



# Journal of THE AUSTRALIAN NAVAL INSTITUTE

---

ISSN 0312-5807

VOLUME 19 NUMBER 2 MAY 1993

---







## The Australian Naval Institute Inc.

The Australian Naval Institute was formed and incorporated in the Australian Capital Territory in 1975. The main objects of the Institute are:

- to encourage and promote the advancement of knowledge related to the navy and the maritime profession,
- to provide a forum for the exchange of ideas concerning subjects related to the navy and the maritime profession, and
- to publish a journal.

The Institute is self-supporting and non-profit making. All publications of the Institute will stress that authors express their own views and opinions, which are not necessarily those of the Department of Defence, the Chief of Naval Staff or the Institute. The aim is to encourage discussion, dissemination of information, comment and opinion and the advancement of professional knowledge concerning naval and maritime matters.

The membership of the Institute falls in the following categories:

- *Regular Membership* - open to members of the RAN or ANR and persons who, having qualified for regular membership, subsequently leave the service.
- *Associate Membership* - open to all other persons, not qualified to be regular members, who profess an interest in the aims of the Institute.
- *Honorary Membership* - conferred upon persons who have made a distinguished contribution to the navy or maritime profession or rendered service to the Institute.

### DISCLAIMER

VIEWS EXPRESSED IN THIS JOURNAL ARE THOSE OF THE AUTHORS AND NOT NECESSARILY THOSE OF THE DEPARTMENT OF DEFENCE, THE CHIEF OF NAVAL STAFF OR THE INSTITUTE.

### ACKNOWLEDGMENTS

The Australian Naval Institute is grateful for the assistance provided by the corporations listed below. They are demonstrating their support for the aims of the Institute by being members of the "friends of the Australian Naval Institute" coterie:

Australian Defence Industries  
Blohm+Voss  
Computer Sciences of Australia  
Jeumont Schneider Division  
Krupp Atlas (Australia)  
Ansett Australia  
Scientific Management Associates

Rockwell Ship Systems  
Stanilite Electronics  
GEC Marconi  
Westinghouse Electric  
Nobeltech  
Thomson Sintra Pacific

# JOURNAL OF THE AUSTRALIAN NAVAL INSTITUTE

ISSN 0312-5807

VOLUME 19 NUMBER 2 MAY 1993



## DEPARTMENTS

From the Editor	2
From the President	3
Washington Notes	5
Advertising	64
Book Reviews	65
Guide to Authors	66
Book of the Quarter	67
Council of the ANI	70

## FEATURES

The Law of the Sea and Security within Australia's Maritime Areas		
Squadron Leader S.J. Larkin, RAAF		7
Naval Quality Management at Sea: Will it Work?		
Chief Petty Officer C.R. Kaleta, RAN		17
Multinational Naval Operations: The Operational and Technical Factors		
Eric Grove		21
New Zealand and ANZUS: A Personal Perspective		
Commander R. Jackson, RNZN		27
The ANZAC Ship		
Commander G. York, RAN		35
Regional Security: An Australian Perspective		
Vice Admiral I.D.G. MacDougall, AO, RAN		43
HMAS <i>Voyager</i> and the RAN's History: A Reply to J.A. Robertson		
Tom Frame		51
The Class of 1948		
Alan Zammit		57
Submarine K13 Memorial		
Pauline Garland		61
Australian Submarine Dolphins		
Peter Smith		69

Cover: The two HMAS *Stirling* based patrol boats HMA Ships *Bunbury* and *Geraldton*.  
LSPH Scott Connolly, RAN



## From the Editor

This is the second of our journals in the new format and I hope continuing to improve in both style and content. Some readers have passed on concerns over the font used to produce the February issue, and the Editorial Board is well aware that it is perhaps not as fine and clear as perhaps appears in other professional journals. Some of course expect us to compare favourably with much larger organisations, and while we will continue to strive for excellence in the final outcome it is ultimately a question of resources. I was fortunate recently to be able to visit the headquarters of the United States Naval Institute and am now even more envious of their circulation, (in excess of 110,000) and full time editorial staff. I therefore ask our members and readership to bear with us as we continue that search for the right combination of style, quality and quantity, and to perhaps work hard at building up our circulation by encouraging new members.

In the short term we appear to have at least turned the corner in available material and have for the first time been able to exercise a degree of selectivity on the material published. Thus this issue leads off with a paper on Law of the Sea by Squadron Leader Larkin, which won him the *ANI Silver Medal*, in the second half of 1992 and follows with a timely article on Naval Quality Management by CPONPC Kaleta of HMAS *Tobruk*. Hopefully his thoughts on the new (or perhaps not so new) management technique will invoke some further debate in future issues of the journal. Eric Grove, a renowned and prolific writer on naval affairs has provided us with a thought provoking article on the technological and operational aspects of Naval Peacekeeping operations, Greg York provides a layman's guide to the *Anzac* ship and Richard Jackson provides some useful insights into New Zealand's *ANZUS* dilemma. The journal rounds off with the Chief of Naval Staff's thoughts on regional security and three short historical pieces. Finally there is our Book of the Quarter, and a piece by Tom Frame, which meets a obligation made by a previous editor to



give Tom right of reply to an article on his book *Where Fate Calls*.

On the subject of books and memorabilia, the Book of the Quarter has been a service offered though the University Co-Op Bookshop for a limited number of copies with some delays in processing orders, and in some cases orders may not be able to be met. *Aye Aye Minister* is now sold out at the discount price, although copies of *Where Fate Calls* are still available. On the subject of binders, of course with the new size and binding of the journal, our binders are no longer suitable, although we will still advertise the old size binders for those members who have perhaps not got around to binding the earlier journals. We would be interested in your views in attempting to procure a binder for the new style if appropriate.

Finally, the dreaded plea about finance. A number of members are now no longer financial and will need to either forward a cheque, postal order or credit card authorisation if they wish to continue receiving the *Journal* after this issue. Current financial status is shown in the top left hand corner of the mailing label. For example if you are current for 1993 you will have 93, in the top left hand corner. To those members who are on the move, please forward us your change of address. Do not forget to put your name as well as the new address on the Reply Paid envelope.

Dick Sherwood



## From the President

The highlight of the last quarter has been the recent one day seminar, co-hosted with the RAN's Maritime Studies Program, at HMAS Watson in which we explored the issues of *Operational and Technological Developments in Maritime Warfare - Implications for the Western Pacific*. The seminar was a 'sell out' and we had to turn many potential attendees away. I was most encouraged by the attendance of many of the younger generation of our community and trust that their exposure to a quality product may encourage their joining the *Institute*. Many of our *institutional friends* were attendees and two presented papers.

We aim now to host another Major Maritime orientated Seminar in about May 1994 and already I have one potential co-sponsor from our corporate friends.

We have also recently received considerable encouragement from the United States Naval Institute, which should lead to a useful association as we develop into the future.

There are many issues we could and should be addressing in our journal. We live in a period of significant change in strategic thinking in the Asia Pacific region. The nations of South East Asia who have in the past developed their force structures to largely counter insurgency are together with the North Asians, becoming the prominent trading nations of the world, recognising the importance of their maritime surrounds and developing force structures to support maritime dominated strategies. The South China Sea is an area of potential destabilisation and the area is dominated by an archipelagic and maritime state environment.

I would like to see some debate on how Australia can become actively involved in this neighbourhood - is our step by step approach, transparency, interaction of a bilateral nature and other confidence building methods the way ahead? Can we and should we move more



quickly? Will our trading routes in effect become an extension of our sovereignty and what consequences will that have on our force structure development.

Many of you have had considerable experience in the region and can contribute and I look forward to your input.

Don Chalmers



## AUSTRALIA'S MARITIME BRIDGE INTO ASIA

MAJOR CONFERENCE - SYDNEY - 17-19 NOVEMBER 1993

The aim of the conference is to demonstrate the significance of Australia's maritime links with Asia. Specific objectives are to show how these links provide an important means by which Australia can forge better relations with Asia and to identify opportunities available in Asia for Australia's marine industries.

All Asian countries depend on the sea for foodstuffs, trade and longer term economic prosperity. Many are investing heavily in offshore resource developments, particularly for oil and gas. The growing importance of the sea to regional countries is reflected in their expanding merchant shipping fleets, the emphasis on maritime capabilities in the development of their military forces, and the attention now paid to claims on offshore territories. Maritime issues are likely to assume even greater importance in the years ahead.

There is great potential here for Australia to participate in these developments. Australia is a maritime nation itself with extensive maritime interests and considerable skills and expertise in the marine industries, and marine science and technology. These suggest an area worthy of special emphasis in Australia's relations with Asia.

The conference will explore aspects of Australia's maritime links with Asia. Plenary sessions will consider the broad strategic, economic and political context and separate industry/special interest sessions will address issues specific to individual areas of interest such as shipping, defence, offshore resources, education and training, marine safety, shipbuilding and marine science and technology. One half day will be set aside for organised visits by conference participants to centres of maritime interest in the Sydney and Wollongong areas.

Highly qualified speakers from both Australia and Asia will be invited to address the conference. It is expected to make a major contribution to understanding regional maritime issues and where Australia can make a significant contribution to the mutual benefit of both Australia and the Asian countries themselves.

The venue is the Resort Hotel at Brighton-Le-Sands, is a very attractive location right on Botany Bay, close to the airport and not too far from the Central Business District. It was the location of the very successful *Maritime Change in Asia* conference held in November 1991 and the forthcoming conference should be even more successful.

The conference is planned for the week preceding the *Offshore Australia* and *Maritime Technology* conferences to be held in Melbourne 23-26 November 1993. To make their time in Australia more worthwhile, the overseas naval visitors will be invited to attend these conferences as well. There would thus be an excellent opportunity to promote Australian marine industry to the maritime defence community of Asia.

**Contact:** Maritime Studies Program  
Tel: (06) 266 6114  
Fax: (06) 266 6754



## WASHINGTON NOTES

**From: Tom A Friedman  
in the United States of America**

The dehumidifiers on the newly decommissioned USS *Missouri* had barely started to hum when the cry of "bring back the battleships" was heard again. Bring back the battleships? *NO!* The time has come to scrap the battleships!

The United States Navy must have shore bombardment capabilities. Yet those capabilities, again, do not exist in the active fleet.

For a generation and a half, the very existence of the battleships, the world's premier shore bombardment vessels, has stymied all efforts to come up with alternate bombardment systems. The reason was simple: Why spend the money to develop a new gun when the best ones in existence are in reserve?

This is the crux of the problem. Except for the *New Jersey's* one deployment to Vietnam and Desert Storm, every time we have needed heavy bombardment capability the battleships have been in reserve. Their record of success has not kept the ships from being decommissioned when the perceived need has past. Both Republican and Democratic administrations have determined that the battleships are simply too expensive to operate. Yet the same people who have argued that it was too expensive to keep battleships in commission have hidden behind their existence to keep from developing new heavy guns. It is a classic "Catch-22" situation.

The only way the Navy will ever be able to stimulate the needed support for new gun systems is to get rid of the old ones it cannot afford to use. In other words, *it's time to scrap the battleships.*

Realistically, the same financial constraints that keep the battleships in reserve make the development of such a system, including the proposal to put the 8-inch Mk 71 gun into production, problematical at best. I propose mounting one triple 8-inch Mk 16 gun turret taken from the cruisers *Des*



*Moines* and *Salem* on each of six of the proposed LX amphibious ships, making these ships amphibious inshore fire-support ships (LX/IFS). This stopgap will give the Navy and the Congress some breathing space to come to an agreement about a new heavy gun for the 21st century.

### Why the 8-inch Mk 16 guns?

- The guns already exist. This may be their greatest asset to the Navy. However, the ships have been stricken and the Navy will have to move fast to save the mounts from the scrap yard.
- There was some consideration given to recommissioning these heavy cruisers for Vietnam service and, later, by the Reagan administration. But the battleships won out. This is not to say that the 8-inch guns were unsatisfactory, only that the 16-inch guns on the battleships were better and they were just as available as the 8-inch guns.
- The guns are fully automatic and are not as labor intensive as the 16-inch guns of the *Iowas*.
- The turrets are heavily armoured.
- Despite a premature shell explosion that wrecked the No. 2 turret of the *Newport News* in 1972, the



mountings appear to have worked well.

- . The mountings are virtually new. They only saw some 10 years of service and were never in combat.

#### **Why mount the guns on the LX?**

- . Hybrids are seldom the ideal answer, but an amphibious ship will, by definition, be where gunfire support is needed.
- . The 16-inch mounts are so large that they would severely distort the dimensions of an amphibious ship that could be risked for close-in bombardment. Since the 8-inch mounts are just about a quarter of the size of the 16-inch mounts (451 tons vs. 1,708 tons), they could be more easily incorporated into the design at a far less cost.
- . Recommendations for specialised gunfire support ships have a poor success rate in Congress and there is no reason to believe support for such a ship would be forthcoming anytime soon.
- . Specialised gun ships would be far easier to decommission in economy drives than would a LX/IFS combination because of the ship's amphibious capability.
- . The gunfire capability of the LX/IFS would be secondary to the ship's amphibious capability. As such, different manning levels for the guns might be tried. It is conceivable that the turret itself could be fully mothballed or partially so. This was done on the French battleship *Jean Bart* where,

from the end of 1951, the forward quadruple 15-inch turret was fully mothballed while Turret II was partially mothballed and could be brought fully on line in two weeks.

The argument could be made that using the Mk 16 mount instead of pushing for production of the Mk 71 mount perpetuates the use of obsolescent weapons systems. Again, remember that the *guns* of the Mk 16 mounts were not unsatisfactory. The Mk 71 was designed to provide a lighter and more personnel efficient *mount*.

And while the Mk 16 mounts may be 50 years old, if the Mk 71 mount was put into production tomorrow, we would be building a gun whose concept and design was some 25 years old!

In the case of heavy naval guns, newer does not necessarily mean better, as the Royal Navy found when it mounted 30 year old 15-inch guns in twin turrets on its last battleship, HMS *Vanguard*. The mounts had been removed from the light battle-cruisers *Glorious* and *Courageous*. As modernised, they proved far more satisfactory than the 14-inch and 16-inch guns and turrets that had been produced in the interim. Indeed, the 15-inch twin turret remained the favourite heavy gun mounting in the Royal Navy for half a century. And if the guns originally intended for the *Iowa* class been installed, we would be dealing with guns that were *three quarters of a century old*! They had been manufactured for the battleships and battlecruisers that were scrapped under the Washington Treaty of 1922.

The 8-inch Mk 16 guns exist now. Let's save them, use them and get on with other pressing problems for the Navy.



# THE LAW OF THE SEA AND SECURITY WITHIN AUSTRALIA'S MARITIME AREAS

By: Squadron Leader S.J. Larkin

ANI SILVER MEDAL WINNING ESSAY FOR RANSC 28/92

## INTRODUCTION

Australia's intention to establish or re-define its claims to the maritime areas allowed by the Third United Nations Convention on the Law of the Sea, 1982 (UNCLOS III), adds a new dimension to its security outlook.<sup>1</sup> The overlap of the 200 nautical mile (nm) Australian Fishing Zone (AFZ) with the Exclusive Economic Zones (EEZ) claimed by Indonesia, Papua New Guinea, the Solomon Islands, France (French Territories) and New Zealand, effectively create Australia's first international borders. Within these maritime boundaries lies a potentially enormous wealth of natural resources. Additionally, the maritime environment is a medium for activities such as illegal immigration, fishing violations, pollution and illicit drug importation all of which Australia regards as inimical to its national interests.

Whether disputes arise from boundary or economic resource issues, or from the use of the sea for undesirable purposes, the business of protecting and policing Australia's maritime areas will have a fundamental basis in international law. UNCLOS III represents an ambitious attempt by the international community to legislate on the use of the sea and the equitable exploitation of its resources. Although it has not yet been ratified and technically is not in force, the Convention can be regarded as *de facto* law. But what measure of security does it provide?

Australia's security outlook within its maritime areas will be influenced by its perception of the threat to its national interests. The status of Australia's bilateral relations with its maritime neighbours and its confidence in the efficacy of the

Convention, and inter-national law in general, should be prime considerations in shaping Australia's security policy.

This essay will examine the impact of UNCLOS III on Australia's security within its maritime boundaries.

## AUSTRALIA'S MARITIME AREAS: EXTENT AND INTERESTS

### Australia's Maritime Claims

As with all coastal nations, UNCLOS III confers upon Australia the right to claim the following maritime areas:

- . a territorial sea,
- . a contiguous zone,
- . an Exclusive Economic Zone (EEZ), and
- . a continental shelf.

In each of these areas, the nation's rights and obligations differ, as does the extent of its jurisdiction to regulate maritime activities.

**Territorial Sea.** UNCLOS III extends the maximum allowable limit of territorial seas from three to 12 nautical miles (nm) measured from the territorial baselines.<sup>2</sup> This reflects the practice adopted by many nations after the failure of two previous conventions, UNCLOS I (1958) and UNCLOS II (1960), to agree on a figure.<sup>3</sup> Australia declared its 12 nm territorial sea in November 1990.<sup>4</sup> This gives Australia sovereignty of 'the airspace over the territorial sea as well as to its bed and subsoil'.<sup>5</sup> Consequently, Australia has jurisdiction over all living and non-living resources within the territorial sea. This jurisdiction also includes the right to pass national laws concerning navigational safety and procedures, environmental protection, fisheries, scientific research and survey, customs, fiscal matters, immigration and sanitary issues (health and quarantine). While foreign aircraft do not have the right of over flight,



Australia is obliged to uphold the right of innocent passage by foreign ships through its territorial waters. This right may be suspended, but only temporarily in specified areas when it is essential for security reasons.

**Contiguous Waters.** In September 1991, the Australian Government announced its intention to declare a contiguous zone extending 24 nm from the territorial baselines; that is 12 nm beyond the territorial seas.<sup>6</sup> This is the maximum distance allowed by the Convention. Jurisdiction within the contiguous zone is limited to the prevention and prosecution of violations of Australian laws regarding customs, fiscal matters, immigration and sanitary issues which have been committed or may be committed in territorial waters.

**Exclusive Economic Zone.** Australia also intends to establish a 200 nm EEZ as provided for in the Convention.<sup>7</sup> This will give Australia sovereign rights for the exploration, exploitation and management of all natural resources, whether living or non-living, in the waters of the EEZ, its seabed and substrata. Other activities which exploit the zone, such as energy production from wind, waves and currents are included. Overall, the EEZ represents an area of some 2.6 million square nautical miles having a geographic spread which includes Cocos, Christmas, Heard, McDonald, Macquarie, Norfolk and Lord Howe Islands.<sup>8</sup>

Australia's jurisdiction will encompass man-made installations and structures, marine scientific research and the protection and preservation (including utilisation) of the marine environment within the zone.<sup>9</sup> In other respects the EEZ is regarded by the Convention as high seas in which Australia must permit freedom of overflight and navigation.

**The Continental Shelf.** The Convention allows nations to exercise sovereignty over the exploration and exploitation of natural resources on the seabed and substrata of the continental shelf, but not in the overlying waters. Australia has also announced that it will re-define its continental shelf to accord

with the definition contained in the Convention.<sup>10</sup> The area claimed comprises the continental margin, ie the 'submerged prolongation of the landmass' plus the area within 200 nm from the territorial baselines, where this exceeds the extent of the continental margin. Under this regime Australia has a continental shelf of about 3.5 million square nautical miles, an area which considerably exceeds that defined by the EEZ.<sup>11</sup>

When appropriate national legislation has been passed, Australia's claims in respect to the contiguous zone, EEZ and re-defined continental shelf will be formalised. Australia will then have taken the full measure of its maritime entitlements under the Convention and will be closer toward ratifying it.

### **Australia's Interests Within Its Maritime Areas**

In defining the extent of Australia's maritime areas two issues become evident; the delimitation of maritime boundaries and jurisdiction over resources and activities within those boundaries. The delimitation of maritime boundaries with Australia's neighbours is discussed later in terms of international relations. For the present, the discussion concerns the resources and activities which Australia needs to protect and police and these may be broadly categorised as natural resources and transnational issues.

**Natural Resources.** Within Australia's maritime areas there is potentially an enormous wealth of natural resources, much of which remain largely unexplored and untouched. Even so, Australia's current resource exploitation forms an essential part of the economy.

Australia's offshore natural resources are as follows:

- **Energy.** Australia produces about 70 percent of its crude oil needs, and of this, about 90 percent comes from offshore fields. Indeed about 82 percent of oil and 90 percent of natural gas reserves lie offshore in fields that are already in production.<sup>12</sup> The major focus of this



production is in Bass Strait and the North-West Shelf. The impetus for further exploration will increase as these reserves are depleted.

**Marine Minerals.** In some parts of the world, deep ocean seabeds are known to hold large deposits of poly-metallic nodules which are rich in manganese, nickel and cobalt. As continental mineral resources are depleted or their exploitation becomes less economically viable, interest in marine mining will increase. Although the deep ocean areas within Australia's EEZ might hold these deposits, no major finds have yet been made.<sup>13</sup> Nor does Australia presently have the technology or the capital to exploit these resources.

**Fisheries.** Fisheries are exploited by Australian and licensed foreign fishermen and are an important source of revenue. Increased revenues in recent years have been attributable to improved fishing efficiencies and marketing in the industry, but prawn and fish catches have actually decreased. In accordance with the Convention, foreign fishing vessels are licensed to harvest the surplus in Australia's fisheries stocks. However, to ensure that fisheries stocks remain at sustainable levels, Australia must maintain a management system which also addresses the problem of illegal fishing in the EEZ.

**Transnational Issues.** Transnational issues include illegal immigration, smuggling, piracy and terrorism, and environmental protection. In turn these can impact on other interests such as tourism, and quarantine and health regulations. Australia's geographic isolation, extensive coastline and sparse settlement, particularly in the north and west, add to the difficulty of policing these activities. The following transnational issues should be considered:

**Piracy and Terrorism.** Piracy and

terrorism are as yet unknown in Australian waters, but offshore oil and natural gas platforms are widely considered to be potential targets for terrorist actions. Given the world's growing dependence on hydrocarbon fuels, terrorist attacks on offshore platforms would have a significant economic and symbolic impact.

**Pollution.** UNCLOS III devotes much attention to the marine environment and obligates signatory nations to undertake measures to prevent ships under their flag from causing pollution.<sup>14</sup> However, the primacy of the principle of free navigation limits the standards of pollution control and policing a coastal nation may establish. The responsibility for enforcing the Convention's provisions on pollution effectively rests with the flag nation. Australia, or any other coastal nation, may only arrest and prosecute offenders in their territorial waters and EEZs if the vessel voluntarily visits one of its ports, the offence occurred in territorial waters, or the offence occurred in the EEZ and had caused or threatened major damage to the coastline or to resources.

#### **Refugees, Illegal Entry**

**/Importation.** Australia has proved a popular destination for refugees willing to risk the long ocean passage from South East Asia. The remoteness that has enabled refugees to land undetected in the north and west of Australia, could also be exploited by those who might engage in organised forms of illegal immigration. Organised drug importation has certainly been conducted by both sea and air through these remote points of entry.

**Quarantine and Health.** Through its strict quarantine regulations, Australia has remained free of major exotic diseases. Unlawful or uncontrolled entry increases the risk of introducing exotic diseases and have serious implications for community health and agriculture.



**Tourism.** In 1988-89 tourism employed some six percent of the work force and accounted for about 5.4 percent of gross national product.<sup>15</sup> Tourism is an important part of the economy and it will continue to grow provided Australia can preserve its major attractions, its security and natural environment.

