Registered by Australia Post
Publication No. NBP 0282

ISSN 0312-5807

VOLUME 14
FEBRUARY 1988
NUMBER 1

JOURNAL OF THE AUSTRALIAN NAVAL INSTITUTE

AUSTRALIAN NAVAL INSTITUTE INC

1. The Australian Naval Institute Inc is incorporated in the Australian Capital Territory. 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.
2. The Institute is self supporting and non-profit making. The aim is to encourage discussion, dissemination of information, comment and opinion and the advancement of professional knowledge concerning naval and maritime matters.
3. Membership of the Institute is open to —
   a. Regular Members — Members of the Permanent Naval Forces of Australia.
   b. Associate Members — (1) Members of the Reserve Naval Forces of Australia.
      (2) Members of the Australian Military Forces and the Royal Australian Air Force both permanent and reserve.
      (3) Ex-members of the Australian Defence Force, both permanent and reserve components, provided that they have been honourably discharged from that Force.
      (4) Other persons having and professing a special interest in naval and maritime affairs.
   c. Honorary Members — Persons who have made distinguished contributions to the naval or maritime profession or who have rendered distinguished service to the Institute may be elected by the Council to Honorary Membership.
4. Joining fee for Regular and Associate members if $5. Annual subscription for both is $20.
5. Inquiries and application for membership should be directed to:

   The Secretary,
   Australian Naval Institute Inc.
   PO Box 80
   CAMPBELL ACT 2601

CONTRIBUTIONS

In order to achieve the stated aims of the Institute, all readers, both members and non-members, are encouraged to submit articles for publication. Preferably, submissions should be typed, double spaced, on A4 paper; the author's name and address must be shown clearly, even if a pseudonym is required for printing purposes; to be eligible for prizes, original articles must be accompanied by statements that they have been written expressly for the ANI; and short biographies will be welcomed. The Editor reserves the right to reject or amend articles for publication.

DISCLAIMER

Views expressed in this journal are those of the authors, and not necessarily those of the Department of Defence, the Chief of Naval Staff or the Institute.

Printed by Canberra Publishing and Printing Co., Fyshwick, A.C.T.

CONTENTS

Cover:
Surface Effect Ship SES 200, part of the subject of the article on page 33.
Photo Courtesy of Commander T. Ruting RAN

FROM THE PRESIDENT

Regretfully I have to advise that due to temporary ill health, Captain Alan Brecht has resigned as President of the Institute. He has asked me to act in his place and I will place my name forward for election at the Annual General Meeting.

Alan Brecht's leadership has been positive. He has a deep understanding of the objectives of the Institute arising from his many years service on its Council. The motions to be placed before the Annual General Meeting on 19 February reflect his belief that the Institute needs to accept significant change to ensure its continued development. I commend them to you.

On 20 April 1988 the ANI Chapter will sponsor a meeting in the Military Theatre at the Australian Defence Force Academy, Campbell, ACT, at 2000. The speaker will be Rear Admiral J.R. Hill.

Admiral Hill retired from the Royal Navy in 1983 after a distinguished career, during which he gained a reputation as a profound thinker on maritime matters. He has been the editor of the Navy Review since 1984, and has published a number of books. These include *Royal Navy Today and Tomorrow* (1981), *Anti Submarine Warfare* (1984), *British Seapower In The 1980s* (1985) and perhaps most significantly the ground breaking *Maritime Strategy For Medium Powers* (1986). The latter book has been widely read and applauded in senior Australian defence circles.

I thank the 1987 Councillors for their hard work. I have been successful over the past weeks in obtaining the support I require to form a new Council for 1988. I have also been able to find a new editor for the Journal. Lieutenant Commander Warren Milfull has helped in the production of this edition and will be on his own in May. I am confident he will maintain the high standards of his predecessor, Lieutenant Commander Alan Hinge, and I look forward to having him on the ANI Council team.

Don't forget to make a note in your diary for the 20 April chapter meeting in Canberra.

Sincerely
Ian Callaway

FROM THE EDITOR

Like old soliders, middle aged editors don't die . . . they just fade away! Having thought the November 1987 issue of JANI was to be my swansong — the last act, appearance, publication, or utterance of a person before retirement or death — I find myself once more raised to the editor's position of unlimited power and majesty . . . but only for this edition so as to give the ANI editorial committee more time to find its editorial 'feet'.

Response to the 96 page November issue has been very good indeed. In particular, Neil Grano's 'ZIG ZAG' articles have met with much acclaim concerning their realism and excitement. Neil is back with ZIG ZAG Part 4 in this issue and tells of his service with the US Merchant Navy in World War Two. Another JANI regular, Tom Friedmann, is back with one of his on-target insights into the US political-military establishment. This time he takes a hard look at the morality of some military officers involved in the 'Irangate' Affair.

This issue of JANI has even dared to cater for those with an interest in engineering and project management. In fact, we are fortunate to have engineers like Commander Trevor Ruting and Mr H. Power who can succeed in making their topics interesting even to low mechanical aptitude types like me. Commander Ruting clearly outlines the potential for advanced hull types for RAN Surface Ships in the next century and Mr Power gives a few tips on how to boost Australian content in surface combatants.

Naval history is far from ignored in this issue which includes two particularly interesting features. The first of these articles is provided courtesy of Commander Stuart Tapley. It tells the story of the Sydney–Emden clash from a German Viewpoint and is in fact a translation from the diary of one of the German survivors. Another good piece of historical research is presented by Mr Mike Fogarty of the Department of Foreign Affairs. Mike presents an article which is part of a trilogy on the three most highly decorated Australian sailors of World War Two. It deals with the service of Lieutenant Ian Desmond Laurie-Rhodes, CGM RANVR who as an ordinary seaman won a CGM during the Battle of Crete.

A new JANI initiative involves commencing a series of 'plainspeak' legal articles which deals with issues of interest to serving and retired personnel. In this issue Mr Allan Anforth writes on the topic of DFRDB Invalidity Retirement Benefits and Your Rights. Allan works for a leading Canberra legal firm and he has extensive experience in investigating and litigating Public Servant and Defence Force Personnel superannuation and DFRDB matters.

On a personal note I must thank John Hyman for taking over the final layout and proofing stages of this particular issue as these things are difficult to handle when posted as far away as *HMAS Cerberus*. I am sure the good reader will be delighted with the finished product and, even though John can only make himself available for this issue only, his efforts are most appreciated by the ANI Council. Thanks must also go to Miss Helen Rawlins (Librarian) and Miss Bronwyn Davies (Super efficient typist) of *HMAS Cerberus* who, being avid readers of JANI, have given me every encouragement in my journalistic endeavours. Helen and Bronwyn lend credence to the saying that *no sky is heavy if the heart be light* and it is important to have radiant ladies like them around to more than compensate for the legendary inclemency of *Cerberus* weather.

Finally, aspiring contributors are reminded to keep the good copy coming so that my successor will be literally inundated with choice material. Deadline for the May issue is ANZAC DAY or April 25th and this may provide some incentive for closet writers to put pen to paper. Finally, I will not say goodbye as editor . . . again, since I have learned in the last few months to *never say never again!*

AL HINGE
(059) 837214

CHANGE OF PRESIDENCY

Due to ill health, Captain Alan Brecht has resigned the ANI presidency. The office has been assumed by Commodore Ian Callaway.

CHAPTER CHATTER

The Sydney Chapter has initiated a series of monthly talks which ANI members and their friends will find very interesting. The programme is as follows:

23 Feb. 'A Strategy for National Security' by RADM G. Griffiths RAN (Retd) at HMAS Kuttabul.

29 March An Address by CMDR G. McLennan RAN (Retd) TBC.

26 April 'Recent Developments in Hydrography' by Captain J. Doyle RAN at HMAS Watson.

31 May 'Diesel Propulsion for Warships' by Mr Beran Aarden-Wood at HMAS Kuttabul.

For further details contact Captain Chris Skinner on (02) 922 0205 or the Chapter Secretary, Lieutenant Andrew Brown RANR on (02) 238 6061.

CORRESPONDENCE

SEAPOWER 87

Following is the text of a letter from Sir William Keys, National President of the RSL, to the ANI President.

'The RSL would like to congratulate the Australian Naval Institute for the success of the recent Seapower Symposium in Canberra.

The theme of the discussion was considered most appropriate and timely, having regard to the many new initiatives in the field of Naval force development involving Australian industry that are planned for the next decade.

If the wide range of attendees was a measure of the interest being shown Australia wide in these developments, then clearly the Australian Naval Institute has done the defence community a great service, and at the same time has made a significant and highly professional contribution to the defence debate to this country.

The RSL wishes the ANI every success in the years to come and looks forward to a continuing close association.'

ZIG ZAG AGAIN

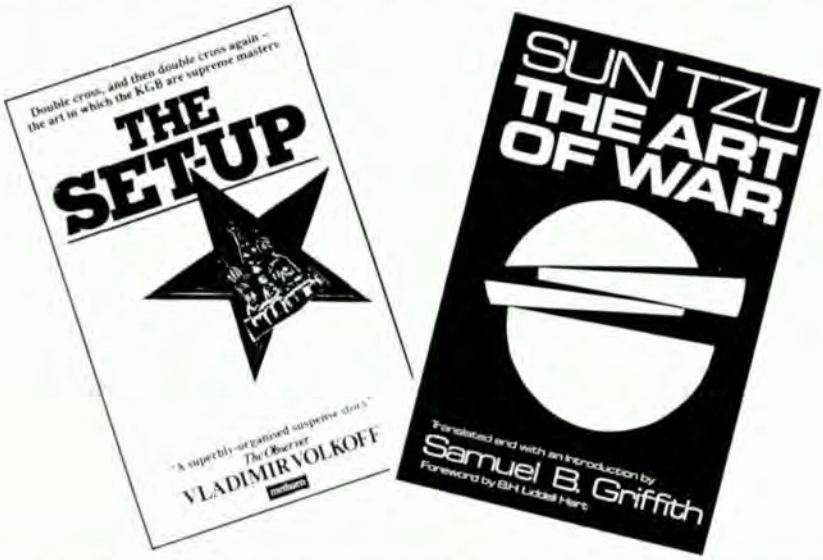
It was with great pleasure I received copies of *J.A.N.I.* which included the Zig Zag articles by Neil Grano. Having lived in Australia I related to his descriptions of Melbourne and other parts. Grano writes well and writes with a sardonic sense of humour which helps us all look back on a bygone era. Hence the articles are not only amusing, but of some historical importance.

I look forward to reading the complete story, keep it coming.

Knud S. Larsen
Professor

EXCLUSIVE OFFER!

AUSTRALIAN NAVAL INSTITUTE PRESS



In keeping with our policy of making available the best books at the lowest possible price, we are offering a pair of books for our February '88 selection.

One is the incomparable "Art of War" by Sun Tzu. This is not the Hodder and Stoughton paperback which was being retailed at $19.95 last year, but the very much better Oxford University Press version translated by Brigadier-General S. B. Griffiths USMC. With a foreword by Sir Basil Liddell-Hart, this is a **must** for any serious student of strategy.

To complement Sun Tzu's classic **we are also offering Vladimir Volkoff's remarkably perceptive "political" novel "The Set Up".** Volkoff's book shows how Sun Tzu's advice is still relevant today. "The Set Up" has a climax as thrilling as any other well-written novel of espionage. But it is by no means frivolous. Volkoff uses the form of the novel to give his reader some gentle instruction in the way Sun Tzu's advice can be applied. Here's an extract:

"'These,' said Abdulrakhmanov with satisfaction, 'are the thirteen commandments that I have taken from Sun Tzu'..But Sun Tzu says and says it again: 'In war, the best method is to take the enemy intact; destroying him is but a poor alternative.'"

By mail order only at $16.50 for both books.
Plus $3 for postage and handling.

ORDER FORM

NAME _____

ADDRESS _____

_____ P/CODE _____

SEND TO: ANI PRESS, P.O. BOX 358, CREMORNE, NSW 2090.
I enclose CHEQUE ☐ MONEY ORDER ☐ for $19.50 including postage for EXCLUSIVE TWO BOOK OFFER
"THE ART OF WAR" by Sun Tzu, and "THE SET-UP" by Vladimir Volkoff.

3848

AUSTRALIAN NAVAL INSTITUTE 1987 PRESIDENTS REPORT

The highlight of 1987 was the SEAPOWER 87 Seminar in October. The lowpoint for the year was the resignation of the President Captain Alan Brecht in December, due to ill health. We expect that he will be restored to full health very soon.

The objectives for 1987 were

— to produce a professional Journal each quarter,
— to develop and implement a plan for the SEAPOWER 87 seminar,
— to encourage young officers, sailors and WRANS to join the ANI, and
— to stimulate chapter activity.

The ANI Journal has maintained a high standard. I have been particularly impressed by the quality of articles presented and despite the difficulties your Council has experienced in finding and retaining an Editor, I am satisfied that the Journal has indeed been professional. The new Editor to replace Lieutenant Commander Alan Hinge is Lieutenant Commander Warren Milfull. He has taken responsibility for the May 1988 issue. I hope you will provide him with every support, as he has an important and very demanding task ahead of him.

SEAPOWER 87, the ANI's fourth National Seminar, was held in the HC Coombs Theatre on the ANU Campus on Friday 16 and Saturday 17 October 1987. The seminar was extremely successful. The quality of presentation and discussion was high and I was satisfied the Seminar met its objectives. I was, however, disappointed in the attendance, which was only 180 compared to the 250 attending in 1984.

There were many memorable moments during the Seminar. These included the enthusiasm of the audience for Lieutenant Commander Mark Taylor's presentation on the 'Young Turks Viewpoint' and the very high quality of the keynote address 'The Challenge to Industry' given by Mr Greg John, of the Australian Chamber of Manufactures. I commend them and all the other speakers for their contributions. It seems clear to me that the Journal and the SEAPOWER Seminars stake the Institute's claim for credibility as a professional organisation. The standards set in the past have been very high, we have maintained them in 1987 and we must continue to maintain them in the future.

I would like to thank those hardworking and enthusiastic members of the ANI who assisted me in the direction and management of SEAPOWER 87. Their willingness to participate and enthusiasm to get the job done gives me confidence in the future. With such support the Institute will continue to prosper.

Looking to the future I anticipate that the next Seminar will be in 1990/91. The theme for this will need to be selected with great care. There has been an increase in the number of defence—related seminars in recent years, and while this is a healthy sign that the defence debate is becoming more thoughtful, there is a danger that saturation point will be reached. If we are to attract the level of interest we have in past years, a move away from a defence industrial emphasis seems necessary. Perhaps the capabilities required by maritime forces and how high technology will provide the means of meeting these requirements would be an appropriate theme next time. I would be grateful for your ideas.

Chapters

The level of Chapter activity has varied widely. Under the very capable leadership of Captain Chris Skinner, the Canberra Chapter has flourished and regular lunchtime meetings at the Australian Defence Force Academy have been very well attended. Captain Skinner has now moved to Sydney where the dormant Chapter has been revived under his leadership. The Chapters in Melbourne and Perth have held regular meetings and are well supported.

ANI Silver Medals

During the year ANI silver medals were presented to Squadron Leader I.K. Scott and Lieutenant Commander I.T. Laxton, students at the RAN Staff College. Their winning essays have been published in the Journal.

Financial Status

The financial state of the Institute remains satisfactory. The bank balance currently stands at $31,918.22. Bankcard and Mastercard facilities were introduced during the year for the benefit of members.

Council Activities

Your Council was very busy in 1987. In addition to the Seminar, it addressed several significant and controversial issues.

In October 1987 your Council elected to propose an amendment to the ANI constitution, that opened full membership to all serving members of the RAN or RANR and Sea Cadet Officers and persons who, having qualified, subsequently leave the Service. The Council resolved that the proposed amendment to the constitution require that the holder of the office of President of the ANI should be a serving member of the RAN.

In September 1987 your Council approved the appointment of an Office Manager on a trial basis for one year. An honorarium of $2000 was agreed. In November, Commodore Daryl Fox RAN (Retd) assumed responsibility for Journal advertising and will gradually assume responsibility for day to day financial, secretarial and Journal distribution matters.

The Office Manager will attend the monthly meetings of the ANI Council as an observer. The Officers of the Institute will still include a Treasurer and a Secretary and these officers will still be responsible for all financial and secretarial matters associated with the Institute.

Your Council has taken these steps because:

a. the work of running the Institute currently has to be done by people who are serving in postings in Canberra and therefore who already have demanding responsibilities;
b. the turmoil caused by postings, disrupts continuity amongst Council members;
c. the pool of available, potential councillors is too small and the task of finding a Council and Office Holders is becoming increasingly difficult; and
d. the activities of the Institute are being limited by these factors.

Fees

In view of the Institute's increased costs, which have developed since the last review, your Council also resolved in November to adopt a new fee structure. This structure will remove the joining fee and introduce a differential subscription rate for members and non members, and multi year membership. The details of the new rates are shown in the following table.

	Annual	2 years	3 years
Members	$25	$48	$70
Journal Subscriptions	$27	$52	$77

The new rates will fall due on 1 January 1989.

Before I conclude I want to record my appreciation and that of Captain Brecht, for the support we have received from the Council and the SEAPOWER Seminar team. They were an enthusiastic, interested and willing team. Unfortunately their efforts go unrecognised by most.

I would like to single out Captain Alan Brecht for recognition. His leadership was always positive and the progress your Council made during the year is a reflection of his quiet determination and deep understanding of the Institute's objectives. On behalf of you all I wish him a rapid recovery to full health and an early return to duty.

Paul Reis *A.A.S.A. F.T.I.A.*

CERTIFIED PRACTISING ACCOUNTANT

Correspondence to:
P.O. BOX 20
MAWSON, A.C.T. 2607

Telephone:
(062) 811566

ROOM 207
2ND FLOOR
MLC TOWER
PHILLIP, A.C.T.

19 Febraury 1988

The President
The Australian Naval Institute Inc
P.O. BOX 80
CAMPBELL ACT 2601

Dear Sir

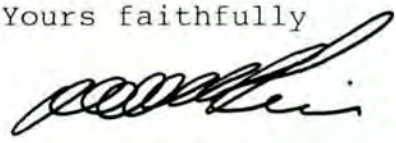
Please find attached various Operating Accounts, Income and Expenditure Account and Balance Sheet of the Institute which relate to the twelve months ended 31 December 1987.

In my opinion the attached accounts are properly drawn up so as to give true and fair view of the state of affairs of the Institute.

The rules relating to the administration of the funds of the Institute have been observed.

All information required by me has been obtained.

Yours faithfully



P.O.REIS

AUSTRALIAN NAVAL INSTITUTE INC

BALANCE SHEET FOR 12 MONTHS ENDING 31 DECEMBER 1987

1986			1987
	ACCUMULATED FUNDS		
24503.37	BALANCE AS AT 1 JANUARY 1987		23605.11
(898.26)	LESS LOSS FOR YEAR		(2712.64)
23605.11	BALANCE AS AT 31 DECEMBER 1987		20892.47
	PROVISIONS FOR		
300.00	REPLACEMENT MEDALS	300.00	
400.00	LEGAL FEES	400.00	
-	DEPRECIATION	540.00	1240.00
	LIABILITIES		
	SUBS IN ADVANCE :		
1276.00	1987 LIBRARY SUBS	-	
3670.00	1987	-	
120.00	1988	900.00	
40.00	1989	60.00	
5295.00	SUNDRY CREDITORS	13861.00	14821.00
34706.11			36953.47
	REPRESENTED BY :		
3372.00	SUNDRY DEBTORS		1570.00
999.49	COMMONWEALTH BANK CHEQUE A/C		3588.49
26787.50	DEFENCE CREDIT UNION		28329.73
	STOCK ON HAND :		
1086.12	INSIGNIA		1104.25
300.00	MEDALS		200.00
1.00	MEDAL DIE		1.00
2160.00	COMPUTER		2160.00
34706.11			$36953.47

AUSTRALIAN NAVAL INSTITUTE INC

INCOME & EXPENDITURE ACCOUNT FOR THE 12 MONTHS ENDING 31 DECEMBER 1987

1986	EXPENDITURE	1987
14532.34	JOURNAL OPERATING COSTS	9433.59
81.40	POSTAGE	79.92
225.00	AUDIT FEES	250.00
4.00	COMPANY FEES	2.00
100.00	DONATION TO LEGACY	100.00
62.16	ADVERTISING	-
30.94	STATIONERY	159.80
17.50	LIBRARY ADDITIONS	-
8.80	BANK CHARGES	36.39
150.00	PRESENTATION MEDALS	100.00
150.00	CHAPTER SUPPORT	170.00
100.00	PROVISIONS FOR REPLACEMENT MEDALS	-
100.00	PROVISIONS FOR LEGAL FEES	-
276.06	OFFICE SERVICES	109.54
1082.96	COMPUTER SERVICE	137.54
235.08	WRITE OFF BAD DEBTS	-
50.00	WREATH	-
-	DEPRECIATION - COMPUTER	540.00
-	SEAPOWER OPERATING LOSS	7535.38
17206.24		18654.16
	INCOME	
59.80	INSIGNIA TRADING	71.48
135.00	JOINING FEES	215.00
10849.00	SUBSCRIPTIONS	11366.00
5264.18	INTEREST	4289.04
898.26	OPERATING LOSS TRANSFERED TO ACCUMMULATED FUNDS	2712.64
17206.24		18654.16

AUSTRALIAN NAVAL INSTITUTE INC

JOURNAL OPERATING ACCOUNT

FOR 12 MONTHS ENDING 31 DECEMBER 1987

EXPENDITURE	1987	1986	INCOME	1987	1986
PRINTING	23775.00	25577.00	ADVERTISING	13694.64	11076.96
POSTAGE	926.06	1152.40	SUBSCRIPTIONS	2062.03	1880.10
EDITORIAL EXPENSES	139.20	200.00			
PRIZES	350.00	290.00			
ENVELOPES	-	270.00	NET OPERATING COST TRANSFER TO INC & EXP A/C	9433.59	14532.34
	25190.26	27489.40		25190.20	27489.40

INSIGNIA OPERATING ACCOUNT

STOCK ON HAND	1086.12	1359.11	SALES	253.00	352.19
PURCHASES	540.50	-	SEA POWER	353.00	-
POSTAGE	12.15	19.40	STOCK 30/12/87	1104.25	1086.12
PROFIT TRANSFER TO INC & EXP A/C	71.48	59.80			
	1710.25	1438.31		1710.25	1438.31

MEDAL OPERATING ACCOUNT

STOCK 1/1/87	300.00	450.00	PRESENTATIONS	100.00	150.00
			STOCK 30/12/87	200.00	300.00
	300.00	450.00		300.00	450.00

INCOME & EXPENDITURE ACCOUNT FOR THE 12 MONTHS ENDING 31 DECEMBER 1987

SEAPOWER

EXPENDITURE

CASH FLOAT	300.00
ADVERTISING	3908.08
HALL HIRE	420.00
CATERING & ACCOMMODATION	8691.65
PROCEEDINGS TYPESETTING	1215.00
PUBLISHING - PROCEEDINGS	5000.00
PRINTING	1072.00
SPEAKER'S GIFTS - INSIGNIA	353.00
RECORDING	2000.00
POSTAGE	248.20
BANKCARD/MASTERCARD FEES	77.50
STATIONERY	21.95
REFUNDS	665.00
SEMINAR PACK	1650.00
	25622.38

INCOME

CASH FLOAT REBANKED	300.00
REGISTRATION	17390.00
DONATION	200.00
INSIGNIA SALES	197.00
	18087.00
NET OPERATING LOSS TRANSFERED	7535.38
	25622.38

'The situations arising out of war are infinitely varied. They change often and unexpectedly and can rarely be foreseen in advance. Often it is precisely those factors that cannot be recognised that are of the greatest importance. One's own will is confronted by the enemies' independent one.'

Article 3, Truppenfuhrung (German Army Field Manual) 1936

THE USE OF POWER

. . . A QUESTION OF WILL

by Lieutenant Commander A.J. Hinge RAN

There may never be a nuclear war. Nuclear weapons have not been used in anger for almost half a century and may not be used for another half century. Such devastating weapons and methodologies for their use are clouded in great uncertainty. However, it is certain that so called 'limited wars' — fought under a number of political constraints for limited objectives — will continue to be the military realities for some time to come.

