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THE NAVY

THE MAGAZINE OF THE NAVY LEAGUE OF AUSTRALIA

OPERATION PRAYING MANTIS

THE REMARKABLE EXPLOITS OF THE U-9

RISING SUN - WHITE ENSIGN

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THE NAVY LEAGUE OF AUSTRALIA

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A first, second and third prize will be awarded in each of two categories:

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DEADLINE

20 September 2014

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Essays should be submitted either in Microsoft Word format on disk and posted to:

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or emailed to ***editorthenavy@hotmail.com.***

Submissions should include the writer's name, address, telephone and email contacts, and the nominated entry category.

THE NAVY reserves the right to reprint all essays in the magazine, together with the right to edit them as considered appropriate for publication.

Volume 76 No.3

THE NAVY

THE MAGAZINE OF THE NAVY LEAGUE OF AUSTRALIA

Front cover:
The USN's Flight IIA Arleigh Burke class destroyer USS ROOSEVELT at sea. ROOSEVELT is deployed as part of the GEORGE H. W. BUSH Carrier Strike Group in support of maritime security operations, theater security cooperation efforts and missions in support of Operation Enduring Freedom in the U.S. 5th and 6th Fleet areas of responsibility. (USN)

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DEFENCELESS PERTH

With the recent loss of Malaysian Airlines flight MH370 in the Southern Indian Ocean one has to ask 'really'? In the post September 11 world, how could a very large Boeing 777-200 airliner approach the Australian coast, from our primary area of strategic focus, without a transponder signal or registered flight plan, and parallel it for nearly 2,500km heading in the general direction of Perth without anyone knowing about it?

It is believed that the aircraft crashed into the sea in broad daylight. Yet no one heard the noise on any sea-bedded hydrophones or saw the explosion/impact with the water through satellites that are so sensitive these days that they can see the tail plume of missiles. Our impressive JORN (Jindalee Over the Horizon Radar Network) capability, which according to open source reporting is looking in the area of the aircraft's entire flight path, also didn't see it coming.

Yes, it was a distance off the WA coast and off a remote part of Australia that has little strategic significance, but if one were the Commanding Officer of HMAS STIRLING or the SAS Regiment in Perth, or worked in a city skyscraper, perhaps one should be a little worried about the terrorism implications of such an undetected event as this.

Since the disappearance we have seen a great coming together of the region's militaries to find the missing aircraft. Australia has been joined by China, Malaysia, South Korea, Japan, New Zealand and the US in a multinational effort to locate the missing airliner. Australian authorities quickly set up a joint interagency coordination centre and even employed an RAAF E-7 Wedgetail AEW&C (Airborne Early Warning and Control) aircraft to provide air-traffic separation control over the search zone for the many aircraft involved.

There are many lessons being learned in this operation and valuable links being forged with the region at a diplomatic level. Perhaps the old saying "every cloud has a silver lining" may have some truth in the search for MH370.

However, this tragedy should also serve as a wakeup call for a host of security reasons. Why do we not have warning systems and/or procedures in place that could detect a massive missile like a 777-200 heading towards us? If we did though, what could have been done about it with the defence assets in Perth? And at what level does the authority exist to order the downing of such a September 11 style of threat?

We tend to rely on our intelligence services to protect us from terrorism activities. However, this only provides strategic cover. Once the threat is airborne it becomes a tactical issue requiring a kinetic solution, which one has to assume could never be employed given what appears to be a massive surveillance black hole in our air-sea gap in the Southern Indian Ocean.

CANBERRA CLASS MULTIPURPOSE CVLS

The arrival of the RAN's first Canberra class landing helicopter dock ship (LHD) should have professional and non-professional armchair strategists around the nation jumping with excitement. Common sense has finally prevailed and a ship with a large flat deck and island superstructure off to one side has rejoined the ADF's order of battle. In fact not one ship but two will eventually fly the white ensign, a fact that has been noted around the world.

While these two ships have been designed for the amphibious assault role, flat-decked ships like these have proven to be the most versatile weapon systems in history. Missions and capabilities can be readily changed without dry-docking or expensive time-consuming modification and refits, but rather through the simple choice of aircraft employed onboard.

Take for instance the recent NATO led naval operation off Libya to dispose its Dictator Muammar Gaddafi, known as Operation Unified Protector. Four amphibious helicopter assault ships made up the vast bulk of the naval-air contribution in the form of the USN LHDs USS BATANN & KEARSARGE, the French LHD FS TONNERRE and the RN LPH HMS OCEAN. Rather than land troops and equipment ashore, the ships embarked additional attack helicopters with CSAR (Combat Search And Rescue) helicopters in support. The USN ships used their embarked Harriers for attack and strike missions. Versatility is the hallmark of the large flat-decked ship.

Personnel involved in the air search for MH370 at RAAF Base Pearce, Western Australia join together for a group photo with search aircraft representing the nations which flew over-water search missions. (from L to R) A Japanese P-3 Orion, a RNZAF P-3K2 Orion, a USN P-8 Poseidon, A RMAF C-130 Hercules, (rear) a Chinese airforce IL-76, a RAAF E-7 Wedgetail AEW&C, a RAAF AP-3C Orion and a South Korean P-3 Orion. (RAAF)

So with this in mind it's time we started taking a long look ahead at the next 30 years of the life of the Canberra class in operational service, and think of ways we can better utilise this capability. Fixed wing STOVL (Short Take Off Vertical Landing) aircraft in the form of the fifth generation F-35B JSF stealth fighter come to mind. Many STOL (Short Take Off and Landing) aircraft up to the size of the Australian GAF Nomad could land and take off from the ship's deck without need of arrester wires or catapults, as also could UCAVs (Unmanned Combat Aerial Vehicles) and other UAV (Unmanned Aerial Vehicle) style of aircraft.

In the latter case take for instance the new US Navy MQ-8C. This VTUAV (Vertical Takeoff UAV) is essentially a Bell 407 helicopter (a very modern version of the Long Ranger) with the people-support bits removed to increase its usable payload and range. With an Electro-Optical or radar sensor package this VTUAV has a time on station of more than 12 hours. Mounting an air-search radar and coupled with an appropriate data-link it could fly at 15,000ft above a Canberra class ship feeding vital over-the- horizon air defence data to the accompanying escorts to provide a significant boost in air defence capability.

It only takes a bit of imagination to understand what possibilities these ships possess. In order to help with that imagination this column will no longer refer to the Canberra class ships as LHDs. But rather, and more accurately, the Canberra class Multipurpose CVLs (aircraft carrier light). Hopefully the new crop of officers and thinkers making their way through the ranks of the ADF and academic classes will have that imagination to fully exploit this new capability in the ADF's order of battle.

The Canberra class Multipurpose CVL NUSHIP CANBERRA off the NSW coast during her first sea trials. The flat-decked ship with an island off to one side has been history's most versatile and potent weapon system. (RAN)

A Northrop Grumman MQ-8C VTUAV during early ground trials. The aircraft's payload and endurance are impressive. Several aircraft deployed to a Canberra class CVL will be able to provide a 24/7 air defence radar picture over a wide area for the ship and associated air warfare escorts. Thus significantly improving their air defence capability in a contested environment. (Northrop Grumman)

FROM OUR READERS

Dear Sir,

Once again Themistocles has nailed our national shipbuilding dilemma (Vol 76 No 2 pp 2-3). Twenty years ago I had some responsibility for naval shipbuilding proposals to government.
Many positive aspects of these proposals were nearly always stymied by our federated system of government. The work had to be distributed between States and Territories regardless of overall national benefit.

I had the opportunity of discussing this issue with successful directors of Material Acquisition in several European nations and they could not comprehend that our nation of our size and population had not already selected one specialised construction yard for all naval shipbuilding.

Rear Admiral A. L Hunt AO RAN (Rtd)
Paddington NSW

Dear Sir,

I enjoyed the article "From the Crows Nest" in Volume 76 No.2 edition of your magazine.

Of special interest was the concept of a Valley of Death in the shipbuilding industries in Australia.

Other than the Collins class replacement project and it's ridiculous projected number of subs to be completed (we are finding it hard to man and retain trained personal for the six we have now) there are only two other projects that have no final design, therefore builder, decided at this time or the foreseeable future.

Your article identifies one of these projects, that of the SUCCESS replacement, the other being the Anzac class replacement project. It is the latter I want to comment on.

Going on published stats the next FFH/FFG class, it has to displace around 6,000 tons or so, have the usual self defence, surface engagement and aviation abilities. With the new capability of employing tomahawk style cruise missiles.

What does this have to do with this Valley of Death you might ask? Simply this, instead of coming up with a completely new design, why not use a "Common Hull Design"?

In this day and age we classify naval ships by their class designation set by their operational use rather than size of the hull and guns/ weapons mounted.

Our new DDGs (AWD if you prefer) are classified as Frigates in the Spanish Navy, so why not build more Hobart class hulls to replace the Anzacs or modify the design to suit the listed requirements?

Modifying the design with a version of the AMSD currently been installed on the Anzac class and the tactical length version of the Mk-41 VLS would match published requirements.

In addition you could forgo fitting two turbines to increase patrolling range. In doing so there would be no reduction in shipbuilding in this country.

Jason McCormick
via e-mail

Dear Editor

Have ship's names become simply a matter of repetition with the addition of (I), (II), (III), (IV), etc? No aspersions or insults meant to ships, their Officers and men what-so-ever; (a family relative perished onboard HMAS SYDNEY (II) in November 1941).

As a retired Master Mariner I have a healthy interest in our naval defence. Australia's two LHD vessels CANBERRA and ADELAIDE ought to be, in my humble opinion, ''re-named'.

These vessels, logged as our largest, may (it seems) be used for troop transport, thus justifying the suggestion that they be re-named after two grand gentlemen (out of several known) for their vital military commands and campaigns during WWII.

I refer to General Douglas MacArthur (USA, 1880 - 1964) and General Sir Thomas Albert Blamey (Australia, 1884 - 1951).

MacArthur was ''up to his eyeballs" in our protection in WWII and although some have questioned his greatness, I recall that his presence was very much welcomed by our citizenry during our darkest days, especially in New Guinea.

Sometimes the naming of our ships seems unfathomable. Capital ships should always be most honourably named after the Nation or its States, or Capital Cities; thereafter (say) our largest Towns; our most notable people, mountains, rivers, etc, though I firmly believe that with these two NUSHIPs there is reason for an exception.

The two LHDs are surely worthy of two very special names, honouring a Great US ally and military man, and a Great Australian military man of over 70 years ago. . . the opportunity briefly existing to justifiably impress our appreciation upon these NUSHIPS in their honour . . . and in the following manner. . .HMAS GENERAL (Douglas) MACARTHUR and HMAS GENERAL (Sir Thomas) BLAMEY.

Robert Weismann
Penrith NSW

THE BUDGET AND DEFENCE

Prior to the bringing down of the 2014 Commonwealth budget there had been much talk of cuts. Despite these gloomy prognostications Defence has done quite well. The Department appropriation has in fact been increased by some $2.3 billion.

This increase raises defence expenditure to 1.8% of Gross Domestic Product. At the last election the then Opposition promised that they would over a number of years increase defence expenditure to 2% of Gross Domestic Product. So far so good.

There will be cuts to the civilian workforce in Defence. Over the next three years some 2000 jobs will go, but the savings are to be put back into defence.

From the Navy viewpoint the budget involves no significant change. The major programmes, including the Air Warfare Destroyers (now to be called DDGs), the two large LHDs and the frigate upgrades continue to progress, albeit not on their original schedules.

Quite apart from the fiscal constraints it was not to be expected that there would be any significant announcements in the May 2014 budget. In April the Prime Minister and the Minister for Defence had announced that Defence will produce a White Paper which is to be completed in 2015. The new Defence White Paper is to align defence policy with military strategy and deliver an affordable Australian Defence Force structure.

Following the release of the 2015 White Paper Defence will publish a 10 year Defence Capability Plan. A Defence Industry Policy Statement will also be published so as to provide defence industry with greater certainty about the Government`s priorities and timeframes.

A great deal of concern has been voiced by defence industry about future programmes, or rather the risk of gaps in future programmes. Much has been said about the "valley of death" facing naval shipbuilding. At Williamstown for example, with it`s contribution to the destroyer build and the LHD fitout approaching completion the dockyard is facing the prospect of little or no work. Hence the term "valley of death". The cessation of work is not just a cashflow problem for the dockyard owners. Any significant break in the flow of work will result in the loss of the skills that will be required when new naval shipbuilding is required.

A number of proposals have been put forward as a way to bridge the "valley of death'. These include: 26,000 tonne auxiliaries as replacements for HMA Ships SIRIUS and SUCCESS; an ice breaker; and new patrol vessels to replace 12 of the Armidale class patrol boats.

It is to be hoped that the Defence Industry Policy Statement when issued will indeed provide the naval shipbuilding industry with the greater certainty it seeks.

AUSTRALIAN BORDER FORCE

On 9 May the Minister for Immigration and Border Protection announced the establishment of the Australian Border Force.

From 1st July 2015 the Department of Immigration and Border Protection and the Australian Customs and Border Protection Service will be consolidated into a single Department of Immigration and Border Protection. At this time the Australian Border Force, a single frontline border agency, will be established within the department.

The Australian Border Force seems destined to become a considerable organisation. It is to be headed by a Commissioner who will have, to quote the Minister, "the same standing as other heads of key national security related agencies, such as the Commissioner of the Australian Federal Police, the Chief of the Australian Defence Force and the Director-General of ASIO."

The Australian Border Force will draw together the operational border, investigations, compliance, detention and enforcement functions of the two existing agencies.

The enforcement, intelligence and systems capabilities will be coordinated from a new Headquarters to be established in Canberra. The Headquarters will also be home to Strategic Border Command and the National Border Targeting Centre. The strategic Border Command will support effective decision making, resource allocation and respond to border incidents as needed. Uniformed Border Officers, some armed, will carry out these tasks.

Six fast inshore patrol craft are to be acquired. This acquisition is to supplement the current replacement programme of the Bay class long range offshore patrol fleet with the Cape class patrol vessels. It is intended that these vessels will deliver a flexible capable patrol fleet to the Australian Border Force.

To ensure the necessary trained professional officers the Government is to establish an Australian Border Force College.

Readers of this magazine will be aware of the existence of Border Protection Command. The Command, previously Coastwatch, has always been headed by a Rear Admiral. Presently the incumbent is Rear Admiral Noonan. The Command is constituted by elements of the Australian Defence Force and of the Australian Customs and Border Protection Service. The Command delivers a coordinated national approach to offshore protection by operating as a single maritime surveillance, response and interception agency.

It is not yet clear how Border Protection Command will sit alongside the new Australian Border Force. In his statement announcing the new force the Minister said that "Strategic Border Command and the National Border Targeting Centre … will complement and work hand in glove with Border Protection Command, which will continue to protect our interests in the maritime domain."

It will be interesting to see where the Australian Border Force responsibilities stop and where the Border Protection Command`s "maritime domain" starts.

NAVY DAY

In the last edition of *The Navy* I invited suggestions as to how best to build upon the success of last years Navy Day. I have since received a number of worthwhile suggestions. My thanks to those who have offered their views. It is clear that in the navy community a lot of thought is being given to Navy Day and/or Navy Week.

My proposal that the Australian White Ensign be flown from the top of Parliament House Canberra on Navy Day has been well supported in navy circles, though I must confess that the one Minister to whom I have so far put the proposition did seem a bit dubious. We might have to settle for the top of Sydney Harbour bridge!

A positive step has been the decision to hold the biennial Pacific International Maritime Exposition and the RAN Sea Power Conference to coincide with Navy Week. In consultation with the Royal Australian Navy the biennial Pacific International Maritime Exposition will in future be held in the first week of October.

