NAVY LEAGUE OF AUSTRALIA
WESTERN AUSTRALIA DIVISION

May2019
Volume 3, Issue 5

DOWN THE VOICEPIPE *do you hear there!*

HMAS Success at Port Klang Malaysia

HMAS MELBOURNE (III)

COMING UP

- Executive meeting Tuesday 05th. June 2019 1700
- HMAS Perth (I) Memoria Foundation Meeting to be held 8th. June 2019.
- Federal AGM will be held on the 26th—27th. October 2019 in Canberra.
- NLWA AGM will be held in Mid August 2019 (more details later)
- HMAS Perth (I) Memorial meeting to be held on 20th. June at East Fremantle Town Council. Special purpose meeting 1800

ALL ARTICLES PUBLISHED IN THIS NEWSLETTER ARE PRINTED IN GOOD FAITH AND DON'T NECESSARY REFLECT THE VIEWS OF THE NAVY LEAGUE OF AUSTRALIA

NL WA DIVISIONAL NEWS

Hi all Time is flying by already its near the end of April (so be Christmas again)
This edition contains a broad view of naval articles that I hope you find interesting. If you have any photos or interesting articles that may be of interest to our members and supporters I would be most pleased to receive them.

TS ANZAC Cadets Laying a Wreath on Anzac Day Rockingham

Bottom HMAS STIRLING Contingent ANZAC Day Rockingham 2019

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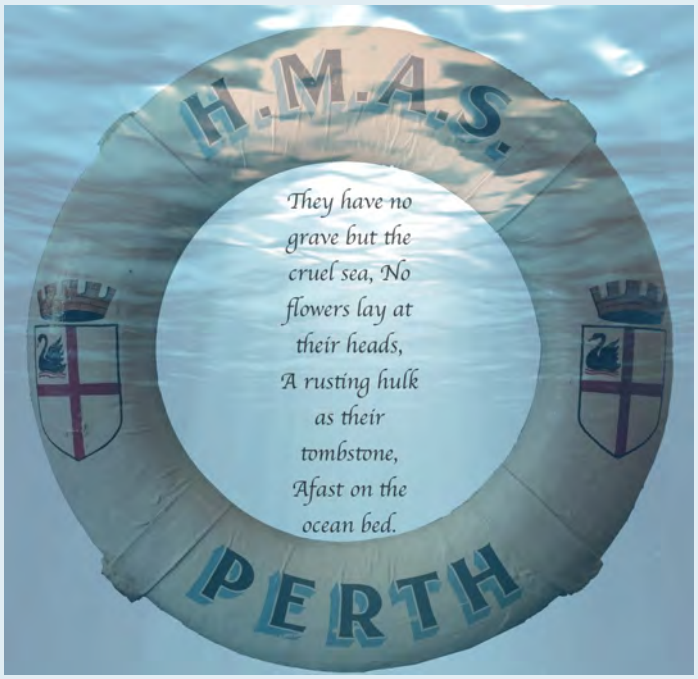
HMAS PERTH (I) Memorial Foundation Incorporated

The Foundation committee are now up and running officially. The work now begins attracting grants, bequests and donations to physically start the works of the project. We are in talks with the Artists/sculptors to have their engineer draw up the engineering plans so they can be submitted to the appropriate authorities for approval. We need to raise $800,000 to complete the project. Soon we will be having a special meeting with supporters an engage with them to initiate the next step.

There is a tremendous amount of support and talent that we will call on in the coming months as we progress ahead.

The memorial when complete will help bring closure to many relatives that lost loved ones when the ship sank. Not forgetting a memorial to our brave sailors who didn't make it home including the 353 sailors now in their final resting place with the ship at the bottom of the Sunda Strait and the 106 who died as POW's. Plans are underway to produce a commemorative booklet on the history of the HMAS PERTH (I).



Stability tested after Arunta AMCAP upgrade
May 22, 2019 seawaves

May 20, 2019 – For those who go to sea there is nothing as critical as understanding the stability of the ship as it encounters all the forces that ocean and weather can bring to bear in combination.

Therefore, after more than a year out of the water as part of her Anzac Midlife Capability Assurance Program (AMCAP) upgrade, HMAS Arunta (II) has undertaken an inclining experiment at Henderson Shipyard, Western Australia to test stability.

An inclining experiment is a test performed on a ship to determine its stability, lightship weight and the coordinates of its center of gravity. The experiment is applied to newly constructed ships greater than 24m in length, and to ships altered in ways that could affect stability.

The weight of a ship can be readily determined by reading draughts and comparing with the known hydrostatic properties. The 'metacentric height' (GM), which dominates stability, can be estimated from the design, but an accurate value must be determined by an inclining experiment.

The experiment involves positioning the ship in a still body of water and applying weights in varying configurations throughout the ship and measuring the list of the ship for each configuration.

The experiment that was performed on Arunta is important as Arunta is the first of class to undergo the AMCAP upgrade and the data from the experiment will be used as a basis for updating the trim and stability handbook for all future AMCAP ships.

The upgrade, being implemented by the Warship Asset Management Agreement (WAMA), includes significant improvements to major platform systems, such as the communications center, and the replacement of the ship's long range air search radar.

Arunta's Marine Engineer Officer, Lieutenant Commander Leonard Woodman, said the inclining experiment is another important milestone for both Arunta and the Anzac Mid-Life Capability Assurance Program (AMCAP).

"The inclining experiment, while being a standard practice after a significant upgrade, has provided good data that will support all the ships that come after us on the AMCAP," he said.

"The inclining experiment is a key component in getting the ship ready to sail later in the year, and marks a key milestone of the post-production process."

The AMCAP aims to remediate obsolescence issues and upgrades ship systems, positioning the Anzac Class ships for sustainment and maintenance of its warfare systems capabilities.

The Warship Asset Management Agreement (WAMA) is an alliance consisting of the Commonwealth, BAE Systems Australia, Saab Australia and Naval Ship Management Australia. Arunta is the first ship to complete the AMCAP upgrade.

Task Force Arrives in Indonesia for Indo-Pacific Endeavour 2019
May 22, 2019May 22, 2019 seawaves

May 20, 2019 – The Indo-Pacific Endeavour 2019 (IPE 19) Joint Task Force has begun its engagement program in Indonesia during the final port visits before returning to Australia later this month.

HMA Ships Canberra and Newcastle arrived in Jakarta on 18 May, with HMAS Success visiting Makassar in South Sulawesi on the same day.

Commander IPE 19 Joint Task Force, Air Commodore Rick Owen says the visits are a valuable opportunity to enhance one of Australia's most important regional defens partnerships.

"We have a shared maritime border and a common interest in promoting peace and stability in the region," Air Commodore Owen said.

"Our defence relationship is long standing and focused on a wide variety of security-related matters including counter-terrorism, maritime security, humanitarian assistance and disaster relief, peacekeeping, defence industry co-operation and intelligence."

In Jakarta, members of the Joint Task Force are conducting a series of civilian and military engagements, with the Australian Chief of Navy, Vice Admiral Mike Noonan AO, RAN joining IPE for high level talks with Indonesian National Armed Forces officials.

In Makassar, members of the Joint Task Force are conducting a similar program, hosting local authorities and conducting Ramadan activities.

IPE 19 is the ADF's major regional engagement activity, delivering on the promise of the 2016 Defence White Paper to strengthen Australia's engagement and partnerships with regional security forces.

The IPE 19 Joint Task Group is comprised of more than 1,000 personnel from Navy, Army and Air Force. Previous port visits included Sri Lanka, India, Malaysia, Thailand, Vietnam and Singapore.

RNZN’s future hydrographic vessel delivered to New Zealand

Maritime and Undersea Warfare | 23 May 2019 | Louis Dillon

The Royal New Zealand Navy’s diving support and hydrographic survey vessel, to be named HMNZS Manawanui, has been handed over to the Crown in Auckland after a 46-day voyage from Norway.
Following the handover of the former offshore support vessel, known as MV Edda Fonn, the ship will spend the rest of the year being fitted with military equipment.

