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## JOURNAL OF THE AUSTRALIAN NAVAL INSTITUTE



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## SUBJECT

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Cover Photo: HMAS KIMBLA pays off. ABPHOT K. Cole

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## FROM THE EDITOR

The November edition on mine warfare was well received by all accounts, although as usual I have had next to no correspondence on the subject — I would appreciate a few letters now and then commenting on the contents of the journal, particularly any which contradicted or extended the views put forth by our contributors. This edition does contain, however, an interesting photo sent in by Joe Straczek and a brief technical historical piece by Ray Jones.

In addition, there is a relevant article on ANZUS, suprisingly the first on the subject that we have ever had, and the prizewinning essay from the Staff College on maritime strategy — won by a female public servant, which might stir up a few sexist naval types to respond! There is also an article on one of the RAN's newest courses, one on some WWII Dutch submarines, one on a possible future for the Reserves and a brief piece on one of the lesser known establishments, RANITE. I would welcome similar articles from readers, in the RAN or elsewhere, publicising the activities of those places with which not everyone will be familiar. Tom Friedmann follows up previous articles on 'just' and 'moral' wars with an article on the US President's right to wage war. At the back, you will find some interesting book reviews.

I would like to take this opportunity to draw readers' attention to future editions, for which I will be seeking contributions. In general, I would be grateful for a supply of 'fillers' — those brief articles which we have published in the past under such headings as *Technical Topics, Shiphandling Corner, Nobody Asked Me But...* They are useful not only as fillers, but also to provide a counter to the longer, more academic articles; they can also serve as lessons for younger naval people and as stimulants to other articles.

In this regard, the **May edition** will be a birthday special and articles will be from junior officers (lieutenant commander and below) and sailors — equivalent ranks in the other Services and the civilian world are also encouraged to contribute. Contributors do not have to be members of the ANI. I hope that there will be plenty to choose from, in view of our founding president's words in the August edition last year, when he said that he was disappointed that there were not more articles of a contentious nature and/or from younger officers and sailors. Readers not entitled to contribute to this edition should keep their eyes open for potential contributors and consider employing some gentle persuasion! I will be more than pleased to answer any questions and to undertake a 'ghosting' role to tidy up the punctuation etc, if needed. The **deadline for copy is the 22nd April**, but I would be grateful for copy at the earliest possible date, and certainly for an indication of what is likely to be coming.

The **November edition** will have as its theme, aspects of maritime history, and I would like to cover a broad range of related topics — individual ships, strategy, politics, economics, social history. I have already a major article on *HMS SIRIUS*, a brief piece on life at the naval college and a promise of an article on projects being undertaken by the Sydney Maritime Museum. Interesting old photos would also be welcome.

Finally, the good news and the bad. First, congratulations to our founder member No 007, Nigel Berlyn, on his recent promotion to admiral. Secondly, advice that some RAN ships and establishments will no longer be receiving free copies of the journal — due to some errors in our accounting system, we have been sending out many copies to those who had not been requesting it on their annual order of periodicals, and hence we were operating at a loss. If individual members would care to check with regard to their particular ships, we may be able to avoid a break in continuity; annual orders of periodicals for 1986 will be due in by 29 March — I do have some inside knowledge in my new job and may be able to help.

My new office address is Campbell Park 2-5-09 and my new telephone number is 062-662245.

Geoff Cutts





# Correspondence

## NATIONAL NAVAL MEMORIAL TO MARK 75th ANNIVERSARY

A National Naval Memorial dedicated to all those who served, or are still serving, in the Royal Australian Navy and the Royal Australian Naval Reserve, is to be erected in Anzac Parade, Canberra, to mark the 75th anniversary of the RAN and RANR in 1986. The Prime Minister, Mr Hawke, announced that it was expected that Her Majesty the Queen would unveil the Memorial in March, 1986.

At this stage, proposed plans for the unveiling and dedication envisage a substantial formal parade by currently serving and former naval personnel on Monday, 17 March, 1986. This will also mark the start of Navy Week in Canberra during which time it is hoped there will be a significant contribution by members of ex-naval and ship associations.

Mr Hawke's announcement concerning the National Naval Memorial is a major milestone in Navy's bid for a Memorial to commemorate 75 years of proud tradition and sacrifice by tens of thousands of men and women who have served their country with outstanding distinction.

The proposal was first raised in February, 1980, and was followed by long, and sometimes frustrating, negotiations to get the proposal off the ground. Eventually the Canberra National Memorials Committee, which is headed by the Prime Minister, agreed with the concept and, more importantly, agreed to Government funding to the extent of \$250000. This probably makes the National Naval Memorial one of the most valuable works of sculpture ever commissioned in Australia.

The successful sculptor is Mr Ante Dabro, a senior lecturer at the Canberra School of Art, who won a national competition to design the Memorial. The focal point of it will be a bronze sculpture cast in a form of geometric shapes, with representational figures emerging from them. The design will symbolize the mutual dependence of sailors and their ships, and its dynamic force will be complemented by the imagery of moving water. The Memorial is to be erected in a paved and landscaped court on the eastern side of Anzac Parade, close to the Australian War Memorial.

In his announcement, Mr Hawke said 'This Memorial will be a significant tribute to the brave and distinguished men and women who have created the heritage of the Royal Australian Navy and the Naval Reserve.'

#### The Photograph

The Chief of Naval Staff, Vice Admiral DW Leach, and Canberra sculptor Mr Ante Dabro, discuss the bronze model of the Dabro design selected for the National Naval Memorial.

Further Inquiries: Mr Reg MacDonald (062) 65 5170



#### Ross in the Antarctic

#### Sir.

I shall be grateful if you will allow me to correct some serious misstatements in the review of my book *Ross* in the Antartic which appeared in your issue of May 1984.

Your reviewer says that I have relied on published works to which 'little has been added', that 'there are original sources which have not been used', and that the book 'cannot be regarded as authoritative'. He quotes, in particular, Hooker's unedited journal and his letters to his parents. I studied these in detail and used them extensively, as can be seen by any reader who refers to the source notes. He ignores the diary of the Sergeant of Marines of the 'Terror', the copy letter book of the 'Erebus', and many letters from family and other sources — none of which has been published before. The index card in the library of the Scott Polar Research Institute bears the footnote 'From original sources'; that judgement satisfies me. Your reviewer also makes some rather strange comments with regard to Sir James Ross himself. His Antarctic voyages have generally been regarded as the pioneer of scientific expeditions, whose results (in terms of terrestrial magnetism and quite apart from the geographical discoveries) far exceeded expectations. Yet your reviewer states that Hooker was 'the one bright star, who saved the scientific reputation of the expedition'! There are many other innuendos which readers of the review will readily detect without my assistance.

The oddest statement of all is his belief that 'the market' will be 'ready for a full account' in 100 years time. I shall not be around to read that particular publication, but I would be surprised if it contained much more information than I have found. However, with luck, my great-grandchildren will be able to sell some well-foxed copies of my book as a prime source, at a figure many times its present price!

Yours faithfully, James Ross Rear Admiral

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## Port Phillip Defences

Sir, The attached photo shows the early defences of Port Phillip Bay. The torpedoes (thick black lines) are actually minefields which would be laid in time of war.

## Joe Straczek



Port Phillip Defences at the End of the 19th Century

- J. Straczek



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## THE VALUE AND FUTURE OF THE ANZUS ALLIANCE

by Commander G.L. Purcell RAN

It is our true policy to steer clear of permanent alliance with any portion of the foreign world. George Washington 1796'

The opinion expressed by President George Washington on the value of foreign alliances to the fledgling republic of the United States is remarkably apposite to the current debate on the value and future of the ANZUS alliance. Paradoxically, however, it is one of the minor parties in the ANZUS alliance who appears to be questioning its value and it is the United States whose present interests lie in preserving the alliance in its existing form.

The aim of this article is to examine the historical background of the ANZUS Treaty and to consider the commitments, advantages and costs which flow from it. By this process, together with consideration of some of the political issues involved within the countries concerned, there will emerge some basis for predicting what might happen in the future relationship between Australia, New Zealand and the United States.

## Historical background

The ANZUS Treaty came into effect on 29 April 1952. The American signature to the Treaty is generally regarded as a *quid pro quo* for Australia's acceptance of a peace treaty designed to help re-habilitate Japan.<sup>®</sup> This 'soft' peace with Japan was anathema to Australia because of the bitterness generated by the Second World War and because of the nagging fear that resurgence of Japanese militarism might one day again threaten Australia.

American perceptions at the time of signing the Treaty were dominated by concern at the threat posed by the Soviet Union and by international communism. In 1949, the communists under the leadership of Mao Tse Tung had seized control in China and, in 1950, had attacked Korea. In response to this rapidly developing threat of communist hegemony in Asia, the US was determined to bring Japan into the Western Alliance and to forge alliances in South Wast Asia as a bulwark against the threat. Accordingly, the Manila Pact setting up the South East Asia Treaty Organisation (SEATO) and the ANZUS Treaty came into being at about the same time.

Under these circumstances, it was not especially surprising that ANZUS for many years did not figure largely in the American scheme of things. It is clear, however, that the United States did not wish to see Australia invoke the Treaty when Australian troops were committed to Borneo during Soekarno's confrontation or when Soekarno laid claim to West Irian.3 In its 32 year history, the Treaty has not been invoked, and for this reason, it is not possible to say that is has achieved or failed to achieve the purpose for which it was created. Despite never having been invoked, the existence of the Treaty has nevertheless had a psychological effect on each of the three parties, which has led to the broadening of their relationship in areas beyond the provisions of the Treaty. Some of the ways in which this has occurred will become apparent in the more detailed discussion which follows.

## Commitments under ANZUS

The main commitments by the parties to the ANZUS Treaty are defined in Articles II, III, IV and V.

Self help and mutual aid. Article II provides that the parties 'separately and jointly by means of continuous and effective self help and mutual aid will maintain and develop their individual and collective capacity to resist armed attack'. In these days of no immediate threat in the Pacific to the security of any of the three states parties,

#### The Author

Commander Gerald Purcell joined the RAN in 1962 as a cadet midshipman. His early postings included being Navigator of HMAS SWAN, CO of HMAS BOMBARD and exchange service at the United States Naval Academy, Annapolis. He qualified as a PWO (N) in 1976 and later served as Navigator of HMAS BRISBANE and HMAS STALWART and as an instructor at the Navigation School at HMAS WATSON. After five years of part time law studies, he was admitted as a Barrister of the Supreme Court of New South Wales in 1982. He is currently serving in the Department of Detence as the Project Officer. Defence Force Discipline Legislation, in which capacity he is trying to navigate the new discipline code for the Defence Force during the last stages of its long and stormy passage through the Canberra bureaucracy.

the operation of Article II is perhaps the most contentious of all the provisions of the Treaty. This is because it provides some legal basis separately from other specific aggreements for the operation in Australia of joint defence facilities such as the Defence Space Communications Station at Nurrungar, the TRANET satellite tracking station at Smithfield (SA) and the North West Cape Naval Communications Station.

The commitment to 'mutual aid' under Article II underpins Australian and New Zealand access to intelligence from US agencies, and facilitates the supply and support of US weapons systems in the Australian Defence Force. Article II also provides a basis for the conduct of exercises in which the military forces of each country participate. Finally, the provision of port facilities for naval vessels also falls within the ambit of Article II. As a corollary, the withholding of port facilities may constitute a breach of the Treaty sufficient to cause an affected party to consider the Treaty as being at an end as between itself and the 'withholding' party.

The ANZUS guarantee. Article III requires the parties to consult together whenever in the opinion of any of them 'the territorial integrity, political independence or security of any of the parties is threatened in the Pacific'.<sup>34</sup> Articles IV and V provide that each of the parties recognise 'that an armed attack in the Pacific Area on any one of the Parties would be dangerous to its own peace and safety and declares that it would act to meet the common danger in accordance with its constitutional processes.'

Articles III, IV and V of the Treaty conjointly provide the security guarantee on which Australia and New Zealand have placed their reliance for much of the period that the Treaty has been in operation. Like any guarantee, however, it is not absolute and this fact has been recognised by the States concerned. In a speech to the Parliament on 15 September 1983,<sup>4</sup> the Australian Minister for Foreign Affairs, Mr Hayden, cited with approval, earlier comments which had been made on ANZUS by the former Prime Minister, Mr Fraser. Inter alia, Mr Fraser had said:

'It is not our policy nor would it be prudent to rely upon US combat help in all circumstances. Indeed it is possible to envisage a range of situations in which the threshold of US combat involvement could be quite high'.

There is little doubt, either, that the United States views its obligations under ANZUS as being something less than absolute. First, the wording deliberately avoids the terminology of the NATO Treaty, whereby an attack upon one member state constitutes an attack upon all; however, it is generally accepted that the reason for this difference lies in US Congressional opposition to the wording of the (earlier) NATO Treaty rather than an attempt to avoid a binding obligation under the ANZUS Treaty. Secondly, the Guam Doctrine enunciated in 1972 by President Nixon made it clear that the United States would not continue to 'bear any burden or pay any price's in defence of the free world. Instead, each country within the Western alliance is expected to develop a prudent level of self defence capability commensurate with the resources which it has available.<sup>8</sup>

Finally, on this question of the guarantee, it is interesting to note the following recent comment made by the US Ambassafor to Australia, Mr Robert Nesen:

'In the United States view, ANZUS is as fundamental to the policies in the Pacific region as NATO is in Europe. Within the Treaty framework, the United States has an unreserved commitment to fostering the alliance as a vital instrument of stability and peace'."

Whilst this statement evidences increasing United States' interest in maintaining the ANZUS alliance, it could not be construed as a shift in the US position so as to commit that country to render military assistance to Australia or New Zealand in any specified contingency.

## THE STRATEGIC IMPORTANCE OF ANZUS

One view of the strategic importance of the ANZUS Treaty is that it is moribund; 'it is a scrap of paper which the US signed in 1951 to get Australia and New Zealand to agree to the peace treaty with Japan without public fuss'.<sup>8</sup> Some adherents of this view also believe that 'the scrap of paper' is worse than useless because, by allowing the operation of joint facilities in Australia under the umbrella of ANZUS, Australia thereby becomes a nuclear target whose destruction is assured.<sup>8</sup>

The first of these assertions is prima facie inconsistent with the second because, on any view, a moribund treaty could have no effect adverse or otherwise. The second assertion is central to the current debate in Australia in relation to ANZUS. The argument in detail is that the joint facilities do not support the strategy of nuclear deterrence. Instead, it is argued that these facilities, especially the Naval Communication Station at North West Cape, contribute to a first-strike strategy by the United States, based on the concept of a winnable nuclear war. The rationale for this view is that because the North West Cape station transmits messages to US nuclear hunter-killer submarines, whose task is to find and destroy Soviet missile firing submarines before they can



L to R. USS Chandler, O'Brien & Berkeley at Fremantle 1984

- Chris Gee

launch their missiles, the balance of nuclear deterrence is thereby destroyed. In performing its communications functions, North West Cape ipso facto becomes an instrument in the US first-strike strategy.

At first glance, this scenario seems plausible; however, it ignores the fact that both of the super-powers are actively engaged in monitoring each other's submarine forces and also, that US submarines have a variety of other roles in support of US maritime strategy in the Indian and Pacific oceans — for example, the protection of shipping from submarine attack. The argument also fails to recognise the fact that the location of Soviet submarines in the vast expanses of the oceans is an immensely difficult task and for the US to predicate a first strike strategy on the destruction of all of these submarines would be to expose itself to the certainty of retaliation.

A countervailing view of the strategic value of ANZUS, apart from its role in support of the nuclear deterrent, is that it contributes in a significant way to regional stability. In its 1982 report on the ANZUS Alliance<sup>10</sup>, the Joint Committee on Foreign Affairs and Defence concluded that the stability of Australia's own strategic environment is 'linked in no small measure to the effective involvement of United States interests and policies throughout the region'. The reason for this view is that the United States is the only country capable of balancing Soviet military power in the region. Without such a balance, the Soviet encirclement of China, the cutting of Japan's life-line to its oil supplies in the Middle East and Indonesia and the economic destruction of Australia could be achieved without firing a shot. Alternatively, Japan might react to the Soviet threat by re-arming, including developing her own nuclear weapons, thereby increasing the risk of serious conflict in the region."

