



Journal of the Australian Naval Institute



Spring 2001

AUSTRALIAN NAVAL INSTITUTE INC.

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- to encourage and promote the advancement of knowledge related to the Navy and the maritime profession; and
- to provide a forum for the exchange of ideas concerning subjects related to the Navy and the maritime profession.

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Front Cover: Shiphhandling Corner Returns ! HMA Ships *Anzac* and *Arunta* enter Sydney Harbour. The Anzacs are the first ships to be discussed in the revived Shiphhandling Corner. (RAN Photo).

Inside Back Cover: Farewell to some unconventional hulls. 2001 saw HMA Ships *Jervis Bay*, *Rushcutter* and *Shoalwater* pay-off. This leaves the four Paluma Class as the sole commissioned multi-hulls in the Fleet. (RAN Photo)

Back Cover: The End of an Era: The DDGs entered service in the RAN in 1965. On 12 October 2001 the last of the class HMAS *Brisbane* decommissioned. (RAN Photo)

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FROM THE PRESIDENT



Dear Members,

The full implications on Australia's national security of the tragic terrorist attacks on the World Trade Center and the Pentagon will take some time to be fully appreciated. Once again however these events and subsequent US actions have highlighted the importance and flexibility of seapower to respond to a crisis. The events also demonstrated the strong demand for information and analysis that helps people more fully appreciate the context in which events occur.

On 4 July 2001 Admiral Sir Anthony Synnot KBE, AO, RAN passed away after a long illness. He was a most significant figure in the development of the RAN and of Australian Defence as a whole. He was also a great supporter of the Australian Naval Institute from its earliest days and was an Honorary Life Member. As a tribute to this fine officer we include in this Journal the Chief of Navy's address at the opening of the Synnot Theatre at the Australian Command and Staff College.

On a happier note the 2001 King-Hall Naval History Conference was held at the Australian War Memorial on 26-27 July 2001. The Australian Defence Force Academy, the RAN Sea Power Centre and the Australian Naval Institute jointly sponsored this event. The Conference focused on the often-neglected human face of naval warfare. The overwhelming view of all participants was that the event was an outstanding success. The standard of presentations was excellent. This is in large part a great credit to the key organizers (and ANI members) Dr David Stevens and Dr John Reeve. The presence of RAN members of the Australian Command and Staff College at the Conference enhanced the event and no doubt benefited the students. This edition of the Journal publishes an interesting account of the experiences of Andrew Gordon in HMAS *Hobart* in 1942 from the King-Hall Conference.

Members will recall in the last edition of the Journal that *The Australian Centenary History of Defence, Volume III: The Australian Navy* was reviewed in very positive terms by Captain Peter Leschen. It is pleasing to report that the book recently topped the Oxford University Press best seller list. Indeed it was the only one of the Defence series to make the top ten. This is a credit to the work of the editor, Dr David Stevens, and his team of writers. I also believe it reflects the level of interest in naval affairs in this country.

On a more contemporary note I am pleased that this edition addresses one of the vexing issues of the contemporary Navy namely shore command in the post-Defence Reform Program era. Equally pleasing is the return of the Shiphandling Corner.

Finally, during the last three months I am pleased to report that our membership continues to grow. Thirty-nine either new or renewed members have joined the ranks. In an effort to further improve in this vital area of our renewal program I am pleased to report that Commander Henry Pearce has agreed to become a Council member and will have particular focus on membership issues. I welcome also to the Council our new Public Officer Lieutenant Darryn Mullins.

I hope you enjoy this issue.



FROM THE EDITORIAL BOARD

The Editorial Board has attempted this edition to provide a wide cross-section of articles from the *Old Navy* to contemporary issues affecting the Service both at sea and ashore. A noteworthy article this edition is by Lieutenant Brad Mackay on his experiences flying a RN Commando helicopter in support of the Turkey earthquake relief operation. Amongst other things it highlights the wide range of operations our officers and sailors participate in whilst on exchange. Unfortunately, too often these experiences are not widely known about or drawn upon. It is the intention of the Journal to attempt to tap wealth of knowledge in future editions.

One of the aims of the Journal is to be a forum for discussion about issues affecting the Navy. To that end the Editorial Board is keen to receive letters and articles on any subject the readers think would be of interest to Institute members. With the delights of email submissions are able to be forwarded through this address: a_n_i@bigpond.com.au

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A Tribute to Admiral Sir Anthony Synnot KBE, AO, RAN

On 4 July 2001 Admiral Sir Anthony Synnot passed away. Admiral Synnot was an Honorary Life Member of the Australian Naval Institute. As tribute to his contribution to the RAN the ANI Journal reproduces the address given by Vice Admiral David Shackleton AO, RAN on 25 July 2001 at the opening of the Synnot Theatre at the Australian Command and Staff College.

It is my privilege to talk to you today about Admiral Sir Anthony Synnot and his achievements. He was a man for whom I had a particular personal admiration, an admiration which has increased as I have advanced in the Service and come to understand in a more sophisticated way just who he was, and what he did for the Navy.

I do not intend to recount Synnot's career at sea. Sir Richard Peek recorded that with affectionate insight during his eulogy, and it is contained in a number of ship histories. His operational achievements are, I know, also held close in the memories of the many men - and women - who served under him. My intent today, rather, is to reflect on some of the features that marked his term as Chief of Naval Staff and, to a lesser extent, as Chief of Defence Force Staff. I want to do this not simply as a tribute to Sir Anthony, but because I think that we all, and most particularly the students of the Command and Staff College here today - can benefit from studying his methods and his achievements.

Synnot's stepson, Mark Colvin, gave a moving and perceptive eulogy at the Admiral's funeral service in which he made some telling observations about the generation of which Sir Anthony was such a remarkable, but not unique, representative. In the context of the Navy, I would go further than that. He was also a remarkable representative of a particular generation of naval officers who began the war as the most junior of subordinate

officers, and finished it, while still in their early 20s, in positions of enormous responsibility. It is no coincidence that two of Synnot's RN contemporaries, Admiral of the Fleet the Lord Lewin and Admiral of the Fleet Sir Edward Ashmore, also began the war as subordinate officers, served as First Lieutenants of destroyers and went on to specialise. Synnot and Lewin specialised as gunnery officers while Ashmore specialised as a communicator. During that time, they saw the sacrifices and devotion of the long service professionals in the first, dark years of the war. Then the ten fold expansion of the Navy with inexperienced and untried 'hostilities only' personnel who soon showed, despite their initial lack of knowledge, that they were quick to learn and eager to be led.

Synnot and his fellows were, I think, convinced of three things. First, they saw the absolute requirement for a core of professionalism whose standards are of the highest, as the centre of an effective Navy. Second, they understood the importance of every individual in achieving the aim, and third, they recognized the dependence of the whole upon personal example and leadership from the Command. All of Synnot's outstanding career, and not just his seagoing record, indicate how closely he adhered to these beliefs.

Synnot started as Chief of the Australian Naval Staff with one remarkable advantage. He was one of only two men who can claim the distinction of having led

not one, but two navies¹ as a Captain and Commodore, Synnot served as Captain of the Navy and then Chief of Naval Staff of the Royal Malaysian Navy (RMN) from 1962 to 1965. Although marked by bitter personal grief, this posting was invaluable

to Synnot because it required him to operate at a much higher level of decision making and in a much more complex environment than others of his rank could experience. He succeeded admirably and helped shepherd the young RMN onwards



¹ The other was Admiral Sir Edward Parry KCB, RN, who was First Naval Member and Chief of the New Zealand Naval Staff during World War II and later served as Commander in Chief of the Royal Indian Navy after India's independence.

from its small core of personnel and its tiny fleet of ships towards becoming a balanced and effective force that would provide the independent maritime capabilities that

Malaysia would need. Malaysia certainly appreciated the fact that the RAN sent some of its best officers to assist the RMN during these early years, but it is also true that Synnot's tact, judgement and energy were all essential for and integral to his success. But much of his later success would have flowed from him having gained experience in the complexities of decision making at this level of the organisation. This was a life changing experience.

Many, if not most of the achievements of a CNS are not apparent from the bald record of his time in office. It is easy to give credit to an incumbent for the orders announced by Government for new ships and systems. But the reality is more often that such orders have been the product of many years of assiduous activity within Defence, and that the true accomplishments of a particular officer, and those who worked with and for him, lie far ahead in their realisation and subsequent recognition.

eventual products of that effort. But it was to take a considerable reformation of dockyards and industry, of a type not within the control of Navy, before they entered service well over a decade later.

Some 20 years or so later, we still have some lessons to learn about industry and its inter-relationship with a Navy that is suitable for Australia.

Many projects were plagued by cost increases, which had to be contained within a budget that did not match the rate of inflation or cost escalation. Mine warfare was a particular source of concern. But there were successes. Much of the work behind the Submarine Weapons Update Program for the Oberon Class was undertaken during Synnot's tenure as CNS.

A considerable amount of Synnot's energy was devoted to a cause that was eventually lost; the quest for a replacement for the aircraft carrier *Melbourne* and the renewal of the fixed wing Fleet Air Arm. The full story of that quest has yet to be

***Synnot engendered within the Navy and amongst
its leadership an increasingly sophisticated
understanding of the decision-making processes
within our system of government and administration.***

Synnot became CNS at a difficult time for the Navy and, although I think that every CNS and Chief of Navy would claim that they held office during a 'difficult time' for the Service, it was particularly true for him. The economic effects of the first oil crisis and the wages explosion were perennial issues during the mid and the late 1970s. Industrial policy, industrial relations and the pace of technological change were all problems that seemed to defy resolution. The construction of sophisticated warships in Australia, for example, had already received a body blow with the cancellation of the Light Destroyer Project. The Navy made strenuous efforts to recover, viewing the United States-built FFGs as very much an interim effort while a renewed in-country shipbuilding effort was undertaken. The fifth and sixth FFGs, the Australian-built *Melbourne* and *Newcastle* were the

told. But, given the depth and intensity of the opposition in many quarters to the concept of fixed wing carrier aviation, it is a tribute to Synnot's administrative and negotiating skills that the carrier project proceeded as far as it did. It was one of his bitterest disappointments that, after his retirement, the decision to abandon the project and end operational fixed wing flying in the Navy was taken by Government.

Nevertheless, part of Synnot's legacy was the way in which senior officers who had served closely with and under him set about recovering from the loss of the aircraft carrier. They reoriented the Navy in the directions that it had to take to remain a credible maritime force in the future.

There were two reasons for this. First, by his approach to planning and staff work, Synnot engendered within the Navy

and amongst its leadership an increasingly sophisticated understanding of the decision-making processes within our system of government and administration. The second, and something which should be apparent from the list of activities and concerns which I have given you, is that Synnot always understood the requirement for a balanced fleet. For a navy which had a sufficient mix of capabilities to deal with the unexpected, and to present government with real options. The fact that the Navy recovered so well, and so quickly, from such a telling blow must owe much to his legacy.

This brings me to another set of qualities that Synnot possessed in outstanding measure. Despite his enthusiasm for *jointness* and his firm belief that the three Services, in his view the Defence organisation had a long way to go in achieving the appropriate degree of joint integration and co-ordination. He did not wholly agree with the form and fashion of many of the changes in the Defence Department. These saw the abolition of the Service ministries and the creation of a complex committee structure within a much more centralised organisation.

But he was not about to tilt at windmills. Over the following decade, Synnot set out to master the new processes which had come into being, to turn them to best effect and, by degrees, to achieve improvements in both system and - perhaps most importantly - relations between the military and public service arms of Defence. This remains a central requirement for any CN. Good working relationships between the two quite different cultures are essential. Synnot was always courteous, patient and thoughtful. He mastered his briefs and brought a remarkable combination of hard won experience, intellect and judgement to the Committee table. Synnot's approach was not adversarial, although he could be scathing of a poorly prepared or muddled argument, he sought to achieve the solution by consensus by calm, systematic effort. He did much, in particular, to evolve the office of Chief of Defence Force Staff.

As much as any formal amendments to his powers and terms of

reference, it was his collegiality and readiness to consult and discuss, that assisted in making his office a very much

The Naval Career of Admiral Sir Anthony Synnot

- ◆ Born on 5 January 1922, near Corowa, New South Wales.
- ◆ Educated at Geelong Grammar.
- ◆ Joined the Navy in 1939 as a Special Entry Cadet Midshipman.
- ◆ In 1940-45 served in HMA Ships *Canberra*, *Stuart* (Battle of Matapan and the evacuation of Greece and Crete - Mentioned-in-Dispatches), *Quiberon* and HM Ships *Barham* and *Punjabi* (onboard when sunk).
- ◆ In 1945 qualified as a Specialist Gunnery Officer at HMS *Excellent*.
- ◆ Following WWII commanded the destroyers *Warramunga* & *Vampire*.
- ◆ 1962-65, Captain of the Navy and then Chief of Naval Staff of the RMN. Awarded the Order of Chivalry 3rd Class, Johan Mangku Negara, 3rd Grade of Darjah Yang Mulia Pangkuan Negara.
- ◆ On return to Australia attended the Administrative Staff College at Mount Eliza.
- ◆ Commanded the troop transport HMAS *Sydney* that took troops and supplies to Vietnam.
- ◆ In 1967 took command of the aircraft carrier HMAS *Melbourne*.
- ◆ In 1968 attended the Imperial Defence College in London then returned to Australia where he was appointed Director-General Fighting Equipment.
- ◆ Promoted to Rear Admiral in 1970 and appointed as Chief of Naval Personnel.
- ◆ In 1971 became Deputy Chief of Naval Staff.
- ◆ In 1973 became Fleet Commander.
- ◆ In 1974 became Director Joint Staff.
- ◆ In 1976 promoted to Vice Admiral and became Chief of Naval Staff.
- ◆ In 1979 promoted to Admiral and became Chief of the Defence Force Staff.
- ◆ In 1982 retired from the RAN and became Chairman of the Council of the Australian War Memorial before relinquishing that position in 1985.

more influential and powerful one by the time of his departure, than it had been when he started.