The change of dates is a result of the success of the Pacific 2013, which was held in October 2013 to coincide with the Royal Australian Navy`s Centenary celebrations and International Fleet Review.

OPERATION PRAYING MANTIS

By Ian Johnson

On 18 April 1988, at the height of the Persian Gulf 'Tanker Wars' the United States Navy (USN) launched a one-day campaign against the Islamic Republic of Iran Navy (IRIN) in the largest American surface engagement since the Second World War. Yet Operation Praying Mantis is still little known even with the sinking of two Iranian Warships.

The war between Iraq and Iran began on 22 September 1980 when Iraq invaded her neighbour. When the war on land become a stalemate, Iraqi commanders decided to move it to the maritime domain. In 1981 aircraft of the Iraqi Air Force, the *Al Quwwa al Jawwiya al Iraqiya* (IQAF), began attacks against shipping. On 21 May IQAF aircraft damaged the Panamanian bulk carrier *Lousie I* near the northern Iranian port of Bandar Khomeini. On 19 October an Iraqi missile damage the Liberian bulk carrier *Al Tajdar* near Bandar Khomeini. On the same day the Panamanian bulk carrier *Moira* was seriously damaged.

On 25 October, the Indian bulk carrier *Rashi Vish Wamitra* was hit by Iraqi missiles near Bandar Khomeini, the resulting fire caused heavy damage and the ship was later scrapped.

In 1982 Iraq declared a Maritime Exclusion Zone (MEZ) from the Iranian port of Bushehr to the Khor Abdullah channel, located at the mouth of the Shatt-al-Arab on the border of Iran and Iraq. Included in the MEZ was the Iranian oil terminal at Kharg Island, located 25 km off the coast of Iran near Bushehr. One of the aims of the Iraqi MEZ was to increase the price of oil through the increased risk of exporting it out of Iran, thus hurting the Iranian economy.

In February 1984, aircraft of the IQAF began attacks against shipping near the Iranian coast, including tankers shuttling between Kharg and the oil facilities at Sirri island, located inside the Gulf near the Strait of Hormuz. On 27 March 1984, the IQAF stepped up its military action. The Iranian oil terminal at Kharg Island, along with several Iranian tankers, were attacked. Insurance premiums for tankers operating in the Gulf soared and tanker traffic in the Gulf, and to Kharg Island terminal, reduced. Hurting Iran's economy and its oil customers.

Up until 1984, Iran had not attacked shipping in the Gulf. However, this changed on 13 May. The 80,000-ton Kuwaiti tanker *Umm Al-Casbah* was attacked by an Iranian F-4E Phantom II, which fired two rockets hitting the upper deck, at the time the tanker was carrying 77,000 tons of Kuwaiti oil. Three days later on 16 May, the Saudi Arabian flagged tanker *Yanbu Pride*, was shadowed by IRIAF aircraft before two F-4E Phantom II's fired five rockets at the 215,000-ton ship inside Saudi waters near the Saudi port of Jubail.

With the Iranians now using Iraq's tactic of attacking shipping in the Gulf to impose an

A starboard bow view of ships of tanker convoy No. 12 underway in the Persian Gulf. Included in the convoy are the guided missile frigate USS HAWES (FFG-53), the reflagged tanker *Gas King*, the guided missile cruiser USS WILLIAM H. STANDLEY (CG-32) and the amphibious assault ship USS GUADALCANAL (LPH-7). (USN)

economic effect on its military efforts, what became known as the "Tanker War" began in earnest.

Both IRIN and the Iranian Revolutionary Guard (IRGC), otherwise referred to as the Pasdaran, units started attacking merchant vessels in the Gulf. The Pasdaran used small speedboats, called Boghammars, armed with rocket launchers, machine guns and hand held RPG's.

With 71 ships either damaged or sunk in the Gulf in 1984, the international community classifyied the Persian Gulf as a war zone. Throughout 1985 and 1986 the attacks continued, badly affecting the economies of all Gulf States with shipping and insurance costs increasing constantly.

Iran took the war a step further in late 1986 when they introduced a new threat, in the form of sea mines in the Gulf shipping lanes. By mid July 1987 both Iran and Iraq had damaged over 330 ships, 133 of those were declared lost/ destroyed.

The continued threat of the Iran Iraq War to its shipping and economy forced the State of Kuwait to explore options to protect its oil exports from attack. In early December 1986 the Kuwaiti Government asked the Reagan administration for assistance, in particular for the USN to protect Kuwaiti tankers in the Gulf against increasing Iranian attacks.

The damage to USS STARK from the air launched Exocet that detonated under the bridge.

The Kuwaiti request for protection of its tankers caused great debate in the US Congress in Washington as under US law it was illegal to use USN ships to escort civilian vessels under a foreign flag. While many wanted nothing to do with the troubles in the Gulf, the Reagan Administration reached an agreement with Congress. On 7 March 1987, the United States proposed to reflag 11 Kuwaiti tankers and with that came USN protection. Kuwait accepted Washington's terms and operation 'Earnest Will' began.

The USN quickly learned how dangerous the Persian Gulf was just after sunset on 17 May 1987, when an IQAF F-1 Mirage fired two Exocet missiles at USS STARK (FFG-31), an Oliver Hazard Perry class guided missile frigate. The first Exocet hit the portside hull but did not detonate. The second Exocet exploded in one of the crew quarters, killing 37 sailors and wounding 21 others. Outstanding damage control throughout the night by the crew of STARK brought the fire under control by sunrise the next day. Back in the US repairs at Ingalls Shipbuilding in Mississippi returned STARK to the fleet in 1989.

An unidentified merchant ship under attack by Iranian Boghammers.

The attack on STARK accelerated USN planning for Operation Ernest Will, which began on 24 July 1987 with the first 'Ernest Will' convoy consisting the cruiser USS FOX (CG-33), the guided missile destroyer USS KIDD (DDG-993) and a sister ship to the STARK, USS CROMMELIN (FFG-37), escorting several Kuwaiti oil tankers sailing from the Strait of Hormuz to Kuwait. But hours after the convoy began the newly flagged US tanker *Bridgeton* (formerly the *Al-Rekkah*) struck an Iranian mine as the ships were passing near Farsi Island (Iran) just before 7am. The 413,842-ton *Bridgeton* suffered damage to its outer hull, but not its cargo tanks. After discussion with the escort USS Kidd, *Bridgeton* continued to Kuwait under her own power.

The *Bridgeton* incident brought into focus the lack of minehunting ships in the Gulf. The USN moved quickly to fill the void deploying minehunters from the US for Gulf operations. It also initiated Operation Prime Chance, a covert mission aimed at stopping the mines being laid. On 21 September 1987, AH-6 'Little Bird' helicopters from the US Army's 160th Special Operations Aviation Regiment (Airborne) watched the Iranian vessel IRAN AJR lay several mines in a main Gulf waterway. With orders from US Central Command, the Little Birds attacked IRAN AJR before a SEAL Special Forces team boarded the vessel and captured it, collecting valuable intelligence information before sinking it.

Meanwhile the convoys continued, as did attacks on shipping by both sides.

Operating in waters northeast of Qatar on 14 April 1988, the Oliver Hazard Perry class frigate USS SAMUEL B. ROBERTS (FFG-58) encountered three mines in its path. ROBERTS began to manoeuvre clear of the three mines in front of her. However, a fourth mine detonated on the frigate's port side blowing a 21-foot hole in the hull as well as cracking open the hull elsewhere to the sea. Like the STARK in 1987, the ROBERTS crew went to extraordinary damage control efforts. Five hours fighting fire and stopping flooding saved ROBERTS, which then cleared the mine field at a speed of 5kts using her auxiliary manoeuvring thrusters.

ROBERTS returned home via the heavy-lift ship *Mighty Servant 2*, where, like STARK she was repaired and would later return to the fleet.

After ROBERTS had left the scene allied minesweepers swept the general area and discovered more mines, quickly confirmed as Iranian in origin. This information caused uproar in America. President Ronald Reagan

wanted a *"proportional response"* as retaliation for the mining of ROBERTS, favouring going after Iranian oil platforms used as command and control nodes. The Chairman of the Joint Chiefs of Staff, Admiral William J. Crowe, ensured that *"a very good set of rules of engagement"* (ROE) allowing the Middle East Force Commander to engage Iranian warships if they threaten American operations.

The retaliation plan became known as Operation Praying Mantis. On 16 April 1988 Commander Joint Task Force Middle East (CJTFME), Rear Admiral Anthony A. Less, met with Planning Staff from Carrier Air Wing Eleven, the US Middle East Force (MEF) Destroyer Squadron, as well as staff from other commands onboard the CJTFME flagship USS CORONADO (AGF-11). There attack plans and objectives for Praying Mantis were set down:

Neutralize the surveillance posts on the Sassan and Sirri oil platforms and the Rahkish platform.
If the Iranian fleet comes out to engage the MEF during the operation, sink it.
The MEF was to try and avoid civilian casualties and collateral damage, as well as limit adverse environmental effects that the attack on the oil platforms might cause.

Planning for Operation Praying Mantis was completed by dawn on 17 April 1988 onboard CORONADO and set to begin at 0800hrs the next day. Praying Mantis called for the formation of three Surface Action Groups (SAGs), Bravo, Charlie, and Delta, consisting of cruisers, destroyers, and frigates, to enter the Gulf.

SAG Bravo's mission was to eliminate the surveillance posts on the Sassan and Rahkish oil platforms.

SAG Charlie's target was the surveillance post on the Sirri oil platform.

SAG Delta would operate off the Iranian Port of Bandar Abbas waiting for any IRIN and Pasdaran units that might prevent Praying Mantis from occurring.

Providing air cover for the operation was the aircraft of Carrier Air Wing Eleven (NH) embarked on the USS ENTERPRISE (CVN-65), flagship of Battle Group Foxtrot in the Arabian Sea, which moved to within 120 nautical miles of the Strait of Hormuz to provide a quick response by her aircraft to calls for assistance. Two of ENTERPRISE's escorts, the nuclear powered cruiser USS TRUXTUN (CGN-35) and frigate USS REASONER (FF-1063) remained to counter any Iranian threat from Chah Bahar.

The three Surface Action Groups formed up inside the Gulf on 17 April.

A look out searching for floating mines on the US FFG NICHOLAS during Operation Earnest Will. (USN)

The Iranian mine laying vessel IRAN AJR after being captured by us Special Forces.

The underside damage to the hull of the FFG USS SAMUAL B. ROBERTS from an Iranian mine. (USN)

SAG BRAVO

SAG Bravo consisted of the destroyers USS MERRILL (DD-976) and USS LYNDE MCCORMICK (DDG-8) and amphibious transport dock USS TRENTON (LPD-14) with MAGTF 2–88 (Marine Air Ground Task Force).

The cruiser USS WAINWRIGHT (CG-28) led SAG Charlie, along with the frigates USS SIMPSON (FFG-56) and USS BAGLEY (FF-1069), as well as a SEAL Special Forces platoon.

The destroyers USS JOSEPH STRAUSS (DDG-16) and USS O'BRIEN (DD-975), and the frigate USS JACK WILLIAMS (FFG-24) became SAG Delta.

Air support by Carrier Air Wing Eleven was provided by F-14A Tomcats from VF-114 *'Aardvarks'* and VF-213 *'Black Lions'* and A-6E Intruders from VA-95 *'Green Lizards'*.

Dawn in the Persian Gulf 18 April 1988 saw Operation Praying Mantis begin with an SH-60 Seahawk helicopter, call sign Magnum 447, lifting off USS TRENTON to be joined shortly after by other helicopters. Magnum 447, formerly embarked onboard the USS SAMUEL B. ROBERTS, conducted a final visual check of the Sassan and Rahkish oil platforms.

As the sun rose over the Persian Gulf, SAG Bravo approached the Sassan oil platform, which failed to detect their arrival. The oil platform received a radio message from USS MERRILL in Farsi and English at 0755hrs stating *"You have five minutes to abandon the platform; I intend to destroy it at 0800."* Immediately the platform was a hive of activity with men manning the platform's 23-mm anti-aircraft gun and targeting MERRILL, which was 5,000 yards away. Other platform personnel moved to the two tugboats tied up alongside and left the platform with about 30 men on board.

At 0804hrs MERRILL fired her forward 5-inch (127mm) gun mount on the Sassan oil platform. Within moments the Iranian 23mm gun was destroyed, leaving the platform defenceless. Fifty 5-inch rounds were fired before MERRILL ceased fire long enough for a tugboat to return, removing the remaining men from the platform. After the tugboat's departure USS LYNDE MCCORMICK joined MERRILL firing on the platform.

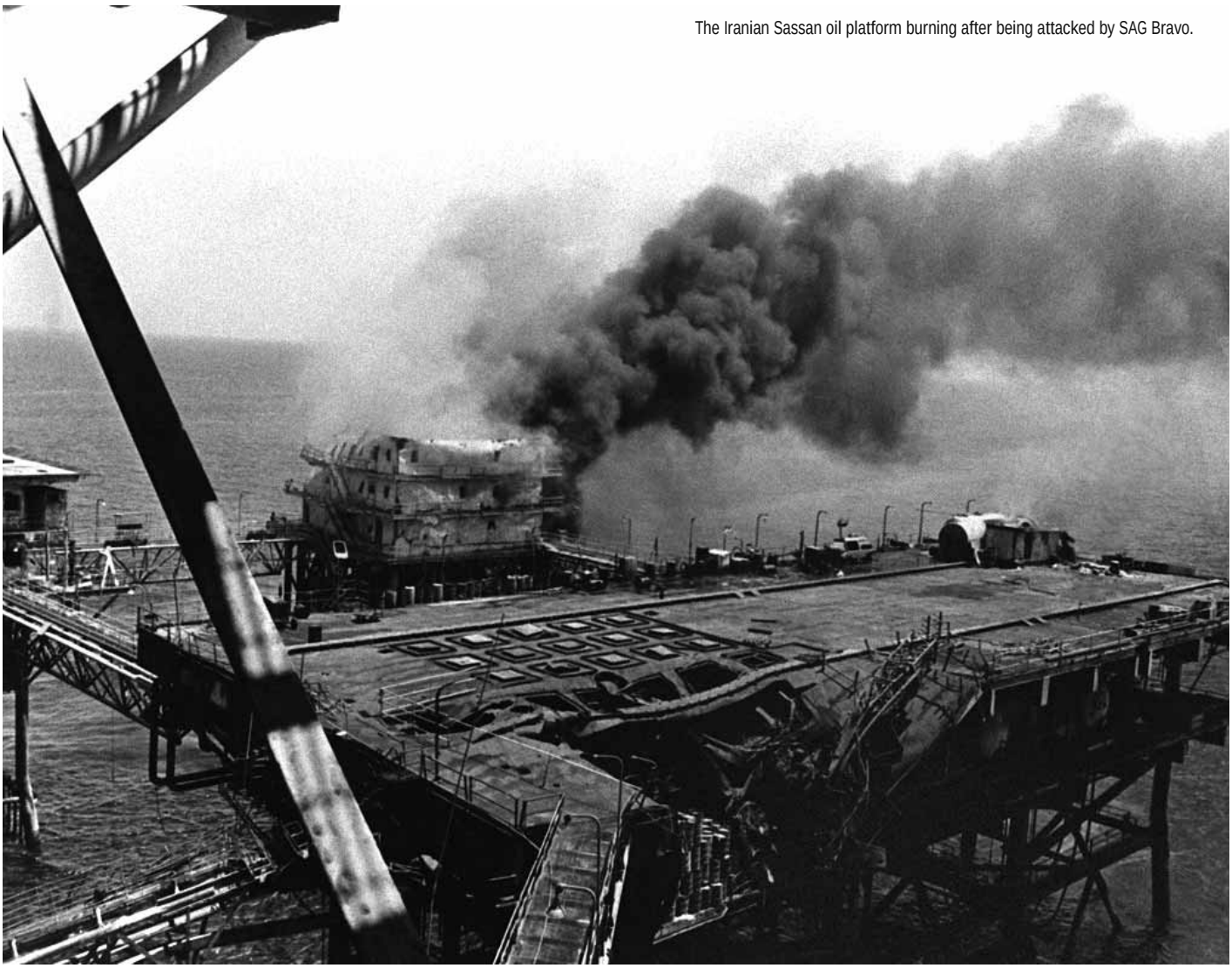
At the Sirri platform, events mirrored those at the Sassan platform, with USS WAINWRIGHT contacting the platform waring them of the impending attack. This time most of the occupants evacuated on a tugboat before SAG Charlie opened fire at 0815hrs. The bombardment from WAINWRIGHT, SIMPSON and BAGLEY on an active oil-producing platform quickly saw the platform's 23 mm gun destroyed and the platform burning furiously enough that the decision was made that the SEAL Team was not needed to destroy the platform.