The vessel will be utilised for disaster relief, search and recovery, and explosives disposal in the Pacific, and is expected to be officially commissioned in early June at a ceremony at the Devonport Naval Base, with its home port being Gisborne on the North Island of New Zealand.
A fortnight ago, the RNZN announced that Prime Minister Jacinda Ardern would be the official sponsor of the ship, and break the bottle of wine on the bow.
“For me this is not just a naming ceremony and wetting the bow of the ship, as is tradition,” PM Ardern said.
“My responsibility as the sponsor of the ship will cover the 15 years Manawanui will dedicate in the service to New Zealand, and I take that role very seriously.
“Manawanui means ‘big heart’ and ‘steadfast’ in Maori and I know this ship will live up to both meanings as she deploys on diving, search and rescue, and survey operations and exercises to aid in advancing New Zealand’s interests from the sea.”
New Zealand Chief of Navy, Rear Admiral David Proctor, was "delighted" the Prime Minister had accepted the invitation of his predecessor, Rear Admiral John Martin, to sponsor the ship.
“When the ship was purchased last year, RNZN senior leadership didn’t have to look too far to find the person best suited to act as sponsor,” RADM Proctor said.
“We’ve had some remarkable New Zealanders sponsor our ships over the years and I’m proud that the Prime Minister has done us this honour with Manawanui.”
The New Zealand government approved the purchase of the 84.7-metre vessel in early 2018.

Italian Navy Announces Summer Training Schedule
May 21, 2019 seawaves

May 18, 2019 (Google Translation) – Six naval units, five sailing and a so-called “gray” or “fighter”, will be, in the coming months, as every year, the classrooms that will accommodate the official students of the first and second class of the Naval Academy of Livorno, of the students of the non-commissioned schools of Taranto and La Maddalena , volunteers in fixed four -year terms and students of the Francesco Morosini Naval School for training at sea in the Navy 2019 education campaign.
2019 Ship Visits

Training but also naval diplomacy for young people who will be on board the Vespucci, Palinuro, Orsa Maggiore, Stella Polare and Corsaro II sailing units , and the destroyer Durand de la Penne as underlined, in Civitavecchia, by the Vespucci cassero, during the presentation of the activity by the Commander in Chief of the Naval Squad, team Admiral Donato Marzano , the Commander of the Schools of the Navy, division admiral Alberto Bianchi , and the commander of Vespucci, captain of the vessel Stefano Costantino . ” The training and training of the students – it was reiterated – according to the traditions and ethical values that, today as yesterday, continue to inspire the men and women of the Armed Forces “. ” The units – admiral Marzano specified – will gravitate in diversified maritime contexts, ensuring profitable presence and promotion activities in different and heterogeneous areas, guaranteeing an effective return of image for the Navy and, more generally, for the Italian Armed Forces and for the country everything “.
Nave Vespucci will be engaged in Northern Europe, while ship Palinuro will train in the Central Mediterranean and in the Adriatic. The others between the high Mediterranean and the Atlantic, while nave de la Penne will arrive in the area of South East Asia.
The activity of the summer campaigns is preceded by an intense training activity for the crews of the ships, so-called “pre-campaign” , at the end of the usual winter maintenance work dedicated to maintenance.
In particular Nave Vespucci, from the first ten days of May to the end of June, will embark on the 26th course volunteers’ visitors in fixed four-year stops, making stops in the ports of Civitavecchia, La Spezia, Olbia, Taranto (on the occasion of the celebration of Marina Day) , Catania, Scalea (CS), Cagliari and Livorno. Nave Palinuro, from the first ten days of June to the end of July, will host on board the students of the 1st course of the Morosini Naval School, making stops in the ports of Naples, La Spezia, Imperia, Genoa (on the occasion of Genoa Shipping Week), Gaeta (participating in the event “Grandi vele di Gaeta”), Palinuro (SA), Pantelleria, Syracuse and Taranto.

A closer look at Navy’s new guided missile destroyers

HMAS Hobart DDG 39 at sea (Source Dept of Defence)
Maritime and Undersea Warfare | 30 July 2018 | Stephen Kuper

The Hobart Class guided missile destroyers will provide the Navy with one of the world’s most capable multi-purpose warships, enhancing the air defence, surface, subsurface and interoperability of the Royal Australian Navy for decades to come. Here is a closer look at Australia's lethal new surface combatants.

Australia's Hobart Class guided missile destroyers (DDG) are based on Navantia's F100 Alvaro De Bazan Class of frigates and incorporate the Lockheed Martin Aegis Combat Management System with Australian-specific equipment to ensure that the RAN is capable of defending Australia and its national interests well into the next two decades.

The Hobart Class' Spanish counterparts entered service with the Spanish Navy beginning in the early 2000s, working alongside key NATO and US maritime assets.

When deployed to the Persian Gulf, the F100s became the first foreign Aegis-equipped ships to fully integrate into a US Navy Carrier Strike Group, while the class has also successfully deployed as the flagship of NATO's Maritime Group Standing Reaction Force, highlighting the individual and interoperable capabilities of Navy's new destroyers.

The vessels will be capable across the full spectrum of joint maritime operations, from area air defence and escort duties, right through to peacetime national tasking and diplomatic missions.

The Hobart Class Combat System is built around the Aegis Weapon System, incorporating the state-of-the-art phased array radar, AN/ SPY 1D(V), will provide an advanced air defence system capable of engaging enemy aircraft and missiles at ranges in excess of 150 kilometres.

Additionally, the vessels will carry a MH-60R Romeo Seahawk helicopter for surveillance and response to support key warfare areas. The surface warfare function will include long range anti-ship missiles and a naval gun capable of firing extended range munitions in support of land forces.

The Hobart Class will also be capable of conducting undersea warfare and will be equipped with modern sonar systems provided by Ultra Electronics, decoys, surface-launched torpedoes and an array of effective close-in defensive weapons. These capabilities will ensure the destroyers have the layered defensive and offensive resources required to counter conventional and asymmetric threats.

While based upon the Spanish F100s, the Australian vessels incorporate a number of modifications and Australian-specific structural/design and combat system modifications to provide a uniquely Australian surface combatant with international provenance.

Structural/design modifications: Integrating key structural and design modifications developed as part of the F105 evolution of the original F100 design, including:

Installation of more efficient and powerful diesel engines combined with improved fuel tank arrangements providing increased range;

Inclusion of a bow thruster to improve manoeuvrability in harbours;

Improvements to underway replenishment facilities to improve manpower efficiency;

Modifications to funnel tops to improve the ship's air wake; and

Increased bunk size to improve crew comfort and habitability.

Combat system modifications: Built around the Aegis Weapon System Baseline 7.1 and the AN/SPY-1D(V) Phased Array Radar, the Hobart Class includes a number of additions and modifications to the combat system to improve the offensive and defensive capabilities and interoperability of the vessels, including:

Enhanced anti-submarine warfare capabilities, including ASW decoys and torpedo defence;

Enhanced undersea communications;

Integration of the MU90 torpedo;

Modification of the MK45 gun and gun fire control system, including provision for extended range munitions (ERM);

Addition of the Co-operative Engagement Capability (CEC), which is essential for integration with allied task groups, particularly US Navy Carrier and Expeditionary Strike Groups;

Modification of the IFF UPX-29 to the current tactical standard;

Addition of a horizon search radar (HSR) for improved anti-ship missile defence;

Upgrades to the surface-to-surface missile system to improve target selectivity in congested water, littoral and coastal operations;

Upgrades to the very short range defence system to improve its integration and utility against asymmetric surface threats;

Upgrades to the electronic warfare system, including the addition of electronic attack capabilities;

Addition of X/Ka Satcom and INMARSAT Fleet Broadband and INMARSAT C capability;

Improved infrared search and track capabilities;

Improved electro-optical surveillance capability; and

Addition of Nulka decoy launchers for active missile decoys.

Hobart Class unique platform modifications: Given the unique operating environments and capability requirements placed on Australian surface vessels, the Hobart Class have integrated a series of unique modifications, including:

Increasing the ship's displacement to 7,000 tonnes to improve service life;

Cold weather operation infrastructure to allow for deployment into Australia's southern waters;

Hangar modifications to accommodate a ranger of helicopters;

Increased total cold room capacity to improve endurance;

Incorporation of a fixed gas detection system to warn of the presence of harmful gases in compartments where personnel exposure risks exist;

Modification of the 220V/50Hz network to 240V/50 Hz, incorporation of residual current devices (RCD) and the Australian pin configuration for general purpose outlets; and

Modification of existing stowage, and increases in the overall number of stowage facilities, for thermal protective suit and life raft containers.