Synnot kept his own counsel, but he was neither introspective nor a centraliser by nature. In fact, he delegated willingly, and those who won his trust and confidence found him a loyal and resolute supporter. Nevertheless, Synnot realised very early on that his effectiveness within the Defence organisation depended very largely upon the trust that he engendered at the most senior levels of the Department and the Government. Such trust was absolutely dependent upon his ability to keep secrets, even when he did not necessarily agree with the direction policy was taking or a decision which had been reached. Sometimes he simply could not tell even his immediate subordinates everything that they wanted to know - and even more often, he had to be highly circumspect in what he told the Navy at large. That he still engendered absolute confidence within the Service in his judgement, and in the way in which he was leading the Navy, speaks for itself.

I think that I will close with that point, because it was the quality of Synnot's leadership, a leadership which was as effective within Navy Office as it was at sea, which made him a man to be admired, to be studied and to be emulated. In many respects he set the course and marked the way with those attributes that the most senior leadership of the modern Navy and the ADF must possess.

He would be well pleased with the aims and the form of the Joint Service Command and Staff College and equally pleased with the quality of its staff and its inaugural student body.

Christopher Wren's memorial in the Cathedral of St Paul's reads 'si monumentum requiris, circumspice' - 'if you seek his monument, look around you'. I think those words apply just as aptly to Sir Anthony Synnot on this cold Canberra morning in Weston Creek.

Thank you for your attention.

JOURNAL OF THE AUSTRALIAN NAVAL INSTITUTE STYLE GUIDE

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- In electronic format (e-mail or disk); letters to the editor will be accepted in any format
- In MS Word; and
- 250-400 words (letters and illumination rounds), 1500-2000 words (smaller articles) or 3000-5000 words (feature articles).

Photographs and diagrams are welcome. Please supply originals or electronic copies.

Editorial Board's e-mail: a_n_i@bigpond.com.au

EARTHQUAKE RELIEF IN TURKEY: A RAN Officer's Experiences with the Royal Navy's 845 Squadron

By

Lieutenant Brad Mackay, RAN



In February 1998 I was posted from 723 Squadron at HMAS *Albatross* to Royal Naval Air Station Yeovilton, in south west England. I had to complete the Advanced Flying Training and Operational Flying Training at 848 Naval Air Squadron (NAS) on the Sea King before being posted to 845 NAS in November 1998. 845 NAS, one of the 'Junglie' Squadrons, flying the Sea King Mk 4 and was at that time involved in operations in Bosnia and amphibious operations on the new helicopter carrier, HMS *Ocean*. The 'Junglie' Squadrons received this name following their successes in Malaya in 1955 and Borneo in 1964, and are currently painted either green or green with white zebra stripes.

Aircraft Capability

The Sea King Mk 4 has had modifications incorporated into the airframe so that it can perform its main role, that being to support the Royal Marines (RM). These include replacement of all internal equipment with seats, avionics to support all weather/day/night capability, sand filters, missile protection and warning systems, and appropriate personal protection for the crew.

The Sea King's greatest asset is its large internal lift capacity. The maximum number of personnel that can be seated for passenger transfer is 21. However, when operating with the RM two fighting elements (each of 8 passengers with full

pack and fighting order) can be seated with an aircraft endurance of one hour.

Notwithstanding the fact that the Sea King is highly capable, it is imperative that aircrew training is of the highest standard to ensure that the aircraft can be operated in all conditions as a versatile amphibious utility asset. Although having the ability to operate in a single pilot capacity, most operations are conducted with two pilots and one aircrewman.

Background

On 17 August 1999 an earthquake struck near Izmit (80km south east of Istanbul) measuring 7.4 on the Richter scale, killing tens of thousands and displacing some 250,000 civilians. This created headlines worldwide and involved several thousand rescue workers including 2,000 foreigners.

On 12 November another earthquake hit near Duzce, about 80 km east of Izmit. At this time *Ocean* had completed an exercise near Izmir in western Turkey before berthing in southern Turkey at Marmarus early on 13 November. I was lucky enough to be selected as a pilot of one of the two aircraft tasked to meet a C-130 Hercules at Izmit, and then to fly to Duzce to provide support during the rescue effort.

Relief Work – 13 November

After arriving at Izmit Military airport late in the afternoon we waited for the C-130 to arrive. We hadn't received a detailed



Duzce after the earthquake

briefing except that it would arrive about 1700, so we proceeded to plan refueling requirements and prepare for night flying. Although finding communication difficult, we received excellent support from the ground crew, and I was further impressed with their hospitality.

Once the C-130 arrived we assessed the load weights and determined that two lifts would be required for the personnel and equipment. The C-130 also contained a couple of vehicles plus several dogs that were transported by road.

We departed at approximately 1930 on Night Vision Goggles to Duzce and found that it was quite dark and smoky. At this time of the year it was incredibly cold and as the earthquake had cut off the distribution of electricity, thousands of people too frightened to sleep indoors, camped outside and resorted to living in tents using fires for warmth.

On arrival in Duzce we orbited the soccer ground several times to determine an appropriate place to land. With the light levels and smoke it was very difficult to appreciate the terrain and as we approached we noticed several body-bags rolling around in our down wash before landing. In

addition, to complicate the approach there were several other aircraft positioned in the field. We embarked the passengers and equipment before proceeding on our second lift. The second approach was easier after identifying landmarks on the first approach.

After shutting down we found out that there was no fuel in the vicinity because the roads were cut off, and that the only fuel available was at Bolu airport, approximately 20km east of Duzce. We also discovered that the Relief Headquarters (RHQ) was located just outside the soccer grounds. They were quite busy at that time and we found that notifying them of our arrival was all that was required. There appeared to be limited security at the grounds so we opted to sleep inside the aircraft.

During the evening I was woken by the rocking motion of the aircraft and immediately thought that it was caused by people trying to wake us up. There was a loud groan, then crashing of buildings and screaming. I was then aware that an aftershock had occurred which I later found out was a magnitude of 5.4.



The Duzce soccer ground with Sea King, Blackhawk, Super Puma/Cougar & Iroquois. Photo: LEUT Mackay.

Earthquake Relief – 14 November

The visibility the next morning had been reduced by fog to less than 100m and as we couldn't fly we decided to go to the RHQ again. This was the most amazingly disordered place that I have experienced. The Turks were trying to control rescue personnel whom were speaking in several languages including Turkish, English, Swedish, Greek and Dutch. Everyone was trying to express what experience and personnel they had available and what they could do.

What I understood from the operations was that the city and surrounds had been divided into areas. Each area had been allocated a Search Team tasked to locate survivors trapped in the rubble. Once people were located they were then prioritised using their chances of survival, effort to extract them and availability of Rescue Teams. This meant that a large proportion of people would survive rather than concentrating the relief effort on the few. It was ironic that even though some people were trapped in rubble on the opposite side of the street to the RHQ they weren't extracted until two days later.

The Search Teams consisted of dogs and their handlers whilst the Rescue Teams were varied in their equipment ranging from earth diggers to portable extraction equipment.

After negotiations with RHQ we were allocated a Turkish Officer to control the helicopter activity in the soccer field and proceeded to liaise with him directly. This was incredibly easy from our perspective as we were removed from the level of planning where it was difficult to express our requirements and capacity. We gave our Liaison Officer an estimate that we could comfortably carry about 16-20 people and left to have a brief look around the area.

At about 1000 we were tasked to lift, but were then informed that the Turkish Government was temporarily stopping all flying. This decision was taken because of difficulties with communications and control of operations. After several false starts we proceeded to fly both the Search and Rescue teams to their locations. All we required was a chart/map position for the drop off, where fuel would be located and about twenty minutes to brief each Team.



An embarked search team comprising 12 personnel & 6 dogs.
Photo: LEUT Mackay.

We were all shocked once lifting from the soccer ground that within one kilometre was a 1000ft mast that wasn't marked on our maps nor lit due to there being no electricity. It certainly made me feel sick that we had flown rather close to it on several occasions the previous evening.

The devastation from the earthquake was almost complete. If houses or apartments were still upright then they were only just. Most buildings were too damaged to be safely inhabited and it seemed that the building standards had either been neglected or ignored by contractors.

Inevitably perhaps authorities struggled with the coordination of such a large operation. Unfortunately we performed several lifts of search teams and they would arrive at an area and then be told that they weren't required or that the work had finished. Despite this we flew both day and night and worked the aircraft to its maximum limits.

Earthquake Relief – 15 November

Coordination of the relief effort improved by the morning of 15 November. We were promptly tasked. I believe that the RHQ were also impressed with the Sea King's lifting capacity as we appeared to be tasked more than the other aircraft including Blackhawk, Iroquois, Hip and Super Puma/Cougar.

Although being tasked quite heavily, I was quite surprised with a direction given to us from the British, call it a moral dilemma. We were required to conduct an area familiarisation with a BBC crew in order to film the British aircraft undertaking the rescue relief. My concern was that whilst the BBC crew was onboard those seats could have been filled by either Search or Rescue Teams. Although I fully understand the requirements for public relations and dissemination of that information for future funding/donations, it was difficult to comprehend first hand why the welfare, or perhaps lives, of civilians are placed second.

Late in the afternoon we were informed that another crew, including the Commanding Officer, were arriving at Izmit and we would have to return to meet them. Due to the maps and limited amount of fuel available it was important to conduct a hand over of the situation. Once the hand over was conducted the second crews continued with the relief work early the next morning.

Earthquake Relief - 16 November

The second crew returned late in the afternoon as the roads had become open and that tasking would involve the use of road transport from now on. There was also limited fuel available for the aircraft. It was decided by the CO to complete our operations and then to meet the ship on 17 November in Istanbul Harbour.

Thoughts and Lessons

I believe that several valuable points should be considered before commencing such an activity. Firstly, the performance of an aircraft must include both a NVG capability as well as having the capacity for a large internal load. Conventional night flying in this case was impossible due to the smoke, lack of available lighting and lack of immediate communications with the ground.



HMS Ocean with Sea King Mk 4s on deck. Photo: RN Official

Navigation without visual reference to the ground, and with limited aids, would have been almost impossible in this case. In addition, a medium lift helicopter with a substantial internal load capacity was essential. The soccer ground would have been too difficult for heavy aircraft operations as it was both confined and congested. The Sea King's size and performance were perfect for this role.

Secondly, the relief work required the aircraft captains to both make decisions normally reserved for flight authorisers as well as undertaking aircraft servicing in the field. I believe that the devolution of flight authorisation to the level of the aircraft captain was essential in this case. This allowed the aircraft captain to undertake the rescue operations without any restrictions, only the guidelines associated with that level of responsibility. In addition, to facilitate the continued availability of the aircraft the aircrew conducted limited servicing on the soccer ground. This was also essential in ensuring that the aircraft was available for the longest period prior to a major scheduled servicing.

Thirdly, up-to-date flying charts are essential in any area of operation. It was not

only the mast that may have caused problems in this case, but also high-tension power lines. Specifically, we were required to operate below 200 feet day/night to remain in sight of the ground, and most high-tension power lines are about 250 feet, obviously creating a problem.

Finally, the ease of which communication can break down. I was surprised that the cultural differences between countries above all else can create a burden for communication. In this case it was important for us to be provided with one point of contact with which we could express our requirements.

About the Author

Lieutenant Mackay joined the RAN in 1995 after transferring from the RAAF. He completed Pilots Course in 1996. He has served in both HC 723 (Kiowas) and 845 NAS (Sea King). During his two year exchange tour he flew in Bosnia, Turkey, Greece and Egypt. He is currently on the staff of the Australian Defence Force Academy and will undertake Test Pilots Course in 2002.

A NEW RAN FOCUS FOR THE PROTECTION OF SHIPPING



*by Lieutenant A.M.W. St.John-Brown, RD, RANR
and Lieutenant M.K. Lobley, RANR*

In the last edition of the ANI Journal, Professor Geoffrey Till wrote on the 'Changing Focus for the Protection of Shipping'. In response Lieutenants Andrew St.John-Brown and Michael Lobley write on recent RAN developments for the protection of shipping.

The protection of trade has been an essential part of naval strategy since the Greeks and the Romans convoyed their ships as protection from pirates. Modern Naval Control of Shipping (NCS) reached its height during the Second World War, the British Admiralty having well remembered the horrendous losses of shipping until NCS and convoying was implemented late in the First World War. The bulk of wartime NCS personnel was drawn from reserve officers (a crucial port such as Liverpool had over 2,000 NCS officers) and today NCS remains an overwhelmingly reservist role in the world's navies.

