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## **JOURNAL OF THE AUSTRALIAN NAVAL INSTITUTE**





# 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:

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

The Institute is self-supporting and non-profit-making. All publications of the Institute will stress that the authors express their own views and opinions 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 is open to:

- a. Regular Members. Regular membership is open to members of the RAN or RANR and persons who having qualified for regular membership, subsequently leave the service.
- b. Associate Members. Associate membership is open to all other persons not qualified to be Regular Members, who profess an interest in the aims of the Institute.
- c. Honorary Members. Honorary membership is open to persons who have made a distinguished contribution to the Navy or the maritime profession, or by past service to the Institute.

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## ACKNOWLEDGEMENTS

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*The Destroyer Escort HMAS Stuart, flying a 114-foot paying-off pendant, steams along Cockburn Sound, WA, for the last time as a commissioned ship in the RAN.*

*COVER PICTURE: HMA ships Darwin, Sydney, Brisbane, Success on exercises during RIMPAC 90.*



## FROM THE PRESIDENT



Lieutenant Tom Frame's book "The Garden Island" was well and truly launched by His Excellency Rear Admiral Peter Sinclair, AO, Governor of New South Wales on 7 October, 1990. The Honourable Peter Collins MP, Minister for Health and the Arts representing the Premier of New South Wales, also spoke to the occasion. The addresses delivered by both are included in this journal.

I was pleased to hear Mr Collins say "that despite some opposition to the Navy's continued presence in Sydney Harbour, the current State Government is an enthusiastic supporter of the Navy and appreciates the sensitivity with which it has operated in and around the harbour."

Garden Island has played a major part in the lives of many members of the Institute and it will play a similar part in the future career of those more junior. An understanding of the history of the Island and of our nation is important. "The Garden Island" provides this. I commend it to you.

The Institute will benefit financially from the sales of the book especially those sold through Service outlets. An order form is included in the journal.

On 31 October I accompanied the "Friends of the Institute" during a day at sea with HMAS STUART. The Friends have placed the Institute on a sounder financial basis than it has ever been and I have thanked them publicly on several occasions. The Friends for 1991 are now signing on and I look forward to seeing them again throughout the coming year.

Sincerely

Ian Callaway

## FROM THE EDITOR

As we near the end of 1990 I would like to wish all readers the compliments of the season. Changes in the way this Journal is produced, using a scanner and publishing software, has resulted in ongoing savings in costs and time - and keeping a smile on the Treasurer's face!

However the key to the improvement of the Journal is the quality of submissions from authors. The "Guide to Authors" at page 4 is comprehensive and will save editorial time if it is followed. Authors should ensure they provide current and accurate address and contact details.

There are several articles of interest in this issue which I wish to commend to you. The articles by LCDR Stevens and John Filler, who incidentally assists in preparing the Journal to 'camera ready' stage, make interesting reading and I hope will spark some letters to the editor - which have been rather sparse in recent times.

You will note that 'Washington Notes' has been absent from the Journal for the last two issues. Unfortunately Tom Friedman has been very busy and unable to forward the notes, but I am hoping that in the new year this will be overcome.

The Annual General Meeting will be held on 21 February 1991 at 1930 ( for 2000 ) in Legacy House, 37 Geils Court, Deakin, ACT. This is an opportunity for ANI members, particularly the Canberra based members, to influence for the better the aims and management of the Committee. So if you have something of value to say, or you are prepared to take on a role in the Committee please turn up.

Regards,

Don Agar.



## GUIDE FOR AUTHORS

In order to achieve the stated aims of the Institute, all readers, both members and non-members, are encouraged to submit articles for publication. The following guide outlines the major points most authors would need to know in order to publish a quality article in the journal. A more comprehensive guide is available from the Editor.

### TYPES OF ARTICLE

Articles should deal with interesting recent developments in the maritime area which directly or indirectly impinge upon the naval profession. Overseas contributions are also encouraged. To be eligible for prizes, original articles must be accompanied by statements that they have been written expressly for the ANI. The Editor reserves the right to reject or amend articles for publication. The ANI will pay the authors of articles specially written for the Journal and accepted for publication \$10 per 1000 words. An annual prize for the best book review will also be awarded. Payments will not be made to the authors of articles such as staff college prize essays and Peter Mitchell competition entries.

### LENGTH OF ARTICLES

As a broad guide, articles should range from 2500 to 6000 words. This is between 9 and 21 pages of typing on A4 sheets. Short articles are also welcome.

### SUBDIVIDING THE ARTICLE

Readers will note that boldface capitals, boldface lower case, underlined light lower case and plain lower case letters are used in descending order for headings (down through sub-headings etc.) Because as much text as possible is entered by optical scanner (which has trouble with bold and italic), Authors are requested to avoid bold and observe a hierarchy that has UNDERLINED CAPITALS representing major headings, CAPITALS as the next level, underlined lower case next and plain text at the fourth level.

### ABSTRACT

An abstract of 75 words at the most is desirable when the article is proposed. It should state the scope of the article and its main features.

### THE TEXT

The style should be impersonal and semi-formal. Consistency is essential in such matters as spelling, headings, symbols and capitalisation.

### REFERENCES

References should be numbered consecutively and listed at the end of the paper. The preferred format is:

1. Smith R & Jones A "Marketing Videotex", Journal of Marketing in Australia, Vol 20 No 3, June 1985, pp.36-40.

### PHOTOGRAPHS

While glossy black-and-white prints are preferred, sharp colour prints with good contrast are acceptable. Captions must

be provided. Figure numbers and captions should be on a separate paper taped to the back of the photograph.

### TABLES, DIAGRAMS AND GRAPHS

Tables, graphs, line illustrations should be supplied on separate pages so that they can be incorporated by the printer in a similar manner to photographs. Use figure numbers consecutively for all illustrations.

### COPYRIGHT

Authors must complete a "Copyright Declaration" and attach with the final typescript.

### CLEARANCE TO PUBLISH

If articles contain sensitive information (costs, unapproved policies, critical statements etc) authors should obtain clearance from their employers. There is no objection to authors stating their personal views even if these are at variance with a corporate view, but such viewpoints must be put into perspective so that readers in Australia and overseas do not gain a false impression of the status of the subject.

### THE FINAL TYPESCRIPT

In order to reduce production costs and streamline production, as much of the journal as possible is loaded into a computer through an optical scanner and formatted electronically. The use of italics, boldface and special characters can reduce scanning efficiency. The ideal document for scanning is in 12 point and 10 pitch (the larger of the two basic typewriter sizes) one-and-a-half spaced on an A4 sheet with at least 25mm margin all round. Only laser, daisywheel and the higher-quality dot-matrix printers (rated NLQ or LQ) are acceptable for scanning. 3.5inch disks in MS-DOS or Macintosh format ASCII text are welcomed.

Three copies of the typescript should be sent to the Editor, PO Box 80, Campbell, ACT, 2601. The complete package will comprise, on separate sheets:

- \* Cover sheet - title of article - author's name (or pseudonym) and qualifications - present position telephone number - address
- \* Recent photograph and biography of the author (less than 200 words)
- \* Abstract (less than 75 words)
- \* The text
- \* Tables, each on a separate sheet
- \* Illustrations
- \* Photographs, clearly identified
- \* List of captions for tables, photographs and illustrations

### FOR MORE INFORMATION

The Editor can be contacted either via the aforementioned postal address or by phone (06) 265 2020

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## BOOK REVIEW

*SOMETIMES FORGOTTEN*, Edited by Frederick Kirkland, OAM, JP; Published by Plaza Historical Service, Cremorne, NSW.

This book is a record of all those members of Australia's military forces – RAN, Army, RAAF – who died and those who were decorated in Vietnam, Malaya, Borneo the Malay Peninsula, Korea, the British Commonwealth Occupation Force, the United Nations and the tragedies of HMAS *Voyager* (1964) and RMC Duntroon (1956).

The book grew out of the Editor's voluntary work with war veterans' organisations which entailed the organising of Commemorative and Anzac Day services. Progressively he became aware that guest speakers and those who gave the keynote addresses at such ceremonies rarely, if ever, mentioned the veterans of post-1945 wars.

Next of kin, in writing to him, frequently commented on this lack of recognition of the post-1945 veterans who died on active service. In short, their relatives were saying that those who had paid the supreme sacrifice had been forgotten, hence the title of this book. Frederick Kirkland set about to right this wrong, and *Sometimes Forgotten* is the result.

The background to each war or campaign is briefly set out, mainly intended for the reader who may have scant knowledge of Australia's post-1945 wars. This is followed by a listing of the units of the three services which took part, with the dates of their participation.

The Roll of Honour which follows lists those who were killed and the place of their interment. Finally there is an alphabetical listing of the British/Australian decorations and awards followed by a similar listing of foreign awards.

The book is a work of dedication to those who died in the various wars and campaigns and to those who were recognised by the award of a decoration. Inevitably with a work of this nature there are errors and omissions; this is recognised by the author who has requested details for corrections in future editions.

In summary the book is a very useful historical tool for those with a need to research these matters, as happened to your reviewer who wished to find the names of those of his flying training course killed in Korea. This book provided that information.

Reviewer: Commodore N E Lee, RAN (Ret'd).





## Garden Island — A History

***T. R. Frame***

Garden Island has been the focus for all naval activity in Australia's quarter of the globe for over two centuries and has been the home of the Royal Australian Navy since its establishment in 1911. Yet its history has never been written.

This book describes the use of Garden Island for naval purposes by the First Fleet in 1788, its seizure by Governor Lachlan Macquarie in 1811, the protracted negotiations that led to the navy's return and its subsequent development as one of Australia's most important and strategically valuable naval facilities. Set within the context of the waning fortunes of British naval power, the growth of the city of Sydney and the creation of the New South Wales Government, this comprehensive and in places controversial account analyses the forces that led to the formation of an Australian navy, the difficulties it encountered in operating as an independent naval unit and the difficulties it encountered in operating as an independent naval unit and the problems faced by the navy with its Fleet based in a city with enormous urban pressures.

Garden Island has had a wonderfully varied and colourful history. Today it is one of the most important historic sites in Australia and the most strategically important naval base in the Southern Hemisphere.

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## BOOK LAUNCH — TOM FRAME'S "THE GARDEN ISLAND"

ADDRESS BY HIS EXCELLENCY REAR ADMIRAL PETER SINCLAIR AO  
RAN (RTD) GOVERNOR OF NEW SOUTH WALES

It gives me great pleasure to have been invited to launch Lieutenant Tom Frame's book *The Garden Island*. Pleasure because I am pleased to lend my support and encouragement to a young man who is rapidly making his mark as a naval historian and author and pleased because the subject of the book is familiar to me and to many thousands of other navy, ex-navy and dockyard people to whom Garden Island has been a second home for many years.

After an association with Garden Island that goes back 37 years or so, I thought I knew a reasonable amount about the dockyard and its history. However, after reading Tom Frame's book, I now realise how superficial was my understanding. I had no idea, for example, how fragile has been the Navy's hold over Garden Island — it has been close to losing or surrendering possession on at least four occasions since 1810, and on three of those occasions because of actions or initiatives by naval officers!

Nor was I aware that previous governors of New South Wales have played such a prominent role in ongoing disputes over the question of ownership. I was particularly interested to learn that one of my early predecessors who I am coming to know and respect, Lord Carrington, was very much in the firing line in the late 1800s. Lord Carrington served as the 16th Governor one hundred years ago and he thus figures in all of the current centennial celebrations that I have the pleasure of participating in around the state. He was quite a man. I found these vice-regal links intriguing in view of my current posting, but I hope that this Governor will be excused from any similar involvement in respect to Garden Island during his term of office!

*The Garden Island* provides a detailed and extremely readable account of its history from its first contact with Europeans until the present day. It traces its various phases, from a garden site for the crew of HMS *Sirius* to a careening site for some Navy ships, through a modest site storage and then maintenance facility into a gradual buildup to a fully-fledged dockyard which for many decades doubled as a fleet operating base, to the present day when it faces the future as a commercial enterprise still specialising in navy work but under the Australian Defence Industries banner.

But *The Garden Island* goes further in placing the story of this extraordinary island within the framework (no pun) of the naval

and constitutional history of this nation. For the book addresses the very reasons why British colonisation took place and the role of the Royal Navy and later colonial navies in the country's development. It examines the constitutional difficulties that arose in relation to the ownership of the island after federation and the phasing out of the Royal Navy's presence and authority in Sydney as the Royal Australian Navy came into being.

The book provides a good account of some of the high and low points in our navy's history and their impact on Garden Island's development. In the depression years the navy was reduced to four ships and only 3200 men in uniform, while at the other end of the spectrum, listen to what the book records for Garden Island in 1939/40:

"In the first nine months of the war, the island converted five vessels to armed merchant cruisers and eight smaller ones to warships, completed 20 refits, fitted out 12 large liners as transports, fitted out a stores-issuing ship and two fleet auxiliaries and defensively equipped 120 merchant ships."

The mind boggles at what can be achieved when motivation, resources and expeditious decision making can be brought together for the good of the nation.

Whilst concentrating on Garden Island, the book addresses the role that other well-known Sydney navy landmarks played — Tresco, Woolloomooloo, the R E V Y buildings at Pyrmont and Admiralty House, to name but a few. I was interested in the following extract from the biography of the famous Admiral Tryon, the first Commander-in-Chief to occupy Admiralty House:

"To the young society miss, an invitation to a man-o-war was bliss, no matter how small or grubby the little ship might be. To the society matron an invitation to Admiralty House was a command, the hallmark of high social standing treasured even beyond an invitation to Government House. Admiralty House was a force in the land, a social force of considerable national influence." Britannia certainly ruled more than the waves in those days!

Tom Frame takes the Garden Island story almost to the present day and in so doing picks up the hot potato of industrial relations which first became a major issue during the World War II years. His coverage of this fundamental but controversial subject is of necessity very brief — it would require a book in itself to do it justice — but I am pleased that he has been able to provide



some balance in its telling, for there has been fault on both sides.

The last chapter tasks us to the point where Garden Island has been privatised and is beginning to operate under commercial practices, with the modernisation programme still progressing.

Tom Frame wisely avoids the temptation to offer judgement on the appropriateness of the changed arrangements and leaves us with the comment that "Garden Island Dockyard's future may have been charted, but the outcome is still by no means clear."

I believe we are entitled to adopt perhaps a slightly more optimistic approach,

as the benefits of the modernisation programme, separation of the Fleet operating base from the dockyard, adoption of more efficient management arrangements and more enlightened industrial practices and a widening of conventional opportunities must point to a bright picture for the island.

This is an exciting time in the long history of Garden Island and I look forward to being able to read all about it in the sequel to this book, which I hope that Tom Frame will write in about forty years time!



*New South Wales Governor and former Fleet Commander and Deputy Chief of Naval Staff Rear Admiral Peter Sinclair reviewing a Guard of Honour shortly after assuming office.*

**ADDRESS BY THE HON PETER COLLINS MP, MINISTER FOR HEALTH AND THE ARTS — REPRESENTING THE PREMIER OF NEW SOUTH WALES**

I am very pleased to be with the Australian Naval Institute this morning to launch the book *The Garden Island* on behalf of the Premier and the New South Wales Government. The Premier is unable to be with us, unfortunately, but has asked me to send his best wishes.

It is not often that a state government is given the opportunity to speak on defence matters, and so I am doubly pleased to be here today.

The publication of *The Garden Island* is both timely and significant. It is timely because the history of this great naval establishment is not widely known and, as a result, there are many people who do not fully appreciate the work that has gone into

its construction over the years. It is significant because it sheds light on the island's strategic and operational importance at a time when many people misunderstand its role.

Garden Island and the navy have made an enormous contribution to the growth and development of the city of Sydney.

Throughout the second half of the 1800s the British Admiralty spent enormous yearly sums on naval works and supplies in Sydney. It was only when the prospect of the naval headquarters being relocated to Auckland surfaced in the 1800s that Sydney realised how valuable the Royal Navy was to the city's future. Approximately ten percent of Sydney's annual commercial



activity was with the navy. Many industries and businesses were established to meet the navy's technical and logistic needs, and would have closed down had the navy departed.

There was, of course, the added benefit of the presence of the Australia squadron in this harbour, which made Sydneysiders feel that much more secure.