Despite procurement and construction problems, Australia's Hobart Class destroyers will provide a quantum leap in the capability of the Navy's surface fleet, serving as a task force air defence screen, secondary command and control hub and invaluable surface and subsurface warfare asset. The Hobart Class have a long and promising career ahead of them, as the government officially accepted delivery of the second vessel, NUSHIP Brisbane in Adelaide on Friday.

LHD success at RIMPAC highlights power of key platform: Navantia

HMAS Adelaide has been showcasing the amphibious and command and control capabilities of the Canberra class LHDs (Source Dept of Defence)

They have been billed as a quantum leap for Australia's amphibious warfare capabilities, and now the Canberra Class of Landing Helicopter Docks (LHD), particularly HMAS Adelaide, have been met with applause for stepping into a key role during the recent RIMPAC exercises in Hawaii.

Navantia was awarded the contract for the two LHDs in 2007 based on the Spanish Juan Carlos LHDs, and were designed to provide Australia with a major amphibious warfare and humanitarian response capability. Donato Martinez, managing director of Navantia Australia, said, "The LHDs are extremely versatile ships. They can land a fully equipped force of 1,000 troops, together with their vehicles and supplies either by helicopter or landing craft, and carry out humanitarian relief operations."

The ships were constructed using the modular approach whereby the ship is divided into modules, which were built and fitted out as discrete units, before being welded together to form the completed ship. Construction of the hulls to the level of the flight deck, including the majority of fitting out, was undertaken at Navantia's Ferrol shipyard in north-west Spain. The hulls were then transported on a heavy lift ship the Williamstown shipyard in Victoria for the installation of the island structure.

The well deck is 69.3 metres long and 16.8 metres wide (1,165 square metres) and the LHD will normally carry four LCM-1Es. An additional four rigid-hulled inflatable boat (RHIBs) can be carried behind the LCM-1Es, however this will be mission dependant rather than a normal load out. The well dock has been designed to handle water craft of allied nations, including LCUs, amphibious vehicles and LCACs.

The LHD has a stern ramp/door that provides access to the well dock for landing craft and vehicles along with a fixed ramp (steel beach) between the well dock and the heavy vehicle/cargo deck (1,410 square metres). Additionally, two lateral ramp doors are located on the starboard side and provide wharf access to the heavy vehicle/cargo deck for vehicles up to 65 tonnes. Vehicular access between the heavy and light vehicle decks is achieved via a fixed ramp located on the port side.

The main accommodation deck is located above the well dock and heavy vehicle/cargo deck and includes crew accommodation, mess decks, medical spaces, galley facilities, office spaces, and recreation rooms. Accommodation is provided for 1,400 personnel; approximately 400 ship's company including the watercraft and flight deck crews and 1,000 embarked force personnel including the PCRF, embarked flight, HQ staff and landing force.
These combined facilities provide the Canberra Class with their formidable amphibious capabilities, which were recently displayed during amphibious exercises that saw HMAS Adelaide embark Australian, US Marines and other multinational amphibious forces at RIMPAC.
Navantia Australia chairman Warren King remarked that the Canberra Class LHDs are one of the most capable and sophisticated air-land-sea deployment platforms in the world.
"Navantia is enormously proud of how well these remarkable ships have been performing for Australia. It comes as no surprise that they are impressing other navies with their capability. They are part of an international class of ship which are also in service with the Spanish Navy and soon, the Turkish Navy," King said.
Additionally, the flight deck has been configured with six spots on the port side for medium-sized aircraft, such as the MRH-90 Taipan or Blackhawks, which allows for simultaneous take off and landing operations; alternatively it can support simultaneous take off and landing operations of four CH-47 Chinooks.
Two aircraft elevators that can accommodate medium-sized helicopters, with one able to accommodate larger helicopters such as CH-47. Both aircraft elevators service the hangar and light vehicle/cargo deck and the forward elevator is dual rolled for stores and personnel. The vessel's hangar can accommodate up to eight medium-sized helicopters, with 18 medium-sized helicopters able to be accommodated if the light vehicle deck is also used.
The LHD has been designed with the shallowest possible draft to allow it to operate in secondary ports and harbours as well as manoeuvre tactically in the shallow waters common in the littoral regions.
Martinez said, "Whilst the Australian forces operate a fleet of helicopters from the LHDs, they call also support a range of advanced aircraft. The LHD platform offers design flexibility to meet future capability requirements, which can help Australia to meet future capability requirements."
Minister for Defence Marise Payne highlighted the performance of Australian forces at RIMPAC saying, "RIMPAC helps to sustain the co-operative relationships that are critical to maintaining international maritime security and ensuring we're ready to work together should the time come. Over these past weeks, the ADF has proven not only its reputation as a professional military force, but also as a responsible member of a multi-national team, committed to maintaining security in the Pacific Rim."

DELIVERY OF RUSSIAN SUBMARINE KAZAN TO BE DELAYED

May 21, 2019 Written by Baird Maritime Published in Submersibles (Naval)

Image: Russian Ministry of DefenceSeverodvinsk, the first Project 885 submarine of the Russian Navy

Russia's TASS news agency reports that the delivery of the country's newest cruise missile submarine will take place no earlier than the second half of 2020 instead of within this year as originally planned.
The delay has been attributed to the failure of the auxiliary sub-assemblies and mechanisms of the Project 885 or *Yasen*-class submarine *Kazan* to satisfy the defence ministry's testing requirements during recent dockside and builder's trials by Sevmash Shipbuilding.
The submarine will undergo another series of dockside and builder's trials after the correction of the identified technical flaws, a process which by itself could last several months.

3 more years and a next-generation Defence wish list

| 20 May 2019 | Stephen Kuper

With the Coalition returned and cabinet position announcements imminent – building on the success of the preceding six years in the Defence portfolio and in light of changing regional dynamics – it's time to discuss a few wish list items to enhance Australia's future defence capabilities.

Despite a period of leadership instability, the Coalition has been returned to power with a new mandate and plans outlined during the election campaign to enhance Australia's defence and defence industry capabilities.

The election of the Coalition in 2013 saw a major shake-up in the way defence was approached by government. Following what the Coalition describes as six years of neglect under the tumultuous Rudd/Gillard/Rudd governments, the newly formed government sought to create an environment of stability and consistency for defence with a number of key policy objectives.

Central to this was the commitment to return Australia's defence expenditure to 2 per cent of GDP following what both Prime Minister Scott Morrison and now former minister for defence Christopher Pyne explained as a 10 per cent reduction in real terms in the last year (FY2012-13) of the previous government – resulting in defence investment falling to its lowest levels since 1938.

While Australia's defence expenditure looks set to increase to $38.7 billion in 2019-20, it is a case of business as usual for defence and industry, with the Coalition's budget announcement signalling the government's continued commitment to supporting the capability and development of Australia's sovereign defence industry capabilities.

The Coalition remains committed to continuing the delivery of a number of key projects identified as part of the government's 2016 Defence White Paper, which focused on delivering a series of major capability upgrades and modernisation programs across the Australian Defence Force, including:

The delivery of the first unit as part of the $5.2 billion LAND 400 Phase 2 Boxer Combat Reconnaissance Vehicles

Industry partners presented their bids as part of the $10-15 billion LAND 400 Phase 3 Armoured Fighting Vehicle program

Construction progress for the $35 billion SEA 5000 Hunter Class guided missile frigate program

Construction commencement and milestones at the $535 million SEA 5000 Shipyard facility at Osborne, South Australia

The continued arrival of Australia's Lockheed Martin F-35A Joint Strike Fighters

Signing the Strategic Partnership Agreement for the $50 billion SEA 1000 Attack Class future submarine program

Committing to the acquisition of 30 self-propelled howitzers and 15 support vehicles to be built and maintained at a specialised facility in Geelong

The government has confirmed over the next decade to 2028-29 that it will invest more than $200 billion in defence capabilities. Building on these commitments and recognising the changing geopolitical, tactical and strategic realities of the Indo-Pacific, Defence Connect has put together a brief wish list and is encouraging conversation about capabilities for the Coalition's defence ministers to consider establishing in this next term of government.