After the war NCS lay moribund until NATO reviewed its reinforcement and resupply (RE/RE) strategy in the 1960s. This revised strategy also used reservists who could be mobilised in ports and headquarters in an escalating scenario in which NCS rapidly moved from an advisory and monitoring function to the compulsory

control of merchant shipping. Ultimately, the speed which RE/RE could be achieved would determine the point when a European war might require a shift into tactical nuclear weapons to stem the anticipated Soviet tide.

While the RAN NCS Organisation worked and exercised according to NATO doctrine, the doctrine was never really capable of implementation in Australian waters because of the lack of legislation to 'control' shipping. As a result, the RAN developed a revised strategy in the 1990s of Regional NCS. This included monitoring of potential threats within the region and upon information gathering/dissemination to command and the maritime industry. Some influence on shipping activity might be exercised in a very limited form but increasingly, the word 'Control' in NCS became an anachronism.

While the doctrine had changed its practice remained largely the same. NCS

personnel closed up for regular exercises in the Maritime HQ and in ports around Australia and the region. Merchant ships were boarded and details obtained of the ships' characteristics, passage plans, cargo etc and these were reported to MHQ. This provided command with a better plot on maritime activity but the information was rarely considered vital to the plot.

Overwhelmingly, NCS remained a background activity and capability and was rarely seen as integral to operations. However, this fundamentally changed as a result of the East Timor experience.

The East Timor Experience

The paradox of the East Timor experience is that NCS did not become involved at the request of the Navy nor in its briefing and monitoring duties. It was luck that NCS could be so rapidly activated having been closed up for Exercise CROCODILE 99 for which a NCS team was established at Darwin – just as Operation WARDEN (as it became) was winding up. In fact, it was at the request of the Joint Movements Control Centre (JMCC) at NORCOM, not the RAN, that NCS became operational for the first

Customer	Services
Strategic Level	
ADFHQ/CDF	<ul style="list-style-type: none"> • Formulation of strategic level doctrine and policy. • Australian Representation on international NCAPS working and planning groups.
DCN	<ul style="list-style-type: none"> • Advice on Australian Maritime Defence Council issues on NCAPS capability.
Theatre Level	
COMAST	<ul style="list-style-type: none"> • Formulation of theatre level doctrine and policy. • Advice to Program of Major Service Activities Planning Group concerning NCAPS participation in planned activities. • NCAPS advice to theatre level planners. • Advice to theatre level planners on NCAPS objectives in Tier 1 to 4 activities. • Representation on NCAPS matters at exercise planning meetings.
Operational Level	
NCC	<ul style="list-style-type: none"> • Support to operations and exercises. • Maintenance of a network of Australian Maritime Industry (AMI) contacts. • Advice on issues concerning the AMI. • Liaison with the AMI for operations and exercises. • Representation on Pacific-Indian Ocean Shipping Working Group.
COMNORCOM, DJFHQ	<ul style="list-style-type: none"> • As tasked, support to operations and exercises.
IJMOVGRP	<ul style="list-style-type: none"> • Advice on military employment of commercial shipping.
External	
Australian Maritime Industry	<ul style="list-style-type: none"> • In peacetime – information on ADF plans for response to crisis affecting shipping. • During time of crisis - advice on the likely impacts on shipping of threats at sea, the planned ADF response and cooperation required to enable protection of shipping.

time since 1945.

The JMCC acted as a focal point for all airlift and sealift matters in support of operations in East Timor. It seems ironic that RAN NCS expertise in the mercantile industry as pilots, harbour masters, Lloyds inspectors, port corporation managers etc, had been better recognised by logistics strategists in the Army and Air Force than by naval ones. NCS advice was extensive; from port infrastructure and logistics, industrial relations and practices, chartering, tasking, to cargo loading/discharging, insurance and communications.

East Timor showed that NCS expertise was an important factor in combined operations as well as to maritime operations. It also showed that the expertise and function of NCS could be wider than the original monitoring and briefing role. Additionally, the emphasis changed to one of data collection and appreciation to that of

experience has rapidly grown and NCAPS' profile improved thought the RAN and the ADF, its list of customers and the demand for its services has lengthened and broadened as can be seen by the table above.

To meet these tasks NCAPS reviewed and restructured its training program, its management structure, its personnel profile and develop new doctrines and a business plan. This was major commitment and achievement for a small group of reservists spread across Australia and was accomplished within a few months.

Meeting the Challenge

The collective and individual challenge for NCAPS specialists remains large. NCAPS members had to shift from the annual exercise regime to a day-to-day operations support regime. This required a significant change in attitude as well as in time commitment. Apart from primary

East Timor showed that NCS expertise was an important factor in combined operations as well as to maritime operations.

maritime industry advice and information for operations managers and planners. NCS gained new customers for its services and was asked to do a different and bigger job that it had been designed for, and for the first time in over 55 years, did it full-time.

Control becomes Coordination and Protection

In July 2000, the national NCS Management Team met in Canberra at the direction of the Chief Staff Officer (Operations) of the Naval Component Command at MHQ. The meeting's task was to devise new management and training strategies and plans to meet a new operational requirement of 'Naval Coordination and Protection of Shipping' (NCAPS) which removed the concept of 'Control'. This new role was to be full-time and, uniquely in the RAN, entirely staffed by reservists.

NCAPS was no longer focused upon exercises and scenarios but upon 'real world operations' in the Asia-Pacific region. As

qualification training, NCAPS members must also be qualified (and in date) in port-level liaison operations and management, maritime industry awareness, HQ systems and procedures, joint operations and planning and be sea-service qualified for NCAPS support afloat. This must be accomplished within a tight budget and, typically, only 10–15 days annual military leave per member.

The support of the NCC and senior officers of the Operations Department has been crucial to the integration of NCAPS as a new sub-department. A constant rotation of part-time members posting in and out for short periods requiring passes and security clearances, travel and accommodation has tested support and administrative systems. However, the experience has brought home to many – ANR and Permanent Naval Force – that the integrated RAN no longer comprises 'casuals and permanents' but a mixture of full-time and part-time regulars.

Summary

NCS/NCAPS has moved from an obscure role required only for major conflict to one that is important to the daily operation of an effective command structure. Its clients have increased from Navy to tri-service and the services and products demand of are greater and in constant demand.

Professor Till wrote that "*navies pay much less attention to the fourth arm of defence than they used to*". As a part of the traditional concept of power projection this statement may be valid but those navies who look to a holistic strategy for the protection of trade must look beyond mighty warships. Strategists need to look at how their entire defence forces interact and depend upon the maritime industry – ships, stevedoring, agents, port infrastructure, business and statutory agencies etc – and for that they require experts with both naval and maritime trade knowledge, skills and experience.

The RAN has moved swiftly and decisively to develop an embracing strategy for the protection of its trade using resources that have been present – largely unsung and unnoticed – for many years. Recent maritime strategists have tended to focus only upon the physical protection of trade through fleet activity – Australia has looked beyond and, perhaps, relearned, old notions

of trade protection. Professor Till remarked that *Australian Maritime Doctrine* had little to say on the protection of trade. However, those who see and work beyond the old concepts understand how profound have been the new changes to the protection of Australian trade and to its bringing "*safely home*".

About the Authors

Lieutenant Andrew St. John-Brown joined the RANR in 1995 after seeing service in the UK in the British Army and Royal Naval Reserve. He is a contributor to the ADF Centenary History and is completing a doctorate on RAN-RN Relationships: 1942-1945. In civilian life he is Deputy Academic Registrar at the University of New England.

Lieutenant Michael Lobley joined the RANR in 1994 after 16 years in the maritime industry. Sailing under Australian, New Zealand, Panamanian and British flags, he gained experience in the major shipping trades of bulk, tanker, offshore supply and container. As a qualified Yacht Master he has completed 30,000 miles under sail, including square rig. Currently he is an onboard manager with QANTAS cabin crew.

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Shiphandling Corner

By Commander Ray Griggs, RAN

As part of the to re-invigoration of the ANI Journal the once popular Shiphandling Corner has returned to the Journal's pages. I have been asked by the Council to run this Column, which of course, as the only navigator in the room at the time, I was delighted to accept.

In thinking about this task, the number of new classes of ships that have been introduced into service in recent years appears to provide a logical starting point for this re-invigoration and a rich source of interesting subject matter.

Over the coming editions I hope there will be articles on shiphandling in the LEEUWIN, HUON and KANIMBLA Classes. In this edition however we start our look at new classes of ship with the Anzac Class frigate. I am indebted to a number of past and present Anzac Class CO's for their input into this edition, in particular Commodore Matt Tripovich, Captains Greg Yorke and Steve Gilmore and Commander Richard Menhnick. Their input has ensured I was not working off my own now dated knowledge of this very flexible ship.

I am conscious that the original intent of this section of the journal was not to reproduce navigation school handouts or extracts from the relevant Navigation Data Book.

As such I will be asking contributors to focus on the unique, the interesting and hopefully even humorous aspects of shiphandling in these classes of ship. If anyone is interested in providing a shiphandling overview of ships from years past that would be most welcome, I am sure there are a wealth of stories still out there waiting to be told or re-told.

Of course contributions do not have to be major exposes on a particular class of ship. Any contribution of a shiphandling experience, positive or less so, recent or otherwise, mythical or documented, would also be greatly appreciated. These pieces can be as short as a couple of hundred words. Any feedback or suggestions would of course be gratefully received. For any further information I can be contacted via email at 01a@f151.navy.gov.au (from 12 October 2001) or via mail through the institute's postal address.

Shiphandling Aspects of the ANZAC Class



This article has been compiled from a number of sources in an attempt to provide the most up to date shiphandling perspectives about the Anzac Class FFH.

While it is important not to lose sight of the fact that the FFH is not that dissimilar to either a DE or DDG in the basic way she behaves, there are some differences that make it worthwhile examining some of the shiphandling intricacies.

Even though the FFH have been in RAN service for over five years there is little harm in a quick refresher about the ship we are talking about. The basic shiphandling related facts are as follows:

- **Displacement:** 3600 tonnes
- **Length:** 118 metres
- **Beam:** 14.8 metres
- **Draught:** 4.5 metres
- **Ships Company:** 164
- **Propulsion Plant:** CODOG - One General Electric LM 2500 gas turbine and two MTU diesels driving two shafts with controllable pitch propellers and a single rudder.

Flexibility is the key to the FFH propulsion plant. The LM 2500 turbine was designed for sprint operations and delivers a maximum speed in excess of 27 knots (gas turbine operations are conducted in GT mode). The two MTU diesels deliver around 20 knots at full power and are used for the vast majority of the time (this is termed Diesel Engine or DE Mode). The cross connect gearbox which facilitates the CODOG configuration will allow either the LM 2500 or a single MTU to drive one or both shafts. However, the LM2500 is generally never used to drive a single shaft due to the risk of over touring.

A single MTU driving both shafts will allow the ship to reach around 12 knots, this is known in FFH parlance as Economy (or ECO) Mode. The big advantage of single MTU operations (apart from fuel economy and extended range) is of course the reduction in radiated noise and the subsequent enhancement in the ship's Undersea Warfare (USW) capability, particularly with a tail deployed. Ship radiated noise can be further reduced by entering Silent (SIL) Mode, which despite the further speed limitations this brings with it (around 6

knots), the FFH becomes a even more stealthy platform for passive USW surveillance.

The whole machinery plant is controlled by the Control and Monitoring (or C&M) system. The C&M system has a significant number of measurement points of all key parts of the propulsion, power generation and distribution, auxiliary and damage control systems. It permits remote operation of a wide range of equipment in the unmanned machinery spaces with only three MCR personnel closed up. Changing modes is a fairly straightforward evolution and while it does require steady revolutions for the period of the transfer, this rarely takes more than 90 seconds to achieve.

The LM2500 and MTU diesels are contained in separate engineering spaces and further, are all housed in separate containers which reduces the risk of the spread of fire and assists in survivability.

The flexibility in the plant has significant *get home* advantages. In *Anzac's* initial sea trials in 1995 for example the ship entered Port Philip Bay with one MTU driving the opposite shaft due to equipment defects sustained during the rigorous trials process. In any other ship in the RAN, the ship would not have been able to enter confined waters under her own steam.

The most obvious difference from a design perspective in the FFH is the screw/rudder configuration. In recent years most, if not all, of our twin screw frigates and destroyers have also had twin rudders positioned directly astern of the appropriate screw (I would appreciate any examples of unusual configurations the RAN has had in the past and your experiences with them). In the main the screws have been outward turning. In a FFH the screws are inward turning, the propellers controllable pitch and only a single centreline rudder is fitted.

The most immediate impact this has is that the ship is more sluggish at slow speed (less than 5 knots) and at least 20° of wheel is required to give effect to minor alterations of course. While this is common in all ships with very little way on, it is more pronounced in a FFH than in comparable size ships.

When going ahead with adequate way on however, the ship steers well, the inward turning screws providing the necessary wash over the rudder. The debate over the screw and rudder configuration, and the associated paddlewheel effect is interesting, assuming of

course that propeller action is a topic that captivates you.

For the average shiphandler the amount of turning moment which can be contributed to the fore and aft thrust versus the sideways forces of the screws is of no consequence. As long as there is a turning moment that allows the ship to be turned at rest then what else matters? In the FFH turning at rest is, in the final analysis, like any other twin screw ship – engines opposed and full rudder; slight headway will of course assist the process considerably. The ship is just a little less responsive – it has been described by one FFH CO as like manoeuvring a DDG stuck in mud!