SAG Bravo ceased their hour and fifteen minute bombardment on the Sassan platform around 0925hrs as US Marines of MAGTF 2–88 arrived from TRENTON onboard two CH-46 Sea Knight helicopters and boarded the platform. The Marines were collecting valuable intelligence in the

The Spruance class Destroyer USS MERRILL (DD-976)

The Charles F. Adams class destroyer USS LYNDE MCCORMICK

The amphibious landing ship USS TRENTON (LPD-14).



The Iranian Sassan oil platform burning after being attacked by SAG Bravo.

way of documents and setting demolition charges. Just after 1130hrs a remote control detonation by the Marines blew the Sassan platform apart. SAG Charlie remained near the burning Sirri platform. At 1115hrs an IRIN Combattante II/Kaman-class patrol boat was detected heading towards the SAG. BAGLEY'S helicopter identified the vessel as the JOSHAN. Multiple radio warnings to leave the area were ignored and the vessel continued towards the SAG. WAINWRIGHT informed Rear Admiral Less that it was clear that JOSHAN intended to engage the SAG. RADM Less granted SAG Charlie *"weapons free"* i.e permission to fire.

WAINWRIGHT contacted JOSHAN with the message *"Stop your engines and abandon ship; I intend to sink you."* Ignoring WAINWRIGHT's communication, JOSHAN began the world's first missile duel between warships at 1225hrs when, at just over 11 nautical miles from SAG Charlie, JOSHAN launched a US made Harpoon missile at WAINWRIGHT.

The three ships of SAG Charlie, in line abreast formation, detected the launch. They manoeuvred clear of the incoming missile while launching chaff to disrupt the Harpoon's active radar guidance. Fortunately the Harpoon missed WAINWRIGHT, passing close down the cruiser's starboard side and eventually falling into the sea.

After JOSHAN's failed Harpoon attack, both WAINWRIGHT and SIMPSON quickly locked JOSHAN into their fire control systems and within moments both ships fired a total of five Standard anti-aircraft missiles in surface mode at the retreating JOSHAN. All five missiles impacted JOSHAN, her superstructure being heavily damaged. BAGLEY then fired a Harpoon at JOSHAN, which missed. WAINWRIGHT, SIMPSON and BAGLEY then closed on the heavily damaged JOSHAN, opening fire with their 5-inch (127mm) guns and sinking her just after 1300hrs.

As SAG Charlie was in the process of sinking JOSHAN, another threat presented. At 1250hrs WAINWRIGHT detected two Iranian Air Force (IRIAF) F-4E Phantom II's heading towards the SAG from Bandar Abbas. One IRIAF F-4E then headed straight for WAINWRIGHT with its search radar active while the other F-4E dove to near sea level. WAINWRIGHT fired a SM-2ER missile at the IRIAF F-4E closing on SAG Charlie. The SM-2ER detonated near the IRIAF F-4E blowing part of its wing off. In a remarkable display of flying the IRIAF Pilot flew his badly damaged aircraft back to his airbase at Bandar Abbas. After this action SAG Charlie's involvement in Operation Praying Mantis was over.

The Iranians continued to respond to the US Operation's attacks. At 1330hrs Pasdaran Boghammars headed out of their operating base on the island of Abu Musa to the Mubarak oil field off the United Arab Emirates. The Boghammars attacked several vessels including an American-flagged supply ship and a Panamanian-flagged ship *Scan Bay*, a jack-up barge with 15 American workers aboard.

At the time SAG Bravo was approaching the Mubarak oil field. MERRILL reported the developing situation to RADM Less, who reported the incident to his commanders. After a brief wait, President Reagan ordered an attack against the Boghammars. This was a watershed moment. For the first time American forces were ordered to intervene to stop a non-US flagged vessel in the Gulf from being attacked.

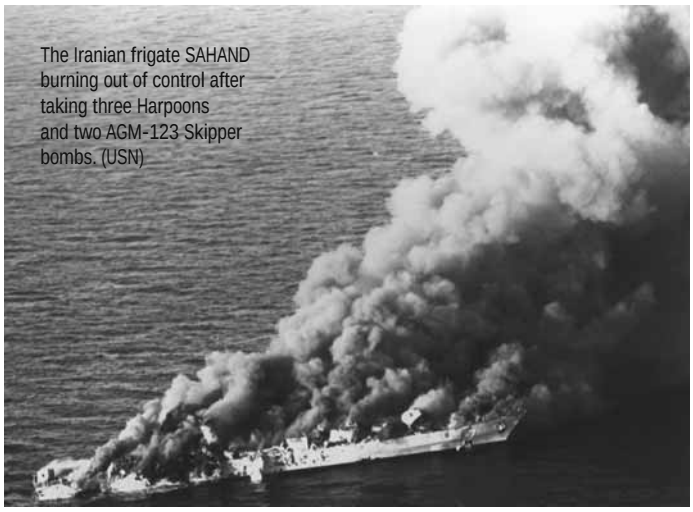
SAG Bravo vectored two A-6E Intruders from VA-95 '*Green Lizards*' with

their F-14 Tomcat escorts towards the Boghammars. At 1425hrs the two A-6E Intruders from ENTERPRISE, guided by USS JOSEPH STRAUSS, attacked the Boghammar group. The two aircraft dropped Mk-20 Rockeye II cluster bombs and a five-hundred-pound bomb on the Boghammars sinking one boat and sending the remaining vessels back to Abu Musa Island. This was the first combat engagement of the operation by Carrier Air Wing Eleven and SAG Delta who had been frustrated in their efforts to locate the IRIN frigate SABALAN, which unknown to the USN was at Bandar Abbas with engine problems.

At noon another IRIN frigate, SAHAND (F-74), departed Bandar Abbas heading to attack the UAE owned Saleh oil field. Two *'Green Lizards'* A-6E Intruders flying surface combat air patrol for JOSEPH STRAUSS spotted SAHAND at 1530hrs some distance from the Saleh oil field. One of the A-6E Intruders flew over SAHAND. The Iranians responded by firing a shoulder-launched surface-to-air missile.

As SAG Delta closed on SAHAND's position at high speed, a *'Green Lizards'* Intruder responded to the Iranian frigate with two AGM-84 Harpoon missiles. The incoming JOSEPH STRAUSS also fired a Harpoon. The three missiles achieved near-simultaneous hits in the first-ever coordinated Harpoon attack in combat. SAHAND's bridge and command centre where destroyed. The two Intruders reformed and dropped four laser-guided AGM-123 Skipper bombs at the Iranian frigate. The attack caused fires in SAHAND from stem to stern. When they reached her magazines the ship exploded reducing the frigate to a burning hulk. During the night SAHAND sank, the second IRIN ship sunk during Operation Praying Mantis.

For SAG Delta and the rest of the USN ships involved in Praying Mantis surface actions groups, the SAHAND engagement was the last confrontation with the IRIN. SAG Delta continued to operate in the crowded waters of the Strait of Hormuz and near the Bandar Abbas naval base and airfield for the rest of the day. IRIAF aircraft shadowed SAG Delta who were fired on by Iranian shore based Silkworm anti-ship missiles, which were evaded. Ships of SAG Delta fired an SM-1 missile at a suspected air contact and were involved in several other engagements against Iranian air targets.



The Iranian frigate SAHAND burning out of control after taking three Harpoons and two AGM-123 Skipper bombs. (USN)

After engine repairs, the IRIN frigate SABALAN (F-73) departed from its berth at the Bandar Abbas naval base at 1700hrs. However, as SABALAN reached open water she was spotted by a group of A-6E Intruders at 1817hrs in the Strait of Hormuz. SABALAN fired a surface-to-air missile at them, which then gave them the authority to attack. A *'Green Lizards'* Intruder then dropped single 500-pound laser-guided bomb dropped down the SABALAN's stack, tearing apart the engineering spaces and starting fires throughout the ship.

RADM Less then requested permission to sink SABALAN. However, in Washington Admiral Crowe believed that Iran had gotten the message and

The Belknap class cruiser USS WAINWRIGHT (CG-28).

The Oliver Hazard Perry class frigate USS SIMPSON (FFG-56).

The Knox class frigate USS BAGLEY (FF-1069).

SAG DELTA

The Charles F. Adams class destroyer USS JOSEPH STRAUSS (DDG-16).

The Spruance class destroyer USS O'BRIEN (DD-975).

The Oliver Hazard Perry class frigate USS JACK WILLIAMS (FFG-24).

said, *"We've shed enough blood today,"* calling off any further action. With that, Operation Praying Mantis was effectively over.

SABALAN was left dead in the water as US units withdrew from their operating areas. Iranian tugs eventually towed the damaged frigate back to Bandar Abbas where SABALAN was eventually repaired.

18 April 1988 was a watershed day for Iran. On the same day that the IRIN lost two ships, along with other military and Pasdaran assets, an Iraqi ground assault began that would reclaim the Al Faw peninsula from Iranian control.

After Operation Praying Mantis attacks on neutral ships by Iran dropped dramatically. The will of the Iranian people to fight slowly disappeared as eight years of war and hundreds of thousands of war dead, and the massive drain on their economy took their toll. It finally saw Iranian leaders consider ending the Iran Iraq war with a non-military solution. On 20 August 1988 a peace treaty was signed which ended the War.

The final convoy under Operation Earnest Will took place 26 September 1988 with the frigate USS VANDEGRIFT (FFG-48) escorting a single tanker to Kuwait. As the US military began to scale down its assets in the Persian Gulf to peacetime levels, Lloyd's of London released data that showed the 'Tanker War' damaged 546 commercial vessels and killed about 430 merchant seaman over the four years it occurred.

Operation Praying Mantis was a milestone in naval history. It was the largest USN surface engagement since World War II, as well as the world's first missile duel between warships.

The overall impact of the USN in the Persian Gulf between 1987-88, and the allied naval cooperation during Operation Earnest Will, demonstrated that the USN could operate in the confined and crowded wars of the Gulf. This experience was later vital in 1990 when, after Iraq invaded Kuwait, the USN returned to the Persian Gulf in a massive joint coalition effort known as Operations Desert Shield and Desert Storm, during which the USN had confidence enough to send their aircraft carriers to operate inside the Persian Gulf, which proved quite pivotal to the success of the operation. ■

THE CRESWELL ORATION 2014

By RADM Tim Barrett AM, CSC, RAN

At this year's annual Creswell Oration, organised by the Navy League's Victorian Division, RADM Tim Barrett AM CSC RAN, Australian Fleet Commander (and CN designate) spoke to a packed audience about a century of Naval service, the arrival of the first Australian Fleet in 1913 and the recent commemoration of this event with the International Fleet Review held in Sydney in October last year.

RADM Tim Barrett (Chief of Navy designate) and 2014 Creswell Oration presenter. (RAN)

It's highly relevant that this topic form the basis of the Creswell Oration this year given the fundamental involvement of the then Captain Creswell in the formation of the first Australian Fleet at the start of the last century.

I will not presume to lecture this audience on the life of Vice Admiral Sir William Creswell's long service to this nation and its navy. He remains the longest serving professional head of our Navy - a record I suspect that will never be eclipsed – and along with his engineering counterpart, Vice Admiral Sir William Clarkson, achieved a great deal of success for Australia and her Navy against great adversity.

As an aside, this year we have instituted a Clarkson Division at HMAS CRESWELL, a synchronicity which would I hope please both individuals.

I am, however, the right person to talk to you about the commemoration of the arrival of the Royal Australian Navy's First Fleet. You have heard that I am the Fleet Commander with responsibilities to manage the current Fleet, its ships, submarines and aircraft. That said, for the past 12 months you may have confused my role with that of an event planner. The International Fleet Review was an enormous event for Navy and required a great deal of detailed planning. But dare I say it was executed without fault and we achieved all we set out to achieve.

Let me say up front this was neither a party nor a fireworks spectacular. The fundamental reason for making such effort to commemorate the event was to educate government, our regional neighbours and even our navy on the importance of the sea and our place on it. Perhaps more than anything else, we sought to remind the Australian population that Australia is an island continent (girt by sea) which depends on maritime trade for a vast majority of its needs.

It was also to remind people of the utility of naval forces in defending these maritime trade routes and promoting our own defence. Also, it was to demonstrate the capability of Australia's Navy - all the same reasons that then Captain Creswell argued, 100 years previously.

So I and going to compare and contrast the two Fleet entries of 1913 and 2013 and make a few observations about their significance. I would like to explore what I regard as the enduring strategic themes which link us with our past and will no doubt guide our future.

To do this I will start by putting some historical context around the creation of the first Royal Australian Navy fleet - the political and strategic circumstances that existed at the time and the significance of this to the nation. Here we will see Creswell's intimate involvement.

Australia's post-Federation navy first formed as the Commonwealth Naval Forces on 01 March 1901. It was a small coastal defence force, comprising an underpowered collection of aging vessels formerly owned by the colonial governments of Australia and designed primarily for coastal defence and naval training. It was not a unitary fleet and had never been designed to be one.

Captain Creswell was appointed to be the Commandant of this small force in 1904 and he argued from the outset that the naval defence of Australia should become a national responsibility and a Federal government priority. He envisioned a modern Australian fleet replacing the Royal Navy's Australasian squadron based in Sydney which, after Federation, remained under Admiralty control and therefore answerable to the Imperial Government. His argument was based on some of the fundamental principles of sea power: the projection of force to secure maritime trade so vital for an island nation.

Prime Minister Alfred Deakin supported Creswell and shared his vision, but they both encountered significant opposition from their Lordships at the Admiralty, who were pleased to provide RN cruisers in exchange for significant annual payments by the Australian government. Not surprisingly, this contribution was electorally unpopular among Australian taxpayers, who did not see it as value for money. Neither was this arrangement a copper-bottomed guarantee that Australia could rely on Britain for naval defence in the event of a global war being conducted in the Pacific.

One might argue that in his 1897 poem Recessional, Rudyard Kipling wrote prophetically, "Far called our armies melt away." And in 1907 Australians were concerned that it would be the Royal Navy which would be "far called" by the Admiralty and melt away to Europe, just when it was needed in our waters defending our sea lanes and cities.

In 1908, with this concern in mind, Prime Minister Deakin welcomed President Teddy Roosevelt's Great White Fleet of USN battleships. He had invited them to Australia, without consulting, and against the wishes of the Admiralty. Deakin aimed his words of greeting at their Lordships in London as much as at his fellow Australians when he said: 'But for the British Navy there would be no Australia. That does not mean that Australia should sit still under the shelter of the British Navy – those who say we should are not worthy of the name of Briton. We can add to the squadron in these seas from our own blood and intelligence something that will launch us on the beginning of a naval career, and may create a force which shall rank among the defences of the Empire.'