1. Acquire an additional three Hobart Class guided-missile destroyers

Serving as the basis of Australia's maritime-based area-air and missile defence capabilities, the Hobart Class is a critical capability for both Navy and the broader "joint force" ADF capability. Despite procurement and construction problems, Australia's Hobart Class destroyers will provide a quantum leap in the capability of the Navy's surface fleet, serving as a task force air defence screen, secondary command and control hub and invaluable surface and subsurface warfare asset.

HMAS Hobart and her two sister ships, HMAS Brisbane and Sydney, are Hobart Class Air Warfare Destroyers based on the Spanish F-100 frigates. The Hobart Class Combat System is built around the Aegis Weapon System, incorporating the state-of-the-art phased array radar, AN/SPY 1D(V), will provide an advanced air defence system capable of engaging enemy aircraft and missiles at ranges in excess of 150 kilometres.

Acquiring an additional three Hobart Class vessels serves to enhance the nation's naval shipbuilding capabilities – maintaining the critical skills in both Adelaide and/or Henderson shipyards until the major construction Hunter and Attack class programs commence – while providing additional redundancy for the Navy in the face of increasingly advanced anti-ship ballistic and cruise missile systems and enhancing the protective layers around other major Navy assets, namely the Canberra class amphibious warfare ships.

Accordingly, the Coalition needs to lay down a Block 2 variant of the Hobart Class guided-missile destroyers with enhanced area-air and missile defence capabilities and enhanced anti-submarine warfare capabilities – specifically noise reduction characteristics – also need to begin upgrades of the existing fleet.

2. Begin development of a 'joint force' long-range, stand-off missile system with conventional and electronic warfare variants

The retirement of the F-111 long-range strike platform and the limited reliability of the Collins Class submarines present a significant long-range strike capability gap for the ADF. This continuing capability gap has been a focal point for many Australian strategic policy experts, including both Peter Jennings and Malcolm Davis of the Australian Strategic Policy Institute.

"We need to be placing more effort into developing the long-range strike capability. This includes things like cruise missiles that can be launched by platforms across the ADF. We also need to place greater emphasis on upgrading the capability provided by Collins, not just as a stop-gap, but as an imperative, as these submarines will continue to form the point of our deterrence spear for some time yet," Jennings told Defence Connect in late 2018.

Accordingly, developing a potent joint force – multipurpose long-range, stand-off missile system capable of fulfilling conventional maritime and land-focused kinetic strike roles with a variant capable of electronic warfare – to support the development of a conventional deterrent triad while minimising the logistics tail and enhancing the interoperability of each of the branches of the ADF, to be fielded in the late-2020s/early 2030s.

Additionally, developing a hypersonic variant to be introduced in the mid-to-late 2030s further enhances the long-range, stand-off strike capabilities of the joint force ADF.

3. Begin development of a heavy, long-range, low-observable, unmanned strike platform

Australia has recently been gifted with the perfect opportunity to respond to this long-range strike gap in the form of the joint Defence Science and Technology and Boeing development of the "loyal wingman" concept, which when combined with the successful platform and technology demonstrators in the Reaper series and MQ-4C Triton paves the way for developing a fleet of long-range, unmanned, low-observable strike aircraft with a payload capacity similar to, or indeed greater than, the approximately 15-tonne payload of the retired F-111.

Such a capability would also enjoy extensive export opportunities with key allies like the US and UK who could operate the platform as a cost-effective replacement for larger bombers, like the ageing B-52H Stratofortress, B-1 Lancer and B-2 Spirit, and supplement for the in-development B-21 Raider long-range strategic bomber.

Long-range strike serves as the "thrust" component of the broader force structure adjustment. The growing prominence of cruise and ballistic missile-based threats has resulted in the Australian government outlining the need for a layered, integrated air and missile defence (IAMD) system as part of the AIR 6500 program.

This program provides opportunities for the nation to develop a leading-edge battlespace management and IAMD capability while also incorporating lessons learned as a result of China's successful introduction of anti-access/area denial systems to establish a virtually impregnable wall of steel throughout the sea/air gap, providing Australia with the opportunity to more actively and assertively engage with Indo-Pacific Asia.

4. Focus on delivering two Attack Class submarines annually

While, the Attack Class is expected to deliver a quantum leap in the capability delivered to the Royal Australian Navy and its submarine service by leveraging technology and capabilities developed for nuclear submarines, implemented on a conventional submarine, the projected delivery time frame and tempo of delivery presents significant concern for Australia's "silent service".

It is time to focus on supporting the Australian industry's capacity to deliver two submarines annually beginning in the 2030s – particularly as a result of the growing submarine fleets in the region and with the importance of the strategic importance of sea-lines-of-communication support over 90 per cent of global trade, a result of the cost-effective and reliable nature of sea transport. Indo-Pacific Asia is at the epicentre of the global maritime trade, with about US$5 trillion worth of trade flowing through the South China Sea and the strategic waterways and choke points of south-east Asia annually.

Meanwhile, the Indian Ocean and its critical global sea-lines-of-communication are responsible for more than 80 per cent of the world's seaborne trade in critical energy supplies, namely oil and natural gas, which serve as the lifeblood of any advanced economy.

5. Conduct an updated force posture review – in line with the 2020 Defence White Paper, Integrated Investment Plan and Defence Industry Strategy

The opposition announced a commitment to conduct the first force posture review since 2012 – the changing dynamics of the Indo-Pacific and the steady march towards Australia playing an increasing role in the region requires a dramatic shift in the ADF's force posture and force structure – to focus on greater expeditionary and power projection capabilities.

Developing these concepts in conjunction with an updated Defence White Paper and expanded Integrated Investment Plan and Defence Industry Strategy to enhance the capabilities of Australia's defence industry – splitting the focus on domestic demand and export-oriented industrialisation in a similar manner to the policy and doctrines that supported the development of South Korea.

PHILIPPINES' FIRST MISSILE-CAPABLE FRIGATE TO BE LAUNCHED ON MAY 23

May 21, 2019 Written by Baird Maritime

Published in Ships (Naval)

Image: Wikimedia Commons/Rhk111

The future BRP *Jose Rizal*, the first of two guided missile frigates ordered by the Philippines from Hyundai Heavy Industries (HHI), is scheduled to be launched at HHI's Ulsan yard on Thursday, May 23. The vessel honours Jose Rizal, a doctor and writer whose works have been credited as among the inspirations for the Philippine independence movement in the 1890s.

The future *Jose Rizal* will have a length of 107 metres, a beam of 13.8 metres, a displacement of 2,600 tonnes, and four diesel engines that will deliver a maximum speed of 25 knots. Armament will include a 76-millimetre naval gun, a 30-millimetre autocannon, 12.7-millimetre machine guns, torpedoes, anti-ship missiles, and surface-to-air missiles (SAMs). The frigate is scheduled to be commissioned into the Philippine Navy in 2020.

Final top up for Success
May 21, 2019 seawaves

May 18, 2019 – In the approach lanes of one of the busiest sea traffic waterways in the world, the INDO-PACIFIC ENDEAVOUR 2019 Joint Task Force has fuelled up for the final leg of the major Australian Defence Force activity.

HMA Ships Canberra, Newcastle and Success have visited Sri Lanka, India, Malaysia, Thailand and Vietnam as part of efforts to promote security and stability in the region. They will also visit ports in Singapore and Indonesia.

Following a transit through the Malacca and Singapore Straits, the ships took on their fill of fuel from the US Navy Supply ship USNS Pecos, with most of it going to Australia's 'Battle Tanker', Success.

Success' Executive Officer, Lieutenant Commander Alfonso Santos, said the replenishment at sea (RAS) took three hours.

"This is a busy shipping lane with thousands of vessels transiting in and out of the Straits, so carrying out this RAS required a high degree of planning, skill and alertness by all crews involved," Lieutenant Commander Santos said.

"We have very experienced, capable and professional people on our ships and, as a result, everything went to plan."

Newcastle and Success connected up to either side of Pecos before Canberra sailed in for its turn.

Lieutenant Commander Santos said working with and supporting allies and partners in the region was important.

"It enhances the capability of our defence forces and it demonstrates how well we can work together, which is vital in times of crisis when we are all called upon to respond to humanitarian crises or security needs," he said.