Australians may one day become involved in a limited regional conflict involving the defence of their own immediate national interests or the interests of friendly neighbours. To maximise the effectiveness of conflict management, Australian leaders should be aware of all the dimensions of national power which can be used to develop a favourable outcome. For too long the *political will* dimension of national power has been subordinated to the instrumental aspects of power which deal with endless force structure debates and the vagaries of a thousand different brands of strategy.

The aim of this article is to demonstrate that the political will of a nation's higher political leadership is the decisive 'intangible' in the management of limited warfare. The methodology used to achieve this is based on a case study involving the use of political will in a modern crisis situation. However, to reinforce the value of the case study by correctly putting it in context, the following issues must be briefly discussed:

- the nature of power and politics,
- the nature of limited wars or wars of risk, and
- the international laws relating to armed conflict.

Politics and Power

Politics is inevitably concerned with aspects of the exercise of power. In fact, politics has been described, not inaccurately, as a struggle for power. Power can be defined as '. . . the ability to influence the behaviour of others in accordance with one's ends.'[1] This suggests that a measure of 'Power' is the degree to which an entity has the ability to make its will prevail.

National power can be measured by the degree which a national is *perceived* to be able to influence another nation. Measures of national power can involve military, geographic, economic, demographic and other quantitative factors but 'intangible' psycho-social factors are also important and often crucial aspects in any assessment of national power. Politics, being the fabled 'art of the possible' paradoxically derives its *substance* from the psycho-social elements of national power.[2]

International politics and the relations which stem from political interaction are governed by power hierarchies which are in turn determined by perceptions of national power. The main psycho-social element of national power is the will of a nation's political leadership since the willpower or perceived resolve of a national leadership will to a large extent determine the amount of 'respect' it will get in the world community.

The greatest challenge to a political leadership comes during a period of crisis which may lead, or has led, to overt military action. How a political leadership will react to a particular crisis is impossible to accurately predict due to the obviously unspecifiable details of future crises and a host of other immeasurable elements which would undoubtedly enter the equation. A major

psycho-social intangible in any nations political leadership is probably best described as 'instinct', or more aptly *political instinct*. Politicians often place an overwhelming degree of trust in their instincts for what they plainly see as a good reason. The reason is that without political instinct, toughness, stubborness and stamina they probably would not have made it to the top at any rate.

Ex-US President Richard Nixon probably best expressed this attitude when, under great pressure during the Vietnam War, he told his chief advisers '. . . As far as I'm concerned the only real mistakes I've made are when I didn't follow my own instincts.'[3] We will carefully look at the circumstances in which Nixon made this statement and the way he and his immediate advisers dealt with the crisis concerned. However, it is first necessary to examine the nature of modern limited war and then the international legal rationale for the use of military power, both factors of which had a strong bearing on Nixon's decision environment.

WARS OF RISK

Conflict between nations is a continuing aspect of human experience. During the time leading up to overt military conflict a state of tension is said to exist. In this crucial period leaders must aim at convincing their rivals that the costs of further antagonistic action significantly outweigh the benefits which can be reaped by these same actions. But military options selected for use during the tense period in the early stages of escalation must not be unduly provocative since, as opposed to stabilizing the situation, the escalatory process may in fact be accelerated.

The fundamental political problem of unambiguously signalling perspective, intent and resolve to a rival or an adversary is indeed a challenge. Ultimately, our government's aim during a crisis is the development of a minimum risk taking strategy involving an appropriate use of diplomacy. In some circumstances the government may determine that diplomacy has to be supported by *appropriate* military force in the defence of legitimate national interests. It should be emphasised that, for most governments, the decision to use any level of military force is a major choice in itself. Specifying the force to be used is also a difficult and no less significant choice since a judgement has to be made to ensure that 'expenditure' is commensurate with the value of the political objective.

The saliency of the political process and firm political control of operational objectives has increased markedly since World War Two.[4] In the postwar period strategic commentators have developed a theory of limited war, or war of risk waged for limited objectives. Thomas Schelling suggests that:

> '. . . This new species (of war) is the competition in risk taking, a military-diplomatic manoever with or without military engagement but with the outcome determined more by the manipulation of risk than by the actual contest of force.'[5]

Risk involves the possibility of hazard, misfortune and loss — with the actual degree of risk intuitively measured against perceptions of what the opponent's reaction may be. Manipulation of risk during armed conflict is demanding and successful manipulation of risk during war is perhaps the acme of political skill.

Limited wars are 'won' by co-ordinated military-diplomatic manoeuvre rather than by sheer military might or diplomacy only. A *better state of peace* is the aim rather than outright victory in most cases and political decision makers need as many military and diplomatic options available to them as possible. With options available it is far easier to competently and confidently operate in an environment fraught with risk and unpredictability. Options allow leaders more flexibility in expressing their will and ultimately national power.

To use power appropriately in an international crisis politicians and planners must be aware of the essential dictates and rulings of international law as well as the limitations of the advice they get from those that get to the top in modern bureaucracies. Let us now look at international law as it is applied to war.

ARMED CONFLICT AND INTERNATIONAL LAW

International law has served the historic function of placing limitations on violence and the use of power. Civilization has attempted to evolve humanitarian rules calling for conflict to be conducted in a way designed to reduce unnecessary suffering and to provide maximum protection for non-belligents. Any decisive military action approved by the Australian government must be seen to be consistent with the provisions of international law as far as world opinion is concerned but, like many other bodies of law, international law has in some ways been overcomplicated by enthusiastic professionals.

To use their politico-military power effectively, politicians will not have time to listen to all the caveats. They will be interested in those aspects of international law which can justify and initiate their use of *appropriate* power and give them the edge in a war of risk. From the following analysis will be derived five Power Use Criteria or PUC's which politicans interested in the use of politico-military power may find useful.

The United Nations Charter

Any examination of the laws of international armed conflict must start with the UN Charter. Article 2(4) of the UN Charter provides that:

'All members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the purposes of the United Nations.'[11]

A major purpose of the UN is to ensure that the use of armed force is minimized and Article 51 of the Charter prescribes conditions for the use of force in self-defence. It states that:

'Nothing in the present Charter shall impair the inherent right of individual or collective self-defence if an armed attack occurs against a member of the United Nations until the Security Council has taken measures necessary to maintain international peace and security. Measures taken by the members in the exercise of this right of self defence shall be immediately reported to the Security Council and shall not in any way affect the authority and responsibility of the Security Council under the present Charter to take at any time such action as it deems necessary in order to maintain or restore international peace security.'[12]

The narrow limits set by the UN on unilateral use of force by states has further been reinforced by the 1970 UN Special Committee Report on Principles of International Law Concerning Friendly Relations and Co-operation Among States. This report commented that the use or threat of force '. . . constitutes a violation of international law and the Charter of the United Nations and shall never be used as a means of settling international issues'. The report goes on to say that:

'No state or group of states has the right to intervene directly or indirectly for any reason whatever in the internal or external affairs of any other state. Consequently, armed intervention and all other forms of interference or attempted threats against the personality of the state or against its political, economic and cultural elements are in violation of international law.'[13]

However, history testifies to the fact that this is a less than satisfactory practical legislation despite its philosophical merit. In numerous situations since 1948 States have unilaterally resorted to force to preserve what was perceived to be their national interests and this has increasingly become the case as the UN has been seen to act with very limited effectiveness. Legitimate application and enforcement of Charter provisions has left much to be desired and the provisions remain what the community of nations believe the 'law' should be, rather that what it is in practice. To look past the form of absolute UN moral proscription of the use of any type of force we must look at the substance of what is accepted by the community of nations as Customary International Law. An acceptable and practical framework may then be constructed which accommodates UN provisions with international realities since, in asking for everything, the UN seems to have got very little back in terms of peace. While the UN Charter provides the ideals of the law, which are not to be underestimated, we must go further and temper ideals with the reality of a very powerful body of the law — the Law of Custom.

Customary International Law

To determine under what circumstances a state can reasonably resort to the use of military power we must consider the precepts of Customary international law. A state's right to self defence was deemed paramount under this type of law as a necessary pre-requisite to the natural right of self preservation. The general principles used to mould customary law through history have been actual necessity and reasonable proportionality.[14]

In the light of these two powerful and fundamental principles, the following criteria have been suggested for exercising the customary right of self defence generally:

- Its exercise must be in response to actual or threatened violence relative to an illegal act on the part of the target state.
- The actual or threatened violence must be of such a nature as to create an instant and overwhelming necessity to respond, and
- The response taken must not be excessive or unreasonable in relation to the violence being inflicted or threatened.[15]

MEKO® – **Latest in Warship Modular Design:**
From:

Blohm+Voss (Australia)
Pty. Limited

Blohm + Voss (Australia) Pty. Limited
P.O. Box 1704, GPO, CANBERRA A.C.T. 2601
Telephone: (062) 411565, Telefax: (062) 413476
Telex: AA 62249 (PHNX)

In association with:

Blohm+Voss

Blohm + Voss AG
P.O. Box 100 720·D-2000 Hamburg 1
Telex: 2 11 047-0 bv d

THYSSEN

THYSSEN RHEINSTAHL TECHNIK GmbH
P.O. Box 80 23·D-4000 Düsseldorf 1
Telex: 8 58 997-0 tr d

In addition to these broad considerations it is possible to postulate rational criteria under which the resort to force by states can be considered tolerable in the eyes of the international community. These *Power Use Criteria* are:

(1) The burden of proof is accepted by the acting state which will explain its conduct before the world community. The acting state will endeavour to demonstrate the following points (2)–(5).
(2) Provocative acts by the opponent have raised a considerable and imminent threat to the continued existence of the political independent/territorial integrity of a nation or its ally.
(3) A determined effort has been made to gain redress by pacific means and that international organisations have been promptly informed and consulted. Continued efforts to achieve a peaceful solution must be seen to be made.
(4) The acting state cannot achieve its purpose by acting solely within its own territory.
(5) Response has been proportional and only directed against military and paramilitary targets. Every effort has been made to reduce risk to non-combatants and neutrals.[16]

It is suggested that; if the above points can be effectively put before the world community as reasonable, necessary and proportional criteria which are in harmony with actual actions, then the action may be seen as lawful and support can be obtained. All actions must, of course, be weighed carefully since certain restraints and prohibitions have been established in international law, many having their origin in custom. One of the most significant of these being the need for *proportionality* since civilization has always endeavoured to produce humanitarian rules calling for conflict to be conducted in a manner calculated to minimise unnecessary suffering and guarantee maximum protection to non combatants. The state that violates the criteria of proportionality commits a serious error and loses the often tangible benefits derived from favourable world opinion, which is a factor of increasing importance in conflict management.

The real spirit of international law is probably best summed up in the preamble to the first general codification of the customary law of war which took place at the initial Hague Conference in 1899. The preamble of the convention included a provision, known as the de Marten's clause, which indicated that *apart* from the codified rules of customary law being adopted '. . . populations and belligerents remain under the protection and empire of the principles of international law, as they result from the useages established between civilized nations, from the laws of humanity, and the requirements of the public conscience.'[17] Public conscience involves a sense of right and wrong that governs a particular nations' actions. It remains a vital consideration in the making of judgements relating to international legal issues. An act can be considered 'reasonable' in substance by the world community despite being unlawful according to the letter of the law.

Given the inherent dangers of taking too analytical an approach to the psycho-political aspects of the use of power, the best approach to the issue takes the form of a case study. The following case study will deal with the political aspects of a modern, high level conflict situation by relating the behaviour and expressed attitudes of the main 'actors' during a relatively recent major political-military crisis. Obviously, many aspects of the case study — the US mining campaign of 1972 — will be irrelevant to the Australian political context in terms of specific detail. But many of the following elements are integral components of the case study and would be common denominators in most high level political-military crises faced by democratic peoples:

- Decisions are taking place in an extremely stressful and frustrating environment.
- A strong fear of escalation to a higher level of conflict exists.
- The political leadership is up against a strong-willed cohesive and quite formidable opponent who has taken the initiative.
- Actions are strictly limited by public opinion at the domestic and global level.
- Time is not on the democratic political leadership's side.
- Previous efforts to dealo with the issue have met with little or no success.

Therefore, the fundamental aim of the following case study is to give the reader an intuitive appreciation of tempered military power in a highly constrained political environment.

THE POLITICO-MILITARY CASE STUDY

The US Mining of North Vietnam: May–Dec 1972

Background. The decision to mine the harbours and coastal areas of North Vietnam in May 1972 took place at the highest levels of US politics. This analysis is based on what the main actors and their critics have said about the circumstances of the campaign in their memoirs and several other writings.[18]

The concept of mining North Vietnamese harbours had its origins in 1964 when the Seventh Fleet had developed plans for just such an operation. About 85% of all North Vietnamese imported war sustaining material came through the harbours of Haiphong, Hon Gai and Cam Pha. By far the most traffic passed in and out of Haiphong harbour around which was based an extensive petroleum, oil and lubricant (POL) storage and distribution system and ordnance storage depots. Wartime POL requirements alone were estimated at 15,000–20,000 metric tons per month which was equivalent to that carried by two small merchant tankers or 170 railway tank cars.

Even if available, railway cars were able to be easily interdicted between the Chinese border and Haiphong. In any event, Chinese resources were strained in conveying one seventh (300,000 tons) of Hanoi's total 2.1 million tons of imports by land transport methods. As it was, Hanoi imported all its POL requirements by sea. Obviously, the North Vietnamese would have enormous difficulty in attempting to shift a comprehensive seaborne logistics system based in Odessa, Vladivostok and Murmansk to a rail system across China. This situation would have been greatly exacerbated by the unfriendly relations between Russia and China at the time. In short, the often quoted and ill informed argument that seaborne imports could be effectively substituted by a land transport system, in a timely manner, was nonsense.[19]

Nevertheless, several studies of the efficacy of a mining campaign against North Vietnamese ports were conducted between 1965 and 1970 by the CIA, Office of Systems Analysis and State Department.[20] These studies invariably concluded that the mining of North Vietnamese harbours would not have a significant long-term effect on the resupply of PAVN (People's Army of North Vietnam) and Vietcong units in South Vietnam. It was suggested that the numerous waterways from China could not be closed to all traffic and that they had ample potential for filling the gap of imports no longer arriving by sea from the Soviet Union. Similarly, it was said that bombing railways would not act as a very effective means of permanently disrupting the North Vietnamese war effort. A major factor brought out in these studies indicated that the North Vietnamese would find it easy to offload cargos into Lighter barges and smaller vessels.[21] Consequently, to make sure the mining campaign was effective, US forces would have to contemplate attacking or stopping Soviet and other neutral vessels which challenged the minefields. This aspect had obvious escalatory implications which mitigated against adoption of the mining option for years. It was only after the actual mining operation was carried out that the real political and operational value of the operation could be accurately gauged.

Throughout 1965 CinCPac (Commander-in-Chief, Pacific) and CinCPacFLT (Commander-in-Chief, Pacific Fleet) recommended an anti-POL campaign involving the mining of North Vietnamese harbours and air strikes against Haiphong POL facilities. President Lyndon Johnson referred the question to Defence Secretary MacNamara who made it unmistakably clear that '. . . the expanded bombing, with the mining of Haiphong would endanger seriously the security of the nation.'[22] McNamara saw mining as being seriously escalatory in terms of possible damage to Soviet or Chinese merchant ships thereby possibly involving them in hostilities. Nevertheless, McNamara authorized limited bombing raids against outlaying POL storage areas which were to have equally limited effect on enemy warmaking capability. US Navy pilots operated under severe constraints. These included not attacking any vessels in harbour unless fired on, and '. . . only if the craft is clearly of North Vietnamese registry.' Also, '. . . piers securing Haiphong POL storage depots were not to be attacked if a tanker is berthed off the end of the pier.'[23]

In February 1967 the use of air delivered mines, mainly of the recently invented DST (Destructor) variety, was approved for deployment in the rivers of North Vietnam. Photo reconnaissance indicated that half the enemy's cargo moved on internal waterways toward front line North Vietnamese combat units and the Viet Cong. By March 1967 five riverine minefields had been laid and in mid 1967 these rivers had ceased to be viable means of transport. North Vietnamese forces apparently made little, if any, effort to sweep the fields. Nevertheless, the main port of Haiphong remained unaffected by mines and the US forces were handcuffed to the uneconomic policy of attempting to destroy enemy materiel once it had been dispersed.[24]

The perceived risks of heavily bombing and mining North Vietnamese ports was considered unacceptably high throughout the Johnson administration.[25] During a conversation with Lyndon Johnson in March 1966, future President Richard Nixon gave his view on the Vietnam wars management and received Johnson's reply:

> 'He (Johnson) turned to my recommendation regarding a harder line in Vietnam. "China's the problem there," he said "We can bomb the hell out of Hanoi and the rest of that damned country, but they've got China right behind them, and that's a different story." '[26]

Johnson was to a large extent justified in his hesitancy to risk Chinese military reaction. In the early 1950's the US incurred heavy losses in Korea when it completely miscalculated Chinese reaction to US involvement. US forces were almost thrown back into the sea by the sudden entry of China into the Korean conflict. The US had completely misunderstood Chinese intent and this precedent was largely responsible for a general policy of gradualism and US overcaution in the years 1964–69 in so far as launching a comprehensive mining campaign against Hanoi was concerned.

From 1967 to 1972 Admiral Thomas Moorer (CNO: 1967–70, CJCS: 1970–74) had 'repeatedly' recommended the mining option to policy makers.[27] Prior to 1967 (1964–66) he had been CinCPac and had also advocated the mining of Haiphong. His enthusiasm for the mining was not entirely based on the relative military ease of the operation. Moorer had been a lieutenant Commander in 1945 and had taken part in investigations involving the effectiveness of Operation STARVATION against the Japanese. Obviously he was impressed with the extreme effectiveness of aerial mining and saw all the ingredients of success in a mining campaign against North Vietnam. During 1969, early in the first Nixon Administration, he participated in the first efforts at serious contingency planning for a mine blockade of North Vietnam.[28] However, the same old constraints applied and it was not unitl the US had reached a critically desperate situation in 1972 that this strategy would be employed.

THE CRISIS

Crisis point for the US President came in what Nixon described as his 'week of disaster' between 1–8 May 1972. By May 1st only 69,000 US troops remained in Vietnam due to withdrawals under the Vietnamization program. A massive North Vietnamese offensive involving thirteen of the fourteen PAVN divisions and 150 independent regiments was threatening the old capital of Hue after having taken Quang Tri province.[29] Reports from MACV Commander, General Abrams and Ambassador Bunker were extraordinarily pessimistic. Late on the afternoon of Monday 1 May 1972 Henry Kissinger read a cable from Abrams which spelled out that '. . . it is quite possible that the South Vietnamese have lost the will to fight, or to hang together, and that the whole thing may well be lost.'[30]

Nixon's reaction was one of shock. He commented:

> 'I could hardly believe what I heard. I took the cable and read it for myself. "How could this have happended?" I asked . . . And then I thought of the bleak possibility — it was conceivable that all South Vietnam would fall. We would be left with no alternative but to impose a naval blockade and demand back our POWs.'[31]

Theodore White in his MAKING OF A PRESIDENT 1972 suggests that during this crisis '. . . Nixon was now very lonely as a President. His architecture of peace had been neat, logistical, diligently pursued; its capstone was to be his journey to Moscow, two weeks hence, just as its cornerstone had been his mission to Peking. If he responded now in the diplomacy of kill against kill, he might risk both capstone and cornerstone — as well as his re-election.'[32]

A secret meeting between Kissinger and Le Duc Tho, the Chief North Vietnamese negotiator, on Tuesday 2 May went badly. Kissinger states that '. . . (Furthermore) in my experience the North Vietnamese were never more difficult than when they thought they had a strong military position — and never more conciliatory than when in trouble on the battlefield. Unfortunately, for our emotional balance, Tuesday May 2, was a day on which Le Duc Tho was confident he had the upper hand . . . for all Le Duc Tho knew, a complete South Vietnamese collapse was imminent'.[33] Years after these events Kissinger, when praising Le Duc Tho's ability, said of him '. . . Nor did he abandon his courtesy, except once in May 1972 when carried away by the prospect of imminent victory, he was tempted into insolence'.[34]

This meeting turned out to be the briefest ever between the two delegates and Kissinger broke off talks after realizing there was 'no point in continuing the conversation . . . Le Duc Tho was not even stalling. Our views had become irrelevant; he was laying down terms. He acted as if every passing day would make our position more untenable. Hanoi would not use the talks to try to forestall American retaliation because it wanted no inhibition on its freedom of action.'[35]

In summary of the meeting Kissinger said '. . . its significance was not that the North Vietnamese had been unyielding, that it was so close to victory that it no longer needed even the pretense of a negotiation . . . Le Duc Tho's disdain of any strategem indicated that in Hanoi's judgement the rout had begun, beyond our capacity to reverse by retaliation. Our action had to provoke a shock that would give the North pause and rally the South'.[36] Kissinger claimed to have realized that '. . . The point of decision had arrived' as he flew back to the US for a meeting with Nixon.[37]

On arrival in Washington (Wednesday 3 May) Kissinger and his deputy, Major General Alexander Haig, met with Nixon aboard the Presidential yacht SEQUOIA. All agreed that a 'major move was called for' and that a firm decision must be made by Friday 5 May. Kissinger says of his own attitude at the time:

'My preferred strategy was the plan first developed by my staff in 1969 and resubmitted by Haig on April 6: the blockade of North Vietnam, to be accomplished by mining.

I favoured a blockade because it would force Hanoi to conserve its supplies and thus slow down its offensive at least until reliable new overland routes had been established through China. Since most of the supplies would be Soviet, this would not be an easy assignment. I preferred mining because after the initial decision it was automatic; it did not require the repeated confrontations of a blockade enforced by intercepting ships. Even though the brunt of stopping the offensive would still have to be borne by the forces of South Vietnam, once enemy supplies in the South were exhausted, the mining would create strong pressures for negotiation.'[38]

Haig had consulted Moorer in early April, less than a week after the March 30 commencement of the Communist Spring Offensive. Moorer was enthusiastic and probably thought the chances of approval were better than ever as the month of April wore on. As the military situation deteriorated Admiral McCain, Moorer's CINCPac, sent a formal request for approval of blockade by mining Haiphong Harbour. This dispatch was received by Moorer on 23 April. On May 1 Haig asked US CNO, Admiral Zumwalt for an assessment of the likelihood of success using a mine blockade. Zumwalt was all in favour of the idea and in his memoirs states:

'. . . We (USN command) all preferred mining to blockading (with ships). Mining was tactically simpler and politically more decisive. Ships patrolling aggressively in front of harbour entrances would be both more provocative and more vulnerable than mines lying quietly in harbour waters . . . As military operations go, in fact, mining is one of the most cost effective there is. It is relatively cheap and relatively safe and extremely threatening to an enemy.'[39]

On May 2 CinCPac followed up his 23 April mining recommendation and reminded Moorer of his request. The Wednesday May 3 meeting aboard SEQUOIA evidently proved decisive in terms of the real possibility of a mining blockade since, on the afternoon of Thursday May 4, Moorer met with Zumwalt and advised him that he (Moorer) had been instructed to immediately produce a Presidential brief concerning the mining of North Vietnamese harbours. Zumwalt and his advisers prepared the brief from 2000 to midnight that evening and on the following day, Friday May 5, Zumwalt and Moorer would discuss ramifications of the plan before presenting it to the Joint Chiefs and then the President.[40]

While the military were involved in working out the details of a mine blockade of North Vietnam much controversy over adopting the option existed among White House Staff. The period 3–5 May was a time of Presidential uncertainty regarding mining and Nixon was not to make his final decision until the night of Friday 5 May or on the next morning at Camp David.[41] Nixon was obviously concerned about the Russian and Chinese reaction to a blockade of any sort. With very few exceptions White House Staff took the cancellation of the Moscow Summit as obvious if mining were to take place. Strong arguments against the mining came from Defence Secretary Laird and CIA Director Helms.[42]

On May 3 Nixon told Kissinger, Connally (Treasury Secretary), Haldemann (White House Chief of Staff) and Haig; with some degree of frustration:

'. . . As far as I'm concerned, the only real mistakes I've made were the times when I didn't follow my own instincts . . . Now in this case my instinct is that one thing is clear: whatever else happens we cannot lose this war. The summit isn't worth a damn if the price for it is losing in Vietnam. My instinct tells me that the country can take losing the Summit, but it can's take losing a war.'[43]

Nixon later said of his attitude '. . . I believed it was essential that we take decisive action to cripple the North Vietnamese invasion by interdicting the supplies of fuel and military equipment the enemy needed for its push into South Vietnam. I consequently directed that plans be prepared immediately for mining Haiphong harbour and bombing prime targets in Hanoi, particularly the railroad lines used for transporting military supplies.'[44]

Nevertheless, Nixon '. . . decided to take the risk of postponing a decision for at least a few days' and set about making the Soviets aware of how seriously he took the situation.[45] It was not until midday on Saturday 6 May that Moorer alerted CinCPac to prepare to initiate mining attacks at 2000 (Washington time) on 8 May. Nixon planned to give his address to the nation at 2100 on

that evening and spent the weekend preparing his speech and for the National Security Council (NSC) Meeting which was to take place at 0900 on Monday morning.