Coincidentally this view aligned with the vision of Admiral Sir John Fisher, the Royal Navy's innovative First Sea Lord. It was Jacky Fisher's energy and the rise of the German naval threat in the North Sea that galvanized the Admiralty into new thinking. With Britain engaged in the Dreadnought building race with the German Kaiser, and with the British public demanding ever greater naval expenditure to protect the United Kingdom, it became obvious that the Royal Navy's capital ships and its manpower were urgently needed in home waters.

Local defence of the Dominions and the Imperial sea lanes should be given to what Fisher called his 'Dominion Fleet Units'. These were

each to be comprised of a fast, heavily armed, battle cruiser, light cruisers, destroyers and submarines. These were designed to be capable of defeating any naval power in the region.

In Australia's case this meant the German fleet of armoured and light cruisers based in China and capable of action in the South Pacific. Fisher's Dominion Fleet Unit concept was very much what Creswell and Deakin had been advocating for Australia. Now they were pushing at an open door.

In 1909, in response to increasing European tensions, the Australian government placed orders with UK shipyards. The First Fleet Unit began to be riveted into the Australian national consciousness and the news of its progress and launching was followed with great enthusiasm from afar. To reflect this new responsibility and naval maturity, on 10 July 1911, King George V approved Australia's request to have the 'Royal' prefix and thus the Commonwealth Naval Forces became the Royal Australian Navy.

On 4 October 1913, the First Fleet Unit, commanded by Rear Admiral Sir George Patey, Royal Navy, flying his flag in the battle cruiser HMAS AUSTRALIA, led six cruisers and destroyers into Sydney Harbour. The Fleet comprised Australia armed with eight 12 inch guns, the light cruisers: MELBOURNE, SYDNEY, and ENCOUNTER; and the destroyers; WARREGO, PARRAMATTA, and YARRA.

These ships were greeted by the Governor of New South Wales and the Premier, and tens of thousands of enthusiastic, cheering citizens lining the harbour foreshore. As the Flagship, HMAS AUSTRALIA came out of the early morning mist near Sydney Heads she greeted the country whose name she carried with a deafening salute from her main armament. The long awaited Navy was here and Sydney heard its roar and it was reported at the time that all Australians felt the warmth of its protection.

October 4, 1913 was, and remains to be, a moment of great national pride and significance. The new Navy was recognised at the time as a key symbol of Australia's progress to full nationhood. A nation with its own fleet was a power in the world.

An RAN Seahawk flies a massive White Ensign over the massed warships in Jervis Bay before the fleet set out for Sydney Harbour to commemorate the anniversary of the First RAN Fleet Entry to Sydney. Nations represented in the image include; Australia, Malaysia, Thailand, India, UK, New Zealand, Japan, Singapore, Indonesia, China, Brunei, Spain and the US. (RAN)

It would give Australia strategic weight; an independent, uniquely Australian voice in international affairs and the ability to act to secure or defend its own interests. Something which was of particular interest in the first decades of the 20th century as Australia struggled to influence the direction of British foreign policy particularly with respect to Japan.

In national terms, these were one of the first major acquisitions by the new Australian Commonwealth Government: a coherent acquisition, consistent with Australian aims and circumstances, consistent with the newfound national status.

Contemporaries too viewed the arrival of the warships as being nothing less than a national coming of age, completing a process which began with Cook's discovery of Australia's eastern sea board in 1770.

While the final form of the 1913 Fleet Unit was different to the specific schemes Creswell had proposed, it met most of the basic requirements for which he had advocated. The acquisition was not just a success for Creswell's persistent and politically sophisticated advocacy, it immediately made Australia a significant regional naval power. Of nations in the Indo-Pacific, only Japan had a larger fleet and it was allied with the British Empire after the 1910 Declaration of London.

On 24 May 1914, the day after Empire Day, the fleet was completed with the arrival of Australia's two 'state of the art' E class submarines AE1 and AE2. About half of the sailors embarked in the Fleet Unit were Australian born and many of the Royal Navy sailors would transfer to the RAN and settle in Australia.

As we know the nascent RAN had an immediate effect on Australia's military capability and went on to play an active part in defeating or deterring forces which threatened Australia's national maritime interests in 1914.

The battle cruiser AUSTRALIA, was an effective deterrent to the German Asiatic Fleet, which chose to operate away from Australia and also from Japan. The Navy conducted some of our first major operations of the war, not only escorting and transporting the Australian Naval and Military and Expeditionary Force to Rabaul, the capital of German Guinea, but providing sailors for operations ashore.

In what I think is a poignant example of joint operations, the first

personnel killed were two Able Seamen and the Army doctor who went to their aid during the advance on Bita Paka.

Fast forward 100 years and consider the commemoration of the arrival of that first Royal Australian Navy fleet. I ask you now to think of the political and strategic circumstances that pervade Australian thinking about defence and the maritime environment.

It is easy to see that our strategically geographic circumstances and dependency on the sea remains. And we face many of the same challenges faced by Creswell to articulate the case for Australian maritime forces. But there is a difference. Creswell had to argue for the "Australian' nature of our maritime force; conversely, we now have to argue for the "maritime" nature of Australian defence needs. Both require a consistent effort to link maritime power with our national security, prosperity and way of life.

In some quarters, the contemporary inability to see this link, to understand the importance of the sea to so many aspects of our life, has been characterised by the term "sea blindness". This term was first coined, ironically, by the UK as they have struggled to articulate their need for naval forces. What do I mean by this?

Well, Modern sea transport has become so good, so reliable, so predictable and so cheap, that not only do we use sea transport more and more, but we notice it less and less. It just works and so we have come to take it for granted.

About 98% of the volume of our trade goes by sea. About 70% of all the bulk commodities we produce – iron ore, coal and wheat – are exported by sea.

We need secure and reliable access to the global maritime trading system to supply the many things we rely on every day. Think about your lounge room and try to imagine it without things which have been imported, probably in a shipping container that has come by sea.

If your lounge room is anything like mine, then the TV, the computer, possibly the seats, maybe the light fittings and the carpet have been imported – not through any wish to spurn local manufacturers, but simply by virtue of our near complete integration with global markets we have the choice of the best value products from around the world.

Although maritime trade and resources remain as fundamental to Australia today as they were in Creswell's time, there have been

(front) The Australian Anzac class frigate HMAS PARRAMATTA in formation with (L-R) The Bruneian Darussalam class corvette RBS DARULAMAN, the Indonesian Sigma class corvette KRI SULTAN ISKANDAR MUDA and the Malaysian Lekiu class frigate KD JEBAT, in the Eastern Australian Exercise Area for Exercise Triton Centenary.

some significant changes in the character of our dependence. Containerised shipping really dates from the 1960s; offshore oil and gas dates from about the same time, as does the truly remarkable industrial fishing methods we see today.

More recently, we have seen the advent of alternative forms of energy generation: most spectacularly the huge arrays of wind turbines in littoral European waters.

"A charming view" was the caption for this image in the Sydney Morning Herald of 8 October 1913 of HMAS AUSTRALIA off Mrs Macquarie's chair for the first Australian Fleet Entry.

And the growth of fish farming, particularly in Asia, means that as of 2012, we now produce a greater quantity of farmed fish worldwide than we do beef.

For Australia, our sovereign maritime zones cover around 1.5 times the area of our continental landmass; our Search and Rescue area covers around 11% of the world's surface.

Containerised shipping has enabled us to transport more goods, finished and unfinished, to and from more places. As a result, with globally distributed supply chains and manufacturing processes, more parts of our economy are more directly and immediately reliant on maritime trade than ever before.

Our dependence on the global maritime trading system means that we have a direct national interest in issues which are geographically distant from our shores: piracy off the Somali coast, terrorist attacks on shipping in the Suez Canal, actions to close or disrupt key shipping lanes or choke points. All of these actions could cause fuel prices to rise, or worse, interrupt the supply of fuel imports or equally valuable exports.

In what I think is a significant change, we now have hugely valuable permanent infrastructure situated in our maritime zones: oil and gas platforms, energy generation and fish farms; permanent fixed infrastructure, which could be targeted by state or non-state actors if they so chose.

In short, we are now more dependent on good order at sea than at any time in our history. And many of the major innovations have qualitatively changed that dependence quite recently.

And yet, in Australia, we maintain a perversely land-centric strategic dialogue where, perhaps because of our current and historical alliances with the dominant global maritime power, we have come to take good order at sea for granted. Or maybe it is a consequence of the ANZAC legend…..

Over his tenure, Chief of Navy VADM Ray Griggs is promoting a strong platform for an Australian Maritime School of Strategic Thought: a means of engaging other parts of Government, the private sector and the broader Australian public on the importance of a maritime outlook for Australia. This is important in arguing the case for Navy and its structure.

This is also the context for the decision to put a major effort into marking the centenary of the arrival of the RAN's First Fleet into Sydney. The Chief of Navy authorised a series of centenary commemorative events for Sydney Harbour and the wider Sydney area between 3 and 11 October.

CN's intention was that the IFR: 'promote awareness and celebrate Navy's contribution to the nation in the past, present and future; and to promote Navy values and the ongoing good work of Navy people.'

The Review was a chance to bring an eye-catching number of warships into Sydney Harbour; to bring these grey agents of government will into the spotlight, where the people who depend on them can see them and hopefully take away some understanding of the role they play in our security, prosperity and way of life.

The Seapower Conference, which brought scholars and naval leaders to Sydney, was there to show the intellectual underpinnings of our maritime outlook.

The Pacific International Trade Show was there to show the industrial, manufacturing and technology aspects of the maritime environment.

And the Fleet Review itself had very traditional elements of pageantry: the conduct of the Review, with fireworks and so many warships and aircraft in close proximity in Sydney Harbour, was choreographed to demonstrate poise, precision and performance. The professionalism was an indication of might and power. It looked impressive and it was intended that way.

I think this education about the importance of maritime security is something which we need to continue, not just for the public, but for ourselves as well. Recent media commentary about Navy has been challenging, but our ability to manage it has been supported in no small part by the lasting image of a trusted working Navy that flowed from the publics exposure to the Navy during the IFR.

Somewhat serendipitously, the Review not only had great weather but it also occurred in the immediate aftermath of the Federal Election. As a result, Chief of Navy and I had the new Prime Minister and Defence Minister as an engaged audience for several hours during the Review, while we went past a parade of visiting and Australian warships. This provided an excellent opportunity to educate the country's new political leadership on what Navy did - and you may be assured we did not waste the opportunity.

Importantly, just prior to the Review events in Sydney, the RAN orchestrated a significant multi-lateral exercise off Jervis Bay – called the ASEAN Defence Ministers Meeting Plus Experts Working Group on Maritime Security Field Training Exercise.

This particular grouping was co-chaired by Australia and Malaysia. Inaugurated a little over two years ago, it has brought a diverse group of nations together for Humanitarian Assistance and Disaster Relief exercises.

In the complex and cautious diplomatic scene in our region, this progress amongst regional navies is remarkable. You can imagine the diplomatic benefits which accrue; the relationship and confidence which is built; and the habits of cooperation which are engendered. I will just offer one observation: this is the only exercise I have seen where the Chinese and Japanese have operated together. It is perhaps only a small step, but it is a step in the right direction.

Conducting these diplomatic engagements remains a key role of Navies and again, for our new government, it was important for them to see how well we could manage it on their behalf.

While today's Navy is not perfect by any means, we are certainly not idle and we are certainly not as was recently characterised by one commentator - the world best photogenic Navy. In fact, we are a working Navy; probably busier now than at any time in recent memory and our operational tempo is not expected to diminish.

Indeed this was not the only activity for Navy through this period. We maintained a frigate on operations in the Middle East, major and minor fleet units on border protection operations; as well as having several ships in major upgrades and maintenance, the introduction into service of two different types of helicopter (the MRH-90 in partnership with the Army, as well as the Seahawk Romeo) and the fitting out of the first of our two Canberra class amphibious ships.

The 2013 Review had one other major outcome, which I suspect will not surprise most people here. The last Fleet Review we had prior to 2013 was the Bicentennial Review in 1988, before many of our people joined or were even born! For me, last year's Review was something of a turning point for the attitudes of many, both in and out of uniform.

Many at first saw the Fleet Review as simply another task. Afterward, first-hand accounts indicated that our people were thrilled to have participated in various ways and, most surprisingly for them, to experience the enthusiasm and respect that was so willing demonstrated by the Australian people, reacquainted with their Navy. Much as I imagine the crews of those first ships in 1913 when welcomed by the crowds.

For a Navy which has been working very hard, the 2013 Fleet Review provided a great boost to morale. For me, that was one of the best outcomes of all. ■

HMA Ships DARWIN, PERTH and PARRAMATTA during the 100th Anniversary Fleet Entry enactment. (RAN)

01 BAD REPORT ON AIR WARFARE DESTROYERS

A recent report into the AWD project says that the three new AWDs are now costing $360 million more than planned and that the shipbuilders are performing well below international standards.

Under the $8 billion project launched in 2007, three 'off the shelf' warships are being assembled in Adelaide from modules constructed in Melbourne and Newcastle.

Defence Materiel Organisation (DMO) chief executive Warren King says the project is $360 million over the target cost estimate, which is up from $302 million cited in an audit report in March.

The project is behind schedule, with the first vessel, HMAS HOBART, to be delivered in March 2016 rather than December 2014. Mr King said it was also below international shipyard productivity standards, assessed for DMO by British consultancy First Marine International (FMI).

The world benchmark is 60 man hours per tonne of ship but DMO set a more generous target of 80 man hours per tonne for these warships.

"The first ship is coming in at 150 man hours per tonne," Mr King said. FMI evaluated three yards – ASC in Adelaide, BAE Systems in Melbourne and Forgacs in Newcastle. "In all but a couple of measures, we are way outside the benchmark standards," Mr King said.

In light of the bad report Defence has announced it will be dissolving the alliance building the AWD and replace it with a single body.

02 NAVAL CAPABILITY PLANS

On 6 June the Minister for Defence David Johnston announced the first set of key initiatives in the Abbott Government's long-term strategic naval plan.

The minister said that "We (the Govt) are moving now to address the most urgent capability shortfalls created by Labor".

With the previous government having delayed the tanker replacement project for SUCCESS and SIRIUS, the current government has decided that given the urgent need to avoid a capability gap; the current low productivity of shipbuilders involved in the AWD program; and value for money considerations, that approval for Defence to conduct a limited competitive tender process between Navantia of Spain and Daewoo Shipbuilding and Marine Engineering (DSME) of South Korea for the construction of two replacement replenishment vessels based on existing designs has been given.

"Navy is in urgent need of large support vessels that we assess are beyond the capacity of Australia to produce competitively at this stage. In this instance it would not serve anyone if we were to provide a challenge to industry that was beyond its capabilities."

"Competition between these two experienced shipbuilders is the best way to ensure delivery of capable, cost effective vessels in the time frame required," Senator Johnston said.

On 6 June the government also announced that it has agreed to bring forward preliminary design work to ensure Australia maintains the necessary capabilities to retain the option of building the future frigate in Australia. The work will focus on continued production of the current AWD hull, suitably adapted and utilising capabilities from the cutting-edge Australian companies CEA Technologies Australia and SAAB Combat Systems. Further decisions on the future frigate will be taken in the context of the 2015 Defence White Paper.

The Government has committed $78.2 million to bring forward preliminary engineering and design work necessary to keep open the option of building the future frigate in Australia. In parallel, the Government is reviewing Australia's shipbuilding requirements, capabilities and capacities in order to inform a long-term strategic naval plan that provides the ADF with leading-edge capabilities.