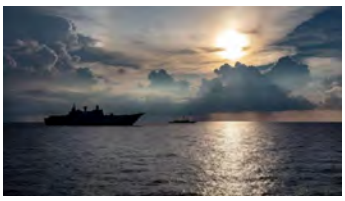
"It demonstrates our capability to remain away from the Australian station for extended periods, operating cooperatively with other navies and proving sustainability and interoperability.

"We now have enough fuel to keep Success going until we return to Sydney…we also have enough to make sure Canberra and Newcastle get home too."

IPE 2019 is due to finish at the end of May with the ships returning to their home ports in June.

Newcastle always at Canberra's side
May 21, 2019 seawaves

May 15, 2019 – HMAS Newcastle continues to provide the critical role of primary defense for HMAS Canberra (III) and the wider protection for the INDO-PACIFIC ENDEAVOUR 2019 (IPE19) fleet.
As it transits from west to east on its final mission, the Adelaide class guided missile frigate has been at Canberra's side.
The operations room supervisor and combat systems supervisor, Petty Officer Bianca Sherrington, said Newcastle used sensors and liaised with the other Royal Australian Navy ships to provide an up-to-date force picture for the IPE19 Joint Task Force.
"In the current task force, Newcastle is the air-warfare and electronic warfare coordinator in charge of the air, space and electronics spectrum. We're the superior air defense unit with our long-range missiles," Petty Officer Sherrington said.
"As a warship, we are more tactically focused – it's our job to protect the high-value ship Canberra."
The ship's company has also participated in military-to-military training, community engagement activities and diverse maritime evolutions throughout the IPE19 deployment.
"Some of our interactions with partner nations have been unique to IPE19, such as live contact time with the kilo-class submarine in India," Petty Officer Sherrington said.
"We were able to demonstrate interoperability during our participation with the Indian Navy through several successful serials during AUSINDEX 19."



HMA Ships Canberra and Newcastle sail in company during Indo-Pacific Endeavour 2019.
Principal warfare officer Lieutenant Hayden Clark said it had been an honor to be part of IPE19 on board Newcastle.
"Newcastle is a fundamental force to the IPE19 mission and she has integrated well into the Joint Task Force," Lieutenant Clark said.
"Even though she is an older ship with older combat systems and sensors, she's very capable with a highly efficient team that delivers complex warfare capability to the task group."
Newcastle has about 200 personnel embarked, varying in trades, roles and rates. About 60 form the Action Information Organization, which ranges from boatswain's mates, communication information system sailors and combat systems operators.
"Being a much smaller ship than Canberra, each person has first and secondary roles – it's all hands on deck. We are a really tight team," Lieutenant Clark said.
"It's been a very busy deployment but also a very productive one. I've really enjoyed the experience and it has been a privilege to be part of the ship's legacy."
After IPE19 HMAS Newcastle will visit her namesake city, then decommission in Sydney.

Two teams of experts are attempting to stop an oil leak from a British tanker sunk off the US coast during World War Two.
The Coimbra was one of 148 vessels sunk by the U-boats near the American coast.
The wreckage of the British tanker, which was torpedoed by a German U-boat in January 1942, has been leaking oil into the sea.
Back in 2015 an oil sheen was spotted 30 miles off the coast of Long Island, experts were able to match the location with that of the wreck.
Now a team of specialists have been working to stop the tanker causing further damage to the ocean.

Specialists have been working to fix the leak on the Coimbra wreckage since April (Picture: US Department of Defense).

Since April the Coast Guard, Department of Environmental Conservation and private company Resolve Marine, have been trying to stop the leak.
According to the US Coast Guard, more than 235 litres of oil has been removed from the tanker since 11 May.
The team will be working on the tanker until it no longer poses a threat to the ocean and all the oil is removed, which should only take another few weeks.
The tanker will then be left alone, as it is the final resting place for six gunners and 30 crew who were on board when the boat sunk.

AUSTRALIA INVESTIGATES NAVY CONTRACT PADDING FOR ADELAIDE CLASS

May 14, 2019 Written by The Australian Strategic Policy Institute Published in Ships (Naval)

An investigation has been opened by the Australian Defence Department over allegations that navy contracts were inflated with millions of dollars in unsubstantiated expenses.
An external investigator will examine reports that the contract for BAE Systems' Adelaide-class frigates was inflated by up to AU$33 million (US$23 million) and that Thales was paid an extra AU$16 million as part of its maintenance contract for the vessels.

May 13, 2019 Written by Baird Maritime Published in Ships (Naval)

A ceremonial keel-laying was held for the Royal Australian Navy's (RAN) first *Arafura*-class offshore patrol vessel (OPV) at Osborne Naval Shipyard in Adelaide on Friday, May 10.
The future HMAS *Arafura* is the first of 12 vessels that are destined to replace the *Armidale*-class patrol boats in RAN service.
The OPV, which is named for the Arafura Sea between Australia and Indonesia, is scheduled to be launched in 2021. Lürssen Australia and ASC are the prime contractor and shipbuilding sub-contractor, respectively, for the *Arafura*-class construction programme.

Extending the life and punch of Collins

Maritime and Undersea Warfare | 09 November 2018 | Stephen Kuper

As the timeline for the delivery of Australia's future submarines continues to balloon, Saab is presenting a solution to the questions that have been raised about extending the life and combat capability of the ageing Collins Class fleet.

Growing concerns about the delivery time frame and capability of Australia's future submarine fleet, combined with the ageing and diminishing capability of the Navy's Collins Class submarines has served to highlight the need to provide a credible stop-gap measure to resolve any real or perceived tactical and strategic shortfalls in the nation's existing and future submarines.

While Australia's controversial Collins Class submarines have long been maligned by the public, politicians and media, recent improvements to reliability, performance and overall capability have sought to address the issues presented by the ageing platforms.

Meanwhile, recent announcements made by Saab regarding the successful upgrade and mid-life modification of the HSwMS Gotland of the Swedish Navy has provided a glimmer of hope for enhancing the life and capability of Australia's Collins Class vessels to ensure, that Navy does not face a capability gap like that experienced by the Air Force following the retirement of the F-111.

The successful upgrade and mid-life modification of Gotland relied heavily upon technologies developed by Saab for use in their future A26 series of advanced submarines, included upgraded sensor suites, the installation of optronic masts and the installation of an upgraded Stirling air-independent propulsion (AIP) system and lengthening of the existing hull form to accommodate the technologies.

Saab's A26 submarine, the successor to the Vastergotland Class (upon which the Collins is based), is designed to leverage key technologies and modular construction methods, acting as 'technology insertions' to not only test the technologies before widespread introduction to service in the broader Vastergotland fleet, but the A26 Class of vessels as well.

Head of Saab Kockums Gunnar Wieslander, who is visiting Australia this week, said, "A modular built submarine is a revolutionising concept; a water vessel that changes its form to accommodate new technical advances or particular defence capabilities. Its key benefit being that it provides an amazing degree of operational flexibility, future-proofs the vessel and contributes significantly to cost-effective construction and assembly."

A26's two key variants provide a measure of understanding for the upgrade and modernisation options available to Navy should it elect to upgrade and extend the life of Collins:

Pelagic: Adapted for long-range missions in narrow or littoral environments. Highly maneuverable with high speed and a large weapon load, Pelagic submarines have a lower acquisition price and operating cost and can also be offered with the Stirling AIP technology for superior submerged endurance.

Oceanic ER: Submarines in the Oceanic Extended Range (ER) segment are the largest in the series, designed for much longer missions, greater crew size and increased weapon payload capability. Oceanic ER submarines enable long-distance operations, suitable for any navy using forward deployment of their submarines on extended missions.

The increased range, endurance and long-range strike capabilities provided by technologies developed for the larger, long-range Oceanic ER variant of the A26 is aimed at delivering a suite for key technology insertions for possible introduction in the Collins Class as part of a mid-life upgrade, including:

The introduction of vertical launching systems to deliver precision land strikes through land-attack cruise missile systems;

Special operations multi-purpose lock systems; and

Improved combat system performance supporting enhanced intelligence, surveillance and reconnaissance capabilities through the digitisation of key optronics and mast systems.