The navy's importance to this state has continued to grow since work on the Captain Cook Graving Dock commenced nearly fifty years ago. The construction of the graving dock was the largest engineering feat in Australia at that time, surpassing even the mighty Harbour Bridge. It was completed "on time and on cost", a phrase that is still one of the dockyard's mottoes.

After the war the dockyard's operations brought employment to many people and ensured that Australia retained a strong pool of expertise in a range of vital engineering disciplines.

Now, as the Island enters a new phase under the management of Australian Defence Industries, the dockyard is offering its special expertise to other customers and this is most welcome. The State Government has placed work with the island and has been very happy with the results.

I noted in the book we are launching today that successive New South Wales governments last century met with an occasionally hostile reaction from the commanders of the naval station. Commodore James Goodenough wrote, in a letter dated 1874, that "dealing with these Colonial governments is precisely like dealing with a foreign government — they are all suspicion and alarm."

I am pleased to say that despite some opposition to the Navy's continued presence in Sydney Harbour, the current state government is an enthusiastic supporter of the navy and appreciates the sensitivity with which it has operated in and around the Harbour.

Although I might be accused of bias, being a naval reserve officer, I firmly believe the strongest case for the navy is expressed in its history. For two hundred years the naval forces homeported in this harbour have been the focus of Australia's defence. As an island continent this should be our expectation. However, it is a view that many people have yet to embrace and I encourage the Naval Institute in its objective of fostering a wider and deeper debate of naval and maritime affairs.

I would like to join with His Excellency in commending the Australian Naval Institute for sponsoring the publication of this book. Information is a very powerful resource and this comprehensive account very clearly conveys the importance of this island to the navy throughout its history and into the future.

My congratulations to the author, Lieutenant Tom Frame, for this significant contribution to naval history. Lieutenant Frame expanded our knowledge of the naval effort in the Gallipoli campaign with his first book and has now produced an enlightening account of one of the most important naval bases in the southern hemisphere.

Naval history is a growing field of interest and I have no doubt that this book will be widely read, especially by those who look down on the dockyard and wonder why it is called Garden Island.



## "OBSERVATION BALLOON" MAKING A COMEBACK...

The United States Army Program Executive Office for Intelligence and Electronic Warfare (PEO/IEW) has been since 1985 evaluating ship-based Small Aerostat Surveillance Systems and has recently ordered a second unit (SASS II) from Westinghouse Electric.

The aerostat is a tethered, aerodynamically-shaped balloon which carries radar equipment and other sensors up to 3000 feet (about 900 metres) above a specially modified ship.

Westinghouse is the Prime Contractor and manufactures the radar and other electronics systems, while TCOM supplies the aerostat and all handling equipment and engineering support and a second major subcontractor, Tidewater Marine, provides the ship and marine services.

Aerostats can be stationed on land or ships to elevate sophisticated radar equipment to extend its range. In many applications aerostats can be as effective as aircraft-based radars at a fraction of the cost. SASS can be towed easily between sites by helicopter.

Aerostats can be used for military applications such as low-intensity conflict and border surveillance and have become a

key element in the US government's effort against the entry of illegal drugs. They have also been used for radio and television broadcasting, environmental monitoring and data relay systems where remoteness has made other systems uneconomical.

Since the first ship-based SASS was developed in 1985, modifications and improvements have given the system better performance in the area of aerostat handling, instrumentation, mission duration and survivability.

The aerostat's tether is made from Kevlar, far lighter and stronger than steel, and includes optical fibres for data transmission.

The tether also incorporates a conductor to protect the aerostat against lightning strikes.

Any reader interested in learning more about the project can write to:

Mr Stephen Silvoy  
Vice-president, Marketing,  
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7301 Parkway Drive South,  
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USA



*The Aerostat docked with its mother ship between trials*



# THE ROLE OF WOMEN IN A SEAGOING NAVY

by

CMDR G Cutts RANEM

*This essay was awarded second prize in the Officers' section of the Peter Mitchell Trust competition and is published by permission of the Chief of Naval Staff*

"Joan Griffiths, Commandant of the Australian Defence Force Academy, slipped into her admiral's dress and admired herself in the mirror — the bright blue material gently hugged her shapely hips and the red silk scarf accentuated the beauty of her face.

I wonder what Admiral Irena Guerassimoff will be wearing, she pondered, for the Russian Navy had recently announced that they were doing away with the floral blouses and red skirts that they had all been wearing for the last 10 years and were allowing their officers any design as long as it incorporated the national colours. She was not concerned about the Chief of the Air Staff, nor the Chief of the General Staff, for Sylvia and Helen had agreed to wear simple pants suits in their force colours.

The principal guests were going to be the duxes of the first group of graduates from the Academy in 1988 — Katherine Joiner, dux of the Army, Lisa Evans, dux of the Navy and Natasha Carlile, dux of the Air Force and of the Academy. My God, she thought, that was a vintage year — the first real step on the ladder.

She took out her speech for a final check. She already knew it by heart but she was a bit worried about the possibility that some of it could be misconstrued — it was so tempting to become emotional about all they had achieved: The signing of the Strategic Arms Limitation Agreement, so that there was no possibility of war ever occurring again; the agreement to hold Chiefs of Staff conferences annually to discuss sporting and cultural exchanges between the various Disarmed Forces of the world; the agreement to use naval ships for goodwill visits with paying passengers; the promotion of the first male to executive rank for thirty years and the educational exchanges between the forces of other nations to study peacekeeping tactics.

Older men were still not accustomed to having so many female senior officers, though the younger ones accepted that they would have to show their aptitude for peace, compromise and conflict resolution before they could be promoted. There was a ready acceptance of their lower position in society generally, but the Disarmed Forces had always been a bastion of male chauvinism; the educational programs of various Prime Ministers — Laura, Pauline and Mary in particular — had dramatic effects, though there was now a need to encourage a few men to study maths and science and the engineering profession were desperate to recruit a few males. Joan was sad to think that so few males were capable of passing the promotion tests beyond

the rank of Lieutenant — the major holdup seemed to be in the subjects of Courtesy, Manners, Forgiveness and Consideration. They found difficulty making the break from the old subjects such as War Studies, Armed Conflict and Combat Operations. She would have to have another look at it.

She practised the opening words of her speech: *Distinguished Guests, Ladies, Children and Gentlemen, we are here today to celebrate 50 years of Affirmative Action, 50 years of peace, kindness and understanding between all nations of the world. It has taken a great deal of hard work, but the feminine spirit has triumphed and we have succeeded in making the world a pleasurable place in which to live...*

## INTRODUCTION

Those words were penned by my daughter for an assignment which she had to write whilst she was studying George Orwell's 1984. My thesis is that the role of women in a sea-going Navy is one which will dramatically alter the long term strategic plan, if not as dramatically as my daughter envisages, then certainly along those lines. Women will initially strive to obtain equality with men: In fact they will they will strive to do better than men in traditional male roles, billets and subject knowledge. Subsequently, having achieved superiority by weight of numbers and skill, they will change the essential nature and philosophy of conflict and the armed forces as they have been known.

I am not suggesting that there is a conscious plot by the women's movements, nor by individual women. I do suggest that there is a natural evolution that will take place and it is already in evidence. This idea is expounded not as a warning to males to protect their presumed societal role but rather as a precursor to the inevitable!

## DEFINITION

Women in a seagoing navy is not quite the same thing as women at sea: In the former they could be employed purely in shore jobs whilst the men did all the hard yacker at sea. In the latter we would have to consider the billets women could fill in ships at sea.

Currently, of course, women in the Navy are forbidden in combat roles, which means that women at sea are restricted to support and training roles. In the event of hostilities



they would be withdrawn from any ship which was about to go into combat. Women in a seagoing Navy at present can presumably fill any position ashore in times of hostility or otherwise.

For the purpose of this essay I will consider the role of women in both categories, i.e. the role of women in the Navy as a whole. Their ultimate effect on attitudes, philosophy and strategy will be such that there will be no difference between women at sea and women in a seagoing Navy. The role of the Navy will be the changing factor.

## WOMEN AT WAR

Any book or encyclopædia on war will tell you that the 50 most significant leaders are all men — everyone knows this. We would be hard pressed to name but a few women who have distinguished themselves on the field of battle — which includes the waters of battle too. I wonder how many people could go beyond Boadicea, Joan of Arc and the Amazons.

*At the simplest human level, the male with his persistent attraction to females, his greater physical strength, unencumbered by offspring, was in the natural battling position. The females, though not necessarily passive or uninterested in the battle, were nevertheless to a great degree pawns in the game.*<sup>1</sup>

One who was more than a pawn was Boadicea, also known as Boudicca, a champion warrior of the Iceni, who wreaked revenge on the Romans in AD60:

*In appearance terrifying, in the glance of her eye most fierce, and her voice was harsh; a great mass of the tawniest hair fell to her hips.*<sup>2</sup>

The famous historian Tacitus is said to have noted in surprise that the British did not object to a woman as their leader! However, neither the British nor any other race appears to have had any female leader on the waves. Helen of Troy may have had the face to launch a thousand ships and Elizabeth I may have inspired a host of maritime adventurers, but I cannot recall the name of one female sailor of any note.

In more recent times women have served in the navies of the world but rarely at sea. Only in the last decade or so have they been employed at sea by commercial lines and more recently by the military. Women have won the prestigious award for seamanship at the Royal Australian Naval College and one was dux of ADFA and there are presumably far more than this, especially in other navies. For example — there was a female graduate at the top of the US Naval Academy's class of 1984.

However, they are still restricted to non-combat roles in all except the Danish armed

forces, which opened all jobs to women as of July 1989.

*In the Navy most jobs have been open to women since 1986. The Defence Ministry decision ... allows women to pilot Lynx helicopters and command corvettes and patrol boats.*<sup>3</sup>

According to an article in the (International) Armed Forces Journal the history of women in combat and as military leaders pre-1933 is dominated by three themes:

*First, when the mores of the times and society permitted the participation of women in combat the ladies performed well and in some cases outshone the men ... Secondly, when emergency situations arose and convention could be breached, women could and did use weapons effectively against the enemy ... Thirdly, they also demonstrated that they could take charge of military operations ... when circumstances warranted, or when the accident of high birth, social position or simple opportunity thrust them into leadership roles.*<sup>4</sup>

I do not intend to enter into a discussion of the semantics concerning the word 'combat', most of which have been more than adequately covered elsewhere, nor do I intend to argue the pros and cons of allowing women to enter combat roles, for similar reasons.

My argument concerns the future of women in the Navy — the mores of society and the times will change and convention will be breached; the law will be used and philosophies will be adjusted.

## FEMINIST PHILOSOPHY

The Women's Movement, Feminism, Female Liberation etc. are but fairly recent names to provide handles for a whole series of concepts. In general:

*Women's liberation is a social and political movement that aims to achieve equality for women by changing the roles of the sexes in society. Those involved in the movement range from the radicals who see the complete overthrow of capitalist society as the only solution to those who seek to reform society on a more moderate scale.*<sup>5</sup>

The feminist writers of the past few decades provided a massive shock to many entrenched opinions and as there were so few who achieved international recognition they were easily identified and their ideas fused. But the views they were expressing were diverse; they communicated, to a wide audience through the mass media, concepts that appeared original but many of which had been expressed before. Unfortunately they were previously not so



readily received — as a US Senator once said about suffragettes:

*When the women of this country come to be soldiers and sailors, when they come to navigate the ocean ... then it will be time to talk about making women voters.*<sup>6</sup>

### CURRENT TRENDS

Indeed, similar views appear to have been held by many prominent naval leaders less than a decade ago. Community attitudes to women in combat were still an oft-quoted reason for lack of equality and opportunity, not always, I suspect, with a great deal of forethought. The Chief of Naval Staff of the RAN was asked in 1982 what he thought about women in the Service; he replied that we were not in the same situation as the Israelis or the Americans:

*We are not in that situation. It is more evolutionary than revolutionary. The Defence policy is that the services will adhere very much to the government's intention of equal opportunity, but this stops short of going to sea in ships ... but looking ahead, I can see the first step perhaps of women going to sea in what I would say was a non-combat ship — for example the oceanographic ship Flinders. That's quite a step forward, and that will be evolutionary. How long it will be I can't say, but I don't discount the possibility.*<sup>7</sup>

That was 'as long ago as 1982' (as the TV commentators say) — I suggest the step forward is now revolutionary, rather than evolutionary. I have no need to quote the current status of women in the RAN, which has far exceeded the views of the then CNS.

At the same time as Admiral Leach was expounding his views on the future of women in the Australian Navy an article was being prepared which was to review the role of women in the US Navy for the decade 1972-1982.<sup>8</sup> The author quoted a mass of statistics to show how dramatically the roles and the numbers were changing. For example:

- Growth from 6000 to 37000 women in the Navy;
- 1 woman to 100 men became 8 women to 100 men;
- From a top rank level of junior officer to 2 rear admirals and a Marine Corps Brigadier General;
- From 3/4 of the female officers as nursing staff to less than half;
- From restrictive occupations to wide acceptance.

Not all the changes were so acceptable to the affirmative action proponents — about half of all the enlisted women were still

in traditional skills. Nevertheless, many new skills had been opened up and women were assigned to new types of commands and locations. In 1978 all restrictions were removed on the employment of women in the Coast Guard and by 1982 two women were commanding officers of patrol boats and one was executive officer of a buoy tender; the current policy is that all women are to remain on their vessels in wartime and their assignments would not change in the event the Coast Guard came under the Navy. The Navy has not given its position on the ensuing legal ramifications of such an event.

In 1981, one year before Admiral Leach's statement, CNO said:

*Without question the women in this ships program has been an impressive success. Women are routinely performing in both traditional and non-traditional areas with skill, confidence and dedication.*<sup>9</sup>

As far as the rest of the world is concerned I have already discussed the entry of women into combat roles in the Danish forces. A recent newspaper article says three women have made history in the Royal Air Force, under new policy to allow women pilots and navigators, though the government believes the time is not yet right for them to fly in aircraft carrying or firing weapons.<sup>10</sup> The article goes on to say that women are allowed to fly jets in the US Air Force as well as in Holland, Canada and Norway.

### REASONS FOR THE CHANGES

How has Admiral Leach's evolutionary change become revolutionary? Many governments have been under increasing pressure to change their attitudes, from a mixture of economic and other forces — eg a long period of sustained peace, shrinking budgets, decreasing numbers of male volunteers, burgeoning women's rights movements, the passing of equal opportunity acts, legal challenges to laws and military policies.

The changing views in society about the role of women generally are slowly being mirrored in the Navy, albeit faster than Admiral Leach predicted. Whereas single men once had to ask permission to get married and live ashore, we now have recognition of *de facto* relationships, retention of married women in the Service, nomination of career priorities for married couples, maternity leave...

Some of the problems emanating from the change in personnel structure and some of the problems envisaged which may not have been realised concerned fraternisation, frequent medical visits, pregnancy, physical strength and the provision of sanitary facilities. Most of these



have been addresses in other publications and most of them have been laid to rest.

Fraternisation is a vague term that was once clearly understood by commanding officers and strictly enforced according to their varying moral attitudes. The advent of Uniform Disciplinary Codes and the increasing use of legal aid by naval personnel has made this definition less clear. Nevertheless, commanding officers can define non-sexist policies quite clearly if they wish, in terms of behaviour that compromises the chain of command or undermines good order and discipline.

Women in the US community between 1979 and 1980 had 4 — 17% more infectious and parasitic diseases, respiratory conditions, digestive problems and other illnesses than men.<sup>11</sup> There is no reason to suppose that these figures are any different for naval men and women, nor for people in Australia. The point is that **anybody** spending more time in sickbay than anybody else should be regarded as worthy of medical re-evaluation.