"Naval shipbuilders and Unions must understand that naval shipbuilding in Australia is at a critical crossroads. Demonstrating that the AWD Programme is able to provide value for money will be a crucial test for the Australian shipbuilding industry. No responsible Government could consider providing further work to an industry that is performing so poorly," Senator Johnston said.

The Government has brought forward an open competition with Australian industry to construct more than 20 replacement Pacific Patrol Boats. This project will boost the maritime security and resource and fishery protection capabilities of partner countries in the South West Pacific and generate additional work for yards around Australia.

"These will be steel hulled vessels designed to support fisheries, Exclusive Economic Zone enforcement and other maritime security missions," Senator Johnston said.

01 HOBART under build. The international standard for warship building is 60 man hrs per tonne. The AWD has recorded a rather embarrassing rate of 150hrs per tonne. (ASC)

FINAL COLES REVIEW INTO SUBMARINE SUSTAINMENT

The fourth and final review into the Collins Class submarine sustainment programme, released on 8 April by expert John Coles, confirms that submarine maintenance and availability has significantly improved.

The report found that two and frequently three submarines are now available for deployment at any one time. In the recent past, we were often reliant on a single boat.

"The report notes remarkable progress in several areas," Defence Minister David Johnston said. "This includes greater availability of spares, less planned maintenance over-runs, fewer breakdowns and faster repairs to operational boats when problems occur."

The final report also confirmed an increasingly collaborative effort by all partners involved—Navy, Defence Materiel Organisation and the submarine maintenance contractor, ASC.

"We are particularly pleased with the improvements in submarine productivity from ASC, which has meant better support of the Navy's submarine capability," added Finance Minister Matais Cormann.

"The signs are encouraging but there are still risks ahead with more work needing to be done," Minister Johnston said.

03 THIRD OPV FOR RNZN??

Newspaper reports in New Zealand indicate that the Royal New Zealand Navy (RNZN) is looking into the possibility of acquiring a third offshore patrol vessel (OPV). The Navy currently operates two 85m Otago-class OPVs, HMNZS OTAGO and HMNZS WELLINGTON (see *The Navy* Vol 75 No 2), commissioned in February and May 2010, respectively. The vessels have a range of approximately 6,000nm with a crew of 35 and a flight crew of 10 for its embarked Seasprite helicopter. Both ships are used for long-range patrol missions around New Zealand, the Pacific and Southern Oceans (sometimes in ice conditions).

The drive for another OPV appears to be cost. The most recent Defence annual report to government indicated that the cost of using an Otago class OPV for patrol and constabulary roles compared to an Anzac frigate are notable. If the project gets off the ground it could indicate that logistics and crewing issues that have affected the ships' availability and readiness may have been largely solved.

RAN RIMPAC FLEET ANNOUNCED

The RAN's participation in the US Pacific Fleet-hosted 2014 Rim of the Pacific (RIMPAC) maritime exercise has been announced as the Collins-class submarine HMAS SHEEAN and the oiler HMAS SUCCESS. Navy says that while only two vessels are involved, Australia would have a significant involvement in the exercise's command structure, with RAN Rear Admiral Simon Cullen serving as deputy commander of the Combined Task Force in the exercise and Air Commodore Chris Westwood RAAF commanding the air component.

THIRD CAPE-CLASS PATROL BOAT FOR CUSTOMS

On 5 May Austal Ships of Western Australia launched the third of eight Cape-class patrol boats for the Australian Customs and Border Protection Service (ACBPS) at its shipyard in Henderson, Western Australia.

The vessel, ACV *Cape Nelson*, was ordered under a design, construction, and through-life support contract signed in August 2011 worth a total of $330 million.

The vessels will replace the existing 34.8 m Bay-class patrol boats which were delivered between February 1999 and August 2000.

It is expected the vessel will complete sea trials prior to an official naming ceremony and final delivery in the third quarter of 2014.

The 58m aluminium boat is powered by two Caterpillar 3516C diesel engines that give the boat a top speed of 25kts. The 18-crew vessel has a maximum range of 4,000nm at 12kts and an endurance of approx 28 days. Each vessel also embarks two rigid hull inflatable boats (RHIBs).

VIKRAMADITYA ON DUTY

On 7 May the newly appointed Indian Navy (IN) Chief of Staff Admiral R K Dhowan told local media that India's new aircraft carrier, INS VIKRAMADITYA, had begun her first operational deployment along with its MiG-29K ('Fulcrum D') fighter group on board.

"The navy has inducted INS VIKRAMADITYA. It is now operationally deployed with MiG-29KUB aircraft embarked, which are being flown by Indian naval pilots," Adm Dhowan told reporters at a function in Kochi, southern India.

The carrier's air wing will eventually comprise 16 MiG-29Ks, including four twin-seat KUB trainer variants, alongside six airborne early warning and control (AEW&C) Kamov Ka-31 and Kamov Ka-28 anti-submarine warfare (ASW) helicopters.

04 EW PACKAGE FOR MQ-8C

The USN has announced plans to equip the Northrop Grumman MQ-8C Fire Scout Vertical Takeoff Unmanned Aerial Vehicle (VTUAV) with an electronic warfare

02 (front to back) SPS CANTABRIA and HMAS SUCCESS off Sydney. The Cantabria class is one of the two contenders for the replacement of SUCCESS and SIRIUS. (RAN)

(EW) capability through the development of a new external pod.
Northrop Grumman is being given US$10.8 million to develop and integrate the new Multi Capability Pod (MCAP) onto the MQ-8C. The MCAP will provide the UAV with "multiple electronic warfare sensors for employment in the littorals", the US DOD said.
Work is scheduled to be completed in June 2015.
The USN has so far contracted for 28 MQ-8Cs and plans to operate them in both the intelligence, surveillance, and reconnaissance, and unmanned strike roles. Sea-trials of the MQ-8C aboard the US Navy's Littoral Combat Ship are set to run through to early 2015, with the first deployment scheduled for 2016.

INDONESIAN NAVY TO ACQUIRE 16 ASW HELICOPTERS

The Indonesian Navy (Tentera Nasional Indonesia - Angkatan Laut, or TNI-AL) has announced plans to acquire 16 AS565 Panther anti-submarine warfare (ASW) helicopters from Airbus Helicopters.
The helicopters will be deployed on vessels such as the SIGMA 10514-class guided-missile corvettes.
According to the TNI-AL, the decision to purchase the AS565 was made at the recommendation of aircraft manufacturer PT Dirgantara Indonesia (PTDI), which will be involved in the production of the aircraft. PTDI has previously worked with Airbus on the manufacture of CN-235 medium transport aircraft.
Negotiations are ongoing but PTDI may produce all 16 aircraft in Bandung Indonesia. It is understood the helicopters will be equipped with a dipping sonar.

NEW ZEALAND AWARDS ANZAC-CLASS COMBAT SYSTEMS UPGRADE CONTRACT TO LM

Lockheed Martin Canada has been awarded a New Zealand Ministry of Defence (MoD) contract to carry out a combat systems upgrade on the Royal New Zealand Navy's (RNZN's) two ANZAC-class frigates.
The contract is the second stage of the RNZN's Frigate Systems Upgrade (FSU) project and is valued at NZ$446 million ($430million) and features the installation and integration of new radars, electronic surveillance equipment, a self-defence missile system, and missile and torpedo decoys as well as an upgrade to the frigates' hull-mounted sonar.
The frigates, HMNZS TE KAHA and HMNZS TE MANA, have been in RNZN service since the late 1990s and in need of a mid life upgrade to see them through to end of life. The MoD said the frigates are currently undergoing a platform systems upgrade to modernise heating, ventilation, propulsion and stabilisation systems and that the combat systems upgrade is scheduled to commence in 2016 in Canada.
New diesel engines being fitted are said to produce fuel savings and thus increase range while also providing a boost in cruising speed.
The NZ MoD said that while most of the Stage 2 work will be completed in Canada, Lockheed Martin is working with the New Zealand Trade and Enterprise agency to identify related opportunities for New Zealand-based companies. New Zealand does not operate a defence offset policy but does encourage local industrial involvement if such participation is commercially sustainable.
Lockheed Martin Canada was chosen give the work to date they have conducted on the Royal Canadian Navy's Halifax class frigates. Many of the new systems and weapons on those ships will also feature on the RNZN's Anzacs.

05 PLAN COMMISSIONS FIRST TYPE 052D DDG, WITH SECOND ON SEA TRIALS

On 21 March, China's People's Liberation Army Navy (PLAN) commissioned the first of its Luyang III (Type 052D)-class guided missile destroyers (DDG) at the Jiangnan Shipyard in Shanghai.
The Ship, KUNMING, with the pennant number 172, appears to be a development of the Luyang II (Type 052C)-class destroyer but with several improvements in terms of design, weapons and sensors.
The Luyang III class is fitted with an improved version of the Chinese developed Type 346 Dragon Eye active phased-array radar on its forward superstructure.
The ships are geared towards the air defence role and are armed with 64 HHQ-9B missiles in a vertical launching system (VLS) divided between the forward and aft sections of each ship. The HHQ-9B have a 90kg HE warhead and range of approximately 100 km. There is also a short range missile system above the helicopter hanger somewhat reminiscent of the US RAM launcher. The Luyang III is also armed with lightweight torpedoes and one H/PJ38 130mm main gun and one Type 730 30mm close in weapon system gun on each vessel. Each ship can embark a medium sized helicopter in a hangar aft.

03 The OPV HMNZS OTAGO. The RNZN is considering another OPV to add to the two it already has. (RNZN)

04 An MQ-8C undergoing testing. (Northrop Grumman)

Shortly after the commissioning of KUNMING, Chinese state media reported that its sister ship CHANGSHA started sea trials off Zhoushan in eastern China. Both vessels are expected to be based in the South Sea Fleet. The PLAN is expected to operate a fleet of 10 Luyang III-class DDGs.

LRASM TESTING CONTINUES

The USN is continuing its sole-source acquisition of the Lockheed Martin Long Range Anti-Ship Missile (LRASM).

LRASM is a US joint Defense Advanced Research Projects Agency (DARPA) and Office of Naval Research programme designed to prove the concept of an autonomous, precision-guided anti-ship stand-off missile. Lockheed Martin was selected in 2009 to demonstrate its anti-ship concept by using the basic design of the existing AGM-158B Joint Air-to-Surface Standoff Missile Extended Range (JASSM-ER). The concept incorporated the introduction of additional sensors and systems specific to the anti-ship role.

The LRASM is armed with a 1,000lb blast-fragmentation HE warhead. It employs a datalink to the launch platform, an enhanced digital anti-jam GPS, and a multi-spectral sensor/seeker package able to single out individual ships inside a large group.

The sensor/seeker package - thought to combine a passive radar detector and an Imaging Infra-Red camera for precise targeting in the terminal phase - has been developed by BAE Systems under a separate - but associated - DARPA contract.

Under plans laid out in the United States' Fiscal Year (FY) 2015 budget submission, LRASM is scheduled to be integrated onto the USN's F/A-18E/F Super Hornet fleet in FY 2019. In its FY 2015 highlights presentation, the US Department of the Navy stated that LRASM will fill "the initial air-launched Anti-Surface Warfare requirement ... to address future/evolving surface warfare threats".

It added: "LRASM, a variant of JASSM-ER, is an autonomous, precision-guided anti-ship stand-off missile that is being developed to meet US Pacific Command's urgent need for an offensive anti-surface warfare capability against combatants in a contested environment. The missile will reduce dependence on intelligence, surveillance, and reconnaissance platforms, network links and GPS navigation."

The FY 2015 budget request projects an initial buy of 30 LRASM all-up-rounds in FY 2017, to be followed by annual procurements of 40 missiles in FY 2018 and FY 2019.

06 DEFENCE ACQUIRES NAVAL AVIATION TRAINING VESSEL

The Australian Department of Defence has announced plans for a 90m vessel, built by Damen Shipyards of the Netherlands, for naval aviation training of new pilots in deck landing skills.

The vessel will be used as part of the training support package for Defence's AIR 9000 Phase 7 Helicopter Aircrew Training System (HATS) project.

The vessel is said to be based on Damen Shipyard's OPV 2400 platform concept.

AIR 9000 will not be procuring the vessel but rather the capability it provides through a lease with Defence Maritime Services (DMS), which will be responsible for the acquisition and in-service of the vessel. Interestingly, the vessel will be built at Damen's Vietnam facility.

07 SIKORSKY WINS USN CONTRACT TO REPLACE 'MARINE ONE' HELICOPTER FLEET

The USN has awarded Sikorsky a contract to begin building the next fleet of Marine One helicopters for the Office of the President.

With the selection comes a US$1.24 billion Engineering and Manufacturing Development (EMD) contract to modify, test and deliver six FAA-certified S-92® helicopters and two trainer simulators to the USMC. Covering a period of performance into late 2020, the fixed price incentive firm contract is the initial step to providing, by 2023, a VXX Presidential Helicopter Replacement fleet totalling 21 operational aircraft.

"We are honoured by this news and the vote of confidence in the Sikorsky team and the proven S-92 platform," said Sikorsky President Mick Maurer. "For 57 years, our company has been trusted with the critical responsibility of building and supporting a safe and reliable helicopter fleet for the President of the United States. We are proud of our record and the bright future for our company. We stand ready to deliver the next Marine One, the world's most advanced executive transport helicopter."

Ten nations currently fly the dual-engine, medium-lift S-92 helicopter for their head of state missions. Since 2004, Sikorsky has delivered more than 200 S-92 helicopters, predominantly to operators serving the worldwide offshore oil and gas industry, and for civil search and rescue.

Sikorsky submitted its VXX proposal for an existing, in-production helicopter platform to the USN in August 2013, following a Request for Proposals in May of the same year.

Of the six contracted aircraft, two will be designated Engineering Development

05 The second Luyang III (Type 052D)-class guided missile destroyers (DDG) CHANGSHA starting sea trials off Zhoushan in eastern China.

06 A computer generated image of the OPV24000 concept that will be modified to provide aviation training to the ADF through DMS. (Damen Shipyards)

Models (EDM), enabling the Department of the Navy at Naval Air Station Patuxent River in Maryland to test the platform's flight performance and mission communication system capabilities as certified by the Federal Aviation Administration. Sikorsky is contracted to deliver the two EDM aircraft during 2018.

The remaining four aircraft — designated System Demonstration Test Articles (SDTA) — will perform operational test and evaluation, and then transition to operational status. Sikorsky will deliver two training simulators (one each for maintainers and pilots) ahead of aircraft deliveries in 2018.

By early 2019, the Navy is expected to place orders for the first of three lots of 17 production aircraft. Sikorsky expects to complete delivery of these production aircraft by 2023.

The Sikorsky team will produce the aircraft in four distinct stages.

Assembly of the baseline "commercial off-the-shelf" flight-certified aircraft will occur at the company's S-92 production facility in Coatesville, Pennsylvania, near Philadelphia.

At a secure facility in its Stratford, Connecticut, headquarters, Sikorsky will perform aircraft modifications to meet the requirements of the presidential mission.

Later, at a secure facility in Owego, New York principal subcontractor Lockheed Martin Mission Systems and Training will install the integrated communications and mission systems.

When aircraft are returned to Stratford, Sikorsky will install the presidential interior into the 6-foot-high by 20-foot-long by 6.5-foot-wide cabin, and deliver the completed aircraft to the USN.

08 USN ACCEPTS DELIVERY OF USS AMERICA

The USN has accepted delivery of the future USS AMERICA (LHA-6) from Huntington Ingalls Industries April 10.

AMERICA, the lead ship of the class, is the first of the USN's next generation amphibious assault ships which replaces the aging Tarawa class. Delivery marks the official turnover of custody of the ship from the shipbuilder to the USN.

AMERICA completed sea trials in February, with no major deficiencies identified. Following delivery, the commissioning crew will move aboard and begin shipboard training in preparation for ship sail away. The ship's commissioning is slated for late 2014 in San Francisco.