#### **AUSTRALIA'S MARITIME ENVIRONMENT: INTERNATIONAL PERSPECTIVES**

Australia's vast maritime areas are of considerable economic and strategic importance and are a medium in which activities that are not necessarily in the nation's interests may be conducted. The legitimacy of these claimed maritime areas is based on UNCLOS III and their preservation is largely dependent on universal acceptance and application of the law. The health of Australia's international relations is obviously also a major influence on its security.

#### **Australia's Bilateral Borders**

The AFZ effectively created Australia's first international borders. The maritime boundaries with Indonesia, Papua New Guinea, the Solomon Islands, French Territories and New Zealand generally will not change as a result of the AFZ being transformed into an EEZ. Therefore, the bilateral agreements on maritime boundaries that Australia has with these neighbouring countries, remain of considerable importance to its overall security environment.

**Indonesia.** Agreements reached in 1971 and 1973 between Australia and Indonesia, concerning bilateral maritime boundaries only partially established the boundaries; a number of gaps remain. These include the 'Timor Gap', the area between Christmas Island and Java and an area adjacent to Western Timor. Australia and Indonesia have differing views on the method for delimiting the boundary in the Timor Gap area and each view is supportable according to varying interpretations of the Convention. To obviate these differences, a Zone of Cooperation (ZOC) Treaty was signed in December

1989, which provides for the joint development of potential oil reserves in the disputed area.<sup>16</sup> Each nation preserves its claim to sovereignty and, although Australia's case would probably be the more successful in an international court, the ZOC regime will predicably become a permanent arrangement.

**Papua New Guinea.** In February 1985, a comprehensive treaty was concluded between Australia and Papua New Guinea which delimits their maritime boundaries. In the negotiations, Australia ceded three uninhabited islands to Papua New Guinea in return for boundary concessions in the Torres Straits. Although Australia probably had the stronger legal case to the islands, the concession to Papua New Guinea was pragmatic and was made in the interest of good relations.<sup>17</sup>

**France (French territories).** An agreement which came into effect in January 1983 and defined their bilateral maritime boundaries in the Indian Ocean and the Coral Sea.<sup>18</sup> In the Indian Ocean, the boundary separates the French Kerguelen Islands and Australia's Heard and McDonald Islands. In the Coral Sea the separation is between Australia and French New Caledonia.

**The Solomon Islands.** An agreement between Australia and the Solomon Islands concerning their sea and seabed boundaries came into effect following exchanges of notes in October 1988 and April 1989.

**New Zealand.** Common maritime boundaries result from the proximity of Australia's Norfolk, Lord Howe and Macquarie Islands to New Zealand. There have been no negotiations to delimit these boundaries.

#### **The Legal Status of UNCLOS**

Australia's bilateral arrangements reflect cooperative efforts between neighbours working within a legal framework. The formal legal status of that framework should be understood if a cooperative spirit is to be maintained and disputes averted.

When UNCLOS III was opened for



signature on 10 December 1982, 117 nations signed the document. By the time it was closed to further signatures two years later, a total of 159 nations had signified their agreement. However, the Convention needs to also be ratified by at least 60 of the signatory nations if it is to become a formal instrument of international law. As of May 1991, only 43 nations had ratified it.<sup>19</sup>

As Professor Shearer suggests, the reluctance of nations to ratify the Convention may be attributable to a number of factors.<sup>20</sup> Technologically powerful nations such as the United States (which did not sign the Convention), were opposed to its collective regime for deep seabed mining beyond continental shelves. Other nations baulked at the financial contribution required of them under such collective mining arrangements. There also seems a certain futility in ratifying an agreement which is not supported by the major powers and, which in any case, has largely become customary international law.

Customary law derives from 'evidence that [a] practice is generally acknowledged and is based on the conviction that the practice is, or ought to be, regarded as legally binding'.<sup>21</sup>

Additionally, under international law, the act of signing the Convention can be interpreted as obliging the nation to not contravene the Convention, whilst not binding it to perform any of the obligations contained in it. The Convention may or may not achieve the requisite number of ratifications in the next few years, but in the interim it can be accepted as having the status of de-facto international law.

#### **Acceptance of UNCLOS III by Australia's Maritime Neighbours**

Regardless of its unratified status, the degree of confidence and security Australia might draw from UNCLOS III is essentially dictated by the perceptions other nations have of it. Australia and each of its immediate neighbours has signed the Convention; Indonesia is the only one to have ratified it. All have claimed a 12 nm territorial sea and a

200 nm EEZ, but other than Australia, none have as yet opted for a contiguous zone.

Indonesia has been the most pro-active in establishing its maritime boundaries, being largely motivated by its desire to achieve acceptance of the concept of archipelagic waters. In 1957, Indonesia declared a 12 nm territorial sea based on archipelagic baselines. A 200 nm EEZ was declared in 1980. These initiatives pre-date the conclusion of UNCLOS III. Contrary to the spirit of the Convention, Indonesia has attempted to temporarily close the strategic Lombok and Sunda Straits on several occasions, the most recent being in September 1988. Indonesia's rationale for this action is not known, but whatever viewpoint is taken, the 1988 closure had little legal basis and was strongly protested by Australia and some of the major maritime nations. However, Indonesia's ratification of UNCLOS III and its restraint from further closures, indicates that it recognises the advantages it derives from the Convention, particularly from the concept of archipelagic waters. Compliance, in accordance with its ratification of the Convention, appears to be in Indonesia's best interest and is the more likely course.

Australia's other maritime neighbours appear to be supportive of the Convention and prepared to abide within its framework. The amicable, innovative and relatively easy negotiations between Australia and Papua New Guinea, France and the Solomon Islands to delimit their maritime boundaries indicate a similarity of views on the Convention and a consensual approach to its application. Likewise, few difficulties appear likely should negotiations with New Zealand be initiated.

#### **Settlement of Disputes**

While Australia can be confident in its bilateral arrangements with its maritime neighbours and the general utility of the Convention, the potential for disputes remains a necessary consideration in Australia's security planning. Boundary disputes may yet arise, or



Australia's jurisdiction over resources in its maritime boundaries may be challenged. More commonly, disputes arise between Australia and individuals, including foreign nationals, over activities which take place within its maritime jurisdiction and which are appropriately dealt with by national law. Nevertheless, in some circumstances such domestic issues can assume international dimensions.

Citing the Charter of the United Nations, the Convention requires that nations settle disputes by peaceful means.<sup>22</sup> As a responsible member of the international community, it can be assumed that Australia will readily enter into the process of negotiation, conciliation and arbitration to settle its disputes in the various forums established under the Convention. Whether or not a nation in dispute with Australia would do likewise, depends on it being a signatory to the Convention, its perception of the strength of its case, its preparedness to submit to the settlement process and how averse it might be to international criticism. In today's global environment there is increasing political and economic pressure for nations to conform to accepted international norms of behaviour.

Such recourse is not necessary (nor available) in the case of foreign nationals who, as individuals, violate Australia's interests, unless the case has international law implications. Provided Australia's national legislation does not exceed the jurisdiction conferred by the Convention, disputes with foreign nationals are unlikely to be elevated to an international level. If a discrepancy between Australian national law and the Convention was found to exist, Australia might reasonably be expected to accede to international law.

Conceivably, any nation with which Australia might come into conflict will also be a signatory to the Convention. Accordingly, it is probable that maritime disputes would be pursued through international law. Effectively, the Convention upholds Australia's maritime rights, assuming they are just, and

provides a means of recourse in the event of disputes. However, this in itself does not rule out the possibility of a concurrent military threat. In contrast to international disputes, cases of individuals acting against Australia's interests within its maritime boundaries are appropriately dealt with by policing and national law.

### **SECURITY WITHIN AUSTRALIA'S MARITIME AREAS**

Security considerations within Australia's maritime environment are no different to those of other coastal nations. There is a need to preserve the integrity of borders and protect sovereign interests, as well as to police activities which are more or less criminal in nature. Sovereignty issues potentially involve armed conflict, whilst the policing of maritime areas is more of a peacetime task. However, the threat from each is important in considering Australia's security from a maritime perspective.

### **Substantial Conflict, Low and Escalated Low Level Conflicts**

Strategic guidance recognises that Australia's geographic isolation, its harsh northern environment and its lack of common land borders, afford it a considerable measure of security.<sup>23</sup> Due to the enormous military capability and the long lead time required to mount a major threat, the probability of a substantial conflict within Australian territory is assessed as low for the foreseeable future. The possibility of low level or escalated low level conflicts such as the harassment of Australian interests by land, sea or air to achieve limited political aims, is considered more credible, but still the likelihood is assessed as low. It is difficult to speculate on what circumstances might lead to these lower levels of conflict, but it would not be unreasonable to suggest that issues arising from UNCLOS III are unlikely to be a cause of armed conflict.

No part of Australia's mainland or offshore territory is disputed by any other nation and there appear to be no credible legal arguments upon which to base any such claims. Bilateral



maritime boundary agreements with Indonesia, Papua New Guinea, France and the Solomon Islands are sound and equitable. The likelihood of a serious dispute between Australia and New Zealand is quite unimaginable.

Australia's only disagreement on maritime boundaries has been with Indonesia and this was resolved amicably with the ZOC agreement. Indeed, their commitment to the ZOC agreement may well be a reason why Australia and Indonesia have not moved to resolve the delimitation of their remaining maritime boundaries. Why risk unwanted complications at present? Successful exploitation of the ZOC and the confidence building it generates, should auger well for future maritime boundary negotiations with Indonesia.

International law, including UNCLOS III, provides a measure of security to Australia's interests. The possibility of incurring international censure might also be said to have some degree of deterrent value. However, it would be dangerous and naive to suggest that all disputes would be settled in legal forums or would go to arbitration in the first instance. It is just as likely that a legal resolution would be subsequent to or concurrent with some form of military contingency. Consequently, strategic guidance recognises that lower level conflicts may arise with little warning and would need to be countered within existing defence capabilities.<sup>24</sup>

Lower level conflicts require maritime forces to perform the conventional maritime tasks of preventing lodgements, protecting sea lines of communication and projecting maritime power ashore. In peacetime these forces also have an important naval diplomacy mission within Australia's area of primary strategic interest.

### **Peacetime Control of Australia's Maritime Areas**

In peacetime, lower level conflicts are a potential threat rather than a reality. However, fisheries violations and transnational activities are an ongoing reality against which there is little or no recourse in international law.

National law must deal with offenders and hopefully deter others.

Australia's maritime areas hold many attractions for a variety of undesirable activities. The illegal exploitation of energy and mineral resources would deny Australia the use of these strategic resources and/or the revenues they generate. Illegal fishing may have an adverse effect on efforts to sustain fisheries stocks and damage the industry as a whole. The difficulty of surveillance in the remote north makes this area attractive to those engaged in illegal importation, whether it is commodities such as drugs or perhaps illegal immigrants. Refugees need to be detected and processed, and pollution needs to be monitored and policed. While these activities create problems in their own right, some can have serious secondary effects which impact on tourism, and health and quarantine.

Having declared its claims to vast maritime areas, Australia must demonstrate an ability to effectively police its interests and its resolve to use the full weight of domestic law to deter offenders. This represents a different task to the traditional naval tasks already mentioned. Offshore resource protection and law enforcement is a complex task but it is not an entirely new one; Australia has policed a 200 nm AFZ since 1979. However, it is the additional jurisdiction acquired through the declaration of a 12 nm territorial sea, an additional 12 nm contiguous sea and a 200 nm EEZ that adds to the complexity of the task. It involves a large surveillance problem and requires coordination in operations and intelligence sharing between numerous agencies, both civilian and Service. The strategic importance of Australia's maritime areas shows this to be an important task which needs to be considered in conjunction with traditional tasks when providing for Australia's maritime security.

### **CONCLUSION**

UNCLOS III, introduced two new factors into Australia's security equation; international boundaries and



overlapping claims to economic resources. By their very nature these factors must be acknowledged as a potential cause for disputes. However, the likelihood of Australia being involved in a serious dispute arising from its maritime claims appears remote. Australia has no territorial disputes and its bilateral boundary agreements with its maritime neighbours are mostly satisfactory. Only with Indonesia has there been any diversity of views and the ZOC agreement should ameliorate these. This agreement should also prove a valuable confidence building measure to facilitate equally amicable agreements on the remaining segments of the boundary.

A more visible and ongoing threat to Australia's interests within its maritime areas, is posed by fisheries violations and various transnational issues which also impact on its social and economic well-being. These matters are prosecuted within national law, although their jurisdiction in a maritime sense derives from the Convention.

Australia's implementation of UNCLOS III has not brought it into dispute with any other nation and, as a consequence, its security has not been diminished by it. If anything, it has improved the nation's security outlook by producing tangible evidence of Australia's bilateral relations and its ability to work cooperatively with its neighbours. Even so, UNCLOS III itself is no guarantee to the security of Australia's sovereign interests and does not obviate the need for maritime forces to perform traditional naval roles as well as police its maritime areas. As Publilius Syrus said in about 50 BC, 'He is best secure from danger who is on his guard even when he seems safe'.

SQLDR Larkin joined the RAAF in 1974. He has served in Air Force Office, 92 Wing, 77 Squadron and Air Headquarters.

## Notes and Acknowledgments

1. Department of Foreign Affairs and Trade. *Australia Enhances its Power Over Conservation and Resources, News Release*

M132, 24 Sep 92.

2. A nation's territorial baselines are derived from a comprehensive set of measurements principles contained in the Law of the Sea.
3. Shearer I. 'Current Law of the Sea Issues'. Paper presented to the International Conference: *Maritime Change - Issues For Asia*, 1991, Sydney: 6.
4. Bergin A. 'New Developments in the Law of the Sea'. Paper presented to *Naval Power in the Pacific Towards the Year 2000*, Australian Defence Force Academy, May 1991: 4.
5. The Law of the Sea (UNCLOS III), United Nations, New York, 1983. Article 2.
6. Department of Foreign Affairs and Trade. *op cit*.
7. Department of Foreign Affairs and Trade. *op cit*.
8. Forbes V.L. 'Implementation and Ratification of UNCLOS A Regional Commentary'. *Maritime Studies*, January - February 1992: 10.
9. UNCLOS III Article 56.
10. Department of Foreign Affairs and Trade. *op cit*.
11. Bergin A. 'Current Legal Developments' paper delivered to *Maritime Australia '86* Conference, Australian Centre for Maritime Studies, Canberra, 1986: 47.
12. Grad P. 'International Law of the Sea poses great challenges to Australia'. *Engineers Australia*, Vol 612, No 18, Sep 89: 40-41.
13. UNCLOS III Articles 204 - 37.
14. *Yearbook Australia 1991*, Australian Bureau of Statistics, Canberra.
15. Burmester H. 'Zone of Cooperation Treaty', *Maritime Studies*, July - August 1990: 16.
16. Prescott J.R.V. *Australia's Maritime Boundaries*. Australian National University, Canberra, 1985: 119-121.
17. Prescott, *op cit*: 123-4.
18. Bergin, *New Developments in the Law of the Sea*, *op cit*: 2.
19. Shearer, *op cit*: 3.
20. Shearer, *op cit*: 1.
21. UNCLOS III Article 279.
22. *Defence of Australia 1987*. Australian Government Publishing Service, Canberra, 1987: 23.
23. *Defence of Australia 1987*, *op cit*: p24.

## Bibliography

### Books

Churchill R.R. and Lowe A.V. *The Law of the Sea*. Manchester University Press, Great Britain, 1985.

Hill J.R. *Maritime Strategy for Medium Powers*. Croom Helm, Kent, 1986.

Nichols D.B. *The Strategic Implications for Australia of the Law of the Sea*. The Strategic and Defence Studies Centre, The Australian National



University, Canberra, 1985.

Prescott J.R.V. *Australia's Maritime Boundaries*. Australian National University, Canberra, 1985.

Tangsubkul P. *ASEAN and the Law of the Sea*. Institute of Southeast Asian Studies, Singapore, 1982.

*Defence of Australia 1987*. Australian Government Publishing Service, Canberra, 1987.

*The Law of the Sea*. United Nations, New York, 1983.

*Yearbook Australia 1991*. Australian Bureau of Statistics, Canberra.

### Articles

Bergin A. 'New Developments in the Law of the Sea'. Paper presented to *Naval Power in the Pacific Towards the Year 2000*, Australian Defence Force Academy, May 1991.

Bergin A. 'Current Legal Developments - Australia'. *International Journal of Estuarine and Coastal Law*, Vol 7 No 2, May 92.

Burmester H. 'Zone of Cooperation Treaty'. *Maritime Studies*, July - August 1990.

Department of Foreign Affairs and Trade. Australia Enhances its Power Over Conservation and Resources. *News Release M132*, 24 Sep 92.

Forbes V.L. 'Implementation and Ratification of UNCLOS - A Regional Commentary'. *Maritime Studies*, January - February 1992.

Grad P. 'International Law of the Sea poses great challenges to Australia'. *Engineers Australia*, Vol 612, No 18, Sep 89.

Kennedy P. 'Australia's Maritime Defence'. Paper presented to *Maritime Australia '86* Conference, Australian Centre for Maritime Studies, Canberra, 1986.

Shearer I. 'Current Law of the Sea Issues', Paper presented to the International Conference, *Maritime Change - Issues for Asia*, Sydney 1991.





# A major partner in the rebirth of Australian shipbuilding



Australia's shipbuilding industry owes its resurgence to a wide range of partnerships forged between major Australian companies.

CSA, Australia's leading systems and software house, is the high technology partner, bringing a depth of experience and skills in test and training centres, simulators and combat systems.

Over the last 20 years, CSA has worked

hand in hand with the principal players in the defence industry and is a partner in the multi-billion dollar shipbuilding projects for the Royal Australian Navy's new Collins Class Submarines and ANZAC Ships.

This rebirth of a vital industry will bring additional benefits to Australia and companies in the partnerships, as they turn their attention to the international marketplace.



Computer Sciences of Australia Pty Limited

A.C.N. 008 476 944

Sydney Canberra Melbourne Adelaide Auckland Newcastle Nowra

- TURNKEY SYSTEMS • COMMAND AND CONTROL SYSTEMS • SIMULATORS AND TRAINERS • LOGISTICS SYSTEMS • NAVAL SHORE FACILITIES
- ELECTRONIC WARFARE SYSTEMS • COMMUNICATIONS SYSTEMS • AIRWAYS SYSTEMS • ANTI-SUBMARINE WARFARE SYSTEMS
- AVIONICS SYSTEMS • WEAPONS SYSTEMS • SOFTWARE DESIGN, DEVELOPMENT AND SUPPORT.



# NAVAL QUALITY MANAGEMENT AT SEA WILL IT WORK?

By: CPONPC C.R. Kaleta, RAN

## INTRODUCTION

In April 1991 the Chief of Naval Staff announced the introduction of Naval Quality Management (NQM) to the RAN. Over the ensuing months a large number of personnel attended awareness seminars and read the various documentation explaining the NQM process. Some personnel were completely sceptical about the process, and were heard to say so. Others claimed to accept its relevance to the Navy's establishments and support services but refused to believe NQM could work at sea. Were they right?

In an attempt to answer that question, and hopefully convert a few more sceptics at the same time, this article outlines the NQM process in HMAS *Tobruk*, thus far, and to my way of thinking shows NQM working at sea.

## ESTABLISHING NQM IN TOBRUK

NQM began onboard HMAS *Tobruk* in August 1991 when its first NQM facilitator underwent training. At this stage NQM was something that very few people onboard understood and many of the older members of ships' company believed was just another change for changes sake.

Having completed training the facilitators first area that was addressed was education and this was achieved by conducting awareness seminars for the ships' company. Many if not all the junior sailors, thought NQM was a great idea, "finally the hierarchy will listen to what we have to say", seemed to be the general feeling. This of course is one of the basic philosophies of NQM.

Not everyone was a great believer in NQM at first. As mentioned previously a number of the older members in particular were sceptical, some saying "this is the way we have been conducting business for years" while others rejected the idea completely. It took

considerable persuasion to convince the first group that generally we have not been listening to our juniors when they have been trying to tell us "it could be done better if....". The sceptics would only be converted if the process succeeded.



The Quality Group (QG) was formed in October 1991 and consisted of the Heads of Departments, three Senior Sailors and four Junior Sailors. Everyone in that group was fully aware of the importance CNS placed on NQM in the RAN but more importantly were already converts to the process. At this meeting of the QG the first project was selected and a Process Action Team (PAT) was chosen from various members of the ships' company.

Three projects came under discussion but a decision made to make 'Waste Management' the inaugural NQM project. As HMAS *Tobruk* at times carried upwards of 650 personnel, waste management was of prime concern, especially as Exercise Kangaroo '92 was fast approaching and the ship had a protracted involvement in the exercise.

## NQM - UP AND RUNNING

A Mission Statement was drawn up and presented to the PAT and they were instructed to have a plan ready for presentation to the QG by 4 December 1991; only 4 weeks to solve a problem



that had plagued the Navy for many years and become increasingly complex of late due to the Navy's heightened environmental awareness.

Many innovative ideas were debated by the PAT, garbage compacters that could be made by ships engineering staff, can crushers, careful separation of wet and dry garbage and most importantly education of the ships' company.

In December (meeting its deadline) the PAT presented the QC with its recommendations. With only minor changes they were accepted and an implementation team and plan established. Many of the PAT members were keen volunteers to implement the plan and see the fruits of their labours. Exercise Kangaroo '92 was just around the corner and NQM was going to be tested to its limits. A total of 616 personnel were embarked for K92 and an education program was put in to full swing. Having such a large embarked force onboard presented many problems, one being trying to educate the Army into understanding the problem of waste management at sea. Signs were placed over bins, can crushers placed strategically around messdecks and everyone kept an eye on each other ensuring the right thing was being done.

The ship was stretched to the limit with stowage of waste but with careful management the battle was won. When put to the test NQM had proved to be a raging success. Personnel that had said NQM would not work, now began to sit up and take notice, 'knockers' now became ardent believers.

Following the success of the first project the QG met again to discuss other areas of concern within the ship. Many of the junior sailors in the group expressed concern about the composition of duty watch onboard. Two other projects were discussed but it was decided that duty watch composition was to be the next test for NQM.

During this period the initial facilitator, Lieutenant G.T. Robinson RAN was posted and reliefs were required. Largely due to the initial success of NQM there was no shortage of volunteers. Sub Lieutenant J. Buchanan RAN

and myself returned from our course in sunny Cairns in November 1991 and were put to work immediately on the Duty Watch project.

The results from this second project were immediately felt by members of the ships' company. In the past personnel on duty were virtually 'tripping' over each other whilst carrying out rounds of the ship within their various departments. NQM rationalised the rounds routine and composition of the duty watch which in turn saved manhours in getting the task achieved and streamlined operations onboard.

Notwithstanding the benefits mentioned above the PAT did not achieve all its aims. Their attempt to promote cross training to an extent whereby personnel could keep nearly any duty onboard at their rank level proved to be unattainable. In short the PAT confirmed that specialist training and experience cannot be imparted without detriment to ones own duties. With some disappointment, failure to vastly increase the level of cross training between departments, was conceded.

After two successful projects NQM seemed to be unstoppable and on 1 July 1992, following Exercise K92, the QG met to discuss further projects. Both previous projects were discussed in full and the general consensus of opinion was that if future projects were equally successful then future of NQM in the ship was looking bright. Postings having seen some QG personnel depart had little affect as volunteers to join the group were plentiful.

The QG considered the following projects which had been raised following a call for suggestions from the ship's company:

- . HMAS Tobruk Central Office Complex,
- . Securing for action/sea,
- . Watchbills at sea,
- . Fitness, health and weight program (DEFLAB),
- . AVCAT storage and condition management, and
- . Paperwork distribution within HMAS



### *Tobruk.*

Due to the previous successes and number of willing volunteers to participate in PAT's a decision was taken to tackle all six at once. Time would tell if we had bitten off more than we could chew.