Pregnancy can present more complex problems to the administration and even more so to the administrator at sea; more still to a combat unit. But arguments are now being put forward that pregnancy is an **individual** personnel problem that requires **individual** consideration — eg it may present an abuse of regulations worthy of immediate transfer or it may allow the female to be retained until a relief is available, but **all women should be discriminated against**. Indeed, one author says that:

*In hostile theaters the pregnant female physically unfit for duty constitutes a problem identical to that of a seriously wounded unit member, and, on menstruation ...using the increased probability of recurrent hormonal problems as the justification of a ban on females in certain billets is no more valid than choosing the black population's greater susceptibility to sickle-cell anaemia as justification for a racial ban on certain types of duty.*<sup>12</sup>

Physical features of women or facilities should need no further discussion today, though they would have done less than five years ago. There are still a few proponents of the *women can't change truck tyres or fly fighter aircraft off a carrier* arguments — one of the diehards, Lieutenant Colonel Evans, US Marines, says:

*a female in her third trimester of pregnancy can hardly sit at a typewriter, much less change a spare tire...The presence of women in the Fleet Marine Force underlines the battle-proven axiom that "Every Marine is first and foremost a rifleman."*<sup>13</sup>

Such views were recently dismissed by aviation medicine expert Wing Commander

Boothby RAAF as *showing a gross ignorance of any understanding of anatomy*.<sup>14</sup>

## WOMEN'S VIEWS ON THE NAVY TODAY

Unfortunately the same source (an article on RAAF women, but presumably applicable to the RAN(?)) shows that when Australian servicewomen discuss life in the armed forces, traditional views tend to predominate — eg acceptance by married women that their husbands' careers would take priority, even though the women were on higher pay scales. Allegations of sexism were rife and supervisors were said to be unsympathetic and unsupportive. There were a few signs of the changing times.

They were accepting of but wanted to change the service attitudes to feminism in the sense of make-up, long hair and more stylish uniforms, but they also wanted equality, particularly with regard to combat billets.

In one study for the US Navy<sup>15</sup> women leaving the Navy were asked what were the causes of job dissatisfaction and the results, bearing in mind the limits of the sample, are perhaps indicative of trends elsewhere. Many were critical of the lack of child-care facilities and others complained that the Service was not making enough effort to post husbands and wives in the same area. More than half the women complained they could not be as feminine as they wanted, primarily because of uniform and hairstyle regulations and the billets to which they were posted. Those discharged on pregnancy noted the need for better child-care facilities, longer maternity leave, interrupted enlistments, elimination of overnight duties.

## THE FUTURE

I found the latter point of special interest because it is a seemingly trivial matter, yet it symbolises my thesis: Women will continue to enter the Service in increasing numbers, will strive for supremacy and will then change the nature of the Navy as it has been known.

Many of the complaints that were just listed arise because women are entering what has been a male-dominated profession where there has been no need to even consider changes along those lines. A comment on the ban on females in combat can be applied to the attitudes to women in the Navy in general:

*...the result of archaic and overbroad generalisations reflecting earlier generations' views on a 'woman's proper place'. The ban is not based on rigorous analysis of objective data but merely reflects and reinforces sexual stereotypes rendered irrelevant by technology.*<sup>16</sup>



Vice Admiral Martin, Deputy Chief of Naval Operations (Air Warfare) USN, laying the blame on community stereotyping, said in 1985:

*Obviously, we have to look at other avenues for them [women], but I can't say that it will ever be as good as it is for men as long as we operate under our constitutional restriction.*<sup>17</sup>

His senior officer, the Chief of Naval Operations, Admiral Watkins, said in the same year:

*...our position has been...that repeal of the current [combat exclusion law] or changes to the law are going to have to emanate from the grass roots of this country.*<sup>18</sup>

Which brings us back to the earlier quote about the mores of the times and society. As far as Australia is concerned, they are a-changing. The Australian Institute of Family Studies, for example, has attempted to show employers the advantages of child-care, flexible hours and parental leave:

*And in using the employers' own concerns — improved productivity, increased retention rates and decreased absenteeism — it has advanced the case for treating family issues as an integral part of our economic structure.*<sup>19</sup>

Professor Fay Gale, the future Vice-Chancellor of the University of Western Australia, commented that the situation in universities was similar:

*When I began as an Adelaide undergraduate, there weren't even female toilets in the engineering department building...the University now had a mechanism that enabled women to take extended time off for childbearing, where jobs could be shared and where role model assumptions could be included in criteria for appointments...[though] we still have affirmative action for men.*<sup>20</sup>

As for the rest of the world, apart from changes in the status of women evident in many countries — and think especially of the remarkable rise to power recently of a couple of women in the very male-dominated societies of Pakistan and Japan — there are also significant changes in the global power struggles between the US and the USSR, the advances in Strategic Arms Limitation Talks, the relaxation of exits from East European countries to the West... One could put a case for these dramatic changes indicating that traditional female characteristics are more in evidence in the world of conflict.

In specific relation to the topic of this essay, Sadler notes that:

*Between 1972 and 1982, major shifts occurred in the marital and parental status of women [in the USN]. In 1972, Navy women were overwhelmingly single and almost none were parents...*

*By 1980 the proportion who were married had jumped to 45% ... 17% of Navy women had children.*<sup>21</sup>

I do not have access to similar figures for the RAN, if they exist, but I think that Admiral Leach's comment that *we are not in that situation* is probably flying in the face of reality.

The number of women entering the Navy will increase and there will be increased opportunities for them to specialise in previously male-dominated areas. Arguments that the USN is in a peculiar position because it went to an all-volunteer force do not hold much water as the RAN is in the same boat. Even the Royal Netherlands Navy's Defence Plan 1984-1993, with an expected 8.5% of naval personnel from national service, foresees possible difficulties in obtaining professional personnel with specialised knowledge in which there is also a shortage in civilian life.<sup>22</sup>

With increases in the number of women there will be subtle changes in attitudes. For example, many women complained of sexual harassment and lack of support from supervisors, but as more women become supervisors, that will cease. And it was a female Lieutenant USN who, in a comment about women's supposed physical weaknesses, said:

*No one has ever died from normal menstrual cramps.*<sup>23</sup>

Women supervisors are known to be much stricter [more realistic?] than male supervisors on women who cry women's problems.

Accompanying the increase in numbers there will be an increase in legal cases and evidence for this is already available. Women with more than adequate skill and women with families will not accept posting restrictions. The legal restrictions and exclusion from combat billets greatly affects the career advancement of otherwise qualified women and the Navy will have to take steps to guard against likely court cases of discrimination.

The Defense Officer Personnel Management Act of 1980 in the US attempted to remove all constraints on the promotion of women, amongst other things. However, women took exception to the fact that they were subsequently in competition with men for promotion — without the benefit of command of combat ships:

*Consequently, the Secretary of the Navy and the services undertook several actions to ensure equitable treatment of women before promotion boards, such as instructing boards not to allow women's different career paths to prejudice their selection.*<sup>24</sup>

Lieutenant Spillane writes that: *Naval Military Personnel Command tells us that we cannot even include adverse remarks*



related to a sailor's performance resulting from her pregnancy in evaluation.<sup>25</sup>

This lady proposes a voluntary, binding, contractual system that females going to sea would have to sign, guaranteeing that they would not fall pregnant, or face disciplinary action if they did. She would make sea service a pre-requisite for promotion to first-class petty officer, male or female.

Most of the articles I have read have been written by males or by females still striving for equal recognition. I wonder what will happen when females reach senior positions in such numbers that they can change policy.

Commander Hixson USN (male) argues that overcoming the structural bias in society will be difficult—women demand equal rights, they must be prepared to accept equal risks. Peacetime is the best time, he says, to try out any changes.

Captain Sadler USN (female) says, as I do, that the number of women will increase because the number of available men will be scarce and because women will be seen to be performing well:

*The one factor that could result in a dramatic change, however, would be a court ruling permitting, or perhaps requiring, the assignment of women...to combat units...pragmatism will overcome institutional reluctance.*<sup>26</sup>

Cynthia Enloe's book *Does Khaki Become You? The Militarisation of Women's Lives* argues that attempts to control women's lives have been mostly covert and comments that the women's movement—to use the generic term—is divided over whether women should work for equal opportunity in the military or shun all activities that support war.

In my view women will strive for equality, but, consciously or otherwise, will then change the philosophy and attitudes of the Navy—in the interests of economic necessity, objectivity, fair play, reason and justice, protection of the universal family...

*Who knows what women can be when they are finally free to become themselves? Who knows what the women's intelligence will contribute when it can be nourished without denying love? Who knows of the possibilities of love when men and women share not only the children, home and garden, not only the fulfilment of their biological roles but the responsibilities and passions of the work that creates the human future.*<sup>27</sup>

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<sup>2</sup> Heritage of Britain, p32

<sup>3</sup> Isherwood

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<sup>5</sup> History of Ideas, p915

<sup>6</sup> History of Ideas, p917

<sup>7</sup> Evans, p23



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*The RAN's latest aircraft – the Sikorsky SH 70 B2 Seahawk*



# TECHNOLOGY — EFFECTS ON MANPOWER NEEDS

by

Lieutenant Commander R W Jackman RN

*This essay won third prize in the section of the Peter Mitchell Trust Essay competition for officers undergoing staff courses. It is reproduced by kind permission of the Chief of Naval Staff.*

[Editor's Note: Some elements, including a few footnotes, from this essay did not reach the Institute and we were unable to contact LCDR Jackman for another copy. Notwithstanding the omissions the author's points are clearly made.]

Budget<sup>1</sup>: Regardless of demographic factors the economic pressure to reduce this is immense.

It is only comparatively recently, in the 70s and 80s, that the benefits of technology have been fully investigated as a means of achieving manpower savings for their own sake rather than as a byproduct of a scientific breakthrough. Manpower reduction taken to its logical conclusion leads us to a futuristic vision of fully automated warfare; of battlefields where the action would be too quick for human brains to even attempt to interact with the situation, and of a fighting environment too lethal for people to even contemplate being a part of it.

Admittedly many reconnaissance, surveillance and target acquisition operations as well as command, control and communications facilities have been automated already. However, the totally automated battlefield of fighting robots and unmanned vehicles is still sufficiently remote to be beyond the scope of this essay.

Historical records of our ability to cope with the pace of technological change do not bode well for the future. E E Morrison, in his account of naval technological development, described the United States Navy of the late 1800s thus: *This was a time of disordering change for the Navy. Part of the confusion... was produced simply by the flow of new things. It was hard to know how to use each new part and harder still, technically, to know how to fit them all together into a new structure. But the disorder was not just the product of technological change. It was technology.*

## A TECHNOLOGICAL NIGHTMARE

There are those who believe that the technological complexity in current weapon systems is too great. Forced upon us, in some instances, in an attempt to maintain technological advantage over the Soviet Union, they have already been extended beyond the abilities of the volunteers the armed forces can reasonably expect to attract and retain. If this is the case and

technological developments further expand the need for highly skilled people, manning problems will only become more severe, as an even smaller proportion of a shrinking population becomes qualified for military service.<sup>5</sup>

Yet this is not the only drawback of such complexity. Firstly, the associated additional expense tends to divert funds from the manpower pool or from equipping reserve formations. Secondly, many technological solutions are not sufficiently robust and can be easily countered. Thirdly, the quest for quality over quantity is often self-defeating. The Lanchestrian formula, which links the two factors in an equation which is widely employed in modern war gaming and force planning, would indicate that Western technology must be four times better than a Soviet force, containing twice the number of combat units, to maintain parity. Attempts to maintain technological superiority in mature technologies can thus backfire, with increasing costs for smaller advantages leading to repeated cuts in manpower levels to pay for evermore expensive equipment. This downward spiral is further tightened when technology is called upon once again to offset the resulting force reductions.<sup>6</sup>

Even if the armed forces of today are considered to be up to the task of operating and maintaining complex military equipment, it is no doubt due to the fact that they are a cut above their civilian counterparts in both educational achievement and general military aptitude. If this situation is to continue, pay and benefits must remain competitive with alternative civilian alternatives. Demography, and the competition it is already causing, suggest that the public sector will always lag behind and civilian firms will retain the competitive edge in the long term.<sup>7</sup>

## COST AND TIME CONSTRAINTS

What are the barriers to technology providing the solution to the quantitative problems that face us? Time and money are the age old culprits. To take a naval example, the equipment fitted in current ships uses technology dating from 10 to 35



years ago. It is seldom possible to make instant use of the technology that is available now due to the long lead times associated with military procurement, ensuring logistic support and, not least of all, training personnel to operate new equipment.

Accepting this delay in introducing new systems into service the scope still remains to make use of technology in improving the efficiency and hence reducing the manning requirement. Such measures will yield their savings later rather than sooner and tend to increase unit production costs (UPC). In an ideal world it should be through life cost (TLC) which determines the viability of a manpower saving design.

In a recent study associated with the introduction of the Type 23 frigate into the Royal Navy it was estimated that the cost of each man serving in a ship amounted, through salary, training and support requirements, to £75 000 [more than \$A150 000] per year. Consequently each Type 23 frigate, with its complement of only 185 men, some 66 fewer than a Batch III Type 22, will cost approximately £5 million a year less to run; almost enough to pay for itself over a lifetime.<sup>8</sup> With even greater emphasis placed on automation further complement reductions would be possible.

In the real world of annual Long Term Costings (LTC) rounds it is a sad fact that visionary spend-to-save measures are those that yield quick savings when the inevitable pruning has to take place. Unless forced to do so, the Treasury, holding the purse strings but being controlled by politicians, will always be reluctant to look at options with time scales for reaping the rewards of an increased initial outlay which extend well beyond a government's term of office.

Whilst it is accepted that equipment costs have risen steeply in the past it is a fallacy to assume that they will always increase. Gloomy predictions based on current trends of accelerating costs and a decreasing Defence budget reach implausible conclusions such as *Britain will be able to afford just a single aircraft to replace all of her Tornado fleet in 50 years' time, and only a single ship to replace all Type 23 frigates in 25 years' time.*<sup>9</sup>

A more careful analysis of recent trends suggests that costs of new equipment may not be rising as fast as expected, especially in the micro-electronics field. In this area component costs have been driven down almost in proportion to the degree of miniturisation achieved. Indeed, if automotive technology had progressed at the same rate as semiconductor technology over the past 20 years, a Rolls Royce would cost about £2, achieve a million miles per gallon, deliver enough power to drive the QE2, and six of them would fit on a pinhead.<sup>10</sup>

## REDUCING THE SUPPORT REQUIREMENT

Employing radically new equipment may enable the number of operators to be reduced, but a criticism that has been levelled at defence procurers and manufacturers is that by making use of emergent technology to maintain the technological edge over the Soviet Union, equipment reliability has suffered. By reducing the maintenance and fault finding workload considerable savings could be made in the support manpower requirement. This can be achieved in three ways: By procuring simpler systems, improving reliability and improving maintainability.

Simplicity of systems has traditionally been discussed as part of the quality versus quantity debate. However, in the context of methods of achieving manpower savings a compensating increase in numbers of equipments is not the desired outcome. A balance must therefore be struck to achieve greater effectiveness through improved availability whilst minimising the capability trade-off.<sup>11</sup>

One way this can be done is by reducing the versatility of the parent unit. Equipment provided for the Army and RAF tends to have reasonably specialised roles. Warships, however, provide the classic example of the pursuit of versatility. The decision on the design of a new class of warship is always preceded by an enlivened debate over single-role ships. Past experience reveals that, except in the case of a few deeply-specialised roles such as mine hunting and diving support, the maximum degree of versatility is retained in order to cope with the variety of threats a warship may have to face over a lifetime of perhaps 25 or 30 years.

Under previous procurement procedures much of the versatility and hence equipment diversity is added as amendments to the original requirement. A consequence of the increasing trend towards fixed price and incentive based contracts should be a reduction in late additions to the equipment fit and complexity. A larger swing towards the single-role ship in the Royal Navy is, however, unlikely unless government policy dictated that operations would be concentrated within her Exclusive Economic Zone (EEZ).<sup>12</sup>

Improvements in overall system reliability are achieved either by improving reliability of its components or by giving the system more than one means of performing its function. The latter course implies the use of redundancy, either active or standby. Redundancy, however, is not free. It generally increases weight, space, design time and consequently cost. It also flies in



the face of any drive to reduce complexity. Thus, whilst redundancy may improve mission effectiveness, it will generally increase the maintenance workload and manning requirement in the military tail.<sup>13</sup>

Component reliability offers less scope for improvement to system availability since well established procedures exist to ensure high standards of quality control during the procurement process. Fundamentally new components such as Very High Speed Integrated Circuit (VHSIC) and Very Large Scale Integration (VLSI) elements may well offer significant reliability improvements. The increased density of this technology not only offers attractive savings in space and weight but also reduces the interconnective wiring which is currently a weak link in the reliability chain.<sup>14</sup>

The armed forces are often rightly criticised for stretching the performance of defence systems to the limits of their capability, without assessing the value of increased effectiveness achievable by accepting marginally lower performance.<sup>15</sup> Failure rates can, however, be reduced by the technique of derating. Operating equipment at less severe stresses than those for which it was designed can often significantly improve reliability.