The three hour NSC meeting on Monday morning involved considerable debate.[46] The Defence Secretary and Director of the CIA maintained their stand against the mining and bombing attacks. Secretary of State Rodgers was 'ambiguous'. Connally, Vice-President Agnew and Kissinger were in favour of the measures Nixon had finally decided on. To exacerbate this lack of unity at the highest levels, State Department academic experts on Chinese and Soviet affairs all came up with what turned out to be wrong and pessimistic predictions.[47] The Soviet expert advised that the Soviets would definitely cancel the summit. The China expert advised that Peking would freeze relations. Nevertheless, an order for commencement of attack had to be relayed to CinCPacFLt by 1400 Washington time if the operation was to be effected during the Presidential address that evening.

About midday Nixon summed up his perception of the situation to the NSC. According to Kissinger, Nixon said:

> 'The real question is whether the Americans give a damn anymore . . . If you follow Time, The Washington Post, The New York Times and the three networks, you could say that the US has done enough. "Let's get out; let's make a deal with the Russians and pull in our horns." The US would cease to be a military and diplomatic power. If that happened then the US would look inward towards itself and would remove itself from the world. Every non-communist nation in the world would live in terror. If the US is strong enough and willing to use its strength, then the world will remain half communist rather than becoming entirely communist.'[48]

The meeting concluded at 12.20pm and Nixon's 'Executive' order was relayed from Washington to CinCPacFLt at 1340 Washington time. At 2000 Washington time Navy and Marine A6 and A7 carrier aircraft took off from the decks of *USS Coral Sea* and commenced mining Haiphong, Hon Gai and Cam Pha harbours. By the time the President started his speech to the nation, 75 highly capable Mk 52 mines had been deployed along the 12 mile length of the narrow (200–250 feet) ship channel into Haiphong. In the following days over 700 DST-36 mines were laid in three other fields outside the Haiphong channel entrance. The MK 52 mines were set with a 100 days sterilization time while the destructors had a 200 day setting.[49] In latter operations, involving reseeding and mining coastal areas where lightering could take place, a total of 11,000 DST-36 were deployed.[50]. No aircraft casualties occurred on 8 May and it was described by the US CNO as a 'textbook operation'.[51]

By the time the US aircraft involved in the mission were back on board, President Nixon had commenced his speech which was not only aimed at justifying the mining to the American people. It was used as a method of direct communications with the Soviet and Chinese leadership as well. Nixon's 8 May speech made a critical, perhaps even decisive, contribution to the success of the US initiatives of 1972. Careful attention was paid to political and legal factors during the speech and a close analysis of the text is informative and rewarding. The speech provides a valuable political-legal precedent associated with launching a modern mining campaign.

THE 'STING'

During the speech Nixon stressed that he would not accept Hanoi's terms but a negotiated outcome was still his preference. He spoke of the disappointing 2 May meeting with the North Vietnamese who '. . . arrogantly refuse to negotiate anything but an imposition' and stated the objective of his military decisions clearly. He said: 'I therefore conclude Hanoi must be denied the weapons and supplies it needs to continue this aggression.' The next stage of the speech dealt with how the objective would be achieved:

> 'All entrances to North Vietnamese ports will be mined to prevent access to these ports. United States forces have been directed to take appropriate measures within the claimed and territorial waters of North Vietnam to interdict the delivery of any supplies . . . Rail and all other communications will be cut off (by) the maximum extent possible.'

Nixon then stated this terms to the North Vietnamese and went on to spell out the implications of his actions to the Soviet Union and to a lesser extent China. He said that:

> 'No Soviet soldiers are threatened in Vietnam. 60,000 Americans are threatened. We expected you to help your allies, and you cannot expect us to do other than continue to help our allies . . . Our two nations have made significant progress in our negotiations in recent months. We are near major agreements on nuclear arms limitations, on trade, and a host of other issues. We do not ask you to sacrifice your principles, or your friends, but neither should you permit Hanoi's intransigence to blot out the prospects we together have so patiently prepared.'[52]

There are many noteworthy aspects of the 8 May speech. The following points illustrate very well how a mining campaign can be justified to the world community on the basis of the Power Use Criteria or PUC's specified previously:

- The US Government accepted the burden of proof for its actions and promptly explained its conduct before the world community. The explanation was televised at the time operations were carried out and it was given from the highest level of state, that is, from the President of the United States.
- Nixon explained that the acts of the North Vietnamese had raised an imminent threat to the lives of the 69,000 US Servicemen remaining in South Vietnam. He also explained that the territorial integrity and political independence of a US ally (South Vietnam) was threatened. These aspects dealt with a realistic interpretation of Article 51 of the UN Charter in terms of being a reasonable act of individual and collective self defence. In doing this he clearly defined the limited objectives of his actions.
- The President stated that, for months, reasonable and peaceful efforts to arrive at a settlement with the North Vietnamese had failed. He also emphasised his preference for a negotiated settlement and would continue these efforts, thus putting the US negotiating record beyond reproach. Nixon stated reasonable terms involving an internationally supervised ceasefire and the return of US prisoners of war. Following agreement to these terms by North Vietnamese leaders he said that the US withdrawal in full would be completed within four months.
- The US military response, as detailed in the speech, was depicted as proportional and reasonable in the face of the threat posed by the North Vietnamese offensive. The mining effort minimized violence and greatly limited the threat to non-combatants. The mining campaign was a major example of the principle of economy of force.[53]
- Detailed attention was also paid to the customary and conventional laws of blockade even though the terms blockade or quarantine were not used. This is indicated by the following points:
  - (i) Reference was made to the prevention, by mine interdiction, of access to and from North Vietnamese ports by commercial shipping *and* North Vietnamese naval units. This statement accorded with the Hague VIII article precept that mines not be laid with the 'sole purpose of intercepting commercial shipping'.[54]
  - (ii) It was emphasised that the mines were only to be l;aid in the territorial seas and internal waterways of North Vietnam. Freedom to navigate the high seas was not interfered with under TIAS 5200 of the 1958 Geneva Convention on the High Seas.[55]
  - (iii) Adequate measures were taken for the protection of neutrals.[56] Nixon stated that three daylight periods were available for neutral vessels to leave North Vietnamese harbours and waters. This was arranged using a 72 hour arming delay on mines used during the initial operations. Neutral governments were notified promptly and a Notice to Mariners was issued. US and South Vietnamese naval vessels would also warn all vessels about to enter the mined areas that they do so at their own risk.

In addition to these measures the US Ambassador to the UN, George Bush, promptly informed the UN Security Council that '. . . these measures of collective self defence . . . (were being reported) as required by Article 51 of the UN Charter.' Bush went on to say that the operations were '. . . restricted in extent and purpose.'[57] To further emphasise the limited objectives of the operations Nixon only referred to them as 'interdictions'. By doing this the President probably hoped to forestall legal challenges to his executive authority to order the mining campaign without a formal declaration of war.[58]

POLITICAL AFTERMATH

The Presidential decision to mine Vietnamese waters was generally perceived as involving grave risk. The New York Times went so far as to describe it as a 'desperate gamble'.[59] White says that '. . . the mining of Haiphong harbour had been the greatest gamble of Mr Nixon's diplomacy'.[60]

Kissinger described the media's rage as 'nearly uniform'.[61] The following newspaper excerpts, each being run within days of the speech, range from the basically anti-Nixon Administration New York Times to the decidedly right wing Christian-Science Monitor:

New York Times: (on calling for Congress to block government funding so as to) '. . . save the President from himself and the nation from disaster.'[62]

Washington Post: commented that Nixon '. . . has lost touch with the real world . . . The Moscow Summit is in the balance, if it has not yet toppled over . . . The only relief in this grim scene is that Mr Nixon is coming to the end of a term and the American people have the opportunity to render a direct judgement on his policy.'[63]

St Louis Post-Dispatch: commented that the nation could not support its President because '. . . in this case the cause of war isn't one of honour but of dis-honour.'[64]

Boston Globe: (of the challenge to Moscow) '. . . Somehow it all seems even more immoral than our involvement in the war itself.'[65]

Christian Science Monitor: '. . . the wisdom of that (mining) decision is clearly open to question.'[66]

The response from Nixon's political rivals was equally unfavourable George McGovern, Nixon's competitor for election in the forthcoming November Presidential election said '. . . The President must now have a free hand in Indochina any longer . . . The nation cannot stand it. The Congress must not allow it . . . The political regime in Saigon is not worth the loss of one more American life.' He also said '. . . This new escalation is reckless, unnecessary and unworkable . . . a flirtation with World War III.'[67]

Thoughts in a similar vein regarding the decision to mine were echoed by the following prominent democrats:

Edward Kennedy: '. . . The decision is ominous and I think it is folly.'

William Proxmire: '. . . reckless and wrong.'

Hubert Humphrey: '. . . filled with unpredictable danger.'

Edmund Muskie: '. . . (He) is risking a major confrontation with the Soviet Union and with China and is jeopardizing the major security interests of the United States.'

Edward Koch: '. . . The President is an international law breaker.'

Harold Hughes (Iowa) '. . . A national tragedy.'[68]

Kissinger summarized the response to Nixon's 8 May speech, and the measures it involved when he stated that '. . . Editorials, comment, commentators (were) overwhelmingly against (us) at home and abroad, riots on campuses, and demonstrations . . .'[69]

Communist response was pitched at a much lower key than the domestic fury of some elements in the United States. An emergency meeting of the Politburo was conducted in the Kremlin on the morning after the speech. TASS condemned the mining as '. . . fraught with serious consequences for international peace' and '. . . A gross violation of the generally recognized principles of freedom of navigation' as well as an '. . . inadmissable threat to Soviet and other shipping.'[70] Nixon was at no time personally denounced and the TASS bulletins specifically noted Nixon's assurances that US efforts were not directed against any other country. Chinese response was even milder than that of the Soviets. Other than complain of attacks on Chinese ships during US operations, which the Soviets also did, they carried on with business as usual.[71]

On 11 May Kissinger met Soviet Ambassador to the US Dobrynin, and asked him why no mention had been as yet made concerning the Moscow Summit. Dobrynin is said to have replied '. . . We have not been asked any questions about the summit and therefore my government sees no need to make a new decision.' Kissinger then asked Dobrynin '. . . should we have asked any questions about the Summit?' Dobrynin replied '. . . No, you have handled a difficult situation uncommonly well.'[72] Kissinger and Nixon now considered the crisis over. Both men proceeded to the Moscow Summit on 20 May.

Despite the extremely heavy criticism by the free world media and rival politicians the US 'grass roots' domestic support appeared to be behind Nixon. The Committee to re-elect Nixon received 20,000 telegrams of support the day after the speech, with a further 17,000 to be delivered. On the morning after the speech a telephone poll conducted by the Opinion Research Corporation recorded a 74% support for the President. A survey conducted on the 9th and 10th of May reported a level of 59% approval for his actions, 24% disapproval and 17% unsure. Nevertheless, the real test of Nixon's leadership and policies during the 'week of disaster' and throughout his first term was to occur in the forthcoming 1972 Presidential elections scheduled for early November.[73]

On 22 August, at the 1972 Republican Convention, Nixon was renominated for a second term by a vote of 1,347 to 1. One week later Nixon received the largest post convention point spread in favour of a Republican candidate in Gallup Poll history. In early November Nixon won a landslide victory in which he carried every state in the Union except one. No other President had even taken so many states and he received the largest number of popular votes ever cast for a Presidential candidate.[74] A majority was won in every key population group defined by Gallup polls, except

democrats and blacks. Several of these groups had never before been seen as Republican backers in Gallup poll history. Nixon's total share of the vote was 60.7 percent while McGoverns was 37.5 percent. This compares with his 47 percent share of the vote in the closely contested 1968 election. Consequently, the results of the 1972 election can be accepted as an overwhelming mandate of Nixon's presidential performance including the recent crisis management of May 1972.[75]

MILITARY AFTERMATH

There is little question that the blunting of the 1972 Communist Spring Offensive was brought about by a strong *combination* of political and military pressure. The offensive lost momentum after initiation of the mining/bombing strikes during the period 8–12 May. The imminent attack on Hue never eventuated and the beseiged cities of Kontum and An Loc did not fall. Kissinger states in his memoirs that:

'. . . Clearly, someone had blinked. Less than a week after the resumption of full-scale bombing and the blockade of North Vietnam efforts were being made to resume negotiations "without preconditions" — a far cry from Hanoi's previous smug insistence on the "correctness" of its terms . . . it (Hanoi) had at last begun its retreat toward a more negotiable condition.'[76]

After receiving a copy of Kissinger's May 9 press conference, Le Duc Tho sent word on May 12 that he was prepared to resume negotiations. On May 15 the US agreed in principle to reopen plenary sessions in Paris.

At this early stage after the initial mine deployments the real effect of the mining campaign was more in terms of political and psychological shock than direct US military advantage. US intelligence estimates indicate that the North Vietnamese had about four months war stocks in-country by the time of the mining attack.[77] It would obviously take time for the mines to have a long term effect on the North Vietnamese warmaking effort. But the blockade was entirely successful from the beginning. At the time of the first mining of Haiphong harbour 36 merchant vessels were in harbour. Nine of these ships left during the three day arming delay period while the remaining 27 ships spent the next ten months confined to harbour.[78]

By September 1972 US analysts estimated that supplies to forward areas of North Vietnamese and Viet Cong activity had been reduced by 300–1500 tons per day.[79] These figures represent a 20–90 percent reduction in the flow of war materials from North Vietnam to forward areas in South Vietnam. This was an indirect result of the mining because mines laid in coastal waters considerably reduced the quantity of goods sent to the south by lightering craft and a huge burden was placed on overland truck and rail routes which convoyed goods from China and went south. The flow of goods required in the south could no longer be maintained under cover of darkness or in bad weather.[80] Consequently, the substantial reduction of logistics to the south arose from the increased susceptability of overland lines of communication to surveillance and air strikes. This crucial indirect aspect was overlooked by the systems analysts and academic strategists of the 1960's.

Sir Robert Thompson, a strategist of the Malayan emergency and critic of the US conduct of the Vietnam War, highlights the fundamental Political/Military value of the mining campaign in the following quote:

'. . . The mining was aimed at reducing Hanoi's future capability to continue the war at the pace Hanoi itself had set.'[81]

Even though Hanoi did have several months war stocks available it was unlikely that North Vietnam would allow these stocks to dwindle significantly in the long term. Kissinger describes how he interpreted the situation regarding the effects which the mining would have when *addressing the NSC on the morning before the mining operations*:

'I then answered the analyses that disparaged the effect of mining. The North Vietnamese would have to find alternative routes for 2.1 million tons of seaborne imports. Silhanoukville was closed. They could use railroads only by night for fear of our interdiction: "You can't throw these figures around without better analysis. It is easy to say that they have four months' (reserve) capacity and would go all out and end the war, but they would end up with zero capacity . . . One thing is certain, they will not draw their supplies down to zero.'[82]

Continued bombing of North Vietnam and supply lines to the south together with the mine blockade and circumscribed support from its Soviet allies seemed to have moderated Hanoi's *recalcitrance*. Nixon stated *in his memoirs*:

'After three years of disappointing and unproductive stalemate the US-North Vietnamese private channel suddenly became active in August. For the first time the Communists actually seemed to be interested in reaching a settlement. Kissinger and I assumed that they had come to the conclusion that McGovern did not stand a chance of becoming President and had therefore decided to explore the policy that they could get better terms from me before the election than after it. In addition they were undoubtedly concerned by our contacts with Moscow and Peking and with the success of Vietnamization; we knew also that the May 8 mining and bombing had taken a heavy military toll.'[83]

Negotiations continued with the North Vietnamese giving some ground under continued military pressure. Renewed north Vietnamese intransigence in early December lead Nixon to order the reseeding of the Haiphong minefields and B-52 strikes against military targets in the Hanoi-Haiphong areas. Bombing of North Vietnam continued until December 29 when the North Vietnamese proposed a meeting in Paris on January 8. The net result of the January negotiations was a settlement made on January 23 which involved the long sought after ceasefire which would be put into effect at midnight on January 27. The US continued the withdrawal of all remaining troops while simultaneously making massive injections of military equipment into the South under the code name Operation Enhancement Plus.[84] On February 12 the first US POWs were flown from Hanoi to the Philippines. Nixon had by no means 'won the war' as he would later arrogantly claim, but he had achieved the crucial political-military objectives of his May 8 announcement which were to:

1. Prevent the imminent collapse of South Vietnam.
2. Secure the safety of US forces in South Vietnam.
3. Institute a ceasefire throughout Indochina.
4. Secure the return of US POWs.
5. Demonstrate his resolve to the Soviets.

CONCLUSIONS ON THE POLITICAL CASE STUDY

It is suggested that the personality and will of the national leader (Richard Nixon) was the dominant factor in the US management of the crisis initiated by the Communist Spring Offensive of 1972. Evidence points to Nixon 'becoming increasingly irate' during the months of April in which North Vietnamese forces made spectacular gains and implanted the vast majority of their regular forces in South Vietnam.[85] A surprised President Nixon had obviously perceived the imminent collapse of South Vietnam as a distinct possibility by May 1 and his last hope of a negotiated settlement rested on the May 2 secret meeting with the North Vietnamese in Paris. The President's delusion that Soviet leverage could moderate the hard North Vietnamese negotiating position during these talks was dashed when Kissinger closed off talks after being exposed to '. . . three hours of insult and invective.'[86] The tentative decision to take unprecedented military action was made on May 3. Though Kissinger basically agreed with strong military action he was surprised at the degree of Nixon's response. The President personally insisted on massive Air strikes and the bolstering of Seventh Fleet strength from 84 to 136 vessels. A Nixon critic suggests, with much justification, that:

'. . . Richard Nixon had become unnerved; he had concluded that he could not politically survive a defeat, or even the appearance of a defeat, in South Vietnam. He was convinced that his political future rested on the resolution of the Vietnam War, and not on a Moscow Summit . . . The Vietnamese and Russians had conspired to humiliate him and he wanted to move boldly against Moscow.'[87]

In the final analysis Nixon made a political judgement on his fundamental priorities and acted on that judgement with a vigour and will that surprised even the military. His *instincts* told him that to lose in Vietnam would be more costly than to lose the Moscow Summit. Nixon's diary of the time records that '. . . What really matters now is how it (the war) all comes out. Both Haldeman and Henry seem to have an idea — which I think is mistaken — that even if we fail in Vietnam we can survive politically.'[88]

The leader therefore concentrated his resources and energies into the *decisive act* of preventing the imminent collapse of South Vietnam. However, he was running out of options since, other than increased bombing against more targets, he could do little else but blockade North Vietnam. Landing of more US troops in Vietnam was out of the question. Similarily, the use

of tactical nuclear weapons against North Vietnamese lines of communication, which had been examined in the Duckhook plans of 1969, was not a viable proposition given the domestic and international political situation.

Therefore the mining campaign of 1972 was the result of a decision made by a national leader exasperated by an enemy exhibiting no real desire for compromise and threatening to overrun a US ally. Nixon grew increasingly 'fed up' with North Vietnamese behaviour both on the battlefield and at the negotiating table.[89] By May 3 the negotiating and military position had become bleak enough for him to seriously take up a decision to mine. This decision was taken, and acted upon, despite almost unanimous opinion throughout the highest levels of the Administration that the Moscow Summit would be cancelled and relations with China would freeze up again. The *leader's will* and *political* judgement were the major factors in the decision which was also heavily influenced by a strong anger over perceived North Vietnamese duplicity.[90] Both factors contributed to the decision to take unprecedented military action and ultimately set the scene for a favourable negotating position in Paris and Moscow.

The short term military effects of the mining campaign were recognised by the Nixon Administration from the outset as being minimal. But long term military effects, after a few months, were very considerable. However, the important aspect of the campaign is that it yielded almost *immediate political leverage* for the US. The mining campaign was an act which clearly and tangibly demonstrated US resolve and preparedness to continue supporting its allies. The act also met with the apparent acceptance of the bulk of the US electorate, an electorate which, after seven years of active involvement in Vietnam, had developed a growing revulsion to any warlike US activity in the area. Similarly, Nixon's tough military approach to North Vietnam during early May almost certainly added to his prestige and standing with senior Soviet officials during the Moscow Summit.

GENERAL CONCLUSION

It is dangerous, if not dishonest, to draw too many conclusions from a single case study. However, the study did crystallize some fairly important lessons dealing with the co-ordinated use of political-military power in a modern conflict climate.

Successful conflict management will increasingly involve the use of an *appropriate combination* of political and military influence or power. The use of such power is mainly dependent on the will of the higher political leadership of a nation. The exercise of will, which is the *act* of asserting a deliberate political-military choice, involves a commitment based on two types of intuitive knowledge. Specifically, in an emergency, an able national leadership should:

- *Know what they can get away with in the domestic arena.*
  — Understand the ideosyncracies, aspirations and *spirit* of the people or nation they are representing in a conflict. An intuitive awareness of their country's public conscience and how far they can go before violating it, is decisive. For without conflict management decisions which are calculated to harmonise with the public conscience, the conflict stamina of democratic peoples wanes and gives the opponent openings for sustained and very effective propaganda subversions.
- *Know what they can get away with in the international arena.*
  — This entails a knowledge of the nature of risk, limited warfare and the international legal aspects of armed conflicts. Most importantly this involves an intimate knowledge of the opponents' (and his allies) cultural idiosyncracies, weaknesses and strengths as well as his physical and ideological 'heartlands'. From this is derived an intuitive awareness of just where and how far to push him without developing a useless state of desperation in which his actions cannot be controlled.

Exerting a level of control over the actions of an opponent using a combination of military surpirse, political and economic influence is the ultimate aim of war.

These two critical levels of knowledge provide an insight into the nature and magnitude of an appropriate response. But courage stemming from the will and character of the national leadership is the actuating force which implements the solution and accepts the risks. If the will to prevail exceeds that of the enemy's independent one, then a victory results often regardless of material factors. And, as Napoleon said . . . *in war, the moral is to the material as three is to one.*

NOTES

1. Spanier, p 4.
2. 'Politics is the art of the possible' was a statement made by Prince Otto Von Bismark in the Prussian Chamber on 18 December 1893. See, *Oxford Dictionary of Quotations*, p 84.
3. Nixon (1979) p 602.
4. Government is ultimately responsible for the higher conduct of war which, among other things, involves the formulation and stipulation of war policy. Increased government intervention during the post World War Two era has grown in proportion to the increasing destructiveness of nuclear and conventional weapons. A classic case involving increasing Government control of operational objectives occurred when General MacArthur was involuntarily relieved of his Command during the Korean War. MacArthur was seen as escalating military objectives beyond those needed to harmonize with much more limited political aims (see Osgood (1957) for a classic treatise on the concept of limited war as it developed in the 1950's). For an account of the tight political control of the Vietnam War and its effect upon US military command structure see Van Creveld (1985) Chapter 7, pp 232–260.
5. Schelling, p 16.
6. Eccles (Article) p 15. The author cites the US Naval War College 'Green Book' entitled *Sound Military Decision Making*, which directs that any proposed course of action be examined for suitability, feasibility and acceptability.