At the present time, the strategic situation in the Indian Ocean is marked by a threat to Western oil supplies as a consequence of the Irag/Iran war and by an expansion of Soviet military power in the region. This power is evident in new bases in Afghanistan and the southern part of USSR, coupled with access to airfields in South Yemen and Ethiopia, and increased naval use of the Dahlak archipelago in the Red Sea. In the Pacific, Soviet naval activity has increased as a consequence of Soviet access to the naval harbour in Cam Ranh Bay in Vietnam. Twenty or so Soviet naval vessels are in port at any one time (about the same number as uses the US Naval Base at Subic Bay in the Philippines) and the airfield has been upgraded to allow use by long range Soviet aircraft.12

At the same time as Soviet power is expanding in the region, serious doubts have arisen about the long term availability of United States air and naval bases in the Philippines, which are the linch pins of American defence in the Western Pacific and Indian Oceans. Without these bases, availability to US warships of ports of call in Australia and New Zealand is important if the United States naval presence in the region is to be effectively maintained. As about 40 per cent of the US Navy is currently nuclear powered13, and most major combat ships will be nuclear powered in the future, the closure of Australian and New Zealand ports to nuclear powered ships would greatly exacerbate the problems of deployment of the US Navy in the region. The decision by the New Zealand Government to close its ports to US nuclear powered or nuclear armed ships does not of itself have any immediate strategic significance because visits by nuclear ships to New Zealand have been infrequent and also because most major Australian ports are still open. Clearly, however, this decision casts doubt on New Zealand's status and future within the ANZUS alliance: this issue will be considered in more detail at a later stage.

## BENEFITS AND COSTS OF ANZUS

Some of the benefits and costs of participation by Australia and New Zealand in ANZUS have already emerged. However, it is useful to draw some of these disparate threads together in order to judge whether or not the costs of the alliance outweigh the benefits. This question will be approached from an Australian viewpoint, although many of the matters apply to some extent to New Zealand. It is not suggested, however, that the interests or perceptions of these two smaller ANZUS powers are the same, as clearly this is not the case.

## Benefits

In addition to the reassurance of United States' assistance in the event of a threat to Australia's security, the ANZUS Treaty has led to broadly based Australian-United states a security relationship. In particular, the United States is the major overseas supplier of weapons systems and equipment in the Australian Defence Force and is in a position to support the objective of transfer of technology to Australian defence related industry.14 The continuing availability of supply and support of defence equipment has been placed on a formal basis by means of a Memorandum of Understanding (MOU) on mutual logistics support. The MOU gives Australia priority and certainty in the acquisition of defence equipment

and also provides for the transfer of technical and manufacturing data.

Another major benefit of the alliance is that it facilitates the conduct of a wide range of military exercises in which the armed forces of each of the three countries participate. These exercises provide an important foundation for any joint military action which may be required under the ANZUS Treaty, as well as providing considerable training value.

Thirdly, the ANZUS relationship gives Australia valuable access to US strategic thinking and allows closer assessment of global and regional developments which might affect Australia's own strategic outlook. ANZUS also conveys a deterrent message, to the Soviet bloc powers and to potential aggressors in the region, that this is not an area of low-cost, low risk opportunities. Finally, the relationship is reassuring to the ASEAN group of countries who welcome it as an indication of continuing American interest in this part of the world.<sup>144</sup>

## Costs

Critics of the alliance argue that the following costs flow from Australia's participation in ANZUS:

- Australia has become a nuclear target,
- there has been a loss of Australian sovereignty,
- Australia's defence policy is distorted, and
- Australian foreign policy is constrained.

Australia a nuclear target? In its report on the ANZUS alliance, the Joint Committee concluded that 'there is a finite risk' that one or all of the joint facilities at North West Cape, Pine Gap or Nurrungar might be a target during a nuclear war between the Soviet Union and the United States.15 This risk has been regarded as slight by successive Australian governments who also believe that it is outweighed by the contribution made by the facilities to the defences of the whole Western alliance. Apart from their role in the strategy of nuclear deterrence, the Committee found, also, that the facilities played an important role in monitoring and gathering intelligence on Soviet forces and weapon movements and were able, in some measure, to verify compliance with arms limitation agreements.

Loss of Australian sovereignty? It is argued that the functions of the joint facilities may jeopardise Australian sovereignty because Australian governments are not fully consulted or do not exercise sufficient control over their operations. Instances which have been cited in support of this view are the use of the North West Cape facility in late 1972, during the US mining of the port of Haiphong, and the station's red alert during the 1972 Arab-Israeli war. As a result of these incidents, the Whitlam government renegotiated with the United States to give Australia joint control over the facility.<sup>19</sup> In May 1978, the Australian Minister for Defence, Mr Killen, stated publicly that Australia had not been treated with the proper courtesy in relation to the letting of new contracts for new equipment at North West Cape and insisted that a formal request be filed by the United States Government. This was then done and in turn approved by the Australian Government.<sup>17</sup>

These incidents indicate that the United States has not always acted with sensitivity to its ally. They also indicate that the Australian Government took measures to ensure that respect for Australian sovereignty was maintained. In 1982, the Joint Committee on Foreign Affairs and Defence expressed satisfaction that there was no unacceptable loss of sovereignty arising from the presence of the joint facilities.18 However, in a dissenting view by eight members of the Committee, some concern was expressed in relation to the operations of North West Cape. In effect, these members sought to extend procedures for consultation to ensure that Australia is not involved in conflict without its consent and its sovereignty therefore maintained.19

Australia's defence policy distorted? Another

criticism of ANZUS is that it has distorted defence policy by causing the development of a force structure designed for distant operations in collaboration with US forces instead of developing a structure more suited to the defence of Australia.<sup>20</sup> This view is based on the contentious presumption that the defence of Australia is best achieved by concentrating defence resources close to home with the object of defending mainland Australia. It ignores the fact that the Australian economy is dependent on overseas trade and the necessity of maintaining a credible off-shore deterrent in order to prevent that trade being threatened or interrupted.

The so-called 'little Australia'<sup>21</sup> policy also ignores the fact that Australian-United States defence co-operation confers considerable technological and operational advantages on Australia over neighbouring states in the region. As a consequence of this 'technology gap', any attack on Australia or any of its off-shore interests is likely to be a highly risky and costly enterprise.

Australian foreign policy constrained? Critics of the ANZUS alliance also argue that it imposes contraints on Australian foreign policy. For example, Dr Desmond Ball has argued that the presence of the joint facilities in Australia was inconsistent with the country's role on a United Nations Committee working towards implementation of a 1971 UN Resolution on the



BILLFISH (SSN)

establishment of a Zone of Peace in the Pacific. There was no evidence to support this view; in fact, Australia sought (unsuccessfully) to gain US support for the objectives of the Committee.<sup>22</sup>

On the other hand, Australia has adopted a different stance to the Reagan administration on the Law of the Sea negotiations and on Third World issues such as Namibia. It has also pursued different policies (from the US) in relation to the expanded defence role for Japan and US support for Taiwan and Israel. Australia has also taken an active role in support of the South Pacific Forum resolution to establish a nuclear-free zone in the Pacific.

## POLITICAL ASPECTS OF ANZUS

Regardless of the actual benefits and costs of participation in the ANZUS alliance, the future of the alliance is largely a matter of politics. In this regard, the major question to be considered is whether the New Zealand Government is prepared to withdraw from the Treaty. In a published interview, the Prime Minister of New Zealand, Mr Lange, has said 'there would be no unilateral withdrawal' by his country. He also said: 'Even if we didn't have ANZUS, it's inconceivable that the Americans would stand by while we were invaded'.<sup>20</sup> In contrast, the United States Secretary of State has warned that the Treaty could be destroyed if New Zealand maintains a ban on visits by nuclear ships.<sup>24</sup>

If a compromise is not reached on the shipvisit issue, it seems likely that New Zealand will then play a reduced role in activities under the ANZUS alliance, will enjoy fewer of the benefits which flow from it and will become much less visible as a regional power. Thus, despite the foregoing declaration by Mr Lange, the withdrawal by New Zealand from the alliance may arise de-facto, even though no formal action is taken by the Government to withdraw from the ANZUS Treaty. Whether the people of New Zealand share their Prime Minister's view that the United States will defend them in all eventualities and are prepared to accept the long term effect of this policy of neutrality remains to be seen. In view of the offer only 2 years ago, by the former New Zealand Government, of direct military support to the United Kingdom in the Falklands War, it may be unwise to predict the direction that that country's foreign and defence policies may take in the future.

In the present climate of uncertainty, debate has heightened as to the value of the ANZUS alliance to Australia. Whilst commentators on both sides of the political spectrum purport to argue the issue on its merits, it has become clear that the debate is essentially political in character. In short, the issue is whether Australia should have a special defence relationship with the United States — the left says it should not, the centre and the right argue that it should.

For its part, the Australian Government completed a review of the ANZUS Treaty in 1983 and unequivocally affirmed that the alliance is fundamental to Australia's national security and foreign and defence policies. The Government is also of the view that the contribution by the joint facilities to deterrence of nuclear war justifies the risks that might arise from them and gives Australia some moral standing 'in the position we intend to take in the United Nations and other international fora in support of arms control and arms reduction'.<sup>25</sup>

## THE FUTURE

In the event that New Zealand withdraws from ANZUS (whether formally or de-facto), it seems likely that the Treaty, or a re-negotiated version of it, will continue to operate on a bilateral basis between Australia and the United States. However, if the left-wing of the Labor Party 'gets the numbers' at the next Labor Party Conference, it is likely that the Government will be pressured into watering-down its present commitment to ANZUS. Once this process starts (if it does), it would probably lead irrevocably to complete disintegration of the alliance.

Futhermore, even if ANZUS remains intact, its operation is likely to be impaired, to some extent, because of the opposition by maritime unions in many Australian ports to visits by US warships. The problems associated with the proposed docking of *HMS INVINCIBLE* in Sydney in 1983 and the recent stoppage of work by waterside workers in Darwin, in protest at the visit by a US nuclear submarine, are indicative of the likely way ahead.

Notwithstanding the perceived value of the alliance now or in the future, it is unlikely that any Australian government would take the final step of withdrawing formally from the ANZUS Treaty, because the Australian electorate appears to favour remaining in it. Should public opinion on this issue change, however, Australia may adopt a neutralist foreign and defence policy in the future. In this event, and with the likelihood that further developments in space technology will obviate the need for the joint facilities in Australia,26 it is unlikely that the United States will wish to negotiate a new mutual defence treaty with Australia. Instead the United States may well resume a policy of isolationism, which in the opinion of George Washington is its 'true policy'.

#### Notes

- Farewell Address to the People of the United States on 17 September 1796.
- The Importance of being ANZUS', Denis Warner, Pacific Defence Reporter September 84, p.16. This view of the Treaty was not shared by the then Minister for External Affairs the Rt Hon RG Casey who described the Treaty as 'a deterrent against international communist aggression'. See Ralph R Harry, 'Security Treaty Between Australia, New Zealand and the United States of America'. Australian Outlook, August 1981, p.201 and 205.
- 3. Warner, op cit, p16.
- 3a. The words 'Pacific' or 'Pacific Area' are generally regarded as having an extended meaning so as to include the Indian Ocean and island dependencies of Australia and New Zealand. Report by Joint Committee on Foreign Affairs and Defence on the ANZUS Alliance Australian Government Publishing Service, Canberra 1982, p15.
- 4. Hansard, 15 Sept 1983, p 898 et seq.
- As President Kennedy has promised it would, in a speech in Berlin in 1961.
- Hansard 15 Sep 1983; the Guarn Doctrine does not say (as was recently asserted by K Davidson (Age 30 August 1984)) that the United States will defend Australia only if it is attacked by the Soviet Union.
- 7. The Australian, 4 July 1984.
- 8. K Davidson, The Age, Melbourne, 20 Sep 1984.
- 9. ibid.
- 10. op cit p87.
- This opinion of a re-armed Japan was expressed by the Prime Minister of Singapore, Lee Kuan Yew on 7 Nov 1982 and was cited by BA Santamaria in the *The Age*, Melbourne, 13 Sep 1984.
- 12. Warner, op cit.
- 13. ibid.
- 14. The ANZUS Alliance, op cit p 51 et seq.
- 14a. The ANZUS Alliance. op cit p 69.
- 15. ibid, p54.

- See United States Naval Communication Station Agreement Act (No. 102, 1975)
- 17. The ANZUS Alliance, op cit p59.
- 18. ibid, p 62.
- 19. ibid, p 95.
- This view was expressed by Dr. Desmond Ball in evidence to the Joint Committee on Foreign Affairs and Defence on 24 May 1982, pp 79-80.
- This expression was used in a submission by the Georgetown University Center for Strategic and International Studies in Washington DC in 1976.
- Evidence before the Joint Parliamentary Committee on Foreign Affairs and Defence 24 May 1982, pp 80-81.
- 23. cited in The Sun, Melbourne, 24 July 1984.
- 24. ibid.
- See the statement by Mr Hayden on the review of ANZUS, Hansard, 15 September 1983, p 898 et seq.
- In the opinion of Dr TB Millar, this could be within 20 years. See Seapower 84 Proceedings, Australian Naval Institute, p18.

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MAEKLONG (Thailand)

- Chris Gee



## EXPANDED SEAGOING ROLES FOR THE RANR

by Lieutenant Commander R.W. Cunningham RANR

Ships, stocks of ammunition, spares and support facilities are increasingly costly and complex with ever lengthening procurement lead times. If orders for hardware are to be placed and fulfilled, any threat to our security must be promptly recognised and responded to by the government of the day. This reactive approach to defence is unsound historically and dangerously inadequate in a shrinking and increasingly unstable world. The responsible proactive approach would be to maximize expenditure on hardware now, whilst maintaining at least cost that balance of RAN and RANR manpower necessary in a defence emergency.

The principle advantage of the RANR is that it can provide seven competent part-time RANR officers or sailors for the cost of one expert full-time RAN officer or sailor. With only a modest investment in continuing administrative, maintenance and training support by the RAN, the Reserve can maintain a level of proficiency that can be readily consolidated in the short lead time of a defence emergency. Put simply, a Reservist's skills can be brushed up very much faster than ships can be built. Therefore, unlike today, we must have more ships in reserve and an expanded RANR to man them.

The present functions and roles of the RANR are set out in D1(N) ADMIN 6-1 as follows:

Primary Function: to contribute to the functions and roles of the Royal Australian Navy.

Secondary Function: to complement the RAN.

Primary Roles:

- to man, operate and contribute to the support of assigned MInor Fleet Units;
- to man and operate merchant ships taken up for military use and operate merchant ships requisitioned for naval or military purposes; and
- to provide command and control support, in particular:

maritime headquarters staff;

naval command, control and protection of shipping; and

seaward and port defence.

Secondary Roles:

- to man RANR billets applicable to RANR skills, and
- to provide ancillary support.

In addition, an expanded RANR should be tasked with prime responsibility for mine counter measures (MCM), the operation of all LCHs and have the ATTACK Class Patrol Boats (ACPB) presently assigned, replaced by FREMANTLE Class Patrol Boats (FCPB).

## RANR PORT DIVISIONS

The RANR was revived in 1950 with six Reserve Port Divisions (RPD) which today have a total strength of around one thousand officers and sailors who train regularly.

The recent establishment of an RPD in Darwin should mark a new expansion of the RANR. To facilitate seaward and port defence, additional RPDs should be established around the coast at Cairns, Townsville, Newcastle, Port Kembla, Geelong and Devonport. Following the US and Canadian example, RPDs should be established at inland population centres such as Toowoomba, Ipswich, Bathurst/Orange, Canberra, Albury/Wodonga and Ballarat. As in Canada, personnel could be flown by Service aircraft to embark in coastal RPD vessels for weekend sea training.