Maintainability improvements enhance not only system availability but also the efficiency of the maintenance effort which involves time, manpower and money. Regrettably, maintenance considerations have not fared well in the competition for funds in the acquisition process. Diagnostic capabilities, accessibility and technical documentation are all features of maintainability with technology having a part to play in each.

Initially, complexity in military system was designed away from the operator which in turn tended to pass additional complexity to the maintainer. Present day and future technology has laid increasing emphasis on attempts to design complexity away from the maintainer through automated diagnostics and modular component architecture.

There is, however, a danger of a Catch-22 situation resulting if the built-in test equipment (BITE) reduces the reliability of its parent equipment by introducing more components that may themselves fail. If this occurs the skills and facilities required by the maintainer must be greater still. By implication, this type of repair would have to take place away from the front-line as part of a more centralised, and hence more economically cost-effective but operationally less desirable support system. Though examples of these failures occurring in the past do exist, the prospects for the future lie in the area of the more reliable VHSIC/VLSI logic circuitry described above.

An important human factor which must not be forgotten whilst discussing automated diagnostics is that of the job satisfaction for maintenance personnel which can be significantly eroded by the use of such technology. Whilst it enables sophisticated equipment to be maintained by relatively unskilled people, it offers little scope for the development of the military technician who traditionally wishes to combine technical demands with an active service lifestyle.

## ACCESSIBILITY

Computer Aided Design (CAD) has done much to fit more into a smaller space but a danger exists that inadequate emphasis may be given to accessibility. The F-4 Phantom's radio is an example of how poor accessibility can waste many manhours of labour. In order to remove the radio which failed, on average, every two sorties, the rear cockpit seat had to be removed. This required an explosive expert to dismantle the ejection mechanism, an aircraft mechanic to remove the seat and finally a radio technician to remove the radio. In a squadron of F-4s this process accounted for man-hour and financial wastage on a huge scale in removing healthy ejection seats. Maintenance can become self-perpetuating.

Disturbing healthy elements in a system, either for routing inspection or to gain access to another often creates more faults than are cured. The lesson to be learned here is the value of involving maintenance engineers at the conceptual stages and in the writing of CAD software to design out possible problems of this nature.<sup>16</sup>

## DOCUMENTATION

Technical documentation has a large part to play in the efficiency of the maintenance process. In the absence or failure of BITE, the speed of the repair can be increased and the skill level required can be decreased through the use of fault-finding algorithms. This method already exists but the full potential of microcomputers to provide interactive fault diagnosis has yet to be fully exploited.

A consequence of success in the reduction of the maintenance load and the skill levels needed to undertake it is the prospect that these indirect measures could yield further manpower savings by combining the roles of the user and the maintainer. If the complexity of the equipment can indeed be designed away from both the operator and the first line maintainer then it is possible that one man or woman could undertake both roles. The implications this course of action might have in human terms will be addressed later.



## TRAINING

Just as reliability and maintainability of military equipment have received less emphasis than performance, delivery dated and cost in the procurement process, so too has the training of the people who must operate and maintain it. *Because the emphasis has always been on hardware, and the resources are finite, people problems have taken a back seat in the Navy, especially concerning their proper training to maintain and operate the ever-changing hardware systems.*<sup>17</sup>

Training seems to be used as a general term to describe both instruction in new skills and, once learned, practising the use of them. In both areas technology, in the form of computer based learning and simulation, can be exploited to improve the efficiency of the armed forces and reduce the manpower employed in the training task. This can be achieved in several ways. By improving the quality of instruction through the use of interactive programmed teaching, learning takes place at a pace set by the individual. Even repetition can be achieved without any adverse effect on other trainees. In this way a higher proportion of the new information can be retained and because such teaching can take place, to a greater extent, on an ad hoc basis the time spent out of front line duty in receiving instruction can be reduced considerably. Once valuable and expensively acquired skills have been learned, increasingly realistic simulation programs enable them to be practised and perfected at intervals which, if undertaken for real, would require considerable co-ordination and planning, be prohibitively expensive in manpower, system time and perhaps weapons or, as is now too frequently the case, be environmentally unacceptable.

An additional advantage of increasing the proportion of simulation training is that the assessment facility which can be so readily incorporated into it provides valuable feedback, not only to the trainee but also to the instructor or commander. In an environment where assessments of efficiency and capability can no longer be merely subjective judgements by senior officers, the hard evidence that technology can provide will become increasingly in demand.

However, whilst considerable scope exists to exploit technology to transfer some of the training task to the front line and ensure that perishable skills are not lost, the push for this must come from the military, since training technology is seldom important to the defence contractor in the business of willing contracts for weapon equipment.

## WOMEN IN THE ARMED SERVICES

The debate over increasing the role played by women in the armed forces had been simplified to a largely moral one since technology has removed the argument that military personnel require considerable physical strength. In areas of high technological involvement, mental attributes count for much more than the physical.

Women are generally no less able, and in many cases better able, to carry out the brain work which constitutes much of military operations today. The manpower catchment area from which to recruit is potentially doubled if women become eligible to perform all but the most physically demanding tasks and recent evidence indicates that the British Army and the Royal Air Force are already moving in this direction. The social implications and the practical difficulties associated with increasing the proportion of women in the Services must still be addressed. However, they are not obstacles in comparison to the barriers which technology has removed.

## QUALITATIVE CONSEQUENCES OF TECHNICAL ENHANCEMENT

If technology enables the Armed Services to function with fewer people, what sort of person will the recruiters need to extract from the dwindling supply of young men and women, and will the Services be able to retain them?

## ORGANISATIONAL CHANGES

There are important implications of increased technology for the social organisation of the military. Technology ultimately affects organisational patterns and leadership styles. It can lead towards a type of scheduling and planning that is similar to that in industry. Machines must be repaired on fixed time scales and tasks must be planned and programmed months in advance.<sup>18</sup> The growing trend towards specialisation and technological sophistication in all modern armed forces steadily reduces the proportion of military personnel earmarked for actual combat duty. For example, in the United States Army only one soldier in four is assigned to ground combat duty; the corresponding figure during the Korean War was one out of three.<sup>19</sup>

## CIVILIANISATION

The increase in the need for both technical and administrative support creates an occupational model in which it is often more efficient to have workers available during a relatively standard working day. This tends to have a beneficial effect on retention and recruiting but also generates practices and attitudes which detract from the qualities of flexibility and reactivity needed by a fighting force.



The civilisation of the military then advances debate over the extent to which civilians can be directly substituted for military personnel in performing supporting technical tasks. A large civilian defence support organisation may in fact be an indicator of high efficiency and specialisation in the armed forces. Leaving aside the problems associated with dependability, employment in war zones and over dependence by the military on this support, the problem is normally reduced to one of economics: Civilians tend to be employed in support roles where their services can be obtained more cheaply. In the technical fields this is rarely the case. There are, however, exceptions, and these appear to occur in those countries such as Switzerland and Sweden where a militia system with no out-of-area capability exists. Such a system has the undoubted advantage of allowing the militia to concentrate on its training task and at the same time to maintain complex weaponry in effective combat readiness.<sup>20</sup>

#### COMMAND AND CONTROL

Effective command and control requires a system for integrating such factors as intelligence, logistics and personnel into the conduct of operations. It relies upon a timely flow of information up and down the command chain. Nowadays military leaders have become managers of resources who function by making the best use of advances in technology to manage this information whilst trying to maintain their freedom of action and command authority. Automation can all too easily inundate decision makers with too much information. To prevent this from occurring subordinates must selectively filter the raw information needed by their seniors. Thus a series of such filtering decisions taken at low levels, based on a subordinate's perception of events, will undoubtedly influence, and quite possibly distort, the data used to make decisions at higher levels.<sup>21</sup>

Considerable effort is being devoted to developing Intelligent Knowledge Bases Systems (IKBS) which will speed the decision making process by presenting alternatives in an understandable form. However, in the foreseeable future it is unlikely, except where a man's reaction time is too slow, that technology will be relied upon to take vital decisions alone, without reference to human judgement.

#### CHIEFS AND INDIANS

Leadership and command styles must be modified from those required in an action-oriented environment. Technology challenges traditional forms of authority such as rank, since expertise becomes an important criterion for leadership.<sup>22</sup>

Similarly, expertise without leadership creates its own distortions. Complex

equipment requiring experienced maintainers leads to a top-heavy command pyramid which adversely affects promotion and puts an unacceptably high menial load onto the junior ranks. The situation can be eased by use of the user/maintainer concept. Not only is there more opportunity for the junior to demonstrate his worth but the maintainer is kept fully employed and offered improved potential to develop as a leader. Whilst this may seem an ideal situation to an ergonomist its implications for the calibre of person sought must send a shudder through the recruiter.

#### INITIATIVE

For all its advantages to manpower in quantitative terms there are many qualitative disadvantages associated with technological advance. The challenge has been gradually removed from the maintainer and even in the action environment the incentive to become a leader is eroded when the authority to lead is gradually withdrawn from commanders in the field.

This has been brought about by enormous improvements in communications technology, particularly satellite communications. Not only do they offer the military rapid message handling but also secure voice channels which open the way for senior commanders and even politicians to exert a real-time influence on military operations. Politicians might say that the ability to micro-manage forces is essential in any crisis situation where there is a risk of war or the future of a government is at stake.<sup>23</sup>

The Soviets have traditionally relied on as centralised command and control system to give political direction to military operations. A concern of Western politicians, when considering their ability to control crises, must be that Soviet leaders may well apply their own standards and assume that all Western military actions have political authorisation. Careful agreement of Rules of Engagement (ROE) has traditionally been the method whereby political will influences military operations, but the temptation to avoid delegation to the man at the scene of trouble is immense. Withholding this authority would fundamentally alter the personality requirements of leaders in the field.

The danger of this centralised decision-making and direction is that the more subordinate commanders come to rely on it, the more vulnerable it is to attack and disruption. Communication centres can be attacked with weapons such as anti-radiation missiles, smart artillery shells or bombs, electronic jamming and deception measures can also be employed.<sup>24</sup> With the uncertainty that high level decisions may not be communicable in time of war, it is likely that Western nations will continue to foster a



high degree of initiative in their aspiring leaders.

## SUMMARY

Technology can reduce the demand for manpower, directly through the increased use of and trust in automation and by changing the role of many of those who are required from information gatherers to that of decision makers. Indirect or support manning requirements also fall with the use of more reliable components and improved accessibility.

The recruiters' catchment area can be widened by ensuring that technology continues to preclude the need for strength in military personnel and thereby expands the roles that could be undertaken by women. Through designing the complexity in military systems away from both the user and first line maintainer less able people, who are by implication more plentiful, can be recruited.

Assuming real reliability improvements can be achieved, the operational flexibility lost in the transfer of deeper maintenance and repair to specialist support organisation in rear or home-base areas must be accepted as economic necessity. It makes the most efficient use of the technical resources available and faces the unavoidable fact that technical manpower will be even harder to recruit and retain than other categories.

In addition to the cost penalty, increased reliance on technological solutions brings with it human problems that must be anticipated and reacted to. Organisational changes will inevitably occur to reflect the increased need for scheduled, centralised maintenance. And perceptions of ideal leadership and command styles may alter as technology offers the potential to stifle initiative through reliance on micro-management by senior commanders and politicians.

## JOURNEY TO AN UNKNOWN DESTINATION

The structure of the Armed Forces must continue to alter but manpower has now become the most important limiting factor.

As a significant initial financial outlay, technology could offset the effects of growing manpower shortages by both reducing demand and increasing the proportion of the population eligible for recruitment into the Services. However, the nature of the manpower model dictates that any policy involving people must be implemented in anticipation of the effect and not because of it.

The difficulties of modelling the future size of the Services must not be considered insurmountable. Even conservative attempts to predict an upper ceiling of the numbers that could be recruited and

retained in perhaps 20 years' time would indicate the enormity of the investment in new technology that should have taken place already or, at the very least, which is required now. Without this investment planners will be forced into manpower limited corners in the near future.

Projecting and publicising the scale of the potential problems had begun only recently in the United Kingdom. Once this is widely understood by both the military and the politicians the impetus to give more support to the investment in manpower-saving technology will increase.

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*Model of the new Collins class submarine being built for the RAN in South Australia. The "keel-laying" for the second of the class (to be named Famcomb) is scheduled for early 1991.*





*HMA Ships Sydney (foreground) Success (centre) and Tobruk at Exercise RIMPAC 90*



# MINEWARFARE AND COUNTERMEASURES

by

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*CDRE Roach is Director General of Force Development Sea at HQADFCanberra. This is the text of a paper presented by CDRE Roach to the sixth International Conference on the Security of Sea Lanes of Communication, Melbourne, October 1988.*

## INTRODUCTION

Distinguished guests, Ladies and Gentlemen. I am honoured to have been invited to address you today. It is an opportunity not only for me to share with you my view of minewarfare and its part in SLOC [Sea Lanes of Communication] security, but for me to learn something from you of your own professional concern.

As some of you may be aware, both mine countermeasures and mining are enjoying a resurgence in Australia. Great importance is attached to these aspects of naval warfare by the Australian Government. Indeed, some one-half billion dollars has been allocated to the various MCM [Mine Countermeasures] projects already in hand to provide the RAN with a credible MCM force.

During the next 20 minutes I will discuss mining and mine countermeasures in strait control from the Australian perspective. Firstly I wish to emphasise the importance of the shipping straits that link Australia with its trading partners to the economy of Australia and also to our trading allies.

## TRADE

Australia is a trading Nation. We have a small, consumer-oriented economy which relies upon imports to contribute to our standard of living. In order to pay for the goods we import and to finance government programs, we must offset the cost of imports by exporting.

Federal Government policy is to encourage the development of our export markets. In dollar terms Australia exported goods to the value of \$3200 million in the 12 months to June 1986. In tonnage that amounted to 244 million tonnes, making Australia the third worldwide volume exporter behind the USA and Saudi Arabia. Import values were \$3400 million, being some 20 million tonnes.

The majority of trade, some 96%, was carried in foreign ships. Incidentally, less than half of one percent of trade tonnage was carried as airfreight.

There are a number of important considerations when analysing these facts.

Firstly, it will be important to continue to use foreign ships for the carriage of export and import commodities. Our merchant fleet is too small to carry the volume required by Australia.

The assumption that national shipping would enjoy some protection from belligerents has been compounded by recent events in the Persian Gulf where both Iran and Iraq appear to be indiscriminate in their attacks on national shipping.

Finally, Australia is reliant upon maritime trade and its imports and exports are predominantly carried by foreign flag vessels. Australia's major trading partners are Japan, the United States, New Zealand, the United Kingdom and Singapore and [these] were the top five destinations for exports for the year ending June 1986. All countries also figure prominently in Australian imports. Obviously Australia's geographic position necessitates shipping transiting the archipelagic straits to her north as well as the Pacific Island straits as a means of following the most direct route to their destination.

## NAVAL CONTROL OF SHIPPING

In times of tension Australia needs to keep trading and of course this means we have to protect and control shipping servicing the Australian coastline. The mining or even the threat of mining a strait or two, particularly those to Australia's immediate north, could have severe economic results. Mining of these straits would not necessarily reduce trade but would increase transport costs because shipping would have to transit longer, safer routes. This leads to naval control and protection of shipping.

Australia is a member of an alliance which practices naval control of shipping. Naval control of shipping is sometimes thought of as a convoy mentality. Basically what is conjured up is that any large group of ships sailing around together are 'sitting ducks'. This is a misconception and shows a lack of understanding of one of the cheapest yet most effective procedures in maritime protection. We have all heard the arguments for and against naval control of shipping so I'll not elaborate any further. Naval control can provide protection to shipping simply by routing convoys around a likely danger such as a declared minefield. Another form of protection is the escorting of convoys by warships to ward off any would-be aggressor. We are seeing both of these



tactics employed in the Persian Gulf right now [October 1988].

## MINING

The sea mine possesses a number of unique qualities which are significant in any consideration of how they might be used strategically. Mines are versatile: Not only can they do direct damage to military and logistic units but they can also attack broad facets of the enemy's economy. Because ships typically carry a large bulk of goods they are much more vulnerable to attack than other modes of transport. Mines can destroy and disrupt the enemy's merchant marine. They can increase the damage inflicted by other weapon systems by channelling traffic into positions favourable for attack. They can be used to close ports, disrupt storage and force the diversion of traffic to decrease or even stop cargo flow. They have deterrent effects which weigh heavily in their political and psychological importance.