7–10. Spare.

11. United Nations, *Yearbook of the United Nations 1968* (New York, Office of Public Information, United Nations, Vol XXII, Appendix II).
12. Ibid.
13. United Nations General Assembly, Official Records, Resolution No 2625 (XXV), 25th Session, Supplement 28, A8028 (New York, 1971), p 121.
14. See McHugh (Report) pp 75–81 for a practical discussion of Forcible Self Help in the modern era.
15. McHugh (Report) pp 65–66.
16. See Ibid, p 76.
17. Preamble to Hague Convention concerning the Laws and Customs of War on Land of July 29, 1899 (with annexed Regulations).
18. Obviously, the memoirs of the main actors are heavily influenced by hindsight and self-interest. However, many of the relationships between participants were often not particularly cordial (eg. Nixon-Kissinger, Kissinger-Zumwalt) and realistic assessments of aspects of the campaign can be gleaned from a comparison of accounts and analysis of what one party said about the actions and interests of the other. The account of the mining campaign in this study contains selected quotes, the intent of which can be confirmed by the writings of all actors and the actual operational and political actions taken.
19. See Kissinger (1979) p 1181, 1185. Kissinger's assessment was confiormed by later events.
20. The first National Security Study Memorandum of the Vietnam War undertaken during the Nixon Administration was titled NSSM 1, parts of which were leaked to the Press in April 1972. Like previous studies it determined that mining would exert no long term disruptive effect on North Vietnamese ability to resupply the Vietcong in the South. The Joint Chiefs of Staff disagreed with this conclusion and Kissinger eventually ordered the compilation of a new study (code named 'Duckhook' which was completed in mid-July 1969 by the Office of the Chief of Naval Operations (who was then Admiral Moorer). 'Duckhook' was essentially an 'extensive war plan'. With regard to the issue of the legalities of mining the CNO input stated '. . . The former simple dichotomy between a state of peace and a state of war no longer has legal or political validity . . . Acts in self defence are lawful under international law. Therefore, mining of Haiphong harbour and its approaches, as described in this plan, is considered to be a lawful exercise of South Vietnam's right of self defence against the aggression of North Vietnam'. (See Hersh, p 120, 520 for details of the 1969 planning development. Also see Kalb and Kalb (1974) for details of the NSSM 1 study, p 125, 129.
21. Hersh, p 520.
22. Cited in Cagle (Article) p 107.
23. Ibid, p 85.
24. Ibid, p 107. This article gives an excellent outline of the extreme, and usually civilian dominated, target selectivity of the US air war in Vietnam.
25. Robert Strange McNamara, the US Defence Secretary from 1960–68, was extremely reluctant to take the risk of mining North Vietnam (see note 122). In 1965 McNamara, at President Johnson's behest, directed the Assistant Secretary of Defence (International Security Affairs) to investigate the legalities of mining Haiphong harbour. The recommendation to McNamara from his assistant appears to be to the affirmative regarding the mining option. Nevertheless McNamara decided against it. (See Rubin (Article) p 43).
26. Nixon (1979) p 272.
27. Kissinger (1979) p 1179.
28. Hersh, p 120.
29. Nixon (1980) p 122.
30. Nixon (1979) p 594.
31. Ibid, p 595.
32. White, p 234.
33. Kissinger (1979) p 1169.
34. Kissinger (1982) p 24.
35. Kissinger (1979) p 1173.
36. Ibid, p 1175.
37. Ibid, p 1174.
38. Ibid, p 1178.
39. Zumwalt, p 384, 387.
40. Ibid, pp 384–387.
41. Ibid, p 387.
42. Kissinger (1979) p 1180. Also, see Nixon (1979) pp 603–604.
43. Nixon (1979) p 602.
44. Ibid.
45. Ibid, p 601.
46. The fullest account of the May 8th NSC meeting is given in Kissinger (1979) p 1183–1185.
47. See Ibid, pp 1182*f*1183.
48. Ibid, p 1185.
49. Luckow (Article) p 24. The author cites the 'Operation Endsweep' Lecture given to the NATO Minewarfare Working Party, Toulon, France as his reference for this information. The lecture was given by F. Vecchione on 10 November 1973.
50. Hartmann (1979) p 188.
51. Zumwalt, p 387.
52. A full transcript of Nixon's speech is found in 'Test of the Presidents Address', *The Evening Star*, Washington, 9 May 1972, p A-10.
53. To achieve economy of force or effort, a leader must correctly appreciate the situation so he will be able to assign the minimum forces needed to achieve his aim. Such economy diminishes logistic support demands and in many instances is not unduly provocative. Economy of force is one of the 10 Principles of War.
57. George Bush, 'To Security Council', *The New York Times*, 9 May 1972, p 20.
58. See Luckow (Article), p 22. A blockade is technically an act of war under international law.
59. Cited in Kissinger (1979) p 1191.
60. White, p 237.
61. Cited in Kissinger (1979) p 1191.
62. Ibid.

63. Ibid.
64. Cited in Nixon (1979) p 606.
65. Cited in Kissinger (1979) p 1191.
66. Ibid.
67. Ibid.
68. Cited in White, p 236. The quote of William Proxime is cited in Kissinger (1979) p 1190.
69. White, p 236.
70. Nixon (1979) p 607.
71. See Luckow (Article p 21. Also, Kissinger, (1979) pp 1192–1193.
72. See Kissinger (1979) pp 1193–1194 for an account of the meeting between Dobryin, Nixon and himself. See also Nixon (1979) p 607.
73. White, p 236.
74. Nixon (1979) p 678.
75. Ibid, pp 716–717.
76. Kissinger (1979) p 1196.
77. Ibid, p 1185.
78. Zumwalt, pp 387–388. See also McCauley (Article) p 25.
79. Taylor (Article) p 42.
80. Hoffman (Article) p 151.
81. Thompson, p 115.
82. Kissinger (1979) p 1185.
83. Nixon (1979) p 689.
84. See Ibid, pp 717–738, 746–751 for a record of US negotiations with the North Vietnamese until the signing of the Ceasefire Agreement on 23 January 1973.
85. Hersh, p 513.
86. Nixon (1979) p 599.
87. Hersh, p 510.
88. Nixon (1979) p 589.
89. See Hersh pp 505–513, 528.
90. See Ibid, Chapter 36 (Vietnam: Hanoi's Offensive) for a detailed and highly critical account of President Nixon's attitude during the period 30 March –22 May 1972, pp 503–528.

Bibliography

Cagle M, 'Task Force 77 in Action Off Vietnam', US Naval Institute Proceedings, February 1976.
Eccles H, 'Strategy — The Theory and Application', Naval War College Review, May–June 1979.
Hersch S., 'The Price of Power: Kissinger in the Nixon White House'. (New York, Summit Books, 1983)
Hoffman R., 'Offensive Mine Warfare: A Forgotten Strategy'. US Naval Institute Proceedings, Naval Review Edition, May 1977.
Luckow U., 'Victory over Ignorance and Fear: The US Minelaying Attack on North Vietnam', Naval War College Review, Jan–Feb 1982.
Kalb M. and Kalb B., 'Kissinger' (London, Hutchinson, 1974)
Kissinger H., 'The White House Years', (Boston, Little, Brown, 1979)
Kissinger H., 'Years of Upheaval', (London, Weidenfeld and Nicholson and Michael Joseph, 1982)
McHugh J., 'Forcible Self Help in International Law. Naval War College Review,' Nov–Dec 1972.
McCauley B., 'Operation ENDSWEEP', US Naval Institute Proceedings, March 1974.
Nixon R., 'The Memoirs of Richard Nixon' (London, Arrow Books, 1979)
Nixon R., 'The Real War' (New York, Warner Books, 1980)
Osgood R., 'Limited War: The Challenge to American Strategy' (Chicago, University of Chicago Press, 1957).
Rubin A., 'Rules of Thumb for Gut Decisions: International Law in Emergencies', Naval War College Review, March April 1982.
Spanier J., 'World Politics in An Age of Revolution', (London, Pall Mall Press, 1967).
Taylor J., 'Mining: A Well Reasoned and Circumspect Defence'. US Naval Institute Proceedings, November 1977.
Thompson R., 'Peace is not at Hand' (London, Chatto and Windus, 1974).
Van Creveld M., 'Fighting Power: German and US Army Performance, 1939–1945', (London, Arms and Armour Press, 1983).
White T., 'The Making of a President 1972' (New York, Atheneum Publishers, 1973).
Zumwalt E., 'On Watch: A Memoir' (New York, Quadrangle/The New York Times Book Co, 1970).

OF SHIPS AND THE SEA

'02' Type Craft — Air Force at Sea

by Robert E. Griffin

Over the years there have been boats built that naturally instil confidence in the crews, confidence by the security of knowledge that these boats were built of the best materials available at the time of construction, boats that had certain character. Boats that were designed years ahead and built with a purpose in mind and used for that purpose.

The vessel a 63' 'Air Sea Rescue' boat, originally built during the second world war by the Miami Boat Building Co. for the U.S. Navy they carried out their role they were designed for most efficiently, as construction was stepped up and more Aire Sea Rescue boats were required, contracts were undertaken by some of the USA's most famous boat building yards, names like 'Huckins Yacht Corp', 'Fellows and Stewart Inc' and 'Truscott Boat and Dock Co', names synonomous with fine vessels, were but a few.

In 1963 Australia decided it needed a replacement for its ageing 48' Air Sea Rescue boats so the 63' ARB, was purchased and adapted to our Air Force and Navy requirements. They were then designated an '02' through to '02-113' which was the last to be built.

In Australia construction of the '02' type craft was undertaken by yet another famous boat building name, that of Halvorsens of Sydney and a number were built by this firm which '02-113' built in 1967 was the last. The construction of the 'Miami 63' was similar to that of aircraft of that era, a lightweight structure using the principle of stresses skin for maximum strength. Plywood was used extensively throughout the boat for structure members, the stern post, keel and chines were of Honduras Pine, framing was of high grade spruce or cypress, the boat was double diagonal planked to a hull thickness of 1" and Box cotton duck laid in marine glue between the two layers of planking. The frames spaced 9" apart for the length of the vessel, a keel of 6" × 7" in the forward section tapering to 3½" × 8" in the after section and connected forward to a 12" × 12" stem all added to an extremely lightweight vessel.

In Australia the Halvorsen built boats were of Huon Pine of Queensland maple plank so over spted gum frames, keel and stern, although efficiency was not impaired.

Power was supplied by a paid of 630 b.h.p. 'Hall Scott' Defender petrol engines in V12 configurations the 24 volt ignition system was dupliced and each engine was fitted with 2 shrouded spark plugs per cylinder and the engines could be run (for quick fault finding) independantly of each bank of spark plugs. The fuel used was of aviation grade in a mixutre of 80/87 and 100/130 octane mixed on filling, capacity was 1302 gallons held in 2 rubber self sealing fuel tanks in the sick bay aft and with a maximum consumption of 110 gallons per hour gave the '02' a maximum range of 475 nautical miles at maximum speed of 33½ knots, of course this range was extended to 530 nautical miles in a continuous cruising speed of 25 knots was maintained drive through a manually operated gear box (and actually operated by a mechanic in the engine room) terminated with a 23½ square propellor affixed onto a 2" monel shaft.

To maintain proper efficiency in a comparitively light weight high speed craft of this type it was important to note that the same alterness in servicing and operating of these craft that was given to an aircraft. The craft weighed less than 28lb. per horse power (light) and it was a constant battle to stop overloading so the performance as put forward by the designer could be met, and the operation manual stressed the important of this condition, obvious by the following extract.

'The manufacturer has taken great care to eliminate all weight which does not contribute to the structural strength, seaworthiness and operating efficiency. It is adviseable to limit the amount of personal belongings each member of the crew may keep aboard.'

The author

Robert Griffin joined the RAN in 1959 and served 9 years as a weapons mechanic mostly on destroyers. On discharge he joined the RAAF Marine Section retiring as Warrant Officer in charge Marine Section, Williamtown Air Base. After a few years driving tugs and charter vessels around the Australian coast. He decided to try his hand at business and started a Marine design and consultancy office, disliking it intensely. He is now master of the Queensland Government Hydrographis survey vessel.

It was of little wonder that when these vessels finished their time within the services and were subsequently sold to privately owners, the first major modification was to refit diesel engines in place of the existing thirsty Hall Scott engines, 02–113 itself is fitted with GM 12V71(t) series, and although they produce a good 675 hp each, the extra weight of the diesels killed the top end performance and took from them their most prominent feature, in doing so the use of diesel fuel instead of aviation fuel made for a whole lot safer vessel and this was readily acknowledged by the crews.

General Specification

LOA	63'.0"
LWL	59'.0"
BOA	15'.0"
BLW	13'.0"
Max Draft	3'.10"
Light load disp	39 000 lb
Full load disp	52 000 lb
Fuel Capacity	1590 us
Fresh Water Capacity	150 us
Max Speed	33½ knts
Fuel Cons 'Full Power'	110 gal per hour
Fuel Cons '.25 knts'	70 gals per hour

Cruise Range

At full speed	475 naut miles
At 25 knots	530 naut miles
At 15 knots	600 naut miles

Armament

2 x twin 50 cal. Browning air cooled machine guns
2 x 420 lb. Depth charges located at stern.

Engine Specification

Thpe Hall Scott Defender
BHP 630 @ 2100 RPM
Aux. Lawrence 2 cylinder air cooled motors.

02–113 at work.

THE POTENTIAL FOR ADVANCED HULL TYPES FOR RAN SURFACE SHIPS

by Commander Trevor Ruting RAN

The RAN has clung to conventional technology for its surface combatant ships from its inception in 1911 until the commissioning of the GRP minehunter catamaran (MHI) *HMAS Rushcutter* in 1986. The traditional monohull form continues to be used, and proposed, for all major surface ships even though the technology of various types of advanced hull forms has been established for up to two decades.

This brief essay will address some aspects of the potential for the application of advanced hull types in the RAN for surface combatant ships. Certain support craft requirements may be ideally suited to solution by particular advanced hull forms but space precludes a detailed assessment in this paper.

DESIGN STRATEGY AND RISK

Due to the relatively high cost of each surface combatant vessel, it is natural that the assessment of total risk in the final product achieving the required capabilities will be a significant factor in the selection of the appropriate equipment acquisition strategy.

With the exception of the above mentioned MHI, and the Attack Class Patrol Boats (ACPB), all RAN surface combatants acquired since the end of World War II have been the result of a design strategy based on the use of a proven overseas design with some modifications for RAN operational requirements. This use of design agents to develop a 'proven' overseas design to more closely match particular — RAN requirements is the strategy in use for the eight new Australian Light Patrol Frigates described in the 1987 Defence White Paper. Although this method of design acquisition has been consistently used by the RAN to reduce technical, time and cost risks, it does lead to design obsolescence with consequent effects on later logistic support costs and ship effectiveness.

At the other end of the spectrum of acquisition strategies, it is possible to undertake a program of research and development and build up the complete ship system as an 'ab-initio' design. Many of the advanced hull forms addressed in this paper were intially developed using this approach. To satisfy risk reduction requirements, this approach would require the construction of prototypes as exemplified by the MHI development program.

An alternative approach, that is relevant to both 'conventional' monohulls and the more advanced hull types, is a compromise between the previous strategies. This strategy involves Australian design of the hull form to suit the particular RAN requirements but use of proven equipment in the various ship and weapon systems. As stated by Kehoe and Brower.[1] 'We do not believe that there is any significant risk associated with a new platform which merely repackages existing components and subsystems'.

This compromise solution (is not ship design always a compromise between competingm requirements!) is seen as an evolutionary way of introducing new, more appropriate hull types into service without excessive risk.

AUSTRALIAN REQUIREMENTS

Before discussing the differing types of advanced hull forms available it is appropriate to briefly note the primary hull requirements for RAN vessels.

The Australian maritime environment is perhaps best characterised by the large range in sea conditions from areas such as the Gulf of Carpentaria to the open South Ocean south of Tasmania, and the long distances between areas of Strategic interest eg Darwin to Cocos Island is 2000nm. These environmental and strategic factors combine to cause a requirement

The author

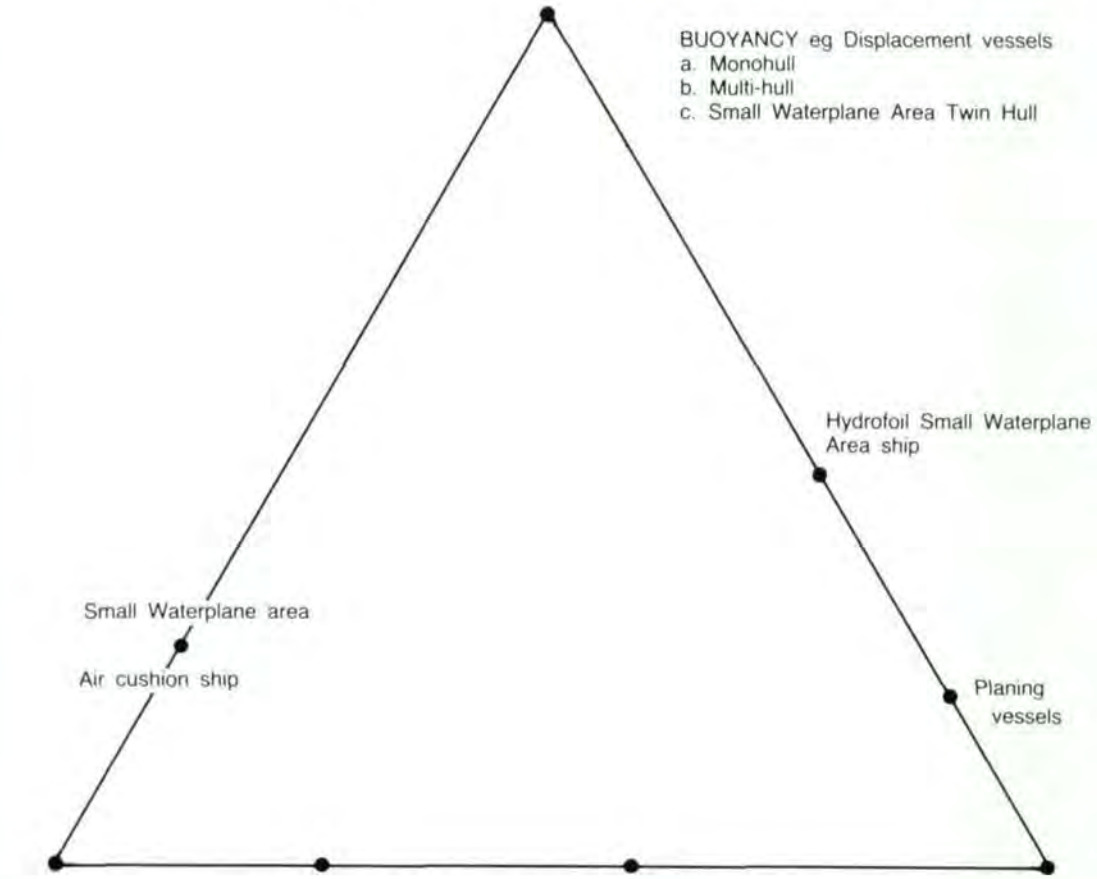
Commander Trevor Ruting, BE(Hons), MSc (Naval Architecture) RAN joined the RAN College in 1968 and completed his Naval Architecture degree in 1973. He has served in Marine Engineering billets in HMA ships Melbourne *(several times),* Brisbane *and* Perth. *Seatime was interspersed with postgraduate studies at London Universiuty, the Directorate of Naval Ship Design and the Directorate of Forward Design (Ship Projects). He is currently posted to* HMAS Waterhen *as Principal Engineering Officer.*

for vessels capable of long patrols in exposed areas. Hence, in addition to the combat requirements, RAN ships must have long range at useful speeds, good seakeeping and stability, and high levels of habitability. This latter requirement arises from consideration of the very important human element in the overall ship effectiveness assessment (See Hope[2] and Manton[3]).

ADVANCED HULL TYPES

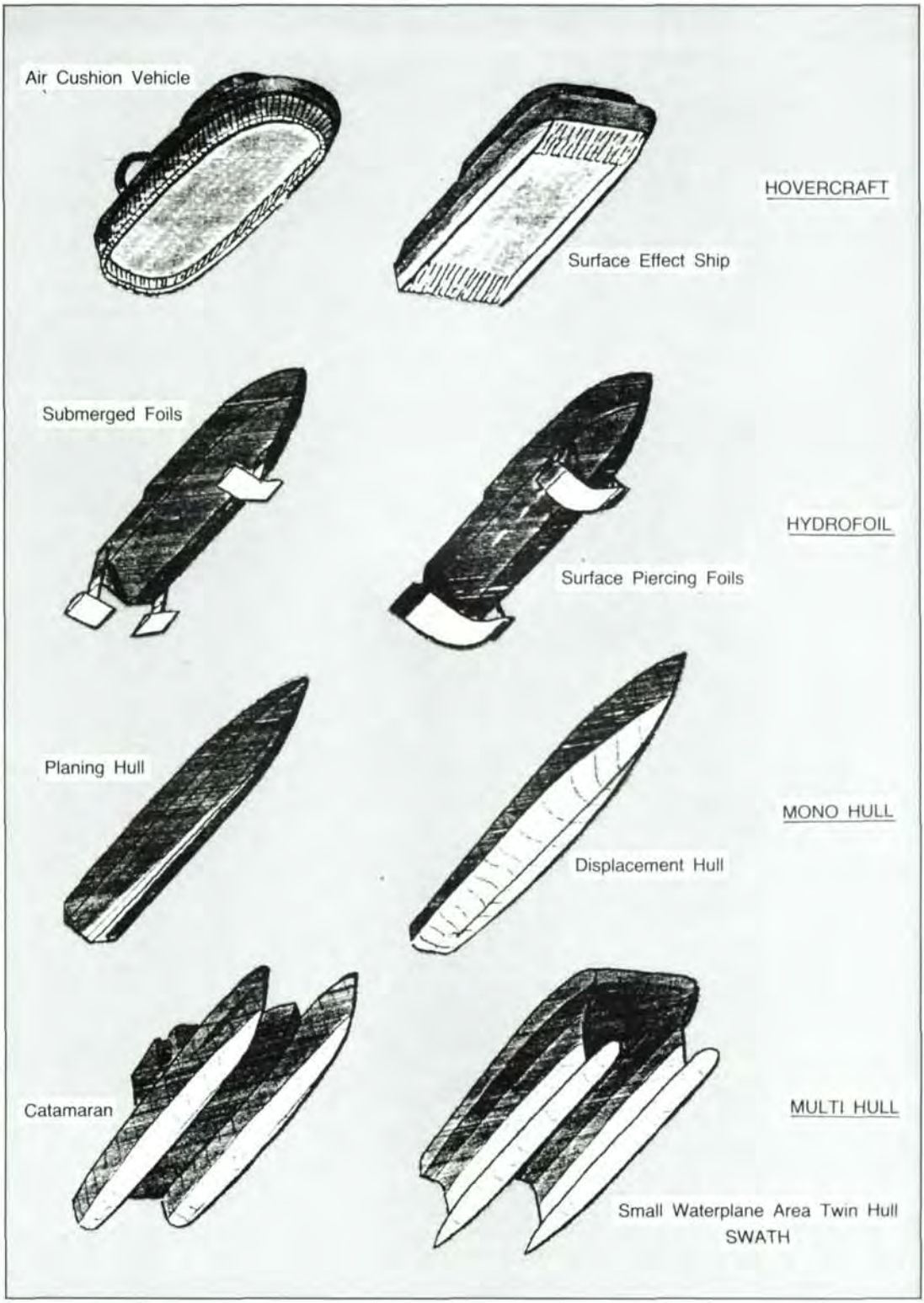
Before delving into the details of particular hull form types it is relevant to consider the overall physical requirements of the basic surface ship. An appropriate way to represent this is in the form of the vehicle support triangle shown in Figure 1 where the points of the triangle represent the three primary physical means of supporting the mass of the vessel.[4]

FIGURE 1. VESSEL SUPPORT TRIANGLE



For clarification of the common types of vessels, Fig 2[5] illustrates the basic types. As indicated by positions along the sides of the triangle, a variety of hybrid vessels are feasible and under active consideration in Europe, Japan and North America. Figure 3 illustrates the maximum speed of 200 ton examples of the main vessel types in Figure 1.