#### The Author

Lieutenant Commander Cunningham joined the RANR as a Recruit Seaman in 1965 whilst an undergraduate at Sydney University (BA). He was commissioned in 1968. As a Seaman Officer he served as NO/XO in GPVs BASS and BANKS, in the ACPBs ARCHER, BOMBARD and BUCCANEER as well as a number of major fleet units whilst under training (VAMPIRE, YARRA, SWAN, TORRENS, DERWENT). He gained a MWV Command Certificate in 1977 and has commanded TRVs. DTVs and ACPBs at weekends and ACPBs for periods of continuous training including Exercise Anchorman 81 and a BSORS patrol. He has trained principally with SPD but with APD in 1969-70 when ADC to Governor of SA. Postings have included DO, Training Officer, Sea Training and Operations Officer. Course Officer for Officer Candidates and currently MWV Command Course. He recently completed four and a half years Honorary ADC at Government House, Sydney, and is currently History Master at Woolooware High School.

<b>RANR Port Division</b>	Parent	Establishment	Assigned Training Vessel
Brisbane	HMAS	MORETON	HMAS LABUAN (LCH)
Sydney	HMAS	WATERHEN	HMAS ADVANCE (ACPB)
Melbourne	HMAS	LONSDALE	HMAS BAYONET
Hobart	HMAS	HUON	HMAS ARDENT
Adelaide	HMAS	ENCOUNTER	HMAS AWARE
Fremantle	HMAS	LEEUWIN	HMAS ADROIT
Darwin	0.00000000		NONE AS YET

The numbers needed for an expanded Active Reserve could thus be raised by spreading the responsibility for Maritime Defence more evenly across the nation. More importantly, the Navy would have a far wider and more visible nationwide presence at a time when the need to arouse maritime defence awareness is critical. An expanded Reserve would go far to generate such an awareness.

The Active Reserve must be built up by training civilians so as to expand the pool of naval skills. To artificially inflate Active RANR strength with ex-RAN personnel will, in the long run, be counter productive. The appropriate place for ex-RAN personnel is the RANEM, RAFR and WRANSR.

## AN MCM ROLE FOR THE RANR

Australia's economic and political survival depends upon a steady flow of seaborne trade. The entrances and approach channels to many of our ports are restricted, shallow water areas around our continental shelf are extensive, and the Barrier Reef restricts shipping movements to a few passages. Thus our military operations and seaborne trade are vulnerable to even a modest mining effort.

Our MCM capabilities have been steadily reduced to the point where they are barely capable of clearing one, let alone all 72 Australian ports. Fortunately, the MHCAT Project addresses the inshore minehunting problem, but a deepwater minesweeping capability remains an urgent need.

## RANR operated MCM core-force

Australia neither needs nor can afford to maintain a standing peacetime force of MCM platforms in the numbers necessary for all wartime needs. However, a core-force could be pre-positioned around the coastline to counter a limited threat and train MCM personnel. This core-force could be augmented in an emergency by vessels of opportunity (VOOPs). They need to be identified, registered and modified as necessary to embark MCM gear. The costeffective solution to manning both the standing core of MCM platforms and VOOPs it to make MCM an additional RANR role.

MCM platforms are relatively unsophisticated

vessels designed to fulfil a specific task, and as such are ideally suited to operation by the RANR, already located in and familiar with the major ports.

## Training the RANR for an MCM Role

As with most RANR roles, the RAN will need to provide dedicated training, administrative and maintenance support. The scheme of complement of each RPD parent establishment should reflect this need to provide a small number of instructors on a regular, though only part-time basis. As RANR MCM skills are consolidated and responsibility for MCM is progressively transferred to the RANR, the need for RAN training support would be reduced.

During weekend training, RPDs would exercise in and around those ports closest to them, while during 13 day periods of annual continuous training, deployments would be made to more distant ports within an RPD's area of MCM responsibility.

## **RNR and USNR MCM Operations**

The RNR has long played a key role in RN minesweeping. The *TON* Class have been operated in NATO exercises by the Port Divisions of the RNR for more than twenty years. Today, purpose designed MCM vessels of the *RIVER* Class are being built and assigned to the RNR Divisions, following deep-sweeping experience gained by the RNR operating two modified trawlers since 1978. Similarly, the USNR currently operates some 18 large ocean minesweepers of the *AGGRESSIVE* Class and replacement construction is underway.

An RANR operated MCM core-force would be a very cost-effective mix of part-time manpower and ready hardware at a time when full-time manpower absorbs too many scarce defence dollars.

## AN FCPB ROLE FOR THE RANR

Australia's need for a patrol boat force was clearly acknowledged when the ATTACK Class boats (ACPB) were introduced into RAN and RANR service simultaneously in 1968–69. The ACPBs demonstrated that further training and operational roles could be realised in a second generation platform, hence the current replacement of the ACPBs by the more capable FCPBs. With oil rig surveillance continuing, the likely declaration of the EEZ and the expanding fast attack craft inventories of our north-western neighbours, additional patrol boats are needed.

As the Falklands conflict demonstrated, it is unlikely that there will be either sufficient warning time or a place on the procurement queue for additional major hardware items. Assigning FCPBs to RANR PDs would ensure that:

- more platforms would be available at the start of a conflict, and
- the Reserve would be better able to realize its role of providing properly trained patrol boat crews.



HMAS BOMBARD & ARDENT — Exercise ANCHORMAN 1977

- J. Mortimer

## **Diminishing Value of ACPBs**

As the ACPBs are phased out of RAN service, the remaining five RANR ACPBs become a defence liability as:

- their already questionable military value further diminishes,
- the cost of maintenance and spares increases, and
- their justification as a training platform loses relevance when additional RANR crews will have no RAN ACPBs to man.

On these grounds, it would therefore be cost-effective in the long term and enhance the RAN's overall capabilities, to replace RANR ACPBs with FCPBs. The ACPBs could be transferred to New Guinea under the Defence Co-operation Programme.

The advantages of an all FCPB patrol boat force are that:

- training, maintenance and logistics would be rationalized;
- · the force would have uniform capabilities;
- as in the early 1970s, the RAN and RANR would again be operating one vessel to their mutual benefit;
- the RANR could be fully integrated into fleet training and operations; and
- the morale, training standards and overall effectiveness and value of the RANR would significantly increase.

A prompt follow on order for additional FCPBs would result in cost benefits from continued series production, while employment and shipbuilding skills would be maintained in Cairns. With the prevailing public mood and political climate favouring national defence rather than power projection, additional FCPBs should be readily approved.

## AN EXPANDED LCH ROLE FOR THE RANR

Brisbane PD's manning of *HMAS LABUAN* has demonstrated the Reserve's ability to provide support for the Army's amphibious operations. LCH operations is another area in which the RANR should have an expanded role, for whilst LCH operations require particular skills, the task is clearly defined and they are relatively simple platforms to maintain and operate. All LCHs should therefore be assigned to RPDs so as to:

- free RAN personnel for major war vessels.
- distribute LCHs around the coastline for disaster relief,
- enable speedier concentration of LCHs to meet Army needs in areas other than just the central eastern coastline, and
- · extend LCH service life.

## CONCLUSIONS

With defence funds limited, the RANR is a particularly cost-effective and, as an essentially defensive force, politically acceptable way of acquiring and operating more hardware without incurring excessive manpower costs. Where operational tasks are well-defined or limited in scope, where smaller and less-sophisticated platforms are involved, the RANR can play a valuable seagoing role in the Navy's force structure.

In the MCM role, by operating inshore MHCATs, deepwater minesweepers and their associated Diving Teams, the RANR can maintain those specialized skills needed rapidly in an emergency, but not particularly required in peacetime. By operating FCPBs and LCHs, the RANR would free expensively trained and salaried RAN personnel for major war vessel billets. Thus a relatively modest investment in platforms, together with dedicated training, administrative and maintenance support by the RAN, would enable an expanded RANR to strengthen Australia's defences without incurring the manpower costs of full-time personnel.

To enhance Australia's defences by the RANR operating FCPBs, LCHs and MCM vessels, the Department of Defence should:

- task the RANR with the prime responsibility for mine countermeasures;
- procure and assign to RPDs an appropriate mix of inshore MHCATs and deepwater MCM vessels;
- compile a register of VOOPs and modify these vessels accordingly;
- develop and hold ready the necessary MCM equipment for VOOPs;
- establish additional coastal and inland RPDs;
- establish (or maintain) RANR Diving Teams in all RPDs;
- place a follow-on order for additional FCPBs to be assigned to RPDs; and
- have the schemes of complement of PD parent establishments and individual job statements reflect the need for dedicated training, maintenance and administrative support for the RANR similar to that provided by ARA training cadre staff for the Army Reserve.



## THE SUBMARINES THAT STAYED

by Vic Jeffery

Seven Dutch submarines managed to escape from Java in the Dutch East Indies when it was overrun by the Japanese in March 1984. Three of these submarines — K8, K9 and K12 escaped to Fremantle in Western Australia. Four others K11, K14, K15 and O19 managed to reach Colombo in Ceylon. Of these seven submarines, four were destined never to leave Australian waters.

K8 was a 583-ton coastal submarine first commissioned on 15 September, 1922. Twelve months after commissioning, K8 sailed for the Netherlands East Indies in company with the depot ship *HNLMS PELIKAAN* and the submarines K2 and K7. Armed with the standard Royal Netherlands Navy armament of a 3.5 inch deck gun and four 17.7 inch torpedo tubes, K8's East Indies service was uneventful, apart from a voyage from Tarakan to Manila in March, 1926, in company with three other Dutch submarines.

Following the outbreak of war with Japan in December, 1941, the K8 was lying in reserve at the Surabaya Naval Dockyard in Java. She was quickly re-commissioned on 6 January, 1942, for coastal defence and asdic training duties. Her crew had transferred from the damaged K13 which had sustained major damage in a battery explosion in Singapore and been escorted back to Java for repairs. It was later scuttled at Surabaya on 2 March, 1942, to avoid capture by the Japanese. K8 made several war patrols between Bawean and the north coast of Java before being ordered to make for Australia on 3 March, arriving in Fremantle on the 17th.

After inspection by naval authorities, the old K8 was declared unfit for operational use and de-commissioned in Fremantle on 8 May, 1942. Three months later on 27 August she was declared for disposal. The conning tower was removed from the K8 and erected on the Fremantle pilot boat *LADY FORREST*. Its main 220 volt, 2200 amp electro motor was removed and installed at the main Fremantle slipway where it was still in use providing DC power in the 1970s. After being stripped, the K8 was towed down to Jervoise Bay in Cockburn Sound,

where the intention was to beach the old submarine and break it up.

However, she foundered 100 metres offshore and was subsequently abandoned. It lay there for the next 14 years until being declared a navigational hazard in 1957. With the opening of the Kwinana oil refinery and increased shipping traffic the wreck had to go. Local divers Jack and Terry Sullivan were the gentlemen tasked with removing the wreck, and between July and August, 1957, they used 24 cases of plastogel to blow the submarine into removeable sections. One of the explosions actually blew the bow of the submarine onto the then desolate beach. It lay in the sandhills of Jervoise Bay for many years being finally removed in the 1970s.

The second submarine to reach Fremantle was the K9, which deployed in that area until being offered to the Royal Australian Navy in 1943 for anti-submarine training. Royal Navy and RAN personnel from the former RAN 'J' and 'O' class submarines were recruited to man the K9, which was given pennant K39 and quickly deemed as not being suitable for front-line service. It proved to be a liability rather than an asset.

It paid-off from RAN Service on 31 March, 1944, after being plagued by mechanical problems. K9 reverted to Dutch control and was converted to an oil fuel lighter for Royal Navy use in Sydney. K9 departed Sydney under tow from the minesweeper *ABRAHAM CRIJNSSEN* on 7 July, 1945. The following day she was wrecked on Fiona Beach near Seal Rocks on the NSW coast after breaking her tow. The wreck was purchased by Humphrey & Balt for £985 on 20 July, 1945, and was partly scrapped. Its remains lie on Fiona Beach till this day.

K11 was the second Dutch submarine to end its days in Fremantle, in a somewhat spectacular manner. After spending most of the war operating from Trincomalee as an asdic training submarine for the Royal and Indian navies, K11 arrived in Fremantle on 22 March, 1945.

The 660 ton submarine paid-off on 10 April, 1945 and was handed over to the Royal



The Royal Netherlands Navy Submarine K8 pictured in the Indian Ocean



Diver Terry Sullivan pictured on the K8 after it had been blown apart in 1957 (Photograph from Sullivan Collection)



The wrecked K9 lying off Fiona Beach near Seal Rocks, NSW after breaking her tow to the breakers, 1946. (Photo: courtesy of M. Stephens)



3.5 inch Dutch Naval gun in grounds of Royal Freshwater Bay Yacht Club. Formerly on Submarine K11 donated 1945.

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FERRANTI Computer Systems Australian Navy at Fremantle for transfer to the disposal list on 21 June, 1945. K11 was towed up the Swan River to the Royal Freshwater Bay Yacht Club, the site of the wartime *HMAS LEEUWIN II*, the home of the Naval Auxiliary Patrol headquarters in Western Australia. There the K11 was partially stripped, and her 3.5 inch deck gun removed and donated to *HMAS LEEUWIN II*. The gun stands in the grounds of the Royal Freshwater Bay Yacht Club till this day.

K11 was then moved back to Fremantle Harbour where she was further stripped on the Fremantle slipway after being purchased by a Mr McMinn of New York. It was then moved down harbour and tied up alongside another Dutch vessel, but Colonel Boaz of the Australian Disposal Commission and the Fremantle Habourmaster both wanted the old submarine out of the harbour.

K11 then caused a further furore when it sank in the harbour through a worker inadvertently leaving a depth gauge valve open. It took a local diver six weeks to seal up all openings and the six torpedo tubes on the K11's hull. From there it was raised by the RAN boom defence vessel *HMAS KARANGI* with the assistance of several local vessels. K11 was then further dismantled at the North Wharf near the old Fremantle railway bridge. Finally, in September, 1946, the remains of the K11 were towed out to a position 12 miles outside Rottnest Island and scuttled in an area known as the ships' graveyard.

The fourth Dutch submarine destined to never leave Australian waters was the K12. After escaping to Fremantle in March 1942, the K12 spent the war on the Australian coast as an anti-submarine training vessel for the RAN and the United States Navy.

Paid-off on 5 May, 1945, the K12 was sold to private interests which called themselves 'the Sub Syndicate'. The K12 was moored in Lavender Bay, alongside Luna Park in Sydney on 1 September, 1945. As well as being open for public inspection as a Park attraction, the K12 also provided DC power to the amusement centre.

In 1946, negotiations were held with the Port Jackson and Manly Steamship Co Ltd for the K12 to be moored at the promenade, Manly, and exhibited to the general public. After minor repairs and the installation of mooring dolphins, K12 was moved to Manly in October 1946. There it remained as a tourist attraction until it broke loose from its moorings during a gale on the weekend of 4–5 June, 1949, and damaged the wharf.

It was decided that in order to prevent further damage to the submarine and the wharf, the K12 should be moved to a more sheltered anchorage. Neutral Bay was the chosen site. The Waratah company tug Warang took K12 in tow with four employees aboad the submarine on the afternoon of 5 June. However, when battling into the heavy seas at the entrance to North Harbour, the tow-rope snapped. A second rope was attached, but this parted almost immediately and the K12 drifted fast towards the rocks at Fairlight. The Sydney Morning Herald reported on Monday 6th June, 1949 'One man was washed overboard and three others were trapped on a submarine which was driven aground at Fairlight Beach, Manly, in the heavy swell yesterday.'

An attempt to refloat the boat was made by the Waratah Tug and Salvage Co on 10 June, 1949, this proving fruitless. The Syndicate enquired of a number of professional divers, and tenders were called in the press for either purchase or removal. A diver named Hellings contracted for the removal, but after five unsuccessful attempts was forced to withdraw, owing to financial embarrassment.