LHA-6 uses the same zonal electrical distribution, electric auxiliary systems, and auxiliary propulsion system as the USS MAKIN ISLAND (LHD 8), resulting in lower fuel, maintenance and lifecycle costs. By using these proven systems, the USN is avoiding design and development costs often associated with a first in class ship.

AMERICA is the first ship of the Amphibious Assault Replacement Program, LHA(R). The LHA-6 design removes the traditional well deck to include more space for an enlarged hangar deck, expanded aviation maintenance facilities, and an increase in available stowage for parts, support equipment, ammunition and aviation fuel. AMERICA spans an expansive 844 feet, displaces an impressive 44,971 long tons and can operate at speeds of over 20 knots.

INDONESIAN NAVY ESTABLISHES NEW BASE

The Indonesian Navy (Tentera Nasional Indonesia - Angkatan Laut: TNI-AL) will establish a new naval base at Tanjung Datu, West Kalimantan on Borneo Island.

Indonesian Armed Forces (TNI) commander General Moeldoko told reporters in Jakarta on 26 May that construction of the base is being expedited in light of escalating tensions in the South China Sea and an emerging dispute with Malaysia over the construction of a lighthouse.

According to the TNI-AL, six Malaysian ships, including a Royal Malaysian Navy vessel, attempted to construct a lighthouse in disputed waters off the Kalimantan coast on 19 May. Malaysia halted construction works on 22 May after official protests were made by the Indonesian government.

"Besides, the situation in the South China Sea also has the potential to escalate and affect Indonesia," said Gen Moeldoko. "Either Natuna or Tanjung Datu will be most impacted should the situation deteriorate."

Gen Moeldoko told media that the proposed naval base will have an airstrip and host an infantry unit of the Indonesian Armed Forces. No details on the size of the unit or airstrip were given.

While the naval base is being established, the TNI-AL will deploy three vessels, the Kakap-class offshore patrol vessel KRI BARAKUDA, Todak-class guided missile attack craft KRI LEMADANG and KAPITAN PATTIMURA (Parchim I)-class corvette SUTEDI SENOPUTRA to patrol the waters near Tanjung Datu as an interim measure. ■

07 A computer generated image of the S-92 in Marine One colours over Washington D.C. (Sikorsky)

08 The LHA AMERICA on sea trials. The new LHA will be more focused on the air support of amphibious operations than landing troops ashore with their heavy equipment (USN).

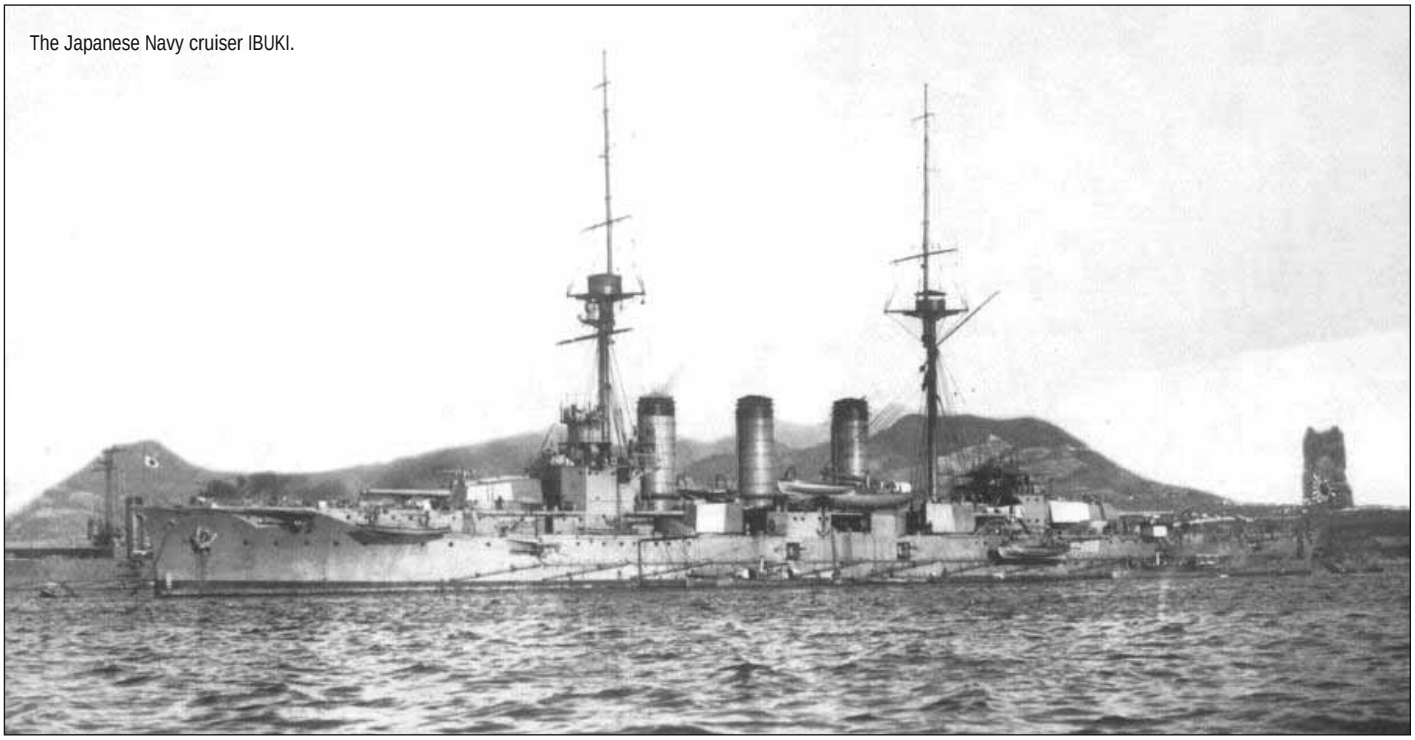
3RD PLACE

RISING SUN - WHITE ENSIGN

AUSTRALIAN - JAPANESE NAVAL RELATIONS BEFORE 1941

By Greg Swinden

Little is known of Japan's close naval relationship with Australia before World War II. In his third place 2013 Navy League of Australia essay competition entry Greg Swinden lifts the veil on this remarkable time of cooperation between two navies that would ultimately come to blows in World War II.



The Japanese Navy cruiser IBUKI.

INTRODUCTION

The historian Arthur Marder coined the phrase *Old Friends – New Enemies* in his history of the Royal Navy and Imperial Japanese Navy (IJN). Much the same could be said for the relationship between the Royal Australian Navy (RAN) and IJN. Today the IJN is mainly remembered as an enemy force which Australians encountered in the Pacific Campaign during World War II. During the First World War, however, the Japanese were Australia's allies and the IJN played a major role in protecting Allied shipping in the Pacific and Indian Oceans. In 1917-18 the naval defence of Australia relied heavily upon Japanese warships while the bulk of the RAN operated in the North Sea or Mediterranean. This was rarely reported in the press and unknown to many Australians at the time. The events of 1941-45 have often overshadowed the friendly naval relations between Australia and Japan which stretch back over 140 years.

EARLY AUSTRALIA – JAPANESE RELATIONS

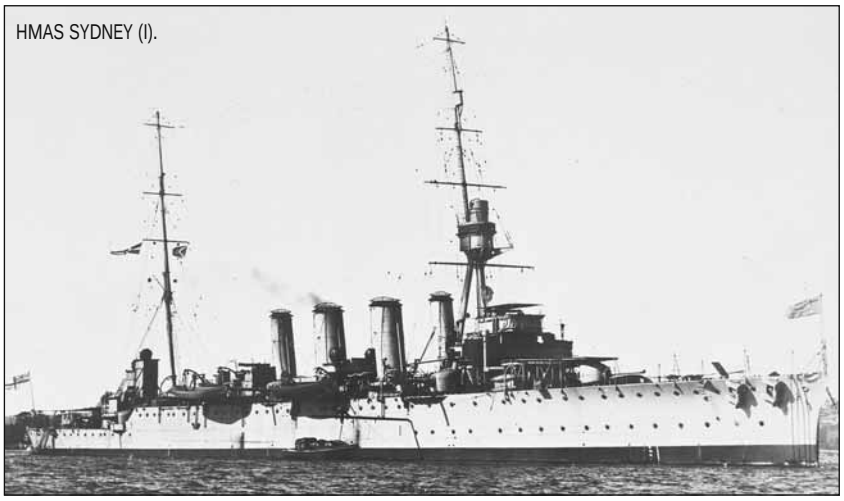
Before World War II, Japanese warships were a familiar sight in Australian waters and the IJN Training Squadron regularly visited Australia. In 1872, only three years after the IJN was formed, His Imperial Japanese Majesty's Ship (HIJMS) RYUGA (an iron clad steam warship) visited Sydney and Melbourne. In mid 1882 the steam corvette HIJMS TSUKABA conducted a visit to Sydney, Melbourne and Hobart. While TSUKABA was alongside in Melbourne, on 9-10 June 1882, three of her crew died from the effects of beri-beri (vitamin deficiency) and were buried with full naval honours in Williamstown cemetery; their black marble headstones can still be seen there today.

Further visits continued with the steam corvette HIEI visiting Australian east coast ports in 1900-01. While alongside in Townsville in April 1900 Midshipman Tomijiro Kawai died and was buried there. In May 1906 the IJN Training Squadron cruisers HIJM Ships HASHIDATE, ITAUKUSHIMA and MATAUSHIMA, visited Australia's east coast ports. In Sydney they were hosted by ships of the Royal Navy's Australian Squadron and a 15 gun salute was fired from the cruiser HMS POWERFUL. Amongst the Japanese officers was Lieutenant Seizo Kobayashi, who had first visited Australia in 1901, and acted as an interpreter for his senior officers. Kobayashi rose rapidly through the ranks and was captain of the cruiser HIJMS HIRADO when she operated in Australian waters in 1917 and commanded the training squadron during its 1928 visit.

The cruisers ASO and SOYA visited Australia's east and west coasts in early 1910 and again in 1911. While the relationships between the crews and the local population were always cordial there was an underlying current of suspicion between the two nations. Some historians would claim this was racism linked to the 'White Australia' policy of the time, however, much of the tension was caused by the

increased Japanese expansion into the Asia-Pacific region.

Japanese officers were often hosted in each city at official dinners and tours of the local countryside were provided. The sailors on the other hand kept very much to themselves and there was little interaction with the Australian community. In Sydney and Newcastle Japanese businessmen provided recreational facilities for visiting Japanese sea-farers and *Mikado Farm* at Guildford was regularly use by Japanese sailors. In many cases the crews of Japanese warships were watched closely as Australian authorities considered they were collecting intelligence on port facilities and defence capabilities. This is most likely correct but was not dis-similar to what every other nation's naval personnel were doing when on port visits to other countries. The 1902 Anglo-Japanese Alliance helped to alleviate some of Australia's concerns with Japanese expansion but in other ways it gave Japan more impetus to expand its naval forces, noting the British expectation that Japan would help keep the peace in the Asia – Pacific region.


HMAS SYDNEY (I).

The mercantile training ship *Taisei Maru* also regularly visited Australian waters. The four masted steel hulled barque was constructed in 1904 as a merchant navy training ship for the Imperial Nautical College of Tokyo. Merchant navy officers required at least four years service in sailing vessels before they were able to progress their career. As steam replaced sail, many nations built sail training ships to ensure their merchant navy officers were still able to obtain suitable training 'under sail'. The *Taisei Maru* conducted her first visit to Australia in 1906 and returned again in 1911, 1913, 1926 and 1934.

WAR IN THE PACIFIC AND INDIAN OCEANS

In 1914 Japan, with a population of 53 million people, had a large and capable army and navy which had been successful in wars against China (1894-95) and Russia (1904-05). Her navy consisted of 12 dreadnought or pre-dreadnought battleships, five battle cruisers, eight heavy cruisers, 21 light cruisers, 50 destroyers, one sea plane tender and 12 submarines. Conversely Australia had a population of less then five million people, with a very small regular army and a navy with only one battle cruiser, five light cruisers, three destroyers, two submarines and a variety of small patrol vessels. The Australian colonial forces had seen limited operational service mainly supporting British colonial wars in New Zealand, Africa and China.

Japan entered the war against Germany in 23 August 1914 and captured the German colony of Tsingtao (China) and the island territories north of the Equator (including Yap, the Mariana, Caroline and Gilbert Island groups). Australian and New Zealand forces captured the German Territories of New Guinea, Samoa and Nauru which lay south of the Equator. Soon the Japanese were moving further afield. The cruisers ASAMA, IDZUMO and HIZEN went west across the Pacific to the Mexican coast in search of Admiral von Spee's German East Asia Squadron.

By late November 1914, the RAN's battle cruiser HMAS AUSTRALIA had joined them, although by this time von Spee had rounded Cape Horn and entered the Atlantic where his force was destroyed by British warships off the Falkland Islands on 10 December 1914. Rear Admiral Patey in AUSTRALIA was given command of the Allied Squadron which consisted of the Japanese cruisers and the British cruiser HMS NEWCASTLE during his fruitless search for von Spees's warships. Rear Admiral Moriyama, in command of the three Japanese warships, later stated that Patey *"did not evaluate information, but immediately and indiscriminately proceeded to the place where sightings were reported"*[i].

Closer to home, the IJN formed two special service squadrons with the 1st Special Service Squadron based in Singapore; it would operate south of the Equator and this included much of the north west coast of Australia. The 1st Special Service Squadron was soon part of a force of Allied warships hunting for the elusive German light cruiser EMDEN which had been detached from von Spee's squadron and was attacking Allied shipping in the Indian Ocean. By the end of October 1914 EMDEN had sunk or captured 22 Allied merchant ships as well as bombarded the ports of Madras (Chennai) and Penang where she also sank the Russian cruiser ZHEMCHUG and French destroyer MOUSQUET. The IJN deployed the cruisers CHIKUMA, TOKIWA and YAKUMO to the Bay of Bengal in the search for EMDEN.

EMDEN actions in the Indian Ocean were of major concern for Australia and New Zealand as they had both formed expeditionary forces for dispatch to England. With EMDEN on the rampage there was a dire need for convoy escorts to protect the transport ships carrying the 20,000 troops. The armoured cruiser IBUKI, and three British warships, escorted the ten troop transports carrying the New Zealand contingent from Wellington to Albany where the first Australian and New Zealand troop convoy was formed. The cruiser NISSHIN was also to accompany the convoy but had run aground near Singapore and was out of action.

On 1 November 1914, the 38 Australian and New Zealand troopships were underway escorted by the heavy cruiser HMS MINOTAUR (in command), IBUKI and the light cruisers HMA Ships MELBOURNE and SYDNEY. On 8 November MINOTAUR was detached to proceed to Cape Town following the destruction of two British warships at the Battle of Coronel and the belief that von Spee's warships had entered the South Atlantic. MELBOURNE, commanded by Captain Mortimer Silver, RN took charge of the convoy.

The next day a wireless message was received by MELBOURNE from the cable station at Cocos Island indicating a strange warship was approaching. Captain Silver initially intended to investigate this 'strange warship' but then correctly realised they his duty lay with protecting the convoy and dispatched SYDNEY instead. IBUKI under Captain Kanji Kato attempted to join SYDNEY and steamed westward with battle ensigns flying and black smoke pouring from her funnels and signaled MELBOURNE - 'I wish to go and help SYDNEY'. Silver ordered the Japanese warship back to its position protecting the convoy. SYDNEY proceeded to Cocos Island where she engaged EMDEN and in a battle, lasting nearly two hours, destroyed the enemy warship.