FIGURE 2. COMMON ADVANCED HULL FORMS



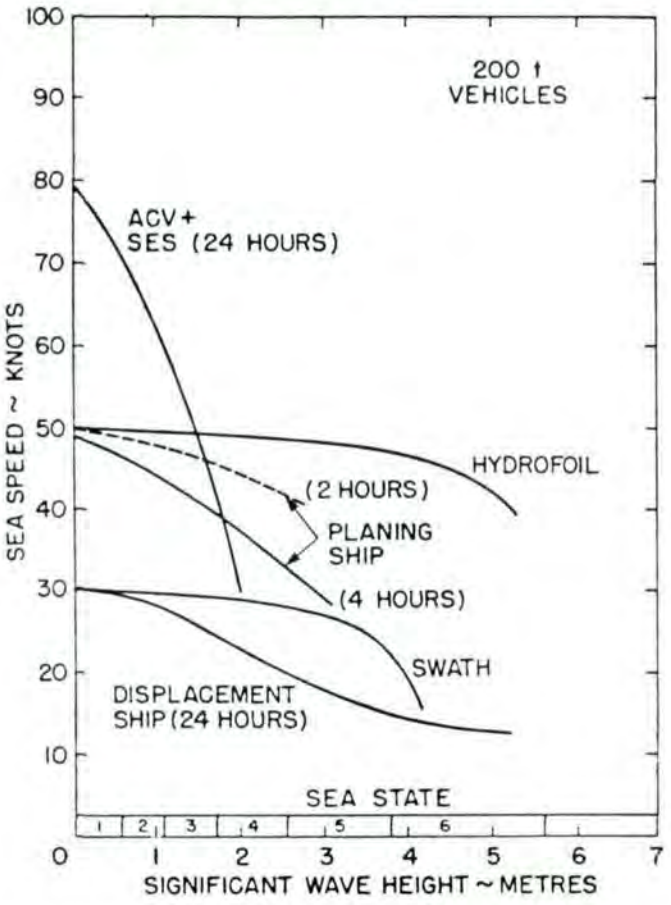
Monohulls

Commencing at the top of the triangle with displacement hull types, where the entire mass of the vessel is supported by hydrostatic buoyancy forces, one must first examine the traditional monohull which continues to be chosen for the majority of naval vessels. Although the monohull is rugged, simple, and relatively economical to build and operate, it is quite sensitive to sea conditions resulting in its speed having to be severely reduced in higher seastates and ship motions degrading vessel operational effectiveness. These impediments of the monohull area are most significant in the smaller size range (patrol boat size).[3]

The emphasis in modern monohull development has been on improving the ship to sustain speed in a seaway, and reduction of power requirements at higher speeds. The research and development often devoted to monohulls in all the major countries in the past 10 years has been most impressive as evidenced by the number of technical papers and the co-operative efforts of many countries including Australia. (The RAN is involved with the USN and RNethN in a collaborative program of high speed displacement hull form development at the Netherlands MARIN Ship Model Basin.)

As most seagoing personnel are aware, one way to achieve improved speed sustainability and ship motions is to increase ship size, particularly length. However, larger vessels generally have higher acquisition cost due to the tendency to increase the payload (weapons systems and sensors) to the maximum density permitted by the longer, larger hull. This higher initial cost inevitably leads to fewer although more capable hulls which could be at a strategic disadvantage to a larger number of smaller hulls. There is an alternative solution though, and that is to ensure that the original payload is installed in the longer hull. With hull cost only about 10% of the typical surface combatant acquisition

FIGURE 3. MAXIMUM SEA SPEED



A layman's Guide to Advanced Hull Type Operational Features

The special operational features of the various advanced hull types are summarised below:

a. Advanced Displacement Monohulls:
   (1) Very low risk, simple to construct and maintain
   (2) Very tolerant to weight growth and payload changes
   (3) Ship motions considerably improved relative to commissioned ships, but still reduce ship speed and effectiveness at higher sea states.

b. Catamarans:
   (1) Efficient, moderately high speed capability with low risk
   (2) Large deck areas and ample transverse stability
   (3) Ship motions no better than monohulls and greater sensitivity to weight change in the high speed catamarans

c. SWATH:
   (1) Excellent ship motions in even very small craft over wide speed range in all but extreme sea states
   (2) Simple layout and good deck space for helicopter operations
   (3) Requires deep draught and is very sensitive to weight and centre of gravity changes

d. Planing Craft:
   (1) Least costly way of achieving moderately high speeds in average sea conditions for their size
   (2) Relatively shallow draft

e. Hydrofoils:
   (1) Very good seakeeping at higher speeds and sea states compared to monohulls and in hull mode at very low speeds
   (2) Generally a resistance hump zone 10–20 knots where vessels cannot operate.
   (3) Deep draught unless retractable foils used
   (4) Very weight sensitive requiring high power to weight engines

f. SES:
   (1) Potential for increase in size, less weight sensitive than ACV and hydrofoils
   (2) Second highest speed potential in sheltered waters
   (3) Resistances hump zones in 10–20 knot range
   (4) Ship motions and speed rapidly reduced in higher sea states

g. ACV:
   (1) Unique amphibious capability with high shock tolerance
   (2) Highest sheltered waters speed capability (= 80 knots)
   (3) Not suited to low speed patrol operations
   (4) Ride control and manoeuvrability reduced at high speeds

cost[6]), this 'big empty ship' concept has the potential to achieve significant improvements in ship motions, and sustained sea speeds at a relatively small cost premium (about 3% of sailaway cost).

The extensive R&D effort has concentrated on hull form design refinements ranging from resistance improvements due to greater attention to flow-alignment of hull appendages (rudders, shaft brackets etc) to changes in the shape of the hull form. At a very small penalty in resistance, it has been possible to achieve ship motions comparable to a 10% longer conventional hull by adopting a seakeeping optimised hull with V-shaped sections forward and a full waterplane after.[7] Reduced pitching motion from these hull forms has a significant effect on the vertical acceleration environment which the human body is so sensitive to.[2] Roll stabilisation of surface combatants by active fins has been commonplace on British ships for two decades, but recent improvements include the use of flared hull sides and rudder roll stabilisation. These hull form improvements have been incorporated into recent USN designs such as the DDG-51 Arleigh Burke class, and the designs selected for the ANZAC ship project (RAN New Surface Combatant) definition studies.

Catamarans

Progressively during the last decade the high speed ferry transportation industry has been dominated by the lightweight aluminium catamaran with the Australian International Catamaran Pty Ltd designs, being exported to both USA and UK. Up to its limiting seastate the catamaran's speed capability is very good and the slender hulls permit fuel efficient operation at high speeds. The large deck area and inherent stability are advantageous for efficient equipment layout although the wide beam and roll stiffness can cause relatively large vertical accelerations at the deck edge.

The economic niche for high speed catamarans has recently been extended to 39m vessels designed as crew boats for Norwegian oil rigs but the displacement catamarans relative advantages decrease with increasing size. The high speed catamarans are more sensitive to weight increase and trim than monohulls but are much less sensitive than SWATHS. The relatively small payload and fuel capacity of the highspeed catamarans may be adequate for the usual ferry operations but would be restrictive for say Australian patrol boat operations.

Recent trends in hull form design have been to words almost symmetrical ship-shape hulls, with fully immersed horizontal foils being used on semi-displacement hulls to improve pitching motions in a seaway. The shape and separation of hulls can be optimised for a single speed craft but as this invariably involves penalties at other speeds it is less suited to naval craft.

SWATH

The Small-Waterplane-Area-Twin-Hull (SWATH) vessel is a specialised form of catamaran with the buoyancy moved below the sea surface to achieve a long narrow structure at the waterline. This arrangement, sketched at Fig 2, was derived to reduce the wave making resistance of the hull but has the most important advantage of also significantly reducing the sea induced exciting forces on the hull and hence the vessel's motions. Up to the wave height limit of its cross-deck structure clearance the SWATH is able to efficiently operate over its entire speed range. The relatively long natural pitch, heave and roll periods endow the SWATH with slow ship motions that permit unimpeded operations whilst stationary (eg buoy recovery, oceanographic sampling etc). An often quoted comparison of the ship motions of a SWATH and conventional monohulls occurred in 1978 when the USN experimental SWATH *Kaimalino* (27m, 220 tons) was tested against a USCG 115m, 3000 ton cutter and USCG 140 ton patrol craft. The report by Woolaver et al[8] on these trials indicated that the 200 ton SWATH had ship motion levels at least comparable to the 3000 ton conventional monohull.

Regrettably, the SWATH form with its wide, easily arranged box structure has a number of disadvantages that need to be considered. Firstly, the much larger wetted underwater surface (at least twice that of equivalent monohull) gives the SWATH much greater frictional resistance and hence total resistance at low to medium speeds in calm sea conditions. This disadvantage may be partly offset by much better rough sea speed capability. This resistance penalty is not helped by the requirements to fit stabiliser fins forward and aft to control the 'Munk' pitching moment that occurs at higher SWATH speeds. Recent research into complicated lower hull shapes with bulges near the ends and amidships and elliptical cross-sections show promising improvements in wavemaking resistance and ship motions. However, such a complex hull form is probably costly to construct and the SWATH already has a hull structural mass approaching 60% of lightship displacement, compared with a typical naval monohull of about 30% to 40%.

Due to its small waterplane beam and hence area, a SWATH is also very sensitive to changes in weight and centre of gravity. Inclusion of design and service life weight and centre of

gravity. Inclusion of design and service life weight growth margins as ballast in the initial design requires more hull buoyancy from the outset with a consequent spiral in resistance. As with catamarans, assymmetric flooding after damage of a single SWATH hull could result in large hull angles until the box structure haunch is immersed. A SWATH also has an inherently larger draft than either catamaran or monohulls. This could be problematic in the relatively shallow waters around Australia's northern coastline although draft reduction may be possible for short periods of time, at the expense of ship motions and resistance, by discharging all ballast water.

With its large deck areas and excellent ship motions over a range of ship speeds and sea states, the SWATH is well suited to roles where seakeeping is an over-riding factor. Such roles include surveillance towed array patrols in open ocean (USN T-AGOS19 will be SWATH vessel), oceanographic research in exposed areas (Japanese SWATH Kaiyo is the latest example), air support vessels and open ocean patrol craft.

Planing Craft

Moving down the vessel support triangle towards vessels whose weight is supported by dynamic lift results in an examination of planing craft that use a mix of buoyancy and dynamic forces. Planing craft have been used for naval vessels for over 80 years but have previously been limited in their application by poor seakeeping and very high slamming forces.

In parallel with conventional monohull research on improving seakeeping, similar investigations into improving ship motions, reducing slamming and optimising trim angles of planing and semi-displacement hull forms has been fruitful. Serter et al[10] claim that their deep-V frigate form is capable of better ship motions than the RN Leander displacement hull and higher speeds. Although some smaller planing craft have opted for low length to beam ratios, hulls suitable for naval tasks in other than calm water have generally used length/beam ratios greater than 5 with hard chines only in the after body. In terms of lift to drag ratios and higher speed capabilities, hydrofoils and ACV/SES generally have the advantage over planing craft.

Hydrofoils

Relying on dynamic lift above their 'hump' speed of about 10 to 20 knots, hydrofoil craft have been either of the surface piercing type (eg Sydney harbour ferry) or the fully submerged foil type (USN PHM and Boeing Jetfoil).

Although many hundred surface piercing hydrofoil craft are operated commercially, the majority of military craft are of the fully submerged foil type due to their better ship motions. The 'canard' configuration of submerged foils with about 65% of total lift aft and a single strut forward has been favoured in recent USN and Italian craft.

As the strut length controls the vessel's sea state limits, significant draft penalties occur during hull borne operations unless the complexity of retracing foils is accepted. Hydrofoil craft appear to be most efficient in the 30–50 knot range and the fully submerged type possess excellent sustained speed in high seas up to their strut length limits. The craft do, however, suffer from a 'dead' zone in their speed range where they cannot perform and this may cover the zone from 10 to 20 knots.[11] To achieve the performance, these craft require high power to weight propulsion plants, costly high technology foil systems (due to cavitation erosion and motion control requirements), and very efficient light weight hull structure.

Surface Effect Ship

The surface effect ship (SES) generally operates in the combined dynamic lift and powered lift area of the suspension triangle, although some recent vessels have had side wealls more like displacement catamaran hulls to improve seakeeping. (Sea front cover for illustration of US SES 200). Whilst there was considerable interest in these hybrid SES forms by the USN with two competitive prototypes developed in the late 1960's there are presently few SES operating in naval service. The US Coast Guard does operate 3 Bell Halter 110ft craft in the Caribbean and the USN converted the original USCG 110ft craft to a high length to beam ratio SES technology demonstrator which has been trialled by several European navies. This latter craft had an improved payload and seakeeping ability due to its L/B ratio and the cushion ride control system fitted.

Other recent trends in SES design include greater cross-deck structure clearance at the bow to keep the bow drier and improve freeboard when in the displacement mode. With more ship-like side wall hulls the SES is able to operate as a semi-displacement catamaran with varying degrees of air cushion assistance. At high speeds (eg 25 knots) the propulsive power is progressively reduced as cushion pressure is increasing so that an optimum balance can be achieved between water propeller/jet propulsive power and lift fan power requirements. While early designs aimed for very high speeds (70–80 knots) more recent commercially viable craft have found 35 to 40 knots adequate.

THE AUSTRALIAN CENTRE FOR MARITIME STUDIES Incorporated

PO Box E20 QUEEN VICTORIA TERRACE ACT 2600

Publication Announcement

MARITIME AUSTRALIA: EXPLORING THE SCIENTIFIC AND TECHNOLOGICAL BASE

Occasional Papers in Maritime Affairs: 4

ISBN: 0 9593580 6 4

CONTENTS

Purchase price (Australian Dollars) — $10.00 (post free within Australia)

Copies of this volume and earlier releases (see below) may be obtained from:

The Secretary/Treasurer,
The Australian Centre for Maritime Studies Inc.,
PO Box E20,
QUEEN VICTORIA TERRACE, ACT 2600
Australia

Copies of Volume 3: **AUSTRALIA'S OFFSHORE MARITIME INTERESTS**
and Volume 2: **ISSUES IN AUSTRALIAN SHIPPING**
are still available at respective purchase prices of $10.00 & $9.00 (Australian Currency), handling included within Australia. Airmail rates for overseas destinations available on request.

CONTENTS Vol. III

CONTENTS Vol. II

Published by The Australian Centre for Maritime Studies Inc. Canberra

However, the the SES has similar problems to hydrofoil vessels with respect to a zone in the speed range where the hump in the resistance curve makes operation at these speeds grossly inefficient. As with all craft dependent on dynamic or powered static lift, weight criticality has forced the craft to use more expensive construction materials and techniques, although aluminium construction of large numbers of high speed catamarans has helped reduce the cost of this higher technology. For application in combatant roles it must be accepted that aluminium or other light weight materials are essential to the success of the concept. The early SES also suffered from relatively high vibration levels at their high speeds and even the USCG has adopted a 'sprint and loiter' operational profile to reduce the crew fatigue effect of the vibration levels and ship motions at high speeds.

Air Cushion Vessels (ACV)

As vessels relying solely on powered static lift, the ACV retains its amphibious capability which leads to advantageous military applications such as landing craft and inshore patrol/intercept vessels. Initially developed in the early 1960's, design improvements have concentrated on improving the life of the flexible skirt, improving the motion control, and advanced in-lift fan and propulsor efficiencies.

In the larger sizes, ACV such as the British SRN4 class require the very high powers and power/weight ratio only attainable by gas turbine engines and this, combined with their aircraft technology structural design, has restricted the recent commercial applications to the smaller sizes where the latest high performance diesel engines have provided adequate power. The ACV does have the potential for the highest calm water speed of all surface craft (apart from Wing-In-Ground effect vehicles derived from aircraft) but suffers from rapid degradation as sea state increases.

In the lower speed versions (ie 30 to 50 knot range) marine aluminium construction techniques have replaced aircraft technology with resulting lower costs and consideration to skirt design improvements have reduced rough water drag allowing high speed diesel engines to be used for lift and propulsion. Ride control and manoeuvrability remain the two areas where further improvement is necessary.

In addition to the landing craft missions (eg USN LCAC) and inshore/riverine applications, ACV also have a capability in the mine warefare field due to their low pressure and underwater noise signatures. The RN conducted trials on ACV during the mid-late 1970's for this minewarefare role but have not proceeded to construction of further craft.

Wing-In-Ground Effect Vehicles (WIG)

Derived from aircraft operating very close to the ground or sea obtaining a reduction in power requirements, the WIG effect is receiving most attention in the USSR. Since the vehicle is essentially an aircraft, it would require very large wing areas to safety operate close to the open sea surface, cannot operate at slow speed, and is unlikely to survive rough sea conditions when afloat it has limited application to combatant surface ship roles.

CONCLUSIONS

There are a variety of hull types that can give optimised performance gains over the conventional monohull in particular operational roles. To be competitive each will have to exploit its special features. No single type of vehicle will prove to be universally superior.

For RAN surface combatants in the frigate/destroyer size with a very broad range of operational roles, the high speed displacement hull type appears most suitable.

Future patrol craft (Tier 3 vessels, Towed Array vessels and large support craft), however, could have some operational roles where other advanced hull types would have significant advantages over the displacement monohull. Considering the generally lower to medium speed requirements of these latter vessels and the Australian sea conditions, the SWATH vessel has considerable potential but all the standard types of hull form, and hybrid versions should be considered.

Notes and Acknowledgements

1. Kehoe J.W. CAPT USN (Rtd) and Brower K.S. 'Small Combatants — the operators' choices' *International Defence Review* No 5/1987 Small Warships Supplement P15.
2. Hipe K.J. 'Seasickness and Crew Endurance Criteria *Australian Symposium on Ship Technology 1977.*
3. Manton J.G. *'The Effect of Sea State on Crew–Ship Effectiveness in Patrol Boats.'* ARL Report AR-044-073 January 1986 Annex F.
4. Eames M.C. 'Advances in Naval Architecture For Future Surface Warships'. *The Naval Architect* No 3/1981 P104 Fig 11.
5. Fig 2 was drawn by LCDR P. Bruce-Walker RANEM (Retd) for Asquith A.R. 'Design of Naval Ships for Year 2000' *Fleet Maintenance Bulletin* No 17 July 1983.
6. Kehoe and Brower, 1987 P14.
7. Carreyette T.F. 'Recent Developments in Advanced Hull Types for Naval Ships' *Naval Forces* No 1/1987 P14.
8. Carreyette, P75.
9. Woolaver D.A. and Peters J.B. *'Comparative Ship Performance Sea Trials for the USCG Cutters Mellon and Cape Corwin and the USN Small Waterplane Area Twin Hull Ship Kaimalin,* DTNSRDC Report 80/037 March 1980 P9–11.

10. Kehoe J.W., Brower K.S. and Serter E.H. 'The Deep-Vee Hull Form — Improves Seakeeping and Combat System Performance' *Naval Engineers Journal* Vol 99 No 3 1987 P41.
11. Brebar M.R. et al *Advanced Marine Vehicles: A Review* Association of Scientists and Engineers of Naval Sea System Command Washington DC, April 1986. Fig 8.

Bibliography

Asquith A.R. 'Design of Naval Ships for Year 2000' Fleet Maintenance Bulletin No 17 July 1983.

Brebar M.R. et al. 'Advanced Marine Vehicles: A Review', Assoc. of Scientists and Engineers of Naval Sea Systems Command Washington DC April 1986.

Carreyette T.F. 'Recent Developments in Advanced Hull Types for Naval Ships', Naval Forces No 1/1987.

Eames M.C. 'Advances in Naval Architecture for Future Surface War Ships' The Naval Architect No 3 1981.

Hope K.J. 'Sea sickness and Crew Endurance Criteria' Australian Symposium on Ship Technology 1977.

Keane R.G. and Sandberg W.C. 'Naval Architecture for Combatants — A Technology Survey' Naval Engineers Journal Vol 96 No 5 1984.

Keane J.W. Brower K.S. and Serter E.J. 'The Deep-Vee Hull Form — Improves Seakeeping and Combat System Performance' Naval Engineers Journal (Vol 99 No 3 1987).

Woolaver D.A. and Peters J.B. 'Comparative Ship Performance Sea Trials for the USCG Cutters *Mellon* and *Cape Corwin* and the USN Small Waterplane Area Twin Hull Ship Kaimalino' DTNSRDC Report 80/037 March 1980.

1987 ANNUAL PRIZES

The Sub-committee tasked with selecting contributions from Volume 13 of the ANI Journal to receive annual prizes has reached the following decisions:

- Best major article ($200)
  Neil Grano — Zig Zag: PQ17 — Vol 13 No. 4
- Best minor article ($100)
  Vic Jeffery — The Wests Forgotten Fleet — Vol 13 No. 3
- Best book review ($25)
  Syd West — The Coffin Boats — Vol 13 No. 2
- Best letter ($25)
  RADM G.J.B. Crabb CBE DSC RAN (retd) — My Chinese Connection — Vol 13 No. 3

LIEUTENANT IAN DESMOND LAURIE-RHODES, CGM RANVR

AUSTRALIA'S ONLY NAVAL CONSPICUOUS GALLANTRY MEDAL AWARD

by Michael Fogarty

Only one naval CGM has been awarded to an Australian sailor. Ordinary Seaman I.D. Laurie-Rhodes, RANVR, won a CGM during the Battle of Crete in May 1941 in which his ship, HMS Kashmir, was sunk. Rhodes manned an anti-aircraft gun, whilst his ship was sinking, and shot down an enemy aircraft which was straffing his crew mates in the water. Rhodes was later commissioned and finished the war as a Lieutenant. This is his story.

Curiously, references to this sailor are in the surname of Rhodes. He gave the single surname of Rhodes on enlistment. Again, Laurie-Rhodes was born in New Zealand which is also less widely known. He came to Australia at age 8. While his war-time exploits received some publicity there are few contemporary references to this award. Awards of the CGM (Flying) to the RAAF in World War II were relatively more common — some 10 being awarded. Since the war, only two CGM Awards (one Flying and one Naval) have been awarded — one to an Australian airman for Vietnam service with the RAAF. A British army NCO, Royal Engineers, was awarded a posthumous (Naval) CGM for action in the Falklands. Only two awards in more than forty years makes this decoration most rare. It is believed that a Veterans' decoration allowance of $2 per fortnight is paid to every recipient of the award but it is not known whether any full entitlement is 'paid out' on being commissioned. Rhodes made an enquiry regarding payment of his CGM allowance (£20) in 1952 but final payment action is not known. His file 3593/21/101 was marked 'destroyed' in 1961, on information noted at the Australian Archives.

The CGM is the naval equivalent of the Distinguished Conduct Medal. Approximately 253 naval awards have been been made since its inception in 1855 — and later revival in 1874. The total figure of flying CGM awards is approximately 104. (The Rhodes decoration is probably styled 'Georgius VI D: G: BR: OMN: REX ET INDIATE IMP'). Only one bar has been awarded to the (Naval) CGM — during the First World War to a British sailor. The ribbon itself is 1¼" wide coloured white with narrow dark blue edges. The ribbon is somewhat similar to the Naval General Service Medal, 1793–1840. The ribbon design was changed to its present form in 1921.

Laurie-Rhodes could claim some nautical antecedents in his family. In 1832, his grandfather, Joseph Rhodes anchored in Port Albert, Victoria and he observed some sealers present and suspected they might have been carrying guns. Joseph Rhodes, Master mariner, then set sail for New Zealand's South Island. He claimed ownership of a million acres. His son, Albert Victor Laurie — Rhodes, Ian's father, later inherited a property at Spring Hill in the North Island.