An offer to purchase the K12 was received from Melbourne; however, this fell through when the purchaser failed to raise the necessary finance. Following further advertisements in the press, the Syndicate was approached by a Mr A Stephens, who subsequently agreed to purchase K12 and release the Syndicate from the responsibility of removing her from Fairlight Beach.

A flying fox was erected from the shore using the elevated barrel of the submarine's 3.5 inch gun. In the accommodation area forward of the conning tower, the floor was taken up and the heavy batteries below were lifted out and landed ashore. The vessel was hard aground on the rocks amidships, and a number of electric motors were removed in an endeavour to lighten the vessel prior to refloating. Hand operated winches were set up by anchoring them to 100mm steel pins embedded in the rock situated on the south-eastern shore from the K12. These winches were rigged to similarly anchored heavy pulley systems which in turn were connected to heavy hauling wires.

Using this tackle, K12 was inched forward little by little over several weekends and not without a number of tackle breakages. The intention was to float the K12 off during the Christmas-New Year high tides of 1950–51, and on 7 January, following the pumping of air into her ballast tanks, K12 floated free of the reef and assumed a lesser degree of list than previously noticed. Once freed, K12 was towed by the tug *Boray* to Kerosene Bay where demolition work commenced.

Following advanced stripping of the hull, it was considered necessary to beach the hull to cut it into sections. The remains of the K12 were towed into the Parramatta River, downstream from the Ryde Road bridge. Here disaster struck, when vandals managed to remove wooden plugs driven into openings in the hull where sea cocks and pipes etc had been removed. K12 sank with approximately 10 metres of the bow showing out of the water at low tide.

Attempts were made to lift the stern and swing

the vessel broadside on to the beach, but these were unsuccessful. The hull then had to be cut into segments and rolled inshore using the same tackle as was employed at Fairlight. Total demolition was finally completed in 1961, thus ending a chapter in Australian maritime history.

The fact that all four submarines came to grief after paying-off in Australia is incredible. They were truly 'The Dutchmen Who Stayed.'



The former Dutch Submarine K11 being raised from its watery grave in Fremantle Habour in 1946 by the boom defence vessel HMAS KARANGI. The SS Agnes is assisting. — M. Stephens



The former Dutch Submarine K12 after its refloating in 1951.

- M. Sweetman

## ROYAL AUSTRALIAN NAVY IKARA TRAINING ESTABLISHMENT

by Lieutenant Commander D.R.G. Agar RAN

The Royal Australian Navy IKARA Training Establishment (RANITE) is a non-commissioned establishment situated within Building 215 in the Contractors' Area of the Defence Research Centre Salisbury (DRCS). For those not familiar with South Australia, DRCS is situated 25km N-NE of Adelaide between the cities of Elizabeth and Salisbury. The RAAF Base Edinburgh is adjacent to DRCS and RAN personnel posted to RANITE for training are normally accommodated there.

## History

RANITE came into existence in 1967 being the product of a group of Thorn-EMI engineers and the RAN. The team produced a working IKARA missile system using a test missile with ship sonar, and radar, information being provided from ship simulators. A complete set of EXDAK equipment is also incorporated at RANITE and hence the IKARA system installed at RANITE comprises most of the GWS F2 System as fitted to the DDG class ship.

The conduct of training courses at RANITE began in 1968 and since then RANITE has been the principal training establishment for the RAN IKARA Weapon System. The other training establishments are *HMAS CERBERUS*, (Missile Handling and Launcher System training conducted at the Commonwealth Aircraft Corporation facility), and the RAN Missile Maintenance Establishment (RANMME) at Kingswood NSW.

MULLOKA Sonar training for maintainers and operators is to be conducted at the MULLOKA Maintainer Training Unit (MMTU) and Operator Training Unit (MOTU) respectively. Originally both these units were to be sited at *HMAS WATSON*, but in 1980 the RAN decided to site the MMTU at RANITE adjacent to the Lead Contractor (Thorn-EMI Electronics Australia (TEEA)) for follow-on support (FOS). Operation of the MMTU was planned to commence in early 1984 with MOTU following some 18 months later.

#### **RANITE** modernization

Prior to 1982, RANITE shared, with TEEA, part of building 215. The installation of the MMTU within building 215 meant that the TEEA facilities staff would need to be relocated, and the internal physical structure of the vacated area stripped and remodelled. This work began in November 1982 and completed in April 1983. The result is that the RAN now has a modern instructional environment for trainees as well as improved office spaces for staff.

Installation of the MULLOKA Sonar equipment at RANITE began in November 1983 and finished in June 1984. RANTAU inspection and trials were then carried out with delivery of the MULLOKA system to the RAN occurring on 30 July 1984. Subsequent acceptance of the installation by the RAN is not expected until December 1984 due to outstanding items to be completed by the contractor.

The first MULLOKA courses conducted at RANITE began on 07 May 1984. Theoretical instruction was the norm until 30 July 1984 when MULLOKA system (PO3) was transferred from TEEA to the RAN. In addition to maintainer courses, management and system courses will be offered at RANITE. These courses are substantially longer in duration than the IKARA courses due to higher technical complexity. For

The Author	
1972	Joined the Instructor Branch of the RAN
1972-75	Instructed at the Weapons Electrical Engineering School (WEES) HMAS CERBERUS.
1975-77	Exchange posting to HMAS COLLINGWOOD.
1977-80	OCO/TDO/OIC etc training at WEES. HMAS CERBERUS.
1980-81	QCO/EDO Training School at NAS NOWRA.
1981-84	OIC RANITE
JAN 85-JUN 85	RAN Staff College
JUN 85	Staff Officer DGFM
Current predicted	posting



**IKARA** Test Missile

example, the MULLOKA maintainer pilot course is being conducted over a period of 158 days. This period was arrived at using RANTS design principles and the experience gained on the prototype MULLOKA sonar on *HMAS YARRA*. Following course evaluation and validation, a definite course length will be established.

#### The function of RANITE

In addition to training IKARA and MULLOKA maintainers, RANITE also conducts acquaint, system and management courses. These courses are of a shorter duration than the maintainer course and vary from 2 days to 41 days. Personnel attending these courses vary from junior sailors through to senior officers.

RANITE also serves as a proving ground for system and equipment modifications, and post design servicing. The concentration of IKARA systems knowledge held at RANITE, and TEEA, has in the past enabled many modifications to IKARA to originate from DRCS. These modifications of a technical nature are first proved on the equipment at RANITE before being issued to the Fleet. This aspect of RANITE has proved invaluable to the FOS provided by the Lead Contractor. Similar FOS is expected for MULLOKA Sonar.

## Organization of RANITE

RANITE facilities, training staff and secretarial

-RANITE

support are provided to the RAN by contract from TEEA. The contract is managed on behalf of the Directorates of Naval Training and Fleet Engineering Policy by the Officer-In-Charge, the latter being administratively responsible to NOCSA. TEEA's representative at RANITE is the senior instructor, who also instructs the IKARA Data Processing courses.

As a result of the MULLOKA training task, the staff at RANITE has expanded to a uniformed staff of two (LCDR and CPOETS4), six TEEA instructors, and a secretary. TEEA also provide personnel to clean and maintain the facility.

## The IKARA system

IKARA, an aboriginal word meaning 'throwing stick' is an antisubmarine weapon system comprising the following sub-systems:

- Missile System a guided airborne vehicle carrying the US MK44/MK46 torpedo
- Missile Launcher and Handling System (MLHS) — includes the missile magazine
- Missile Firing System
- Data Processing and Display System (DPDS)
- Missile Tracking System includes the Command Guidance System
- External Data Link to Ship/Helicopter (EXDAK)
- An Underwater Detection System (for example MULLOKA).

## **MULLOKA** Sonar

MULLOKA is a medium range active sonar system being fitted to the RAN Destroyer Escorts, at *HMAS WATSON* and RANITE<sup>1</sup>. MULLOKA has been specifically designed to maximize detection of submarines in oceanographic conditions similar to those around Australia. Being an active sonar, MULLOKA transmits an audio signal, detects any reflected signal, which is then processed to give range and bearing of the submarine. For the technically minded, the system uses three mini computers, a ROLM 1603A and two computers based on the INTEL 8085/8086 processor chip.

## **RANITE MULLOKA System**

The MMTU at RANITE is, with the exception of a transducer (which is replaced by dummy resistive loads), identical in appearance to the ship fitted MULLOKA system. Minor variations include some of the power supplies and the system air conditioning. These variations have been included for convenience and to reduce cost, and have no adverse operational effect.

#### Future developments

The IKARA ASW system is to remain with the RAN until the phasing out of the DDG and DE class ships. The IKARA GWS F2 system installed at RANITE is being modified by the addition of simulators to provide greater flexibility in using the system when more than two IKARA maintainer courses are at RANITE. These simulators are usually designed and installed by the RANITE instructors. Use of computers to aid instruction would be desirable but the hardware and software cost makes such a consideration not cost effective at present.

MULLOKA developments such as the Sonar Acquisition and Display System (SADS) and possibly the One Man Operator Console are likely additions to RANITE. DRCS trials, evaluation and project acceptance by the RAN will determine if and when installation ever occurs at RANITE.

The RANITE facility at DRCS now represents a modern well equipped training facility. Air conditioned throughout with appropriate furniture in classrooms and equipment bays, this facility will be the envy of many other RAN training establishments. RAN personnel wishing to visit RANITE whilst in the South Australian area should contact the OIC RANITE as follows:

Officer-In-Charge RAN IKARA Training Establishment Building 215 Contractors' Area Defence Research Centre SALISBURY SA 5108 (phone 80-2560300)

Note: 1. Two additional units may be fitted to the FFG frigates being constructed at WND.



IKARA Guidance Equipment

- RANITE

## QUANTITY VERSUS QUALITY: IT'S HAVING A MIX THAT MATTERS

by E L Cowan

Australia is an island nation with an immense land area and a relatively small population which is concentrated on the south-eastern seaboard, far away from most of the resource-rich regions of the nation. The earning from the export of these resources forms the life-blood of our economy. Australia also has some fairly far-flung territories in the Indian, Pacific and Southern Oceans.

In line with the above factors, as well as the enunciation of the 'Guam Doctrine' and the relatively stable situation in our area of strategic concern — notably the South West Pacific, Papua New Guinea, Indonesia and South East Asia — Australia has developed in the last decade or so a defence policy of self-reliance. Our maritime strategy, such as it is, reflects this policy.

The quantity versus quality debate has been largely confined to the United States of America and Admiral Zumwalt's 'high/low' debate over ship design and procurement programmes. Little debate on the matter has occurred in the Australian scene other than in the broadest terms. In an environment where Australia's defence strategists and successive parliamentary committees have been unable to identify any particular threat at this time to Australia or its national interests, it is certainly not surprising that the budget allocation to Defence has remained at a fairly static and low level. Given such funding constraints and the need to maintain a self-reliant defence posture in our region. Australia needs a maritime strategy and force structure that is capable of providing a deterrent function against any would-be aggressors, short of the major powers.' Such a deterrent function requires a balanced force.

Instability characterises today's world, and Australia cannot afford to put all its eggs into one basket in terms of maritime strategy or structure. We must have forces and equipments that are capable of providing sufficient deterrence across a broad range of lower and intermediate level contingencies in our area. Accordingly, the aim of this paper is to show that Australia needs a mix of both quality and quantity in its platforms and equipments in order to provide such a deterrent force, and also needs to maintain a high quality of training and operational readiness within its maritime forces. Getting the right mix or balance is a job for our defence planners, given the broad scope of tasks and lack of identifiable threat.

I would, however, suggest that we need to maintain 'state of the art' expertise in a variety of high technology - and generally high quality and high cost - weaponry and equipments relevant to our regional environment. Such equipments indicate to would-be aggressors that Australia is able to control her threat environment and therefore provide a credible deterrent. Within budgetary constraints, it will be usual for only a small number of platforms to be fitted with these weapons and equipments, because of the high cost of technology, thus resulting in the remaining platforms being 'fitted for but not with' these equipment/weapons. The number of such high quality equipments should be sufficient to provide operational and tactical training for our maritime forces, with scope for expansion in the number of such equipments should the need arise.

## QUANTITY VERSUS QUALITY: THE US DEBATE

The quantity versus quality argument is not a

## The Author

Ms Elizabeth Cowan is a Senior Executive Officer in the Civil Personnel Branch, Department of Defence. After completing a Bachelor of Arts degree at the University of Sydney in 1973. Ms Cowan joined the Department and served for five years in the Joint Intelligence Organisation.



Ms Cowan receiving her prize from Commodore Robertson watched by the Director of the RAN Staff College, Captain Merrillees.

- Defence PR

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recently emerged phenomenon; it is as old as the history of warfare. While such history teaches us that quality usually counts for more than quantity, there are many examples where this has proved not to be the case. The sinking of the *Bismarck* is such a case wherein a large number of good ships overcame a very good ship.<sup>3</sup>

The quantity versus quality debate was popularized in the United States in the last 15 years with the vocal Rickover/Zumwalt 'high/low' argument.<sup>3</sup> A discussion of the major points of Zumwalt's stance follows, with an attempt to draw out the underlying philosophy in order that it can be applied in the rather different Australian context.

When Elmo Zumwalt became the US Navy's Chief of Naval Operations (CNO) in 1970, he endeavoured to 'reoptimize the Navy so that it was equipped to meet the specific threats the Soviet Navy posed'.<sup>4</sup> To do this, Zumwalt believed he needed to redress the low end of the balance, which had been neglected in the previous 10 or so years.<sup>5</sup> The trend towards high mix only development is readily apparent in virtually all US Navy ship programmes since 1950, regardless of class or function. Each successive class of type has been larger and allegedly more capable.<sup>6</sup> Annex A illustrates this trend.

In Zumwalt's terms, 'high' was short for highperformance ships and weapons systems that also were so high in cost that the country could afford to build only a few of them at a time.7 He acknowledged that there were some missions the US Navy could not perform without the great flexibility and versatility of such ships. 'Low' was short for moderate-cost, moderate-performance ships and systems that could be turned out in relatively large numbers; these items would ensure that the US Navy could be in enough places at the same time to get its job done. An all-high navy would be so expensive that it would not have enough ships to control the seas. An all-low Navy would not have the capability to meet certain kinds of threats or perform certain kinds of missions. In order to have both enough ships and good enough ships there had to be a mix of high and low."

Various 'high' ship programmes were underway when Zumwalt took up office as CNO; these programmes included the *Spruance* class destroyers (DD-963), nuclear-powered aircraft carriers (CVAN) of the *Nimitz* class, nuclearpowered guided missile frigates (DLGN class) and nuclear-powered attack submarines (SSN-688 class). Zumwalt argued that the trouble with these ships was that they were too good, that is, that the Navy had given up too much to get them.

To redress the lack of emphasis on 'low' ships,

Zumwalt considered new types of ships were needed. These ships needed to have an adequate capability for many missions while at the same time being inexpensive enough to build in the larger numbers required for an American naval presence in many parts of the oceans.<sup>9</sup> Without this presence with which to exert sea control and maintain sea lines of communication, the projection mission, for which many of the expensive 'high' ships had been built, would be impossible to carry out.<sup>10</sup>

Zumwalt also referred to the costeffectiveness of enhancing equipments in service — perhaps by providing a new communications or command and control system — rather than going for a new class of much more effective ships.

The 'low' concept favoured by Zumwalt requires high technology only where the operational role demands it: all other weapon systems are designed with more limited capabilities and lower levels of technology. A key feature in the 'low' approach is essentiality. Only those characteristics essential for effective performance in the operational role are included: any optional improvement whose inclusion raises the overall cost is deleted. In the USA, this philosophy led to the development of the FFG class Patrol Frigate (the Oliver Hazard Perry class), of which Australia ordered four from the USA, with a further two to be constructed at Williamstown Naval Dockvard in Melbourne. The FFGs were conceived as a relatively inexpensive project well within the scope of existing technology. In the Australian context, it can hardly be regarded as the 'low' portion of a mix - far from it! The frigates represent a marked increase in capability and technology levels compared even with the more modern elements of the fleet, let alone the Daring class destroyers they replaced."