Silver's actions have been questioned many times since by naval historians. Many consider he was correct in sending only one warship to investigate the 'strange warship sighting' and that SYDNEY with 6-inch guns was more then a match for EMDEN's 4.1-inch guns. Also it

had become well known, as the convoy steamed northwards, that IBUKI produced vast volumes of black smoke from her funnels which was visible for many miles. If she had accompanied SYDNEY, which could steam at 26 knots whereas IBUKI could only manage 22 knots, this smoke may have alerted the Germans and enabled EMDEN to escape before SYDNEY was in range to open fire.

IBUKI on the other hand mounted 12-inch guns and could have easily outgunned EMDEN, but Silver was concerned regarding the location of the German light cruiser KONIGSBERG, which was known to be also in the Indian Ocean, and his first duty lay with protecting the troop convoy. The crew of IBUKI are believed to have felt cheated by not taking part in the destruction of the EMDEN, but in later years the 'Samurai spirit of the IBUKI' was often quoted during IJN ship visits indicating that the IJN was right to have placed duty above glory.

OPERATIONS 1915 - 1918

From December 1914 - January 1915 the cruisers CHIKUMA and YAHAGI operated off the north coast of Queensland while NISSHIN visited Rabaul and Madang in April 1915. During May-July 1915 the training squadron cruisers ASO and SOYA, conducted port visits from Rabaul southwards through to Fremantle. By this time Australian naval defence rested mainly with the older cruiser ENCOUNTER and the destroyers PARRAMATTA, WARREGO and YARRA. Australia's major units were now operating overseas in the North Sea (AUSTRALIA), Caribbean (MELBOURNE and SYDNEY), German East Africa (PIONEER) and South East Asia (PYSCHE). The cruiser BRISBANE was under construction at Cockatoo Island Dockyard as were three more destroyers, but they would not join the fleet until 1916.

With the destruction of von Spee's squadron the threat from German raiders in Australian waters was unlikely but the need for convoys to be escorted across the Indian Ocean was still considered essential. Many German merchant ships were still in the area, trapped in neutral ports in the Netherlands East Indies and the Philippines. There was concern that if armed they could become auxiliary commerce raiders and attack Allied shipping in the Indian and Pacific Oceans.

Additionally there were a number of 'intrigues' where intelligence sources suggested the Germans were attempting to ship arms and ammunition into British India to foment an uprising amongst anti-British elements of the Indian population. This was a real concern as on 15 February 1915 over 400 Indian troops from the 5th Bengal Light Infantry Regiment mutinied in Singapore. These mutineers went on a killing spree and even released some German POW's; intending to arm them to join their fight to overthrow the British authorities in Singapore. The mutiny was soon put down by British troops, local volunteers and sailors from British, Russian French and Japanese warships. 150 marines from the Japanese cruisers OTAWA and TSUSHIMA were put ashore as part of this action. For the remainder of 1915 and 1916 the Pacific and Indian Oceans were relatively quiet theatres of the world war.

In late 1916 the German Navy decided to take the war to the southern oceans. On 30 November 1916 the raider WOLF (Commander Karl Nerger) departed Kiel bound for the Indian Ocean to mine key ports and attack merchant shipping. On 21 December the sailing vessel SEEADLER (Commander Felix von Luckner) also departed Germany bound via Cape Horn for the Pacific. In mid January 1917 WOLF laid mines off Cape Town before proceeding to mine the approaches to Bombay and Colombo and within a month these mines had sunk two merchant ships and damaged a third.

The minefields were soon located and swept while the Royal Navy also commenced operations to locate the German raider. Part of this was a request for Japanese warships to escort troop convoys across the Indian Ocean to Colombo, Aden and the Cape of Good Hope. In March the cruisers TSUSHIMA and NIITAKA were based at Mauritius and searched the sea lanes in the western Indian Ocean. The cruisers IDZUMO, KASUGA and NISSHIN, were deployed to the eastern Indian Ocean and escorted convoys from Fremantle to Colombo. The port of Fremantle saw frequent visits by Japanese warships to collect convoys and undertake logistics activities such as coaling.

From May to December 1917 CHIKUMA, HIRADO and YAHAGI were based in Sydney and conducted patrols and convoy escort work off the Australian east coast and in New Zealand waters. On occasions the Japanese warships were docked at Cockatoo Island Dockyard for maintenance and hull cleaning and they were also frequent visitors to Jervis Bay where the crews observed the Rugby matches played at the Naval College.

The RAN, however, was not completely unrepresented in home waters. The new cruiser BRISBANE (commissioned in October 1916), operated in the Indian Ocean as part of the East Indies Squadron searching for WOLF from June-September 1917 before moving to the Pacific Ocean and the Australian east coast. The venerable cruiser ENCOUNTER operated regularly around the coast and PSYCHE was still operating in South East Asia.

Meanwhile in May-June 1917 WOLF laid minefields off the north island of New Zealand and the entrance to Cook Strait. She also sank four merchant vessels. Then on 3 July she crossed the Tasman and laid a minefield off Cape Howe before heading towards Fiji. WOLF's minefield was discovered on 6 July when the steamer CUMBERLAND struck a mine near Gabo Island and the ships master beached the vessel. CHIKUMA, with Rear Admiral Yamaji embarked, was first on the scene and a Japanese diver advised that an internal explosion had damaged CUMBERLAND. This mis-information resulted in many months of wasted effort as Australian authorities sought to prove that the sabotage had been conducted by radical members from the Union of International Workers of the World. Eventually the Japanese report was proven incorrect and mine-sweeping operations commenced in October 1917 between Twofold Bay and Bass Strait.

CUMBERLAND was the only merchant ship sunk by WOLF's mines in Australian waters and no lives were lost. Temporary repairs were made to her but on 11 August she sank while under tow back to Sydney. Meanwhile on 6 August WOLF captured the Burns Philp merchant ship MATUNGA in New Guinea waters taking its crew and passengers as prisoners and later sinking the vessel. When the Australia Naval Board became aware that MATUNGA was overdue ENCOUNTER was dispatched to search for her. Admiral Yamaji was requested to send HIRADO, then alongside in Brisbane, to assist but he declined even though the ship was ready to sail. Yamaji remained unconvinced that a German raider was operating in the Pacific even with the loss of four vessels in New Zealand waters and the discovery of the burnt out hulks of three US schooners in the eastern Pacific; these had been sunk by SEEADLER on 23 July 1917.

On 26 September the Japanese vessel HITACHI MARU became WOLF's next victim. The merchant ship was sunk south west of Sumatra and by then WOLF was heading back to the Atlantic on her way home. Despite the presence of several British, Australian and Japanese warships WOLF escaped detection and finally returned to Germany on 24 February 1918. SEEADLER was less of a threat - she had entered the Pacific in April 1917 but was wrecked on Mopelia atoll on 2 August and her crew eventually taken prisoner. In November 1917 ENCOUNTER visited Mopelia to investigate the wreck.

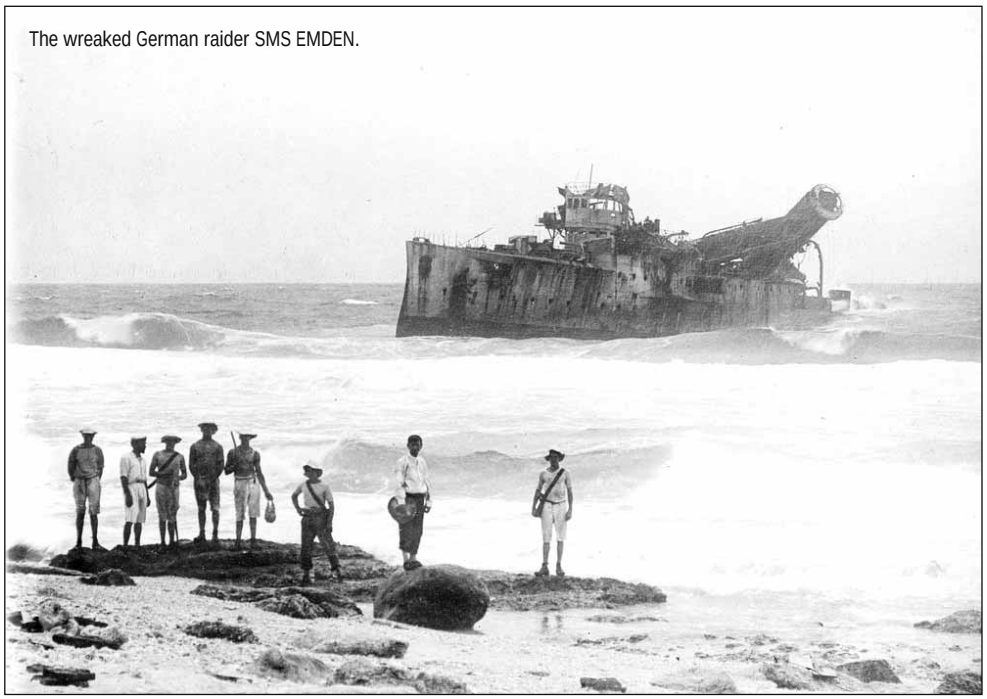
The Australian-Japanese naval relationship now started to show real signs of strain. IJN personnel still felt cheated with IBUKI missing the action with EMDEN and the events surrounding the mis-information

regarding the real cause of the loss of the CUMBERLAND and Admiral Yamaji's refusal to send HIRADO to sea to search for MATUNGA only added to this strain. Equally Admiral Yamaji was concerned that Japanese naval activities, in Australian waters, were not reported in the Australian press and that the Australian Naval Board kept select information from him – particularly the discovery of the wreck of SEEADLER.

On 20 November 1917 the situation became worse. That morning the cruiser YAHAGI was entering Fremantle Harbour, with a harbour pilot embarked, when the ship failed to hoist the special code signal of the day. As a result the 6 inch gun battery protecting the port fired a warning shot across her bows. Suddenly the good working relationship between the IJN and the RAN dissolved and a great deal of correspondence between the two navies took place and eventually even the Governor General, Sir Ronald Munro-Ferguson made a personal apology to Admiral Yamaji regarding the incident.

By early 1918 Australia had returned to its backwater status as far as the war was concerned. The German raiders were gone and the mines had been swept. The Japanese warships were withdrawn in January 1918 and in August BRISBANE was dispatched to the Mediterranean. YAHAGI conducted a visit to Fremantle in March and then during May-October 1918 patrolled off north eastern Australia and the New Guinea islands group. NISSHIN also conducted a brief patrol off Fremantle in October 1918. Both ships were then withdrawn from Australian waters and the planned replacement, the cruiser CHITOSE, never eventuated once the Armistice came into effect.

In 1920 Rear Admiral W.R. Creswell (1st Naval Member), Captain Hugh Thring (Director of War Staff) and Captain C.J. Clare (District Naval Officer - Fremantle) were awarded the Order of the Rising Sun by the Japanese Government for their support to the IJN during the war. Captain J.C.T. Glossop who, commanded SYDNEY in her action against EMDEN, had been given this award in 1917.



The wreaked German raider SMS EMDEN.

THE INTER - WAR PERIOD

Visits by IJN warships continued throughout the inter-war period with training squadron visiting Australian ports in 1924. It was shortly after this that the Australian War Memorial was presented with a model of the cruiser IBUKI for display. During the period March - September 1925 HMAS BRISBANE served on loan with the Royal Navy squadron on the China Station. In May 1925 she became the first Australian warship to arrive in a Japanese port when she visited Yokohama. One of BRISBANE's officers later wrote that they were given an *extremely warm and enthusiastic welcome and a great deal of hospitality and entertainment from civic bodies and from ships of the Imperial Japanese Navy*. On BRISBANE's return to Australia she brought back IBUKI's ships wheel and bell which had been gifted to Australia.

While matters remained cordial at the navy to navy level the slow slide towards conflict had begun. Japans occupation and fortification of former German territories north of the Equator remained of concern and had been raised by Prime Minister Hughes at the Versailles peace talks in 1919. In 1920 *The Bulletin*, warned that the IJN posed a serious threat to Australia and that war could occur at a time of Japans choosing if a grievance against Australia or the United States was to arise. Australia and New Zealand were keen to see the 1902 Anglo-Japanese Alliance continue but no decision was reached at the 1921 Imperial Conference and thus the alliance lapsed in July 1921. This added impetus to the decision to build a major British naval base in Singapore to guard British and Dominion interests. In Australia visits by Japanese warships and merchant ships continued but there were still concerns amongst many Australian agencies that the Japanese mariners were actively gathering intelligence on port facilities and charting the coastline.

In mid 1928 Admiral Kobayashi's squadron (cruisers YAKUMO and IDZUMO) visited Australian ports and in early 1935 YAKUMO and ASAMA conducted what was the final visit to Australian waters prior to the outbreak of World War II. Much was made of these visits in the media regarding the *personal friendship between sailors of the British and Japanese* navies and certainly the 1935 visit to Sydney was well covered by the media with Japanese sailors shown enjoying shore leave including a visit to Taronga Zoo.

After the 1935 visit, diplomatic relationships between Japan and her former allies in the Pacific moved steadily towards conflict in 1941. Japanese warships did not return to Australia until July 1962 when four destroyers of the Japanese Maritime Self Defense Force visited Sydney. Since then Japanese warships, particularly the Training Squadron, have been regular visitors to Australia and RAN and Japanese warships have operated together in various exercises (i.e. Exercise RIMPAC) and on anti piracy duties off the Horn of Africa. Once again the white ensign and the rising sun fly peacefully alongside each other. ■

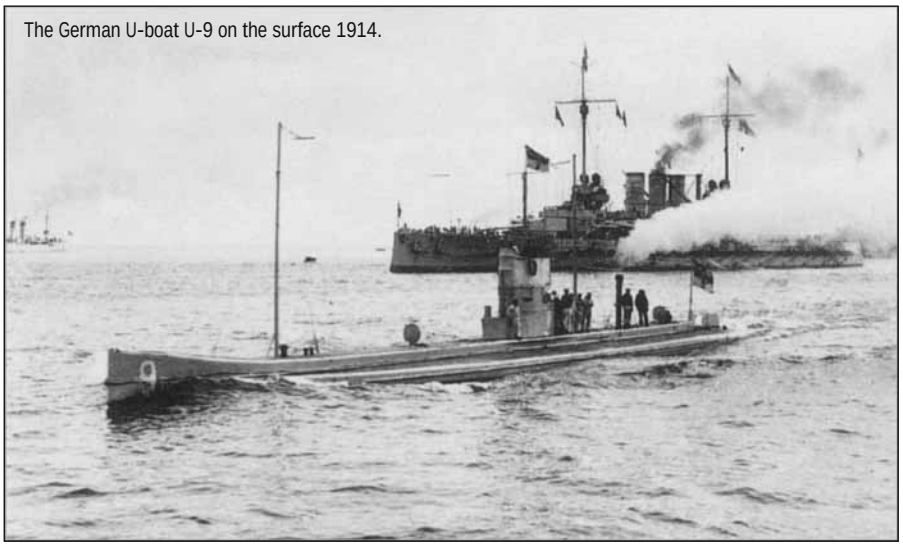
i Hirama Y. *Japanese naval assistance and its effect on Australian-Japanese relations.* (English extract from *World War I and the Imperial Japanese Navy,* Keio University Press, Tokyo, 1998).

3RD PLACE

THE REMARKABLE EXPLOITS OF THE U-9

By David Rees

David Rees examines one of the remarkable lessons of World War I which demonstrates yet again the military's sometimes slow reaction to events in which they ultimately then suffer.



The German U-boat U-9 on the surface 1914.

A REVOLUTION IN MILITARY AFFAIRS?