Mines are waiting weapons. The target must come to the mine. While this might at first be thought a disadvantage it actually has a number of positive attributes. The mine can maintain vigilance over a long time without continued commitment of forces. The initiative or aggression must come from the enemy. A direct face to face confrontation between belligerents can also be avoided.

Mines are usually invisible weapons. If they are laid covertly they can inflict maximum damage because of surprise. If they are announced the psychological impact is maximised because of the size and unknown nature of the threat.

Mines can be selective weapons. Few other weapons can be made to select a specific size or class of target or be as selective in depth or range.

Mines are ideally suited to providing graduated responses in intensity, area and time of attack. The minimum response required to attain a military goal can be chosen. The advantage of a potential aggressor offensively mining a strait are numerous and apart from the actual sinking of ships there are other objectives which can be obtained:

- Forcing the enemy to expend men and material on repairing damaged ships;
- forcing the enemy to engage in mine countermeasures consumes men and resources at enormous cost in comparison to the cost of mines;
- delays to shipping and disruptions of cargo handling at ports or both ends of a supply line are also valuable secondary effects of mining even if no ship is sunk, and

- demoralisation of both ship and shore support crews is also a valuable by-product.

The effect of the seamine on any form of shipping, military or merchant, can be horrendous. During World War II the seamine accounted for more shipping tonnage than any other form of naval warfare.

As I have tried to portray to you, the mine is an effective weapon when used offensively or defensively. I have described its offensive virtues. A mine's defensive attributes have also been realised by the Australian Government and the Australian Defence Force because, in 1981, we obtained a limited defensive mining capability. This acquisition was important given the dependence of Australia's economy on seaborne trade.

Australia has a vast area of mineable waters. The tyranny of distance is on our side so it is probable that any potential aggressor, with the exception of the superpowers, could only lay a few mines offensively. To this end we would need to protect our own straits by defensive mining. As I mentioned earlier, a defensive minefield can be used to funnel friendly shipping through a channel or strait that the owner controls. As an enemy is not privy to the mines' positions in this defensive field he is not likely to transit that area unless he is willing to do so at the risk of losing a ship or ships. No naval or merchant commander would transit a declared mined area unless it had been sanitised by MCM vessels previously and any MCM effort necessary to sanitise an area would be unlikely while we still had military control of that area. It is in this scenario that Australia would use its mines to control shipping straits, that is deny any potential enemy the use of the waterways.

Should we lose control of the strait we would wish to deny the enemy the ability to use it at his own will. To this end it is likely that the Australian Defence Force with its strike assets, such as the F-111, would deny the enemy the use of the strait by conducting an offensive minelay.

## MINE COUNTERMEASURES

The RAN concept for operations recognises that an opponent could use mines to disrupt Australia's coastal shipping. The areas of greatest risk to mining are north and north-west, particularly in the constricted and shallow waters such as the straits and shipping routes to and from most of our ports. Serious disruption could be achieved in the constricted waters to the south and south-east of the continent.

Our strategic guidance emphasises the need for a military capability to control the sea and air approaches to Australia and to defend the mainland. The geographic and strategic factors suggest that any initial



threat to Australia would be maritime and air in nature. In the present benign regional strategic circumstances government policy emphasises the need to contribute to the maintenance of regional stability. Strategic guidance seeks to ensure that Australia's geography is exploited to allow a defence posture which can control, where necessary, the approaches to Australia and ultimately defend the continent. The broad strategy calls for a range of versatile and flexible forces as well as a credible expansion base which can, given a change in strategic circumstances, provide the basis from which to expand to conduct conventional warfare at higher levels of conflict.

Australia has embarked on a program to build a credible MCM capability. The program is developed along the lines called for by strategic guidance in that the force to be developed will necessarily be small but will have the capacity for rapid expansion. I will discuss the force composition shortly, however, let me first describe our concept for the use of this force in strait control.

In any environment where we maintain sea and air control the movement and tasking of MCM units is unrestricted, therefore a group of these units could be assigned to the area commander for reconnaissance purposes, thereby ensuring that straits and port approaches have not been covertly mined.

Further, the presence alone of MCM assets would make a miner think twice about how he would mine an area. It also makes his problem more difficult as he would need to incorporate anti-sweep devices such as high ship counts to partially offset the effects of MCM. He may wish to sow his field with anti-MCM vessel mines or sweep obstructors which replace an actual mine in the field and reduce the effectiveness of the minefield against target ships.

Therefore an MCM force-in-being can act as a deterrent, particularly during low level conflict where a mine or mines could be laid for political leverage. The mining or declared mining of a strait through which shipping must transit is an effective means of achieving political leverage on any maritime nation such as Australia or her neighbouring allies.

In areas where we do not have sea and air superiority the effectiveness of MCM would be very much reduced. We assume the enemy would target our MCM vessels, as we would his, thereby rendering any MCM effort less effective. This is not to say that MCM effort could not be conducted in a hostile environment. It could but only if suitable combatants were assigned for protection. If this occurs the minefield has achieved some of its aim by causing us to redirect some of our combatants from other priority tasks.

## COMMAND AND CONTROL

How then do we effect command and control over our assets when in Australian waters or those straits belonging to friendly or allied countries in our region?

Firstly, in more substantial levels of conflict the naval control and protection of shipping organisation would be set in place. However, during periods of low or escalated low levels of conflict, command and control of our MCM vessels in Australia waters would be instigated in accordance with the Australian C2 arrangements in force at the time.

Command and control of MCM assets in straits other than Australian waters, such as those in the Indonesian archipelago, would be on a joint co-operative and consultative basis with Indonesia. Operational command of the actual assets would remain with the RAN while control of those assets would be under the auspices of the joint HQ.

## MCM PROGRAM

As I stated previously, the RAN has embarked upon a MCM ship and capability program. The program is divided into three projects, namely, the Minehunter Project, a Minesweeping Project and a Mine Warfare Systems Centre Project.

The Minehunter Inshore Project intends that the RAN acquire at least six minehunter inshore or MHIs as they are commonly known. These minehunters are Australian designed and built using glass reinforced plastic. They are 32 metres in length, 9.8 metres in beam and have a 2 metre draught. As the name implies these vessels have been designed primarily for inshore work.

Australia has a large area of mineable waters and it is in these waters that these vessels will be employed. The mine neutralisation system is the PAP104 Mk3 of Mk5, a proven performer with European navies.

Unfortunately minehunting alone is not the answer to Australia's total mine countermeasures problem. A complementary minesweeping capability is required. Consequently the RAN's second MCM project intends to acquire both an influence and mechanical minesweeping capability. The basis of this project is the development of a core force of 10 suitable craft, probably fishing vessels which will tow Australian designed and developed influence minesweeping equipment.

For example, the Buoyant Vehicle Dyad [BVD] has been designed to replace the magnetic influence minesweeping equipment seen on MCMVs throughout the world. Several when towed in tandem can simulate the magnetic signature of large merchant ships. A number of the smaller BVDs will emulate the magnetic signature of a destroyer. When the BVDs are combined



with an acoustic noisemaker the sweep will emulate the magnetic and acoustic signatures of a potential target ship.

The concept of a core force will allow training to be conducted during peacetime and allow for rapid expansion in times of tension. Essential to both the preceding capabilities is the development of an acoustic precursor capability so that an area or strait can be swept against the anti-MCMV mine prior to actual MCM operations by those vessels. To this end the RAN is currently exploring the possibility of using marinised helicopters, such as the Sea King, to tow an acoustic noisemaker. Alternately an unmanned, remote controlled precursor drone boat concept is being explored as well.

Given that trials of the two prototype MHIs are successful and the mine-sweeping capability project proceeds as scheduled, Australia's MCM force from the 1990s will be a minimum of six MHIs, ten craft of opportunity, a yet to be determined number of precursor elements and two clearance diving detachments. This force will be subdivided into two groups with one group stationed on the east and west coasts of Australia.

This will reduce the time required for the MCM force to respond to a mining threat which is particularly important given Australia's vast coastline. MCM vessels will be supported by land based forward support units.

In order to control the MCM force the RAN is planning to build a mine warfare system centre in Sydney. This will be the centre of minewarfare specialist knowledge

in the RAN and will provide command and control, maintenance, software support, mission planning, analysis activities and training facilities for the force. It will commence operation in 1993 and will have a staff of about 60 personnel.

## CONCLUSIONS

In conclusion, then, I have in the past 20 minutes provided you with an overview of the importance of shipping to the Australian economy. I have highlighted the importance of the trade routes servicing Australia and shown which straits are particularly important to Australia as a maritime nation. I have endeavoured to provide you with a precis of the RAN's minewarfare concept of operations in strait control and emphasised the advantage of mining in strait control. Last but not least I discussed what MCM projects are currently in train to provide the RAN with a credible MCM force-in-being, one that is able to counter the mining threat in all levels of conflict through the core force or expansion force concepts.

As a final remark I would like to add that any potential aggressor against Australia who wishes to mine a shipping strait as a political leverage against Australia would also face retribution in some form from Australia's trading partners. Not only will Australia be economically weakened by hindrance of imports and exports, but so will those countries which rely upon our exports and imports to sustain their economy.

Thank you for your attention.





# A CRITIQUE OF ROSS BABBAGE'S BOOK "A COAST TOO LONG"

by

Lieutenant Tom Frame

The distinguished British strategist and writer Michael Howard said during a visit to this country in the early 1970s that Australia's biggest defence problem was that it did not have a defence problem. The same could be said of the 1980s and even the decade ahead. With a distinct lack of threats from potential adversaries and little prospect of that changing over the next decade, the question of Australian defence has reached something of a hiatus: against who or what is Australia spending \$A7 billion annually to defend? Ross Babbage's cutely titled *A Coast too Long* tries to answer those questions.

I say the title is cute because the cover features a panoramic aerial photograph of a remote Australian coastline, making you think he is going to argue that the task of defending Australia is beyond the nation's capabilities, whereas the coast, he describes in the text is the type that usually denotes idleness or indolence, ie., to coast along.

Babbage opens his second call for a new approach to Australian defence (his first was *Rethinking Australia's Defence* published in 1980) by describing the grand strategy of forward defence, remnants of which he suggests persist today.

The effects of forward defence and the continental approach to Australian security which flowed from it were profound and lasting. The security outlook fostered by forward defence was so broad and the range of threats so multifarious that Australian force structure was often imprecise and vague in the roles it was designed to perform in any level of conflict.

Australia's response was to attempt to maintain marginal capability across a range of operations based on highly nebulous international diplomatic and security concerns. Reminiscent of Moses' experience on Mount Sinai with the Ten Commandments, all of this apparently changed with the 1987 White Paper with its emphasis on the direct defence of Australia. Some problems did, however, persist. Although not mentioned by Babbage, one was the dormant continentalism evident in the emphasis on northern Australia in the late 1980s. The shift from forward defence to direct defence also produced, Babbage argues, 'a greatly strengthened requirement for quality national command and control and intelligence' (p. 6). But this appears to

be more the case of what happened rather than what was needed as it has never really been proved that joint operations, including those with our international friends and allies were so beset by 'co-ordination' problems that such a preoccupation with this area is really warranted. This is something Babbage comes back to later.

The first half of the book is taken up with analysing and assessing threats to Australia with an unmistakable emphasis on achieving the most defence — rather than settling on the least we can safely get away with. Babbage spends a lot of effort covering contingencies that are either remote, very remote or nearly beyond imagination. For all of that, there are no surprises. For instance, it is most unlikely that mainland Australia would be attacked or raided yet he fully explains the many ways in which it could be both executed and repelled. I also felt he overestimated the ease of undertaking these enemy operations while the difficulty of defending he understates by the same margin. And although he concedes that there is no perceivable threat to Australia as we approach the next millennium, he is quick to reply: 'Nevertheless, were political motivations to change markedly...' before presenting another series of 'what ifs'.

It is fair to ask why these motivations should change and change markedly at that, and why they necessarily pose a threat to Australian security? They have failed to do so in the past and this must be at least some guide to the future. It is an effort to make the most rather than the least of things.

In terms of maritime defence, Babbage is not as clear or as specific as he is when talking about matters relating to land-based defence. While he talks openly about how many divisions or battalions are required for this activity or that activity, he does not examine the need for an escorting or covering naval force or the numbers or types of ships required. He challenges the statement that Australia is heavily dependent upon trade, attributing the argument to Rear Admiral G.R. Griffiths although most RAN officers would argue for its validity, without citing any solid evidence to prove his assertion. In fact, the statement and the rebuttal are dealt with in just one paragraph (p. 59). He mentions in passing the interception of seaborne trade but does not treat the problem of a reduction in the



security of sea lines requiring an increased presence of support or convoying forces before moving on to consider medium level contingencies although I am not convinced, by Babbage's views at least, that these actually exist.

The next part of the book looks at approaches to defence. After surveying a range of old and largely irrelevant arguments and theories on defence, Babbage is critical of defensive, or peaceful and non-violent, forms of defence and singles out his former colleagues at the Peace Research Centre at the Australian National University for particular criticism. After listing a number of objections to the theories this group has raised, some of them valid, he concludes that approaches promoted by these scholars would not meet with popular support because 'Australians have long been sensitive to issues of defence and fundamental security and are unlikely to endorse unproven approaches, however imaginative they might appear. (p. 59). This seems more like advice to politicians than anything else. It also seems at variance with his lament later in the book that 'A better informed public is essential to overcome the xenophobia of the past, to generate more considered public responses to international crises, to encourage consistent and sustainable levels of defence investment and to build confidence in the country's ability to defend itself' (p. 223). To use the argument that Australians are simply unimaginative in writing off defensive or non-offensive approaches to defence is unfair.

The critique of the 1987 Defence White Paper is short and mild. While he remarks that he is not quite sure of what 'defence in depth' really means, a view he is not alone in holding, Babbage says it is flawed anyway. He then proceeds to construct an argument for his view of Australia's security needs and some appropriate responses.

He makes the bold declaration that 'the direction of Australia's current operational strategy needs to be changed fundamentally' (p. 119) but very little of what he subsequently proposes seems to constitute a fundamentally altered strategy. The key, the alternate strategy, is something he calls 'persuasive strategy' (p. 120). What is 'persuasive strategy'? 'Figuratively speaking, Australia needs more than a shield to defeat an opponent firing arrows. Australia also needs at least superior bow and range of arrows and possibly a spear or two as well' (p. 119).

There are, he points out, some preconditions for its adoption on Russell Hill? 'First, the mental approach of Australia's strategic planners needs to alter markedly. At the operational level, they need to be imbued with a rather subtle non-provocative defensive spirit. There must be a recognition

that it is just enough to avoid defeat; Australia must plan to win'. And there follows a warning: 'Particularly in low level contingencies, failure to force an early victory or compromise will lead almost inevitably to defeat'. If this were to be adopted, Australia's strategy would be designed from scratch, not only to deny the opponent access to Australia but to prevail on him to desist quickly on favourable terms. (p. 122).

To my mind, Babbage's persuasion strategy seems to be just another way of talking about deterrence or even the 'disproportionate response' outlined by Ball and Langtry, where the aim is to highlight the 'cost to an opponent in overcoming such selectively developed defences [those providing the capacity for a disproportionate response] and the lengthy time this would take'. The words used by Babbage and Ball and Langtry might not be the same but the practical methods and outcome appear to be very similar.

The next seventy pages (125-192) of Babbage's book deal with handling a range of contingencies. There is little balance in the space devoted to each. Fifteen pages is devoted to Papua New Guinea in a book of only 160 pages of text. This is too much and suggests an importance to Australia that PNG does not have. There is little new or startling in the treatment of the areas he considers. By way of example, Babbage recites the cliché, 'Australia needs to be patient and sensitive in dealing with emerging Southwest Pacific nations'.

Yes, we should be patient and sensitive but how exactly do we do that in the face of erratic and irrational behaviour on the part of the microstates who need to be resisted when they act without discipline and in opposition to the interests of the whole region. Perhaps the question has more to do with how Australia is to exert its hard-earned prerogative of leadership than fears of offending through any apparent paternalism.