## SOME GENERAL COMMENTS ON THE QUANTITY VERSUS QUALITY DILEMMA IN THE CONTEXT OF A MARITIME STRATEGY

Admiral Stansfield Turner believes that keeping sea lanes open remains the single most important reason for having a navy. In an article that is primarily about the quantity/quality argument in respect of aircraft carriers<sup>12</sup>, Admiral Turner makes a number of interesting comments:

 Firstly, that naval aviation is vital to protecting convoys and military forces at sea, vital to denying an enemy free use of the sea and vital to the power projection role. Because the enemy must ensure he knows what he is targeting, a detection opportunity is provided, a reaction to which requires neither large numbers of aircraft nor large quantities of weapons.

- Secondly, one gets more equipment (in this particular argument — carriers) by building them smaller with fewer and less sophisticated aircraft. Power projection in the future will not require aircraft with performance as high as that in the past: sensors will allow remote guidance of unmanned weapons to fixed or moving targets at any distance. Therefore, high-performance aircraft for penetrating and evading our defences will be less necessary.
- Thirdly, a cheap equipment is not cost effective if it will not do the job.
- Fourthly, numbers give room for attrition, numbers help confuse enemy targeting, and larger numbers mean smaller sizes which mean smaller radar and heat signatures to confuse enemy targeting.
- Lastly, with the shrinking of funds, naval strategy will also have to shrink.

Admiral Turner, one of the foremost modern theoreticians on maritime strategy, favoured a strategy of strategic deterrence with high quality/ high technology equipments first, defense of the sea lanes second and thirdly power projection into areas of vital national interest, the latter two being with larger numbers of less expensive carriers.<sup>13</sup> I would contend that such a strategy albeit on a somewhat reduced scale to take account of our regional situation, our lack of identifiable threat and fact that Australia is far from a major power — is also relevant for Australia.

However, as a general comment, we must not forget that technology is a double-edged sword. Planes that fly higher, submarines that dive deeper, and weapons that are 'smarter' are also more complex and costly. Their costliness means that there must be fewer of them; their complexity means that they are — usually more difficult to operate and maintain. For the sake of a performance edge, we forgo simplicity, flexibility, redundancy and survivability. We compound the training problem, create greater dependence on civilian contract maintenance and increase our ties to the repair depot ashore.<sup>14</sup>

The technological lead is volatile and difficult — not to mention expensive — to sustain. Admiral Hayward, as CNO, noted in 1980 that the US Navy was trying to meet a three ocean requirement with a one-and-a-half ocean navy. With an outlook of geopolitical instability and heightened worldwide tensions, Hoffman argues that, for the US Navy, numbers of ships become as important as, or perhaps more important than, individual ship capabilities.<sup>15</sup>

Perhaps it may now be appropriate to draw some conclusions, both from the US debate on material elements and from some of the more general strategic questions addressed above. The following quotes illustrate the fundamental principle that to go 'all out' for low equipments at the expense of the higher end of the scale is entirely foolish. A balanced approach to force structure is necessary, because the jobs to be done are varied and sometimes unclear at the force structure planning stage:

'Cheap is not cost-effective if it will not do the job ... defining the job to be done is the primary challenge we face'.<sup>16</sup>

'To prepare for only one strategic possibility is to ensure that that possibility will never arise'.17

## AN AUSTRALIAN CONTRIBUTION TO THE DEBATE

There has been little contribution to the quantity/quality debate in Australia other than in fairly broad terms, and this does not go very far in indicating an approach to a maritime strategy for the RAN. Nevertheless, an essay on the debate and the impact on the Australian scene would be incomplete without providing some indication of the contribution and attitude of Australian defence strategists. While not denigrating the work of other Australians, 1 consider that the following statements by Babbage are perhaps most relevant here.

Babbage addresses the greater vulnerability of large and obvious weapons platforms, a matter of obvious importance to the maritime arena. Because of the very great advances in long-range surveillance and target-acquisition technologies, military (including maritime) platforms that have large radar, magnetic, heat, acoustic, electronic or other media signatures are becoming much easier to detect, identify and acquire as targets. Once acquired as a target. the new precision-guidance, propulsion and warhead technologies are greatly increasing the ease with which objects can be attacked and destroyed at both short and long ranges. These developments have two important consequences: firstly, large and obvious weapons platforms are becoming increasingly easy to destroy; and secondly, such large and obvious platforms need to adopt expensive defensive equipment fits and complex operational tactics in order to maintain survivability."

Babbage goes on to say that because of the high attrition rates of large and obvious weapons platforms, it is becoming increasingly desirable



## Integrated Sonar Systems



## for Submarines

## for Surface-Ships

## for Mine Counter Measure Systems

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to disperse military capacities, it being preferable to force an enemy to try to find and destroy many relatively inexpensive platforms rather than a few high value ones. This development is being reinforced by the fact that the range capabilities of many small weapons platforms are being greatly extended and most forms of effective guided firepower are becoming increasingly light and compact. Taken together, these factors are making small units viable for a much wider range of tasks than has hitherto been the case.19 Such small units are not only able to threaten and destroy larger units in more situations, but they frequently have a better chance of surviving because of their lower all-media signatures and their high level of natural agility; these smaller units are usually relatively low in cost.20

I consider that many of the above comments bear great similarity to the comments of Stansfield Turner which were quoted above. Looking at Babbage's comments in the context of an Australian maritime strategy, we should be cognisant of the fact that many of our regional neighbours, particularly those in South East Asia, are acquiring some of the very accurate and compact weapons systems referred to above, and mounting them on relatively small and cheap platforms. In this context, and given the need for Australia to maintain a maritime force which is able to perform a credible deterrent function - irrespective of the fact that there is no identifiable threat from either within the region or without - Australia needs to keep its own maritime (and other) forces and strategy abreast of these developments.

## SOME FURTHER ASPECTS TO THE QUANTITY VERSUS QUALITY DEBATE

There are two other aspects of the quantity/ quality debate to which I wish to draw attention. The first is that the quantity/quality argument need not be limited to overall force structure, but may be applied to the range of capabilities that are available when considering equipments/ platforms to fulfil a particular role. As an example, I should like to take the Fremantle Class Patrol Boat (FCPB). The primary role and function of these craft is clearly patrol. Now it could be argued that an equipment like a Halvorsen cruiser, possibly mounted with a gun, could perform this role, for a fraction of the purchase price of each FCPB. While I am certainly not sufficiently expert to argue the case for purchasing the rather more expensive FCPB for this task, this example serves to illustrate that the quality (or 'high') argument is applicable in situations even where the decision about the role to be performed is not in question.

The other aspect of the quantity/quality argument which I wish to address is the nonmaterial aspect of quality, the Zumwalt argument being largely based on the material aspect of quality. Non-material elements of quality — such as better trained forces with high morale and motivation, and superior doctrine, planning and staff work<sup>21</sup> — have frequently proved decisive factors in battle. A case in point is the Falklands Campaign. I should like to quote from an article by John Nott, the Secretary of State for Defence in Britain at the time, which illustrates the overwhelming value of highly trained personnel and effective backup:

The most important factor in the success of the task force was the skill, stamina, and resolution displayed by individual servicemen. The value of professional, volunteer, highlytrained, and carefully selected armed forces was amply demonstrated. The specialised training of a substantial proportion of the landing force ... was a particularly significant asset. ... We have seen again the value of professional, well-motivated forces capable of responding guickly and imaginatively to the unexpected, ... Weapons systems depend for their effectiveness not only on their inherent quality but also on the thorough and realistic training of their operators, and on first-class maintenance, spares, and servicing."22

The vital importance of non-material quality factors is further illustrated in this comment by Admiral Stansfield Turner on the Falklands Campaign:

Britain won the war because its navy was able to establish control of the sea and air space around the island ... one of the most important contributors to Britain's success was the superior training of its personnel.<sup>23</sup>

Handel points out that, historically, qualitative elements, particularly the non-material ones, appear to be the most decisive in quick and short wars, while quantitative superiority normally yields results only in a prolonged conflict, since not all the superior quantity of military power available to a state can normally be brought into action from the outset. He further adds that the outcome of wars is relatively indifferent to material technological quantity.24 Superior weapons technology is not always more reliable and better suited to either combat or the perceived threat. It can be argued with great cogency that it is how you operate the equipment which is more important than whether a country has the newest and shiniest model.

#### AUSTRALIA'S STRATEGIC SITUATION

At this stage, you may well ask 'well this is all nice to know, but how does it affect the



PRASAE (Thailand)

-Chris Gee

Australian scene and a maritime strategy for this country?' To do this, I consider it essential to examine first, Australia's maritime strategic circumstances, in order that the maritime roles and strategy of the RAN can be discussed. It is the strategy, and therefore the role, which should dictate desirable force structure, while recognizing that financial and manpower constraints may cause us to shrink our naval strategy to our budget.

Australia is an island nation with offshore resources and far-flung territorial concerns — Cocos, Christmas, Norfolk, Lord Howe, Macquarie and Heard Islands, as well as the Australian Antarctic Territory. It is a country that is heavily dependent on maritime trade for both imports (especially of oil) and exports, with a large land mass, and a population concentrated along the south-eastern seaboard.

Because of its geographic situation and economic dependency on imports and exports, Australia has traditionally seen itself as vulnerable to a variety of threats, including attack, invasion or harassment. In order to guarantee security, successive Australian governments have developed and maintained alliances with great powers. Prior to World War II, Australia relied on Great Britain; following the fall of Singapore and the war in the Pacific, Australia turned to the United States for defence support. This latter day relationship is formalized in the ANZUS Treaty.

The importance of the ANZUS Treaty to Australian defence has come in for some debate in recent years, particularly following the enunciation of President Nixon's 'Guam Doctrine' and the change in Australian defence posture from one of forward defence in support of great and powerful allies to one of continental defence; this has been further refined to a posture of defence of Australia and its interests. Nevertheless, given our national maritime interests and our stated policy of self-reliance, albeit under the umbrella of 'protection' provided by the ANZUS alliance, Australia clearly needs a credible maritime force to protect those interests and reflect our foreign policy interests.

The next questions that arise are: but who or

what do we need to protect against? and how does this fit into the picture of our foreign and Defence policy which states that Australia's area of strategic concern is our adjacent maritime areas, that is, the South West Pacific countries and territories, Papua New Guinea, Indonesia and the South East Asian region?

Looking first at possible threats, it is folly to ignore the possibility of threat in a world where change is rapid and the unexpected and unpredictable invariably occurs. Dibb illustrates clearly some of the significant changes that have occurred in the last 20 years: the decline of the Western Alliance, the emergence of the USSR as a global power with weapon technology at a similar level to that of the USA, the emergence of the Third World as a political force, and the changes to the economics of the West brought about by the rise in oil prices, to name but a few.3 Given that it is a very difficult matter for any country to gain an accurate appraisal of how loreign states perceive the world, and particularly how they formulate their intentions to go to war26, it would be unwise to predict that the next decade or two will be free from war or other lower levels of conflict. However, most pundits consider that global nuclear war will continue to assume a low probability, and mutual deterrence between the USA and USSR seems likely to prevail.27

Turning to the possibility of a massive overt threat, the only nations capable of offering such a threat to Australia over the next decade - and who can predict with confidence further than this are the USA and the USSR. As Australia's membership of ANZUS seems likely to endure. such a threat from the USA seems laughable. A threat from the USSR in such a direct way envisages a world order so radically changed from today's that Australia assumes a strategic importance it now notably lacks<sup>26</sup>, and surely in such a threat situation direct assistance from the USA would be forthcoming. In view of the above, it seems reasonable to conclude that Australia does not need to structure its forces, or develop a maritime strategy, for the unlikely contingency of general war? or massive overt threat.

## IMPACT ON AUSTRALIAN MARITIME STRATEGY

Australia's problems are primarily regional, and the balance of high and low capability maritime forces should be seen in that regional context. While for the last decade of so there has been no identifiable threat to Australia or its vital interests<sup>30</sup>, there are a range of intermediate and low level contingencies which could involve a direct threat, and which, in the context of our

policy of self reliance, Australia could be expected to handle. It is against this range of contingencies that Australia's maritime strategy should be - and has to some extent been developed. This could include contingencies involving major regional powers. Warning time would vary, but even for low level contingencies such as insurgency operations - it is likely that there would be some warning, provided of course that we heed it. It is difficult to envisage intermediate level threats occuring - such as lodgements on Australian territory, external aggression against Papua New Guinea or disruption of our sea lines of communication without major change to our strategic circumstances, for which we should receive warning."

As indicated previously, for certain lower-level contingencies such as violation of territorial seas and resources by merchant shipping, Australia needs large numbers of ships which have fairly limited capabilities for the grander scale type contingencies, but are purpose-specific and of a high quality for that purpose. Such craft are exemplified by the Patrol Boats. It is arguable that these forces perform in their surveillance and apprehension roles any of the three traditional aspects of a maritime strategy, that is sea denial, sea assertion or power projection. Nevertheless they do perform an important role in a modern maritime strategy, because it is precisely in the area of surveillance that such ships carry out an integral function of the RAN that is the conduct of operations at sea to defend Australia's interests, in this case its resources interests. Such lower-level contingency oriented ships also perform a useful function in support of Australian foreign policy. By providing training on such vessels and similar equipment to nations in our area of strategic interest, they assist the protection of security and resources in these countries, thereby enhancing our own security.

Turning now to the intermediate level contingencies, Australia needs maritime forces which are now capable<sup>30</sup> of:

- protecting our sea lines of communication, particularly in respect of our trade routes — a sea assertion role
- defeating enemy maritime forces also a sea assertion role
- cutting enemy lines of communication, which can be interpreted as a sea denial as well as a sea assertion function and
- supporting operations ashore, either in respect of our mainland or territories, or in response to requests from the governments of some of our island neighbours.<sup>33</sup>

Clearly, given Australia's geography and resources, we must be able to display a maritime force of such deterrent structure and capabilities that any potential regional aggressor would need to mount a force of disproportionate size to infringe our interests.<sup>34</sup> To this end, the following comment may provide some guidance on the quantity/quality mix required to achieve this deterrent-type maritime strategy:

The most desirable selection of defensive technologies is likely to vary greatly according to local conditions. However, in many countries, it should be possible to procure a small number of carefully selected high-technology early-warning, identification and long-range target detection systems and a large number of medium — technology weapons systems which, when structured into appropriate military units, should provide a highly survivable capacity to defend in depth.<sup>38</sup>

The actual equipments required of this nature, to perform the variety of roles identified in the previous paragraph, is a matter for our defence planners. In view of the range of low and intermediate level regional-based contingencies to which the RAN should be capable of responding, a mix of quantity and quality in material elements is required by the RAN.

Given the lack of financial resources devoted to defence spending - which to some considerable extent reflects the lack of identifiable threat - Australia can certainly not afford more than a few high technology (and therefore high cost) systems. Nevertheless, it is imperative that we have some of them, in order to maintain a deterrent function for our maritime forces as well as 'state of the art' expertise both in operation and maintenance. To enhance the deterrent function, particularly across the spectrum of contingencies, as well as to support our foreign policy objectives. Australia needs to balance this 'high' equipment with larger numbers of less capable ships and equipments which reflect the current 'no-threat' situation: this 'low' end should give little cause for concern to our neighbours in terms of the possibility of Australian aggression. Quite clearly, our neighbours would be concerned if we suddenly decided to orient our force towards power projection; they could reasonably be expected to ask why we need such a capability, given the lack of threat to Australia and its territories.