When the ship is making sternway however, her manoeuvrability is more problematic. In all but the most benign conditions the stern will aggressively seek the wind. Above about 15 knots of breeze even opposing the engines and using full rudder is unlikely to halt the march to the wind.

Having a controllable pitch propeller is nothing startling these days but it does mean that you have to at least consider what is happening when you bring an engine to 'Stop'. FFG shiphandlers are well versed in the effect of the spinning disc; most FFH shiphandlers tend to avoid stop and go from ahead directly to astern and vice versa. Rather than keep an engine stopped for prolonged periods of time, a small amount of power is applied (3-5%) as appropriate.

An important design issue in the ship is that the gas turbine was only planned for around 300 hours use a year and the diesels for the remainder of the ship's operating profile. The rationale behind this was linked very much to through life maintenance and cost considerations rather than operational ones. Marine diesels are of course best used at constant (nearly full) load. This works well in merchant ships and larger auxiliaries where frequent speed changes for station keeping are not required as often. Marine diesels are susceptible to thermal stresses and overload during these regular and short changes in power. If these stresses are ignored, the result is of course increased wear, maintenance, downtime and costs.

To overcome the potential limitations in using marine diesels, all FFH shiphandlers have to be aware of the loads that the engine has been under. The recent load history will classify the engines as either cool, warm or hot. Depending on how the engine is classified will dictate how



quickly and by how much power can be increased. While this sounds like a significant limitation planning on the shiphandler's part easily compensates for it.

Engine orders are given in percentage terms of full power for the Gas Turbine (ie. 27 knots). For each different recognised C&M system mode there are specific ranges that can be set on the Power Control Lever (PCL). When using both diesels (in DE mode) for example, full power is approximately 73% of the maximum speed in GT mode. This then is the maximum setting that the C&M system will recognise. The maximum astern setting on the PCL in all major modes is 50%. This does not mean that it is only half of available astern power but that it would equate to an astern speed of about 13.5 knots. An order outside of the prescribed range for the particular mode (eg.

Ordering Both Engines ahead 95% whilst in DE mode) will have no adverse impact as the C&M system will set the correct limit.

The format for engine orders is 'Port/Starboard/Both Engines Ahead/Astern xx %'. The only trick to remember that an astern % will give about half of the effect of an ahead one. To turn at rest for example one might order 'Port Engine ahead 10%, Starboard engine astern 20%, Starboard 30'. This will roughly balance the forces and slight adjustments are then easily made.

One of the key differences between the DE/DDG and the FFH is the impact of considerably more 'sail' area (the hangar being the largest contributor) and the comparatively shallow draught. Windage becomes a major planning consideration, particularly when the sluggish rudder performance is taken into account at slow speed.

Like a DDG the FFH's flared bow can lead to the shiphandler being deceived and pulling up short and wide of the berth; only experience can overcome this one.

Replenishment operations are fairly straightforward although there are two clear points of view on whether a FFH should RAS in GT mode. Regulations permit a RAS in either DE or GT modes. For me the redundancy issue is foremost and my preference is for DE mode. The key issue is one of relative speed - if the RAS speed is 13-15 knots then it is unlikely that a FFH will achieve a speed differential of more than 5-6 knots during the approach. This of course increases the time spent in critical interaction zones. This risk can easily be mitigated by a more prudent and wider approach. It might not be as macho, but the result is the same. I certainly view GT mode for a RAS as a backup mode only. At least the ship has such a flexible plant to allow this discussion to take place at all.

The Anzac Class frigate is still a delight to handle, as much for its challenges as its handiness. The shiphandler must have a thorough understanding of the ship's systems and design to handle her smartly - and that can't be a bad thing.



THE LAST RAN STAFF COLLEGE ROCKER PRIZE ESSAY

Sea Control to Power Projection in the Littoral



By Lieutenant Colonel D.J. Fawcett

In recent years the Navy has developed a modest but capable amphibious capability to support Army littoral operations. In his prize winning essay Lieutenant Colonel Fawcett asks “can Australia afford to develop a viable power projection capability?”

The existence of struggles & uncertainties shapes the character & method of war¹.

The end of the Cold War brought hope of a global peace dividend whereby the universal reduction in armed forces would mark a new era of worldwide security and prosperity. As the shadow of superpower conflict has lifted, however, regional disputes based on national, ethnic and religious issues have flared around the world. In true Machiavellian fashion, countries such as the US and UK have placed an increased emphasis on the use armed forces to respond to these humanitarian and security concerns. For

naval forces in particular, this has resulted in a change of emphasis from sea control to power projection.

Australia's geographic isolation, often underpinning arguments for a reduction in defence expenditure, has done nothing to shelter it from the impact of this global instability. Events in the inner arc over recent years have demonstrated that regional tensions have the potential to descend into extreme violence at very short notice. The

¹ Machiavelli, N. *The Art of War*.

reaction of Australia's people and politicians to this violence has clearly shown that Australia sees itself as having a role to play in promoting stability and security in the region. Of note is the predilection of the Australian Government to use the defence force as one of the key elements to achieve the desired influence in its region.

In an era of changing security environments and shrinking budgets, the US and UK have looked to evolving cohesive national defence policy, including industry, in order to build and sustain viable expeditionary maritime forces. Australia's standing as a medium power calls into question its ability to sustain the scope of operations required by Government policy without a similar whole-of-government approach to a national strategy.

This article examines the viability of Australia incorporating a sustained expeditionary role for the ADF now, and into the next decade. In doing so, it analyses the maritime strategies of sea control and power projection in littoral regions and where applicable, draws lessons from other nations to assess Australia's strategic strengths and weaknesses.

Sea Control, Power Projection & Littoral Operations

Sea control is defined as:

*that condition which exists when one has the freedom to use an area of sea—including the airspace above, the sea mass and sea bed below—for one's own purposes for a period of time and, if required, deny its use to an opponent.*²

Admiral Stansfield Turner defined the purpose of sea control to vary from influence through coercion, to sea denial and ultimately to sea assertion³. The lethality and nature of force used to establish sea control would vary according to the context. Hence, in friendly coastal waters, operations would probably be carried out by perhaps maritime patrol aircraft (MPA) and surface raiders whereas control of sea lanes would involve attack submarines and destroyers. The level of force and balance of capabilities would

increase as the sea control task expanded into regional zones of influence.

The delivery of force from the sea is defined as maritime power projection. It can take the form of the landing of amphibious or special forces, the delivery of seaborne land forces or bombardment by guided or unguided weapons from sea based platforms. Turner likewise defines the power projection mission as varying from influence and coercion (by the simple presence of warships in the region) through limited attack to mass destruction. While strategists such as Julian Corbett and Admiral Raoul Castex saw the final role of navies as contributing to victory ashore, they also recognised that first establishing sea control was an essential task⁴.

A simple definition of the littoral is that area seaward of the coast susceptible to influence from the land, and that area inland from the coast susceptible to influence or support from the sea⁵. Contemporary definitions of littoral operations by the UK and US differ markedly from the amphibious landings of World War Two (WWII), in which the landing force would consolidate positions on and near landing zones before heading inland. These new doctrines call for continuous movement across the beach, employing the principles of manoeuvre warfare. Units based on maritime assets and operating from over-the-horizon, would coordinate sea and air arrivals at objectives that may be well inland or widely dispersed. Successful operations in the broader littoral battlespace require the ability to launch, sustain and recover forces from a secure sea base, which again, infers the requirement for sea control.

The Balance of Sea Control and Power Projection

While the US National Security Strategy and the re-issue of the UK *Fundamentals of Maritime Doctrine* has led to an emphasis on the ability to project power in the littoral regions of the world, it is important to note that neither the US or UK assumes to have

² Royal Australian Navy, 2000, *Australian Maritime Doctrine*, Defence Publishing Service, Canberra, p.39.

³ Till, G. 1994, *Maritime Strategy and the Nuclear Age*, 2nd Edition, McMillan Press, London, p.190.

⁴ *ibid*, p.40.

⁵ Royal Australian Navy, *op.cit*, p.154.

already gained control of the sea.⁶ In the tradition of Turner and Gorshkov, much thought continues to be given to the balance of maritime capability required to successfully underpin the diplomatic initiatives of government.

United Kingdom

The ability of most nations in Europe to conduct expeditionary warfare with a balanced maritime force had steadily declined since the end of WWII. The 1982 Falklands War however marked a turning point in late 20th century amphibious warfare. Two significant lessons from this conflict are the requirement to have sufficient maritime lift to deploy and support the expeditionary force and the importance of control of the air environment for both sea control and power projection.

The requirement for branches of the Services to enhance cooperation was also re-learned. The RN doctrine has therefore evolved to be primarily concerned with the application of maritime, as opposed to naval power. In order to carry out government policy for engagement, the RN Amphibious Squadron has been revived and a Joint Rapid Deployment Force constituted. This force is based on a Royal Marine Commando Brigade supported by the helicopter carrier, HMS *Ocean*.

Closer integration of British Army and RAF units with maritime forces has also been achieved through the creation of permanent joint-force structures. The individual Services retain their identities within the force, however, all benefit from joint training, logistic support and command of operations in both peace and war⁷.

The balance is completed with land based assets such as MPA, surface combatants including air warfare destroyers and integral task group aviation, both rotary wing (RW) and fixed wing (FW). The integral aviation has proven to be an essential national capability for both sea control and power projection during sovereign UK actions such as the Falklands War and during coalition operations such as UNPROFOR.

While the lessons of sealift for the UK were numerous, four are particularly relevant to Australia.

- First, that a large volume of lift is required to both deploy and sustain the expeditionary force. Whether this is provided by naval vessels

or from civilian ships taken up from trade (STUFT), the capacity must be on call to the government and at short notice.

- Second, that as a maritime nation, a viable national ship building industry is essential to be able to react in a timely manner to unforeseen contingencies.
- Third, other than for a completely unopposed sea transit of forces to a reasonably developed destination, port facilities are most unlikely to be available. The expeditionary force must therefore have sufficient small craft and RW assets to move the ground force ashore and to provide logistic support.
- Finally, sufficient land and sea based air power and surface combatants are required to ensure sea control over the sea lines of communications which are vital to both deploy and sustain the expeditionary force.



A possible design for the UK Alternate Landing Ship Logistic (ALSL)(RN Image)

Building on the successful integration of merchant vessels in the Falklands campaign, the UK has continued to benefit from the adaptation of civil technology through the use of civilian design standards in aspects of hull construction. HMS *Ocean* is an example of this program and for less than the cost of a frigate, has provided the UK with an amphibious support ship capable of embarking 800 troops with their stores, ammunition, integral transport and equipment⁸. The UK has also increased its

⁶ Frothingham, P. 1999, 'The Revolution in Amphibious Warfare', Surface Warfare Magazine, Sep Issue, p.2.

⁷ Robinson, C. 1998, 'Britain Shapes Military Forces for Maritime Power Projection', *SIGNAL*, Nov, p.18. This concept has most recently been demonstrated by units such as the UK Joint Helicopter Command.

⁸ Also embarked in *Ocean* are 18 support & attack helicopters, 4 landing craft & motorised pontoons to effect the ship to shore phase of the operation. While capable of embarking STOVL aircraft such as Harrier or the US/UK Joint Strike Fighter (JSF), *Ocean* is primarily designed as the

procurement, under a private finance initiative, of strategic sea lift vessels and Alternate Landing Ship Logistic (ALSL) vessels from four to ten to supplement the Joint Rapid Reaction Forces.

United States

The USN and United States Marine Corps (USMC) doctrine *Forward From the Sea* deals with the projection of power in the post-Cold War. While this may be seen as a new way of warfighting at the strategic level, that is the change in emphasis from sea control as the priority, at the tactical level, it is best viewed as an evolution of the current amphibious doctrine.

While the new doctrine does not totally discount the need for a forced entry over the beach (that is, the WWII model of amphibious assault),

concentrated striking power of air assets combined with amphibious ground forces. Such an expeditionary capability serves not only to reassure allies and to deter aggressors, but provides an ability for the US government to respond effectively to a wide range of contingencies. Indeed, between 1990-97, the USN responded to 93 regional crises⁹.

The US experience has also highlighted the need for sufficient sealift to deploy and support the expeditionary force. Considerable emphasis has been placed on the acquisition of a new amphibious support class, the Landing Platform Dock (LPD) 17, as the basis of a capability that cannot only transport ground forces to an area of operations but



An Air Cushion Landing Craft (LCAC) heads toward shore after leaving the well deck of USS Kearsarge (LHD-3) as another approaches to transport personnel of 26th Marine Expeditionary Unit (MEU) to the beach at Litohoro, Greece. The first wave arrived ashore in Litohoro in the early-morning hours to support NATO's peacekeeping mission in Kosovo. (U.S.N Photo)

the aim is battlespace dominance through the simultaneous application of a balanced force from a manoeuvrist rather than attritionist approach. This dominance includes not only the landward side of the littoral, but also the seaward. Sea control, while not the primary aim of the mission is again, an essential enabler. The ability to execute the strategy of peacetime engagement relies on the balanced,

simultaneously deploy a concentrated force by smaller vessels and RW. At a national level, the balanced force must be capable of simultaneously protecting the vessels providing the seabase for the ground forces and the sea lines of communication essential for sustaining the operation. Despite the massive US airlift capability, planners assume

amphibious support ships as the UK has approved the construction of two aircraft carriers to operate FW assets.

that 95% of logistic support¹⁰ for sustained operations will be transported by sea.