Babbage concludes his discussion by proposing a three-tiered approach to offshore contingencies which looks very similar to the defence in depth concept outlined in the Defence White Paper. Certainly, he does not outline anything that embodies a fundamentally new approach to Australian defence, something he says is a matter of urgency but does not say why. In the same way he fails to convince the reader of his statement that in the future there will be higher levels of uncertainty and that Australia needs more defence capability rather than less. If things are as uncertain as Babbage implies, the nature of potential threats must be just as uncertain and so the same old problem remains: what do we plan for? Multi-purpose weapons platforms can



reduce part of the problem, the rest would seem at best to be speculation.

The last chapter of the book contains the author's 'sketch' of what Australia's fundamentally changed defence might look like. Again there is nothing really surprising. He does not advocate the abolition of any of the Services or the creation of a marine corps or coast guard. The Navy still has its ships, the Army its rifles and the Air Force its planes. But there are three crucial areas of civil-military co-operation that need to be urgently examined (pp. 204-6). The first is defence use of civilian facilities during a conflict. The second is a suggestion that Defence should concentrate on skill areas not found in the civil community. And the third, which he says is far more important, is the need for better and larger governmental co-ordination machinery, especially a high-level policy development and co-ordination staff in the Department of Prime Minister and Cabinet to serve and support a National Security Council of sorts. He attributes priority to this area on the grounds that long-term planning problems have highlighted such a need. But should we accept the charge (p. 207), now a cliché as well, that Defence Department decisionmaking is scandalously deficient? It is fair to ask, although Babbage chooses not to, what role politicians share in adding to the uncertainty that would seem to be unavoidable in defence planning?

The other major problem defence currently faces in attempting to change direction is the commitment that has already been made to future capital acquisitions and the force structures they will provide. Given that funds for major equipment acquisitions over the next ten years have already been committed with the Seahawk helicopter, the Anzac ships, the Type 471 submarines and FFGs 05 and 06, there is precious little room to manoeuvre and certainly nothing like the space or the freedom that Defence would require if it were to take a lead from Babbage. In other words, there is not that much that can change if change is not to include major capability reductions and force structure deletions.

The final few pages (211-221) are taken up with a long list of proposals for making more use of the Reserves as a way of reducing financial outlays on personnel. Concerning the Navy, he says 'There may, for instance, be utility in exploring the possibility of Ready Reservists providing most of the crew members for a Fleet Tanker, destroyer tender, most of the amphibious vessels and even a small proportion of the frigate force'. This sort of suggestion makes me shudder. It sounds, as it always does, much easier than it really is while offering no guarantee of an acceptable level of operational readiness at a time or within a time frame that would make

the proposal viable. In this instance I would link arms with those Australians who Babbage says 'are unlikely to endorse unproven approaches, however imaginative they might appear'. Further still, I do not believe the idea warrants naval staff attention; the Permanent Navy is fully occupied operating these ships and the task would seem to be beyond our Reserve Force and our ability to train and maintain such a Reserve Force. Mr Wrigley would evidently not agree.

A general point should be made here. There are many people who now make their living out of analysing and assessing threats and debating the most appropriate force structures. If threats cannot be found or adequately justified, there must a temptation to either overstate unlikely threats or even to invent them. I am not suggesting that Babbage has done this because he clearly hasn't. However, he is not sufficiently severe in rejecting many unlikely threats to Australia that do not warrant serious consideration.

There is never a shortage of ideas on defending Australia because, when it comes to identify threats, there is an endless number of possibilities and very few probabilities. There is, however, a shortage of staff hours on Russell Hill and they should not be spent in endless consideration of unlikely threats or creative suggestions that do not have a reasonable chance of achieving a specified objective.

This leads me to ask who this book was written for? This is not clear. Noting the heavy use of jargon, it could be for a specialist readership or at least one familiar with contemporary defence affairs. In other places, the appearance is for a more general audience with the inclusion of a lot of background information and description. As it occasionally leans towards a pleading style and tone, I suspect it was also written for the SES in the Department of Defence or senior ADF officers in an effort to have them change their minds and amend their ways. But as Babbage's solutions largely entail bureaucracy and even more bureaucracy, a trend being resisted at the moment, it is unlikely his book will have much of an impact on that resilient and inertial group. The book is also likely to fall on deaf political ears. The new Minister for Defence has probably disappointed Babbage with remarks like those published in *The Bulletin* on 21 July 1990. Senator Ray said that he would not issue a new defence policy statement as his 'predecessor laid down the basis that I want to follow...I don't see any revolutionary changes'.

This book is not long at 231 pages includes endnotes, 20 pages of maps and a series of schematic diagrams (pages 110, 116-7) that add little to the narrative. It is dry and unlikely to attract many people to the



'defence debate' if such a thing exists. Babbage would be more interesting and convincing if he wrote in plainer English. I accept that jargon is a form of professional shorthand, but Babbage relies too much upon it. This reminds me of a recent article in the *Australian* in which the American social critic Russell Jacoby was quoted as saying that when 'intellectuals became academics, they had no need to write in public prose; they did not and finally they could not'. My point is only that if Babbage wants more people to be interested in their country's defence and security, a complex area of

government activity at any time, any writing on the subject must be in this 'public prose'.

In spite of its claims, this is not a pioneering or imaginative book. I do not believe such a book can be written of Australian defence in the 1990s. Having said that, *A Coast Too Long* is a contribution to the discussion of defence in Australia and will be quoted in years to come as being representative of what debate there was in the 1990s.

*A Coast Too Long*, by Ross Babbage, published in Sydney by Allen and Unwin in paperback. 224pp, 3 diagrams, 20 maps; RRP \$18.95



*Gunnery practice 50 calibre machine gun, HMAS Sydney, Fleet Concentration*



# THE LIKELIHOOD AND IMPLICATIONS OF A SUBMARINE CAMPAIGN AGAINST AUSTRALIA IN LOW LEVEL CONTINGENCIES

by

LCDR D M Stevens

## ABSTRACT

This article covers the likelihood and implications of a threat from submarines to Australia in credible contingencies. The Dibb Review and DOA 87 provide very little detail on this threat yet submarines would provide one of the most useful and flexible elements of an opponents military force. The threat from submarines is not limited to direct attacks on shipping. The indirect effects on the Australian economy, military response and even political options are all serious and worthy of detailed consideration.

## INTRODUCTION

It is generally agreed that Australia is currently unlikely to become involved in any major military conflict that would directly threaten the country. However, as many commentators have pointed out there are 'less unlikely' lower-level contingencies that could eventuate at short notice.<sup>1</sup> There has been a good deal of argument over the credibility of these contingencies and the form they may take. This article takes one possible option and examines the likelihood and implications of a submarine campaign against Australia in low and escalated low-level contingencies.

## THE CREDIBILITY OF THE THREAT

It is usually unrealistic to produce specific threat scenarios, however, the feasibility that Australia could become involved in some form of dispute with a regional power possessing a submarine fleet must be taken into account in Australian defence planning. Though currently unlikely, in the longer term a dispute involving Australia and another regional power could credibly arise over issues ranging from resources allocation to fishing rights or simply poorly handled diplomacy.

Regional nations are fully aware of the flexibility of maritime forces and several have been actively examining the acquisition of a small number of submarines. Former Defence Minister Kim Beazley is reported to have said that: *...regional powers... by the turn of the century may have developed a naval capability which could pose a serious threat - particularly in the submarine area - to both Australia and New Zealand.*<sup>2</sup>

## THE AIMS OF AN ADVERSARY

The aims of an adversary in the lowest levels of conflict are unlikely to involve purely military goals even though regular military forces may be used. *The Defence of Australia 1987* (DOA 87) discusses the possibility of an adversary using its military forces to demonstrate Australia's military and economic vulnerability and thereby force political concessions over a disputed issue.<sup>3</sup> The submarine, as will be discussed, would prove ideally suited to these types of contingency forcing Australia into expenditure far in excess of that ranged against us.

## THE ROLE OF THE SUBMARINE

The role of submarines in lower level conflicts has received very little study in Australia. DOA 87 for example, dismissed the threat from submarines as low and did not elaborate in any great detail on the implications of such a threat.<sup>4</sup> The Dibb Review of Australian Defence capabilities, in many ways the precursor to DOA 87, was also limited in its consideration of a submarine threat. However, Dibb did at least provide a more thorough examination of credible low-level conflicts. In particular Dibb noted that the scope for inserting raids on Australian territory was limited, due to distance, inhospitable terrain and a hostile population. A maritime challenge however, could be less confrontational, as well as presenting formidable surveillance and operational response problems for Australia.<sup>5</sup> Dibb while concluding that the regional submarine capability was limited, stated that: *Unless capable defensive systems were provided, shipping losses to modern, quiet, diesel-electric submarines could be considerable.*<sup>6</sup>

A particular advantage of maritime forces is that they are inherently mobile and flexible. Submarines have the added bonus of providing stealth and the threat of presence. Submarines are designed to carry out unsupported operations for long periods. As they are extremely difficult to detect and track, submarines may force countermeasures far outweighing the size of the potential threat. Additionally, and



unlike surface forces, submarines are deniable and can withdraw with no loss of face or territory infringed if events de-escalate. Submarines are also the only credible way a regional adversary could militarily threaten Australian assets in areas other than the north.<sup>7</sup>

The most likely threat to Australia would come from the quiet conventional submarine. A modern diesel submarine is extremely stealthy; passive ASW (anti-submarine warfare) detection systems, for example, are only effective during the limited periods while a submarine is recharging its batteries, while active ASW systems, which do not rely on a submarine's radiated noise, are very limited in range. Conventional submarine capabilities including endurance and quietening are subject to continual improvement. With the changing situation in Europe, surplus equipment, including modern submarines will almost certainly find its way into our region.<sup>8</sup>

Though the number of submarines in our region is currently small this does not mean that the impact of even one submarine could be ignored. In the recent example of the Falklands conflict a single Argentine Type 209 submarine was able to twice attack British units and escape. It is important to note that even though the attacks were unsuccessful the submarine had *...attacked modern warships of a first world navy that specializes in ASW and successfully evaded counterattacks* this despite having gotten *...underway with a newly assembled, inexperienced crew and...plagued by computer problems.*<sup>9</sup> The Royal Navy was forced to expend time and assets in tracking this one submarine which hindered other tasks from being achieved. The submarine was successful without damaging a single ship because it was a threat that could not be ignored..

#### THE SUBMARINE CAMPAIGN

In considering a submarine campaign against Australia it is necessary to look at the likely ways in which a submarine might be employed. Unfortunately for Australian defence planning there is a huge scope for a potential adversary to conduct both proclaimed and disavowable operations both singly or in combination. The direct and indirect effects of these operations could cause severe disruption to the Australian economy and Australian military responses.

#### The Threat To Shipping

Even in the event of global war the submarine is unlikely to be used for a full scale economic blockade of Australian overseas trade. To begin with, Australia has a huge coastline and a wide range of alternative routes available for approach. Additionally submarine fleets, other than in

the superpowers, are small and even the most advanced submarine can still only be in one place at a time. Each target will also entail the expenditure of at least one torpedo, or even more, noting the size of today's merchant ships. With a torpedo load of only some 20 weapons a submarine could not hope to prevent foreign trade by sinkings alone.

The interception of shipping on the open ocean would also require sophisticated surveillance assets and is an unlikely tactic for a small force of conventional submarines constrained by speed. Thus the most likely shipping threat in times of conflict will be a smaller scale campaign against coastal traffic or overseas shipping entering or leaving local areas. Such a campaign could begin with harassment, caused merely by the threat of a submarine presence and escalate to actual attacks as events dictated.

Dibb and DOA 87 argued that an adversary would feel less constraint in attacking Australian owned rather than international shipping but this runs counter to recent international experience in the Iran-Iraq war.<sup>10</sup> In the Gulf conflict merchant ships of all nationalities came under threat. A submarine wishing to lessen his chances of counter-detection is more likely to attack any target of opportunity rather than risk delay in making identification by flag.

Ownership or international shipping to Australia is varied, but some 40 per cent is split evenly between Japan and flags of convenience countries.<sup>11</sup> No other single country provides more than five per cent of the total. The USA which is often used as an example of a country that would not allow interdiction of its shipping owns less than 0.2 per cent of vessels actually calling in Australia.<sup>12</sup> Thus in low-level conflicts involving Australia the USA will probably not regard its own economic interests as being severely threatened.

As noted in DOA 87 coastal shipping and port facilities are vulnerable at all levels of conflict and are therefore very credible targets.<sup>13</sup> There are only some 90 vessels engaged in coastal trade around Australia, ranging from 140,000 dwt bulk carriers to 300 dwt barges.<sup>14</sup> Coastal shipping however, plays an essential and indispensable role in the transportation of strategically important commodities.<sup>15</sup> Even small scale disruption of coastal traffic would severely affect manufacturing industry, imbalance the transport network, and cause widespread hardship and inconvenience. Disruption may also pose a real threat to the existence of some isolated communities dependent upon sea transport for their continued viability.<sup>16</sup>



### **The Mine Threat**

One of the more likely submarine weapons is the mine. Mining operations pose a particular threat and the submarine itself has been described as an intelligent mine.<sup>17</sup> The approaches to ports are often narrow and though a single submarine could only carry a small number of mines even one mine could stop all shipping until it is swept. Australia with its grossly inadequate mine countermeasure capabilities would be hard pressed to respond to actual or simply declared minefields and would need to make hard decisions on which ports to allocate protection. Merely the perception of a threat could be enough to deter some shipping companies from using a particular port. The closure of a Pilbara iron ore port for as little as three months has been calculated to cost as much as \$500M in immediate losses with knock on effects throughout industry.<sup>18</sup>

Mines could also be used to disrupt the use of straits. The Torres strait for example, experiences strong tidal streams that would make controlling mine countermeasure vessels extremely difficult.<sup>19</sup> Strategic materials such as fuel and ammunition, may be delayed or prevented from reaching their destination. Such delays could pose severe restrictions on Australian options for a military response to a threat.

### **Small Scale Raids**

Submarines could also be used to land raiding parties or attack offshore assets. There is an increasing economic reliance within Australia on direct maritime resources which could conceivably be threatened. As W.Dovers points out, aircraft and surface ships could not credibly attack the Bass Strait oil platforms, however a submarine could carry out a covert approach and attack.<sup>20</sup> The concentration of targets offshore and their economic and strategic importance means that they are particularly vulnerable.

### **Surveillance**

One of the most likely roles of the submarine in the lead up to conflict is in the intelligence gathering and surveillance role. Used in this way the submarine is able to use its most valuable asset, stealth, to provide information difficult or impossible to obtain in any other way. The act of detection alone by Australian units is unlikely to deter the submarine from continuing its mission and to continue to track the vessel will entail considerable effort on the part of Australia.

### **Confusion**

Finally and perhaps most dangerously, a submarine could be used as a decoy to draw Australian forces away from another threat. Because countering a submarine ties up enormous resources it may prevent multi-

role assets such as the P3 Orion from carrying out other more general surveillance tasks and thus allow more chance for the prime raid to proceed undetected.

## **THE IMPLICATIONS OF A SUBMARINE CAMPAIGN**

### **Economic**

Turning now to the economic implications of a submarine campaign: first of all coastal shipping, which is conservatively estimated to be worth in excess of \$4.6 billion per annum to Australia.<sup>21</sup> In total, shipping transports over 90 per cent of Australia's trade in terms of volume and some 87 per cent in terms of value.<sup>22</sup> Whether a perceived or actual threat prevents passage by merchant ships will in large measure depend on the importance of the cargo. Thus in the Gulf War tankers continued to transit the conflict area and accepted the risk of damage and increased crew and insurance costs. However, ships carrying cargoes that were less important strategically or economically may be deterred under much less pressure and still cause severe inconvenience.

The commonly stated solution to a submarine threat is to evasively route ships or move cargoes by other means. Evasion is difficult for coastal traffic and would increase transport costs considerably. Evasion is also only of use if the position of the submarine is known. Finally, evasion ignores the need of ships to concentrate as they enter or leave a port in so called focal areas. One of the characteristics of modern merchant ships is their specialisation. Rather than the general cargo ships of previous times the trend to specialisation of ships and port handling facilities means that it might not even be possible for many ships to change their unloading destination.