Our balanced force must, therefore, reflect our foreign policy by putting emphasis on the surveillance function — an entirely legitimate activity in anyone's eyes — and a limited but certainly credible force for sea denial, assertion and power projection functions. Without such a balance over the range of functions of a maritime strategy, Australia invites — albeit unwittingly change to our current no-threat situation. Such a balance over the range of functions also means that we have some degree of preparedness should external forces change the threat situation; this type of change could occur quite quickly, without the long warning time necessary to acquire long-lead time 'high' equipments and the capability to efficiently operate these equipments.

As a consequence of this problem, Australia would be wise to obtain sufficient high technology equipments in order to provide the staff of its maritime force with the requisite operational and tactical training. In practical terms, that is, cost, this may mean that some platforms are fitted for, but not with, these equipments. Given a threat situation, Australia could more readily purchase additional such equipments than the longer-lead time platforms.

Superimposed on and reinforcing this requirement, is the need to maintain at a high level those non-material elements of quality; that is, well-trained staff with high morale and motivation, superior doctrine, planning and staff work. This need is particularly relevant for maritime forces where the scope for force expansion is more limited than it is for land forces. The onus on maintaining this standard of quality rests with the force itself, which should always bear in mind that quality in this respect has frequently 'won the day'.

## CONCLUSION

Instability characterises our world, and while at this stage we can identify no threat to Australia or her interests, this does not mean that we can afford to maintain other than a balanced force, in terms of both maritime strategic functions and quantity/quality elements. Such a balanced force, allied with a high state of operational readiness of its personnel, should be capable of projecting the necessary deterrent posture to any would-be aggressors as well as supporting the peaceful co-existence stance of our foreign policy.

As the defence budget is understandably low in this 'no threat' situation, we should maintain a small number of high quality platforms and equipments in terms of our regional environment and neighbours; there is clearly no need to strive for the acquisition of those 'high' elements, particularly platforms, which characterise the superpowers' maritime forces. Australia needs to maintain a much more limited presence and deterrence mission which is relevant to our policy stances of self-reliance and regional emphasis. This is best achieved by having a mix of weapons and equipments - in terms of functions - because the role such elements should perform in protecting Australia and its interests can only be stated in the broadest of



HMAS SUCCESS JAN '85

-J. Mortimer

terms, notably surveillance, deterrence, sea denial and assertion, and limited power projection capabilities. In practice, this may well mean that platforms are fitted for but not with certain high technology and cost equipments; however, sufficient numbers of such equipments should be obtained in order to maintain 'state of the art' expertise and provide a deterrent function. There is also a need for more moderate capability ships and weapons for lower level contingencies. Getting the mix right is a job for our defence force planners in the context of our maritime and defence strategies and our foreign policy objectives.

The history of warfare teaches us that the need to maintain a high standard of our nonmaterial elements of quality is often vital; the members of the RAN as well as our maritime strategists and planners must not overlook this fact.



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- 31. Dibb, p 16.
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PLECOLS

## THE SWOC — AUSTRALIAN TRAINED PWOs!

by Commander G. MacKinnell, RAN

Since its inception in 1911, the RAN has seen several generations of its Warfare Subspecialist Officers trained in the UK, initially through 'long courses' and more recently on the PWO course. That has now changed. On 7 January 1985, the RAN assumed full responsibility for Warfare Officer training when the first Surface Warfare Officer Course (SWOC) began. Some may feel nostalgic, others sceptical. However, the creation of the SWOC is a very logical step in the evolution of the RAN and there is every reason to believe that it can serve the Navy well.

The introduction to service of ships and equipments from non-British sources, the growth of the Australian Defence Force as an operational entity, and general advances in technology are the major causes for the evolution of the SWOC. During 1981, the Naval Warfare Study Group was tasked with examining future Warfare training requirements and possibilities. Their findings, published in the 'Callaway Report' identified the need for Warfare training in Australia. The Chief of Naval Staff accepted the Study Group's recommendations and directed that Warfare Officer training should begin in Australia during the mid 1980s.

#### Development

Work began in earnest during 1983 with the appointment of a Surface Warfare Officer Training Project Staff under Commander G.F. McLennnan, RAN. One of the initial considerations was the establishment of an organisation to co-ordinate Warfare training, since there was an obvious need for many individual authorities to contribute to the Course. Hence, in November 1983, the Chief of Naval Personnel authorised the establishment of the RAN Surface Warfare School (RANSWARS) in HMAS WATSON. The Director, RANSWARS, who is the Commanding Officer, HMAS WATSON, has been delegated the authority necessary to liaise with and co-ordinate all activities related to Surface Warfare Officer Training.

Throughout the latter part of 1983, and all of 1984, a large number of personnel in several establishments and commands were tasked to prepare for the SWOC. Some construction work was necessary to establish a classroom and office space for Directing Staff. Programme co-ordination and courseware development required a great deal of effort. Nevertheless, by late 1984, all critical aspects were completed and RANSWARS was ready.

#### The Course

The syllabus for the SWOC has been loosely based on the present RN PWO Course. The point should be noted that the RN PWO Course has changed significantly since its inception in 1972. Nowadays, it contains a common warfare section and a subspecialist section where a student becomes qualified in one of Above Water Warfare, Underwater Warfare or Communications. Thus the need for Warfare Officers to stand watch as the PWO and manage a ship's sub-department is recognised.

The RAN has chosen to conduct the SWOC in two distinct phases. Initially, students will undertake a 32 week Phase I Course which concentrates on the ability to stand watch as the PWO. Phase II varies from 8 to 15 weeks and is aimed at producing subspecialists in one of Gunnery, Antisubmarine Warfare, Direction, Navigation or Communications. Scope is available for some students to undertake Phase I only, before postings to fleet support or amphibious ships. Most SWOC students will also undertake a four week Advanced Tactical Training module in the USA.

About sixty percent of the SWOC will be conducted at RANSWARS. HMAS CERBERUS

#### The Author

Commander Graham Mackinnell joined the Royal Austalian Navy in 1966. Following initial Seaman Officer training, he completed the Principal Warfare Officers' course in the UK and subspecialised as a Gunnery Officer This was followed by sea service in HMA Ships PARRAMATTA, TORRENS, DUCHESS and in HMS SHEFFIELD. Following a posting in the Naval Personnel Division at Navy Office, CMDR MacKinnell commissioned HMAS SYDNEY as the Executive Officer. His latest appointment is as the Course Implementation Officer for the RAN Surface Warfare Course conducted at RANSWARS, HMAS WATSON. will play a very significant role while the remainder will be supported by the Fleet, AJWE, AJASS, *HMAS PENGUIN*, RANTACS, CDSC Fyshwick and a few external authorities. The SWOC, like the RN PWO Course, is a demanding one for both students and training facilities. Twelve destroyer weeks will be required to support the Course each year. To recognise achievement, the Chief of Naval Staff has approved the award of the 'Sydney-Emden' Prize to the dux of each SWOC Phase I.

#### The Advantages

For the first time in 20 years, Warfare Officers will be trained in the full range of RAN weapons and sensors. Additionally, they will learn about the Australian maritime environment, the Australian Defence Force concept of operations, and will have a better understanding of Australia's major maritime ally — the USA.

Provided that the finely woven web of support and interest for the SWOC can be maintained or even strengthened, the RAN has the opportunity to set new standards of excellence in maritime warfare practice.

## The Future

In several areas, there is scope to exploit the advantages which arise from controlling the training of RAN Warfare Officers. Firstly, RANSWARS can be used as a base to strengthen the sense of Warfare Officer community. The RN regularly issues a PWO newsletter and actively solicits contributions from officers at sea and ashore. The RAN could do likewise.

Though training contact has been lost with the RN PWO system, the PWO exchange service system will be retained. All participating officers should be encouraged to share their exchange service experience with their colleagues

The SWOC has started. The RAN has become responsible for its own standards of Warfare expertise. Now the RAN must capitalise on the advantages offered to seek new standards of excellence.



SWOC 1/85

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## WASHINGTON NOTES

by Tom Friedmann

In the backwash of our debacle in Vietnam and the foundering of the Nixon Administration, a piece of flotsam arose from the floor of the Congress of the United States in the form of legislation known as the War Powers Resolution (popularly known as the 'War Powers Act') which operates as a legislative veto over any President's right to order troops into combat. The legislation is a patently unconstitutional attempt to usurp the command functions of the President over our armed forces. It represents an appalling attempt by Congress to once again evade its responsibilites for our involvement in Vietnam by attempting to shift the blame for our participation in that war to the Presidents who served during the conflct in order to 'prevent' future wars of this type.

By passing the Resolution, Congress codified its political inability to terminate the Vietnam war through an open vote on the issue as well as acknowledging its failure to understand and apply over *three and one-half centuries* of Anglo-American history that has delineated the power of the President and the Congress in relation to the nation's armed forces.

The War Powers Resolution provides that the powers of the President as Commander-in-Chief to introduce United States armed forces into hostilities are to be exercised only pursuant to (1) a declaration of war, (2) specific statuatory authorization, or (3) a national emergency created by attack upon the United States, its territories or possessions, or its armed forces.

The Congress is to be consulted 'in every possible instance' before introducing troops into such situations, and regularly thereafter until troops have been removed. The resolution requires that the President report within fortyeight hours to the Speaker of the House and the President Pro Tempore of the Senate after the introduction of troops in three circumstances:

(1) into hostilities or into situations where

imminent involvement in hostilities is clearly indicated by the circumstances;

(2) into the territory, air space or waters of a foreign nation, while equipped for combat, except for deployments which relate to supply, replacement, repair or training such forces; or (3) in numbers which substantially enlarge United States armed forces equipped for combat already located in a foreign nation.

The President's report is to set forth:

 the circumstances necessitating the introduction of United States armed forces;
 the constitutional and legislative authority under which such introduction took place; and
 the estimated scope and duration of the hostilities or involvement.

The President is to give Congress such information as it might request and report to the Congress at least once every six months as long as troops continue to be engaged in the situation.

The primary operative provision of the Resolution provides that any use of troops as set forth above shall be terminated within 60 calendar days unless the Congress has declared war, specifically authorized such use, extended the 60 day period, or was physically unable to meet because of an attack upon the United States. In the absence of such specific authorization by the Congress, Section 5(b) of the Resolution provides for the removal of United States armed forces from hostilities abroad.

In other words, potential enemies of our country need only bide their time for 60 days when, unless Congress acts to extend the President's mandate, our forces must be withdrawn. Our threat to use force thereby becomes a hollow one.

President Nixon vetoed the Resolution and it became law over that veto. All Presidents since 1973 have complied, more or less faithfully, with the provisions of the Resolution, while none of them have conceded its ultimate constitutionality. Any student of Anglo-American constitutional history must question whether there was a need for the Resolution. The answer is a resounding 'no' in view of the safeguards already present in our Constitution.

The United States is one of the heirs to the titanic battles between Parliament and the Stuart Kings of England regarding the raising and maintenance of armies. The right of the King to raise and maintain armies was one of the many issues that remained unsettled during the reigns of the early Stuarts. The question was resolved when the Crown was offered to William III and Mary II, when one of the provisions of the Declaration of Right, which was later enacted as the English Bill of Rights, provided that the raising and keeping of a standing army within the Kingdom during peacetime without the consent of Parliament was against the law.

But the English Bill of Rights, along with the other acts passed soon after the Glorious Revolution of 1688, served only to clarify and elaborate on existing laws. Parliament had established its supremacy over the Crown while leaving extensive powers to the Monarch. Among these powers were the ability to declare war and make peace, as well as the commandin-chief of the English Army and the Royal Navy.

Neither William III, George I or George II ever questioned their ability or right to command England's forces in the field. George II became the last British sovereign to directly command his forces, at the Battle of Dettingen in 1743, *less than 50 years* before the drafting of the Constitution of the United States. No matter how the British Constitution and the constitutions of the various nations that have arisen from the British Empire have evolved, Britain's sovereigns have maintained a close relationship with their armed forces.

Our Constitution was not written in a vacuum. The world's oldest functioning written constitution was drafted by men of experience who had led a nation in rebellion against a King who had denied their rights as Englishmen: 'He has kept among us, in times of peace, Standing Armies without the Consent of our Legislatures... He has affected to render the Military independent of and superior to the Civil Power.'

But in war and peace, we had barely survived the military challenges thrown against us. The terrible experiences of George Washington in raising, equipping and paying his troops during the Revolution are well recorded. He was forced to rely on the states, a legislature which wielded little national power and had no power to tax, and the fact that the 'national' government had no executive upon whom Washington could rely for support.

The Newburgh Conspiracy in March, 1783, among the Officer Corps of the Continental Army, the 'closest an American Army has ever come to a revolt or coup d'etat,' was based upon the army's lack of pay for many months, as well as the failure of Congress to pay promised pensions. The attempt to influence the civil authority through military threat was ultimately guashed by Washington who stood by his men at this terrible abyss and forced his officers to 'face the implications of rash action - civil war, treason, and the undoing of eight years' effort.' Washington's deeply felt patriotism and his magnetic presence preserved for our infant Republic the vital bands of trust between the civil and military authority so necessary for us to grow and prosper.

Adoption of the Articles of Confederation did not improve matters. The Continental Army itself evaporated and the members of Congress argued over the size and use of a standing army and whether such an army was even necessary or wise (the question of a navy being infrequently discussed). The failure of the central government to be able to tax, again kept it dependent upon the beneficence of the states. Consequently, it was frequently without funds to support the small military establishment that did exist.

Some of the greatest minds the world has ever known gathered in Philadelphia to revise the Articles of Confederation, a meeting which evolved into the Constitutional Convention. Warriors, farmers, merchants, scientists and diplomats who gave voice to America's Sovereign: 'We, the People ... to ... provide for the common defense ... establish this Constitution for the United States of America.'

In debating whether the Army should be based upon militia or whether there should be any standing force, James Madison's notes on the Convention reflect how deeply the colonial experience with the British Army had biased persons in power against a standing military force. During the course of the debates, however, the members of the Convention early on set aside the possibility that a standing army would be prohibited under the Constitution. However, some of the delegates, including Madison, supported a proposition with wording to the effect 'that the liberties of the people may be better secured aganst the danger of standing armies in time of peace' be inserted as a preface to the clause providing for the organizing, arming and disciplining of the militia by the Congress. Governor Morris of Pennsylvania opposed the motion as setting a dishonorable mark of distinction on the military as a class. The question, as can be seen from the final document, did not carry.

The war powers of the Constitution are as follows:

 Article I, Section 8. The Congress shall have the Power...

To declare War, grant Letters of Marque and reprisal, and make rules concerning captures on land and water; to raise and support Armies, but no Appropriation of Money to that Use shall be for a longer Term than Two Years; to provide and maintain a Navy; to make Rules for the Government and Regulation of Land and Naval Forces; to provide for calling forth the Militia to execute the Laws of the Union. suppress Insurrections and repel Invasions; to provide for organizing, arming and disciplining the Militia, and for governing such Part of them as may be employed in the Service of the United States, preserving to the States respectively, the Appointment of the Officers, and the Authority of training the Militia according to the discipline prescribed by Congress...

· Article II, Section 2:

The President shall be Commander-in-Chief of the Army and Navy of the United States and of the Militia of the several States when called to the actual Service of the United States....

What the Founding Fathers did was to reserve the power to raise and maintain the armed forces in the legislature, while retaining their command in the executive. However, the remaining powers that resided in the Crown of Great Britain, such as to declare war and provide rules and regulations for land and naval forces, were reserved to the Congress as they were considered to be too important to reside solely in the President.

The wording for all sections of the Constitution were carefully debated and the war powers were no exception. In particular, the original wording regarding Congress' war powers stated the power to 'make war' would be vested with the legislature. It was amended to read that Congress would have the power to 'declare war' since it was felt that the President needed the power to repel invasion while not being given enough power to commence a war on his own volition.