The largest project by far was the Central Office Complex and eight members of the ships' company were selected to comprise the PAT. The PAT first met on 1 July 1992 and were tasked to report to the Quality Group on 31 October 1992. During this period the PAT worked extremely hard ensuring that the deadline be met. Meeting frequency was on an as required basis and many meetings with the facilitator took place to ensure the team maintained its focus.

The project was completed in November and having been accepted by the QG the configuration change proposal was raised along with supporting documentation. The task involves considerable work and is beyond the resources of ships' staff alone to implement. Accordingly it has been added to the ships depot level job-list and will hopefully be completed during 1993. Successful implementation will see *Tobruk's* somewhat unique office space requirements reorganised into a more ergonomical layout.

Another pleasing aspect observed during this period was the cross pollination of ideas between processes. One of the other projects being researched at the time was Paperwork Distribution within *Tobruk*. It was clearly evident that if all Departmental Regulators worked in one central area distribution of Daily Orders, Executive Officer Temporary Orders etc would be reduced considerably and outputs should be improved. Both PAT Leaders had meetings to discuss how their plans were to be implemented and this proved to be invaluable in maximising the benefits to be gained.

On 2 January 1993 when all PAT Leaders reported to the Quality Group on the state of their projects, it became evident that not all had been successful. Operation DEFLAB for example set

about to implement and encourage compulsory physical training and sporting involvement for all ships' company. As it turned out the compulsory nature of the proposal made people tend to steer away and if they did participate it may have been under sufferance only. This project was not abandoned but merely a different method of approach was needed in motivating members to participate in ships activities such as PT, sport and weight reduction programs. It was decided to restructure this project and monitor results as they came to hand.

These minor setbacks did not deter anyone as to the validity of NQM. It merely proved that not every project was going to be 100% successful and that to attack a large number of processes at once requires careful consideration, especially in the early days of NQM.

On 26 December 1992, HMAS *Tobruk* deployed for Somalia on Operation SOLACE and immediately the QG decided to use the NQM process to devise a plan to ensure morale was maintained during the deployment.



HMAS TOBRUK loading at Townsville

On 2 January 1993 a PAT was selected and nine personnel from all ranks chosen to carry out this task. The facilitator notified the personnel and gave them their terms of reference and they immediately set to work. Their first meeting took place within 45 minutes and within the hour advertising leaflets were placed throughout the ship asking for suggestions on how we could entertain ourselves.

On 3 January 1993 a second meeting took



place to discuss the input from ships' company and the PAT allocated various tasks to individuals. They were instructed that the Team Leader was to make a full report and have an implementation plan before the QG by the 7 January 1993.

While the ship was in Darwin on route to Somalia members of the PAT went ashore and purchased various items they thought might be useful over the coming months. On the 7 January 1993 a report was put before the QG and accepted almost without change. The entire ships' company got behind the PAT knowing of previous successes and that this project was certainly of direct benefit to all.

The enthusiasm that was displayed by the team again showed that NQM has great appeal. The junior sailors in particular enjoy getting involved and management gets tasks completed that it on its own would have had to have found additional time to resolve. Management can also be assured that if the solution is acceptable to it, it will certainly be acceptable to ships' company if they have been involved in its development.

#### **WHY IS NQM WORKING IN TOBRUK?**

Why does NQM work onboard HMAS Tobruk? This question has been asked of me by many people outside the ship. I believe the answer lies in the commitment and motivation of all personnel to NQM, and after successful projects, members of the ships' company realised that it works for them.

The energy of the PAT's has been undying; a young Able Seaman in the Engineering Department came and saw me and thanked me for giving him the opportunity to be on a PAT. Within 24 hours this young sailor had designed a garbage compactor that could be manufactured onboard. This commitment to NQM, for whatever reason, is not isolated, members of the ships' company

now ask when the next project will be up and running and are constantly putting ideas for new projects.

Another aspect of NQM which has had an impact on members of the ships' company is the realisation that they were both customers and providers of services. They came to realise that a ship is a collection of services and customers. Pay, leave, food, propulsion, domestic services, husbandry are all services provided within the ship and mostly are for the benefit of customers within the ship. The NQM process drastically heightened awareness of this fact and has resulted in personnel realising that you can only expect a better service if you are also willing to provide a better service.

Above all, I believe it is the fact that NQM is a logical process of using all resources, and in particular the human resource, to improve the way we do business that makes it a success in *Tobruk*. The entire ships' company has become more aware of the role they play in the functioning of the ship and have pride in becoming involved in improving the way *Tobruk* does business. To date NQM in *Tobruk* has not been responsible for massive savings of resources, what has happened is that NQM has rapidly and successfully been accepted as the 'Management Philosophy'. It is believed that with time, experience and the right resources the bigger and more ingrained processes which are responsible for most waste will be tackled and improved by this Management Philosophy. Remember NQM is a process of gradual change for improvement not radical change.

CPONPC Kaleta joined the RAN in 1970. Specialising in the electrical trades he was promoted to POETS in 1980, but transferred to the Naval Police in 1982. On the amalgamation and Coxswains branches in 1990 he was loaned to HMAS *Tobruk* for seariding experience, subsequently becoming the ship's Chief Coxswain in 1991.



# MULTINATIONAL NAVAL OPERATIONS THE OPERATIONAL AND TECHNICAL FACTORS

By: Eric Grove

International naval operations have a long history, both of success and of failure. They are now of greater importance than ever in the context of Desert Storm and the emergence of what John Mackinlay and Jarat Chopra call *Second Generation Multinational Operations* and the United Nations Secretary General, *Peace Enforcement*.<sup>1</sup> Increasingly naval operations are being thought of in a multinational context. It is timely therefore to examine what are the operational and technical problems faced by multilateral naval forces and how best they can be overcome. Clearer thinking on these key issues might prevent both unrealistic expectations and excessive pessimism as to the potential of international naval action to help underpin global security.

## THE LEVEL OF INTEGRATION

International naval operations can be divided into three types; co-operative, co-coordinated and combined. Cooperative operations are those when friendly national groups operate in the same area pursuing their national objectives. However they may exchange information, alert each other to forthcoming events and exchange visits to familiarise each other with their operational procedures (as occurred between British and American ships in the Gulf area during the Iran-Iraq war). These activities may be politically "concerted" in some way both at home and on the spot (eg. as Western European Union (WEU) operations were during the Iran-Iraq war). They might then cross the threshold of "co-ordination" when forces are formally allocated areas in a co-coordinated plan, eg. of blockade or surveillance. During Desert Shield WEU forces co-coordinated their own operations between themselves and then with other navies engaged in maritime interdiction. "Boxes" can be allocated for national contingents to look after but

the level of operational integration need go no further. Combined forces are however fully integrated into a fighting force under a single agreed command structure, as in the Gulf during Desert Storm or in NATO or similar operations once forces are "chopped" to Allied command.

## RULES OF ENGAGEMENT (ROE)

The level of integration has, of course, a fundamental impact on the degree of integration of rules of engagement. Co-operative operations are by definition run under national ROE. Once the co-ordination threshold is crossed, however some harmonisation of ROE is equally necessary as the activities of one set of co-coordinated forces might lead to attacks on another set. Ad hoc arrangements can be set up for this purpose with commanders communicating back to national capitals as required. At the highest level combined forces need ROE that are as integrated as possible via the relevant headquarters. In practice national governments will continue to monitor the ROE of their own warships and national reticence may cause some participants not to reveal all their secrets - if the operational situation allows.

Agreed international ROE already exist in the NATO framework. NATO has Maritime, ACE mobile force and air defence ROE that are used by forces under NATO command until they go onto general alert. The ROE are listed in a classified publication with headings and sub headings and can be picked out, as required by the situation. A closely related ROE system is used by the COMBEXAG (US/UK/CANADIAN/AUSTRALIAN/NEW ZEALAND Combined Exercise Agreement) system used for exercises in the Pacific; Japan, Malaysia, Singapore and other participants in *Rimpac*, *Starfish* and similar exercises also have access to these ROE. There is thus already an international ROE system for use when



required, either as a basis for co-ordination or for complete integration.

### TYPES OF OPERATION

International naval operations can be divided into three broad forms along a continuum from traditional peacekeeping to enforcement. Peacekeeping operations take place when a) there is an effective cease fire with good prospects of it holding; b) all parties to the dispute give their consent to the presence of the force; and c) there is a political process in train to resolve the dispute. Increasingly, however, in the post Cold War world international "peacekeeping" forces are been sent to areas where cease fires are not holding, where at least some parties are hostile to the presence of the force and where the political process to obtain a settlement is far from mature. There is no agreed name for these "second generation" operations. Boutros Boutros-Ghali calls them "Peace Enforcement" but this confuses them with enforcement action proper under Chapter VII which involves full scale operations of a more conventional warlike character. "Peacemaking" might therefore be a better term. The tasks maritime forces might be called upon to undertake in peacekeeping are:

- . monitoring for any breaches of cease fire agreements and for the maintenance of embargos (including arms embargos);
- . monitoring maritime cease fire lines or no-go areas;
- . supervising the cantonment of vessels of parties in dispute;
- . mine countermeasures to provide access, prevent incidents and to clear up the effects of the conflict;
- . maintaining an amphibious evacuation capability if the situation begins to deteriorate seriously;
- . seaborne humanitarian, logistic and medical support where other access is difficult.
- . support to seaborne refugees.

In these operations the environment is

likely to be benign with a low level of threat. The platforms required will be surface ships of small and medium size, not necessarily fully combatant (eg offshore patrol vessels) but equipped with radar and, preferably, a helicopter both for surveillance and for boarding. In certain contexts (as in Cambodia today) local craft of opportunity might be better than vessels deployed from distant bases. For MCM work minehunters are sometimes essential although diving teams can be deployed independently in mercantile type shipping. Specialist Amphibious shipping of the LSD, LPD and LPH type might be useful, if not vital, both for evacuation and other support roles. Hospital ships might be necessary if shore based medical facilities were heavily overloaded. Land based maritime patrol aircraft, both fixed and rotary winged, but again not necessarily highly combatant, would also provide useful support eg. for area surveillance and the cueing in of surface assets to investigate suspicious activity.

The forces engaged in the above operations need not be prepared for a concerted attack. Their minimum armament requirements are thus the same as normal patrol tasks, no more than light guns, although heavier weapons might be useful for deterrence and flexibility against the unexpected. If opposition is expected peacekeeping has blurred into peacemaking. The latter operations might involve all of the above missions - but in a more hostile

environment - and also:

- . maintaining law and order at sea;
- . protecting the delivery of humanitarian aid;
- . guaranteeing rights of passage;
- . the enforcement of sanctions (which blends in with enforcement more traditionally interpreted)

The need to be prepared to use force in peacemaking mandates the presence of warships "proper" either forward deployed or as covering forces. Although OPVs might still be useful for some peacemaking roles frigate/ destroyer



type platforms are probably essential, in the covering role at least. Peace-making forces might be at any of the three levels of integration mentioned above, although forces expected to operate together against concerted maritime opposition ought to be at least co-coordinated and at best fully combined. Combined forces are probably a *sine qua non* if subsurface threats are expected.

The roles of maritime forces in classical enforcement operations are identical to the normal combatant roles of navies, as defined in recent US Maritime strategy statements:

- . power projection with air, missile and amphibious forces;
- . battlespace dominance.

Also international naval forces might threaten military action by the international community by maintaining presence. As in peacemaking the degree of integration required for enforcement ranges from co-ordination to combination, depending on the threat.

#### THE THREAT

Enforcement action could expect to face the full spectrum of weapons and platforms involved in modern naval warfare. Submarines are or will soon be operated by Albania, Algeria, Argentina, Brazil, Bulgaria, Chile, Colombia, Cuba, Ecuador, Egypt, India, Indonesia, Iran, Israel, both Koreas, Libya, Pakistan, Peru, Romania, Serbia/Montenegro, South Africa, and Venezuela. Sophisticated aircraft and anti-ship missiles for air or surface launch are more widely dispersed still. These threats might be relatively easily overcome but they probably mandate a force fully integrated into a whole by modern C4I. Risks might be taken if a concerted attack is not expected but the possible presence of submarines makes full tactical integration and adequate training essential.

#### TACTICAL AND OPERATIONAL INTEGRATION

This may be limited by the degree of political consensus in the international force but it is governed

primarily the level of operations expected and the threat. Monitoring and embargo work in itself requires only the exchange of written material and a voice net, preferably secure. Simple, "bolt on" communications systems, provided by partners if not already available, and perhaps even manned by foreign personnel, would be quite practical. Access to global command and control systems makes blockade type operations potentially much more effective but this need not be extended to all ships.

War fighting against significant opposition, or the threat of such fighting requires something more, preferably an electronically integrated set of maritime fighting platforms. Modern naval forces rely on very elaborate communications with multiple secure channels. Data linking is almost essential to combine various platforms into a single interconnected unit. The key NATO data link is Link 11 that operates an encrypted circuit in the HF and UHF bands. A new NATO Improved Link 11 (NILE) has been developed with improved security and jam resistance. This illustrates a fundamental problem. One can only share the details of such systems with reliable allies. Link 11 is also relatively expensive and not all NATO ships are even fitted with it.

A simpler system, Link 10, was developed by the British and sold to the Belgian, Dutch, Greek and Turkish navies. Commercial versions have been supplied to Argentina, Brazil, Egypt and Thailand. Ships equipped with both systems can serve as gateways. This principle has potential to assist in the integration of ships equipped with different data systems into a common force. Buffer systems between different links can also be developed - at some cost. The Americans deployed MULTS (Mobile Universal Link Translator System) in Italy, Greece and Turkey during the Gulf War to help in the multinational operations to maintain sea communications there. Such systems are large (a van trailer and a generator) and can only be put at particularly important C4I nodes.



The ability of the individual ships to interconnect electronically must always be an important factor in the choice of units to take part in any joint military action. No force can be formed immediately however. Even national forces need time to work up together before becoming fully combat effective. Multinational forces require longer work up periods. NATO's on call force Mediterranean required six weeks to work up and even then it was not as effective as a national force of similar size. In this context Standing Forces become operationally attractive if complete multinationality and readiness are to be combined. Alternatively plugging suitable individual units into basically a national operation or force can provide an alternative way of creating a better combination of multinationality and operational capability, more quickly.

Forces that are expected to fight together need also to build up habits of cooperation in regular joint exercises. As well as very large set piece exercises such as the "Teamwork" series, activities like the Joint Maritime Courses (JMC) held to the north of the British Isles provide essential experience in multinational operations. Common shore training of officers is also necessary with courses sanitised as necessary to maintain what secrets are thought necessary. The end of the Cold War ought to see much more cross training of personnel in common procedures.

The basis already exists for a common operational doctrine for the world's navies. Allied Tactical Publication (ATP) 1 has been so widely disseminated as to be no longer a secret to anyone. It has been superseded by a modified version in the leading navies allied to the USA but the original still provides an indispensable common source of signals and such tactical principles as to how to dispose an anti-submarine screen and to take up any manoeuvring formation. Attempts ought to be made perhaps to ensure its universal distribution, at least to Security Council members.

## FORCE STRUCTURE

Naval forces have an inherent flexibility and multi-purpose nature that allows them to fit together without too much difficulty into task forces. Most modern surface combatants in Western and Western supplied navies combine, with differing degrees of emphasis, anti-submarine warfare (ASW), anti surface unit warfare (ASUW) and anti air warfare (AAW) capabilities. The Russian Navy has good modern ocean going vessels in the "Udaloy" and "Sovremenny" classes that ought to be capable of fighting at high levels of conflict, in three dimensions on a global basis (when their owner can afford to deploy them). Their level of C4I however, not to mention simpler communications problems, leave one in some doubt as to how effectively Russian warships can currently combine with Western forces. The first experiments in combined action - notably the welcome Gulf deployment of an "Udaloy" and auxiliary in 1992 - are therefore particularly important in providing experience and identifying problems. China is in a worse situation still. Her standard destroyers and frigates are of very limited capability in both ASW and AAW. Only from 1993-4 with the deployment of the first "Luhu" class ships will truly modern major surface combatants be available from this politically important source.

In general, however, suitable assets for naval action are surprisingly widely available. LPD/LSD type vessels are deployed by South American countries as well as the main West European Navies, the USA and Russia. Several countries have small to medium aircraft carriers, or, like Thailand, will soon deploy them. Only the large aircraft carrier is a capability unique to the United States and the Gulf model of an American CVBG escorted by a multinational group might well be a paradigm for future international deployments at the higher level.

## REACH

Peacekeeping can in all probability



rely on host nation support for much of its logistical requirements; enforcement requires the normal self sufficiency expected of today's navies; peacemaking probably something in between. Fleet auxiliaries are possessed by most naval forces and many are interoperable with other nation's vessels. During the Gulf war, some - but not all - nations integrated their auxiliaries into a common logistical pool organised and escorted by a suitable participant (the RCN). Currently, non-Western vessels probably require their own dedicated auxiliaries but common fuel nozzles and couplings and common fuel standards should be able to solve problems without too much expense. NATO experience again shows both the requirements for and the potential of providing common buffer equipment for logistical support.

A more serious problem could be spares and ammunition stocks for weapons not standardised in the rest of the force. However, just as Western equipment in its various forms is widely dispersed so Russian/Chinese equipment has a certain commonality that could be exploited. If a serious shortage emerged in a vessel participating in an international operation air lift might be available from some source to bring in vital spares and/or equipment.

#### OVER THE HORIZON (OTH) C4I

Command, control, communications, computers and intelligence are the foundation stones of modern naval warfare. This is question of modern naval warfare. This is question of strategic as well as operational integration. The US Navy and its allies how have the benefit of a global intelligence and data distribution system that can put a detailed intelligence picture onto coloured cathode ray tube work stations in the operations rooms of warships anywhere in the world. The Joint Operational Tactical System (JOTS) provides a remarkable distributed capability. If the USA is willing to share data this can be quickly fitted to ships of other nations, as was done during the Gulf Crisis of 1990-1.

As with tactical links this raises interesting questions of classification and information sharing. It should be possible, however for the FOTC (Force Over The Horizon Track Coordinator) to create "sanitised" data that can be transmitted to less highly cleared vessels of the international force. What cannot be altered is reliance on American satellites and other surveillance assets for creating the basic data base and communicating it to the forces. It is hard to imagine an alternative system being built and the parallel but much more limited Russian system may well waste away. Any major international enforcement operation will probably have to rely on US assets in this vital area even if most of the forces on the ground fly other flags. The USA might well consider C4I to be its appropriate contribution to an international effort it did not wish to participate in more fully in the front line. Such a contribution might nonetheless be vital.

#### CONCLUSION

International naval operations have been developed to a high degree in the NATO context since the setting up of the Atlantic Command in 1952. Given this background, NATO procedures have become the "industrial standard" for multinational operations. The NATO model consists, in essence, of the following:

- . agreed politico-military authorities;
- . Allied ROE; secure communications channels and common data links;
- . standardised operational procedures.

This has considerable potential to be applied more widely; it is being adopted by the WEU and it is not inconceivable that it might be adopted by the UN. If so, the wheel would have come full circle. NATO was set up by the USA and her Allies as a collective organisation in the absence of the intended development of UN military authorities and enforcement forces. If NATO could provide 40 years of useful



experience in the creation of integrated naval forces for peace-keeping, peacemaking and the enforcement of the will of the international community against aggression then the decades of Cold War might not have been so sterile after all.

#### Note

1 John Mackinlay and Jarat Chopra, "Second Generation International Operations", *Washington Quarterly*, Summer 1992. Boutros Boutros-Ghali, *An Agenda for Peace: Preventive Diplomacy, Peacemaking and Peacekeeping* (New York: United Nations, 1992). The author gratefully acknowledges his debt to John Mackinlay for help in categorising operations and to others who cannot be named who have generously shared their thoughts with him on this subject.

Eric Grove is Research Fellow at the Mountbatten Centre for International Studies, University of Southampton and author of numerous books and articles on naval matters. He is a former Deputy Head of Strategic Studies at the Royal Naval College Dartmouth and is Visiting Lecturer in History and International Affairs at the Royal Naval College, Greenwich. The research for this article was part of the Naval Peacekeeping Research Project at the Mountbatten Centre, funded by ERSC grant R000.23.2856.

## MEMBERSHIP

## RENEWAL

Membership renewal was due on 1 January 1993. Current financial status is shown in a two figure style (ie 93) in the top left hand corner of the mailing address label. Members whose current status is 92 or less are now unfinancial and should forward payment by cheque or credit card authorisation to the *Institute* immediately.



# NEW ZEALAND AND ANZUS

## A Personal Perspective.

By: Commander Richard Jackson, RNZN

### INTRODUCTION

New Zealand has a chronic illness. The "New Zealand Disease" is an apparent aversion to anything nuclear: nuclear weapons, nuclear-propelled ships, and nuclear-equipped nations - friendly or unfriendly. "Disease" was the description used by various commentators as they watched New Zealand distance itself from the West's collective security structure in the late 1980s; for our allies the concern was that the New Zealand attitude might infect other nations at a time when the Cold War was still a tense reality.

What then is the prognosis of the "New Zealand Disease"? Its obvious symptom is the estrangement in defence matters between New Zealand and the USA, with other symptoms of strain in the relationships with other defence partners. Other nations have not been infected, so in the post-Cold War world of shrinking nuclear arsenals can the disease persist in New Zealand?

The publication in December 1992 of the report of the New Zealand Special Committee on Nuclear Propulsion appeared to be a moment for the New Zealand public to face up to the more fundamental question of the nation's defence relationships. The Committee's report stripped away the myths that had grown up about nuclear propulsion and appeared to provide the basis for renewed allied ship visits. Yet as 1993 opened the "peace" movement continued to propagate their favourite myths, and also began to denigrate the members of the Special Committee. Clearly some were doing their best to keep the patient ill, but few in the general public saw that the primary victims of the disease are New Zealand's own armed forces. How did this situation arise?

### BACKGROUND

First, some history. New Zealand's anti-nuclear stance had first manifested itself on the international

stage in 1973 when the New Zealand government sent two frigates (HMNZ Ships *Otago* and *Canterbury*) to demonstrate the government's displeasure at continued French atmospheric nuclear testing at Mururoa atoll. (The deployment of *Otago* and *Canterbury* was sustained by HMAS *Supply*). That operation was of course a legitimate and appropriate use of a nation's armed forces to give weight to the nation's foreign policy.

The anti-nuclear movement, which had worked hard to make the government of the day demonstrate its opposition to French nuclear testing so effectively, was a populist movement, dependent on the weight of public opinion. By the early 1980s the movement's target had shifted to deployed nuclear weapons (echoing Western Europe's popular protests against NATO's Cruise and Pershing missile deployments). The only available symbols for New Zealand protesters were the American warships that periodically visited New Zealand. Each port visit was subjected to numerically small, but highly visible and well reported protests. Less well reported were the thousands that flocked to visit the warships and offer hospitality to the sailors.

In 1984 the New Zealand public decisively voted out the government of (then) Robert Muldoon, in an election that was ostensibly called because of splits within the government caucus over a private members proposed nuclear free legislation. In fact the 1984 election was about political styles and centralised power, although the defence issue, expressed as questions about our continued membership of ANZUS featured as a consistent theme within the campaign.

The nuclear debate of that era drew on several themes:

- weapons proliferation - the US arsenal appeared to be massively



overstocked,

- the long standing dislike of French testing,
- the nations resistance to nuclear industry generally - a 1976 Royal Commission into nuclear power generation had found the prospect safe but universally unwelcome, and
- a generalised fear of global war - "their ships would make our ports targets".

So resistance to American ship visits was the popular expression of New Zealanders' dislike for all that was wrong with the Cold War, nuclearism and the global arms race. In his book "The Quiet Revolution" one commentator, Colin James, places much emphasis on this radicalisation of our foreign policy as an expression of independence among the "Vietnam generation" who were only then gaining effective political power.