The moving of cargoes by methods other than sea transport also faces problems. Over 90 per cent of coastal shipping consists of bulk ore and liquids. Road and rail transport even if it had the spare capacity could not cope with the distances and bulk of cargo except in very limited areas. Alternative modes of transport are also inherently more expensive, otherwise companies would already be using them. If attacks on shipping occurred during the wet season when many roads in the north become impassable, alternatives to sea transport would be still further limited.

Because of the economic necessity for companies to improve transport efficiency there is little slack to absorb losses, thus even a few ships lost in conflict would be significant. BHP for example, has stated that the loss of only one of the company's bulk carriers would severely restrict steel production in Australia.<sup>23</sup> Further, the delays caused by anti-submarine measures



have the potential to cause as much or greater damage than the threat itself. Thus the conveying of ships may reduce the overall effective carrying capacity, reducing shipping available even without the sinking of any vessels.<sup>24</sup>

The economic effects of a campaign of disruption are not limited to the direct effects. There will be a series of indirect flow-ons throughout the economy that are almost impossible to predict. Higher costs of materials and transport will be passed on to the consumer. Government subsidies to keep companies afloat will increase taxation. Loss of export earnings through inability to fill contracts will increase unemployment and the general contraction of the economy will lower living standards.

### Military

A submarine campaign will also have significant military implications. As discussed earlier it will inevitably lead to a disproportionate ADF response. In the period prior to conflict constant tracking of all of an opponent's submarines would be vital. If no detection is made an opponent may be able to credibly claim a presence even where none exists. If tracking is lost at any stage it would require even greater effort to regain the target as soon as possible. While lost the submarine could have completed its mission. Such detection and tracking is not easily accomplished in practice. Initial intelligence of submarine departure from bases and likely destinations may be lacking. The opponent will undoubtedly seek to prevent surveillance near sensitive areas by Australian aircraft. Without accurate cueing information ASW forces are hard pressed to localise a target.

Low intensity operations require careful rules of engagement (ROE). A submarine is difficult enough to detect and classify but to determine whether it is conducting surveillance or about to attack is virtually impossible. Thus ships engaged in search and tracking risk casually themselves before relaxations to the ROE enabling them to attack, occur. This problem may encourage early escalation by ASW forces and lay Australia open to charges of aggression. Conversely if the risk to a ship and crew is judged too high the Government may even be forced to deny itself the option of a naval show of force.

The ADF has severe limitations in the numbers of available ASW assets even when considering a limited submarine campaign. Additionally equipment currently held would be difficult to man continuously in a contingency. It has been reported for example that there are too few trained crews for the force of 20 P3 Orions, Australia's primary ASW aircraft. It is not enough to provide only one aircraft or ship for a task as many others are required to keep one

available continuously. ASW is asset intensive and will place severe constraints on the flexibility of maritime forces to conduct other missions.

In low-level contingencies the Australian aim will be to continue political and economic patterns as close to normal as possible, thus there will be a multiplicity of routes, cargoes and distances to be travelled. This creates further problems for escorting shipping; *The numbers of ships requiring actual support in lesser contingencies could well be greater than in more substantial levels of conflict due to the patterns of commercial and military activity.*<sup>25</sup>

The RAN and RAAF could not provide escort to any but a few of the most important cargoes. The ADF would also be spread wide attempting to to cover what seem the most likely current contingencies. The ADF will therefore probably only attempt to protect focal areas and harbours as a priority. If the conflict escalates priorities will become clearer but at the same time the threat will increase in scope and frequency. Though it may be possible to better control shipping in these higher contingencies, convoys as previously mentioned bring their own problems of organisation. With the high sustainable speeds of modern merchant ships it may prove more realistic to allow independent routing of fast ships while escorting only high value or particularly vulnerable ships.

Further indirect military implications may be felt by the interruption of the flow of strategic supplies. In many northern areas fuel, ammunition and heavy stores must come by sea. As previously discussed if supplies were intercepted or delayed it could reduce the capability of Australia to respond to the threat.

### Political

The political implications of a submarine campaign also cannot be ignored. From the adversary's point of view the covertness of a submarine threat may make it less likely that foreign interest in Australian affairs would be generated. Meanwhile in the early days of a crisis the Australian government may not wish to appear too aggressive to avoid antagonising either the adversary or international opinion. Australia may itself face international and internal condemnation if it appears too soon to apply countervailing military pressure.

Once harassment of shipping had actually begun and assuming diplomatic measures had been exhausted the options open to the Australian government would appear limited. Even attacks on insignificant Australian ports or ships would require some sort of military response if the government was not to be seen to be giving in to aggression. It would be political suicide for



an Australian government to appear passive and inert. Desiring to show firm leadership the government may be forced into allocating resources far outweighing the threat. Thus if the aim of the adversary is to exhaust or demonstrate Australia's inability to cope he may well prove successful.

It can be seen that at any level of threat to shipping the government would almost certainly be forced to be seen to be taking action. For a government to do nothing would be inviting domestic turmoil, particularly on the water front. Although Australia only owns a small amount of overseas shipping Australian ships with Australian crews carry over 98 percent of our coastal trade.<sup>26</sup> The experience of World War II was that maritime unions were quite willing to cause disruptions over a perceived lack of shipping protection even at times when the actual threat was low.<sup>27</sup>

### CONCLUSIONS

In conclusion though Australian strategic guidance does mention possible disruption to coastal shipping and port facilities it does not cover the specific threat from submarines in sufficient detail. Realistically though, the threat of a submarine campaign against Australia cannot be couched in terms reminiscent of an Antipodean Battle of the Atlantic. Even in the unlikely event of global conflict a traditional submarine campaign against Australian trade would require an enormous number of submarines and have limited chance of achieving a successful blockade.

More realistically, in lower level contingencies submarines have the advantage of being deniable and could be used in small numbers to assist in the attainment of much more limited aims. In operations for surveillance and harassment submarines would be able to effectively, use stealth to overextend and exhaust Australian forces. If events escalate submarines can effectively disrupt shipping and cause severe flow-on effects in the Australian economy. The intelligent use of submarines would provide an adversary with an extremely useful asset that could readily assist resolution of conflict on terms favourable to the opponent.

<sup>1</sup> For a detailed discussion of these 'less unlikely' contingencies see Babbage R "A Coast Too Long", Allen & Unwin, Sydney, 1990. p.43.

<sup>2</sup> Conversation with Prime Minister Lange of New Zealand reported in Cheeseman G (ed.) "The New Australian Militarism". Pluto Press, 1990, Leichhardt p. 42.

<sup>3</sup> D of D "The Defence of Australia 1987". AGPS, Canberra 1987. P. 24

<sup>4</sup> Ibid. p.38.

<sup>5</sup> Dibb P "Review of Australia's Defence Capabilities, AGPS, Canberra 1985. p. 57.

<sup>6</sup> Ibid. p. 7.

<sup>7</sup> Dibb saw the prime submarine threat as occurring in the south because of limitations to submarine operations caused by shallow northern waters. See Dibb p. 7 and p. 70.

<sup>8</sup> For an assessment of the Third World submarine threat see Rear Admiral J Fitzgerald "There Is A Sub Threat" in United States Naval Institute Proceedings, August 1990, p. 57.

<sup>9</sup> "Antisubmarine Warfare: Meeting the Challenge", produced by the Antisubmarine Warfare Division of the Office of the Chief of Naval Operations April 1990 p. 23.

<sup>10</sup> See DOA 87 p. 28 and Dibb p. 68.

<sup>11</sup> Dovers W "Controlling Civil Maritime Activities in a Defence Contingency" Canberra Papers on Strategy and Defence No.59, SDSC ANU, Canberra 1989. p.17

<sup>12</sup> Ibid. p. 18.

<sup>13</sup> DOA 87 p. 28.

<sup>14</sup> Dovers W Op cit. p. 14.

<sup>15</sup> Those listed by M Dunn include crude oil, petroleum products, iron ore, iron and steel, bauxite, alumina, aluminium, zinc, manganese, lead, gypsum, dolomite, cement and coal. "Coastal Shipping - Its Importance to the Economy", Directorate of Naval Force Development, Department of Defence, Canberra 1987.

<sup>16</sup> For a more detailed account of the dependence of some isolated communities on shipping see Orme N "The Role and Importance of Coastal Shipping - in Australia: A Defence Perspective", Directorate of Naval



17 For a more detailed account of the mining threat to Australia see Hinge A "The seamine as a 'First Strike' weapon against Australia - then and now", in Journal of the Australian Naval Institute, Vol 13 No 2. May 1987

18 Dunn M Op cit. p. 1-2.

19 For further details see Babbage R "The Strategic Significance of Torres Strait A Report for the Department of Defence" SDSC ANU, Canberra 1989.

20 Dovers W Op cit. p. 28.

21 Dunn M Op cit. p. 1-2

22 Orme N Op cit. p. iii.

23 Ibid. p. 40.

24 Convoys delay shipping by causing time spent awaiting sufficient shipping to convoy, time spent actually achieving the sailing formation and finally by requiring all vessels to travel at the slowest vessel's speed. Additionally vessels in convoy would be sailing darkened and silent and in close proximity to each other; the risk of collision is therefore significantly increased.

25 Orme N Op cit. p. 82.

26 Dovers W Op cit. p. 12.

27 For a detailed account of maritime union problems during WW II see the notes of G Gill official RAN historian in AWM 69 [23/16] .







*HMA Ships Brisbane (41) and Sydney (03) leaving Sydney for Gulf duties.*





*Admiral Sir Victor Smith in retirement: The portrait in the background shows Sir Victor at the pinnacle of his career.*



# THE FATHER OF THE RAN'S FLEET AIR ARM

by

Larry Noye

*This interview with Admiral Sir Victor Smith which first appeared in The Canberra Times on 24 September 1989 and is reprinted by permission of the author.*

Sir Victor Smith, who lives in mellow retirement in Canberra, can look back on an adventurous naval career, which culminated with his appointment as the first full Admiral in the RAN's history.

After World War II experiences in aircraft which ventured out over long and lone seas, he was behind moves to establish the Navy's air branch. His role over the years is such that he is familiarly known as "the Father of the Fleet Air Arm".

He was, in fact, aboard the British aircraft carrier *Ark Royal* when she went down in the Mediterranean during World War II. He also was shot down twice, surviving when he was plucked from the sea by Royal Navy ships.

Then, transferred to the Pacific theatre, he was on board *HMAS Canberra* when that Australian heavy cruiser suffered severe damage at the hands of a Japanese cruiser force and went down in the battle of Savo Island in the Solomons.

Today, Admiral Sir Victor Smith lives in quiet retirement in Fishburn St Red Hill with the former English WAF he wed in London during the war.

"VAT" Smith, as he is known, gets that name from his initials — Victor Alfred Trumper Smith. Victor Trumper, hero of the Australian cricket pitch around the turn of the century, was his uncle, brother of his mother, Una. Family pride was apparently behind the naming of this baby born two years before Trumper's death in 1915.

The lustre around Trumper's name can be seen in one history. *The concise Australian Reference Book* (1986) observes: *Some critics rate him the best batsman of all time, not because of runs scored, but because of the grace and technical mastery through which he succeeded, even on wickets uncovered and destroyed by rain.*

Victor Smith was brought up at Chatswood, Sydney. His country-bred father had settled there and worked in commercial life. In keeping with naval practice for future officers, he entered the Royal Australian Naval College in 1927 at only 14.

The college was at Jervis Bay, on the NSW coast, which was officially part of the

Australian Capital Territory, though removed from Canberra.

In the year he joined as a cadet midshipman, Parliament moved from Melbourne and began sittings in Canberra.

Aircraft were developing as part of the country's naval defence as he left the College and went through the lower stages of training as an officer. He wanted to be a pilot.

"But it wasn't possible", he recalls. The agreement between the Air Force and the Navy was that the RAAF provided the pilots and the Navy the observers. He became an observer in what were largely two-man aircraft.

I was told, in researching this article: "He was probably the first Australian naval officer to qualify as an observer in the fleet." It is in keeping with the modesty of Sir Victor Smith that he corrects that: "There were others before me."

Australian links with the "Mother Country" are never more evident than in naval matters. The RAN today contains many an Englishman and Scot, and the complexities of its naval engineering are largely British-based. The Royal Australian Navy was in fact formed under the wing of the Royal Navy. The long English seafaring tradition and greater financial power over an Australia of limited population sitting out in the lone Pacific was drawn from when Australia's own navy was founded in 1911.

Norman Friedman's newly-issued tome *British Carrier Aviation* traces British Naval enterprise. Reviewing the 384 page illustrated book in *Navy News* of 23 June 1989, Bob Nichols writes glowingly: *The [British] record for development of the concept of taking aircraft to sea and operating them from floating airfields [is] unequalled among the navies of the world and I am not omitting those of the United States, Japan and the Soviet Union.*

It makes one flex one's British muscles all the more for the author being an American.

He credits Britain with inventing the aircraft carrier before and during World War I. The far greater publicity of the US, with its activity in producing books and films involving carriers apparently tends to put the British effort in the shadows in the public mind.



For Admiral Smith's part, he, while respectful of old England, attributes the Americans, with their "fine production" as producing some big and sophisticated aircraft carriers. He also confirms that the invention of radar in Britain and production during World War II was "terribly important".

He himself had been posted to Britain and was serving there after World War II broke out in 1939. He was aboard HMS *Furious* which had been intended as a battle cruiser but was converted, along with HMS *Glorious*, into an aircraft carrier, when she sailed into the South Atlantic. She was on an unsuccessful quest for German raiders; those were dark days for the Allied cause after heavy British merchant shipping losses to German U-boats.

In 1940 he was transferred to 821 Squadron at Hatson in the Orkney Islands above Scotland. The main job was anti-submarine patrols in the North Sea.

But the big German warship *Scharnhorst* was an imposing threat to convoys venturing through icy Arctic waters north of Norway, a grim obstacle to delivering much-needed supplies to a Soviet Union fighting over a long front against the invading German army. British and some American ships – the US was not then in the war – were thus engaged in 1940.

Smith himself went on one chill, toggled-up voyage to the Soviet port of Murmansk. He was among the crews of six British Swordfish aircraft entrusted with carrying out a raid on the *Scharnhorst* off the Norwegian coast. The Swordfish was equipped to take three crew – pilot, observer and air gunner – and had torpedoes to strike at shipping. But the long voyage to Norway necessitated more fuel, and the air gunner's place was replaced by extra fuel tanks.

"The *Scharnhorst* was coming south and she had a screen of destroyers", he recalls. "We went in after flying in formation, splitting up to attack. We dropped our torpedoes but didn't get any hits. The tanks weren't sufficient to allow most of us to return to the Orkneys, so we put down in the Shetlands, north of the Orkneys."

All six crews lived for another day, but the hazards are boggling. The Swordfish, in those early days of World War II, was of fabric construction and a biplane, reminiscent of those that fought dogfights in the Great War 20 years earlier. Moreover, the Swordfish had a speed on straight level of only 90 knots – just over 160 km/h. *Scharnhorst* continued to wreak havoc on the convoys bound for Murmansk, but she was eventually sunk by vessels of the British fleet after she had slipped out of Alten Fjord on 26 December 1943 to strike another convoy.

For VAT Smith's part, he was living through experiences that would equip him for a post-war role of guiding his own

country's Fleet Air Arm into existence. He was aboard the aircraft carrier *Ark Royal* when she was part of H force based at Gibraltar, at the narrow entrance to the Mediterranean, during 1941.

"H Force was to escort convoys through to Malta, but one action saw her going into the Atlantic to join the hunt for the *Bismarck*", he recalls. "The *Bismarck* had sunk the British battle-cruiser *Hood*. I was aboard, with squadron 807, flying in Fulmar fighter aircraft.

"The weather proved too rough for the fighter squadrons to operate. However, the big battleship *Bismarck* was finally sunk when a torpedo from a Swordfish struck her rudder, allowing the British Navy to close in."

Smith was able to survive being shot down twice in 1941, when operating from *Ark Royal*. His simple report of the obvious high drama and danger involved is that: "In May and September we were doing operations in the Mediterranean when we were shot down by Italian aircraft. We ditched in the sea both times and were picked up by a destroyer without undue trouble. They were pretty smartly on the job."

With landing gear up, the aircraft had belly-landed on the sea. He and the pilot had inflated rubber dinghies both times and were bobbing about when retrieved from the sea.