"The A26 will be known as the disruptor. The A26 submarine is subdivided into several units called modules. Each module is independently designed and built, enclosed and equipped with everything that the unit needs. The different modules are then tested and deployed outside the submarine, ready to be assembled at the right time," Wieslander explained.

The enhanced long-range strike and increased endurance capabilities provided by the technology insertions could serve to mitigate some of the strategic concerns raised by some of the nation's leading strategic thinkers including Peter Jennings, executive director at ASPI, who said: "We also need to place greater emphasis on upgrading the capability provided by Collins, not just as a stop-gap, but as an imperative, as these submarines will continue to form the point of our deterrence spear for some time yet."

Australia's Collins Class submarines are based upon enlarged Vastergotland Class submarines, designed by Kockums, which served as the basis for the Gotland Class submarines. The Royal Australian Navy's six Collins Class vessels were designed and built by ASC at Osborne in South Australia.

HELGE INGSTAD REPAIRS TO COST MORE THAN NEW WARSHIP ACQUISITION, NORWEGIAN REPORT CLAIMS
May 21, 2019

Written by Baird Maritime

Published in Ships (Naval)

A report recently published by the Norwegian Defence Materiel Agency (NDMA) has stated that restoring the damaged *Fridtjof Nansen*-class frigate HNoMS *Helge Ingstad* to full operational readiness would be more expensive than buying a new warship.

Specifically, the agency has estimated that the repair of the frigate would cost NOK 12 to 14 billion (US$1.37 to 1.59 billion) and take more than five years whereas the cost of purchasing a newbuild similar vessel is estimated at NOK 11 to 13 billion (US$1.25 to 1.48 billion).

The NDMA said that while it is “technically possible” to bring *Helge Ingstad* back up to a state of operational readiness, the corresponding cost and the time required would render the effort impractical. The report added that some parts of the frigate may still be used as spares for other Norwegian warships.*Helge Ingstad* sank in the waters off Oygarden on November 8 last year after it collided with a commercial oil tanker.

The damaged frigate was lifted out of the water last February 26 and has been at the naval base in Haakonsvern since March 3.

MAPLE LEAF NAVY
MAGAZINE

A ship's journey from deployment to deployment

May 17, 2019 adminmaple

By Matthew Mooney

May 16, 2019 – It takes a lot for a ship and crew to be ready to let go lines and proceed to sea in support of Canadian operations around the world. The process begins the moment the ship returns from its previous deployment.

A warship is like a floating city that's constantly supporting its crew. After a long deployment overseas, the ship needs to proceed alongside for a maintenance period where anything that degraded can be repaired or replaced.

Her Majesty's Canadian Ship (HMCS) Ottawa's road to readiness began in September 2018 when it returned from a summer deployment to Exercise Rim of the Pacific (RIMPAC).

During October, work was conducted on a number of different systems to bring the ship back up to full fighting order. Both software and hardware was replaced in order to ensure that sailors would have the best equipment to support them on their missions.

But it isn't only the equipment that's changed.

The crew of a warship is dynamic; it's constantly being supplemented as crew members go on leave or career courses, or get posted in and out. So in addition to new equipment, there are always new personnel to train and mentor in their new roles or, in many cases, in their new ship.

While sailing for the Submarine Commander's Course in February, Ottawa invited Sea Training (Pacific) to help mentor the team in an Assisted Ship Readiness Training (ASRT) program. During ASRT, Sea Training ran the crew, some of whom were working together for the first time, through exercises designed to highlight areas for improvement.

The ASRT program aims to assist all the different organizations in Royal Canadian Navy (RCN) ships. There are simulated warfare engagements, gun shoots, simulated boardings, and damage control exercises. All of these help new and old members of the ship's company better understand their role in supporting the ship as a whole.

In addition to the training done at sea, Sea Training (Pacific) aids the West Coast fleet in preparing for upcoming operations by conducting focused training. For the bridge team, the bridge watchkeepers were brought to Naval Fleet School (Pacific) where they were given the opportunity to develop their bridge resource management skills and practice precision navigation. The simulators give them the opportunity to work out the small details and information flow that is so critical when conducting navigation in Canada or around the world.

In March, Ottawa's naval boarding party conducted team training that was overseen by Naval Fleet School (Pacific) and Sea Training (Pacific). The purpose of this training focused on developing the 10-person team tasked by the RCN to board and search vessels while on deployment. This training included weapons handling, tactical shooting, rappelling and close-quarter battles.

In order to train the damage control organization, Ottawa's crew conducted training at Galiano in Colwood, B.C., in April. Galiano is a state-of-the-art facility where there are simulated burn rooms for the ship's company to practice their firefighting skills, and flood tanks where sailors can practice leak stopping under safe and controlled conditions. This realistic training prepares sailors for the worst case scenarios they might face at sea.

In the coming weeks, Ottawa's Operations Department is going to conduct training to prepare for an upcoming deployment. This training will focus on detecting, localizing and tracking possible threats.

Additionally, Ottawa is going to conduct chemical, biologic, radiologic and nuclear threat training where the ship and crew will simulate being in a chemical attack. This will ensure the team is fully prepared for anything that might come their way in the future.

All of this training is being done with one goal: to prepare the ship for its upcoming deployment. In order to determine if the ship is ready for their deployment, Ottawa will set sail once again in June with Sea Training (Pacific) embarked for Immediate Multi-Ship Readiness Training (IMSRT). During IMSRT the ship will be challenged in every way possible to ensure that the sailors are ready to help, ready to lead and ready to fight.

The history of the Royal Australian Navy (Part One)

Maritime and Undersea Warfare | 29 April 2019 | Louis Dillon

In the days surrounding Anzac Day, Defence Connect will be looking back on the history of the Australian Defence Force branches, and will now move on from the Army to the beginnings of the Royal Australian Navy.

Establishment

The RAN was officially formed on 10 July 1911, however it was a prickly process to get underway.

Prior to the federation of Australia, the colonies of Australia relied on detached units from the Royal Navy, with the only deployments coming from Sydney from 1788 to 1859.

All of the other colonies, bar Western Australia, soon would play host to Royal Navy units, after Australia was established as a separate British Naval station in 1859.

Despite this move, Australia would eventually start to feel that the sovereignty seemed to overlook the strategic importance of the country, with British admiralty rejecting a proposal in 1907 for the establishment of the RAN.

The following year, Australian Prime Minister Alfred Deakin invited the US "Great White Fleet" to the island, in part to send a message to Britain that Australia was heavily interested in establishing its own navy, with or without sovereign help.

Over 500,000 Sydneysiders (of a total population of around 600,000) gathered to watch the arrival of the US fleet on 20 August 1908, which outweighed the crowd that celebrated the foundation of the Commonwealth in 1901.

The enthusiasm that greeted the Great White Fleet would only spur the Australian government on further, with Australian pushing for the allowance of the RAN at an Imperial Conference in 1909, which was finally agreed upon by Britain, with a naval unit approved consisting of at least a battle cruiser, three second class cruisers, six destroyers, three submarines and a number of auxiliaries.

The first destroyers, HMA Ships Yarra and Parramatta, would enter Australian service the following year, with flagship HMAS Australia arriving in 1913.

On 4 October 1913, the Australian fleet, led by Australia, entered Sydney Harbour for the first time, and within a few weeks, format control of these units was passed to the Commonwealth Naval Board, bringing an end to Imperial control.

The honours of first Commanding Officer of the RAN was given to Admiral George Edwin Patey, on loan from the Royal Navy.

The Royal Australian Naval College was also established in the same time period, which was used for the training of Naval Officers, and was originally set up in Geelong, Victoria, before being moved to Jervis Bay, NSW.