#### THE 1984 LABOUR GOVERNMENT

The Labour government of 1984 capitalised on this mood, so when in early 1985 the United States proposed a routine visit by the USS *Buchanan* (DDG 14 - a sister to HMA Ships *Perth*, *Hobart* and *Brisbane*) the visit was declined on the grounds that the US Navy would not confirm or deny the absence of nuclear weapons aboard. *Buchanan* carried the ASROC ASW rocket system which was widely described in the naval and technical press as being capable of being armed with nuclear depth-charges.

The refusal to accept that visit caused a rift to open between the US and New Zealand. Could the two ANZUS partners bridge the gap?

Other events reinforced the rightness of the decision in the collective mind of the New Zealand public - in July 1985 the French government sent saboteurs to sink the Greenpeace ship *Rainbow Warrior*. An unmistakable example of state terrorism, the mining (and the killing of the ships photographer Fernando Perera) served to unify all New Zealanders in a shock of outrage - indeed it still rankles as a

national insult throughout the nation. The incompetence of the French raiders - most were quickly identified and two were arrested - did not reduce the sense of outrage. The silence from the British - whose ship it was (she was registered in Aberdeen) - and the apparent unhelpfulness of the Australian authorities (three of the suspected raiders were released from Norfolk Island) only increased New Zealanders' collective sense of isolation and made the nation more determined to show its independence.

The April 1986 disaster at the Chernobyl nuclear power plant in the Ukraine - with the subsequent radioactive cloud sweeping over Western Europe - further confirmed the popular abhorrence and suspicion of things nuclear.

The tensions of the Cold War played a part in Kiwi attitudes - despite the facts that New Zealand was neither in the front line of that struggle, nor were our defence deployments related to the global strategy of the United States. But the cumulative effect of the war in Afghanistan, the KAL007 shootdown and the NATO theatre cruise missile deployments (no one in NZ ever protested the SS20 deployments - not even the ones in Soviet Asia!) made the New Zealand public glad of their perceived isolation.

So in 1987 the anti-nuclear policy became law, with the passage of the Nuclear-Free Zone, Disarmament and Arms Control Act. It had three key points - it codified the South Pacific Nuclear Free Zone as part of our law, it prohibited nuclear weapons from New Zealand and it banned nuclear-powered ships.

With the passage of the Act the defence rift between the US and NZ became unbridgeable; at a meeting in Manila in 1986 soon after the bill was introduced to Parliament, the US Secretary of State George Shultz told Prime Minister David Lange that ANZUS was inoperative for New Zealand. Ironically, continued membership of ANZUS had been an explicit part of the Labour election platform in 1984 and was still



incorporated in their 1987 defence policy.

### PUBLIC OPINION

The radical change to New Zealand's defence relationships was a major subject of public controversy during 1985-86. A public committee of enquiry, known as the Corner Committee, was charged with ascertaining New Zealanders' feelings on the subject of defence. It reported that 71% of New Zealanders supported ANZUS with only 13% opposing membership. When the hard question of "if being in ANZUS means accepting nuclear port visits" 52% still accepted the proposition and 44% rejected it. Although a minority, the opponents of ANZUS were both sufficiently vocal and large in numbers that the government of the day saw no reason to change their policies.

### THE DEFENCE DILEMMA

By 1987, the combination of domestic politics and awkward diplomacy had placed New Zealand in a dilemma; it could no longer participate in the very alliance

- . that most of the population supported,
- . that the government of the day had been elected to maintain, and
- . that was integral with the official defence policy.

In response to that dilemma, the government began to increase defence expenditure, made a commitment to two replacement frigates and sought closer defence relations with Australia. None of these steps actually addressed the central dilemma of maintaining a commitment to collective security on the one hand, while simultaneously enforcing a policy that denied an ally the means of participating in that collective security.

Australia, of course, was placed in the opposite dilemma of maintaining defence relations with the US while encouraging Wellington's attempts to improve relations.

### IMPACT ON THE NZDF

What was the effect on New Zealand's armed forces? The 1991 Defence Policy Paper is quite explicit:

The (nuclear-free) legislation has had an important effect... by affecting the longstanding relationships ... with Australia, Britain, Canada and above all the United States. The cut off in American-sourced intelligence has reduced the amount and the quality of information used in New Zealand's own assessments. It has increased the expense and diminished the effectiveness of maritime surveillance in our region.

The loss of exercising and training...has lowered the professional standards of our defence force.

The cost of stocks and spare parts has been increased by the lapsing of the agreement with the US on logistic support.

...New Zealand has neither an adequate level of reserve stocks nor the assurance of quick re-supply.

Examples of exercise opportunities lost included the Tropic Lightning series between our Army and the 25th Infantry Division; RIMPAC, which affected the strike and maritime squadrons of the RNZAF, as well as the Navy; air combat exercises over the instrumented range in the Philippines; and the Kangaroo series of multinational, joint service amphibious exercises in Australia.

The effect of our stance on the defence links with the British and Canadians was less publicly dramatic but none-the-less important - we had looked to both nations to provide certain individual training, but neither was willing to replace the training lost from the United States. And even the Pacific Island nations that we gave training to, began to seek American defence assistance in preference to ours (Tonga for example).

Combined with a period of poor personnel retention - indeed the defence rift



was a factor, certainly for officers, in the poor retention rate - the New Zealand armed forces faced a hard struggle to maintain their professionalism. Two policy changes did help. A 1989 Resource Management Review led to financial and management reforms that gave commanders direct control over operating and personnel funds - suddenly voted money was available to be used for command priorities instead of being locked up in the former bureaucratic maze of civilian Deputy and Assistant Secretaries.

In parallel with this process of management reform a new Defence Act was passed which created the New Zealand Defence Force and placed the CDF in command. Formerly he was only the Chief of Defence Staff and one of a committee called the Defence Council. He now equates to a Chief Executive of the civil departments and state-owned enterprises. The Chiefs of Staff Committee is now the primary policy committee within the defence structure and the "balancing" cluster of civilian Deputy and Assistant Secretaries has vanished.

But management improvements did nothing for the central task of the armed services - tough realistic training measured against high international standards. With all due respect to the Fleet training staff of the RAN, a solitary work-up off Sydney did not replace the "finishing school" effect of a 64 ship RIMPAC, for example.

A conservative government was elected in late 1990, and their election policy included a clear commitment to improve the defence relationship with the United States. However, they had also side-stepped an election year fight by adopting the Labour Party's anti-nuclear position, ie no alterations to the law, as their party policy. Thus the heart of the defence dilemma was not addressed at the public political level. The election was fought, as is usual, on economic issues, not defence policy.

### THE GULF WAR

It was the new government that dispatched medical teams and C-130s to the

Gulf War. The Hercules detachment operated with their RAF counterparts and the medical teams worked alongside RAF and US Navy teams. The Gulf War contribution certainly warmed up New Zealand's defence relationships, but with the war's end ANZUS was still moribund.

One of the professional tragedies for the RNZN is that although a frigate, HMNZS *Wellington*, was prepared for deployment to the Gulf in the same period as the RAN Task Force (August 1990), the government of the day chose to do nothing - it was ironic after all their defence rhetoric about supporting the UN and rights of small nations to their independence. It was especially galling for our Navy after having endured so much destructive criticism during the ANZAC frigate debate to watch a British *Leander* (HMS *Jupiter*) be the first RN ship in the Gulf after the Iraqi invasion, as well as to watch Canadian ASW frigates, smaller and older than ours, deploy to the blockade and operate throughout the war.

### THE END OF THE COLD WAR - CHANGES TO THE NUCLEAR BALANCE

A way out of New Zealand's dilemma seemed to be possible when in September 1991, President Bush made his executive order to remove all tactical nuclear weapons from USN aircraft carriers, surface ships and attack submarines. The march of history had overtaken the Soviet Union, the failed Moscow coup had affirmed the evolution of a democratic Russia (no longer wedded to expansionist Marxist ideology) and the Cold War, naturally, ended. (This was a surprise to many in New Zealand's "peace" movement - so fixated were they to the idea that US imperialism, the American military-industrial complex and US nuclear weapons were the cause of the armed standoff between East and West!)

Suddenly for the New Zealand public a prime factor in their refusal to accept US ship visits was being removed. Within a matter of months the order had been carried out and in mid-1992 the USN announced that all tactical nuclear weapons had been landed. The British



had gone through a similar process that same year. The US, of course, reserves the right to put such weapons back aboard should the international situation warrant it - and now that we know how close Saddam Hussein came to completing Iraq's nuclear weapon manufacturing capability, who can argue with that American position? (Our "peace" movement of course! They interpret the new status as some kind of cunning plot intended to smuggle nuclear weapons into New Zealand - for what tactical or strategic purpose is never explained - and so "nuclearise" the country.)

After the American initiative, the next step for rebuilding our defence relations was to analyse the claim that nuclear propulsion was unsafe. The National government convened a Special Committee and their report was released last Christmas, after a year's study. The report was unequivocal - US and British nuclear powered ships are safe and are operated safely. They would pose no danger to New Zealand, its people or waters, if they were to visit. Predictably the report attracted criticism from the familiar group of protesters. What appeared to sting the anti-nuclear protestors most was the Committee's conscious decision to expose the myths and catch-cries, the bumper-sticker phrases that had passed for debate.

The protest movement has sought to obscure the deliberate focus on two friendly navies. The Special Committee's report carefully explained why they assessed British and American naval nuclear-propulsion systems only, but opponents claimed that the report did not consider Russian or Chinese ships therefore it was not good enough. Of course our nation is not trying to build a defence relationship with Russia or China - and it was not a Soviet or Chinese alliance that came to grief over our stance!

#### THE PRESENT SITUATION IN NZ

As 1993 opened the two great concerns of the general public had been met; nuclear weapons were no longer deployed aboard the types of allied ships that

could visit New Zealand, and the issue of naval nuclear propulsion, in the two navies most likely to visit NZ, had been investigated and been shown to be safe by a scientifically authoritative apolitical committee of eminent scientists.

Why cannot the New Zealand's defence relationships now improve? First, the Nuclear Free Zone, Disarmament and Arms Control Act sits on the law books. The Act as it presently stands does have some domestic application since it codifies nuclear waste disposal aspects that must affect the hospitals, scientific institutions and industries in New Zealand that do use radioactive materials in various applications. It makes the South Pacific Nuclear Free Zone a part of our laws too. But the ban on nuclear weapons is now essentially meaningless (it is the wider arms reduction process, such as the START 2 Treaty, that is ensuring reductions in global nuclear weapons). The ban on nuclear propulsion, however, serves only as a gratuitous anti-American gesture.

From the American perspective the law stands as a considerable obstacle - they after all only operate one navy whether on UN, NATO, or national missions; not one fleet for the rest of the world and a special fleet that can visit New Zealand. Since they and the RN were ever the only two navies likely to send nuclear-powered ships to the South Pacific, the law as it was enacted and stands today is in fact only directed against American ships and British submarines. (Note that British nuclear-powered submarines have operated in the Pacific - although none have visited New Zealand - and with the end of the Cold War demands on submarine operations it is conceivable we may see British SSNs out in this ocean again.)

Secondly, it seems that the popular opinion in favour of the American alliance is not robust enough - the roughly 3/5 of the population that approve of an "active military alliance" is simply not as vocal as the determined and very well organised core of the anti-nuclear movement. Indeed the movement is becoming more overtly



anti-alliance, any alliance; the Five Power Defence Arrangement is now being targeted. The foreign policy discussion paper released by one political party is explicit in suggesting that the FPDA should go. (Whether they have thought of consulting Singapore or Malaysia is not at all apparent).

#### CURRENT PUBLIC OPINION.

Despite our split with the Americans, there is actually consistent majority support for New Zealand participation in ANZUS, as shown by public opinion polling since 1987. For example in October 1991 a special Gallup poll showed that approval for New Zealand taking "an active role in a military alliance with the USA" was 61.7% with only 33% disapproving. In July 1992 (before the release of the report on nuclear ship safety) a National Business Review poll found that 57% of those surveyed supported the alliance and opponents had dropped to 31%.

Two more recent polls are also worth summarising. The Returned Services Association conducted an informal survey of its members during 1992; of course they would be expected to be strongly supportive of military alliances. The RSA survey shows 81% of their members do favour New Zealand remaining in ANZUS, but 81% are also in favour of New Zealand being "nuclear-free", while visits by nuclear-powered ships were supported by only 65%.

After the Special Committee Report on the safety of nuclear-powered ships was published, the National Business Review commissioned another poll that was published in February this year. This showed that those in favour of resuming defence ties with the US totalled 56% while those against had crept up to 35%. But when asked if they believed the report of the Special Committee, 59% said no and only 31% accepted it.

In essence then the majority support for ANZUS has remained remarkably stable, but the majority support for the country's "nuclear free" status has been equally strong. The public response to the "nuclear free" status owes much to the low standards of

science education across the nation (only about a quarter of university graduates are science or engineering students - so only a minority have the science training to actually understand the facts of nuclear physics anyway!) and it remains primarily an emotional issue.

The "peace" movement have proven as ever adept at fostering that emotional response; in a recent issue of "Peacelink" one activist, Nicky Hager, described how the public impact in New Zealand of President Bush's 1991 initiative (to remove tactical nuclear weapons) was deliberately blunted by a sustained campaign of publicity tours, petitions, press releases and letter writing campaigns. As an example of that PR success our largest-circulation daily paper reported the January 1993 visit of the USS *Ranger* battle-group to Sydney with a photograph of the twenty or so protesters under the bows of the carrier; the fact that 50,000 visited the carrier, or that nuclear-powered warships visited Hobart and Melbourne, went unreported here.

Another recent, glaring example of media bias occurred with state-owned radio; last summer as the Japanese government shipped plutonium from France to Japan via the Tasman Sea, the cargo ship was consistently described as a "floating Chernobyl". At no stage did Radio New Zealand attribute that description (which was given by Greenpeace - hardly a disinterested group) or attempt to question the absurd science which that phrase represented.

Nonetheless our allies and those of us in the NZDF must recognise that reality of public opinion - it may be emotional, manipulated, and based on a lack of scientific knowledge, but that opinion has tangible effects: the law remains popular and a strong impression exists that American warship visits would somehow threaten our "nuclear-free" status.

Nuclear issues have successfully mesmerised the public for nearly nine years. Despite increased defence spending in that period the overall professionalism of the armed forces has



probably declined - after nine years we have a whole generation of officers now approaching senior lieutenant rank (and petty officer level for the sailors) who have never worked with the world's most important Navy - and the same applies for the Army and Air Force with their US counterparts. The real cost will not be clear until those young men and women are at higher rank levels. (From the opposite perspective there is a similar generation of Americans who do not know about the Kiwis and have no inkling of how closely we once worked with the American system.)

### THE PROSPECTS FOR CHANGE.

Inevitably after many years of "peace" - that is the absence of global war - the basic rationale for Defence Forces is not easily understood by many of the general public; which is all too common in democracies. The public do not appear to understand that the rift in the defence relationship has adversely affected all three armed services. Too often the ship-visit question is discussed purely in naval terms. With most decision makers and middle managers now being post-war "baby boomers" there is little corporate memory of the Second World War and the nation's vulnerability - indeed for most of the baby boomers, especially many of the intensely political but non-elected advisers active within party politics, their only experience relating to war is the Vietnam-era protest movement, and their only concept of threat being a war-comic image of direct invasion.

Yet the nation's commitment to UN operations is high, and the public support for our people when they are deployed is terrific. The fact that all of these operations require our people to integrate with American or NATO forces and adopt their standards and doctrine is not understood; but it is that fact that points, of course, to the need for an ongoing peacetime training relationship.

The armed forces cannot easily enter into this debate - after nine years it is so politicised and linked to party politics it becomes difficult to separate out the issues of the

"national interest" and discuss the business of our profession. The 1991 Defence White Paper lays out many of these professional issues very clearly (so much so that any future White Paper simply cannot skirt round them as the 1987 Paper tried to do) but the popular will to face the key issue - that a working relationship with the US military is essential for the effectiveness of our own Defence Force - is not yet apparent.

The inauguration of President Clinton is seen by some in New Zealand as opening a window of opportunity for reviewing the NZ-US relationship. On the political left (where many think their tendency to indulge in anti-American rhetoric will be overlooked by the Democrats with whom they claim a kinship) there is hope that they will be proven right all along - that the US will accommodate New Zealand's present position. Yet those people overlook the essential bi-partisan perspectives of American foreign policy. For example in the new administration Admiral William Crowe is nominated as National Intelligence Adviser. Since he was USCINCPAC in 1984 and Chairman of the Joint Chiefs of Staff in 1987, this means there will be at least one official at the highest policy level with clear memories of New Zealand's perceived unreliability.

Certainly there have been fresh NZ-US contacts at the political level; our present Prime Minister wrote to the new President on his inauguration, raising the issue of our strained defence relationship, while the Minister of Foreign Affairs has called on the new Secretary of State. Whether the current military links in peacekeeping operations can surmount the realities of New Zealand's public opinion and so help the US and NZ reconcile their alliance relationship remains to be seen.

### CONCLUSION

Personally, I do not expect a softening of the American reaction to our own contradictory policies. We have squandered an international reputation of participation in collective security gained over 40 years and instead now



have a new inheritance of nine years of intransigence directed at our neighbour and natural ally. New Zealand is the only formal ally of the US to have passed legislation that directly blocks the presence of US naval ships. (Denmark is often quoted as a precedent, but that nation only has legislation requiring access to technical details of nuclear power plants so a safety assessment can be made - it is the US Navy's choice that it has not provided that data to Denmark. Arguably Denmark has simply been a lot cleverer than New Zealand!).

So I am pessimistic; in the struggle for public understanding of the defence dilemma, it has been too easy for some to exploit the emotive, knee jerk sensationalism of the "nuclear spectre" while claiming our geographical isolation can provide sufficient defence. With few obvious military threats to our security, there is little incentive for a consensus that could reconcile the practicalities of collective security with the ideals of our nuclear aversion. Ironically at a time when every other aspect of New Zealand society is becoming more internationally aware - in business, sports, communications and culture - New Zealand is likely to remain outside the international security framework for some time yet.

### Bibliography:

Boston, Jonathon & Holland, Martin (eds). *The Fourth Labour Government*. Oxford University Press, Auckland. 1987

Corner, Frank (Chair). *Defence and Security: What New Zealanders Want*. Report of the Defence Committee of Enquiry, Wellington. 1986

James, Colin. *The Quiet Revolution*. Allen and Unwin, Wellington. 1986

Jamieson, Ewan. *Friend or Ally, New Zealand at odds with its past*. Brasseys, Sydney 1990

Jesson, Bruce. *Fragments of Labour*. Penguin Books 1989 Auckland

Lange, David. *Nuclear Free - the New Zealand way*. Penguin Books Auckland 1990

Templeton, Malcolm *Defence and Security: what New Zealand needs*. Victoria University Press, Wellington 1986

Walker, Ranganui & Sutherland, William (eds), *The Pacific; Peace Security and the Nuclear issue*. The United Nations University, Tokyo, 1988.

*Defence of New Zealand; Review of Defence Policy 1987*, House of Representatives Wellington 1987

*NZ Defence Resource Management Review 1988*. Strategos Consulting Ltd, Wellington 1988.

*The Defence of New Zealand 1991 A policy paper*. Wellington 1991

*The Safety of Nuclear Powered Ships. Report of the Special Committee on Nuclear Propulsion*. Parliament Buildings, Wellington 1992

Commander Jackson joined the RNZN in 1968 and trained at the US Naval Academy, Annapolis, Maryland. He served in a number of sea going ships and shore establishments including command of the patrol craft HMNZS *Rotoiti* and the naval radio station HMNZS *Irirangi*. He had a period on exchange with the staff of USCINCPAC in Hawaii and is presently serving as the Director of Corporate Relations Policy in Defence HQ, Wellington.



# The ANZAC Ship

By: Commander Greg York, RAN

## INTRODUCTION

The ANZAC Ship Project is a joint Australia/New Zealand undertaking which will deliver ten Frigates for the two Navies between 1996 and 2004. Eight of the ships are for the RAN and two (the second and fourth) for the RNZN. New Zealand has an option for two more ships at the end of the initial production run.

This is the largest Defence project undertaken in Australasia to date and the contract, at a price of \$3.8 billion (April 1988 prices and exchange) is the largest ever let by the Commonwealth. This price buys the ten ships and associated logistic support including spares, documentation, and shore training and software development facilities in Australia and New Zealand.

A key aspect of the project is the high level of Australian and New Zealand industry involvement.

## THE NEED FOR THE SHIPS

The Australian requirement for the ships arose out of the 1986 Report on Defence by Paul Dibb. They were to form the second tier of a three tier surface combatant force. The DDGs and FFGs were to form the first tier and the patrol boat forces were tier three.

The 1987 Defence White Paper defined Tier Two ships as "... of lesser capability, suitable for dealing with lesser forms of military pressure which could arise in Australia's area of direct military interest". The paper also noted that the need to achieve the required numbers within a reasonable cost would be an important factor in the selection.

New Zealand had a requirement for ships of a similar capability to replace its *Leander* Class frigates. The New Zealand 1987 White Paper called for the replacement ships to be "... able to operate economically over long distances ... often in difficult sea conditions ... for patrol and

surveillance purposes". It highlighted the operational and logistic advantages of a common design.

In March 1987, both countries signed a Memorandum of Understanding, agreeing to collaborate in the joint acquisition of the ships.

## THE SELECTION PROCESS

The acquisition strategy for the ships was intended to minimise cost and risk and maximise the potential benefits to industry in both countries. It included

- . use of an existing design with only the essential changes necessary to meet the requirements of each Navy;
- . a ceiling on the price of the ships;
- . a fixed price contract with an Australian Prime Contractor; and
- . a *turnkey* approach in which the contract would cover design, construction of the ships and logistic support.

The initial request to industry for ship design proposals was made in December 1986. Nineteen were received and three were selected for further evaluation. These were the Blohm+Voss MEKO 200 (Germany), the Royal Schelde M-Frigate (Netherlands), and the Yarrow Type 23 Variant (Britain).

After further development of the designs by the companies, the MEKO and M-Frigate were chosen for the next stage. This involved Australian and New Zealand industry teaming with the designers to form two consortia to bid for the Prime Contract. In May 1988 requests for tender were issued to Australian Marine Engineering Consolidated Limited (AMECON) based in Melbourne offering the MEKO 200 and Australian Warship Systems (AWS) based from Newcastle offering the M-Frigate.

Best and Final Offers were received in June 1989 and, in August, AMECON was selected as the Prime Contractor. In announcing the decision the Minister



for Defence noted that AMECON was chosen because "... it offered a comparable product at a much lower price than its competitor".

AMECON had purchased the former Williamstown Dockyard in 1988 and was concurrently awarded a contract for completion of the two Australian Frigates which will bring the RAN's fleet of FFG-7 (*Oliver Hazard Perry*) class ships to six. The first of these ships was delivered early in 1992 and the second will be delivered in late 1993, providing, with the ANZAC Ships, a steady workload for the company until well into the next century.

### TRANSFIELD AMECON

Transfield AMECON (formerly Australian Marine Engineering Consolidated) is a division of Transfield Ship Building Pty Ltd and a wholly owned subsidiary of Transfield Holdings Pty Ltd. The company, then called AMEC, was formed in 1987 by Eglo Engineering, ICAL and Australian Shipbuilding Industries to bid for the purchase of Williamstown Dockyard. The management of the company had previously been associated with an unsuccessful tender for the submarine project.

AMEC was successful in its bid to buy the Dockyard with an offer of \$100m. The company was simultaneously awarded a contract priced at about \$400m for completion of the two Australian Frigates then under construction. Transfield Holdings Pty Ltd subsequently acquired the three parent companies as a vehicle for its involvement in the ANZAC Ship Project.