Europe

Governments of other nations are also changing national policy to be more pro-actively involved in maintaining regional security. This has led to the creation of expeditionary task forces such as European Maritime Force (EUROMARFOR), established by NATO in 1995 and the rapid reaction force (EuroForce) approved by the European Union in November 2000. Individually, nations such as France, Spain, Italy and the Netherlands are all expanding their maritime expeditionary capabilities. Despite the costs involved, this policy has been pursued as the ability to carry out power projection has an inherent deterrent value that can help to compensate for a smaller military. Of note is that while these enhanced expeditionary capabilities include surface combatants, amphibious vessels and logistic capability, they are all centered on a sea based aviation capability (both RW and FW) operating from conventional or STOVL aircraft carriers.

Summary

It follows from the discussion above, that where a nation decides to pursue involvement in its region in order to be able to influence security, it must have a cohesive national strategy and a balanced military capability.

As a minimum, national capabilities must be effective in gaining sea control whether the task is defence of the homeland or regional influence. Governments wishing to extend their influence to the region, even in a benign maritime environment, will have to supplement the fleet with amphibious assets. These must be able to embark a land force capable of dealing with the anticipated threat, and logistic elements to support it for the duration of the operation. Except where the maritime environment is totally benign and the threat to land forces very low, any expeditionary force must be deployed ashore in viable manoeuvre groups. This will inevitably occur by sea and air, which has implications for the size of vessels and accompanying small craft and helicopters. The fleet meanwhile, must also be capable of providing not only aerial fire support to the ground force, but also protection to the

combatant, amphibious and logistic vessels remaining on station.

Where Does Australia Stand?

Strategic Policy

While the emphasis is on Defending Australia (DA), actions in regard to East Timor, Bougainville and the Solomon Islands highlight that the Government response to a degradation in security is to make military involvement in the region a priority. Successive Governments have failed however, to articulate a cohesive, national strategy that provides a nexus between Government intent, national capability requirements and defence force structure. Without such direction, Defence continues in its stovepipe development of capability and doctrine while Australian industry often remains unsupported, uninformed and consequently, unviable.

In principle, Australia's current strategy is sound with respect to defeating attacks on Australia, being based on a maritime concept, the focus of which is the interdiction of aggressors in the maritime approaches using naval and air forces. The scope and nature of other operations such as contributing to regional security, however, are not clearly enunciated. Some attempts are now being made to consider the requirement of regional security from more of a tri-service perspective. Traditionally, however, this lack of direction has led to the three Services interpreting *DA in a maritime context* as it best suited their existing force structure or aspirations. Consequently, the last decade has seen Army focussed primarily on continental strategy to defeat low level incursions and prepare for higher intensity operations in the context of coalition operations. Navy has continued the emphasis on sea control in both the assertion and denial roles although their effectiveness has been seriously weakened through an inability to influence the air environment¹¹.

¹⁰ Cleveland R, USN: Global Sea Power, www.navy.gov.au/9-sites/navyannual98/

¹¹ This has come about due to the lack of integral FW aviation, the retirement of the DDGs and the capability gap until the first new air warfare destroyer in 2013.

RAAF has continued to operate an effective maritime patrol capability while focussing efforts at achieving air interdiction in the maritime approaches through the use of a ring of air bases and high capability fighter aircraft. While this offers the government a credible DA capability, it does not give them a viable option for anything but the most benign of scenarios, as evidenced in East Timor.

Capability and Force Structure

So where are the key deficiencies for power projection when supporting Government diplomatic initiatives as part of regional security measures? Firstly in strategic policy and how it affects Australia's approach to both ADF and industry capabilities. It is becoming clear that Australia will increasingly have to take the lead in regional operations, and that it can no longer rely on the US to provide large amounts of logistic or particularly, military, support for intra-region contingencies¹². At a national level, Australia should develop policy for the provision of affordable and effective infrastructure that will allow expeditionary operations. This extends from options for obtaining sealift (at short notice and operating into zones that may not be covered by normal maritime insurance), to partnerships with industry ensuring that Australia has long term, viable ship building and repair capabilities. It also involves articulating an Australian Military Strategy (AMS) for regional security such that the ADF can work collectively toward developing the military capabilities, force structures and competencies required.

A broader interpretation of maritime strategy would see Australia move along the continuum from a limited amphibious capability (ie sealift) to a littoral capability able to conduct operations in high threat scenarios (ie a combat capability). Australia has enhanced its capability to conduct limited sealift in an unopposed environment with the introduction to service of the Landing Platform Amphibious (LPAs), HMA Ships *Manoora* and *Kanimbla*. These vessels and their limited support helicopter capability provide the government with the option to conduct military support operations in limited, low-threat scenarios such as humanitarian

or disaster relief and support to peace monitoring groups. Military Response Options for higher threat levels, however, require the embarkation, deployment and support of a battalion size group along with their associated vehicles and equipment. This lift could only be achieved by simultaneously using both LPAs and HMAS *Tobruk* which, considering issues such as availability, serviceability and replenishment on station, should not be planned on. Even putting this aside, once the force arrived in the Area of Operations, it would not be able to deploy ashore in viable manoeuvre groupings due to the lack of air and sea ship-to-shore lift. Furthermore, most regional security tasks (and some DA operations as well if Cocos and Christmas Islands are considered), will be out of range of land based air cover. With the demise of the DDGs, the fleet would be exposed to a range of air threats within the region. Similar arguments could continue along this line when considering availability of logistic support and SLOC protection, as well as rotation for medical facilities, ships and air crews and ground forces. These are significant deficiencies in Australia's amphibious capabilities, and the cost to rectify them is large. The obvious question is; can Australia afford to move to the conduct of power projection in the littoral?

Clearly the answer is no (strategically), if to do so would involve a further decrease in the ability to gain and maintain sea control when required. Probably no also (financially), if requiring a large acquisition program to provide an amphibious capability in addition to the current force structure. The question is probably best answered with another question: can Australia afford not to move? The deterioration in regional security and the will of the Australian people to be involved, for example East Timor, is one source of motivation to move. Another is the allied defeat at Ambon during WWII. This campaign demonstrated the high human and strategic cost to a nation, beset by materiel deficiencies, organisational unreadiness and the lack of balanced, mobile land, sea and air forces, of relying on ground forces to defend a string of inner arc air bases for DA. While expansion of Defence in its current construct does not appear viable, it is my contention that a well managed, joint move to an emphasis on power projection is not only

¹² Blair, D, 'US Sees Defence Plan First', *The Australian*, 14 Nov 00, p 1.

affordable, but will in fact considerably enhance the ADF's capability for DA tasking as well.

How Can Australia Move Toward The Littoral?

According to Gorshkov, 'success in war can only come from unity in strategic doctrine and operational command'¹³. Australia will only be able to afford to move if Government is prepared to take the lead in a cohesive national strategy that all parties (including both industry and Defence) must understand, contribute to and comply with. Only then will industry and Defence be able to grow an effective balance of capabilities from the extant force structure and personnel base. As sea lift and air power are two issues that have proven essential to power projection capability overseas, they will be developed further as examples of the kind of holistic policy required for Australia's defence strategy.

Sea Lift

Australia has proven capabilities in the area of ship building as shown by vessels such as HMAS *Success*, the Anzac Class frigates and the Collins Class submarines. Innovative design has also been a feature of Australia's ship building history having given the world the first container ship, gas turbine powered vessels and more recently, leading world trends in vessels such as commercial wave piercing catamarans.

The current practice of block building navy ships does not provide any incentive for industry to sustain investment in Australian facilities or staff. Further, it takes time to train and develop the staff from a variety of trades and professions to be a competent team. This coupled with the costs associated with acquisition and maintenance of infrastructure, present a considerable barrier to entry into this industry which increases the need to maintain a credible national capability. National defence strategy should make the break with traditional views¹⁴ on industry and competition

and establish a paradigm whereby the Commonwealth is prepared to partner with one or two firms. This should be on a long term, life of type basis to spread design and production over a long, sustainable period.

Such partnering with industry makes the transition to a force-projection capability affordable for Australia. While a project to acquire a batch of three to four vessels of the *Ocean* or Logistic Support Ship (LSS)¹⁵ class would not be affordable, an order for one—as a long overdue replacement for *Tobruk*—probably would. The LSS concept allows for the one design to be used in several roles (albeit not concurrently in the one hull) while having essentially similar structure and systems, hence reducing costs associated with training and through life support. Further development of the design to incorporate lessons learnt and new technology incorporated would see a second vessel available to replace either *Success* or possibly HMNZS *Endeavour* and eventually *Manoora* and *Kanimbla*. This phased evolution to an amphibious capability not only becomes affordable for the government but gives long term support to a viable industry, benefiting the society through employment, training and the national economy. Given this potential, Project Sea 1654 is an ideal candidate to lead the move to this new paradigm¹⁶.

Air Power

Australia has historically been among the world leaders in the application and development of aviation in both civil and military roles. Leadership from government in the form of clear strategy to contribute to regional security could help overcome the inter-service friction over ownership of assets and roles which has seriously

¹³ Till, G., op.cit, p 71.

¹⁴ The traditional view on acquisition in Australia has held that probity and competition are of utmost importance. For this reason, sole source and whole of life contracts have not been common in the past that has given very little stability to the industry. This will keep the competitors efficient and honest and is a reasonable proposition for many areas of procurement. For industries where there are significant barriers to entry, Government should consider ways to encourage industry to invest long term in people and facilities.

¹⁵ Friedman, N Maritime Airpower for Australia, Part 3, *The Navy*, Vol 62, No 4, Oct-Dec 2000.

¹⁶ Bostock, I. 'RAN to Replace Oiler Ships', *Janes Defence Weekly*, 15 Nov 00, p 12. Driven largely by maritime pollution regulations, Project Sea 1654 is seeking to replace both *Westralia* and *Success*. This report indicates that they are to be replaced with a more modern but specialised AOR. Given the ADF needs both the replenishment as well as the capability to lift troops, equipment and aircraft while reducing ship classes operated and the associated training and logistic burden—the direction of Sea 1654 typifies the stove-pipe approach to acquisition that degrades Australia's capability. The periodical *Navy* has highlighted the potential for the LSS concept which should be strongly considered not only as a materiel solution to this project, but as a first step in a longer term, ADF development of capability.

degraded the nation's air capability from a holistic perspective. History and contemporary trends show that nations have the ability to make considerable savings through long term joint management and operation of assets. These savings accrue in the areas of acquisition, training, logistics and importantly, the finite pool of personnel to maintain, protect and operate the aircraft. This does not infer that one Service should control all air capability but rather, that each Service brings core expertise relevant to their tactical environment to an ADF air capability.

Australia's air combat capability is based on the 71 RAAF F/A-18 aircraft. In addition to the permanent squadrons at Tindal and Williamtown, bare bases have been constructed in the north of Queensland and Western Australia in an attempt to provide some reach into the sea-air gap. As demonstrated by the operation in East Timor and during numerous planning exercises, this land basing concept, even with an air-air refueling capability, does not allow the ADF to gain and maintain air superiority over operations in the inner arc. Replacing these aircraft with a more modern platform and weapons systems, while essential from an air superiority perspective, will not change this fact of geography. A holistic approach to Project Air 6000 would see the acquisition of a new generation aircraft that could perform both land based and sea based roles. Air 6000 should also contribute funding toward the LSS or light carrier from which these aircraft operated as part of providing the ADF with an air capability¹⁷.

Similar opportunities exist with Project Air 9000 for a common support helicopter for the Army and Navy. Extending the mid-life update on the S-70A-9 Blackhawk could include a replacement for the UH1-H Iroquois and Seaking helicopters in order to achieve common fleet of CH60 Blackhawk across both services¹⁸. This would enable common training and logistics as well as viable exchanges and joint operations from land

or sea. In both the FW and RW environments, this common approach would not only free up materiel resources, but would allow far more flexibility in the training and employment of ground and air crew.

Arguments for and against common training for pilots from the three Services and the cost effectiveness of allowing exchanges between roles, service or aircraft type have often been topical. Regardless of background, pilots from any of the Services have quickly adapted as required to new weapons systems and environments when the need arises¹⁹. Issues of retention are of considerable concern to the viability and cost of Australia's air capability. The potential to undertake an exchange with another Service is a form of job design which contemporary management theory predicts will increase satisfaction, hence, retention and therefore increase availability with overall costs reduced²⁰.

Closer Defence Relations (CDR) with New Zealand

The *Joint Statement on Future Directions in Closer Defence Relations* commits Australia and New Zealand to 'maintain forces able to combine readily and maintain and sustain the capacity for effective combined response to regional contingencies.'²¹

Due to budget constraints, the NZ Government has recently committed to a significant downturn in the level of maritime and air capability to be maintained. The CDR Statement, however, refers to Australia and New Zealand as being 'to all practical purposes, a single strategic entity'. With a common strategic policy, New Zealand could also participate in the common savings (logistics, technical management, training and personnel) associated with the LSS class of ship to replace *Endeavour*, and the common support helicopter to replace their

¹⁷ In an ideal world, a platform such as the JSF would enable conventional and STOVL operations in both fighter and strike roles. This could see two land based squadrons replacing the F/A-18 and F-111 and two sea-based squadrons (RAAF, RAN or a joint unit) to provide an air capability for regional and DA tasks while common training and logistics would significantly decrease cost of ownership. If the JSF proved nonviable due to cost or timeframe, the land-based squadrons could be based on upgraded F/A-18s or F-15Es while the sea-based squadron on the Harrier family of aircraft.