On 18 August, 1912, Ian was born (sic) at Waipana, New Zealand. His childhood was comfortable enough in that he boarded at Geelong Grammar after settling in Australia. He was a stroke in the school's rowing crew. In the thirties he played VFL grade football in Melbourne for one season and was considered an accomplished sportsman.

A keen golfer, he was rated with a handicap of 2. Before enlistment, he took up farming and later became a small businessman. He married for the first time (to Miss June Allan) at age 22 and his

The author

Mike Fogarty is a public servant currently based in Canberra and is a graduate of the Canberra College of Advanced Education. He served as a junior supply officer (56) in the Royal Australian Navy from 1966–72. A member of the Naval Historical Society of Australia (ACT) he has previously published articles and book reviews on aspects of naval history.

This article is part of a trilogy on the three most decorated Australian *sailors* of World War 2. The first two articles, published elsewhere, concerned bar awards to the Distinguished Service Medal. The Author has modest aspirations towards completing a medal roll for the Naval General Service Medal (1915–62) to the RAN and welcomes any assistance, official or private, towards the realization of this goal!

only child, a son, another Ian, was born before the war. At just over 5'9" with fresh complexion, brown haired, blue-eyed, and broad of shoulder the young Rhodes cut quite a dashing figure.

At the outbreak of war Rhodes was initially rejected by the three fighting services. On reapplication to join in a volunteer reserve category, a sympathetic examiner was assured that his medical fitness was adequate for active service overseas. This allowed him to join the RANVR Yachtsmans Scheme in the Royal Australian Navy, as an ordinary seaman, number PM/V18 (Port Melbourne).

A yachtsman's skill was obviously of some value to a determined volunteer such as Rhodes for on 17 September, 1940 Rhodes joined HMAS Cerberus as an ordinary seaman for passage to the United Kingdom for further training. Later, on 1 April, 1941, Rhodes joined HMS Kashmir.

The 5th destroyer flotilla was led by Lord Louis Mountbatten as Captain (D) in *HMS Kelly*. The squadron also included *Kelvin, Kashmir* and *Kipling*. In May 1941 many HM ships including *Kelly, Kashmir* and *Kipling* sailed in an attempt to defend Crete. It was a tragic operation as *Kelly* and *Kashmir* were both sunk on 23 May. Survivors, including Rhodes, returned to Egypt in *Kipling*. It was the Navy's job to prevent the Germans from making a seaborne landing on the island. The ships present were bombed continuously in vicious air attacks by upwards of 24 dive bombers in one morning. Enemy aircraft included Dorniers and Stukas. Some of the aircraft machine-gunned the survivors as they struggled helplessly in the water. *Kipling* recovered some sailors and was herself attacked by Junkers aircraft. Separately, on being hit, *Kashmir* broke in two.

The gun crews of *Kashmir* manned their positions to the last, firing as their ship was sinking — the crews were actually washed away from their positions. Rhodes' official citation states that 'when his ship was hit by a bomb and sinking rapidly, he left the port gun, of which he was gunlayer, and which was going under water, and climbed to the starboard gun. This he turned on an aircraft which was machine-gunning his shipmates and brought it down in flames into the sea'. One survivor informed the family that Rhodes' actions obviously saved the lives of many of his fellow men — including Captain Mountbatten, who reprimanded one ship's captain for stopping to assist. It was reported that the commanding officer although junior, reminded Lord Louis that he

Sailor Rhodes, HMS Orion.

was in no position to argue — having lost his own ship. This officer later got into some trouble over this exchange, if the incident can be believed.

His family states that he was sunk several times during the war, however details of these incidents were not sourced. After one immersion all he owned was the pair of shorts he was wearing when his ship was sunk. He later borrowed a cap on his rescue (see family photograph!). On 17 September, 1941, a year after entry, he was advanced to able seaman. Later he was commissioned after receiving officer training at HMS Drake. On 22 January, 1942 he was appointed as a sub-lieutenant, RANVR, on probation. There is no available evidence that he described himself as Laurie-Rhodes on being promoted to officer rank.

Earlier, on 8 January, 1942, his award, along with two other CGM Awards, was published in the London Gazette. His medal, as well as other awards for Crete, was announced in the Sydney Morning Herald on the same day. Rhodes was presented with his CGM by His Majesty, King George VI, on 24 February, 1942, at Buckingham Palace. Rhodes was not to serve long as a sub-lieutenant as he was promoted to (provisional) lieutenant on 18 August, 1942 (see photograph).

Lieutenant I.D. Laurie-Rhodes CGM, RANVR.

If his Mediterranean experiences were bad enough worse times were to follow. And it came in the formidable arctic convoys to Russia in 1942 in the cruel years of the battle for the Atlantic. He was not untouched by these tumultuous events and his experiences were to mark him until his death in 1967. For he served for almost a year in HMS Sheffield — a vanguard in the British convoy escort fleet. It was largely because of his convoy patrols that he rarely spoke of his wartime service. The British official history of the war noted that '. . . one should never forget how severe a strain the Russian convoys imposed on the officers and men who took part in them.'

Lieutenant Rhodes joined HMS Sheffield (C24) on 10 April, 1942. Completed in 1937, Sheffield was the last of the 9 (handsome) 'Town' class of (Southhampton) cruisers. Her sister ships included Glasgow, Liverpool and Manchester. Weighing 9,100 tons, her complement was 700 men. Sheffield could achieve an impressive 32 knots. Her armament was considerable including 12 × 6" guns, 8 × 4" guns, 8 anti-aircraft guns, six torpedo tubes and three aircraft.

During the war she rendered yeoman service, and her battle honours ranged from the Atlantic, the Arctic, the Barents Sea to North Africa. Her motto was '. . . With God's help I advance'. Rhodes served in Sheffield in Atlantic Convoy PQ 18. It should be remembered that a previous convoy, PQ 17, suffered the most grievous losses of the war. The convoy of 36 also were accompanied by 1 fleet oiler and 3 reserve ships. Of 36 merchant ships which sailed from Reykjavik on 27 June, 1942 only 11 arrived in Russia the following month — all but one at Archangel. One account by Captain H.W. Charlton, DSC (ships monthly, July, 1987) states that 22 or 24 (sic) ships were lost. While the author notes the confusion in the two differing accounts of ships present and ships lost, it appears at least seven British, fourteen American and Dutch ship(s) were lost — including 158 merchant seamen. No warships were lost.

In another account two ships were forced to return to Iceland and 23 ships were lost. It was therefore with some trepidation that Rhodes and others set out on the next Major convoy, PQ 18.

HMS Sheffield was tasked to carry reinforcements and stores to Spitzbergen. She was well aware of the risks as PQ 18 was relentlessly stalked by JU88s and U-boats. Other small German surface raider units participated to their advantage. The official history wryly notes that . . . 'next (day), the 15th (September), was comparatively quiet — if such an expression can ever be used to describe a day with a Russian convoy in the Barents Sea. Only about half a hundred bombers attacked, and they were well harried by fighters and gunfire — no ships were lost on that day.'

Forty ships participated in convoy PQ18, the majority sailing from Loch Ewe on 2 September, 1942 — none turned back. 10 ships were sunk by enemy aircraft and 3 more ships were lost through U-boat action. German losses were about 40 aircraft and 3 U-boats. The enemy failed to break up PQ18 and 27 of the original 40 ships reached Archangel. Such was the ferocity and

HMS Sheffield.

desperation of the convoy war. In the circumstances, while costly in men, material and shipping, the losses were acceptable.

HMS Sheffield sailed in other convoys including JW51A and JW51B. The latter convoy included action against the Hipper in which *HMS Sheffield* sunk the German destroyer *Friedrich Eckholdt* in the Arctic area on 31 December, 1942. Both convoys reached the Kola inlet intact although, in the latter convoy, British escorts *Achates* and *Bramble* were sunk. To mark one successful convoy passage their Russian hosts gave a reception for their gallant allies. Marshall Stalin was toasted. Our RN officers responded with a toast to His Majesty. Overcome by fraternal allied solidarity, in an atmosphere seething with goodwill, a young Russian officer also individually toasted the king to the consernation of his seniors. He remonstrated with them and would not withdraw his affirmation to a foreign imperial sovereing. Later Rhodes told his brother than the officer was taken outside and shot. Rhodes and other horrified officers became restive but were ordered by their senior officer present to remain seated and not rebuke their Russian hosts for the unscheduled development in the celebrations. In 1987 eight 'Victory in the Great Patriotic War' medals were presented to British and Australian veterans of the Murmansk convoys of World War 2. However, it is understood the awards were only to those still living.

His family remember that he led a party of hands to clear casualties from a compartment which had been flooded through bomb damage. To this horror should be added the realization that the ship was also required to travel home slowly at 10 knots — rendered more vulnerable to waiting bombers and U-boats. Sheffield, although damaged, survived the return home. She was later broken up in 1966.

On Australia day, 1943 Rhodes left Sheffield to return to Drake for several months. On 23 March he joined HMS (later HMAS) Shropshire and he was to serve in her for more than a year until 2 July, 1944. Shropshire was a replacement for *HMAS Canberra* lost earlier at Savo in 1942. (A family photo[2] shows Rhodes working in his cabin.)

Captain J.A. Collins, CB, RAN, (later Vice Admiral Sir John Collins) assumed command of Shropshire on 7 April, 1943, prior to the commissioning. On 12 August, 1943 she was boarded by King George VI.

The next day, Shropshire sailed for Australia to join Task Force 74 at Brisbane in October. The ship continued its activity in patrolling and supporting the allied landings in the New Guinea campaign. The cruiser employed its heavy guns to good use in bombarding enemy concentrations. Later service included action off Milne Bay, Cape Gloucester, Admiralty Islands and Hollandia. Rhodes was the high-angle control officer, after director tower, for the starboard 4" AA/ surface mounting.

Officer Rhodes in his cabin in HMS Shropshire.

On leaving the ship in July, 1944 Rhodes served in Cerberus, Lonsdale and Moreton before rotation, for brief periods, in several Royal Navy ships. At the end of the Pacific hostilities he was on duty in *HMAS Basilisk*. Later, he returned to Lonsdale and was demobilised in April, 1946. One account has him marching with Shropshire's crew in a post-war victory parade in Australia. Indeed, many years after the war, the family were pleased to catch a brief glimpse of their Ian in a documentary of the time later shown on Melbourne television. It was easy to spot the very distinguished and bearded young officer in the front ranks of the marching crew at the parade.

By then he had married, for the second time, to a Miss Patricia Warboyes although it appears no children resulted from their union. He returned to his employment as a successful businessman with the United Linen Company and he imported and wholesaled Irish Linen and Manchester. Rhodes enjoyed the peace time distractions of regular golf and was most active in metropolitan golf society in Melbourne. Equally during the war, in less driven moments, he attached considerable priority to hitting the sticks whenever and wherever he could find a course.

Ian Desmond Laurie-Rhodes, CGM, Company Director, died at Fairfield Hospital on 3 January, 1967 aged 52 (sic) and his death was noted in the Melbourne 'Sun'. The age was wrongly given. On 6 January he was cremated at Springvale Crematorium. Many of his shipmates from Shropshire attended to pay their last respects. His family do not known the current whereabouts of his medal group. This account is largely due to the helpful assistance provided by his brother and niece as well as the Department of Defence (Navy Office) to whom the author is extremely grateful. Twenty years after his death and on the 75th anniversary of his birth, it might now be appropriate to reflect on the life and times of Ian Laurie-Rhodes, a most conspicuously gallant Australian sailor.

SOURCES

Canberra Times, 9 May, 1987
S.W. Roskill, The War at Sea, Volume 1, H.M.S.D., London, 1956.
Creswell, Sea Warfare, 1939–45, U.G., Berkeley, 1967
B.B. Schofield, the Arctic Convoys, MacDonald/James, London, 1977
D. MacIntyre, The Battle for the Mediterranean, Batsford, London, 1964
K. Poolman, HMS Kelly, New England Library, London, 1954
R.V.S. 1, The CGM, Volume XCIX, February–November, U.K., 1954
Capt. H.W. Charlton, DCS, 'The Sinking of the River Afton — Commodore ship of Convoy PQ17, Ships Monthly, U.K., July, 1987, p 33–35.

ACKNOWLEDGEMENTS

Laurie Laurie-Rhodes
AVM and Mrs Hans Roser, AM, RAAF
John Mackenzie, Former Naval Historian
John McAvoy, Defence (Navy)
Miss Anne Patterson, Defence (Navy)
Mrs B. Milton (Veterans' Affairs)
Mr R. Pelvin, Naval Historian
Lieutenant Tom Frame, RAN, HMAS Cerberus
Frank Rudd, HMAS Canberra/Shropshire Association (NSW)
Australian War Memorial, Photographics Unit

Translation from the Diary of a German POW

THE SYDNEY–EMDEN BATTLE: THE GERMAN VERSION

Courtesy of Commander Stuart Tapley, RAN

The Emden arrived from the 1st to 7th November in the sea routes SINGAPORE–COLOMBO and SINGAPORE–AUSTRALIA, then the course was directed to COCOS ISLANDS. We intended to destroy the wireless station there and the cable connection, which was so important to England. For this purpose the coal ship '*Exford*' was detached and only the collier '*Buresk*' followed on. We had to coal near the island. After the work had been accomplished the whole night was spent in searching the vicinity for enemy ships, the result being favourable as we steered towards COCOS ISLAND. At 6 a.m. we sighted the island and the lookouts, keeping sharp watch, reported the harbour free of enemy war ships and a sailing schooner was the only occupant.

The crew (party) which should form the landing party was already detailed off, which consisted of 3 officers, 5 NCOs and 45 men. A machine gun with 12 thousand rounds, 47 rifles and 60 rounds each were taken on land. The pinnace hands and remainder of the crew had pistols. The strength of the party with pinnace and cutter hands was about 60 men under 1st Officer K. Von Muicke. The landing party left about 7 a.m. The pinnace towed the cutter straight to the landing spot. Only on our landing did the inhabitants learn that we were German sailors, and you can imagine they were not too pleased.

The wireless station now called on English cruisers for help, but our wireless people spoiled the message by means of strong disturbing calls.

Our people soon had everything in possession. There was no visible opposition, as they saw our guns were trained on the town. In a short time we heard the roar of shells and saw the wireless installation fall to the ground.

The landing party signalled that there were 18 Europeans on the island. The sailing schooner *Aysha* was provisioned for 3 months.

About 8 o'clock the lookout reported smoke on the horizon; I heard this and went to the upper deck. It was said to be our collier *Buresk*.

As I had plenty of work on hand I went to the 'tween decks and detailed off my men, as there were some repairs to be seen to in the aiming gear, and I intended to have completed same by examining. Hardly had I detailed off, when 'Clear Ship for Action' sounded and I immediately sent my people to stations, and I went to my own. I was on the focastle head where I had to keep near an Artillery Officer. I then heard the Chief Signaller's Mate call, 'The smoke comes from at least four funnels.' It soon became clear to all of us, with the naked eye, that she was a warship. As I came on the upper deck the anchor was being got up, as quick as possible, and the siren hooted to bring the landing party back, but this was in vain.

The hostile cruiser steamed with tremendous speed and we had to leave our landing party to its fate. The engine room staff got up all possible steam and we went out as best we could to meet our opponent. The guns were loaded and pointed, everyone thought we had to deal with the *Newcastle* or the *Yarmouth* and I was pleased about it, as both of them were about our own class and age, and cruised in these waters.

At 87 hundred metres the Commander gave the order to open fire and the Gunnery Officer ordered 'Fire Salvo', then the first German greeting roared out to the enemy. The shooting was good and we soon scored hits. After a time the enemy opened fire but the range was faulty and the shells went overhead to the water. Salvo followed salvo but our small guns could not effect much damage owing to the great distance. At about the 12th round our enemy had got his eye in and we received our first hit, which smashed our wireless installation and killed all the personnel there. That we had to deal with a much more powerful opponent was now evident, through her more heavy guns and superior speed. The enemy retired continuously, and zig zagged so we could not get our artillery to bear properly. The enemy kept the fight at about 80 hundred metres. By her superior speed, she turned the fight which way she wanted it, her heavy guns assured her full effect, whereas our 10.5 cms were useless. Right at the commencement our range finder was shot away, this was a bad lookout as the enemy kept zig-zagging to and fro. A shell knocked the first funnel away and killed several men. On the second shot our circumstances became worse, and there were

no reserves. The men of the landing party were missing in their old places.

The next shot hit in the foremast overboard, and with it the men that were in the crowsnest, an officer and a signaller. Our ship had large holes, I can't tell all that happened, the other two funnels fell, the ammunition chambers were hit, and a shell fell into the abaft munition room, which forced us to flood it, so as to prevent an explosion.

Almost all those who had been in the munition room, as well as those at the gun, had been killed. Shots also hit the electric machinery, which put it out of action. Blood was flowing in streams on the deck, and terribly mutilated corpses were lying about. We answered the fire of the enemy already, I myself had only a few unimportant injuries. My mate Hartmann came towards me to give men an order, but he had not opened his lips when a shrapnel came bursting over us between the tower and the bridge. Hartmann fell and I got a shell splinter in the right hand, which broke the centre knuckle of my hand. The ship was burning in several places, several shells of ours exploded on deck. The fourth gun on our starboard side exploded, and the feeding machinery threw down all the attendants, opened the hut and then the attendants of the 5th gun went overboard. An officer too went overboard.

On the quarterdeck were still about 12 men. We tried to hoist some more ammunition with the ton and had the box half way up when another bird came just in the middle of us. The ton was shot through and the box fell below again. All the attendants were dead, and terribly mutilated, only one sailor and myself were left over, but both wounded. A piece of shrapnel tore out a big piece of my back, and another went through my right leg. The shot through my back put me in a circular motion, and after some time I became unconscious. How long I was like that I cannot say, but when I became conscious again I had to force my way out through the dead. I dragged myself forward, put on a bandage round my leg to still the blood. I was lying on the forequarter deck and saw how terrible the ship was shot through, also many wounded were lying near me. Though the ship was a wreck, the Commandant wanted her to discharge a torpedo; we only fired now and again, and soon these few were dead too, only the Artillery officer and four of the miskilled chaps were firing still. These were soon put out of action.

The Commandant saw that there was nothing else to do, and decided to run the ship ashore. he game the order, 'To the island, all that the engines can do'. Then minutes later the proud *Emden* had finished her last work.

The island is about 20 miles distant from the principal island, it was as far as this that we had forced back our adversary, the *Sydney*. We learnt already during the battle that it was this Australian cruiser. She took leave.

Our collier *Buresk* also came near during the battle and saw how we were being reduced. The *Sydney* put off a boat and wanted to capture the *Buresk*, but the crew opened the water plugs before the *Sydney's* boat arrived, and as soon as the sailors of the *Sydney* came aboard, they knew that they had to leave it immediately again, as the *Buresk* was already sinking.

The Commandant and sailors of the *Buresk* were taken on board the *Sydney* and the *Sydney* still fired a few shots at the *Buresk* although that vessel was already half below the water, probably so they could say they sank her. The *Sydney* went away and left us quite helpless. Those that were not wounded very seriously, mostly stokers, put out the fire on the ship and bandaged the wounded.

Thirst made itself felt, the water tanks had been shot through, everything else was under water, only a little water with which we washed our faces in the morning was left, and it was drank immediately with condensed milk, of which we had a few cans left.

Hundreds of vultures were sitting about on deck, they expected tid bits, they were so daring that you could catch them with the hand; we had to take care that they did not attack the wounded. It was almost quiet now, excepting for the moaning of the wounded, and the explosion of one of our shells now and again.

The time went slowly and towards four o'clock in the afternoon, the *Sydney* made her appearance on the horizon. The battle in the morning lasted two hours, from 9 till 11 a.m.

Everyone thought that we were being relieved of our sorrows when the *Sydney* reappeared, but the disappointment was bitter, instead of sending us relief they sent us shells; they fired on a defenceless ship with a wounded crew. We could naturally not return the fire. The Commandant once said in one of his speeches, 'The *Emden* will fire her guns as long as she is above water'. Now, however, the water and the guns did not prevent us from firing, but the personnel who served the guns were dead or wounded. The *Emden* was firing as long as a man was left at the guns.

The *Sydney* was firing; we soon knew the reason why; on our one and only mast which was already very shaky, was still our War Flag, the ton was shot away and none of us could haul it down.

The first shot tore away a portion of the bridge, some others went over the deck and struck land,

after that several rounds hit the middle of the ship and killed a lot of people.

The Commandant now gave the order 'Abandon Ship'. Those wounded who thought they could reach the land jumped overboard, a few reached the shore, most of them however, went under, or were sucked under water by the very strong breakers. A sailor tried to climb the shaky mast. The *Sydney* ceased firing at once. She sent an order that we would be taken off tomorrow morning and steamed off.

We now made feverish attempts to communicate with the shore. We tried to throw out a line, to attach it on board and on a palm tree on land, so as to enable the wounded to be transferred in hammocks, by those means to the shore. We caught a vulture, attached a thin line to one of its legs; naturally it flew to land, but half way across it fell into the sea. Late into the night we gave it up. Slowly the night went by, the breakers raised the ship and threw it back again, and every moment we thought the ship would break up.

Thirst was beginning to be unbearable and added to it were the wounds. At last the morning arrived, I don't think any of us had any sleep. There was nothing to be seen of the *Sydney;* finally she appeared on the horizon towards midday. Never had an enemy been expected with such longing. We put up the signal at once: 'We want water and help'. The *Sydney* put off boats immediately and towards one o'clock they were alongside of us; they brought some water with them, and we all got water to drink, never had any drop been finer than this one. After everyone had drunk we began transhipping. We were put into hammocks, fastened up with straps and carried overboard, on account of the breakers it was a difficult piece of work — the English having carried out that job cleverly and carefully, we were rowed along to the *Sydney* one by one, put on to a crane, and hoisted on board; we were received with the greatest respect, I myself was put into the Ward Room which had been transformed into a hospital: here too were berthed the wounded of the *Sydney*. We were at once properly bandaged and were well treated as far as circumstances allowed. I was finished being bandaged, and next to me lay a sailor of the *Sydney* who had his right foot blown away. He bent toward me and gave me his hand. Most of us could not sleep. The damage that our shells inflicted was hushed up; they made use of the previous night to bury the dead and repair the damage. As the *Sydney* was not clear for action on account of having so many wounded on board, she was obliged to get rid of them. She therefore wirelessed to Colombo for an auxiliary cruiser; this arrived within a few days.

The *Sydney* was cruising about from the night of the 10th till the 11th round the island to pick up all the men who landed, or who were washed ashore by the waves. These men had gone through terrible agony, they were suffering 24 hours longer from thirst and hunger, especially the assisting Medical Officer was the worst off, he drank sea water as he thought he could endure the thirst no longer, the consequences soon made their appearance, he died under terrible pain.

When everyone was on board, the *Sydney* set her course towards Colombo, after looking everywhere in vain for the landing party of the *Emden*. They escaped after they saw the *Emden* was lost. They prepared the schooner *Aysha* and put to sea. We were expecting they would do something yet, and hoped they would continue with the same good reputation of the *Emden,* so as to keep the English excitement up for some time yet. On the 13th the auxiliary cruiser arrived and we were transferred at sea; another difficult piece of work. When I was put into the boat I was surprised for the moment to see Frenchmen in the boat. We did not make the mistake of assuming the treatment would be good.

After some difficult manoeuvering we got alongside *The Empress of Russia;* this was the name of the auxiliary cruiser. I was hoisted on top with the boat, and put over the side. I was quietened a little when English sailors noticed me, the usual handshake of the English shows the good heartedness. Only those three Frenchmen bore testimony that we were enemies. They received defenceless wounded with side arms in their hands.

The crew of the *Empress of Russia* was a mixed one, half English, half French. Later on comrades told me there were serious differences amongst them. A young English sailor came to me often and expressed his sorrow that we were enemies. He spoke of what good comrades we were in East Asia, he had many friends in the German Navy. We were better treated than we thought possible, only English doctors looked after us.