When the selected ANZAC Ship designs were announced, the then AMECON teamed with the German designer, Blohm + Voss AG (BVG) of Hamburg. Cable Price Downer Ltd (CPD) of New Zealand formed the third member of the final bidding consortium. The bid was successful with a lower price than the competing consortium and a clearly superior management approach.

Between announcement of the selection and contract award, AMECON advised that BVG and CPD would not hold equity in the consortium. This was accepted; the

experience of the Submarine Project with the Australian Submarine Consortium had highlighted the advantages of a simple corporate structure with a single agenda. As a result of this decision, BVG is now a second tier sub-contractor, the first tier Design Agent sub-contract being let to Blohm + Voss Australia (BVA).

CPD and AMECON were to have had a joint equity holding in AMECON New Zealand, a company established to coordinate New Zealand industry involvement in the project. However, the two companies have been unable to negotiate an acceptable arrangement and Transfield has established the company on its own. This arrangement has been welcomed by some sections of New Zealand industry which were concerned that CPD would use its position to its own advantage rather than that of industry as a whole.

In June 1990, Transfield completed its takeover by dissolving the original AMECON Board of Directors and substituting one comprising four Directors of Transfield Holdings. The latest name change to Transfield AMECON, a Division of Transfield Shipbuilding Pty Ltd was announced in early 1993. This brings Transfield AMECON into line with other companies of the group and reflects an increase in Transfield Holding's profile commensurate with the increased activity of the group.

Transfield AMECON has now shifted emphasis from the construction of Australian Frigates (FFGs) to the ANZAC Ship. The company has a group based in Hamburg at the offices of Blohm + Voss AG and representation in Jarfalla, Sweden, at the offices of CelsiusTech Systems (formerly NobelTech Systems, formerly Bofors Electronics AB).

### EQUIPMENT SELECTION

The Prime Contract defines the ship in terms of the performance to be achieved rather than the equipment to be fitted. Provided that the performance requirements are still met, Transfield AMECON may change the contract design "base-line" to substitute different systems or equipment. This flexibility was an important factor in the company's



ability to offer a low price and attractive industry program in its tender.

### THE SHIPS

The MEKO 200 is in service in the Turkish, Portuguese and Greek navies and the first of a planned batch of three was delivered to Portugal in January 1991. The F-123, Germany's latest naval program is also based on the MEKO design. A major feature of the design is its ability to accommodate a range of different weapons and other equipment so there are significant variations in the ships of each country. The ANZAC Ship variant is designated the MEKO 200ANZ.



HS Hydra - Hellenic Navy Meko 200

The ANZAC Ships will be about 3600 tonnes full load displacement and 114 metres in length, with a complement of 150 (bunks for 163). They will have the RAN/RNZN's first CODOG (Combined Diesel or Gas) propulsion plant. The arrangement was proposed by Transfield AMECON to meet the specified requirements for speed (especially sustained low speed) and range in the most economical way.

### Propulsion Plant

Twin MTU cruise diesels cover the speed range up to about 19 knots. Diesels are very economical and the ships will have a range of well over 6000 nautical miles at 18 knots. Hydraulic clutches in the diesel power train allow speeds

down to two or three knots for low noise, towed array sonar operations.

For high speed operations, up to 27 knots, the diesels are disconnected from the power train and the single LM2500 gas turbine is connected, driving both shafts through the transfer gearbox. The ships have two shafts with Bird-Johnson controllable pitch propellers. The arrangement of gearboxes and clutches, which are operated by a computer, is very flexible and allows any engine to drive either or both shafts.

### Control and Monitoring System

The ANZAC Ship continues the trend for increasing automation of machinery systems. Siemens Australia will supply the Control and Monitoring System which automates machinery control functions, damage control monitoring, electrical supply and distribution. Consoles are contained in the Machinery Control Room and each of the two Damage Control Section Bases. A Bridge console is provided for propulsion control.

Survivability is an important part of the ANZAC Ship design. The ships have nine major vertical divisions each with its own self contained fire fighting, ventilation, electrical distribution and monitoring systems.

### The Combat System

The selected combat system is the CelsiusTech Systems (formerly NobelTech Systems) 9LV 453 Mk 3, an enhanced version of the system fitted in the Swedish Navy Gothenberg and Danish SF-300 corvettes. The system is modular, based on modern databus technology and highly distributed processing. Almost all of the Command and Control System and Fire Control System software will

be written in the Ada language. The system fully integrates the sensors, fire control system, weapons and auxiliary systems such as the inertial navigation systems and Link 11. It includes seven multi-function operator consoles and duplicated C2 database computers. The consoles will use colour raster scan displays and touch sensitive input devices.



## MAJOR EQUIPMENT BASELINE

### Combat System

Command and Control System	CelsiusTech 9LV 453 Mk 3
Fire Control System	CelsiusTech 9LV 453 Mk 3
Combat System Data Bus	CelsiusTech 9LV 453 Mk 3

### Sensors

Surveillance Radar	Raytheon AN/SPS-49 V(8) ANZ
Target Indication Radar	CelsiusTech/Ericssen
Navigation Radar	Atlas Elektronik ARPA
Hull Mounted Sonar	Thomson Sintra Spherion B
Towed Array Sonar (RNZN only) 2031Z type <sup>1</sup>	
ESM System	Thorn EMI Sceptre A
Communications ESM System	Telefunken PST-1720
IFF System	Cossor AINS Mk 12
Ships Navigation Data System	Sperry Marlin Mk 49 INS

### Communications

Internal Communications	Stanilite
External Communications	Stanilite/Hageneuk

### Weapons and Decoys

127mm Gun	FMC 5"/54 Mk 45 <sup>2</sup>
Point Defence Missile System	NATO Seasparrow <sup>2</sup>
Vertical Launch System	Mk 41 Mod 4 <sup>2</sup>
Torpedo Tubes	Mk 32 <sup>1</sup>
CHAFF Launcher	Super RBOC

### Propulsion

Gas Turbine	GE LM-2500
Diesels	MTU 12V1163 TB83
Gearboxes	MAAG Getreibe
Controllable Pitch Propellers	Bird Johnson

### Auxiliary Systems

Helicopter Recovery (RAN)	Indall RAST
Helicopter Handling (RNZN)	McTaggart - Scott
Steering Gear	Brown Brothers
Stabilisers	Brown Brothers
Diesel Generators	MTU 650 KW HVAC Noske - Kaeser

1. Ships fitted "for but not with" this equipment
2. Government Furnished Equipment



## Sensors

The ships will have three radars. The Raytheon AN/SPS 49 V(8), is a C band two dimensional radar for long range air surveillance and tracking; it will be integrated with the Cossor AINS Mk 12 IFF system. In addition to the 2D radar the CelsiusTech 9LV 453 Mk 3 Target Indication Radar (a variant of the Ericsson Sea Giraffe) and an Atlas Elektronik ARPA Navigational Radar will be fitted.

The hull mounted sonar is the Thomson Sintra Spherion B. This is an advanced sonar with electronically stabilised beams and an automatic detection and track capability. Provision is also made for later fitting of a towed array sonar.

Electronic Sensors include the Sceptre A Electronic Surveillance Measures system which will be supplied by MEL (a division of the Thorn EMI Defence Group). The Sceptre A (A for ANZAC) is part of MEL's modular range of ESM systems and covers bands D to J. In addition to the Sceptre, Telefunken Systemtechnik GmbH of Germany is supplying the PST 1720 Communications ESM equipment in the ANZAC ships to provide a search, intercept, monitoring and direction finding (DF) capability over the frequency range 1-500Mhz.

## Fire Control System

The CelsiusTech Fire Control System incorporates a director with television and infra-red tracking and a laser rangefinder as well as a conventional J band fire-control radar. The FCS will utilise all these sensors to detect and track targets; video outputs from the TV and IR cameras will be displayed at Multi Function Consoles within the Operations Room.

## Gun

The ANZAC ships will each be fitted with the FMC MK 45 Mod 2 gun. This is a 5 inch 54 calibre lightweight gun capable of delivering both conventional and guided projectiles. It is fully automatic and can use existing 5 inch ammunition stocks.



A feature of the MK45 gun is that the gunhouse itself is unmanned during operation; even misfired rounds may be ejected remotely allowing firing to continue without significant delays. The gun is capable of firing an initial 20 rounds with only one crew member; it needs a total crew of six in the gun bay and magazine for sustained firing.

## Point Defence Missile System

The ships will be fitted with an 8 cell MK41 Vertical Launch System (VLS) located aft of the funnels. This system is capable of firing a variety of missiles. In the ANZAC Ships it will launch the NATO Seasparrow missiles, a development of the Air to Air Sparrow missile.

The NATO Seasparrow is a semi-active homing missile. The current version is designated RIM-7P, and is the latest in a series of upgrades to this missile, incorporating enhanced capabilities, particularly against very low flying "sea skimmer" anti-ship missiles.

The VLS is produced jointly by FMC and Martin Marietta in the United States,



and, like the gun, is being procured by the Project for supply to Transfield AMECON as Government Furnished Equipment.

### Torpedo Tubes

The ships will be fitted "for but not with" Mark 32 Ship Launched Torpedo Tubes. Current plans are for the tubes currently fitted in the RAN Destroyer Escorts and the RNZN *Leanders* to be refurbished and fitted to the ANZAC Ships. These tubes are capable of firing the Mark 44 and 46 lightweight ASW torpedoes.

### Helicopter

Each ship will be capable of operating and accommodating a naval helicopter up to the size of the *Seahawk* which is carried by the FFGs. In one of the few configuration differences, the RAN ships will be fitted with RAST to allow helicopter operations up to sea state 5; the RNZN ships will have a simpler recovery system suitable for a medium weight helicopter.

### Expansion Capability

A substantial margin is included in the design to provide for possible future enhancements. This "Space and Weight" provision includes an extra Mk 41 VLS for additional missile capability, a close-in weapons system and canister launched anti-ship missiles.

### SHORE FACILITIES

System support facilities which are incorporated in the ANZAC Ship Prime Contract include:

- . Combat System Tactical Trainer (CSTT) at HMAS *Watson* to provide command team and operator training on the Ship's Command and Control system.
- . Combat System Technical Support Centre (CSTSC) consisting of:
  - . Land Base Test Site (LBTS) at HMAS *Watson*.
  - . Software Development Facility (SDF) at HMAS *Watson*.
  - . Combat System Maintenance Training Facility (CSMTF) at HMAS *Cerberus*.
- . Combat System Support Facility (New

Zealand) (CSSF(NZ)) at HMNZS *Tamaki* to provide limited operator and maintainer training and software development facilities.

- . Platform System Technical Support Centre (PSTSC) at HMAS *Cerberus* to provide operator and maintainer training on the propulsion Control and Monitoring System and software development facilities.

The Project has also been developing, with Transfield AMECON, the RAN and RNZN a concept of amalgamating the separate functions of the CSMTF and the PSTSC into a centralised ANZAC Ship Support Centre (ASSC). The ASSC will undertake a number of roles including configuration management, engineering support, system training functions and roles required to meet the RAN's novel status as 'Parent Navy' of the ANZAC Class. The ASSC plan was approved by the RAN in early 1993. Negotiations with Transfield AMECON and the ultimate customers on the details are continuing.

### INDUSTRY INVOLVEMENT

A key element of the project has been a commitment to maximise the level of Australian and New Zealand industry involvement. About \$2.7 billion or 72% of the prime contract price will be spent in Australia and New Zealand and in addition a further \$300 million (approx) of Defence offsets will be generated. The size of the contract and the ten or twelve ship production run provides an incentive for industry to tool up for the work.

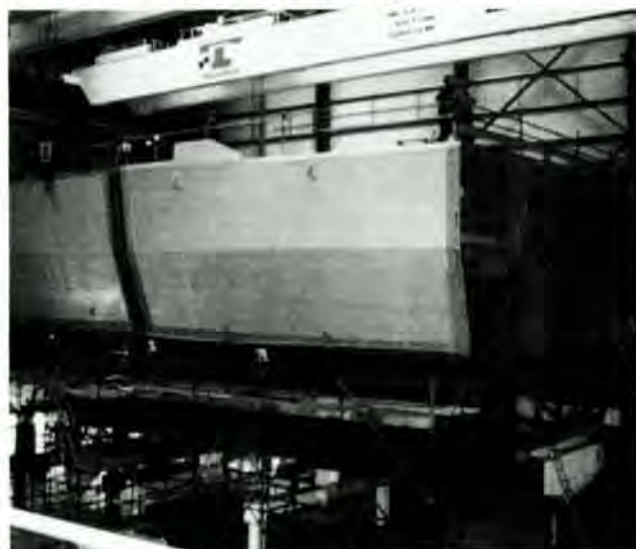
Subcontracts for the supply of all major systems and equipment are now in place. Sub-contracts let to 31 December 1992 included ANZ Content and Offsets obligations totalling some \$1500 million (just ahead of plan). Actual expenditure on ANZ Content to 31 December 1992 was \$400 million (all figures at April 1988 prices and exchange).

Australian & New Zealand industry is also heavily involved in design and development and the production under license of equipment. Major contributors are CelsiusTech Australia



in development of much of the command and control system software; internal and external communications by Stanilite in Sydney; manufacture under license and assembly and test of the gearboxes by Goninan's of Newcastle and Mace Engineering of Christchurch NZ; and gas turbine assembly and test by Air NZ also in Christchurch NZ. Other items being produced locally include electrical equipment, steering gear, stabilisers and air conditioning equipment.

The Meko design is optimised for modular construction techniques. Transfield AMECON's strategy for building the ships is based on the construction of large modules on site in Williamstown, Newcastle and Whangarei, New Zealand. The modules constructed off-site, will weigh up to 300 tonnes each when fitted out. They will be transported by sea to Williamstown for final assembly.



HMAS Anzac under construction - joining modules

This split provides flexibility against overloading or industrial problems at any one site. Transfield AMECON has demonstrated the concept in the construction of the second of the Australian Frigates (*Newcastle*) where large modules were assembled in Newcastle and in Adelaide.

Opportunities for Australian and New Zealand industry will not just come from construction of the ships and participation in manufacture of the major equipment. Part of the design

work undertaken by Transfield AMECON and Blohm + Voss was to accommodate equipment, fittings and material of Australian and New Zealand origin and unique features of the ANZ Meko. Identification of suitable items has been a major task. The various State and Defence Industry Development Offices and New Zealand government and industry organisations have all been heavily involved.

#### GOVERNMENT FURNISHED EQUIPMENT

The two major items of government furnished equipment to be supplied by the Commonwealth to Transfield AMECON are the 5" Mk 45 gun and the Mk 41 Vertical Launch Missile System. Both items are produced by the FMC Corporation of the USA (the latter jointly with Martin Marietta). The fully automatic 5"/54 calibre gun will provide the ANZAC frigates with a good surface and Naval Gunfire Support capability and the procurement will contain nearly 50% local content and offsets. For Australia and NZ, the vertical launch missile system will fire the NATO Seasparrow Missile for point defence against both missile and air attack, although the system has been configured to fire SM 2 and Tomahawk missiles and ASROC in the USN. Australia has joined the multi-nation NATO Seasparrow Consortium which is responsible for developing and managing the support of the Seasparrow weapon system.

#### JOINT PROJECT OFFICE

The project is managed jointly by Australia and New Zealand under a Treaty signed on 14 December 1989. The document spells out management arrangements, payment obligations, arrangements for Australian and New Zealand industry activities flowing from the contract, arrangements for logistic support, and other matters of a contractual nature. A Project Office, manned by Australian and New Zealand personnel, has been set up in Canberra to manage the project.

#### CURRENT STATUS

At the end of March 1993 construction of the first ship is 25% complete while



steel for the second ship was first cut on 11 February this year. Major long lead equipment for ANZAC is now being delivered to Transfield AMECON; significant items include the propulsion diesels, the diesel generators, and the gas turbine.

Although a lot of work remains to be accomplished the project is on schedule for delivery of the first ship by the contract date. (see Delivery Schedule

Table)

The Project is the largest shipbuilding project undertaken in Australasia and is consistent with Australian Government policy of self reliance. The project has also generated considerable Australian and NZ industry involvement, and hence, employment, as well as, providing shipbuilding and support industries with export potential.

### ANZAC SHIP DELIVERY SCHEDULE

	SHIP	PENNANT NUMBER	CONTRACT DELIVERY DATE
01	<i>Anzac</i>	150	29 MAR 96
02	(yet to be named by NZ)	F77	27 MAR 97
03	<i>Arrente</i>	151	30 NOV 97
04	(yet to be named by NZ)	F111	30 NOV 98
05	<i>Warumungu</i>	152	30 NOV 99
06	<i>Stuart</i>	153	30 NOV 00
07	<i>Parramatta</i>	154	30 NOV 01
08	<i>Ballarat</i>	155	30 NOV 02
09	<i>Toowoomba</i>	156	30 NOV 03
10	<i>Perth</i>	157	30 NOV 04
11	(Optional NZ ship)		30 NOV 05
12	(Optional NZ ship)		30 NOV 06



## REGIONAL SECURITY - AN AUSTRALIAN PERSPECTIVE

By: Vice Admiral I.D.G. MacDougall, AO, RAN

*Address to The Indian National Defence College, 10 May 1993*

It is a great honour for me to have this opportunity to speak to the staff and students of one of the world's most august colleges of higher defence studies. I plan to give you an Australian perspective of security in the general Asia-Pacific region but before I do this, I would like to start with some thoughts about history - the different histories of our two countries and the importance of history in strategic policy formulation.

Strategy and history are closely related. For example, it is almost conventional wisdom these days, even in US defence circles, to acknowledge that the Vietnam War was fought strategically with insufficient appreciation of history. The implication is that the Americans did not recognise that in Vietnam in the early 1960s, they were confronted with a strong expression of nationalism rather than an international marxist plot. Perhaps it was not understood that for nearly two thousand years the Vietnamese had waged war against foreign invaders and occupiers - the Chinese, French and Japanese. But if this is so, then some 58,000 Americans (and over 500 Australians) lost their lives because important lessons of history had been ignored.

To understand a country's strategic policies, its approach to regional security and its relations with its neighbours, it is important to know where it has come from. This simple truism perhaps explains the odd misunderstanding which has been apparent in the relations between India and Australia over the past two decades or so. I would also like to think that it provides some grounds for optimism that now, as we adjust to the strategic circumstances of the post-Cold War era, our countries are moving back closer together - there have been some good indications in this regard during the last two years or so.



I know that Indians have a great sense of history. Well you may for India has a very long and rich history. This includes, from the naval viewpoint, a strong Indian tradition of using the seas to best advantage. I have recently read Admiral Kohli's absorbing essay in the *Indian Defence Review* a few years ago on 'the geopolitical and strategic considerations that necessitate the expansion and modernisation of the Indian navy'<sup>1</sup>. I have also recently read K.M. Panikkar's small but erudite work on India and the Indian ocean<sup>2</sup>. Although written nearly fifty years ago much of his wisdom seems timeless.

This reading has given me some understanding of the historical basis to India's defence and naval policies. I appreciate the significance of Panikkar's proposition that the time period which began with the arrival of Vasco Da Gama in Calicut in 1498 was a clearly marked epoch of history when the rich cultures and commerce of Asia would be dominated by western maritime powers.

Although Panikkar believed that the Vasco Da Gama Epoch ended with the withdrawal of British forces from India in 1947 and of the European navies from



China in 1949, there are now other Asians who would argue that, with the subsequent experience of the twentieth century (not least that of the Vietnam War), the Epoch lasted to almost the end of the twentieth century. For example, I have heard the current Indonesian Ambassador to Australia claim that the closure of the US bases in the Philippines was in fact the true end of the epoch. Whatever the case, there are some important lessons of history here for Australia to appreciate.

Let me turn now to some naval lessons of history and strategy. As a naval officer imbued with the spirit of Alfred Thayer Mahan, I can see why Admiral Kohli drew the 'stark lesson' from his reading of Indian history that 'India prospered when the seas were used extensively and suffered a decline when they were neglected.'<sup>3</sup> And there is the inspiration for naval officers to be gleaned from Panikkar's perceptive words that :

if India desires to be a naval power it is not sufficient to create a navy, however efficient and well manned. It must create a naval tradition in the public, a sustained interest in oceanic problems and a conviction that India's future greatness lies on the sea.<sup>4</sup>

In many ways I envy this Indian appreciation of history and the importance of a naval tradition. Australia is very different. We are a relatively young country and, although we are an island nation with extensive maritime interests and a heavy dependence upon seaborne trade, we lack a great maritime tradition. We have never been a strong maritime or naval power.

Our military traditions are primarily those of the Army - of sending thousands of young Australians overseas as 'expeditionary forces' to fight land battles in distant countries. However, the RAN is not without its grand moments of history, particularly in terms of single ship actions (such as the first HMAS *Sydney* and the German *Emden* in the first world war and the second

*Sydney* and the Italian cruiser, *Bartolomeo Colleoni*, in the second world war). Unfortunately these have not been translated into a naval tradition along the lines inferred by Panikkar.

You should appreciate that Australia has changed enormously in recent decades and continues to do so. It is a very different country these days to the one which rallied to the imperial 'call to arms' in the two world wars - or indeed followed the US into Vietnam. We are now seeking our own identity and our own place in the dynamic Asia Pacific region of which we are geographically an integral part. Also, Australia is changing culturally with progress towards a truly multi-cultural society which reflects fully the diverse ethnic backgrounds of the many different peoples who today regard themselves as Australians.

There is a great debate going on in Australia at present over whether we should become a republic. Australia's status as a constitutional monarchy with the Queen of England as head of state is viewed by some Australians as anachronistic and an undesirable reminder of the colonial past. One of the arguments used to support this view is that our constitutional link with the British crown is an undesirable legacy of the Vasco Da Gama Epoch - severing it would enhance Australia's image in the region.

However, the path to a republic will not be easy in a short time span. It is riddled with pot-holes placed by our federal system of government and a fairly rigid constitution. The support of all major political parties would be required along with broader indication of community support expressed through a referendum. For the referendum to be carried, more than three states would have to pass it and there would need to be a national majority of more than 50%.

This brief review of Australian current affairs is essential to an understanding of the strategic policies Australia has been pursuing in the Asia-Pacific region. You should no longer see Australia as a remote western outpost



in an Asian world appearing slavishly to follow the policies of the major western powers.

Australia's independent strategic policies have come a long way in recent times. They have evolved from a position of defence dependence on major allies (and a consequent involvement in their strategic interests) through concentration on the immediate needs of self-defence to a positive acceptance of both self-reliance and our need to help shape our regional security environment.

We recognise very clearly that for the future safety and progress of Australia, we must keep striving for a free and cooperative neighbourhood from which future threats to our security are unlikely to emerge. Our regional security policies specifically recognise the importance of Australia proactively undertaking activities within the region which foster a sense of regional strategic cohesion and promote Australia's strategic interests.

When we talk about regional security policies, I should make clear that Australia tends not to make a separate region of the Indian Ocean. When we refer to the region, in fact we are really talking about two regions - the South Pacific and South East Asia. These are the two parts of the world which, in the Australian lexicon of strategic terminology, we refer to as our 'area of primary strategic interest'. There are several geo-strategic and historical factors which have conditioned this approach:

- . our population and industrial infrastructure is concentrated largely in the south-east of the continent;
- . the traditional threat perspective of Australians has been of a threat to the east coast
  - in colonial days and the first part of this century of a threat from Russia and/or Germany,
  - and during World War II of Japanese invasion through Papua New Guinea although of course

northwest Australia, particularly Darwin, was the part of Australia most heavily bombed by the Japanese; and

- . practical recognition of the reality that any direct threat to Australia, however improbable, is likely to be projected through the archipelago to our north, more particularly that lying to our northwest.