But HMS *Ark Royal* was sunk a short distance inside the Mediterranean from Gibraltar in late 1941. Taking torpedo hits in the engine room. The carrier was high in the water, though sinking, when a destroyer came alongside taking off her personnel.

Weeks later war erupted in the Pacific after the Japanese launched a massive air attack on Pearl Harbor on 7 December. In the succeeding months the Japanese came down towards Australia through the islands and Smith's own country was under threat. He was posted to home waters. He was by then a lieutenant aged 28. He was posted to the cruiser USS *Chicago*, a posting of special interest.

Here was an intelligent and genial young Australian sailor, battle hardened by his perilous life in the European war theatre.

Here were Americans, whose kinship and aid the Australian Prime Minister John Curtin was actively pursuing. USS *Chicago* was a special embodiment of the American presence in the Pacific; she had been flagship for a fleet of some eight American naval vessels which had been despatched by President Roosevelt to show the US flag in the Pacific – warmly greeted by Australia in March 1941, before America entered the war.

*Chicago* was in fact to take part of the Battle of the Coral Sea in May 1942. The repelling of a Japanese force reportedly bound for Port Moresby is historically



regarded as removing the threat to Australia itself.

But the young Australian naval ambassador wasn't aboard *Chicago* when the two big navies met in the Coral Sea. He had by then been transferred to the heavy cruiser HMAS *Canberra*.

*Canberra* took part in the battle of Savo Island in the Solomons in August 1942, a far point in the extent of the Japanese advance and an area hailed by the Americans as their first major success in World War II in repelling the invading Japanese. Guadalcanal is a big name in US Marine history.

HMAS *Canberra* had had an aircraft perched on her superstructure and VAT Smith was among those who flew it. The aircraft revved up hard and made a throbbing ascent from the ship. Later she would put down on her floats close by and plane and crew would be hoisted aboard.

*Canberra* was disabled in the battle and had to be scuttled by an American ship. Eighty-four of her crew died in the battle. Victor Smith was among those rescued by a destroyer, on to which they "stepped across".

It was back to England again. A time of air raid sirens and bombings and noise and fire, but also of what the British call "pluck".

In London Smith, still single at 30, met an English girl. A refined and pleasant woman, Nanette Harrison had been invalided out of the Women's Royal Air Force after taking ill.

The Axis powers had held Europe for several years, including France just across the English Channel. A massive invasion force had been assembled in Britain. The country was agog as to where and when the "second front" would be launched - Operation Overlord.

It proved to be on the battle-scarred beaches of Normandy. The strong voice of the American Supreme Commander, General Eisenhower, was to deliver the news to the world by radio after the first landing on 6 June 1944.

VAT Smith, by then a Lieutenant Commander, was associated with Operation Neptune, the sea part. He was attached to the staff of a British Admiral, flag officer of the British assault area in Normandy, who went ashore and established headquarters four or five days after D-day. "The Army had moved inland and we found a suitable place ashore," he recalls. "My job was air planning, a sort of liaison between the RN and the RAF to make sure that everyone knew what ship happenings were going on, and the bombardments."

It was after returning to London that he met his English girl-friend again. Everlastingly grateful that he had come through it all, Nanette said "Yes, yes!" and they were married.

The gratitude that he had survived was in keeping with the lot of womenfolk of the men who manned the frontline all over the world. So was the fact that the newlyweds were parted after only a few days. The young officer was whisked back to an Australian posting, at least in the safety of Melbourne, but it was a full year before he returned to Britain and they were together again.

The blessing of peace in 1945 meant that they were able to live permanently together, that is, as permanently as being a serving naval officer allows. There were to be gaps in later years. VAT Smith, rising through the ranks, was on ships serving in both the Korean and Vietnam wars.

His English bride, still beside him today when he lives a quiet life in the Canberra which eventually became their permanent home, is perhaps more patient than most navy wives. "It's a wonderful life," she says.

There were enlivening experiences such as their time in London. "I was sent over at the end of 1947 to join the RAN Liaison Office in London with the pushing ahead of Australia's own Fleet Air Arm," VAT reports. "I was to keep an eye on the RAN officers and sailors being trained. There was close liaison with the British Admiralty; a RAN Liaison Office operated in the Australian High Commission to look after the Australian angle in any matters being handled in the United Kingdom."

Obviously a sailor-airman who had scudded low over hostile waters and undergone the perils of landing on aircraft carriers knew what he was talking about.

The succeeding years were to see him rise through the officer ranks to become a flag officer.

By 1951, when the big powers clashed in Korea, he was second-in-command of the aircraft carrier HMAS *Sydney*. The officer training that began at 14 and the intensity of his experience, not to forget his character, brought that role while he was still in his 30s.

He was captain of Australia's second aircraft carrier HMAS *Melbourne* in 1961-62 and later again Flag Officer Commanding the Australian Fleet, then Chief of Naval Staff from 1968 until 1970.

Promoted to full Admiral saw him take up Navy's turn to provide the role of Chairman of the Joint Chiefs of Staff Committee from 1970 to 1975 - effectively chief of all the services - until he retired at the age of 62.

He had the respect of all those who figured in his sphere, as well as a knighthood and a rank only equalled in RAN history by Sir Anthony Synot, nine years younger and now himself retired in Murrumbateman, near Canberra.

He apparently has a quiet pride, but it isn't obvious. He specially appreciates his time in charge of the Fleet Air Arm station at Nowra (1957-59) and he was behind moves



for the ACT branch of the Fleet Air Arm Association.

He and his wife have lived in Canberra for 17 years. Theirs is an unpretentious home in the upper-class suburb of Red Hill. They have brought up three sons, all of whom still live in Canberra.

Sir Victor Smith is no crusty old sea-lord, no aging critic of the current generation ready to lay down the law on naval matters. Given the opportunity to comment on a view pushed by admirals in recent years that Australia should have an aircraft carrier, he declined.

His opinion on the passing national scene from first-hand experience could be regarded as interesting, but, asked if he had any observation on any act of statesmanship through the years, his sole comment was: "The Chifley Government, for establishing the Fleet Air Arm."

He is surely in keeping with the Biblical injunction to "Love your enemies" (in peacetime at least) — one of a few passing references to people was praise for the Japanese he met in later life.

The thing for which I'll remember this former chief of all Australian servicemen is the cheery co-operativeness of the man. Venturing to contact him for this article, I would have been edgy if he had had any aloof or irritable answer to my questions, but he was never other than pleasant-natured.

It makes one think about qualities that go into leadership — in VAT Smith's case surely weighing one's words and being sparing of criticism are among them.

Out for an afternoon walk amid the fallen leaves and bare trees of his suburb he seems no different from any other elderly man, but he is surely a significant Australian.







*Gulf bound – HMAS Sydney*





*HMAS Stirling, Western Australia, was the last port of call for the Gulf Task Group, HMA Ships Adelaide (01) Darwin (04) and Success took on stores before proceeding on their Gulf deployment.*



# PUBLIC INFORMATION - THE RIGHT TO KNOW VS. THE NEED TO KNOW

by

John Filler

*The immediacy of modern communications has given today's commanders something extra to think about.*

It has become a maxim of modern conflict that the Vietnam war was fought and lost in the living rooms of Middle America. The "window on the world" that is television brought into almost every home the horror and misery of the war and added a new phrase to the military lexicon: "Public Information in Conflict".

Everything that went wrong, whether truly culpable errors (some, but not many) or gambles that did not come off (more) was played on the screens of the world and analysed by armchair "experts", unkindly judged and condemned to the point of demonstrations in the streets.

No doubt many (probably most) military commanders longed for former times when every piece of information leaving a theatre of war was in writing and was submitted for clearance after the event. War correspondents went along with the action, stayed in the field for days or weeks and wrote down their stories with the comparative luxury of time and the advice of military professionals.

Vietnam changed all that. Much of the conflict was fought, at least by the Allies, on a "nine to five" basis, with patrols airlifted by helicopter to their operational areas in the morning and picked up and returned to base at nightfall. Likewise, television crews flew out to the action, took their pictures and flew back to major towns and cities with film "in the can" which was sent off by air to the US, Australia, Europe or elsewhere, usually by commercial flights, undeveloped, largely uncensored ready for careful editing and presentation for the entertainment of the masses.

Certainly those in power could have reduced the outflow of this material by insisting on a right of censorship, but this would have been a two-edged sword. From the practical point of view, the facilities required for developing and viewing the footage would have represented an intolerable burden on an already overtaxed military administration and anyway, some uncensored material would have been certain to get out. There were also political problems: The war was presented to the "home front" as a defence of basic freedoms. Censorship would have been seen by a population not directly threatened

by the enemy as a denial of those very freedoms.

It is my observation that a free press is one of the trappings of a mature society. The lower the level of education, religious and political tolerance, public participation in policy-making and national self-confidence, the more governments seek to keep from their people.

The Western democracies see themselves as free, responsible and mature. The leadership of these democracies cannot endure in office without the approval of the citizenry at the ballot box. It is a moot point whether the public disapproval of press restrictions would be more politically damaging than public knowledge of government errors or omissions.

Be that as it may, in Australia we have a free press: A publisher is absolutely free to publish anything at all. However, with that freedom comes a dreadful responsibility: A person who publishes must take the consequences of that publication.

If all that sounds a little contradictory, consider this: If you own a printing press and a distribution system in Australia, you are perfectly at liberty to publish what you want to publish. Out and out scurrilous lies can roll off your presses. Millions of dollars in damages can be awarded against you, but your right to publish remains unimpaired. Certainly a civil court might levy against your presses to pay for damages awarded, but that comes under the heading of consequences. As long as you have the wherewithal, you have the freedom...

Moving to our north, however, Indonesia has only a partially free press system. You do not have an automatic right to publish: You need a licence from the Government. If you publish something in contravention of the terms of your licence, it can be revoked, your presses closed down and you can be forcibly prevented from publishing anything at all. If the advantages of such a system to the government in time of conflict are not obvious, they will become so during the course of this discussion.

In Australia we have a system of accredited correspondents, trained to handle themselves in and around combat zones, vetted and approved through the



Defence Media Advisory Group (DMAG) and supported by units of the ADF. DMAG is a committee consisting of both government and industry representatives.

Accredited correspondents work for various Australian news organisations. If a journalist is an accredited correspondent he/she is entitled to support from the ADF and, in return, promises to allow the ADF to see material before it is submitted for publication. Aha, I hear you say, what is that if it is not censorship? The bargain is simple. The correspondent may publish anything at all, provided the published material is true and contains nothing that might give an enemy an advantage in the conflict. Of course, if there is anything libellous or distinctly unfriendly in what comes out of the operational area, the news organisation concerned might be asked to re-instruct or replace its correspondent, but by and large, apart from operational security, there is no interference with the free passage of information.

What this means is that the people watching the progress of the conflict from their living rooms in Australia will, of necessity, get a totally different view of proceedings from that seen by the people on the other side. We could be trying to fight with our citizens in the streets demanding peace, while on the other side, the citizens are in the streets demanding blood...

While we as a Defence organisation may not censor for propaganda reasons, there is so much information coming back from a war zone that nowhere near all of it can reach the public. There is therefore a de-facto censorship at the publication level. The news organisations must sift through the plethora of items and decide what will make the first three minutes (We presume that, if there were to be a war, it would rate a three-minute item of the early evening news well up in the bulletin – not much less than war or disaster gets that depth of reporting.) The possible consequences are mind-boggling. If the powers within the industry (and the power of the media rests not merely with the proprietors) disapproved of Australia's cause, they would show only the most distasteful items, while the controlled media on the other side would be feeding carefully-selected, quite possibly fabricated, material to support the local government line.

The difference in approach can be summed up thus: In a democracy the state is held in principle to be responsible to the people while in a totalitarian regime the people are responsible to the state:

*We hold these truths to be self-evident: That all men are created equal...endowed by their Creator with certain inalienable rights...being life, liberty and the pursuit of happiness, that to secure these rights*

*governments are instituted...deriving their just powers from the consent of the governed.<sup>1</sup>*

While these high-minded principles have, over the centuries, been sometimes honoured more in the breach than the observance, the emergence of a free press has, perhaps more than any other single factor, made breaches increasingly difficult to conceal. It could be argued, however, and argued convincingly, that the public's right to know is, in time of conflict, often contrary to the public interest.

While the dichotomy between the totalitarian and the democratic regime is obvious, there is a similarity in one respect: In either society, people with political skills (and for the purpose of this discussion the art of public persuasion is a political skill) have a greater influence on events than those without.

In the totalitarian regime the politically skilled gravitate to the ruling clique or are repressed, but in a free society there are enough outside the establishment to cause real trouble – the result in either case is minority influence on public policy. The problem for the free society is that this minority influence is difficult both to predict and to control.

And this is where the free world will always have to fight with one hand tied behind its back. It is difficult to conceive of a situation in which an Australian government could survive if it tried to curtail media freedom. Even if the necessary legislation passed Parliament it would be virtually impossible to enforce without Australia becoming itself a totalitarian state.

In the case of the present confrontation in the Middle East (why don't we call it the Middle West?) we can see the very concept of freedom of information being used by one protagonist against the other. President Saddam Hussein knows very well that his clique is (at least for the present) thoroughly in control of a professionally-regimented society. He is feeding the western media carefully contrived packages of news in the knowledge that the more outrageous the content, the greater the airing and, in turn, the greater the effect on the unity of his adversaries. If he keeps it up for long enough, he is home and dried. He has placed himself in the position of defender, with the advantage that position implies: In the words of the Chinese axiom, *He who attacks, must vanquish, he who defends need only survive.* From Saddam's point of view, he will not need to defeat the allies – the free press will make the cost of an allied victory politically unacceptably high, leaving the status quo (Iraqi control of at least a valuable part of Kuwait) the most likely outcome.

There is no solution. Pandora's box has been opened and the Troubles cannot be



re-contained. Conflict between democratic and non-democratic states will for the foreseeable future be between professionals (the totalitarian ruling cliques) and amateurs (the general public of the democracies). The only hope for the democracies is to strike quickly and decisively before the tide of public opinion can be turned against victory.

One of the most cynical remarks of the twentieth century has been attributed to Vladimir Ilyich Ulianov (Lenin): *Freedom is very precious, so much so that it must be carefully rationed.* We should all now think well upon these words.

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<sup>1</sup> Preamble to the United States Declaration of Independence, 1776.

#### ABOUT THE AUTHOR

*John Filler is the Public Relations Officer, Acquisition and Logistics, in the Department of Defence, Canberra. He has worked in various Public Information capacities in and out of the Public Service, including more than two years in Navy Office. He holds a Bachelor of Arts degree with majors in Professional Writing and Communications/Media from the University of Canberra and is a part-time tutor in Public Relations at that institution.*







*HMAS Westralia (195) refuelling HMAS Tobruk.*



# **AUSTRALIAN NAVAL INSTITUTE**

## **NOTICE OF ANNUAL GENERAL MEETING**

Notice is hereby given that the Annual General Meeting of the ANI will be convened in Canberra on Thursday 21 February 1991 at 7:30pm for 8:00pm.

The venue is Legacy House, 37 Geils Court, DEAKIN, ACT.

Items for inclusion in the agenda should be forwarded to reach the Secretary no later than 8 February 1991.



# AUSTRALIAN NAVAL INSTITUTE

## Nomination form for election of office bearers and ordinary councillors for 1991/92.

I, .....  
(initials) (surname)

Membership Number.....nominate:

	NOMINEE	FOR POSITION	SECONDER	SECONDER'S SIGNATURE
a.	.....	.....	.....	.....
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h.	.....	.....	.....	.....
i.	.....	.....	.....	.....
j.	.....	.....	.....	.....
k.	.....	.....	.....	.....
l.	.....	.....	.....	.....
m.	.....	.....	.....	.....
n.	.....	.....	.....	.....
o.	.....	.....	.....	.....

Signed.....(proposer) Date.....

Return to:  
The Secretary,  
Australian naval Institute,  
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CAMPBELL, ACT, 2601

Nominations must reach the Secretary by 8 February 1991.



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(Order form on page 57)

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	- 25 picas deep by 33 picas wide
Material form required	- B&W: Clean artwork or negatives
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Centre double page	330	330	270
Back page	180	160	150
Internal page - single	165	150	135
Internal page - double	300	275	250
Half page	135	120	110

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1. The Discount Rate applies if a booking is for four or more successive journals with the same advertisement. The Bulk Rate is for the same if the total bill is paid with the initial order.
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