>
<td>Speed</td>
<td>20 kt (37.0 km/h)</td>
</tr>
<tr>
<td>Range</td>
<td>10000 n miles (18520.0 km) (11507.8 miles) at 15 kt</td>
</tr>
<tr>
<td>Crew</td>
<td>83</td>
</tr>
<tr>
<td>Machinery</td>
<td>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)</td>
</tr>
<tr>
<td>Missiles</td>
<td>2 MM 38 Exocet anti-ship missiles.</td>
</tr>
<tr>
<td>Guns</td>
<td>1 or 2 Matra Simbad twin anti-aircraft missile launchers.</td>
</tr>
<tr>
<td>Countermeasures</td>
<td>2 CSEE AMBL-1C (Dagaie Mk II); 10-barrelled trainable launchers chaff and IR flares.</td>
</tr>
<tr>
<td>Electronic Countermeasures</td>
<td>Thomson-CSF ARBR 16A; radar intercept. ARBG 1A (Saigon); comms intercept.</td>
</tr>
<tr>
<td>Radars</td>
<td>Air/surface search: Thomson-CSF Mars DRBV 21C. Navigation: 2 Racal Decca 1229 (DRBN 34A) 1 for helicopter control.</td>
</tr>
<tr>
<td>Combat Data Systems</td>
<td>Syracuse and INMARSAT SATCOM</td>
</tr>
<tr>
<td>Weapon Control Systems</td>
<td>CSEE Najir optronic director</td>
</tr>
<tr>
<td>Helicopters</td>
<td>1 AS 565MA Panther or platform for 1 AS 332F Super Puma</td>
</tr>
</tbody>
</table>

### INS SAHYADRI
Indian Navy

<table>
<thead>
<tr>
<th>Type</th>
<th>Shivalik (Project 17) class guided missile frigate (FFG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pennant</td>
<td>F 49</td>
</tr>
<tr>
<td>Builder</td>
<td>Mazagon Dock Ltd , Mumbai</td>
</tr>
<tr>
<td>Launched</td>
<td>27 May 2005</td>
</tr>
<tr>
<td>Commissioned</td>
<td>21 Jul 2012</td>
</tr>
<tr>
<td>Displacement</td>
<td>6299 tonnes</td>
</tr>
<tr>
<td>Length</td>
<td>143.0 m</td>
</tr>
<tr>
<td>Beam</td>
<td>16.9 m</td>
</tr>
<tr>
<td>Draught</td>
<td>5.3 m</td>
</tr>
<tr>
<td>Speed</td>
<td>30 kt (55.6 km/h) (34.5 mph)</td>
</tr>
<tr>
<td>Range</td>
<td>4500 n miles (8334.0 km) at 18 kt., or, 1600 n miles (2963.2 km) at 30 kt</td>
</tr>
<tr>
<td>Crew</td>
<td>257</td>
</tr>
<tr>
<td>Machinery</td>
<td>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.</td>
</tr>
<tr>
<td>Missiles</td>
<td>8 SS-N-27 Novator Alfa Klub-N (3K-54-TE) in VLS silo. SA-N-7 Shil (9M317E) single launcher for 24 anti-aircraft missiles.</td>
</tr>
<tr>
<td>Gans</td>
<td>4 octuple Barak 1 VLS anti-missile missiles.</td>
</tr>
<tr>
<td>Countermeasures</td>
<td>1 OTO Melara 3 in(76 mm) /62 Super Rapid. 2-30 mm AK 630.</td>
</tr>
<tr>
<td>Electronic Countermeasures</td>
<td>Ellora EW suite</td>
</tr>
<tr>
<td>Sonars</td>
<td>Bharat HUMSA; hull-mounted: active search and attack; medium frequency. Thales Sintra ATAS</td>
</tr>
<tr>
<td>Combat Data Systems</td>
<td>BEL CMS-17</td>
</tr>
<tr>
<td>Weapon Control Systems</td>
<td>EON-51 optronic director</td>
</tr>
<tr>
<td>Helicopters</td>
<td>1 Sea King Mk 42B or HAL Dhruv</td>
</tr>
</tbody>
</table>
**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
- ESM: Thales DR 3000; intercept.
- ECM: Racal Scorpion; jammer.

**Radars**
- Surface search: Thales MW 08.

**Sonars**
- Thales Kingclip; hull-mounted

**Combat Data Systems**
- Tacticos 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. SLO-25 Nixie towed torpedo decoy.

**Electronic Countermeasures**
- Nec NOLQ 3; intercept and jammer

**Radars**
- Air search: Melco OPS-24B Surface search: JRC OPS-28D.

**Sonars**
- OQS-5; Bow-mounted; active search and attack; low frequency. OOR-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**  

**Sonars**  
Thomson Sintra Spheron; 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.

**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.

**Sonars**  
Thomson Sintra Spheron 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.

**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.  
**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.  

---

**FOREIGN WARSHIPS OF IFR 2013 . . . continued**
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** 10,400 n 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 diesel; 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-air/missile 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).  
**Radar** 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  
**Draught** 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),  
**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 EOSP 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.  


**Sonars** SOQ-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 multtarget tracking with Mk 99 MFTCS (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 GFTCS (to be replaced by Mk-160 Mod 11 from 2008).  

**Helicopters** 2 SH-60B Seahawk LAMPS III.  

---

**THE NAVY**
**VOL. 75 NO. 4**
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.

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 (AWOs), 2 landing ships (LHDS), 8 new frigates (Anzac class replacements), a large strategic sealift 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.

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

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)
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.