When World War 1 began naval technology had been in a state of profound change for nearly twenty years. Arguably the development of new weapons such as battle cruisers and submarines had outrun the development of any doctrine which could provide guidance on how they could be effectively used. Brawn had outrun brain. Certainly there was little practical experience to provide instruction as to how they might actually perform in battle, and how old and new systems would impact on each other. From its beginning, the war would demonstrate the strengths and weaknesses of all weapons systems, particularly new ones, in unexpected and brutal ways.

It may be an exaggeration to say that the naval technological changes that had occurred from the late 1890's constitute a revolution in military affairs. Yet there were profound changes from the late 1890's in both strategic and technological terms. From the late 1890's the German Navy began a battleship (and then dreadnought) based expansion. Under the leadership of Admiral John Fisher the Royal Navy (RN) also began to increase its number of capital ships and launched HMS DREADNOUGHT in 1906. The exact reasons behind Fisher's decisions to increase dreadnought numbers are now hotly debated, but it is clear that Fisher was interested to the point of obsession in new technology and ship designs. He spearheaded the development of the battle-cruiser (fast, heavily armed but lightly armoured) and the development of smaller warships such as the submarine and the destroyer.

It would seem that Fisher hoped to use battle-cruisers to maintain Britain's naval pre-eminence on the high seas and submarine and destroyer flotillas to defend Britain itself from invasion. However, Fisher acrimoniously departed from office in 1910 and both Churchill and the Admiralty deviated substantially from Fisher's blueprint for a number of reasons. By 1914 the RN had both substantial numbers of dreadnoughts and battle cruisers and the largest submarine fleet in the world, but no detailed doctrine as to how these weapons systems were to be used in unison to gain victory.

British and German naval strategic positions and intentions 1914

Neither Britain nor Germany entered the war with a clear naval strategy regarding how to defeat the other. From the beginning the vague naval strategies they did possess were likely to end in mutual frustration.

Concerned by the possibilities of losses to submarines, mines and small craft attack, the Royal Navy opted to impose a distant blockade on Germany. The Germany Navy, wary of greater British capital ship numbers, decided that it would first try to wear the British fleet down with attacks on British warships by submarines, destroyers and mine warfare. The problem with this strategy was that it assumed British warships would make themselves vulnerable. And at least initially, a number of RN vessels obliged.

THE FIRST BLOW

So when the U-9 (under the command of Otto Wedigen) and nine sister ships set sail in August 1914 they were truly steering into unknown waters, although that may not have been evident at the time. Their orders emphasised the need to locate Royal Navy warships rather than merchantmen.

On 5 September 1914 U-21 drew first blood by torpedoing the British scout cruiser HMS PATHFINDER. She was short of fuel so she was steaming at only 5 knots; thus she was an easy target. She was the first British warship to be sunk by torpedo in the First World War. The RN responded by recommending that all ships travel at higher speeds but gave no other guidance. Jellicoe did however, withdraw his capital ships from southern ports because the ports were seen as vulnerable to torpedo attack.

THE BATTLE OF 22ND SEPTEMBER 1914

Although the U-21 got in first, the U-9 was singularly successful in its attacks on warships. On 22nd September 1914 it encountered three armoured cruisers of the 7th Cruiser Squadron (referred to as the Live Bait Squadron). The cruisers, under the temporary command of Captain Drummond in HMS ABOUKIR were patrolling the Broad Fourteens as a precaution against the threat of German surface raiders. The Cressy

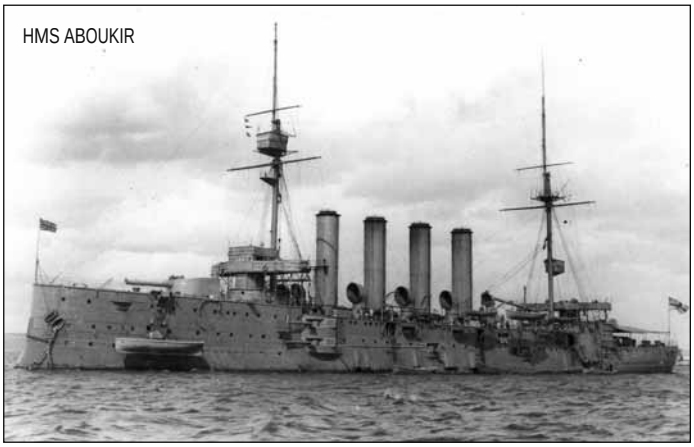
The U9's successful Commanding Officer Otto Wedigen.

class cruisers had only been launched in 1898/99, but were considered obsolete and very vulnerable to more modern German warships; hence the appellation. Their vulnerability to submarine attack does not seem to have been considered in any detail. The cruisers were operating without destroyers due to heavy seas and were not zigzagging (zigzagging was at the discretion of the senior officer present). Essentially U-9 torpedoed and sank the three of them in turn.

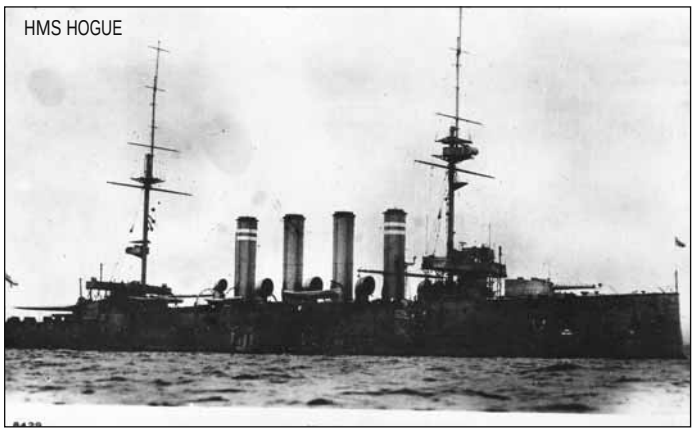
Various accounts of the action show that British behaviour during the action was not particularly effective. First, the lack of destroyers could have been remedied before the sinking's occurred (the fact that the submarine broke surface and was fired upon during the attack would suggest that destroyers could have made a real difference to what occurred). The weather had been severe, but had moderated during the previous night. However, Captain Drummond, who was temporarily in command due to the absence of Rear Admiral Christian, did not realise that he had the power to summon destroyers, apparently because the Rear Admiral had not clearly delegated this power to Drummond in his hand-over orders when he departed the area in his flag ship.

HMS EURYALUS TO OBTAIN MORE COAL

Second, the British armoured cruisers responded very slowly to the submarine threat. HMS ABOUKIR was the first to be torpedoed; Drummond initially thought he had hit a mine. When he was informed that it was a



HMS ABOUKIR



HMS HOGUE

torpedo, he ordered the other cruisers to stand away. Nevertheless HMS HOGUE moved to the opposite side of ABOUKIR from where the torpedoes had originated and stopped to pick up survivors. The U-9 promptly moved around the sinking ABOUKIR and torpedoed the HOGUE. In the course of firing her torpedoes she broke the surface and Hogue accidentally fired upon her. Instead of withdrawing HMS CRESSY slowed to virtually steerage way and began picking up survivors. She then detected a periscope and attempted to go to full speed, but U-9 managed to fire torpedoes into her before she could get under way. CRESSY sank shortly afterwards.

These losses caused a major disturbance in Britain (by way of contrast Wedigen understandably returned home to a hero's welcome) and the Admiralty issued further edicts, including that large warships were meant to steam at a speed of at least 13 knots, that they should zigzag, and they should not stop, even for survivors of sinking ships. The reality was that the RN had little effective answer to submerged submarines apart from mines; depth charge development did not start until 1915. Both the RN and German navies had submarines but because of the nature of its responsibilities the RN was far more vulnerable to submarine attack. Neither navy seems to have given any thought to anti-submarine warfare.

THE LOSS OF HMS HAWKE

On 15 October 1914, on its second cruise, the U-9 (still under the command of Otto Wedigen) sank the HMS HAWKE, an elderly Edgar class protected cruiser. British cruisers were at sea looking for German liners trying to return to Germany, so there were targets available. HAWKE had stopped only 30 minutes before her sinking to take on mail. She then proceeded to move up to 13 knots, by which time HMS ENDYMION, her companion ship, was over the skyline. HAWKE did not zigzag and nor did she have destroyers in company. Her loss was not discovered for a number of hours.

WHAT WENT WRONG?

There are a number of possible explanations as to why the RN responded in such a dilatory fashion to the threat posed to surface ships by German submarines, and the explanations are by no means mutually exclusive.

First, there is no doubt that in the decade proceeding World War I the upper echelons of the RN were profoundly divided. There was certainly the well know rift between Admirals Fisher and Beresford regarding the dispositions of the RN and the sort of ships it should be building.

Yet although this rift and the struggle of ideas that underlay it may have galvanised at least some of the senior parts of the RN, it is not always clear what impact it had on those who actually crewed and commanded warships. The RN in 1914, despite these internal disputes, remained a centralised, hierarchical body, and the fact that the idea of the need for an effective naval staff was not well developed may have meant that there was a certain collective void at the top of the service, despite the


HMS HAWKE

presence of many intelligent individuals. There was no clear mechanism for the collection and dissemination of tactical experiences and ideas. The adoption of new technology was not enough; there needed to be a way for the RN to ponder in depth the implications of this new technology. But is the lack of an effective naval staff an adequate explanation by itself?

Commentators have shown that amongst senior commanders there were varying degrees of understanding regarding the potential impact of submarines. Noted author James Goldrick suggests that the large expansion of the RN starting in the 1890's led to the promotion of officers of at best average ability and limited initiative, and this had an important impact on the development of tactics; he notes that "…submarines were not yet thought of as an oceanic threat; their menace was when heavy ships were in exposed anchorages or navigating in confined waters. An attack upon the open sea seems to have been beyond the comprehension of many of the Royal Navy's senior officers."

Certainly Admiral Jellicoe, C in C Grand Fleet, in response to the various sinking's in 1914, moved the Grand Fleet to more secure anchorages in the north so clearly potential submarine attacks on anchorages were of concern to him. Yet as noted above the Admiralty collectively did more than this; after the individual sinking's it issued various instructions regarding the need for major warships to zigzag, maintain a relatively high speed, and to refrain from stopping even if there were survivors in the water. These edicts were regularly ignored by commanding officers.

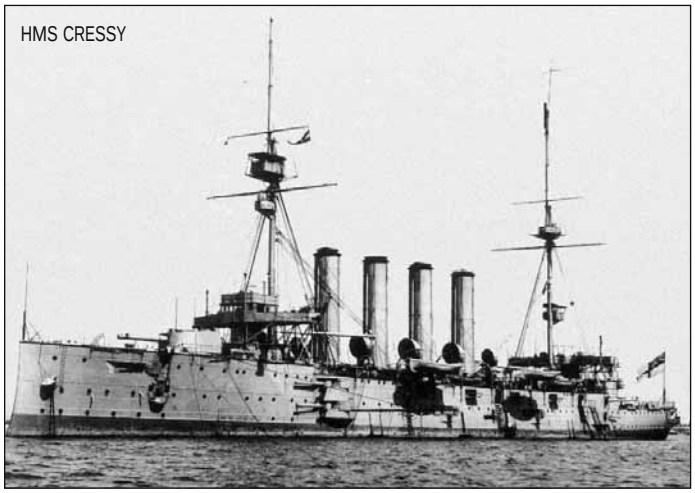
Historian Andrew Lambert demonstrates through an analysis of RN war games in 1913 that very senior officers such as Admiral Sir George Callaghan, commanding the Blue (British) Fleet in the games, were deeply concerned by the threat posed to large warships by torpedoes, mines and submarines, although in his analysis he does not provide information regarding which of the three was seen as potentially the most serious issue. He suggests that most senior officers recognised the threats posed by submarines, but few of them had thought through the implications. It is not made clear why they failed to do so.

The RN's behaviour regarding both submarines and other issues may hint at broader deficiencies than the lack of a specific institution such as an effective naval staff. Goldrick demonstrates that in the aftermath of the Battle of Dogger Bank, during which the battle cruiser HMS LION was nearly lost to flash from exploding ammunition caused by a turret fire, the officers of the LION gave substantial thought to how best to protect their ship from a second occurrence. However, their findings were not passed onto other members of the Battle Cruiser Fleet. He also cites the example of ineffective wireless procedures, which were obvious to all officers concerned with communications in 1914 but still had not been rectified by 1916.

The RN's hierarchical structure may have stultified not only individual initiative but a sense of responsibility. Officers may have assumed that guidance would flow down from the Admiralty regarding tactical developments. This belief (if it existed) does not seem to have stopped cases of innovation by individuals, but the responsibility (certainly in the case of the LION) stopped with the individual ship.

The RN's strategic importance put it in a difficult position. As an institution it was seen as crucial to British survival; the German navy had no such responsibility. As historian Gordon points out, Jellicoe's push for centralisation was in a sense understandable; centralised reassured senior officers that junior people did not have the latitude to do anything potentially disastrous. But there was a real cost to this centralising tendency; people waited for word from on high, and the problems that flowed from this characteristic were increased by poor communications and primitive staff work. Gordon's work is focused on the behaviour of senior British commanders at Jutland, but arguably his arguments could be applied to the RN as a whole.

Finally, although the navy may have seen much intellectual dispute between senior officers and over crucial technical and material issues, it is not clear how much this affected the fundamental thought process and reflexes of officers at sea. Some of those who have served for long periods at sea may have either been indifferent to the new tactical possibilities and problems opened up by technological change; others may have been exhausted by or resentful regarding the amount of technological change


HMS CRESSY

that had occurred. The lack of an effective staff and information collation and sharing structure meant that it was up to the individual officer to expand their knowledge of the latest developments and ideas, and in this endeavour many officers were lacking.

CONCLUSION

The British cruiser losses to submarines in 1914 were costly in terms of both life and prestige. At least some of the losses could have been avoided.

There is no single reason why some captains of the RN reacted so slowly to the submarine threat. Certainly there were some specific reasons, such as inadequate staff structure. But beyond this there are signs of broader cultural issues. The RN had shown at times almost frenetic technological innovation (particularly under Fisher). But as World War I approached it became increasingly centralised. Arguably there were good reasons for this; for the leading sea power such a development was seen as reducing risk. But this centralisation decreased initiative and perhaps a sense of responsibility for learning and thinking, and in 1914 this had most unfortunate consequences. ■

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 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 all nations in our general area and particularly New Zealand, PNG and the island States of the South Pacific.
- 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.
- Welcomes the announced increase in Defence expenditure to 2% of GDP over the next 10 years.
- 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 2014 review of Defence capability; in particular a substantially strengthened submarine force, 3 Air Warfare Destroyers (AWDs), 2 landing ships (LHDs), 8 new frigates (Anzac class replacements), 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, reliability and huge operational advantages of nuclear powered submarines and their value in training our anti-submarine forces, urges the consideration of nuclear power as an option for those vessels.
- Notes the potential combat effectiveness of the STOVL version of the JSF and supports further examination of its application within the ADF.
- 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.
- 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.

An RAAF AP-3C Orion maritime patrol aircraft flies over *Ocean Shield*, on lease to the RAN, during the search for missing Malaysian Airlines flight MH-370 in the Southern Indian Ocean off the WA coast. (RAN)

The Royal Malaysian Navy frigate KD LEKIU arriving at HMAS STIRLING in WA to assist with the search for Malaysian Airlines flight MH-370. (RAN)

One of the RAN's new MH-60R Seahawk Romeo helicopters (aircraft No.4 of 24 on order) conducting acceptance testing of its dipping sonar in the Atlantic Ocean off the US State of Florida. The return to Navy's arsenal of a dipping sonar capability will improve its anti-submarine warfare capability immeasurably. (RAN)

The Anzac class frigate HMAS ARUNTA back in the water with her new Anti-Ship Missile Defence (ASMD) upgrade installed. ARUNTA becomes the second ship to go through the world class ASMD upgrade, PERTH being the first. (RAN)