World War I

It wouldn't take long for the capabilities of the RAN to be tested for the first time, following the declaration of war on Germany by Britain in August 1914.
Just a day before the declaration, the Australian government notified the Royal Navy's Admiralty that they would be at their service if required.
The RAN's first focus was placed on protecting Australia's ports and shipping routes, which was immediately put under threat by German colonies in the Pacific, such as German New Guinea.
HMA ships assisted in the attack on New Guinea with the Australian Naval and Military Expeditionary Force, a group of around 2,000 volunteers tasked with capturing and destroying German wireless stations based there.
The RAN's force comprised of six destroyers, a battle cruiser, six light cruisers, two submarines and several support and ancillary craft, which were used for several tasks asked of them by the British, including convoy escort.
It was during one of these convoy deployments that light cruiser HMAS Sydney received a distress call from an Allied station in the Cocos Islands, after being attacked by German light cruiser SMS Emden.
Arriving in a few short hours, the larger vessel Sydney manhandled Emden, forcing the German ship to run aground to avoid sinking. It marked Australia's first naval battle, and subsequent victory.
The RAN would continue to impress during the first World War, with the only losses being the pair of submarines, AE1 and AE2, with 171 fatalities.
AE1 disappeared on 14 September 1914, after departing Blanche Bay, Rabaul, to assist HMAS Parramatta in patrolling off the coast of Cape Gazelle, and wasn't located until December 2017, with a ventilation valve malfunction blamed for the sinking of the submarine.
All the crew onboard were killed after the submarine sank below 100 metres and imploded, and was Australia's first major loss of the first World War.
The fate of AE2 was different to Australia's other submarine, after being sunk in battle by Turkish torpedo boat Sultanhisar in the Sea of Marmora in 1915 after forcing a passage through to the treacherous waters of the Dardanelles in support of the Gallipolli campaign.
It was the first Allied warship to break through the defences of the Dardanelles.
All of the submarines personnel would survive the attack, although four passed away as a result of illness as prisoners of war.
AE2 was the first RAN vessel (and only vessel in WWI) to be lost as a result of enemy action, and the final resting place of the submarine would only be discovered in June 1998.
Post World War I
After playing a vital part in the Allied war efforts in World War I, Australia had to reduce its naval size following the signing of the Armistice in 1918.
Under the terms of the Washington Treaty of 1922, HMAS Australia, the RAN's first flagship, was scuttled off Sydney Heads, an easy decision for the RAN, which had already decided that the warship's resources were best distributed elsewhere some years before.
The decision still pulled on the Australian heartstrings though, and Prime Minister Stanley Bruce delivered a eulogy for the vessel, saying, "In the prime of her service, this the first great ship of the young Australian Navy, was our contribution to the defence of civilisation.
"In her passing she symbolises our contribution to the cause of peace. We sacrifice her with a regret rendered poignant by the memory of her great service, but tempered with the hope that the world will see the magnitude of our offering, and the manner in which we make it, a measure of our practical belief in the principles enunciated at the Washington Conference, which constitute the only hope of a permanent international peace."
"The passing of Australia (I) closes a glorious chapter in the history of the Australian Navy. We shall never forget that in the eventful days of 1914, when the fate of civilisation hung in the balance, it was the presence of Australia (I), manned by Australian seamen, that saved our shores and our shipping from the fate which overtook less fortunate nations."
While Australia was scuttled, the RAN continued to stock up on its capabilities, acquiring from the Royal Navy six submarines, five destroyers and a number of sloops.
In 1924, Australia also ordered two 10,000-tonne cruisers, two submarines and committed to the building of a seaplane carrier at Cockatoo Dockyard, Sydney, and soon after the RAN acquired further surveying capabilities by loaning HMAS Moresby from the Royal Navy.
In 1933, five additional destroyers were introduced to the RAN's fleet in order to replace ageing vessels, and three light cruisers were added in the years before the Second World War.
To be continued.

Perth prepares to host 2019 Indo-Pacific Defence Conference

| 21 May 2019 | Stephen Kuper

West Australian Minister for Defence Issues, Paul Papalia CSC has applauded Perth's preparations to host the second Indo-Pacific Defence Conference in August to showcase the best of WA-based defence industry and research capabilities.

The 2019 Indo-Pacific Defence Conference will be held at Crown Towers in Perth on 12 August, showcasing the best of WA-based defence industry and research capabilities.

The state government has partnered with the Perth USAsia Centre to deliver the conference which will convene strategic thinkers from the military, industry, academic and government sectors from across the Indo-Pacific region.

It follows the inaugural conference held in Perth last year and is a direct action from the state government's WA Defence and Defence Industries Strategic Plan.

The theme of this year's conference is 'An era of new and renewed partnerships' with a focus on topics including a new role for Indonesia in the region, a growing role for Japan, an aspirational role for India, a renewed role for the United Kingdom and France, and a continued role for the United States.

West Australian Defence Issues Minister, Paul Papalia said, "Perth is home to Australia's largest naval base, an advanced manufacturing sector and has an internationally recognised reputation for innovation and expertise."

Keynote speakers and panel discussions will explore themes around industry support for the changing operational environment, new frontiers in defence technology, WA's STEM agenda, and defence industry applications for WA's battery minerals and resources expertise.

Five hundred delegates from across the region are expected to attend the conference. Keynote speakers include:

Major General (Ret.) Seo Young, Professor of Korea National Defense University;

Mark Lippert, former US Ambassador to South Korea and now vice president at Boeing International; and

Lieutenant General (Ret.) Agus Widjojo, former vice chairman of the People's Consultative Assembly of the Republic of Indonesia and Tentara Nasional Indonesia's chief of territorial affairs.

"It is the ideal location to discuss the critical defence and security issues impacting the region and highlight our competitive advantages and strategic global position to our Indo-Pacific neighbour. I am strongly committed to promoting our defence capabilities and harnessing WA's competitive edge to maximise defence business opportunities and increase jobs in the sector," Minister Papalia added.

May 20, 2019

Written by Baird Maritime Published in Ships (Naval)

Image: military.cnr.cn

The People's Liberation Army Navy (PLAN) has decommissioned four of its Type 051 or *Luda*-class destroyers in a ceremony at the naval base in Lushun on Thursday, May 16.
Kaifeng, *Dalian*, *Zunyi*, and *Guilin* have served with the PLAN for over 30 years at the time of their decommissioning.
This leaves only two *Luda*-class destroyers, *Zhanjiang* and *Zhuhai*, remaining in Chinese service out of an original 17 ships. This number included *Guangzhou*, which sank on March 9, 1978, following an onboard explosion.
The *Luda*-class destroyers are based on the Project 56 or *Kotlin*-class destroyers originally fielded by

May 20, 2019

Written by Baird Maritime Published in Ships (Naval)

The first of two new 2,000-tonne corvettes destined for the Pakistan Navy was launched at Damen Shipyards Galati in Romania on Friday, May 17.
The yet unnamed vessel is expected to enter fleet service by the end of this year while its sister is scheduled for delivery in mid-2020.
The corvettes' design is based on that of Damen's 90-metre offshore patrol vessel (OPV) which also features a helicopter deck with hangar.

US guided-missile submarine Michigan returns from 30-month deployment

zoomUSS Michigan (SSGN 727) (Gold) arriving at Republic of Korea's Busan Naval Base for a port visit in 2017. Photo: US Navy

US Navy's Ohio-class guided-missile submarine USS Michigan (SSGN 727) returned home to the Pacific Northwest on May 13, after spending almost three years forward-deployed in the Western Pacific.

Since its departure in December 2016, Michigan was forward-deployed to Guam, where it conducted surveillance, training and other critical missions in the 7th Fleet Area of Operation.

"Both Michigan Blue and Gold crews worked tirelessly together, and with our maintenance partners from Puget Sound Naval Shipyard and the Guam-based submarine tenders Frank Cable and Emory S. Land, to keep an aging ship ready to fight at the tip of the spear in the Western Pacific," said USS Michigan Blue's commanding officer Capt. Bradley Terry.

"Keeping a submarine as complex as Michigan deployed for approximately 30-months is an extremely noteworthy accomplishment and demonstrates the remarkable skill, capability, and resiliency of our submarine Sailors and their families that support them."

Michigan also worked with partners from the Republic of Korea Navy (ROKN) in Busan to build and maintain maritime partnerships. The rotating crews swapped seven times throughout the deployment.

"We all have great reasons to be proud of the seven crews that have kept Michigan operationally deployed for nearly 30 months," said Capt. Christopher Kline, deputy commander, Submarine Squadron 19. " We welcome the ship and her crew back home with the confidence that the team is ready for all challenges as the ship enters their maintenance period."

Both Michigan Gold and Blue crews received the 2018 Submarine Squadron 19 Battle Efficiency Award (Battle E) while forward deployed. The Battle "E" is an award of merit presented to the most proficient submarine crews in each squadron. This signifies Michigan's sustained superior technical performance and combat readiness throughout the year.