ARRIVAL IN COLOMBO

We arrived in Colombo on the 15th; the harbour was full of men-of-war as well as merchant ships. The names of the men-of-war were *Hampshire, Melbourne,* Russian cruiser *Askold,* a few old ships, a Japanese armoured cruiser, and to these add the *Sydney,* besides some 30 to 40 transport vessels with Australian troops, about 40 thousand men.

READY TO DEPART FOR EUROPE

They made a big noise as we entered, they had a good cause to be excited, as the way was not free — **we wished them good speed and**

soon a meeting with German infantry. Towards 2 o'clock transferring began, we were put on stretchers and carried down, two English kept the stretchers in balance, we were put on a small tender and carried ashore. In place of clothing they gave us sheets to cover our bodies. At the pier there was a whole crowd of people, black and white; naturally the military were well represented. The crowd received us with quiet respect and every one of us were stared at as if we had been wonders of the other world. We had heard already on the *Empress of Russia* that the black population regarded us as a sort of ghost ship and submarine which could sail under water for 48 hours.

How the French treated us is best shown by the fact that an officer was instructed to be specially careful as we could jump overboard and capture a ship.

After all the wounded were landed, the medical attendants put us in motor cars and slowly we went to the hospital. The streets of Colombo were lined with people. To our surprise the rest of our comrades who were not wounded were not landed at Colombo; they were transferred from the *Sydney* to the *Empress of Russia* and then left Colombo. This was very unpleasant for us as they had the care of our money. The cause of their departure was that they did not want to have too many *Emden* crew together; from a united crew the English probably expected unpleasantness.

SEAPOWER 87 PROCEEDINGS

Copies of the SEAPOWER 87 Proceedings have now been distributed to those attending the Seminar. Additional copies are available at a cost of $A12.50 each, including postage. Please place orders with The Secretary, ANI, PO Box 80, Campbell, ACT 2601.

HOW TO BOOST AUSTRALIAN CONTENT IN SURFACE COMBATANTS

by Mr H. Power

Plans to build new ships and submarines in Australia that are required by the strategic policy direction of the Defence White Paper, aim to have high levels of Australian content. For Australia the general term 'Australian Industry Involvement' has assumed a much greater depth since the announcement of the New Construction Submarine Project, because instead of the usual meaning of 'in country — assembly only', real manufacturing and design will be undertaken by Australians in Australia for our new submarine force.

For the New Surface Combatants, (NSC), the stated aims for local industry input are believed to be identical to those espoused for the submarine project, that is to generally aim for the maximum Australian contribution. The scope of that contribution could be dramatically increased with a change in the philosophy relating to power supply generation and distribution in surface combatants. This paper is about volts, amps and hertz, and whether those parameters as specified are equivalent to the Australian Standard, (and of benefit to Australia), or to other standards.

Present Design Philosophy

The present philosophy of generating only 450 volt, three phase, sixty cycle supplies, (not Australian), is largely a product of history, where the influences of the United States and NATO countries have dominated western warship design. That influence remains dominant particularly for weapons systems, and since it is unlikely that any Australian designed and built weapons will be installed in the New Surface Combatants, or even the later replacement for the tier one ships, there is little scope for providing other than the NATO Standard power supplies for weapons systems.

Electric Load

There is however another significant user of electricity in ships, which is broadly labelled as the domestic electric load. With steam ships such as the destroyer escorts *Swan* and *Torrens*, or the larger destroyers such as *Hobart, Brisbane* and *Perth*, many domestic functions are accommodated by a ready supply of steam heating, such as for cafeteria services, and the distilling of sea water. In these ships the electrical load drawn by the various domestic services is believed to be of the same order of magnitude as that drawn by the weapons systems. It made a great deal of sense to have installed in those ships (which were designed overseas), the one power supply capable of supplying all equipment, be it weapons or domestic systems.

In more modern ships however, which have as their propulsion power source either gas turbines, diesel engines, or diesel electrical combinations, the proportion of domestic electric load to weapons systems load is considerably different. For the FFG Class of ship that ratio is approximately four to one, 4:1, and is typical of the design of current and future warships. That ratio is large enough to warrant the serious consideration of an alterative voltage/frequency combination which could assist any decision to manufacture locally.

What is Needed?

In essence this article suggests that it is appropriate for all future Australian surface combatants to have as their primary electric generators, machines which will provide the Australian national power supply of 415 volt, 3ph, 50 hertz, and to convert that where appropriate to 450 volt 3ph, 60 hertz for the estimated 25% of total load to be drawn by the weapons systems.

What Is Domestic Electrical Equipment?

Domestic equipment for the purposes of this topic, covers a wide range of products such as:

- electrical water distillers
- hot water heaters
- galley ranges, ovens, deepfat fryers
- air conditioning plant
- refrigerators and cold rooms
- ventilation fans and motors
- electric motors of a wide range of sizes and configurations
- switchboards
- switchgear, switches, fuse panels
- generators
- conversion machinery, static frequency convertors, uninterruptible power supplies
- electric lights
- room heaters

This list is not exhaustive but illustrates that there is considerable scope for Australian Industry participation in this facet of ship design, and the associated subsequent through life support.

NAVAL INSTITUTE INSIGNIA

(Order form on page 70)

Crests . . .

Crests are meticulously hand-painted in full colour and are handsomely mounted on polished New Zealand timber. They measure 175mm × 130mm (5" × 7"). The price is $13.00 each, plus $2.00 postage + packing.*

Cuff-links . . .

The cuff-links are robustly made and are attractively finished in gold and black. They are epoxy-capped to ensure long life and are packaged in presentation boxes. The price is $10.00 a pair, plus $1.00 postage + packing.*

Ties . . .

Ties are dark blue with a single ANI badge in gold. Price $7.00 plus $1.00 postage + packing.*

Journal binders . . .

Journal binders are coloured blue, with gold lettering and ANI crest. Each binder holds copies of the journal by means of a metal rod inserted simply through the middle page of each journal and held firmly at top and bottom of the binder. Plastic envelopes on the bottom of the spine enable volume numbers or years to be inserted. Price $6.00 each plus $2.00 postage + packing. *

[* Can be deleted if alternative means of carriage are arranged]

What Benefits?

The benefits to the Royal Australian Navy are seen to be significant. They range from a possible greater access to economical 'shore power', (the term used for supplying ships from shoreside reticulated systems), to the probable cheaper and more timely repair or replacement of defective items. Some of these benefits are worthy of elaboration viz:

- *Shore Power* — Modern destroyer classes of ships require access to about two megawatts of electricity. This can be supplied from diesel-fuel consuming generators on board, at a rough current cost of 2000 dollars per day, or from shore supply sources at 500 dollars a day, a clear cost saving.
- *Improved Access to Shore Power* — With ships being compatible with the Australian National electricity grid it is feasible that ships could visit most Australian ports and 'plug-in', instead of having currently to run off ship's service generators at all locations remote from naval bases, (where specialised supplies are provided).
- *Cost of Product Support* — The relative costs of initial procurement of these systems from local sources or from overseas is not known, but ongoing support for repair or replacement should be cheaper, and certainly more convenient. The lengthy delays of critical products from overseas are frustrating, and not just for the obvious strategic implications.
- *Increased Scope for Repair by Tender* — Most ship repairs currently are conducted by specialised naval shipyards, which are in the process of becoming more commercialised in their outlook. They are looking beyond the Navy for their business and it is prudent for the RAN to now consider allocating an increasing quantity of repairs to the open tender process. The systems under discussion would be ideally suited to contractor support Australia wide.
- *Quality of Life Improvement.* The benefits of having a reticulated 240 volt 50 hertz power supply onboard Australian warships are considerable for the personnel who are embarked. The convenience of being able to buy local television sets, computers, cash-registers, washing machines, electric shavers, refrigerators, coffee percolators and like products, when their predecessors break down, is not to be underestimated.

What Negative Factors Are There?

With all of these positive factors for introducing Australian Standard power supplies into new Australian (and New Zealand) surface combatants being evident, there must obviously be some negative aspects?

As far as the ships are concerned the most significant of those negative factors would be the impression that there were to be two different 'types' of generating plant on board, one providing the Australian Standard 415v 3ph 50Hz, and one providing the NATO Standard 450v 3ph 60Hz for the fitted weapons systems. In reality however the situation would only be marginally different from the status quo, whereby a range of 'converted power supplies' are distributed throughout warships to satisfy particular systems requirements. Particular examples are:

- 450 volt 3ph 400 Hertz
- 28 volt d.c.

In essence the conversion to the NATO Standard supplies would occur via just another set of conversion machinery, be it rotary machines preferably, or static frequency convertors. The existence of dedicated switchboards, and distinctly different junction boxes and socket outlets, would ensure that onboard differentiation of the different supplies available would be at least as easy (and as safe) as the status quo.

Compatibility with Allies

Another perceived negative factor for ships would be the non availability of supply support for these systems from allied bases, particularly from USN sources. The support provided by the USN in supplying RAN ships during the Vietnam war was outstanding but was mutually beneficial. The Americans knew that the RAN could not support its American built ships in the war zones and by providing that support they achieved their political objectives of having a visible 'International Commitment' to the conflict. The RAN benefitted because having been directed to participate, it was able to run its ships efficiently through an effective shore support organisation, and in so doing reinforced its operational reputation. Such support from the USN or any other ally can not necessarily be relied upon in conflicts yet to be experienced. This perceived reliance on allied support to forward bases in time of conflict acknowledges the RAN's difficulty in conducting its own support, but does not acknowledge the Defence White Paper policy of no forward area operations.

With such a policy of operations it is supposedly difficult to perceive a scenario whereby the supply of essential components would not first come from RAN sources, and thus a design policy which espoused that allied stores compatibility was essential would be contrary to Government Policy guidance. Regardless of this view, the fact that the three short-listed contenders for the New Surface Combatant Project are European Designed ships with European domestic electric equipment, that is to say not

American, means that the RAN is unlikely ever to operate with another navy (except N.Z.) which operates similar vessels. The RAN thus would have nothing to lose in having locally sourced domestic electrical and auxiliary equipment fitted in lieu of NATO Standard products. (This conclusion does not extend to the realm of weapons systems where the RAN is likely to be constrained to the whims of overseas suppliers for the forseeable future, and a reliance on foreign national stores support must be considered.)

MIL-SPEC?

Another serious consideration for the specification of Australian designed and manufactured electrical and auxiliary machinery products, would be the need for military specification (MIL-SPEC) standards. The product quality which MIL-SPEC standards guarantee is not to be taken lightly and whilst some commercially available equipments already exceed military standards, most do not. The value in insisting on these standards is believed to have been recently reinforced in the analysis of the British conflict in the South Atlantic Ocean. Australian Industry would need to closely examine the additional costs if any in undertaking to manufacture and support military standard domestic electrical equipment and military standard auxiliary machinery, such as air-conditioning plant, throughout the life of the ship(s).

The procurement project teams would need to examine the possible higher initial procurement costs of locally sourced products against the longer term benefits of through-life support.

Which Arguments Win?

The arguments for and against the introduction of the Australian Standard Power Supplies into RAN (& RNZN) Surface Combatants, reduce essentially to what is easiest for these ships to operate in the Australasian region versus what is easiest for the project teams who have to manage their procurement. The added convenience to ships, the improvements to through-life support effectiveness, and the related high cost savings must be offset by the requirement to find the resources to redesign an off-the-shelf ship package. This design effort could severely strain naval resources and also could delay the procurement programmes.

Notwithstanding these factors, if the aim is to maximise Australian input to new warship construction projects there must at least be a detailed feasibility study which will highlight the costs-versus-benefits of specifying Australian compatible power supplies for ships' domestic electrical equipment.

D.F.R.D.B. INVALIDITY RETIREMENT AND YOUR RIGHTS

by Allan Anforth B.Sc., Dip. Law (SAB), Grad. Dip. Public Law, solicitor and barrister.

The invalidity retirement provisions of the D.F.R.B. Act 1948 and D.R.F.D.B. Act 1973 have been the subject of considerable litigation by medically retired servicemen since the setting up of the Administrative Appeals Tribunal in 1976. By and large these challenges to the decisions of the D.F.R.D.B. Authority have tended to be successful with more appeals on invalidity classification being won by servicemen than by the Authority. Unfortunately for many medically retired servicemen, their knowledge of their rights and the relevant law relating to invalidity classification is such that they do not exercise their right of challenge to the Authority's decision with the result that they receive considerable reduced invalidity pensions. This article seeks to outline some of the more relevant features of the law relating to invalidity classifications.

There are two relevant Acts, the *D.F.R.B. Act 1948* which still governs classification of those persons medically retired before 1973 and the *D.F.R.D.B. Act 1973* which governs classification from 1973 onwards. I use the term classifications because both of these Acts establish a scheme of classification by degrees of incapacity. There are three categories:

- Class A — 60% more incapacity
- Class B — 30% more incapacity
- Class C — less than 30% incapacity.

When a serviceman was or is retired on invalidity whether before or after 1973 they were or are classified either A, B or C and were or are paid a pension determined by this classification, except for Class C which only attracts a lump sum payment. At any time after their original classification a person in receipt of a pension (that is Class B or A persons but not a Class C person[2]) can apply to the Authority for reclassification to a higher level of incapacity or the Authority can reclassify a pensioner either upwards or downwards of its own volution.[3] Reclassification can occur any number of times and it is usually the Authority's policy to send out information sheets each year seeking details of a pensioner's present health and work status, which pensioners are obliged to complete and return to the Authority.[4] Whenever the Authority takes a decision either on original classificaiton or reclassification, the subject person has the right to ask the Authority to reconsider its decision and if they are not satisfied with that decision, to appeal to the Administrative Appeals Tribunal (AAT).[5]

ORIGINAL CLASSIFICATION

Persons currently being retired on invalidity grounds are classified under the 1973 Act[6] which speaks of the persons 'percentage of incapacity in relation to civilian employment'. This phrase is not defined in the Act but some understanding of its meaning can be obtained from:

a) the interpretation given to it by the AAT, and
b) the specific limitation of considerations to be taken into account found in the Act.[7]

I will briefly deal with each of these in turn. The AAT has taken the view[8] that the 'percentage incapacity in relation to civilian employment' focuses on the degree and importance of lost opportunities a person has suffered by reason of the medical condition causing their invalidity reitrement, to obtain[9] and undertake civilian vocations which would otherwise have been open to that person. It is important to note the dual aspects of the ability to:

The author

Allan Anforth is a solicitor and barrister with the firm of Maliganis Edwards Johnson of Canberra, and conducts a significant percentage of his practice in what is loosely termed 'Administrative Law' which includes the various superannuation, compensation and conditions of service legislations of servicemen and public servants.

Before joining Maliganis Edwards Johnson, Allan was for three years Director, Reconsideration and AAT Section of the Commissioner for Superannuation Office in which capacity he was responsible for investigating and litigating Public Servant and Defence Force Personnel superannuation and D.F.R.D.B. matters.

a) obtain, and
b) undertake

relevant civilian employments. A person may have sufficient physical or mental capacity to actually do a particular job, but their incapacity may make them very unattractive to prospective employers, particularly in tight market situations. In this case the degree of incapacity is increased over what might seem reasonable on medical considations alone. Obviously the more unskilled the person the greater effect a physical or mental incapacity will have.[10]

The concept of percentage incapacity in relation to civilian employment being a measure of lost job opportunity, differentiates it from:

a) a measure of economic loss,[11] or
b) a measure of loss of bodily function.[12]

A person is not compensated under D.F.R.D.B. for either (a) or (b) above and resort must be had to either the Compensation (Commonwealth Government Employees) Act 1971, the common law or in restricted cases, to the Veterans' Entitlement Act in relation to these issues. A person's invalidity classification only reflects loss of relevant job opportunities.

The other three major factors in understanding the 'percentage incapacity in relation to civilian employment' are the legislative restrictions which say that regard will *only* be had to:

'a) the vocational, trade and professional skills, qualifications and experience of the member;
b) the kinds of civil employment which a persons with the skills, qualifications and experience referred to in paragraph (a) might reasonably undertake; and
c) the degree to which the physical or mental impairment of the member that is the cause of the invalidity or physical or mental incapacity by reason of which he has been retired has diminished the capacity of the member to undertake the kinds of civil employment referred to in paragraph b);'[13]

The word 'only' is important as it means that the Authority cannot take into account any consideration not encompassed by (a), (b) or (c) above,[14] and so, for example, the Authority cannot consider moral aspects, the state of the labor market, e.g. whether the economy is in a recession, or the age of a person.[15] Having said this, some of these factors may become indirectly relevant to a person's capacity to obtain employment as discussed above.

I will defer discussion of the meaning and effect of the three factors quoted above until after I have discussed reclassification, because the same factors limit the Authority's powers in relation to reclassification as well.

Original classification on retirement must attempt to assess the person's incapacity at the date of retirement.[16] it is not the function of original classification to endeavour to predict what level of incapacity a person will suffer in the future, this updating function is the reason for the existence of reclassification powers.[17]

Having said this there is one important trap to be avoided in original classification. Where a person's original classification is Class C there is no power for such a person to seek reclassification even if their health seriously deteriorates. For this reason the AAT has said that the Authority should not originally classify a person Class C if there is perceived future likelihood of deterioration.[18] I would encourage any person classified C on retirement to take legal advice with a view to challenging that decision.

RECLASSIFICATION

Reclassification can be initiated by the pensioner or the Authority and there is no limit as to how frequently it can be done. Reclassification proceeds on the same basis as original classification in that it seeks to:

- ascertain the new percentage incapacity in relation to civilian employment, and
- the Authority is restricted to considering the same three factors quoted above as apply to original classifications.

In addition to this the Authority is further restricted on reclassification to considering the degree of incapacity caused by what are known as 'prescribed impairments';[20] that is, the Authority can only have regard to incapacity caused by one of the physical or mental conditions which caused the original retirement or a condition which is 'causally connected' to one of those conditions. **For this reason it is in the pensioner's interests when he is first retired to ensure that as many medical conditions are noted on the medical discharge report as possible.**

As with original classification, reclassification is concerned only with the degree of incapacity actually existing and is not concerned to predict future levels of incapacity.

Turning now to the three factors quoted above:

1. *'the vocational, trade and professional skills, qualifications and experience of the recipient members;'*

The word 'qualification' has been held to mean formal academic qualifications.[21] In the case of original classification the skills referred to will be pre-service and in-service skills since original classification takes effect from the date of re-

tirement. In relation to reclassification which occurs sometime after retirement, it is permissible for the Authority to also take account of skills acquired after retirement in whatever civilian capacity the pensioner has been occupied.[22] The AAT has determined[23] that it is permissible to include within qualifications, potential qualifications a pensioner was studying towards if those studies were interrupted by the medical conditions which caused the retirement depending on how far progressed the studies were. This applies to both original and reclassification. The effect of this is, for example, that if a serviceman is training to be a plumber and injures his back and is invalided out of the services then his degree of incapacity will reflect the fact that he cannot continue his studies and become a plumber.

2. *'the kinds of civil employment which a person with skills, qualifications and experience referred to in paragraph (a) might reasonably undertake;'*

The important words here are 'reasonably undertake'. It has been determined[24] that it is not reasonable to expect a highly qualified person to undertake basic clerical or manual work, for example, if a professional electrical engineer is prevented by incapacity from discharging that profession, his degree of incapacity could not be notionally diminished by the Authority saying he was capable of being a clerk. This line of argument has been further developed[25] to the extent that where a person has one major skill (e.g radio operator) and is prevented from undertaking that vocation by reason of incapacity, although he can still do other minor skills (e.g. clerk), then his degree of incapacity should be weighted to reflect the loss of the major skill. On the other side of the ledger it has been determined that a dislike for a particular relevant civilian employment does not make it unreasonable for the person to undertake it.[26]

3. *'the degree to which any physical or mental impairment of the recipient member, being a prescribed physical or mental impairment, has diminished the capacity of the recipient member to undertake the kinds of civil employment referred to in paragraph (b);'*

There are two aspects to this factor:

- the quantitative — by which is meant the number of vocations etc. which would otherwise have been open to the individual, which are now totally closed to him; and
- the qualitative — by which is meant the degree of capacity an individual has left within those vocations etc. which are still open to him.

The AAT[27] has taken the attitude that the reduction to a percentage obtained by dividing the quantitative number of civilian jobs unavailable by reason of incapacity by the otherwise full potential number of civilian jobs if not for the incapacity, is not a valid way of determining the degree of diminuation of capacity for civilian employment. Such an approach fails to take account of the fact that some potential civilian occupations are either at a greater level of skill or form a more dominant part of the pensioner's bank of skills. More weighting must be given to these latter two categories of jobs.

In the case of reclassification, often the pensioner has in fact been working since retirement. This fact will only be relevant:

- if the job concerned is one that the pensioner was equipped for by reason of his previous skills, qualifications and experience.[28] Thus the fact that a naval officer has found a job pulling beer would not, prima facie, be relevant to his classification,
- to the extent that the new job has developed its own set of skills in the pensioner.[29] Thus if the new position is relatively unskilled, then again it is not likely to have much bearing on reclassification.

Even where a pensioner does obtain a relevant skilled job after retirement the fact of having held this job will not be relevant to reclassification if:

- it was obtained by failing to disclose the relevant medical condition to the employer,[30] or
- it was obtained through the charitable motives of the employer.[31]

In judging a diminuation in capacity for civilian employment, it has to be judged relatively to prevailing local market having regard to the pensioner's degree of mobility and the degree of mobility of others in the pensioner's relevant vocation.[32] This means that a pensioner who has settled and has roots in a country town cannot be judged on the expectation that they should move to a capacity city.

CONCLUSION

One of the important factors in invalidity classification the reader will have hopefully discerned from the above is its inherent subjectivity. *Classification is not a mechanical process and is very much influenced by the quality of the evidence the service person supplies to the Authority.* Because there is such subjectivity in classification it is important that service persons being retired and existing pensioners be aware of their appeal right and have a grasp of how the classification works. It costs a person nothing to lodge a request for reconsideration with the Authority and nothing to lodge a further application for review with the AAT, except if they retain

a solicitor. Historically an appellant has fairly good chances of success although obviously at an individual level it depends on the merits of the case. It is not necessary for a person to retain a solicitor, the AAT is well used to unrepresented applicants and will lend assistance.

FOOTNOTES

1. S30 D.F.R.D.B. Act, S51 D.F.R.B. Act
2. S34(5) D.F.R.D.B. Act, 53(1), 53(4) D.R.F.B. Act
3. S34 D.F.R.D.B. Act, S53 D.F.R.B. Act
4. S35 D.F.R.D.B. Act, S53B D.F.R.B. Act
5. S99 D.F.R.D.B. Act
6. S30
7. S30(2)
8. Re Bos 20 ALR663, Re Kennedy V84/223, Re Keating Q85/80, Re Rediman 1 ALD 105, and others
9. Re Shelton 7ALD 574, Re Semmler N81/214, Re Britt 7ALD 715
10. Re Box 20 ALR 663 Re Kennedy 1 ALN 349, Re Kennedy V84/223, Re Nathan 1 ALD 277, Freeman v, D.F.R.D.B. 8ALN N97
11. Re Thompson D86/6, Re Jones 4 ALN N148
12. Re Britt 7 ALD 715
13. See 7 above
14. D.F.R.D.B. v. O'Fee (NSG G 71/84 Unreported Full Federal Court)
15. See 14
16. Re Groves 79/114 Re Redman 1 ALD 105
17. Re Box 1 ALD 31 Re Freeman 6 ALN N143
18. Re Dillaway 6 ALN N314
19. S 34 D.F.R.D.B. Act S53 D.F.R.B. Act
20. S34 (aB) D.F.R.D.B. Act, S53 (1B) D.F.R.B. Act
21. Freeman v. D.F.R.D.B. 8ALN N97
22. Re: Freeman 76 ALN N143, Re Foster: 2ALN No. 121
23. Re Bos 1 ALD 31, Re Nathan 1 ALD 277
24. Re Semmler N81/214, Re Shelton 2 ALD 574, Re Freeman 8 ALN N143
25. Re Kennedy V84/223
26. Re Freeman 6 ALN N143
27. Re Thompson D86/6
28. Nutt v. D.F.R.D.B. (unreported High Court)
29. Re Clark W82/47
30. Re X 3 ALN N58, Freeman v. D.F.R.D.B. 8ALN N97
31. Re Q N83/787 Re Nathan 1 ALD 277
32. Barcevic v. The Authority 1957 C.L.R. 296, Dowell Australia Ltd. v. Archdeacon 1975 49 ALJR 287, Arnotts v. Yacoub, but see Re Redman 1 ALD 105 to the contrary

DISCLAIMER

The above article represents the writer's view only and any person contemplating any action whatsoever should seek their own independent legal advice.