¹⁸ The Blackhawk CH60 variant is being produced for the USN as a utility helicopter. It is marinised and has automatic folding blades which unlike the S-70A-9, make it ideal for embarked operations. Being a Blackhawk, it is a battlefield helicopter and is suited to over-the-shore operations unlike the RN Commando.

¹⁹ Greville, P, 'The Forgotten Aviators', *The RAF Airpower Review*, Vol. 3, No. 2, Summer 2000, p 100. From the Battle of Britain where Fleet Air Arm and Army pilots flew Spitfires, to Korea where RAF aircrew flew off *Thesus*, to the Falklands and Balkans conflicts where the RAF operated off *Invincible* and *Ark Royal*, history has proven that adaptation is not only possible but often necessary and even desirable.

²⁰ Davidson, P, *Management Australia in a Global Context*, John Wiley & Sons, Brisbane, 2000, p 370.

²¹ Joint Statement on Future Directions in Closer Defence Relations (with New Zealand), www.dfat.gov.au.



RAN Photo

UH1.²² Both countries would benefit from economies of scale and the flexibility of truly joint capabilities while retaining the identity of national defence forces.

Conclusion

The end of the Cold War led to escalation in the number and severity of regional conflicts. In response, nations such as the UK and US have shifted the main emphasis of their armed forces to power projection in the littoral regions of the world. The experience of these nations highlights importance of the nexus between national defence policy, industry, capability and force structure. In particular, the capabilities of sea lift and integral maritime air power have proven to be essential for both sea control and power projection.

The decline in regional security and the response of the Australian people has given government a clear mandate to consider ways to expand Australia's influence to promote stability. The level of violence witnessed in recent years has highlighted the requirement for the ADF to be able to project power in the littoral regions of the inner arc as an effective way of promoting security. Drawing on lessons from other nations, it is clear that a cohesive, whole-of-government approach to defence strategy is required if such a capability is to

be raised and sustained. This strategy should support industry, and foster a whole-of-defence approach to acquisition, force structure and personnel. This would help minimise the single Service issues that currently limit ADF capability. It should also seek to pro-actively engage New Zealand under the CDR such that it is viable to jointly raise and sustain such capabilities through increased efficiencies and reduced cost of ownership.

Australia only just registers on the left hand edge of the continuum of amphibious capability. It will require clear leadership from Government if it is to move toward an amphibious combat capability, or eventually the conduct of littoral operations as defined by contemporary doctrine. Can Australia afford to move beyond simply sea control to an emphasis on power projection in the littoral? It really appears to have little choice in the long term. How well it does it, however, only time will tell.

About the Author

Lieutenant Colonel David Fawcett is the Commanding Officer of Aerospace Systems Test at the RAAF Aircraft Research and Development Unit. He is a graduate of the RMC Duntroon and has had experience as a pilot with the 1st Aviation Regiment before tours as a flying instructor in both the UK and Australia. After training at the Empire Test Pilots' School (UK) in 1993, he served as an experimental test pilot at ARDU as well as DMO (Project Air 87). He graduated from the RANSC in Dec 2000, having been awarded the ANI Medallion for Maritime Strategy and the Director's Prize for Oratory.

²² While under the current climate it is unlikely that they would participate in the JSF concept to replace both their A4 and jet training platforms, NZ could provide air and ground crew to supplement Australian squadrons in the short term, retaining a level of national expertise, whilst helping Australia overcome critical shortfalls in personnel.

SHORE COMMAND: A BALANCING ACT



Not Drowning but Waving/Not Singing but Humming

by Commander Julie Mitchell, RAN

Commander Julie Mitchell, the Commanding Officer of HMAS *Harman*, provides a personalised view of Command. She ably charts the challenges facing a CO of a naval establishment in today's complex and dynamic Defence organisational structure.

When asked to write an article on Command, my immediate thought was to take an academic approach. I would produce a scholarly piece of work, full of all my favourite quotes about leadership and command from heroes and leaders, known and unknown. While my particular spin on this would have been original, the approach certainly is not. Such an approach, while well established and often impressive, takes the risk of missing the central precept of Command for me, which is not theoretical or intellectual, but personal and practical. Besides if I write this article well enough, someone else may quote me!

The New Environment

As Commanding Officer (CO) HMAS *Harman*, I am accountable to the Chief of Navy (CN) through the Navy Systems Commander (CANSC) chain of command. My Command involves providing leadership to *Harman*

personnel and administrative support to approximately 1,200 personnel spread all around the ACT and overseas. Currently there is increased emphasis on personnel issues, retention and personal readiness, while the focus on discipline, morale, welfare, divisional support, safety, security and the ceremonial aspects of Command has not changed. What *has* changed however, is the environment in which we operate.

Shore COs have little ownership and therefore limited control of resources. We are direct customers of the management provided by Corporate Services and Infrastructure Group (CSIG) who play the role of intermediary between contractors and Command. As such, we are the third party representing the consumers of what is delivered by service providers and contractors. If you would prefer to convince someone else to complain, withhold payment, negotiate a better price or demand improved service on your behalf, then Shore Command is

the job for you - but only if you are happy to live with the results! Intermediaries rarely do the job to your complete satisfaction. To be effective they need to be experienced, highly skilled, crystal clear as to your expectations and bottom-line and motivated to achieve agreed outcomes. Problems arise where CSIG managers have a high turnover of incumbents, are inexperienced, lack assertiveness, grapple with the ADF perspective or cannot distance themselves from the contractors sufficiently to be truly effective. *The CO is therefore thrust into a world of influence, advocacy, trade-offs, negotiation, conflict resolution and mediation.*

If looking after the Service personnel under my Command is hindered in any way, or indeed could be improved by support programs, it is my job to broker a fix by doing *whatever it takes*. Also my job is to determine the impact on personnel, of problems with service provision and pass these up the chain, if they cannot be resolved at my level. Timely, frequent and well-targeted communication is the hallmark of successful Shore Command. The sheer number of players to keep in the loop and frequent changes of faces and positions, make networking, along with performance monitoring and sustained pressure, the keys to this success.

It is now a truism to state that in the post Defence Reform Program (DRP) environment, *the core competencies of Shore Command go well beyond the traditional skill set*. We are in the teething stage and as with a child, new skills come with new experiences. Teething problems are widely recognised and solutions are in place, but we need to be patient and work through the maturing process cooperatively. CN and the Deputy Secretary Corporate Services have put in place benchmark Employment and Service Level Agreements. They are collaboratively charting an agreed way ahead and a far steadier course is anticipated.

The new organisational arrangements highlight the deficiencies in our ability to garner, store and disseminate corporate knowledge. We learn to value corporate knowledge more highly as experienced naval support staff in the Command element are replaced progressively by junior, often inexperienced Defence civilians. Staffing problems exacerbate the difficulties and challenges of modern day Shore Command – more of this later.

Commonsense Prevails

At one point, post DRP, the future of *Harman* was bleak and the civilian Manager Defence Corporate Support was considered to be a viable alternative to a uniform CO. Now the worm has turned and *Harman* has a green light with the need for and the role of Command reinforced in this new and complex environment. The realisation dawned through the frenzy of commercialisation and cost savings that although *Command is about managing people not contracts* – effectively managed contracts are a vital means to leading and supporting people.

There are implications on efficiency, morale, motivation and wellbeing of personnel from almost every commercial decision made in the establishment. My job is to coordinate and ensure that all the services support Command activities, including the infrastructure for which enabling groups and individual lodgers may be individually responsible.

Perfect Preparation

You often hear athletes and swimmers talk of having the 'perfect preparation' where everything falls into place for them before an event. This is due to a combination of factors such as planning, training, timing, hard work and good luck. I have been particularly fortunate, as my preparation for Command was near perfect.

The timing of CN's Command Conference at HMAS *Watson* in March this year was ideal pre-joining training for me. At this conference CN, Maritime Commander and CANSC discussed Command roles, presenting pragmatic, visceral and intellectual accounts of Command. There was a string of common messages throughout the presentations, in spite of the varying approaches to the topic. As a result, I was left in no doubt as to what I was expected to do, why I needed to do my job well and to whom I was responsible.

In addition, as a CO designate I was invited to attend the SYSCOM CO's Meetings before and after the Command conference. This was particularly noteworthy for two reasons. Firstly this was the first time *ever* I attended a meeting *without saying one word!!* Being the rookie on a very talented team that I had long aspired to join, I was silenced by being slightly overawed, very grateful for selection and having much more to learn than to contribute. Secondly, everything discussed during this day and a half proved to be immediately relevant to my initial

period in Command. Either I was provided with resolution options or felt better about not having all the answers, knowing that more skilful and experienced COs than I. were grappling with the very same issues.

I completed the CO/XO Designate Course, which is the mainstay of preparation for Command, immediately before taking charge. This course was particularly useful. I was able to draw on the vast experience of fellow participants such as CO *Albatross* (Captain Barrett) and the appointees to the newly appointed CO positions at Naval Communications Station Australia, RAN Technical Electronic Warfare Systems and Recruit School (Lieutenant Commanders Franklin, Irwin and Boatman). The subsequent directive and appointment letter formalised and reinforced roles and responsibilities.

Finally, CNs Guide provided very useful hints, tips and pitfalls and gave advice on codes of behaviour and recommended practices, which hitherto could not be gleaned from any other source.

More of the Brave New World

Most former shore COs would be horrified to find that modern day Command has changed in other fundamental ways. If they were to look around they would not find officers and sailors in the Command Element but civilians at APS 1, 2 and 3 level. The former Supply Officer is partly replaced by a civilian at APS 6 level with another chain of command entirely. The XO in *Harman* is my one and only officer, and the one WO billet has been gapped for months.

Of the five civilian staff in the Command element, two work for Navy, two for the Defence Personnel Centre and one for Territory Corporate Services. In my six months in Command I have had three Commanding Officer's Secretaries, with this position recently being upgraded from APS 3 to 4 and temporarily filled. If the present incumbent is not successful in gaining permanency we will be up to COSEC number four. There has been an equal amount of turbulence in the Ship's Office, with eight changes in these three positions and at no time were all positions filled. The levels and numbers have now been adjusted and we will have a full complement of staff next month. As staff members are new to Navy and/or Defence, the real work of training then begins. The lion's share of this additional workload falls on the one

remaining and already over-tasked Petty Officer Writer in the Command element.

COs spend much of their time balancing the exertion of influence and the exercise of power in entirely new ways to overcome these difficulties and challenges. On a very bad day I console myself that we at the Command level are experiencing, on a much smaller scale, the same types of challenges that CN is facing at the corporate level, as a result of not owning many of the people, the dollars or the assets. As circumstances change, our behaviours must change - *risk management, negotiation, and measurement and trade-offs, are increasingly becoming vital components of the successful delivery of agreed outcomes.*

Am I Having Fun Yet?

It is a blessed relief to take up Command, as the question I am most asked, has finally changed (after nearly 20 years) to 'How are you enjoying Command?' from 'Surely your husband doesn't follow you on postings?' In each case the answer, expected or wanted, is imbedded in the question. The implications are that Command is inherently fun and enjoyable and that being a male somehow exempts you from the inevitable moves and inconveniences of life as a Service spouse. Well, neither is true.

I am not having 'fun' yet because in spite of excellent preparation, I am still learning the salutary lessons at each dead-end I encounter, while actively looking for the best way through or out of each situation. I am still assimilating the rules of the game and learning not to underestimate the complexity of the organisation. After some experience, as in a maze, you know your way in and way out of situations. When the layout and the rules are under constant review and are even unclear to the hierarchy, the frustration sets in for staff and the serious negotiation, motivation and communication challenges begin.

Expecting reorganisations, staff and process changes to bring about *seamless service* is as naive as expecting technology to reduce work and bring about a *paperless* office. The more mind-blowing the complexity I face, the more my instincts tell me to keep things simple and *focus on the people and the core processes which bring people the greatest benefits.* This for me is the nub of Shore Command in today's environment.

An insight into the challenges facing today's shore based CO might be found in the issues addressed at the last couple of management meetings:

- Swipe card access transition,
- proposed on board locations for Headquarters Australian Theatre and the use of *Harman* as a Multi-User Depot for defence activities in Canberra,
- under age drinking,
- termite infestation of Senior Sailors Mess,
- Internet pornography,
- post in/post out routines,
- stowing (and discharging) fireworks in accommodation areas,
- flooding creeks and sports ovals – contract and safety issues,
- illegal Internet connections in cabins – damage caused by self help,
- cabin smoking/false fire alarms,
- noxious weed spread (Chilean needle grass!) affecting communication towers,
- sewage and storm water run off problems,
- subcontractor compliance with OH&S,
- designer drug use, and
- contract non-compliances.

Some problems are new and others perennial - needless to say disciplinary action was associated with several of these!