The ship is scheduled to begin a Major Maintenance Period at Puget Sound Naval Shipyard & Intermediate Maintenance Facility (PSNS & IMF).

Michigan's return to the Pacific Northwest makes this its forth deployment since its conversion from a Trident ballistic missile submarine (SSBN) in 2007.

SHALDAG-CLASS PATROL BOATS CONSIDERED FOR PHILIPPINE COAST GUARD

May 17, 2019 Written by Baird Maritime

Image: Israel Defense ForcesAn Israeli Navy Shaldag-class patrol boat

A senior official of the Philippine Coast Guard (PCG) has confirmed that the service is currently in talks with Israel Shipyards regarding the possible acquisition of new *Shaldag Mark II*-class fast patrol craft.

The planned acquisition seeks to fulfil the PCG's requirement for newbuild interceptor craft as part of its ongoing fleet modernisation programme.

The PCG and Israel Shipyards are also discussing potential modifications to the vessels to make them more suited for operations in Philippine waters.

Navy recapitalisation and is the Navy big enough?

Maritime and Undersea Warfare | 14 May 2019 | Stephen Kuper

As a maritime nation Australia is dependent on unlimited access to the ocean – as the regional paradigm changes, placing greater strain on the Navy to protect the national interests, is the Navy large enough to execute the mission in a radically evolving geo-political and strategic order?

Indo-Pacific Asia's evolving power paradigm is changing the way Australia views itself and its position in this changing world. The need for both continental and forward defence highlights the necessity for the nation to balance the strengths and weaknesses of Australia's historic doctrines to form the basis of a reinvigorated Australian presence in the Indo-Pacific.

In 1890, American naval strategist Alfred Thayer Mahan in his work The Influence of Sea Power Upon History outlined that "whether they will or not, Americans must now begin to look outward. The growing production of the country demands it", establishing the basis of America's foreign and strategic policy well into the 21st century despite periods of isolation.

Now, for the first time in the nation's history, Australia's prosperity, security and way of life is intrinsically linked to the ambition, stability and direction of its Indo-Pacific neighbours. Guaranteeing this requires the nation to find a balance between the expeditionary and interventionist focused 'Forward Defence' and the continental defence focused 'Defence of Australia' doctrines to counter the high and low intensity threats to the nation's security and interests.

Australia's focus on the Indo-Pacific region makes a great deal of sense, particularly given the positioning of key regional economic and strategic partners across what has been referred to as the 'Arc of Instability', which plays host to a range of traditional state and asymmetric economic and political challenges, however the growth of China and India and smaller nations surrounding them, combined with the importance of the Indo-Pacific as a pillar of the national, regional and global economy, now requires renewed Australian focus.

However, the question now becomes, given the geographic area of responsibility Australia will become increasingly responsible for and dependent on, is the Royal Australian Navy and the recapitalisation and modernisation programs currently underway enough for Australia to maintain its qualitative and quantitative lead over regional peers?

Major platform recapitalisation

As part of the largest military rearmament program since the Second World War, Australia's $90 billion Naval Shipbuilding program is focused on recapitalising and modernising both Australia's surface and submarine fleets at a time of rapid modernisation and expansion by regional navies.

The $35 billion SEA 5000 Hunter Class future frigate program builds on the Hobart Class guided missile destroyer program, providing a fleet of leading-edge, anti-submarine and multi-purpose guided missile frigates to replace the rapidly ageing and overworked 1990s-era Anzac Class frigates, which have served as the backbone of Australia's surface fleet.

The nine Hunter Class frigates will be based on the BAE Systems Type 26 Global Combat Ship currently under construction for the Royal Navy and will replace the eight Anzac Class frigates when they enter service beginning in the late 2020s. Hunter is billed as an anti-submarine warfare (ASW) centric vessel delivering an advanced ASW capability to the Royal Australian Navy at a time when 50 per cent of the world's submarines will be operating in the Indo-Pacific region.

Australia's ageing fleet of Collins Class submarines have been the focus of much contention – with both the government and opposition adding further fuel to the debate around platform suitability, delivery time frame and the viability of the $50 billion SEA 1000 Attack Class future submarine program.

The 12 Attack Class are expected to deliver a quantum leap in the capability delivered to the RAN and its submarine service by leveraging technology and capabilities developed for nuclear submarines, implemented on a conventional submarine.

The end of 2018 set the pace for 2019, with the official sod turning at the Future Submarine Construction Yard in Adelaide heralding the beginning of the next stage for the $50 billion program. 2019 has kicked the tempo into high gear as both the government and industry have hit the ground running with a cluster of major program milestones, including: the signing of the Strategic Partnership Agreement (SPA) between the Commonwealth and prime contractor Naval Group, the signing of the Framework Agreement between Naval Group and ASC, and the successful completion of the Submarine Design Contract.

The third major naval recapitalisation program, SEA 1180 Phase 1, will deliver a fleet of 12 new Arafura Class offshore patrol vessels (OPV) to replace and enhance the capability delivered by the 13 Armidale Class Patrol Boats – these OPVs will undertake constabulary missions and the OPV will be the primary ADF asset for maritime patrol and response duties.

Should we increase the naval shipbuilding tempo and order?

It is no secret that Australia's naval shipbuilding and submarine building capabilities are starting from a relatively low base – while the government has sought to rectify this through the $95 billion Naval Shipbuilding Plan and the Sovereign Industry Capability plans, the changing tactical and strategic reality of the Indo-Pacific ranging from asymmetric threats to high-intensity, peer-level technologies is raising a key question: Are the current recapitalisation plans enough?

The rapidly developing qualitative and quantitative capabilities of regional surface warship and submarine fleets, namely by Russia and China – combined with the increasing proliferation of surface vessels and submarines designed and built by the aforementioned nations by emerging peer competitors – serves to stretch the tactical and strategic capabilities of the RAN.

Additionally, the increasing proliferation of advanced anti-ship ballistic and anti-ship cruise missiles, combined with the growing prominence of naval aviation – again led by China, but also pursued by Japan and India – is serving to raise questions about the size and the specialised area-air defence, ballistic missile defence, power projection and sea control capabilities of the RAN.

Australia is defined by its relationship and access to the ocean, with strategic sea-lines-of-communication supporting over 90 per cent of global trade, a result of the cost effective and reliable nature of sea transport. Indo-Pacific Asia is at the epicentre of the global maritime trade, with about US$5 trillion worth of trade flowing through the South China Sea and the strategic waterways and choke points of south-east Asia annually.

The Indian Ocean and its critical global sea-lines-of-communication are responsible for more than 80 per cent of the world's seaborne trade in critical energy supplies, namely oil and natural gas, which serve as the lifeblood of any advanced economy.

Traditionally, Australia has focused on a platform-for-platform acquisition program – focused on replacing, modernising or upgrading key capabilities on a like-for-like basis without a guiding policy, doctrine or strategy limiting the overall effectiveness, survivability and capability of the RAN.

GERMAN SUBMARINE RUNS AGROUND AFTER LEAVING PORT IN NORWAY

May 17, 2019 Written by Baird Maritime Published in Submersibles (Naval)

Image: DPAU-36 in January 2019

Der Spiegel reports that a German Navy submarine ran aground in Norwegian waters shortly after it left port on Tuesday, May 14.

The Type 212 submarine *U-36* made contact with the seafloor as it sailed out of the Royal Norwegian Navy base at Haakonsvern, the German Navy confirmed one day after the incident took place.

Divers have carried out an inspection of the hull using video cameras. The resulting footage is still being assessed by senior German officials to determine whether the submarine will be permitted to sail anytime soon.

U-36 is currently in Norway in the final weeks of a five-month-long training deployment that began in January.

This is the second grounding of a German Navy Type 212 submarine in Norwegian waters after an incident wherein *U-35* suffered a damaged rudder during deep water tests off Kristiansand in October 2017.

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South Australia Division: *PO Box 3008, Unley, SA 5061.*
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If you live in Tasmania, please post the form to the Hon Secretary of the Victoria Division. If you live in the Australian Capital Territory or the Northern Territory, please post the form to the Hon Secretary of the New South Wales or South Australia Division respectively.

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