Australia's regional security policies are now based on the concepts of 'comprehensive engagement' with South East Asia and a 'constructive commitment' in the South Pacific. In many ways we are the strategic bridge between these two very different areas of the world. The terminology chosen to describe our policies in these two areas reflects their differences. 'Comprehensive engagement' implies a mutual commitment between countries which are in every sense equals while 'constructive commitment' acknowledges that in the South Pacific context, unlike elsewhere, Australia is inevitably cast in the role of a major power. 'Constructive commitment' entails maintaining and developing a partnership with Pacific Island countries which promotes regional stability through economic development and the encouragement of shared perceptions of strategic and security interest.

Clearly Australia now has its own strategic 'road to tread'. We will be assiduously promoting ideas that we consider to be in the best interests of Australia and our regional neighbours even though these ideas may at times bring us into dispute with major western powers. Lest there be any doubt that this is only rhetoric, let me affirm that, to use a cricket analogy, we have 'the runs on the board' with achievements that were clearly regionally focussed. These include:

- . launching the Asia-Pacific Economic Co-operation (APEC) forum;
- . collaborating with Asian countries in multilateral trade negotiations;
- . being instrumental in the successful negotiation of treaties in the



South Pacific such as the South Pacific Nuclear Free Zone Treaty and the Treaty of Nuku'alofa which controls access by us tuna clippers to South Pacific waters;

- . playing a central role in developing the Cambodian peace settlement initiative; and
- . promoting a post-cold war regional security dialogue in the Asia Pacific region as a central part of our more 'comprehensive engagement' with Asia.

Security is a fundamental concern for Australia. We have a population of just over eighteen million in a resource rich country about the same size as the United States and over twice that of India. We recognise that a generally safer world following the end of the cold war does not necessarily mean a more tranquil region around Australia. The easing of former superpower tensions does not necessarily mean the eradication of regional problems. Currently these include:

- . renewed antagonism between North and South Korea;
- . the uncertain future of the UN peace process in Cambodia;
- . concerns about China's growing military power;
- . the dispute between regional countries over the Spratly and Paracel islands;
- . ongoing domestic insurgencies in several regional countries; and
- . uncertainty over the future political and economic prospects of Myanmar which shows some potential for growing into a new regional 'flash-point'.

During the last two or three years Australia has played a central role in promoting the idea of a regional security dialogue to address problems such as those I have just mentioned and it is our hope that, over time, dialogue on security issues will continue to evolve.

The initial Australian initiatives in

1990 regarding multilateral dialogue were received with scepticism in some Asean countries, only luke-warmly in Japan, and with direct opposition from the United States which still preferred a bilateral approach to security issues. But now less than three years later, security is firmly on the regional agenda and the dialogue on the subject has considerable momentum.

The Asean Post Ministerial Conference (PMC) has agreed to include security issues on its agenda and there was fruitful discussion in this regard at the meeting in Manila in July last year. The topics covered included the situation in the South China Sea, the overseas deployment of Japanese peace-keeping forces, the changing US military role in the region, and the stalled peace process in Cambodia. The countries represented at this PMC included, besides the Asean countries themselves, the so-called 'dialogue partners' (the US, Japan, Australia, Canada, the EC, New Zealand and South Korea) with Russia, China, Vietnam and Laos attending for the first time as 'guests' of Asean.

Despite this progress, a suitable framework for regional security dialogue still needs to emerge. There are some limitations at present to the Asean PMC as a forum for regional security. It is apparent that some non-Asean regional countries are not entirely comfortable with the notion that the Asean PMC should provide the framework for regional security dialogue, particularly when issues, such as the situation on the Korean Peninsula, beyond the direct interest of Asean, are involved. Also, the major Asia-Pacific countries - Japan, China, India, and possibly, Russia - are possibly uncomfortable with the notion that an association of essentially lesser regional states should provide the principal forum for dialogue.

As the presence of the former super-powers in the Asia-Pacific region continues to decline, the major regional powers (Japan, China and India) will play larger roles in regional security. I do not subscribe to the idea of a 'strategic vacuum',



that needs to be filled, but I am concerned that these major powers should be brought into the regional security dialogue in a manner which allays the fears of the smaller regional countries about potential regional 'heavy-weights'. Current regional attitudes to Japan, China and India suggest that all three of these countries carry with them some strategic 'baggage' which has the potential to cause apprehension in the Asia-Pacific region.

The subject of Japan is a sensitive one for a region that experienced Japanese occupation during World War II and now fears the political consequences of Japanese economic domination. In this regard, I am not surprised to sometimes discover that some apprehension is still held by a few in South Korea and several South East Asian countries, particularly the Philippines and Singapore, towards Japan playing a wider strategic role. Once again history is playing an important role in security policies and strategy.

Clearly Japan would be deeply affected by any US military withdrawals from the western Pacific and can be expected to take responsible steps to ensure its national security. Thus regional countries must accept the legitimacy of Japanese involvement in regional security. Here I am encouraged by the way in which Japan appreciates regional sensitivities and is proceeding cautiously to join the regional security dialogue.

Australia's view is that Japan must be brought into the regional security process. Any anti-Japanese sentiment in Australia arising from the events of World War II is now largely a thing of the past and we actively pursue possible avenues for defence cooperation with Japan in order to engage that country constructively on regional strategic issues.

Turning now to China. Uncertainty about the future role of that country in the region seems to have increased recently and there appears to be a tendency by some countries increasingly to see China as a potential threat. Chinese

geostrategic interests clash with those of Asean in the South China Sea in a way that illustrates the differences between the populous centralised state to the north and the ethnically fragmented, diverse and potentially vulnerable states of Asean.

Unfortunately there appears to be a credibility gap between Chinese rhetoric and Chinese actions. On the one hand, China expresses the desire to build bridges with regional countries and to develop stronger links with the world economy. But on the other hand, we witness provocative actions such as the fortification of Chinese held but sovereignty disputed islands in the Spratlys and Paracels, the PLA Navy's interest in acquiring an aircraft carrier capability, possible Chinese involvement in naval base development in Myanmar, and the granting of a concession to the Crestone Oil Corporation of the US over a disputed area of the South China Sea. Such actions potentially create misunderstanding and only make it harder to bring China into the regional security dialogue.

I now come to the subject of India. Mainly because of Indian allegations that at one stage some Australian politicians and strategic analysts were 'drumming up' an Indian threat in South East Asia, I approach this subject with some caution. Nevertheless, there are several points which I must make. Firstly, there is little doubt in my mind that in the late 1980s South East Asian countries were concerned over issues such as the enhanced power projection capabilities of the Indian Navy, the developments in the Andaman and Nicobar islands, perceived Indian propensity to intervene in the affairs of other states and the possibility of Chinese-Indian naval rivalry developing. However, I believe the situation has improved significantly in more recent years and there is now less of a tendency in South East Asia to view India as a possible destabilising factor in regional security. Largely this is a consequence of greater openness by India in its defence relations and your efforts to cultivate



new friends and to talk to your neighbours.

My second point, and very much a personal opinion, is that, because of residual regional sensitivity, India will still need to proceed cautiously with regional security initiatives. As a first step, the greater openness with regard to India's defence and strategic policies will be helpful because other countries continue to have difficulty in understanding just what India is about. It is important to send the right signals to one's neighbours. I take the same lesson to heart for my own country.

India serves its own strategic interests well and, at the same time, contributes to regional strategic stability in articulating its strategic and defence policies. At present, other countries rely heavily on non government Indian sources for an insight into these policies. These often provide diverse views which are no substitute for the official expression of national policy. The risks of misunderstandings are reduced and more fertile ground provided for regional security co-operation when nations are more open with each other about defence issues. It is a lesson which all the players seem to be taking to heart.

In the last section of my paper I would like to address the question: What practical steps can we take to further promote regional security?

The first step I would like to mention is that, as a priority, I believe we should do whatever we can to ensure that the US remains committed to the Asia-Pacific region. Australia believes that the US still has an important role to play in the political and security future of the region. Most regional states, particularly the economic 'tigers' of South East and East Asia, prefer the US to remain involved because they acknowledge that it has been the presence of the US in recent decades which has permitted the economic development of the region to proceed. They see the continuing presence of the US as a principal stabilising influence for the future.

This may sound as though I am setting aside the moral of the Vasco Da Gama Epoch but I assure you that I am not. The type of US presence I have in mind is not the dominating one of the past but rather the engagement as an equal partner with those with a clear vested interest in the maintenance of regional security and stability. However, it will be important that the US itself appreciates the lesson of the Vasco Da Gama Epoch and approaches the issue of regional security cooperation with due respect for the sensitivities of regional countries.

As a second step, efforts should continue to encourage a security dialogue which meets the requirements and reflects the sensitivities of all countries with a legitimate interest in regional security. As an example, Asean could make the PMC more representative of Asia-Pacific by bringing other countries into the process. At a very minimum, China should be elevated at least to the status of a 'dialogue partner' and India should also be brought into the process. It may be desirable to include what are after all the two most populous countries in the region in the principal Asia-Pacific political forum.

Thirdly, we should continue to promote the themes of cooperative and comprehensive security. Traditional security is viewed in terms of sovereignty and military threats to the integrity of the nation state but I believe this concept is too narrow for current circumstances. It involves a focus on deterrence and casting around attempting to define, indeed sometimes create, threats. This does not help establish an atmosphere of trust and understanding. In fact it could well lead to a regional arms race.

This is not the case with cooperative and comprehensive security. I say 'cooperative security' rather than 'security cooperation' because the latter invariably implies an alliance based on some perception of an external threat. Cooperative security is a different concept. It recognises that, while there may be very real tensions and many unresolved problems between



regional countries, these are not such that countries wish to go to war against each other.

Comprehensive security takes the notion of security beyond military and defence issues. It recognises the importance of the other dimensions of national security - economic security, environmental security, the health and social welfare of the people, and so on. Security in the regional context may be best achieved when military and defence contacts are backed up by effective diplomacy and trade and other contacts which address the non-military issues of security concern. Thus a set of relationships and networks of inter-dependence are built up which reduce the risk of tension and conflict.

There is nothing new in any of this for Asian countries which have tended to share a more comprehensive view of security than western states. As Vice Admiral Tandon of the Indian Navy told a conference in Sydney in 1991:

India has looked at security on a broader canvas than merely in numbers and capabilities of its armed forces. The concept of security has involved the preservation and perpetuation of the core values fundamental to the Indian nation state.<sup>5</sup>

I should mention that the spirit of cooperative and comprehensive security is already well established in the South Pacific which has tended always to focus on small 's' security issues, particularly those of resources and the environment. A cooperative maritime surveillance regime has been established in the South Pacific under the auspices of the Forum Fisheries Agency which manages surveillance operations from its headquarters in Honiara in the Solomon Islands. Surveillance patrols are undertaken by RAAF and RNZAF P3 Orion aircraft, light aircraft operated by some island states, the Pacific Patrol Boats supplied by Australia to eight of the island states<sup>6</sup>, and occasionally by RAN and RNZN surface units.

This surveillance regime is now supported by the Treaty of Niue on cooperation in fisheries surveillance and law enforcement in the South Pacific region. This was signed by the South Pacific forum countries in July 1992. It is a world 'first' in maritime law enforcement in that it provides for 'third party' enforcement whereby a patrol vessel of one signatory country can arrest a foreign fishing vessel illegally operating in the EEZ of another signatory.

The last step I would like to mention, is that there is great scope for confidence and security building measures (CSBMs) in the region. These should be part of what has been called the 'building block' approach to regional security which recognises the diversity of security interests in the region, the lack of common threat perceptions and the great sensitivity of regional countries to matters which impinge on their sovereignty and spirit of nationalism. Rather than starting 'top down' with a politically directed framework and agenda for cooperation and dialogue (such as the CSCE in Europe), the process starts 'bottom up' with multiple forums for discussion dealing with various security issues and involving various memberships. These reduce the residual sensitivities and build confidence between the dialogue partners. They provide a basis for more substantial arrangements.

Defence cooperation, personnel exchanges and training between regional countries are important 'building blocks'. Navies have an especially significant role to play in this regard because of the importance of maritime issues in the region and the international nature of the environment in which navies operate. In this regard I welcome the initiatives which have been launched by your Chief of Naval Staff, Admiral Ramdas, during the past year for a higher level of involvement by the Indian Navy in regional naval activities, including bilateral naval exercises. I believe these have been a very important element of the improved relations between India and the



countries to your east.

## CONCLUSION

Australia will continue to play an active role in promoting the need for regional security dialogue and the process of confidence and security building. I hope I have made clear to you today that Australia no longer seeks security **against** Asia, as we may have appeared to do in the past, but now is working towards security **with** our Asian neighbours. Similarly in the South Pacific we seek to encourage shared perceptions of strategic and security interest among the small island states.

As far as the Indian Navy and the Royal Australian Navy are concerned, we both have a key role to play in the maritime confidence and security building process. I am also struck by the similarity of some of the tasks we have in mind, the maritime interests we have to protect and the problems which confront us. Furthermore, we share a naval tradition inherited from the Royal Navy and have cooperated closely together in the past. While we have already undertaken some bilateral naval exercising, I look forward to a higher level of cooperation in the future, including more regular exercises, naval ship visits and possibly even personnel exchange programs. We share a common interest in the management of the problems that may emerge with regional maritime security and have a lot to offer each other in terms of shared knowledge and expertise.

Now I would like to end this Australian perspective of regional security on a confident note. All the trends at present seem to me to be in the right direction. Overall Asia-Pacific feels like a more peaceful place than it was just two years or so ago. The main explanation of this optimistic view lies in the process of dialogue and co-operation which has been gathering pace in the region. Countries are lifting themselves out of narrow self interests and being more sensitive to the concerns of their regional neighbours. In doing so, they are appreciating all those lessons of history which I referred to at the beginning of this talk.

## Notes.

1. Kohli, Admiral S.N., 'The geopolitical and strategic considerations that necessitate the expansion and modernisation of the Indian Navy', *Indian Defence Review*, January 1989, pp. 33-46.
2. Panikkar, K.M., *India and the Indian Ocean, An Essay on the Influence of Sea Power on Indian History*, Bombat George Allen & Unwin, 1971.
3. Kohli, *op.cit.*, p.33.
4. Panikkar, *op. cit.*, p. 99 .
5. Tandon, Rear Admiral A.R., 'The maritime priorities of India ' in Babbage , R ., and Bateman , S ., *Maritime Change Issues for Asia*, Sydney, Allen & Unwin, 1993, p.154.
6. Pacific Patrol Boats have been supplied by Australia to Papua New Guinea, the Solomon Islands, Vanuatu, Tonga, Western Samoa, the Cook Islands, the Federated States of Micronesia and the Marshall Islands. A second phase of the project will involve boats for Fiji, Kiribati and Tuvalu.



# HMAS *Voyager* AND THE RAN'S HISTORY: A REPLY TO J.A. ROBERTSON

By: Tom Frame

Every publishing historian expects his work to be the subject of critical appraisal. But very few would expect to be chided for writing about a subject that a critic believed was better left alone. Most authors, and indeed the vast majority of fair and open-minded critics, would be of the view that no part of history should be beyond the critical assessment of objective historical judgement. That is, most critics except J.A. Robertson. It is this aspect of his extraordinary review-cum-article, 'The *Voyager* incident - an alternative view' [*Journal of the ANI*, August 1992] that I want to consider in detail in replying to his comments on my book, *Where Fate Calls: The HMAS Voyager Tragedy* (Hodder & Stoughton, Sydney, 1992).

I will not respond here to the matters raised by J.A. Robertson relating to tactical signalling and fleet manoeuvring. While I naturally do not accept his theory, which curiously resembles the interpretation of Rear Admiral Galfrey Gatacre which was widely discredited in 1964, accounting for the *Melbourne-Voyager* collision, it is not realistic in the limited space available within a journal article to cover adequately what are very detailed issues. I would refer readers to my analysis of the signals sent between the two ships in reply to J.A. Robertson's recollections.

## Article or Book Review?

As this *article* was originally submitted to the ANI as a book review, and was not altered when it became an article to avoid the situation where my book would be reviewed twice, I should nonetheless respond to it according to J.A. Robertson's original intention that it be a book review. Contrary to the previous editor's handiwork it is not, of course, an alternative view of what is described as the '*Voyager* incident'. It is the opinion of a

retired RAN officer on the purely navigational aspects of the *Melbourne-Voyager* collision. J.A. Robertson has not offered an alternative view of the long-running *Voyager* controversy, nor is there any indication in the *article* that he intended to do so. Certainly he does not canvas the whole range of events which preceded or followed the collision, nor does he draw upon the massive body of available evidence to support an 'alternative view'.

A return to first principles is necessary. It is the purpose of book reviews to comment upon the issues raised in and by a book, and to assess its literary merit. J.A. Robertson has done this only in passing and produced what is, in my view, a warped description and critique of my book. While I am grateful to J.A. Robertson for his complimentary remarks - that my writing style is very readable and that the book is exhaustively researched and handsomely produced - he misrepresents seriously the contents of *Where Fate Calls* in dwelling upon only one chapter of the twenty-three which make up the entire work. He fails to discuss how my book relates to previous accounts of the tragedy, or what contribution it makes to Australian naval history as a whole. In these respects alone, it is deficient as a book review. Its publication as an article renders it no less inadequate for J.A. Robertson's purpose of contributing some clarity to the complexity of the *Voyager* 'debate'.

I should also add at this point that J.A. Robertson is incorrect when he says that *Where Fate Calls* is my doctoral thesis. The book was based on my thesis although the latter was substantially different from the book in both content and style. A copy of my thesis is presently under an author imposed embargo in the library at the Australian Defence Force Academy with access limited to individuals who have obtained my permission in writing. This



version contains parts of my research and evidence which could not presently be published. I have yet to receive a single request to examine the thesis.

### Airings and Exhumations

J.A. Robertson opens his article with criticism of my decision in writing this book. He states:

In my view it was a mistake of judgement to raise the ghost of *Voyager* even after twenty-eight years. It opened up opportunities for the inevitable superficial public rehashing of issues already done to death in the media. It would seem therefore, that those concerned did not appreciate the difficulty of presenting the Navy in a good light in the media.

I assume that his reference to 'those concerned' includes the then Chief of Naval Staff, Vice Admiral Michael Hudson, who wrote the foreword and launched the book following his retirement, and the present Chief of Naval Staff, Vice Admiral Ian MacDougall. I also assume that J.A. Robertson believes that they could have stopped me from researching my doctoral thesis on this subject, or prevented publication, and further that this would have been the wiser course of action. If this is his view, let him say so plainly.

In launching my book on 10 February 1992, Admiral Hudson commented candidly on his decision to grant me access to the Navy's records relating to *Voyager* and the prospect of this research being published.

The decision was not an easy one and approval was not lightly given but what persuaded me was my strong belief that there was much to be learnt by the new generation of naval officer from the professional study of all that occurred between 1964 and 1968; furthermore, that the emotion of time, with the attendant mass of media comment, had left a residual confusion in the minds of the general public.

I was also confident that the Navy of today is mature enough with a sufficient standing in the eyes of

the community to be able to cope with any criticisms that might arise.

This judgement proved to be well-founded. In his review of *Where Fate Calls* published in the *Canberra Times*, Dr Jeffery Grey writes: 'This is a thorough and scholarly book, and eminently readable. While in no sense officially endorsed, it speaks well of the Navy that it should sponsor one of its own officers to write an account from which it emerges, at times, rather poorly. Perhaps that is the final proof of Frame's contention that the RAN did indeed learn something from the whole tragic and sorry business'. A similar view is expressed by Nick Thorne in his review printed in the journal of the Fleet Air Arm Association: 'It is a sign of the difference in the attitudes of senior Naval staff now compared to times past that [Frame] was given such unfettered access to the Navy's records. It is very much to the Navy's credit'. While Commander (now Captain) John Parkes in his review published in the *ANI Journal*, concluded: 'It is a clear signal that the RAN can look at itself and this embarrassing incident in the past without flinching and dodging, and that it has finally emerged from hobblydehoyhood into well-seasoned maturity'.

J.A. Robertson should also remember that there are a large number of Australians who have no first-hand recollection of the loss of *Voyager* or its long aftermath but realise that it was a significant national event. They are naturally interested in what occurred. There is also those Gregory Pemberton referred to in his review of my book in the *Sydney Morning Herald* as 'the 'thirtysomething' generation' for whom 'the *Voyager* disaster ranks with other such events as the Kennedy assassination, the arrival of the Beatles and, later, the fall of the Whitlam Government'.

I have also been encouraged by a number of serving officers of junior and senior rank who did not see the publication of my book as detrimental to the RAN. In her review for *Viewpoint*, Lieutenant Sue Hack



remarked, 'The book is an education in itself, an eye-opener which should be compulsory reading for all Servicemen and women. Even so, as you turn the last page you are left with the uncomfortable suspicion that the author found out much more, but which was better left unsaid'.

Of all the reviews and articles which were prompted by my book, there was no suggestion that the contents of the book detracted from the contemporary Navy. There was almost universal recognition that enormous change and transformation had taken place as a consequence of the disaster. Matthew Ricketson in his review in the *Age* concluded: '[This] book allows the reader to see more clearly events that were enormously confusing and traumatic to those involved. *Where Fate Calls* is also an irresistible example of the old adage that sunlight is the best disinfectant; that is cover-ups are dangerous, immoral and, even for the cover-uppers, often ineffective'.

In writing *Where Fate Calls*, I happily accepted complete full responsibility for the media attention the book would receive in addition to complete liability for any legal action that followed its publication. The RAN's position with respect to responsibility and liability - it would accept neither - was made abundantly clear in correspondence pre-dating the release of the book from the Chief of Naval Staff to the Minister for Defence.

At any rate, I believed that revisiting *Voyager* would not be a case of 'raising a ghost', as contended by J.A. Robertson, but rather it would be an opportunity to bury a 'rotting corpse' in the Navy's cupboard. Because it is in the nature of corpses to smell, I was of the view that it was better to lay it to rest than to let its stench continue to contaminate the Navy's past. While I feel no need to justify my actions to J.A. Robertson or anyone else in publishing *Where Fate Calls*. I would direct readers to the book's introduction which explains clearly why I wrote *Where Fate Calls* and what I hoped it would achieve.

The published reviews of the book all serve to confirm the level of interest in the *Voyager* story and reveal that most of the publicity was positive rather than negative. I also made clear that in the continuing litigation over the *Voyager* disaster, criticism and anger should be directed towards the Attorney General's Department which has, in my view, misdirected and prolonged the case.

If we were, of course, to accept J.A. Robertson's contention that there are some subjects which are 'off-limits' to naval historians because the press might seize upon them to influence the highly fickle public mind in a way that was detrimental to the Naval Service, it is unlikely that anything analytical dealing with the RAN would be published at all. There is always likely to be something in any serious study of naval operations, policy or administration, which is critical of the RAN and which is liable to be misrepresented to the Australian public whom, one suspects from J.A. Robertson's comments, are not entitled to know or who are too lacking in critical faculties to make up their own mind about the Navy and what it does.

Does this then mean it is inadvisable to comment on the 1919 HMAS *Australia* mutiny; the 1934 Royal Commission into the Early Retirement from the RAN of Lieutenant Commander Alan Dermot Casey; the 1942 HMAS *Australia* court martials of Elias and Gordon on a charge of murder; the 1949 explosion onboard HMAS *Tarakan*; the 1963 *Sydney* whaler tragedy; or, the collision in 1969 of *Melbourne* and *Frank E. Evans*? There is much to be learned from each of these unfortunate events. Although they all reflect adversely on the RAN in different ways, should they be avoided for fear of provoking public hostility toward the contemporary Navy? To take one of these instances to make another point, are we to leave the last word on the *Frank E. Evans* disaster to the completely partisan Mrs Stevenson and her entirely unsourced and highly polemic book *No Case To Answer*? J.A. Robertson fails to indicate when the right time would have arrived in which to explore



*Voyager* could have been explored more fully. Perhaps in hindsight there may have been advantage in interviewing J.A. Robertson, but naturally I could not interview everyone.