People First

The sailors I see, other than for promotions and awards, are generally those who have let the Navy down and themselves too of course, in every conceivable way. Some have devastated their lives both personally and professionally for want of common sense, self-control or both. I find some of the offences and calamities and their consequences quite disturbing. What is frustrating is when the army of support staff (social workers, chaplains and doctors etc) is unprepared, and the system ill-equipped to assist. Even the most established processes are often not always adhered to, such as medical recalls and specialist reports not making their

way onto medical documents. Every failure of the system is to the detriment of the sailor and puts them more at risk or contributes to the angst in the workplace associated with divisional problems. The system, as much as the sailor, lets you down in a myriad of ways.

Several cases I have dealt with recently revealed a real need for COs to oil this system and to be *Case Managers for People*. Too often the problems are dragged out far too long because *no one person has the whole picture*. Sailors can easily play off one part of the system against the other due to poor communication and coordination on the part of supporting agencies. Director of Sailors Career Management, Divisional staff, medical officers, the specialists, social workers and the OIC/Manager all have a part of the picture. Often the CO is the only person who has the motivation and the experience to take on the role of managing people in difficult situations. No one is better placed to provide options that balance what is best for the sailor and for the Navy as a whole.

Dealing predominantly with defaulters, personnel in crisis and complainants can give one a jaundiced view of the world. CN's suggestion to see Senior Sailors as requestmen goes a long way towards redressing this imbalance and I am already seeing the benefits of this practice. These discussions broaden my perspective and with active listening should improve my overall effectiveness as a CO.



Feedback & Balance

I am six months into my Command. I recently sought feedback on my leadership and management, essentially asking whether I was hindering or helping and what I needed to do more of and less of. In essence and not surprisingly, the feedback was what the sailors (and families) like most was when they see me participating in and/or supporting Inter Service Sport, Fitness Testing, Fairbairn Duathlon, Tennis Competition, *Harman* Hogs etc. All the long hours in the office and the really hard yards are not seen and are generally under-appreciated, while the enjoyable out of the office activities, which are easy to do but almost

impossible to find time for, have the most impact. Some things never change!

The exercise of Command in almost every way is *getting this balance right*. It has become abundantly clear to me even from my limited experience, that to achieve balance a CO needs an excellent grasp of the concepts and execution of opportunity cost, risk management and a systematic approach to problem solving.

Whether this balance is sought in punishing vs motivating; planning vs execution; in vs out of the office; individual needs vs needs of the service; formality vs informality; loose vs tight control; firmness vs sense of humour; or personal contact vs paperwork efficiency, the same principles apply. Simply put, the opportunity cost of X (engaging with personnel) is Y (missing the meeting/report deadline). I have to formally revisit 'What is the best use of my time right now?' and 'What is the opportunity cost of each decision?' on a far more regular basis than in other roles. Time and priority management skills are tested to the limit.

The only way to find out whether the *right balance* is struck is to *seek feedback* up and down the chain both formally and informally. I am using e-mails, interviews, and every meeting, promotion table and morning tea to collect feedback, to help me answer these questions on an almost continual basis.

Waving & Humming

Given the changing nature of Shore Command and the difficulties faced, why, when seemingly out of our depth are we 'waving not drowning'? My lifelines are excellent support from Commodore Davis, Captain Dietrich and Captain Parsons in Systems Command, an active network of past and present COs, and excellent permanent and reserve Navy staff. *Harman* could not function without the use of very experienced and committed reserve staff. Invaluable support is provided for example by Lieutenant Commander David Manolas organising special events such as Navy Day and Freedom of Entry into Queanbeyan and Lieutenant Commander Paul Threlfall providing invaluable assistance with Redress of Grievance

investigations. There are many ways to get results. I am looking actively for leadership at all levels and finding it amongst contractors, service and civilian personnel, *so we live to fight another day!*

CN takes risks where the payoffs are potentially great and the consequences of not making things happen could be devastating for Navy. These risks range from establishing the Force Element Group construct to starting off two conferences with group singing! I am trying to follow his lead and be innovative and take chances in calculated and varied ways. While we are a long way from bursting into song in *Harman* - things are definitely humming!

Postscript

I cannot resist a quote after all 'The most important thing is to get folks wound up and excited about what they do and how they contribute!' (Dr. Hawke, Secretary of Defence)

About the Author

Commander Julie Mitchell joined the WRANS as a Direct Entry Instructor Officer in 1982. Her first posting was to HMAS Leeuwin to teach English, Navigation and Naval History to Junior Recruits. She joined the Gunnery School in HMAS Cerberus as the Training Development Officer and designed the first in country Surface Warfare Officers Course repatriating PWO training from the UK. Subsequent postings were in Quality Control at the RAN School of Training Technology and the RN School of Education and Training Technology, serving in HMS Nelson for two years. Commander Mitchell served at Defence Weston Creek as the Director of Planning and Co-ordination and Director of Administration and then onto the project team to disestablish the ACDSS and JSSC and stand up the Australian Defence College. She has had several postings in Corporate Management including Director of Business Improvement-Navy and Director of Navy Performance Management. Commander Mitchell took up her posting as the Commanding Officer of HMAS Harman on 10 March 2001.

2001 KING-HALL NAVAL HISTORY CONFERENCE



When one thinks of the operations in the Java Sea in 1942 the heroic exploits of HMA Ships *Perth* and *Yarra* readily come to mind. Less well known is the contribution of HMAS *Hobart*. This article is based on a presentation given by Gordon Johnson at the 2001 King-Hall Naval History Conference.

During the two years of my service in the modified *Leander* Class cruiser HMAS *Hobart*, the days of 15th and 25th February 1942 live vividly in my memory as the days of which were truly representative of the 'Face of Battle'. The images of the events of those two days are as clear to me today as they were when they occurred fifty-nine years ago. I was an eighteen years old telegraphist.

This was a time in the Java Sea area when *Hobart* was engaged in a defensive struggle to survive numerous air-attacks by large numbers of Japanese aircraft. She did of course survive to fight again in the Coral Sea and Guadalcanal actions later in 1942, but was sidelined for seventeen months for repairs after being torpedoed in the Pacific on 20 July 1943.

Before writing of the concentrated air attacks on *Hobart*, I will briefly recall the situation in which *Hobart* became involved leading up to the agony of Singapore and Java where the ship was operating.

Hobart arrived in Singapore on 5 January 1942. This was directly from her 1941 deployment as a unit of the 7th Cruiser Squadron of the Mediterranean Fleet. This was one month after the Japanese attack on Pearl Harbor. Singapore Roads on the day we arrived seemed peaceful enough but Singapore was being bombed intermittently, including leaflet raids, and the Japanese army was making a rapid advance down the Malay peninsular towards the Island.

The capital ships HMS *Prince of Wales* and *Repulse* had been sunk south of Kuantan, Malaya by Japanese aircraft on 10 December 1941. Just 26 days previously, there was an air of concern pervading the

ship. The question everyone was asking was 'Where are our own aircraft?' as the Japanese bombers seemed to us to be operating with impunity.

Hobart almost immediately after arrival left to participate in escort work as supplies and troops were still being brought to Singapore and the ship did not secure alongside in Singapore again until 1 February 1942 which was 14 days before the surrender.

By this time the situation had deteriorated alarmingly. The Japanese were close to the Causeway and Singapore was very much the beleaguered fortress-island being bombed almost continuously. From where we were berthed in Keppel Harbour on the south side of the island, the scene around us was one of utter chaos.



Hobart departed the next day, 2 February, with the destroyer HMS *Tenedos*. We had embarked about 100 evacuees including some survivors from *Prince of Wales* and *Repulse*. As we pulled out of Keppel, you can see from Photo 2 and taken from *Hobart* that Singapore was a burning island as well as being doomed. Our destination was the port of Tanjong Priok (Djakarta).

Near Banka Island the next day *Hobart* and *Tenedos* fought off Japanese aircraft attacking the lone merchant ship *Norah Moller* (Photo 3). She was already dead in the water and burning. Photo 4 shows *Hobart* about to take survivors aboard, many of them shockingly burnt. That evening we buried some at sea (Photo 5). More of *Norah Moller's* survivors succumbed before arrival Tanjong Priok on 6 February.

Between 6-14 February, *Hobart* in company with various RN ships, including the 8" cruiser *Exeter*, destroyers *Jupiter*,



Encounter, *Electra* and others carried out sweeps in the Banka and Gaspas Strait areas. We were searching for reported Japanese surface forces but the only outcome from these operations were fairly frequent attacks upon us by Japanese bombers.

These air attacks, although determined and involving near misses, proved to be more of a 'pipe opener' compared to what was in store for us a little later on! By the 14th *Hobart* as ordered, arrived in Oosthaven (East Harbour) in southern Sumatra and became a member of a strike force which included:

- Dutch cruisers *De Ruyter*, *Java*, and *Tromp*,
- HMS *Exeter*,
- Dutch destroyers *Van Ghent*, *Banckert*, *Piet Hein*, *Kortenaer*,
- USN destroyers *Bulmer*, *Barker*, *Stewart*, *Parrot*, *Edwards*, and *Pillsbury*

The Dutch Rear Admiral Doorman flying his flag in *De Ruyter* was in command.

The strike force sailed from Oosthaven the afternoon of 14 February to intercept a reported Japanese force of cruisers and destroyers north of Banka Island. There was an air of excitement mingled with tension aboard the *Hobart* as this sizeable force proceed at speed to meet



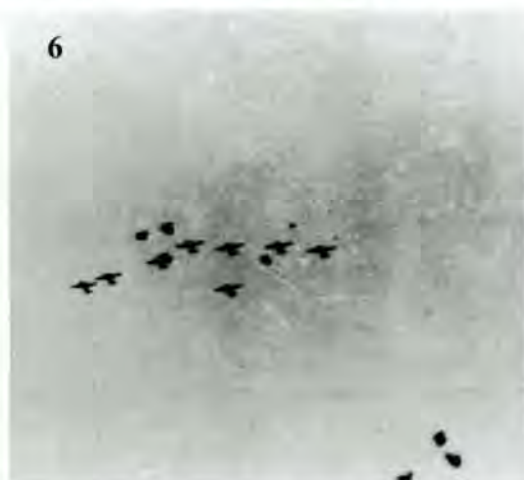


the enemy which was expected to be sometimes on Sunday 15 February.

Van Ghent ran aground early in the morning of the 15th and *Banckert* was ordered to stand by and take the crew off. At about 0900 *Hobart* went to second degree of readiness and closed up to action stations thirty minutes later. By this time the force was being shadowed by Japanese aircraft.

About 1100 air attacks by Japanese bombers commenced and continued unabated until dusk (Photo 6). It was a day of almost continuous anti-aircraft gunfire including our 6" main armament at times, crunching bomb explosions with the ship turning and heeling steeply. *Hobart's* 72,000 shaft horse power turbines whined in protest as the port or starboard engines were telegraphed from ahead to full astern or vice versa to aid the ships turning as she dodged the bomb loads aimed at her. The strike force maintained 24 knots steaming in two lines ahead but with ample distance for manoeuvring without fear of collision.

All of the larger ships of the strike force had their turns as targets for the



Japanese pilots and the following photographs taken from *Hobart* record some of those attacks.

- *Exeter* being attacked (Photo 7)
- *De Ruyter* is the target (Photo 8)
- One of the 260 bombs aimed at *Hobart* and a near miss (Photo 9)

Hobart was in fact the most targeted of all the strike force ships that day, having survived 260 bombs dropped on her of which 74 were classed as near misses. These loads aimed at us were delivered by 128 Japanese bombers, which attacked in waves made up of 9 or 27 aircraft flying in formation.

At one stage of these proceedings, *Hobart* was so blanketed by exploding bombs that *Exeter* piped 'Stand by to pick



up *Hobart's* survivors'. *Exeter* informed us of this later that day when the situation quietened down. Sunday 15 February became known to *Hobart's* ship company as *Black Sunday* and Banka Strait was renamed *Bomb Alley*. This was also the day Singapore surrendered.

Captain Harry Howden's own report of *Black Sunday*, summed the situation up quite well where in part he said,

"There have been occasions when I had to call for the most violent manoeuvring of the main engines and the instant answer resulted in the ship swinging in a manner I hardly thought possible. I found it necessary to go from 24 knots ahead to 24 knots astern on one engine while going full ahead on the other. The bomb fell close enough for me to see the ugly red flashes of their burst and feel the heat of their explosions across my face. The ship steamed clear."

Hobart was back at Tanjong Priok on 16 February to refuel and replenish with ammunition. In company with *Electra* we sailed again on the 21st to escort SS *Orcades* through Sunda Strait and arrived back in Tanjong Priok on the 25th and secured alongside the oiler *War Sirdar*.

At 1030, just as pumping from *War Sirdar* commenced, 27 Japanese arrived and attacked both ships. Sixty bombs straddled the both of us with one passing through *War Sirdar* and exploding underneath. *Hobart* jumped violently and was showered with splinters and seawater. One splinter about a foot long (30 centimetres) came through the open scuttle in the communications mess-deck and ricocheted around the bulkheads several times. Fortunately, the two or three men in the mess were flat on the deck and no one was injured.

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War Sirdar was disabled and *Hobart* separated in a rush and headed for open water and sea room to manoeuvre in anticipation of further attacks which didn't eventuate at that time.