The Convention noted that there was a material difference between cases of making *war* and making *peace*. It should, it was thought, be easier to get out of war than into it. The President could, therefore, be entrusted to draw up peace treaties with the Senate's approval, while the consent of both Houses of Congress would be necessary to go to war. Madison, for one, was for 'clogging rather than facilitating war;

but for facilitating peace.' He also preferred 'declare war' to 'make war'

In The Story of the Constitution, prepared by the United States Constitution Sesquicentennial Commission, the limited power of the Congress in this area was discussed as follows:

The exclusive power to declare war is vested in Congress. The Constitution does not define the limits of this power. This subject was honestly discussed by the framers of the Constitution. They very wisely concluded that since it is impossible to foresee the dangers of war or the measures that may be necessary to maintain our independence, the government should not be denied the power to make war and peace in any way it deems wise. The power to declare war and make treaties enables the United States to do everything necessary to preserve the Nation. But extreme war measures must be directed toward saving the Constitution. The Government cannot, under the exercise of the war power, extinguish a State or abolish the Constitution. The Constitution takes precautions against a possible military dictatorship by providing that no appropriation of money to raise and support armies shall be for a longer term than two years. Congress is not at liberty to grant permanent funds to the President for the support of an army."

With regard to the President's powers, the Commission continued:

Without waiting for the action of Congress, the President may use the military forces to put down insurrection or meet invasion. During war he possesses enormous powers. He may invade enemy territory and set up a military government therein. He may establish provisional courts in occupied territory and set up a temporary tariff system. He may recognize and revoke recognition of foreign governments. He may declare a blockade of foreign ports and employ secret agents to enter the enemy's lines for the purpose of obtaining information. In a time of invasion or civil war the President may declare martial law."

In looking at the powers of the Congress to regulate land and naval forces and those of the President as Commander-in-Chief, the United States Court of Claims, in the case of Swaim v. United States, saw the powers as separate and distinct:

Congress may increase the Army or reduce the Army or abolish it altogether; but so long as we have a military force, Congress cannot take away from the President the supreme command. It is true that the Constitution has conferred upon Congress the exclusive powers "to make rules for the government in regulation of the land and naval forces"; but the two powers are distinct; neither can trench upon the other; the President cannot under the disguise of military orders, evade legislative regulations by which he in common with the Army must be governed; and Congress cannot in the disguise of "rules for the government" of the Army impair the authority of the President as Commander-in-Chief.'

The power of the President to exercise command over American military forces is not a mere formality. It has always been taken guite seriously and been jealously guarded by our Presidents. Only tradition keeps the President out of a uniform which would indicate his '50 star' rank. Numerous examples of the exercise of this power have taken place from the earliest days of the Union. George Washington called the militias of several states into Federal service to help put down the Whiskey Rebellion in Pennsylvania in 1794. Washington took actual command of the Army, and contemporary illustrations show him in uniform. Although no fighting actually took place, the presence of the Army served to quell the threat against the civil government.

Of all of our Presidents, James Madison would seem to be among the least likely to assume direct control over American troops. However, during the Second War for American Independence he wielded both tactical and strategic command over our forces. As the 'rapacious foe' marched on the nation's capital, Madison took to the field with the Army and seemed to be everywhere in August, 1814. He forbade the surrender of Washington, DC and rallied our men all over the area.

The quality and competence of British forces, and the disarray of the American militia that faced them, converted Madison virtually overnight to the necessity of having a strong, standing military force, even to the point of proposing the introduction of conscription. The French Minister, witnessing Madison's plight with the militia, reported to the Prince de Talleyrand, the French Foreign Minister:

It was then, my Lord, that the President who in the midst of all this order had displayed, to stop it, a firmness and constancy worthy of better success, powerless in regard to militia which more than once, in the war of the revolution, had drawn after it in flight the illustrious Washington himself, coolly mounted his horse, accompanied by some friends, and slowly gained the bridge that separates Washington from Virginia.'

No American President has been so poorly served by his generals as was Abraham Lincoln.

Lincoln's best hope in that regard lay in his offer to Robert E. Lee of the command of the Union Army. Lee's refusal prolonged our country's agony as he offered his vast talents to his home. state of Virginia. After several early fiascos, Lincoln was urged to take direct command of the Army, but refused, for he felt his studies of military science and history had not progressed enough for him to assume direct command. However, by July, 1863, any gualms he had, about the superiority of his generals' capabilities to make war over his, had evaporated. After the battle of Gettysburg, Lincoln watched in horror as General George Meade allowed Lee's Army of Northern Virginia to escape. Lincoln was infuriated by the failure to pursue and cut off the Confederate forces. He announced he was going to assume direct command of the Army of the Potomac. Perhaps his ultimate decision not to assume that command added to Lincoln's belief that because of Lee's escape one and one-half years had been added to the War.

Franklin Roosevelt, on the other hand, was probably served by the most competent military men America has ever had. But Roosevelt also exercised the presidential command authority directly on many occasions. Roosevelt sent the Marines into Iceland and the Navy to war against U-boats long before Germany's declaration of war against us. In 1944, he personally selected General Douglas MacArthur's plan to proceed to Japan through the Philippines over Admiral Chester Nimitz's Central Pacific proposal to capture Formosa.

Harry Truman ordered the Berlin Airlift and our troops into Korea. He exercised his prerogative as Commander-in-Chief to remove General MacArthur when his public comments were in conflict with the policies of the United States Government.

But even governments limited in their powers by written constitutions such as ours find that not every situation is completely determined by those documents. For example, the question of what exactly 'war' is, is not defined by our Constituton and, in fact, is difficult if not impossible to define. The United States Supreme Court has recognized that 'a state of war may in fact exist without a formal declaration'. Even without a state of war existing, the status of 'national emergency' gives to the President extended powers over all facets of the government, including the military, without an outright declaration or war.

It was this lack of specific direction in the Constitution and a long tradition which allowed our Presidents to commit our forces short of declared war that brought complaints during the Korean War and the Vietnam War. The Foreign Affairs Division of the Congressional Research

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Service of the Library of Congress noted that the United States has undertaken several major military actions without a declaration of war:

Prior to the conflict in Vietnam, five out of ten serious and extended engagements of force against other nations were conducted by the United States without a formal declaration of war. Those engagements which took place without any Congressional declaration are: the undeclared Naval War with France, 1798-1800; the First Barbary War, 1801-05; the Second Barbary War, 1815; the American-Mexican hostilities, 1914-17; and the Korean War, 1950-53. Those conflicts in which war was declared are: The War of 1912; the Mexican War; the Spanish-American War; and the First and Second World Wars.'

Declarations of war notwithstanding, all of these actions took place with the *knowledge* of Congress and its tacit consent through the *funding* of the armed services. The list does not even include the numerous times our forces have intervened in foreign countries from Lebanon to Nicaragua.

Any 'necessity' argument for the enactment of the War Powers Resolution becomes even more dubious when one realizes that Congress did actually begin to exercise its constitutional authority by withholding funds from the services with which to prosecute the war in Southeast Asia beginning in 1969. The second Supplemental Appropriation Act, Fiscal Year 1973, provided:

None of the funds herein appropriated under this Act may be expended to support directly or indirectly combat activities in or over Cambodia, Laos, North Vietnam and South Vietnam or off the shores of Cambodia, Laos, North Vietnam and South Vietnam by United States forces, and after August 15, 1973, no other funds heretofore appropriated under any other Act may be expended for such purposes."

Section 108 of the Continuing Appropriations Act, fiscal year 1974, similarly stated:

Notwithstanding any other provision of law, on or after August 15, 1973, no funds herein or heretofore appropriated may be obligated or expended to finance directly or indirectly combat activities by United States military forces in or over or from off the shores of North Vietnam, South Vietnam, Laos or Cambodia.

With these provisions, Congress was exercising one of its oldest and most important rights, the control of the executive's use of military force by the power of the purse.

Why then add the superfluity of the War

Powers Resolution after Congress had finally used powers first granted the English Parliament almost three hundred years previously? Frankly, because the political situation in the United States was such that until 1969 there was no way to obtain a majority in Congress to pass any legislation in opposition to the Vietnam War. Five years elapsed between the Gulf of Tonkin Resolution (frequently cited as the primary legislation used to send our forces into Vietnam) to the first time restrictions were placed on the use of monies in Southeast Asia in 1969. Another four years went by before the very stringent restrictions on appropriations previously cited went into effect. Obviously, the use of the automatic legislative veto would be a far easier procedure than having to fight to obtain a majority to restrict monies to the armed services in each separate case.

The use of the legislative veto has been declared unconstitutional in another context by the Supreme Court of the United States, thereby putting into question the continuing efficacy of the main provisions of the War Powers Resolution. More importantly, however, the continuing acquiescence in the use of the Resolution by all Presidents since Nixon may have been in large part due to their concern that if an appeal was made to the Supreme Court to declare the Resolution unconstitutional it could well be rejected. However, it is assumed that President Reagan will have the ability to appoint a conservative majority of the Court by the end of his second term. If at any time prior to the end of that term there should be an opportunity to have the War Powers Resolution declared unconstitutional, the President will undoubtedly avail himself of that opportunity.

The goal of the Congress in passing the War Powers Resolution, namely to exert its war powers and to keep us out of wars initiated by Presidents, is admirable. It is the means selected in implementing these goals that are questionable.

The power of the legislature to control armed forces through the power of the purse is the ultimate control mechanism that can be granted by a democratic society to its representatives. It should not be relegated to an auxiliary status by legislation such as the War Powers Resolution.







## SPAR TORPEDOES

For a brief period in the late nineteenth century, several Australian colonies adopted the spar (or outrigger) torpedo in harbour defence systems. These primitive weapons were quickly replaced by the more capable Whitehead mobile torpedoes, and tend to be overlooked now as irrelevant or as aberrations in weapon development. Undoubtedly, the spar torpedo can, with hindsight, be assessed as a transitional stage in maritime weaponry (or as a desperate measure for use in the last resort). But it was a significant change in war at sea because, for the first time, a small vessel thus armed could threaten an armoured warship with destruction.

The spar torpedo comprised an explosive charge held out ahead of a boat on the end of a spar. In operation, the attacking boat approached close enough to the target to lay the charge, still on the end of the spar, against the target's hull. Then the charge was detonated electrically from the attacking boat or by a contact fuse. A simple system indeed.

This torpedo evolved during the American Civil War and achieved some success during that conflict. The Confederate ironclad ALBEMARLE was sunk in October 1864 by a steam launch armed with a spar torpedo. Not surprisingly, the launch also sank in the explosion; two of the launch crew swam away. The target had been at anchor, so this example was not universally applicable but it did prove that a warship could be sunk by a single explosive charge detonated in contact with the hull.

When the Australian colonies began acquiring equipment to defend their principal ports, the spar torpedo was still in fashion, although the Whitehead mobile torpedo, driven by compressed air, was a promising potential alternative. New South Wales was first to take delivery of two spar torpedo boats in 1878. Then in 1884, Queensland and Tasmania each took delivery of a Thorneycoft second class torpedo boat (MOSQUITO and TB 191 respectively), armed with spar torpedoes. These craft were expected to engage enemy warships entering rivers and harbours. All the torpedo boats were fast, manoeuvrable and small. The second class torpedo boat achieved 17 knots on a measured mile during builders' trials; she was 23 metres long with a beam of 2.7 metres.1

In theory, specialised torpedo boats would be

assisted by small civilian steam vessels modified to carry spar torpdoes. The ease with which any power boat could be adapted as a spar torpedo boat was attractive to harbour defence planners. Commodore J.C. Wilson, commanding the Australian Squadron, suggested in 1880 that 30 '...Improvised Torpedo Launches...' would be needed to assist in defending Australian ports.<sup>2</sup> Crews needed minimum training, while experience in the Civil War had shown that success with the spar torpedo was possible.

Procedure for a spar torpedo attack was straight forward:<sup>a</sup>

... If a single boat be used, it should approach the enemy's ship as stealthily as possible. At 200 or 300 yards' distance, according to circumstances, the spar should be rigged out, the boat put at full speed, and steered for the point intended to be struck. At about thirty yards off the engines should be slowed, so that the torpedo may be brought into contact without risk of the outrigger breaking off, and the instant the torpedo touches the ship's side it should be exploded. If several boats were available, the attack should be made from different directions, and, when practicable, it should be directed against the vital parts of the ship, viz., the engines, boilers and screws...'

Observers had no doubt that the chance of success in a spar torpedo attack depended on circumstances. The Encyclopedia Britannica commented, in 1902 after the weapon had been scrapped, that<sup>4</sup>

...If the boat using it was not discovered and disabled while approaching, the chances were favourable to success and escape afterwards. Against a vigilant enemy it was doubtless a forlorn hope..'

Under favourable circumstances, especially at night and in confined waters, a spar torpedo attack was not quite as suicidal in the 1870s as it may now appear, because armoured ships could not easily defend themselves against this threat. When the spar torpedo became popular, major warships did not carry secondary armament suitable for engaging torpedo boats. Their main armament, designed for engaging other major warships was slow firing (one round per minute was regarded as an excellent rate of fire) and could not be trained or depressed rapidly to follow a manoeuvring and closing target. The only weapons then capable of hitting a torpedo boat were small arms, but most torpedo boats had their vital parts armoured against rifle fire.

In response to the threat posed by torpedo boats (armed with spar torpedoes or with Whitehead mobile torpedoes) major warships armed themselves with machine guns and guick



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Various forms of mobile torpedoes had been produced by the 1870s. Most successful was the Whitehead torpedo propelled by compressed air. Whitehead's first successful design had been completed in 1866 and offered for sale, in a modified form, in 1868. This first torpedo carried a 15 kilogram explosive charge at a depth adjustable between 1.5 and 4.6 metres. It appears to have been capable of 24 knots for 200 metres, or of lower speeds for longer distances (eg 15 knots for 920 metres).<sup>5</sup>

By the mid-1880s, one production model Whitehead torpedo was 36 centimetres in diameter, 4.4 metres long, weighed 320 kilograms and was capable of 30 knots to a range of 550 metres carrying a 52 kilogram charge of guncotton with an impact fuse.<sup>6</sup> This torpedo was mechanically capable of greater ranges, but 550 metres was the longest distance over which the torpedo could be relied upon to run in a reasonably straight line. The gyroscope principle was not satisfactorily applied until 1896 and was thereafter used in Whitehead's torpedoes with increased range.<sup>2</sup>

The Whitehead mobile torpedo was clearly

superior to the spar torpedo which had been rendered ineffective in the 1880s by the rapid spread of secondary armament and electric searchlights. By the late 1880s, the Australian colonies had abandoned the weapon. New and existing torpedo boats were fitted with dropping gear or launching tubes for 36 centimetre Whitehead torpedoes, and spar torpedoes were quietly retired from colonial navies.

#### Footnotes

- Papers relating to torpedo boat acquisition in the Journals and Papers of the Tasmanian Parliament. Vol VI, 1885. Paper No 114.
- Section K of Paper by Wilson titled 'Report Relative to Protection of Harbours, Trade, Coaling Depots, Etc.' dated 22 Jun 1880 in ADM 1/6535, Public Records Office, London.
- 3 C. Kinloch Cooke, Australian Defences and New Guinea, Macmillan & Co. London, 1887, pp 98-9.
- Encyclopedia Britannica, 1902 Supplement to 9th edition, Vol XXXIII, p 375.
- Encyclopedia Britannica, 9th edition (1875), Vol XXIII, p 450.
- Encyclopedia Britannica, 1902 Supplement to 9th edition, Vol XXXIII, p 376.
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- Encyclopedia Britannica, 9th edition, 1875, and 1902 supplement.
- Gillett, Ross, Australia's Colonial Navies, Naval Historical Society of Australia, Sydney, 1982.
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R.M. Jones



## ANNUAL PRIZES

The ANI Journal sub-comittee tasked with considering the annual prizes for contributions to Volume 10 has decided on the following section winners:

Best major article (\$200) - Captain HJ Donohue - Vol 10 No 4

Runner-up major article (\$100) - Commander RJ Pennock - Vol 10 Nos 2 & 3

Best minor article (\$25) — Lieutenant Commander IR Gulliver — Vol 10 No 1

Best letter to the editor — not awarded as there were insufficient entries. In lieu, the sub-committee recommended to the Council that \$25 should be awarded to the author of the best book review — Commander DJ Woodward — Vol 10 No 4.