Perhaps I could have delayed writing about *Voyager* for another decade or two. By this time, most Australians with direct recollection of the tragedy would have died and the Navy might have been spared some of recent media attention the controversy prompted by the release of *Where Fate Calls*. But if I had delayed my research into the loss of *Voyager* by as little as ten years, perhaps as many as half of the key players in the events of 1963-69 would have either died or lost their capacity to comment usefully from their first-hand recollection of events. I found during my research that a great deal of information on what occurred following the loss of *Voyager* existed only in the minds of those who were involved. If this information were not acquired and published now, much of what is now known about the loss of *Voyager* would never be known and much of the story would have remained inexplicable. Australian Associated Press correspondent Terry O'Connor headed his article on my book, '*Voyager* laid to rest'. I think *Where Fate Calls* has done just that.

### Objectivity

I am glad that J.A. Robertson stated that he 'cannot pretend to be objective' because it obviated the need for me to make that observation. But having made such a confession, what should we make of J.A. Robertson's comments and judgements? In my view, they are worth very little. I make this assertion on two grounds. First, J.A. Robertson has used his extensive seagoing experience to claim primacy for his views over mine. While I think this is unfair on his part, I should point out that his view of the collision and why it occurred varies from most of the other views I have heard over the past two years. In fact, practically every retired senior officer with whom I spoke about the loss of *Voyager* had a different view of why it occurred and who was to blame. Are we then to read

each of these views as well in the pages of the *Journal of the ANI* for the sake of balance and objectivity? I challenge the inference in J.A. Robertson's article that his view is in any way representative of those he purports to represent. I also take his criticism of my views to contain implicit criticism of those retired senior officers who read and commented upon my work.

The second point I would make about objectivity is that J.A. Robertson has fallen into what should have been an obvious trap. Throughout his article he bases his judgements on the events preceding and following the collision on his own naval experience. Thus, we have not an objective account but a highly stylised version of what J.A. Robertson would have done on the night of 10 February 1964 had he been onboard *Melbourne* and *Voyager*. That is not what an objective audience is seeking. He compounds his subjectivity by failing to cite any of the available evidence in support of his propositions or to substantiate his attack against mine.

I add in passing that J.A. Robertson's review exhibits a regrettably common error, namely that someone's personal acquaintance with an event makes that person's view superior to that of the historian who has researched comprehensively after the event. History, it needs to be said, is an account of something in the past. We cannot re-create the past. We can only recall it by writing about it as factually and objectively and critically as is humanly possible after an examination of such of the facts and questions as the participate and contemporary observers have left in any form.

History is written by people engaged in the craft of history. In this case, J.A. Robertson's review becomes another fact that might provide future historians with material to evaluate and, perhaps, draw upon. His review is therefore welcome as a brief statement of the views and recollections of one person who had some connection and some recollections of the *Voyager* tragedy. But it is nothing more than that. It will be a happy day when a number of



retired RAN officers shed their proprietorial attitude to the Navy's history.

Not unreasonably, I also deprecate the arch tone in J.A. Robertson's review that arrogates his opinion to a position of equality with mine with no indication of any research to justify that. And finally, I deeply resent his inference that I set out to achieve academic honours at the expense of a readiness to harm the RAN.

### The Cabban Statement

It is unfortunate that J.A. Robertson has portrayed my book solely as an analysis of the collision because this allows him to marginalise what he calls 'the Cabban factor'. By way of background: Lieutenant Commander Peter Cabban was Executive Officer in *Voyager* from late 1962 until a few weeks before the collision. In early 1965, Cabban produced an unsworn and uncorroborated statement describing *Voyager*'s final commission for the benefit of a retired British flag officer living in New Zealand, Harold Hickling, who was writing a book about the tragedy. Cabban claimed that Captain Duncan Stevens, *Voyager*'s commanding officer from January 1963 through to the night of the collision, was frequently unable to discharge his command responsibilities because of severe ill-health caused predominantly by excessive consumption of alcohol. It was the Cabban Statement, as it became known, that led directly to media speculation, a long and detailed parliamentary debate, and the second *Voyager* Royal Commission which began in mid-1967.

The role of Cabban between 1965 and 1968 in making *Voyager* a public cause celebre cannot be merely ignored or dismissed as 'the Cabban factor'. This is unfair to Cabban and neglectful of my purpose in writing *Where Fate Calls* which was, as the introduction to the book explains, much broader. Although the terms of reference of the second *Voyager* Royal Commission were to analyse the contents of the Cabban Statement and allegations brought against Captain Stevens, they were manipulated by the very determined

Captain (R.J.) John Robertson who sought a sequel to the first inquiry as a means of clearing his name since he resigned from the Navy in September 1964. The second inquiry was a significant event in the history of the RAN and, as I have shown, a catalyst to substantial reform within the Service. While I concluded that the second commission produced nothing which helped to explain the immediate causes of the collision, it was nonetheless an important window on the culture and professional ethos of the Navy between 1958 and 1964.

It is unfortunate that J.A. Robertson's obvious personal dislike for Cabban should have influenced his judgement. J.A. Robertson suggests my analysis of Cabban and his role is contradictory. He states, 'Ash's demolition of Cabban as a witness was so comprehensive that it seems extraordinary that anyone could still take him seriously' (p. 50). On what grounds does J.A. Robertson allege that Cabban was 'demolished' during cross-examination by Ash? Is this based on my analysis or on his thorough study of the Royal Commission transcript? J.A. Robertson simply does not say. While I showed that Bill Ash QC had demonstrated the lack of a substantive link between Cabban's evidence and the known causes for the collision, the evidence did not show and nor did I conclude that Cabban's credibility or veracity as a witness had been 'demolished' during cross-examination.

J.A. Robertson is also wrong when he says that: 'As reported in the book Cabban reveals himself to be self-dramatising and disloyal'. I did not 'report' any such thing. If J.A. Robertson believes Cabban was 'self-dramatising and disloyal', let him say so. His conclusion that 'Cabban is thus merely an unpleasant distraction from the real issue', is to misrepresent Cabban and the importance of this element of my analysis.

### *Voyager* and Naval Historiography

I am pleased that the release of *Where Fate Calls* has prompted a renewed interest in the writing of Australian



naval history. I believe the book's publication and the subsequent public response has demonstrated that there is nothing in the RAN's past which cannot profitably be examined by historians or

considered by students. It has also challenged the dominant paradigm that Australian naval history can only be useful when it is celebratory.





## THE CLASS OF 1948

By: Alan Zammit

Late in 1947 about six hundred 13-year-old applicants went before a Naval Selection Committee which was seeking aspirants who possessed the potential qualities of leadership, intelligence, initiative and responsibility.



A few months later, in January 1948, thirty excited young Cadet Midshipmen arrived at Flinders Naval Depot, HMAS *Cerberus*, on Western Port Bay, Victoria. Cadet Captains introduced the newcomers to college life, rules, regulations and uniforms were issued.

The cadet's day began at 0700. After a hot splash from filled washbasins and a cold shower, summer and winter, they then went on a smart double march of about half a mile to warm up before breakfast. After breakfast, sundry 'chores' followed - sweeping, boot-cleaning, etc., then studies, with sport in the late afternoon. After supper, "Prep" (evening study) lasted until 2030.

At the 45th anniversary reunion of the class of '48 (Jervis year) those who attended included; His Excellency the Governor Of New South Wales, Rear Admiral Peter Sinclair, two other Admirals, a mix of former Commodores and Captains, as well as a doctor of medicine, a lawyer, and a retired truant officer. Most of the men are now aged 58. Some in the Jervis Year are

untraceable, four are dead, but of those at the reunion there was a disproportionate number of highly successful men. To mark the anniversary; a dinner was held at Government House, a service was conducted in the Naval Chapel at Garden Island, and later a cruise made on the harbour.

Prior to 1956, Cadet Midshipmen entered the RANC at the age of 13. A junior Cadet Midshipman had to clean the boots of the more senior Cadet Midshipmen.

His Excellency Rear Admiral Sinclair, whose nickname was "Poss" after a pet possum he used to feed, remembers the days when "for punishment you were hit on the backside with gym shoes" - but memory has eased the pain. "I knew it was going to be stark," he said. "It was a bit of a culture shock. We were very young. Our time as Midshipmen was particularly significant. They were very happy times. It is just great to be back. We are an extended family, with all the friendships we made in those days."

"It was an adventure, I loved it," recalls retired truant officer Ian Bartholomew. "It was mindboggling for a kid of my age from Western Australia, the other side of the country."

Rear Admiral Tony Horton, AO, RANEM, retired from the R.A.N. in 1991. He was doubly qualified as a navigator and observer his nickname was "Hoppy". The retired Admiral recalled the build up of a great camaraderie in a demanding environment; some young cadets so small that their ears held up their caps; travelling to and from leave (holidays) in naval uniform and the feeling of pride - or was it just embarrassment - when an even younger boy near my home at Dee Why asked me if I was the Captain of the Manly ferry. Always on the move - we ran (doubled) everywhere, which tests 13 - year-old legs when in a squad of 17 - year-olds. Plenty of sport - at least 6 days a week. Albeit we were located in Victoria, rugby was the main game because of its inter-



national profile, of particular relevance to Navy life. My highlight was scoring a try (against Scotch College Old Boys, I believe) on the Melbourne Cricket Ground. For most, arriving at the College was akin to joining a boarding school, but with the significant uncertainty of the unknown.



Some 45 years on, they met in Sydney on 6/7 February for another periodic reunion. Again the closeness of the bond forged in those early years, but cemented in the ensuing years in the Fleet and elsewhere was evident and unifying.

On this occasion, they joined the HMAS *Australia* Veterans Association at their annual church service at the Naval Chapel Garden Island, taking them back many years to the time when most of them served in that famous ship. After graduating as Midshipmen and during their specialist sea training Bob Machin cheerfully admits he was "petrified", but says the discipline has stuck with him forever. "I found in later life it has made the difference between failure and success. I learnt never to give up, to keep working."

Dr Peter Hoare said, "It was very hard, we ran everywhere, you would run to the dentist, have a tooth out and run back. In the context of what the world was like then, it was considered correct training for officers. It is fantastic to see everyone again, very

meaningful, emotional."

Admiral Alan Beaumont, A.C., RAN, recalled his pay at the RANC in 1948 was 1s 6p (15c) a week. As Chief of the Defence Force the pay as its most senior member is in excess of \$2,000 a week. He is the last man still in the Navy to have served in HMAS *Australia* and like many of his term mates saw active service in Vietnamese waters. In the eighty two year history of the RAN he is only the fifth RAN officer to be promoted to full Admiral. (Four Star Rank) moreover he is the only 1948 entrant still on active duty.

The earlier four star RAN Admirals are:

- . Admiral Sir Francis Hyde KCB CVO CBE (Joined RN-transferred to RAN)
- . Admiral Sir Victor Smith AC KBE CB DSC
- . Admiral Sir Anthony Synnot KBE AO
- . Admiral Michael Hudson AC

Two 1948 Jervis Bay Cadet Midshipmen Malcolm Baird and Tony Horton became Commanding Officers of the RAN College. They had therefore gone a complete circle from acceptances a RAN cadet to Commanding Officer of RANC.

Admiral Horton recalled "We graduated from RANC at the end of 1951 and as was the custom, passaged to England by ship (P & O *Stratheden* in our case). We joined HMS *Devonshire*, a County Class cruiser famous for bringing the King out of Norway when that country was invaded by Germany in WW2. We undertook 2 cruises over the subsequent 7 months, the first to the West Indies and the second to Norway. A great thrill at 17 years of age."

With the exception of the would-be engineers, who remained at the Royal Naval Engineering College in Plymouth, and the would-be supply officers who remained with the Royal Navy for training, they all joined HMAS *Vengeance* at Plymouth in late 1952 to return to Australia. On arrival they were posted to HMAS *Australia* as Midshipmen. They remained in *Australia* until the Fleet Board (examination) in December 1953, when they were posted variously to fleet units as acting Sub



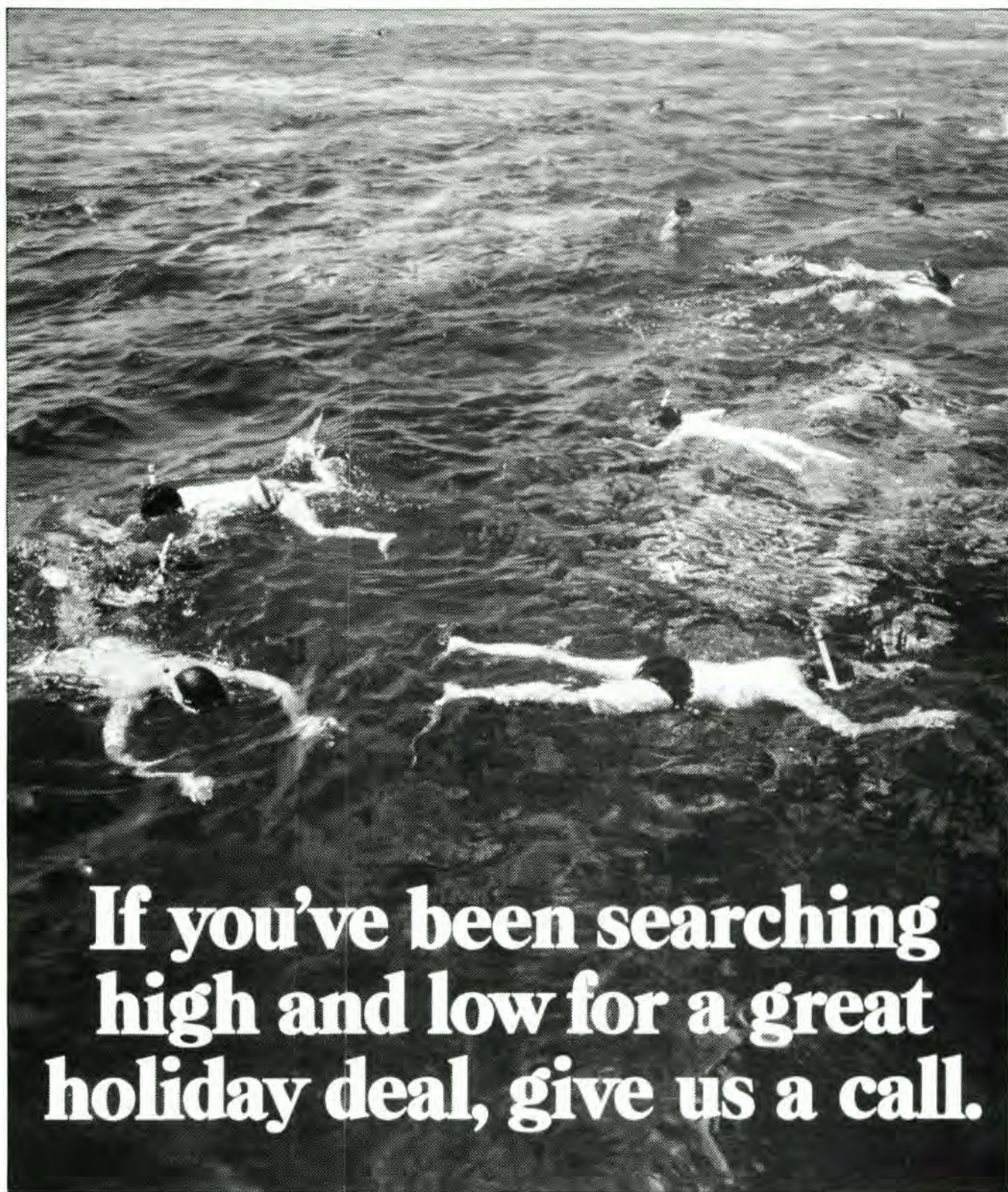
Lieutenants. They came together again some 4 months later on board SS *Orcades* for the return to UK for an 8 months Junior Officers War Course at the Royal Naval College, Greenwich, followed by about 10 months sub specialist courses at Portsmouth before returning to Australia.

At the end of all this training time, the real world appeared. bridge

watchkeeping tickets followed, and in time, all the seamen officers in the Year returned to the UK to qualify as a specialist navigation, gunnery, communications or the like. Most, if not all, then completed a 2 year exchange posting in a Royal Navy ship. Thereafter they all went the Navy's way. Most of those who reached senior rank held ship and/or shore commands.







**If you've been searching  
high and low for a great  
holiday deal, give us a call.**

There's never been a better time to take an Ansett Australia holiday.

We have discounted fares to an endless number of destinations.

We're the only airline that can take you to exclusive destinations like South Molle, Hayman and Hamilton Islands, Broome and the Kimberley Ranges.

And we can even organise everything from budget hotels to 5-star accommodation, right around Australia.

For all Defence travel information call Ansett Australia on 131231.

We'll find you the perfect holiday in no time at all.

**1 3 1 2 3 1**  
All major credit cards accepted

**Ansett Australia.**  
We're getting better all the time.



# SUBMARINE K13 MEMORIAL

By: Pauline Garland

At the intersection of Pennant Hills and Jenkins Road Carlingford there is an unusual looking memorial to K13.



What is the history behind this memorial?

## What is the K13?

In 1915 the Admiralty secretly planned a class of submarines of revolutionary design. These submersible destroyers, as they were called, were to be the largest, heaviest and fastest submarines built anywhere in the world at that time.

Driven on the surface by steam-engine, with a conning-tower and retractable funnels, they proved to be so fast that no British submarines of the 1939-45 War could have out-stripped them.

Between August 1916 and May 1918 the Navy commissioned 17 of these vessels, designating them the K-class. This design had been evolved out of fear that the German Navy was building submarines capable of 20 knots on the surface. The main engines, two turbines fed by two oil-fired boilers, produced 10,500 horsepower and these were backed by four electric motors for underwater propulsion plus an 1,800 hp diesel unit for use on the surface while the boilers were building up pressure.

## THE FINAL TEST DRIVE:

On the morning of January 29, 1917 at 0800 with 80 men on board, Lieutenant Commander Godfrey Herbert gave the order to cast off and tugs towed the giant submarine K13 out of the basin of Fairfield's yard to move slowly down the Clyde. There was a crew of fifty-three, plus fourteen directors and employees of Fairfield's, five representatives of subcontractors, five Admiralty officials, a Clyde pilot, with two passengers being the Commanding and Engineer Officers of K 14, which was being built at the same yard.

K13 looked impressive, she was 339 feet long and displaced on the surface 1800 tons, figures greater than those of the latest destroyers at that time. Her submerged displacement was 2600 tons. But unlike most submarines, she showed a good deal of herself above her water-line.

At her official speed trials on January 18, she had achieved 23 1/2 knots. While the day before she had dived and remained satisfactorily submerged in the Gareloch for an hour.

Commander Herbert therefore was easy in his mind as he took K13 into Gareloch for the final test dive. A careful check of the dials and instruments showed everything functioning correctly. One indicator was seen to be flickering but Engineer, Lieutenant Arthur Lane said this was due to faulty wiring and a bad contact. The indicator was vitally important however. It showed whether the boiler room ventilators were fully shut before diving.

Herbert nevertheless accepted the explanation.

## WHAT HAPPENED

There were in all nine watertight doors and apart from the torpedo tubes, twelve hatches and innumerable valves,



manholes and other openings in the hull: "too many damned holes", as more than one submariner observed.

In an article of the 'News of the World' of Feb. 6, 1977, Joe Swift then 77, the baby of the crew of K13, was reported to have said: "our mates died because someone forgot to close four ventilators." Four 37in. ventilators over the engine room were inexplicably found to have been left open when K13 sank to the bottom on diving.

For an incredible fifty-seven hours the forty-seven survivors were in the submarine after it had sunk. They were finally able to climb out through a hole cut in the plating of the forward deck of the submarine. Against all odds they survived in this tomb of death while what was described as a bad salvage was carried out above them with one botch after the next occurring.

The C.O., Herbert had managed to escape via the conning tower with Commander Francis Goodhart, the captain-designate of K14 intending to help with rescue operations. Goodhart however was killed as a result of hitting his head. Herbert was picked up by the rescue vessels and when revived helped with operations. He then managed to be on the casing of the submarine helping the men out. The final tally of survivors therefore was officially forty-eight with the loss of thirty-two.

K13 was raised to the surface six weeks after her fatal plunge and in mid March was towed into Fairfield's yards for refitting.

Some months later, with minimal ceremony, she was recommissioned into the Royal Navy as the K22. Edwyn Gray remarks: "from the 29 January 1917 the Royal Navy's new-fangled K-class steam submarines suddenly ceased to be a joke, for the K began to stand for killer. In the 16 years between 1917 and 1932 over 300 men lost their lives in K-class and all died as the result of accidents."

#### **WHY CARLINGFORD?**

Why therefore is a monument of K13 in Australia? Here the facts become hazy

and take sometime to piece together, but this is a fascinating story. During 1961 Mrs M.F. Freestone, the widow of Mr. C.A. Freestone a survivor of H.M. Submarine K 13, paid for the building of a memorial in commemoration of those who lost their lives in K 13 and other submarines.

This memorial was donated to the City of Parramatta. Charles Freestone was born in Chelmsford, Essex in 1896. He volunteered for Submarine Service in the Royal Navy during the First World War and was leading Telegraphist on K13. Subsequently he was transferred at his own request to H.M. Australian Submarines J3 and J4 and at the end of his service in the RAN he remained in Australia.

"He was greatly attached to the Parramatta District where he achieved outstanding success as a manufacturer, employer and investor. This district reminded him of Chelmsford, both located on a river with large industrial zones and pleasant rural areas surrounding them.

Always mindful of his old comrades of the Submarine Service, the late Charles Freestone set aside part of his subdivision in Pennant Hills Road, Carlingford in 1956 to be named the 'K13 Memorial Park'.

#### **BUILDING THE MEMORIAL**

Without seeing the Memorial commenced Charles Freestone died in May 1958. His health was impaired by pneumonia and by long drawn out and exhausting battle with authorities to have his "Greenacres" property released from the Green Belt and recognised as residential area.

Mrs. M.F. Freestone then courageously took up her husband's dream. An architect was employed and while keeping in mind Charles Freestone's idea of using "some good solid Australian stone as used by the pioneers" to embody a sea-scape motif with the letters K13 prominently displayed, a plan was finally submitted to the Council which was adopted in March 1961.

The service commemorating the unveiling



and dedication of the K13 Memorial Park was held on Sunday 10th Sept 1961 by Lieutenant General Sir William Oliver, K.G.B. High Commissioner for the United Kingdom and Mrs. M.F. Freestone. Subsequently the Submarine Squadron held the Squadron Divisions at the memorial each year which included presentation of awards as well as a wreath laying ceremony. However Captain MacDougall decided in 1985 because of critical manpower shortages and an unusually heavy overseas deployment programme, to scale down the ceremony to a party of about 40 from the Squadron who would conduct a wreath laying ceremony at 1100 on Monday, 11th November. Each year the Submarine Squadron now follow this tradition.

#### WHAT IS THE SIGNIFICANCE?

The inscription on the memorial says: "This memorial has been created in memory of those officers and men of the Commonwealth who gave their lives in submarines while serving the cause of freedom. It is called the K13 memorial in particular memory of those lost in H.M. Submarine K13."

As history gets lost with the passing of its makers it is important that these details be collected and recorded so that memorials do achieve their purpose of honouring those people who through their efforts have benefited

us. These stone monuments are there not only to remind us of their lives but also to honour their achievements. Hence I share this information with the hope that others may become informed admirers of those who go down in the depths and do honour to the dolphins they wear.