A minute or two before this attack, a lamp signal was being received from Commodore Collins's shore HQ instructing Captain Howden to take *Hobart*, *Perth*, *Exeter*, *Electra*, *Jupiter*, and *Encounter* to Surabaya in East Java to join Rear Admiral Doorman's fleet. The RN cruisers *Danae* and *Dragon* with destroyers *Tenedos* and *Scout* were not ordered to Surabaya because of their obsolescence.

Hobart was not able to complete refuelling and as a consequence was unable to proceed to Surabaya and thus did not take part in the ill-fated Battle of the Java Sea. With the obsolete *Danae*, *Dragon*, *Tenedos* and *Scout* a Western Strike Force with *Hobart* in command was formed on orders from Dutch Admiral Helfrich and directed to sweep north to Banka on 26 February to intercept a Japanese invasion force believed to be heading for western Java.

No contact was made and *Hobart* with her consorts making up the Western

Strike Force retired to Tanjong Priok. The situation in Tanjong Priok had become hazardous and *Hobart* was already monitoring transmissions from our sister ship *Perth* engaged in the Java Sea battle, which took place on 27 February. It was apparent that if *Hobart* with *Danae*, *Dragon*, *Tenedos* and *Scout* were going to escape through the Sunda Strait a break out had to be attempted without much further delay.

Close to midnight on 27 February Western Strike Force joined by the Dutch destroyer *Evertsen* (which had taken part in the Battle of the Java Sea) left Tanjong Priok for the last time. We searched north for Japanese forces under orders to retire through the Sunda Strait if nothing had been sighted by 0430 on 28 February.

As no contacts occurred the force passed through the Sunda Strait heading for Padang in western Sumatra to pick up escapees from Singapore. *Evertsen* became separated in the Strait and at the time her situation was somewhat a mystery, she had in fact returned to Tanjong Priok.

Crowded with evacuees embarked by *Tenedos* and *Scout* at Padang and transferred to *Hobart* we headed for Colombo, reaching 29.7 knots and arrived on 4 March. *Hobart* was almost out of fuel oil and the ship's food supplies had dwindled to the situation where the cooks had to use their imagination to make what came out of a tin palatable.

There is little doubt that *Hobart*'s survival from these bomber onslaughts was a miracle. But important factors contributed. They were the extraordinary skill of our much revered Captain Harry Howden, together with the high level of competence of the ship's company in all departments. *Hobart* had been operating in the war zone for a lengthy period with very few changes in her complement throughout. *Hobart* was also an extremely happy ship with a great team spirit.

Her protection was vested in her armament, which comprised eight 4" high angle AA guns, eight 6" main armament guns paired in four turrets, Pom Poms and other close range weapons such as Oerlikons. She had no radar and depended entirely on her lookouts for detection of the enemy.



Considering the ordeal of the heaviest and most concentrated aerial bombing the ship ever experienced in her illustrious career, all damage was above decks and included such things as wireless aerials carried away, railings cut and splinters through the funnels and other deck fittings. This was damage, which did not impair *Hobart's* fighting capability. A small number of the crew were slightly hurt by splinters and only one man was seriously injured when hit in the chest.

After the war it was revealed that the Japanese force, which *Hobart*, together with *Danae*, *Dragon*, *Tenedos* and *Scout* sallied forth to intercept in the Banka Strait area on 26 February, was the Japanese Western Attack Group. Under Vice Admiral Takeo Kurita comprising four heavy cruisers, three light cruisers, about 25 destroyers, the carrier *Ruyjo*, and a seaplane tender and between 50 and 60 transports and freighters.

Admiral Kurita's naval air arm had located the *Hobart's* Western Strike Force and he despatched two heavy and two light cruisers with three destroyer flotillas to intercept but no contact was made. It is quite apparent that failure on the part of both *Hobart* and the Japanese to make contact was a deliverance from suicide for our puny Western Strike Force.

In conclusion, I have no doubt that I am here today to tell you of the Java Sea episode because of four things, which were:

- Captain Harry Howden's superb performance as a cruiser Captain. He saved our lives.
- The aim of the Japanese pilot who put one of his bombs through the *War Sirdar* and prevented us from topping up our oil tanks and participating in the Java Sea battle off Surabaya.
- The failure of both Japanese Admiral Kurita's intercept force detached from his Western Attack Force and *Hobart's* Western Strike Force to make contact near Banka Strait on 26 February.
- *Hobart's* final search with Western Strike Force on the night of the 27th until 0430 on the 28th failing to establish contact with Japanese forces.

All photographs taken by author

About the Author

Gordon Johnson left school to join the RAN Communications Branch on 26 February 1940 as a telegraphist at Flinders Naval Depot Victoria. HMAS Hobart from 2 May 1941 for two years was Gordon's first ship followed by time in HMA Ships Moresby and Townsville as well as the post-war commissioning of the carrier Sydney 1948-49. There were postings for courses and as an instructor in between ships. Gordon left the Navy in 1949 soon after returning from the UK in Sydney.

His post-naval career included time with the Civil Aviation Aeradio service at Cocos Island 1952-54, Philips telecommunications company in Adelaide and then the Commonwealth Public Service. He retired from the CPS in 1983 as a First Assistant Secretary and now lives in Canberra with his wife Fleur.

BOOK REVIEWS



Seapower at the Millennium

Edited by Geoffrey Till
Sutton Publishing Ltd, Stroud in association with the
Royal Naval Museum 2001
ISBN 0-7509-2458-6
370 pp. Illustrations & Index
£40 UK, \$70 US.



Seapower at the Millennium is the edited compilation of papers presented to the Seapower at the Millennium Conference held at Portsmouth, England in January 2000. This conference was an effort to bring together as many of the facets of the contemporary maritime world as possible to provide both a snapshot of the present and a forecast of the future. Those who attended the conference felt that it had been a considerable success and this collection confirms that judgement. Indeed, Geoffrey Till's skilful binding together of the whole has brought a coherency that was not always obvious in a conference in which there were multiple sessions as well as a multiplicity of presenters and speaking styles.

What Geoffrey Till has assembled is in fact a primer for understanding the principal issues that face the contemporary world in the maritime environment. The papers range across strategy, seapower, economics, resources and safety and are rounded out admirably by two particularly thought provoking sections on people and 'selling the sea'. While there is a specific section devoted to seapower in the Pacific region, the focus is inevitably slanted towards the United Kingdom and Europe, but there are many insights equally relevant to Asia and Australasia. *Seapower at the Millennium* is a book that should be read not only by naval officers, but all those who have a concern for maritime affairs - as well as by those who should have such a concern.

Your reviewer found much food for thought in the acute assessment of the growing 'sea blindness' in the developed world resulting from the growth of air travel as the primary mode of transport for people and the progressive reduction and concentration of maritime commercial activity into a few hub centres where once whole coastlines were servicing seaborne trade and industry. The existence of the mental 'three mile limit' in the popular understanding of the sea in the United Kingdom - that it is neglected and misunderstood by those who live more than three miles from the coast - is one that would be recognised by any Australian mariner. I was also particularly struck by Libby Purves' tongue in cheek comment that, to the government and public service of Britain, the attitude to the Navy '...easily translates into a conviction that... [it] is a subversive body which deliberately keeps going off to sea in order to waste taxpayer's money where nobody can stop them.'

Another point that is made in the book - both explicitly and implicitly - is the threat to seaborne activity from environmentalists because of the simple visibility of any kind of maritime accident. Ships, to the green lobby, are a soft target. While this does not excuse the shipping industry in particular from working harder to raise both operating standards and conditions of service for seafarers (two aspects which are more closely connected than shipping owners might wish to admit) in order to improve safety, it is true that a grounding and resultant spill tends to attract more attention than the much larger scale and profoundly more serious flow of pollutants into the sea from the land which occurs at every minute of every day around the world. As one commentator notes, in an era of concern over greenhouse effects, the fact that seaborne means remain by far the most energy efficient form of transportation should not be neglected.

In all, *Seapower at the Millennium* is highly recommended. It reads well, covers the issues thoroughly, provides new insights on many important subjects and combines concern for the future with a refreshing optimism about the ability of human beings to find solutions to the problems that beset them. Too few works on the sea attempt to understand the complexity of human maritime affairs; this book does so and succeeds extremely well.

Captain James Goldrick

A Warship for South Australia

By Robin Pennock

Published by the author

ISBN 0-6464-0337-0

Illustrated

\$19.80

Available from the Australian War Memorial Bookshop



In this study of the 960-ton gunboat *Protector* Robin Pennock has written a book with wide appeal. It touches the history of Britain, Western Australia, South Australia, Victoria, New South Wales, Queensland and China. It involves a splendid cast of mariners and their associates. Indeed it might have been called *A Warship for Australia*. If you are a lover of history, of ships, of people, of Australia or all of these, you will be missing out if you do not buy this book. From the time she was launched at Newcastle upon Tyne on 27 December 1883 until she was towed, on 22 April 1944, from Gladstone to Heron Island to be beached and used as a breakwater, the good ship *Protector* had a colourful life in so many ways.

To give too much away about the life of the ship would be more stealing from the author than enticing you to buy and see for yourself. It is better to speak of the style of the work, the pleasure of studying it (and it is a work one studies) and to relate some of the many amusing historical anecdotes. The style and the study go hand in hand because this is no ordinary book. The author has chosen to fill it with enormously interesting details of naval life in the era, and perhaps I may be forgiven for selecting illustrative snippets pertaining to the Naval Reserve. Indeed, I was enlightened to learn that in 1885 'an anomaly existed regarding uniforms in that whilst men of the Naval Reserve were issued with a uniform, it was the responsibility of the Permanent Naval Force to provide their own at personal expense'. Fortunately, with a Boy Seaman's wage being the equivalent of ten cents per day now, those joining from another ship received a special allowance equivalent to about six dollars while those joining from shore received about ten dollars to buy their kit. The parallels with more recent times are enthralling: '1893 was the year when the financial cutbacks took effect and as a consequence a large number of *Protector's* officers and ships company were retrenched. *Protector* was to be paid off into reserve, with any manning and maintenance to be carried out by those of the crew remaining together with the assistance of reservists on an 'as required' basis.'

Two significant historical events surrounding *Protector* which are showcased by the author are the origin of the Australian Rising Sun badge and the first ever use of the initials HMAS. The details of these two episodes alone are worth the cover price of the book. In addition to a full history of *Protector*, including her deployment to China during the Boxer uprising, the author adds much to one's understanding of the Commonwealth Naval Force (1901-1911) and the early days of the RAN (1911-1924). A hefty series of annexes will keep the history buffs and naval genealogists busy for a long time.

This is such a very enjoyable work with such a wide range of factual information collected in such an enthralling manner that it is hard to think how a person with any maritime or Australian historical interest could fail to derive great pleasure from studying its pages.

Commodore Karel de Laet RANR

The Three Headed Dog. Towards the First Battleship

By Bob Nicholls

Seaview Press, Henley Beach, SA

ISBN 1-7400-8139-0

186 pp. with nine loose drawings

\$77.00 plus postage

Available from the author at

<http://www.bobnichollsaauthor.com>



The Three Headed Dog is the story behind the development, construction and acquisition of the breastwork turret ship *HMVS Cerberus*. Bob Nicholls in his eighth and possibly his last book has done an excellent job of weaving the *Cerberus* story into that of the ongoing development of iron ships in the mid to late 19th Century. The book documents the development of the ironclad monitor and how this provided the genesis of the first battleships. Nicholls carefully and elaborately explains the advances in design of the boiler and the propulsion engine and the developments in gunnery and ship construction as they evolved in the mid-19th Century.

The book is well illustrated with drawings and plans of ships, fitted equipment and weaponry, all faithfully reproduced. Each section is carefully detailed with an excellent system of sidebar notes to which the reader's eyes can wander when further explanation is required. The book has an unusual feature in that it contains a portfolio of nine A4 drawings of *Cerberus* in a folder at the back of the book. This allows the reader to remove and refer to a drawing while reading the relevant chapter. The drawings are extremely well reproduced and are also available from the author in larger sizes.

Nicholls sets the political scene in both England and Victoria that allowed the colony to acquire what at the time was a major naval asset. The political intrigues surrounding the purchase and the opposition both at home and in the Admiralty are bared for all to read. The trials and tribulations of the Victorian Naval Forces in manning *Cerberus* in England and its subsequent voyage to Australia are fascinating to say the least. That the ship sailed on its initial voyage from the Thames to Portsmouth en-route to Australia without any sea trials, while amazing, is a testimony to the soundness of her construction. The ongoing problems experienced in manning and maintaining the ship, and the speed at which it became obsolete, are well explained. That the ship survived in service of various types from its arrival in 1871 until the end of the First World War highlights the young Australian nation's determination to establish a naval force.

The Three Headed Dog is an exceptional contribution to the documentation of Australian naval history and the development of the modern warship. The book will appeal to naval architects, marine engineers and naval historians alike.

Commander Tony Vine RAN

Editor's Note:

For anyone who would like to try his or her hand at building a model of *Cerberus*, www.papershipwright.freemove.co.uk has available for free download a 1:250 scale precision card model. Once downloaded, the model is simply printed out in full colour on five sheets of light card, and assembled using a craft knife, scissors and paper glue. A brief history of the vessel and full instructions is included.