The President, the Council, and the editor congratulate the winners for their fine efforts and look forward to stiffer competition in Volume 11.



## FROM THE TREASURER

The last AGM approved the change of financial year from October/September to January/ December, and an increase in subscriptions from \$15 to \$20 per annum. To effect this change, the next financial year will run from 01 October 1985 to 31 December 1986, giving members 15 months' membership for the first payment of \$20! As well as making it easier for members to remember when their renewals are due (hint, hint), it will also mean that from 1987, the financial statements can be published in the February edition of the journal, ie *before* the AGM which will be held in March of each year.

Although one of the objectives of the Institute is to promote knowledge of maritime affairs, and the Council distributes free copies of the Journal where there is an appropriate need, this no longer extends to those ships and establishments in the RAN which have **elected** not to order the Journal via the DISB Annual Order of Periodicals. As the editor has suggested, individual members can help us by checking, and perhaps ensuring, that their ships and establishments do include the *Journal of the Australian Naval Institute* in their lists. The editor, who has some inside knowledge of DISB affairs these days (he may even be responsible for the said Annual Order of Periodicals, but he's not letting on!) says that the returns for 1986 are to be submitted by 29 March 1985 — so please check with your library officer or librarian immediately.

Currently, the ANI pays about \$3.75 average to print and distribute each copy of the journal and an extra \$1 when a member's journal is returned for redirection because he/she has forgotten to notify us of a change of address. So, please, in your posting turmoil, do not forget to advise the ANI of any change: use the form at the back of each journal, or drop us a line, stating your name, number (off the envelope), old address and new address.

On the subject of postings — if DNOP's staff are not issued with a new set of darts, both the assistant treasurer and myself will be looking for replacements to stand for election at this year's AGM: willing volunteers should contact me as soon as possible!

Peter Coulson

## PETER MITCHELL ESSAY COMPETITION 1985

Further to the editorial comment in the August edition last year, complaining about the length of time taken to mark the competition, I was pleased to hear that the results of the 1984 competition will be promulgated before you read this journal. Congratulations to those responsible!

The title for the 1985 copetition is **The Regional Defence Treaty** — Its Contribution, **Relevance and Future.** The reference is to the concept of a regional defence treaty and not to any specific treaty. The closing date for entries is 31 October 1985 and commanders and below of any Commonwealth navy are eligible to enter. More details in the next journal.

Editor



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THE KING'S SHIPS WERE AT SEA. THE WAR IN THE NORTH SEA AUGUST 1914 — FEBRUARY 1915. James Goldrick. Annapolis, US Naval Institute Press, 1984. 356 pp. US\$21.50 (USNI members' price, including postage).

James Goldrick's elegant writings will be familiar to all readers of this Journal, but with the publication of this, his first book, Australian naval history has come of age. Not that the book is about Australia, of course, but it is written by an Australian (and a naval officer at that) with the essential degree of research, scholarship, insight and fluency which combine to produce the hallmark of the true historian.

The King's Ships Were at Sea covers the first six months of naval operations in the North Sea during the Kaiser's War. With the exception of Trafalgar and Jutland itself (the book stops just short of Jutland). probably no other aspect of naval history has received so much attention by historians and biographers, and one might well wonder what new could be written on the subject: surprisingly enough, quite a lot. Excellent use has been made of 'new' source material, chiefly Naval Staff Monographs, which have hitherto all but been denied to the public. In addition - and nowadays it is so fashionable that no historian would dare do otherwise - Goldrick has been able to refer to cryptographic analysis where the established World War I historians (Corbett, Newbolt, Marder, et al) had no such licence. (Little snippets in this regard delight the parochial reader: the merchant navy, U-boat, small ships, and zeppelin code - HVB - was captured in August 1914 when the RAN seized the German steamer HOBART in Port Phillip Bay. The code was used by the RAN in the hunt for yon Spee in the Pacific wastes and a copy arrived in London in October in time to play a crucial role in the North Sea). Further, Goldrick looks back on those days through the eyes of the modern technological mariner and his perspective is different from (and broader than) the Official Historians' and their axe-grinding revisionists'.

Goldrick tells that the book was conceived as an 'operational history' and in transforming that aim into practice he has done a first-class job. For all that, it is a conventional piece of writing with no great revelations, although I hesitate to say so through fear of damning it with faint praise. In truth though, the best is to be found in the final chapter which is a very thoughtful 'summa'. It is here that one realizes what an excellent job the preceding 12 chapters have made of producing a continuum of the war at sea in its broader social, political and technological context. It is by getting it all in such a clear perspective and in drawing out contemporary lessons that Goldrick's real skill becomes abundantly apparent.

The book is economically illustrated, but the photographs have been chosen with meticulous care and are all the more interesting for their rarity. The maps and line drawings are beautifully executed. The text runs to over 300 pages and is well supported by most comprehensive notes, a wide-ranging bibliography and - a rare treat - a thoroughly prepared index. In particular, it is satisfying to see such invaluable sources as Naval Staff Monographs properly used, quoted and identified; this must surely be the way the Naval Historical Branch intended them to be used. In his acknowledgements, Goldrick recognizes a veritable who's who of modern naval history. It is evident from the narrative that this is no mere window-dressing to impress his publisher; rather, the breadth and depth of research and interview are amply evident and bestow an air of authority and confidence to his observations and opinions. It is most professionally done.

The King's Ships Were at Sea is a credit to its author. It reflects the style (consciously or otherwise: I suspect the former) of the late, great Stephen Roskill whose mentorship pervades the book. The US Naval Institute, for its part, has done a fine job in publishing: it is a compact book that looks good and feels satisfyingly right; the inevitable printing errors are gratifyingly few; and the editor's Americanisms are forgivable.

This book is unreservedly recommended. All in all, it is a most remarkable achievement and deserves the recognition that can only be afforded by good sales. You should buy it not only for itself (which is reason enough) but also in the hope of encouraging others yet to be written. Writing is an expensive pre-occupation and writing of this standard and potential must be nurtured.

DJC

#### DEZINFORMATSIA: ACTIVE MEASURES IN SOVIET STRATEGY. Richard H Shultz and Roy Godson. USA, Pergamon Press, 1984. 210pp. \$19.95 softcover, \$29.95 hardcover.

The systematic use of propaganda to manipulate people's beliefs, attitudes, or actions has been with us since mankind first organised into families or groups. Archaeological remains of ancient civilisations indicate that magic tokens, insignia, and elaborate religious arguments have been used for thousands of years. Evidence of propaganda in civilisations as we know them today dates back to at least 500 BC, where propaganda was common place in Athens. Then it was known as rhetoric (the technique of orators).

The word itself , derives from the title and work of the CONGREGATIO DE PROPAGANDA FIDE (Congregation for propaganda of the faith), founded by the Roman Catholic Church in 1622 to carry on missionary work. The actual use of propaganda probably bears little resemblance to its initial purpose and the relatively heavy emphasis upon deliberateness and manipulation distinguishes it from the free and easy exchange of ideas. Propaganda takes many forms; in its simplest and least disturbing guise we may see it today in commercial advertising and polital electioneering. A more sinister version constitutes phsychological warfare directed primarily at confusing or demoralising enemy populations or troops, and it is in this aspect that DEZINFORMATSIA examines the use of Soviet propaganda.

Roy Godson, an associate professor of Government at Georgetown University, and Richard H Shultz, an associate professor of International Politics at the Fletcher School of Law and Diplomacy (both in USA) publish in this book the results of a scholarly examination of Soviet propaganda, particularly with emphasis upon use of covert and overt techniques as a political weapon. The authors conducted extensive research and study into their task, and provide the reader with an illuminating analysis of the means by which, in their opinion, the Soviet Union directs propaganda against the free world and particularly against the United States.

DEZINFORMATZIA takes the reader through an outline of Soviet perspectives and strategy, dealing with foreign policy and the bureaucracy and then leads on to a look at the organisational structure used in the USSR for active or overt propaganda and covert political techniques. The reader is given a breakdown and an insight into the workings and aims of the Politburo and Secretariat, and three major organs the International Department (ID), the International Information Department (IID), and the KGB. These are responsible for planning and conducting specific programs in support of the major active measures and campaigns established by the Politburo. With this as background, the book then delves into Soviet overt. propaganda themes between 1960 and 1980 and next looks at covert political techniques in the same period. The authors argue that Moscow places major emphasis upon reinforcing overt propaganda with various levels of covert manipulation, and their study describes exhaustively the various techniques which they allege are used. Among the major types of clandestine Soviet activities described are: infiltration of private organisations in the West, agent of influence

operations in the media and government, and international front organisations such as the World Peace Council. The book concludes with an interview of former Soviet bloc intelligence officers which provide insight into the Kremlin's techniques.

There can be no doubt that the authors have done a remarkable job in collating such a wealth of information in a single document, but this aspect of the book is as much a weakness as a strength. DEZINFORMATSIA is an excellent reference work for the serious student, but is heavy going for a casual reader. The anti-Soviet line taken by the authors is a sense of propaganda itself, and one is left with the distinct impression that the authors believe that nothing good exists in or can come from the Soviet Union. In this respect, the book suffers from a lack of balance and would have benefited considerably had the authors paused to examine whether the ordinary Russians believe the propaganda which is alleged. I am reminded of a text I read of the Second World War some years ago, a book used by Russian school children for high school study: the War we know bore little resemblance to that taught to school children in Russia, neither in its origins or its conclusions. If such propaganda or distortion of facts as the West knows them is pressed upon the Russian population, one wonders after reading this book whether anything said by the West and particularly the United states is regarded by the Soviets as other than lies and warmongering. Since this aspect is not addressed at all by the authors, we are left to wonder.

DEZINFORMATSIA is not an easy book to read, but the reader with perseverance will find a wealth of detail and information. Over 1000 references are annotated in 402 textual notes, almost one to every paragraph. Although the authors or the publishers believed this to be an important part of the book's validity, such annotation becomes tedious after the first few pages, and detracts from the book's readability. DEZINFORMATSIA may not be everybody's cup of tea, but those with a leaning towards detailed research and an illuminating insight into the various means by which propaganda can be used to attain political and other ends, will find it fascinating.

#### AHR Brecht

THE EDUCATION OF A NAVY. THE DEVELOPMENT OF BRITISH NAVAL STRATEGIC THOUGHT, 1867–1914. D.M. Schurman. Robert E. Krieger Publishing Company, Malabar, Florida, 1964. \$15.50.

The Education of a Navy is the welcome reprint of a work by Professor Donald Schurman which was first published in 1965 and which has had a notable impact upon the methods and attitudes of naval historians since its appearance.

Schurman presents the biographies of six men, not all of whom would have considered themselves historians, but who were nevertheless instrumental in the development of naval history as a subject for serious study and as a tool for the analysis of contemporary affairs. Beginning with the Colomb brothers, by way of Mahan and Laughton to Richmond and Corbett, Schurman demonstrates the developing sophistication of his subjects' thinking and their increasing influence upon events.

It is difficult for us to comprehend either the absolute

novelty of the first application, a little over one hundred years ago, of the historical method to the analysis of naval questions outside the tactics of sailing battles, or the considerable effort which had to be expended simply to establish first principles. While it is true that naval studies advanced apace with that of general history as a serious academic discipline, it is still a tribute to Schurman's six that, by 1914, naval history was a discipline in its own right, particularly because at no stage did any continental historians of the genre receive serious consideration in the English speaking world.

For the student of the twentieth century, who is more likely to be concerned with Mahan, Corbett and Richmond, the book has to some extent been overtaken by more recent works, including Schurman's own biography of Corbett, and Professor Hunt's Sailor-Scholar, which treats with Richmond. The logical construction of Schurman's thesis, however, ensures that The Education of a Navy will remain important in its own right. The author has not hesitated to describe the errors and weaknesses of the six men and, to some extent, his analysis of their failures is the most instructive part of the study. Two points struck this reviewer. The first is that failure to understand the contemporary implications of technological change is an occupational hazard which naval historians must guard against, even naval historians who are themselves experienced officers. Mahan, for example, championed moderate dimensions for heavy ships at a time when increases in their size were little short of inevitable. Although not discussed in this work, Richmond advocated divided tactics and an end to the rigid battle line without realising that gunnery fire control systems were simply not up to the continuous manoeuvring in action which such tactics involved.

The second point is that military intellectuals can give considerable offence by their tendency to combine the confident assertions of the officer with the prescriptive tendencies of the academic — a failing to which Richmond was particularly prone. This can lead, in addition, to over confidence and with disastrous results. It should not be forgotten that Richmond was Captain of the *DREADNOUGHT* when the ship fell for the 'Bunga Bunga' hoax, to the amusement of the fleet as well as the public.

The only pity is that the book is a reprint rather than a revision, since a couple of minor anomalies may be found. It is difficult to believe, for example, that Richmond when still a Commander proposed himself as Captain of the battleship *ALBEMARLE* in the Mediterranean, while it is unlikely under any circumstances that he would have received another active appointment after his command of the Imperial Defence College, given the quality of his contemporaries. But these are minor considerations in what is a sound and well constructed study.

In fact, the only jarring note comes in the epilogue, with its fundamentally optimistic description of the use of naval history in the development of strategic doctrine in 1965. Less than two decades after, the Royal Navy and allied Services have regressed to a state of illiteracy in historical studies, an illiteracy only now being remedied in some measure by the efforts of the British Naval Staff to develop a naval case reasoned from first principles and application of the historical method.

In retrospect, the reduction of interest in naval history was inevitable, because it is in the nature of navies to place experience before analysis. The positive attitudes noted by Schurman of the Admirals of the Second World War to history were largely determined by their own involvement in the First. Pound had commanded a battleship at Jutland and Cunningham a destroyer at Gallipoli, while Horton had terrorised the Germans in the Baltic. In a sense, they were unconsciously historians because they had acquired the fundamental humility of men who realised that the events they faced had elements of repetition as well as novelty. Naval officers were and are subjected to naval history as a serious discipline for so little time in their careers that the ideal state of affairs suggested by Schurman was likely to last only so long as there were officers on the active list who had served in responsible positions in the Second World War. Perhaps, but only perhaps, the Falklands may have done some good.

JVP Goldrick

#### ROYAL NAVY FRIGATES 1945–1983. Leo Marriott. London, Ian Allan Ltd, 1984. Available in Australia from Thomas C. Lothian, 11 Munro St, Port Melbourne. Price \$19.95.

In 128 pages, Leo Marriott has managed to fit a concise history of the British frigate, ranging from the wartime construction programmes to the Type 23 and future designs. An excellent ready-reference, the book somehow manages to include 110 high quality black and white photos, and 21 line drawings, to complement the comprehensive text.

This book skilfully shows the changing roles of the Royal Navy frigate over the past forty years, from its early days as a reasonably cheap escort vessel to its present role as a highly sophisticated fighting ship. The book consists of five parts — The Wartime Frigates, The Conversions, The 1951 Frigate Programme, General Purpose Frigates, and Gas Turbines 7 Guided Missiles. Five excellent appendices cover RN Warship Type Designations, Frigate Pendant Numbers, RN Gas Turbine Development, Frigates and Helicopters, and Frigates in Falklands Task Force Operations.

A total of 221 frigates are described in detail, anti-aircraft, anti-submarine, aircraft direction, and general purpose types. From the older Black Swan, Castle and Loch to the Leander, Amazon, Broadsword classes, they are all included in this most informative book.

Well laid out, well produced, well written, and at a reasonable price for such a heavily researched book, Royal Navy Frigates 1945–1983 is recommended reading.

Vic Jeffery

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## **Naval weapons**

Bofors has a long and respected history of manufacturing anti-aircraft systems and other naval armament.

The 40 mm and 57 mm guns produced today, combined with new types of ammunition and loading systems, have been developed into highly effective, all-round guns for use against air and naval targets.

The Bofors naval product programme also includes weapon systems for submarine hunting, illumination and chaff rockets and sea mines.