#### SOURCES:

Administrative Files of HMAS Platypus, North Sydney.

Burden, Peter, "A Ghostly Submarine in Sydney's Hills". The National Times, Nov., 17-22, 36, 1975.

Everitt, Don; The K Boats: a dramatic first report on the Navy's most calamitous submarines., London; Harrago, 1963.

"A Final Farewell From Sailor Sid", News of the World, Feb. 6th, 1977.

Gray, Edwyn; Few Survived: a comprehensive survey of submarine accidents and disasters., London; Leo Cooper, 1986.

Scott, L.G., solicitor for Mrs M.F. Freestone; Brochure Commemorating the Unveiling and Dedication of Submarine K13 Memorial Park.

Stephen, G.M.; British Warship Designs Since 1906., London; Ian Allen, 1985.





## ADVERTISING INFORMATION

**SIZE** Print area 250 x 180mm

**HALF PAGE SIZE** 125 X 180mm or 250 x 90mm

**PRINTING PROCESS** Offset litho

**MATERIAL FORM REQUIRED**

**Monochrome** Clean artwork or negatives

**Colour** four colour separation negatives

**Screen** 133 preferred: 125-150 acceptable

### ADVERTISING CHARGES - 1993

	Normal	Discount	Bulk
<b>COLOUR</b>	<b>\$A</b>	<b>\$A</b>	<b>\$A</b>
Centre double page	800	700	630
Internal page	500	450	415
Half page	300	275	250
<b>BLACK AND WHITE</b>			
Centre double page	400	350	300
Internal page	200	175	150
Half page	150	135	125

#### Notes.

1. The discount rate applies if booking is for four or more successive journals with same advertisement. The bulk rate is for the same, but total bill paid with initial order.
2. The deadlines for material are: No 1 - 22 Jan; No 2 - 22 Apr; No 3 - 22 Jul; No 4 - 22 Oct.
3. Payment should be made on receipt of invoice.
4. The above prices do not include any agency commissions.
5. A copy of each journal will be sent to the advertisers.
6. Two- three- and four-line colour advertisements can be inserted: Prices will be supplied on request.
7. For further information contact the Editor, on (06) 266 6873 Fax: (06) 266 6754, between 9 am and 5 pm Monday to Friday.

### AIR MAIL RATES

Subscription includes surface/ordinary mail rates.

Members and libraries overseas who would like to receive their journals by air mail should add the following amounts to their subscription orders:

New Zealand, PNG	\$A12.00
Indonesia, Malaysia, Singapore	\$A15.00
Hong Kong, India, Japan	\$A17.00
USA, Canada	\$A20.00
UK, Europe, South America	\$A22.00
Other countries	On request



---

## BOOK REVIEW

---

### SOUTH AFRICA'S FIGHTING SHIPS - PAST AND PRESENT

By Commander Allan Du Toit, RAN

Hardcover, Published in South Africa by Ashanti Publishing, Reviewed by Ross Gillett.

Over the past twenty or so years many books have been published on the navies of the United Kingdom, Australia, New Zealand and Canada. Now in 1993, a detailed description of the development of the other Commonwealth Navy, South Africa, has emerged from the Ashanti Publishing group.

Written and researched by former South African naval officer (now RAN) Allan Du Toit, the 360 page book provides an interesting and readable account of the ships, their careers as well as the facts and figures. The narrative is supported by more than 300 colour and black and white photographs of the "senior service" since 1922, the year a full time naval service was created.

A Volunteer Naval Brigade was formed as early as 1861 in Port Elizabeth and subsequently in Natal and Cape Town. Later in 1912 the South African Division of the Royal Naval Volunteer Reserve was created with the amalgamation of the volunteer units. Local coasters and tugs etc were taken over for the South West African campaign during the Great War and like New Zealand, in 1920, an old third class cruiser HMS *Thames* was presented to the nation as a training ship.

Author Allan du Toit begins the main section of the book with the words, "Take Station Astern". With this signal, made in November 1921, two Mersey Trawlers, HMSA Ships *Immortelle* and *Sonneblom*, cleared the breakwater at Plymouth, becoming the first units of the South African Naval Service. Like all the chapters in the book, each vessel or class of ships is described via acquisition, technical and historical history and final fate. A table of

specifications plus builders, launching, commissioning and disposal dates complete each chapter.

Two of the more interesting ships commissioned by the SAN were two former Royal Navy destroyers, converted to helicopter capable anti-submarine escorts in the mid 1960s. Both retained the original front half of the ship, with a hanger and deck added aft of the funnel. The main armament was also modified from 4.7 to 4 inch guns. These two semi-converted ships preceded the more usual frigate conversions by a number of years, providing a cost effective solution to meet new challenges from underwater.

The photographic presentation of the ships through the seventy years is first class. Not only are the vessels depicted as half or one third page illustrations, but the quality of all are excellent. The few poor quality photographs are the only images available of the rare or short lived naval units. As a bonus each photograph is accompanied by a detailed caption, including some of the crews, their Commanding Officers and in more recent years, onboard views of life aboard. Colour photographs, beginning in the mid 1960s depict the various classes of the recent and present day Navy. The back cover features a striking photograph of a Ton class minesweeper, SAS *Durban*, in heavy seas.

Other features of the book are the side profiles of many of ships, drawn by the author and the appendices listing Fleet strengths, combined ship list, pendant numbers, battle honours, ensigns and badges.

Readers with an interest in the former Empire and Commonwealth navies and specifically South Africa will find the book an excellent addition to their



library. Since the Second World War the South African Navy acquired many similar ships to those of the RAN and RNZN, including River and Loch class frigates, Ton class minesweepers, a converted Type 15 frigate and three Type 12 frigates. Prior to 1945 Castle class anti-submarine trawlers, Bar class boom defence vessels and Harbour Defence Motor Launches were also commissioned.

For the serious Naval student South Africa's Fighting Ships is a well written and deeply researched book, describing for most readers a missing chapter in the development and subsequent history of this former Empire and Commonwealth Navy. Highly recommended.

## Guide to Authors

All readers, members or not are invited to submit articles for publication. Articles dealing with maritime topics having a direct or indirect bearing on naval matters, including articles from overseas, will be considered. The Institute is keen to be have its journal known as a medium by which writers seeking publication for the first time, will have the opportunity to get their work published.

Articles of any length up to approximately 6 000 words are welcome and the Institute will pay for original material at \$10 per 1 000 words published. The ANI also awards prizes from time to time for material published.

Long articles should be subdivided and accompanied by an abstract of no more than 75 words. The journal's style is impersonal, semi-formal prose. Acknowledgments should be given, but authors should be wary of providing lengthy endnotes and or bibliographies.

Glossy black-and-white prints are ideal for publication but good quality colour material can often be reproduced with acceptable results. Line illustrations can be easily reproduced as can graphics and tables in many disc formats.

The journal is now compiled using an IBM compatible computer and Wordperfect 5.2. Material is welcomed on disc (accompanied by one hard copy). Most popular word processing packages can be converted, but if in doubt, submit in ASCII text format. If submitting in hard copy only, try to insure that it is in clear black on white transcript.

When copy is submitted to the journal, it is on the understanding that the ANI is being offered a non-exclusive licence to publish. Authors are responsible for obtaining clearance to publish from any appropriate source. Personal opinions should be expressed in such a way that no reasonable reader would infer official sanction of that opinion. The Institute will consider publishing under a pseudonym, but the author's name and address must be supplied to the Editor, who will treat them with appropriate confidence.

Articles should be submitted under a cover sheet containing the author's name, address, present position and brief biographical particulars. If material has been published previously, details should be given and any assistance in preparing the article acknowledged.

The ANI's postal address is PO Box 80, Campbell, ACT 2600

Editor: Commander Dick Sherwood,  
Ph. (06) 266 6873 FAX (06) 266 6754



# ANI BOOK OF THE QUARTER - WINTER 1993

## MARITIME CHANGE - ISSUES FOR ASIA

Edited by Ross Babbage and Sam Bateman (Allen & Unwin, 1993) 192 pp, endnotes and index.

*Maritime Change - Issues for Asia*, is the edited proceedings of a Conference jointly hosted by the Royal Australian Navy and Australia Defence Industries, in Sydney in November 1991. The book was launched in Canberra on 29 April 1993. Below is an extract of the speech delivered by the Minister for Defence, Senator The Honourable Robert Ray, to launch the book.

It is particularly appropriate that this book should appear now, at a time when the Government - and Defence in particular - is actively pursuing its commitment to Australia's comprehensive engagement with the countries of the region.

This book is not only timely for Australia - it has a wider significance for the region as a whole. This significance is well illustrated by the involvement of Singapore's Institute of South-East Asian Studies in the publication process.

The book's potential to contribute to our understanding of one another as members of an increasingly cohesive and cooperating region is, I believe, one of its chief values.

At the end of his opening chapter, Ken Harris asks a key question. "Might there not be real value", he writes, "simply in getting to know each other better than we do at present". This deceptively simple question hits squarely a point of major importance.

As we in the region work together to further cooperation and integration, any enhancement of our mutual understanding and knowledge of one another is to be welcomed.

Indeed, the conference that led to this publication was itself a significant contribution to the evolution of dialogue and understanding and the goodwill that flows from these. Naval officers and academics from a wide

range of regional countries came to Australia and openly discussed their national maritime priorities in a public forum. This was a first class example of transparency in the most practical sense.

My reading of *Maritime Change - Issues for Asia* left me with several clear impressions. Not the least of these is that the region has seen much maritime change. In light of this, we need more than ever to cooperate, talk and face together the challenges that this sort of change brings.

I was also struck by the degree to which maritime issues offer scope for regional cooperation across a broad spectrum. All of us in the region have extensive maritime interests - but the sea itself is no respecter of national boundaries. There are many opportunities for us to talk together and work out solutions to common problems this raises for us all. Among these, I might mention the exploitation of the sea's resources, merchant shipping regulations, the protection of the maritime environment and, of course, defence cooperation.

Another important message the book sends is its confirmation of my conviction that Australia's future must - and will - be played out more and more in the context of this region.

*Maritime Change - Issues for Asia* canvasses and explores many issues relevant to the growth of a dialogue on regional security matters. Each of its papers makes a unique contribution to the responsible consideration of important strategic issues for the region. They can also make a valuable background to further exchanges of views and cooperative activities between regional countries.

Of course, defence issues are not the only ones that will further enhance



Australia's contribution to regional security and stability. Australian industry has a significant role to play. In this context, it is notable that the conference and this book which has sprung from it were joint ventures between the Royal Australian Navy and Australian Defence Industries. This partnership reflects the kind of integrated approach to regional co-operation that I believe can be most effective.

This book is not only an example of the kind of informed debate on security issues that should be further encouraged. It is also a striking instance of a successful cooperative contribution to this debate. The RAN and ADI should be justifiably proud of it.

Here I would like to make mention specifically of the two areas of these organisations that masterminded the conference and this publication of its proceedings: I refer to ADI's Consulting Division under Dr Ross Babbage and to the RAN Maritime Studies Program under Commodore Sam Bateman. Both of these have played a significant role in the past in raising the level

of awareness of defence issues in the private and public sectors.

The publishers, Allen and Unwin and their defence publisher Mr Mark Tredennick also deserve congratulation. With defence and non-defence contributors, Allen and Unwin have built a distinguished record of publications on defence issues. Their expertise in the field is widely acknowledged. The excellent quality of this book - like their other productions - bears witness to the care and attention they bring to the books they publish.

*Maritime Change - Issues for Asia* is yet another demonstration of how far Australia has come in the last few years. It is a mark of our commitment to the future. No one should doubt that this future will be in the region whose maritime environment we all share and whose maritime issues we will jointly address.

This book offers valuable insights into those issues and - to use an expression singularly apt for the occasion - I am very pleased now to officially launch *Maritime Change - Issues for Asia*.





# AUSTRALIAN SUBMARINE DOLPHINS

By: Peter Smith - Honorary Curator Submarine Historical Collection

On 5 April 1958 the Royal Navy issued its first submarine branch badge which was to be worn on the left sleeve. The cloth badge was the first time that submariners had been visibly linked to their "trade", other than junior ratings by their cap tallies. Due to its ugly design it was soon known as a "sausage on a stick", as wearing the badge was optional many submarines chose not to do so.

In June 1964 a submarine project team was formed at Navy Office, Canberra, consisting of Commander (later Captain) Alan H. McIntosh RAN, a non submariner and Lieutenant Commander (later Commander) Henry Cook RAN an ex Royal Navy submariner. Commander Cook believed that submariners would be proud to wear a properly designed badge worn on the left shoulder. At some time between 1964-1965, he put forward a proposal that a submarine badge be devised along those lines. Commander Cook recalls that the proposal was not well received until it reached Rear Admiral V.A.T. Smith RAN (later Admiral Sir Victor Smith KBE) who convinced the Naval Board of the day that the proposal should proceed subject to a suitable design being developed.

The design was the work of Commander McIntosh, the submarine project officer in 1965. It was inspired by the dolphins on his submarine supporter's tie,

the crown was drawn from a florin (the two shilling piece before decimal currency was introduced). The badge was produced by Stokes, of Melbourne, who manufactured many service badges. Mr. Stokes reported that it was by far the most handsome badge his firm had made.

The Naval Board accepted the design and production of the dolphins went ahead. On 25 July 1966 the RAN issued Navy Order number 411, which covered who was eligible to wear the submarine badge and how.

As one of the protagonists for the submarine badge, Commander Cook who had been promoted to his current rank and appointed Director of Submarine Policy in February 1966 has been given the distinction of being the first submariner to wear the dolphins.

In 1968 the officers and crew of HMS TRUMP, the final British submarine in the Royal Navy's Fourth Flotilla based in Sydney, were given Australian submarine dolphins to wear for a year. At the end of that year the sailors were asked to fill out a survey. Ninety nine per cent of the crew were in favour of wearing the badge and the design.

It was not until 1972, having assessed the value of the Australian submarine badge that the Royal Navy issued a variation on Captain McIntosh's design.







## COUNCIL OF THE AUSTRALIAN NAVAL INSTITUTE

Position	Name	Contact Address	Phone	Fax
President	RADM D B Chalmers	D-3-04	265 3252	
Snr V President	CMDR T Morgan	A-3-10A	265 5092	
Jnr V President	CMDR E J Coles	G-2-01	265 5886	
Treasurer	LEUT K W Veitch	CP3-1-Bay1	266 4157	266 2388
Secretary	LEUT V Osborne	D-2-04	265 3327	265 3353
Journal Editor	CMDR R J Sherwood	APW2-G-09A	266 6873	266 6754
Councillor	CMDR T N Bloomfield	A-G-09	265 6409	265 4723
	LCDR D Devereaux	T-1-13	206 1092	
	LCDR G A Dunk	A-3-04	265 4860	
	CMDR A K Du Toit	CP2-3-14	266 2338	
	LCDR A Hinge	SDSC	288 2524	
	LEUT A Nelson	HMAS <i>Harman</i>	280 2822	
	CAPT I A Noble	CP2-5-Bay1	266 4906	
	LCDR E A Power	F-3-36	265 4624	
	LEUT J Sears	A-4-24	265 2599	265 4790
	CMDR SRH Woolrych	APW2-4-24A	266 6370	248 0442
Public Officer	CDRE AHR Brecht	APW2-1-17	266 6297	

### SYDNEY CHAPTER

Convenor *Vacant*

### NEW ZEALAND CHAPTER

Convenor	CMDR L Robbins	Officers Training School HMNZS <i>Tamaki</i>
	Phone: 64 9 445 4767	Fax: 64 9 445 4772
Secretary	LCDR C J Olliver	20 Pukeora Ave Remuera, Auckland, NZ
Treasurer	LCDR W T Stevens	C/- PO Box 817 Auckland NZ





#### Crests

Crests are meticulously hand-painted in full colour and are handsomely mounted on polished New Zealand timber. They measure 175mm x 130mm (5" x 7").

The price is \$25.00 each, plus \$2.00 postage + packing.\*



#### Cuff-links

The cuff-links are robustly made and are attractively finished in gold and black. They are epoxy-capped to ensure long-life and are packaged in presentation boxes.

The price is \$10.00 a pair, plus \$1.00 postage + packing.\*



#### Journal Binders

Journal binders are coloured blue, with gold lettering and ANI crest. Each binder holds copies of the Journal by means of a metal rod inserted simply through the middle page of each journal and held firmly at top and bottom of binder. Plastic envelopes on the bottom of the spine enable volume numbers or years to be inserted.

Price is \$8.00 each plus \$2.00 postage + packing.\*



#### Ties

Ties are dark blue with a single ANI badge in gold.

Price is \$7.00 plus \$1.00 postage + packing.\*

(\*Can be deleted if alternative means of carriage are arranged).

Please send me information about ANI membership.

(Complete Box A only)

MEMBERSHIP/SUBSCRIPTION APPLICATION

(Complete Boxes A & B)

Rank/Title: ..... Surname: .....

Other Names: .....

Service/Organisation: .....

Address: .....

City: ..... State: ..... PCode: .....

I apply to join the Australian Naval Institute as a Regular/Associate member and enclose my cheque/credit authorisation for ..... year(s) subscription. If accepted for membership, I agree to abide by the constitution and By-laws of the Institute.

(Signature): ..... Date: .....

Membership/Subscription (\$AUD)

Regular/Associate  
Journal Subscribers

Years		
1	2	3
25	48	65
27	52	75

☐ Cheque enclosed for \$ ....., Incl. postage.

☐ Charge to my

☐ VISA

☐ MASTERCARD

☐ BANKCARD

Account Number .....

Expiration Date .....

Signature (Creditcard and charges not valid unless signed)




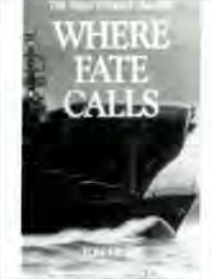
Name (Please Print) .....

Address .....

City/State/PCode .....

ANI Membership # .....



	<p><b>MARITIME CHANGE: ISSUE FOR ASIA</b>, Edited by Ross Babbage and Sam Bateman. (Allen and Unwin, 1993) 192pp. Special price to ANI members is \$15.00, plus P &amp; H \$5.00. "Maritime Change" is essential reading for everyone interested in the fast-changing maritime and security environment of the Asia-Pacific region.</p>		<p><b>GARDEN ISLAND — A HISTORY</b>, Tom Frame (Kangaroo Press, 1990), 240pp, 210 x 102mm (Hardback). Price to ANI members \$4.95, plus P &amp; H \$5.00. The first history of Garden Island dockyard, the home of the Royal Australian Navy since 1788.</p>
	<p><b>A FEW MEMORIES</b>, Sir Victor Smith (ANI Press, Canberra, 1991), 72pp (B5). Softcover. Price to ANI members: \$10.00 plus P &amp; H \$1.00. "Sir Victor highlights his long and distinguished career and illustrates the tremendous changes that took place during his record 49 years of service."</p>		<p><b>WHERE FATE CALLS: THE HMAS VOYAGER TRAGEDY</b>, Tom Frame (Hodder &amp; Staughton 1992) 477 pp B&amp;W photos, 32 figures, endnotes but no index, hardcover signed by the author. "One of the most controversial books ever written on Australian Naval history." Price to ANI members \$13.50 plus P &amp; H \$5.00 (\$4.00 for each additional copy).</p>

#### ADDITIONAL PUBLICATIONS

**REFLECTIONS ON THE RAN.** Edited by T.R. Frame, J.V.P. Goldrick & P.D Jones. The collected papers of the Australian Naval History Seminar, 1989. \$14.95 plus P & H of \$5.00 for non-service addresses. Six copies only.

#### OCCASIONAL PAPERS OF THE AUSTRALIAN CENTRE FOR MARITIME STUDIES.

**No. 3 — AUSTRALIA'S OFFSHORE MARITIME INTERESTS**

**No. 5 — MARITIME AUSTRALIA 88: MARINE INDUSTRIES, SCIENCE, TECHNOLOGY AND TRADING OPPORTUNITIES**

**No 6. — AUSTRALIA'S MARITIME INTERESTS: VIEWS FROM OVERSEAS.**

A series of collected papers by Australian and overseas experts on Australian Maritime Affairs. \$5.00 (Including P & H)

**NOTE: BOOKS AND MEMORABILIA — AUSTRALIAN ORDERS ONLY.**



PLEASE SEND ME THE FOLLOWING BOOKS:

	No of Books	PRICE
ISBN/TITLE		\$
MARITIME CHANGE: ISSUE FOR ASIA		
ISBN/TITLE		\$
A FEW MEMORIES		
ISBN/TITLE		\$
GARDEN ISLAND — A HISTORY		
ISBN/TITLE		\$
WHERE FATE CALLS		
ISBN/TITLE		\$
ISBN/TITLE		\$
ISBN/TITLE		\$
ISBN/TITLE		\$
ISBN/TITLE		\$
ISBN/TITLE		\$
ISBN/TITLE		\$
ISBN/TITLE		\$

Total price of books ordered	\$
Less discount (ANI Members only)	\$
Subtotal	\$
Postage & handling	\$
Subtotal	\$
<input checked="" type="checkbox"/> Pair of cufflinks	\$
<input checked="" type="checkbox"/> Journal Binder	\$
<input checked="" type="checkbox"/> Mounted crests	\$
Membership/Subscription	\$
<b>Total Price</b>	<b>\$</b>





# The Australian Naval Institute Inc

## Patron

His Excellency the Honourable Bill Hayden AC, Governor-General of the Commonwealth of Australia.

## Past Presidents

CDRE I A Callaway, 1988-92;	CDRE A H R Brecht, 1985-88;
CDRE I B James, AM, 1983-85;	RADM R C Swan, AO OBE, 1978-83;
CDRE J A Robertson, 1977-78;	CDRE V A Parker, 1975-77.

## Honorary Life Members

ADML Sir Victor Smith AC KBE CB DSC; VADM Sir David Stevenson AC KBE;  
ADML Sir Anthony Synnot KB OBE; CDRE J A Robertson;  
Rt Hon Sir Zelman Cowen AK GCMG GCVO QC; RADM R C Swan AO CBE;  
CDRE I B James AM; Commander G Cutts; CDRE A H R Brecht; CDRE I A Callaway.

## Foundation Members

Bennett, GA	Gibbs, BG	Martin, DJ	Robertson, JA
Berlyn, NRB	Goddard, FC	Martin, PCS	Scott, BP
Bonnett, VWL	Grierson KW	Mayson, JH	Sharp, WR
Brecht, AHR	Hall, IW	McDonald, NE	Shearing, JA
Broben, IW	Herman, FJ	Macleod, BD	Smyth, DHD
Calderwood, GC	Histed, G	Nathey, RJ	Snell, KE
Cole, SEW	James, IB	Nicholson, BM	Stephen, KC
Cummins, AR	Jervis, GE	Nicholson, IH	Stevens, EV
Cutts, G	Josslyn, IK	Orr, DJ	Stevens, JD
Dalrymple, HHG	Kemp, WA	Parker, VA	Summers, AMF
Davidison, J	Knox, IW	Patterson, DR	Swan, RC
Dickie, DD	Lee, NE	Ralph, N	Swan, WN
Fisher, TR	Loftus, WB	Read, BJ	Williams, KA
Fox, LG	Loosli, RG	Reynolds, I	York, D
George, J			



JOURNAL OF THE AUSTRALIAN NAVAL INSTITUTE Inc.

PO BOX 80, CAMPBELL, A.C.T. 2601

PRINT POST APPROVED

PRINT POST PUBLICATION No. PP 229 219 000 20

**SURFACE  
MAIL**

POSTAGE  
PAID  
AUSTRALIA

MAY BE OPENED FOR POSTAL INSPECTION