Telling it like it was!

ZIG ZAG PART 4
GO WEST YOUNG MAN!

by Neil Grano

In the last issue of JANI, Neil survived the attacks on Convoy PQ17 and three months of heavy German bombing raids against Russia. In October 1942 he finally made it back to England.

After I reported to the Company agents in Glasgow I received compensation for the clothes I had lost and also back pay up to the date I had returned. This was a grand total of 130 pounds which, in those days for a nineteen year old boy, represented the possibility of a lovely time in London for a couple of weeks. This was all the time I had been allowed by the Mercantile Marine office, leave being based on a formula of approximately three days leave for each month on ships articles, and this then determined your food ration stamps for sugar, margarine and other items.

A persons bona fides were determined by the presentation of the National I.D. card (which each person had to carry on their person) and which you could be asked to display on authorized request at anytime in wartime England. The number on this document, along with many other important document numbers, had been indelibly committed to memory in the event that papers ever went down with a sinking ship.

My I.D. card number was AYA 1091721 and, in addition to the I.D. card, you needed your ships' discharge papers from the most recent ship, showing dates joined and discharged.

THERAPEUTIC ACTIVITIES

Much has been said about wartime England but suffice it to say that wartime London was an exciting place for a nineteen year old boy who had a shared room up at the West End behind Selfridge's on Granville Place. Once established with a place to sleep, I started a frenzied round of activities to fit as much living as possible into the next fortnight. The first thing my flatmate and I did was to go to the afternoon tea dance at the Covent Garden where we were picked up by two women who were much older than ourselves and on a vacation, probably from their husbands in Yorkshire. We paired up and spent that night in a hotel where we became very well acquainted. Despite my youthful inexperience of the finer things of life, I benefitted greatly from my partner's years of experience.

My room mate was born and raised in London so he knew the city very well and, in addition to visiting the places I already knew, we visited a number that were new to me. Later in the evenings we popped into Lyons (Coventry Corner House) to have one of their rather infamous Hors d'oeuvres (canned diced carrots and peas). There wasn't really much else unless you wanted one of the girls in Picadilly which always seemed available at an inflated wartime price. In the service clubs there was always talking, tea or something to eat and usually dancing. On a couple of occasions we went out to the Palais de Danse in Hammersmith which was lots of fun but much further away. Here we met some nice girls but they always had to go straight home.

At times in London during the blackout there were no street lamps to guide you, just little slits in the form of a cross on the traffic lights and little shuttered grills over the headlamps of the cars.

If there was a thick fog, as happened to me on one occasion, I bumped into *someone* and apologized before I realised it was a lamp post! In the country areas the blackout was even more absolute.

An active social life was certainly helping me to feel better but my nerves were still on edge. In fact on the first morning of my return to London off the ship, there was an air raid alert and I rushed into the street in pyjamas, tin hat and gas mask; asking where the closest shelter was located. But owing to the lack of concern expressed by the people going by on their way to work I decided to return to my room.

After a few visits to Australia house on the Strand and meeting with and talking to a number of my fellow countrymen, I decided I would like to try and get back to Australia where at least the weather should be better and I could see my family again. With this in mind I applied for and got from the Mercantile Marine office permission to return to Australia as a DBS (Distressed British Seaman) which, in effect, meant that you could ride as passenger back to your home country.

I was sent within a couple of days to Liverpool to board the *Brisbane Star* (Blue Star Line) bound for Australia by way of Panama, being quartered in a small cabin amidships which was

normally reserved for anyone that was sick. Our first scheduled stop was New York and I was required only to keep my cabin clean, make my bunk, attend lifeboat drills and general quarter drills. The rest of the time was my own but frankly I found it very boring and the trip to New York took about nine days. We had a few alarms but no action.

NEW YORK, NEW YORK!

On arrival in New York the Statue of Liberty loomed out of the fog and I understood why it was symbolic of so many of the things that inspired wonder in the minds of non-Americans all over the world. Here I was seeing it for the first time in my life and the harbour traffic was very heavy with fog horns tooting, whistles blowing, ferryboats crisscrossing and tugboats darting in and out. Every once in a while I got a glimpse of the Manhattan skyline through the drifting fog, the skyscrapers seeming to project endlessly upwards in the fog.

For a short time we laid at anchor and then received orders to proceed with tug assistance and dock at Greenpoint, Brooklyn. I only had about $15.00 but the main thing was that I was free the whole time we would be in port. The first day I went to the Seamans' Mission and was told about the U.S.O. and all the other service connected organisations where it wouldn't cost any money for entertainment so off I went in company with a couple of other seaman and had a good, cheap night out. On the second evening I was in the U.S.O. and standing there as large as life was my PQ17 friend Ginsburg of fur coat fame. He immediately took charge of me and we starting visiting his favourite bars and clubs in Greenwich village and downtown New York. I explained to him whay my financial situation was and where I was bound for and he said, *'Hell man, screw working for those Limeys! Make yourself some real money. Get on Yankee ships!'*. He then proceeded to tell me that many British seamen were working on U.S. ships since they had much better living conditions and got paid considerably better. According to Ginsburg all I needed was a lifeboat ticket and seamans' papers.

True to his word Ginsburg turned up the next morning and we went down to the War Shipping Administration Office on Battery Street and I was scheduled for my lifeboat test the following day at Governors Island. When I applied for the Seaman's I.D. they told me that I must first have a release from the British Merchant Navy which could only be obtained from the British Consulate. So I immediately went there and asked for a release. The staff's first answer to me was that it was out of the question. Then, as I persisted that I was Australian and not English and I was returning to Australia, where I would be outside their jurisdiction anyway, the Consulate staffer relaxed a little and said he would look into it. I knew I had to move quickly because the *Brisbane Star* was only staying in New York one week.

The next day I went to Governors Island and took my lifeboat test. It was an easy test, merely requiring a man to know the difference between the oar and the sail and knowing how to row helped too! The important thing was that I got my Lifeboat certificate and armed with it, I returned to the British Consul. I doubt that he was overly impressed by it, but he could see that I was going to be persistent so he told me to return the next day and he would have an answer for me. Not waiting for the next day, since I was running out of time, I went straight back to the War Shipping Adminstration, told them where I stood and asked them if they could call the Consul and ask him to issue the release for me as soon as possible. They agreed to do what they could and evaluated my previous discharge papers and, on the basis of these, they said they would issue me a Blue ticket. This meant I could sail as an A B (Able Seaman) but required six more months service before I could get my Green ticket (permanent). The WSA (War Shipping Administration) then called the Consul, telling him that I was qualified and they had a job for me. His answer was for me to come to the Consulate the next day and, when I arrived at the Consulate, he said nothing, merely taking my continuous Discharge Book and stamping in a DSR8 release from the Merchant Navy Service on Reduction of Complement. Subsequently I returned to the W.S.A. and picked up my Z number document which was my U.S. Seamans' I.D.

By this time my original $15.00 had been pretty well exhausted by fares but entertainment was free and the people in those times were very hospitable to foreigners and Ginsburg had really been helpful in steering me around town without costing me anything.

In all the clubs and bars it was the same, *'Oh an Aussie huh? Great people you Aussies. What'll you have to drink? You aint payin' for nuttin!*, and so it went. One evening in the USO I found myself dancing with a lovely blonde woman and when I asked her name she said it was Madeleine Carrol. I blew up to about ten times my normal size on dancing with an actress as well known as she was. Her husband, Stirling Hayden, was in the Marine Corps and she was doing her bit entertaining the servicemen as her part of the War effort.

New York City was always ablaze with lights at night. It was hard to believe there were blackouts

in other parts of the world and it was always so noisy with people on the go. The whole tempo of the place was hectic and the pace was particularly stimulating to a newcomer from *down under*. New York was a sellers' market for seamen. There were never enough seamen available and most definitely a good percentage of both officers and sailors, despite having their papers and certificates, lacked experience and competency. The U.S., prior to the war had not been a seafaring nation, and consequently it was difficult to find many crews where the average experience of the men and the officers was more than two years.

It was common knowledge that on oil tankers the quarters were spacious and the food was better. However, if you were bombed or torpedoed while carrying Hi-test gasoline, there was an excellent chance you would not be around looking for another ship later! Another deciding factor was that it was not necessary to belong to a Union to sail on most tankers, and it cost money to join a Union. For me, money was in short supply so I approached the Standard Oil Co. of New Jersey (ESSO) and they hired me as an AB for the *Esso Raleigh*, a new oil tanker that was being built in Chester, Pennsylvania. It was still a couple of weeks from completion so I was put on standby pay and quartered in an old firetrap hotel, the Maryland Hotel on West 49th street. It was decrepit inside with the noise of the heart of the city heard day and night. Neon lights flashed on and off nearby day and night, easily penetrating the cheap window shades. The blare of bar room music didn't help sleeping but this was wartime and accommodation was always at a premium. Many times you were lucky if you could even occupy a chair in the lobby for the night.

On standby, sailors were supposed to report to the company office daily, which we did more or less, as our daily appearance, drunk or sober, constituted our availability. Otherwise we were liable for the loss of that days' pay. Normally I received about $45.00 weekly which, in these days and at my accustomed low level of spending, was really quite a handsome salary. But since I did not know the ways of the big city, a fool and his money were soon parted, I spent foolishly and food was expensive.

My plan was to make one trip on the ship then, with the money I earned, I would go out to the west coast U.S.A. and try to get on a ship that would take me home to Melbourne. These plans were forming in my mind as I was having a very fast social life in New York since the other members of the crew were all staying in the same hotel. One of them, the man hired as Bosun, was an alcoholic and many times he would have the delerium tremens (D.T.s) and we would not be able to get him sufficiently conscious to dress and go with us. Fortunately for all of us he was replaced before the ship sailed.

UNDER THE US FLAG

Eventually the ship was declared ready and we all took the train down to Pennsylvania. A bus trip followed after which we had to walk quite a way as public transport was non-existant. SUN Shipyards were some distance outside Chester and the weather was bitterly cold. Also, we were not too happy about leaving New York city only one week before Christmas as so many of the crew were from the New York/New Jersey area and were looking forward to Christmas with family and friends, but we now had no choice.

It took us about three days to square the ship and the crew away ready for sea. The rope lines and the metal parts were all frozen solid with ice covering them and we had to use gloves whenever we handled anything, but the quarters were spacious and the meals excellent and it was my first time on board ship where a waiter in a white jacket (or anybody) had handed me a menu and asked me what I wanted and how I wanted it for that matter (normaly on other ships there had been no choice at all!).

When we were ready to leave we found that we were to pick up our cargo in Bayonne, New Jersey, and it was to be fresh water bound for the island of Aruba in the Carribean. The reason for this cargo was that being a new ship we wouldn't contaminate the water and our tanks did not need steam cleaning first and the island of Aruba did not have any fresh water of its' own. It had to be supplied from outside.

Our run over to Bayonne, N.J. was short and we arrived there Christmas eve and just about everybody wanted to go ashore that evening to be with family and friends, but we were scheduled to leave the very next morning (the problem with tankers is that they never stay in port, loading or unloading took no more than 24 to 48 hours max.)

We had heard from other seamen numerous reports of ships being torpedoed in the Caribbean, many of these were oil tankers, and the sharks were prolific there but we hoped for the best. The ship had a 5 inch .38 anti submarine gun aft on the poop deck, and a 3 inch .50 forward over the focastle head. My battle station was up forward, pulling up ammunition from below for the 3".50 and when we had gunnery practice I would be temporarily deafened by the sharp crack of the gun over my head since the sound would kick right back from the midships bridgehouse.

The ways of seamen on American ships were strange to me, as I had never previously lived among Americans and, while I made friends with many, I made an enemy of one French–Canadian who spoke a broken brand of English and seemed to identify me, because of my accent, with the English whom he hated.

We were fortunate in that we were sailing into warmer weather each day and we sailed without convoy and followed a zig-zag course. It didn't take too many days before we pulled into the harbour (more properly stated the oil refinery dock) at San Nicholas in Aruba and it was there we unloaded our water. At night everything was blacked out in San Nicholas, as the town had already been shelled once by German submarines, also many of the small tank boats belonging to the mosquito fleet which transported the crude oil from Venezuela to Aruba had suffered shelling by the Germans and at least one of them had been sunk. The town of San Nicholas was a typical Central American shanty town, existing by the grace of the Standard Oil refinery and boasting a multitude of Bars. The official language was Dutch (being a Dutch possession), but Spanish and English were also spoken by many of the people and the easygoing Caribbean attitude was strong among the people.

On our first night ashore I was with a couple of members of our gun crew and we were singing and drinking in a bar, and the not so friendly French/Canadian came in. He had also been drinking which added to the usual chip on his shoulder. He was argumentative, wanted to fight and tried hard to start one with me and the fellow I was with, but the owner of the bar did not want his furniture broken up so he bundled him out onto the street. We continued drinking for another half hour or so then, due to the early closing forced on them by wartime restrictions and also being rather drunk by that time. I left the bar. It was pitch black outside and it took time for my eyes to adjust to the dark and I had only walked a few yards from the bar when something hard hit me across the back of the head and I fell down in the gutter. The next thing I knew a boot slammed into my face opening a cut in my forehead above the right eye. I didn't see the face of the attacker, but I had a fair idea of who it could be. By this time other members of the crew had arrived and the attacker had gone. I was bleeding profusely over the eye so they got a taxi and took me to the hospital where the Doctor put a few stitches in my forehead and declared me O.K. When confronted by me on the ship, Frenchie denied any knowledge of the attack, however this was not to be the end of the bad feeling between us.

The ship was soon quickly loaded with fuel oil for a run over to Panama but my dirty clothing situation was critical, so I rushed ashore to the laundry with my clothes where they told me it would take two to three days. I took my chance and left it there, fortunately coming back from Panama and collecting them. It was customery for us to wash all our work clothes ourselves on board the ship but to send our shoregoing clothes to a laundry.

Our stay in Panama was of very short duration. There was no leave for anyone and, on the morning following our return during breakfast, the situation between Frenchie and myself erupted. I was sitting at the table and following a few heated words he came behind me and put his arm around my neck, choking me and dragging me off the seat onto the deck where we struggled and traded a few punches. A knife appeared in his hand which led other members of the crew to intervene, disarm him and break it up. Much half english-half french swearing and threats ensued and the bad feeling remained, but no further violence occurred between us for the rest of the voyage.

The engineers had had intermittent trouble with the engines and needed time to work on them. This sometimes happens even with new engines so, on our return to Aruba, we tied up at a special dock where they could do their work. It took them eight days during which time the crew enjoyed their evenings ashore. Most of us had overspent our money due to the inflated prices of the drinks and girls. The girls usually were spanish speaking prositutes who came from Central America or the other Caribbean islands and received a two week permit to stay in Aruba. They would not take you to their room because local ordinances required that they do their business outside the city limits, so it was necessary to hire a taxi and go out to the beach and make love on the sand with the taxi driver waiting and meter ticking. It was both expensive and hardly satisfying.

After the eight days the ship moved over to the loading dock and we were ready to go in twenty four hours. We were a fast ship capable of eighteen knots being one of the new diesel electric T-2 tankers. Our return voyage went quickly and without incident and one week later we pulled in and tied up in Bayway, New Jersey. Here I had the option of paying off the ship as the articles automatically terminated upon return to the U.S. from abroad. I liked the ship. It was comfortable, the food was good and work was not too demanding and I would have liked to make another trip or two in it but my drive to return home to Australia was very strong and this ship had no plans to leave the Atlantic. Consequently, I paid off in New Jersey and a short

time later caught a train in New York City bound for San Francisco on the west coast U.S.A. where I thought my possibilities of getting to Australia would be much better.

HEADED WEST

The train trip west was gruelling. I did not have a sleeper, just a seat, there were crowds of servicemen on orders or on leave going to join their sweethearts or their wives to spend a few days together before going overseas. The train was so crowded it seemed like the bathroom was always full, usually with a craps game in progress on the floor. Here I was seeing a different America. The people from the hinterlands of the midwest and the southern states, with their drawling 'youall' were in abundance as were the white coated black porters with their '*Yassuh we arrives on taame*'. During one stretch of the trip I sat beside a girl from Kansas who asked me where I was from and when I replied from Australia, she commented '*my you certainly have learned to speak english well!*' I informed her it was my intention to learn and speak 'New Zealand' next and she was really amazed by my outstanding talent for languages! I began to realize in talking to these people that their basic education did not deal in acquainting them well with the world outside the U.S.A. Their educational system was isolationist in many ways because they were the richest, most self-sufficient country in the world at this time and they tended to think and look inwards, not understanding smaller countries and their cultures. It was an obvious deficiency and most likely born out of this self sufficient attitude.

It took four to five days to reach the west coast due partly to detours and waiting while higher priority trains went through on our track. This time was all coming off my leave time between ships, and when I did arrive I would only have about two days left.

SAN FRANCISCO

On arrival in San Francisco I was fascinated by the charm of the city and the climate reminded me of my own home. I checked in at the Army-Navy YMCA on the Embarcadero not far from the Ferry Building, and close to the foot of Mission street. This was really the limit of downtown San Francisco (S.F.) where all the winos and derelects hung around, where two-bit flophouses, run down honkytonks and all night steam clam and chili joints existed in strength. Alcoholics coming and going would hit you for a dime, '*for a cup of coffee for an old seaman down on his luck*'. Many of the waterfront places, the seamans' clothing stores, ships chandlers', bars, restaurants' (as such) had Scandinavian first or last names, attesting that in earlier days of settlement either seamen from ships or migrants from Scandinavia had stayed on. There was always the smell of fresh roasted coffee beans from that part of downtown S.F. and I assumed there must be a huge coffee warehouse around there.

The downtown business district was less than five minutes walk up Market Street from the Ferry building and right across from the Matson building, so most of the necessary offices I had to visit were handy. It now became obvious that it was necessary to ship through one of the two west coast Seamens' Unions, unless a person wanted to sail on non-union tankers or the Army Transport Service (ATS) out of Fort Mason. The latter option I did not want to undertake for a number of reasons, but mostly because they usually got the people with seamens' papers that could not make it through the union (usually with very little sea experience) and the living and working conditions were reported not to be good.

The two choices of unions were, firstly the National Maritime Union (NMU) which was an affiliate of the CIO (Congress of Industrial Organisation). This was a newcomer union on the west coast, very militant and run by Joseph Curran, and covered only the deck department. The oldtimers working for Matson or American President Lines tended to look down their noses at the NMU as they belonged to the SUP (Sailors' Union of the Pacific) which was the counterpart of the SIU (Sailors' International Union) on the east cost U.S.A. The SUP was headed by Harry Lundberg, an ex-seaman who had survived the rough and tough days of the 1934 seamans' strikes and helped build a strong union for the seamen on the west coast. Before the strikes seamen had been treated like animals, being provided only with one blanket. They had to provide their own bedding, their own eating utensils and live under miserable, often unsanitary conditions. They were crowded into one great focastle and worked whenever called upon without regulated overtime. Now, thanks to the strikes, and a half awareness that seamen were also human beings, the Americans had the best conditions and the best pay of any Merchant Marine in the world. But the bad old days were still too close at hand for many to forget and there was a very pro-union attitude, always regarding the shipping company as the enemy.

The Union dues and assessments were heavy. No wonder the unions became quite rich and the two unions had contracts with different shipping companies so, if you were not a member of either union, membership only depended on what ship you wished to sign on. Being accepted for a job on a ship, you would then

obtain a trip card from the respective Union (trip card means probationary, with the tacit understanding that you will join the Union at the end of the trip if the card holding members of the crew recommend that you meet the requirement).

If you were already a member of a Union then you were limited to apply for a job on a ship that had a contract with your Union and, depending on your seniority in the Union, your length of time waiting compared to any others that may be waiting for the same job and being in possession of the proper certificates and experience, you eventually found work. It was always common knowledge among the seamen in every port where which ship would be going, what the officers and living and working conditions were like on board and what job openings in the crew existed. Sometimes this was even known before the ship arrived in port, then from the Dispatcher in the Union hall you could learn a probable date for the pickup of the replacements for a specific ship. In the Union hall the Ships' name and the open jobs would be chalked up on a board and the applicants would raise their hands as the jobs were called off. They would then present their Seamans' and Union papers and, if found acceptable by the Dispatcher, they would be assigned to the ship.

The seamen assigned by the Union could then go to the Shipping Co. which operated the ship which would tell them where it was docked and then they would sign articles. Once articles were signed usually pay would start right away, so the seaman would be instructed to proceed straight to the ship to commence work.

A CHANGE OF SCENE

I secured a trip card through the NMU and signed on the '*Richard Henderson*' (Liberty ship) as an AB. The ship had welded seams and was referred to as a '90 day wonder' and was a freighter of about 9,000 tons displacement. These were the ships that would make a turning point in the logistics battle of a far flung war, where supply lines straddled the world. Partly due to prefabricating techniques using welded seams instead of rivets, elimination of other previous requirements, standardisation and a rapid growth of yards to build them the US attained a record output nationally of one every ninety days per yard, thereby came the name '90 day wonder'. From a seamans' point of view they were not too popular as they were very cramped, having narrow passageways and being extremely hot inside in the tropics. These were certainly not reliable in stormy weather and a number of them broke in half in rough weather (they would break at a welded bulkhead seam) but, considering the need for shipping, they filled a vital gap.

I signed on the ship under the impression that we were bound for Australia but soon found out instead that we were heading to New Caledonia. This was February 1943 and the fighting was still very fierce in Guadalcanal and the support base for this action was in New Caledonia. Consequently, I would soon be in a position to judge whether fighting the Japanese in the Pacific was as bad for one's health as had been fighting the Germans in the Atlantic.

ZIG ZAG continues in the next issue of JANI.

WASHINGTON NOTES

by Tom Friedmann

The Iran-contra hearings treated the world to the spectacle of several high ranking officers of the American naval service attempting to make a mockery of our constitutional system of government.

Lt. Col. Oliver L. North, USMC, his uniform bedecked with an array of 'being there' ribbons, garnered most of the media hype. North admitted that he had, while an aide on the National Security Council (NSC), lied under oath, shredded documents, and taken money from a private source for personal use.

During five days of sworn testimony, Rear Adm. John M. Poindexter, USN, former national security adviser, answered 'I can't recall' or 'I don't remember' on 184 occasions.

'It was,' in the words of columnist Lou Cannon, 'an amazing performance for an admiral whose naval fitness reports described a 'photographic memory,' and it left even loyal Republican defenders of the President shaking their heads in astonishment.' Senator William S. Cohen (Republican-Maine) confessed that Poindexter's words 'had a profound impact' upon him. Senator Cohen said:

> . . . I find it troubling when you say that 'I withheld information from Congress, but I did not mislead it,' or that 'the administration support for the contras was secret activity, but not covert action' or that 'the United States acquiesced in the initial shipment of TOW weapons, but did not authorize it . . .'

Many Americans condoned the actions of North and Poindexter. Retired Admiral Thomas H. Moorer, a former chairman of the Joint Chiefs of Staff, contended that the positions on the NSC were not military positions.

'If I thought it was vital to the defense of the country,' Moorer said, 'I would lie.'

Former Chief of Naval Operations Elmo R. (Bud) Zumwalt, made a similar distinction and said, that while the Code of Military Conduct applies to all officers, 'the concept has to be reinterpreted when an officer moves into a political arena such as the NSC.

But other Americans were concerned that the actions of these officers undermined the basic underpinning of our democratic government.

William R. Corson, a retired Marine Corps officer and a former instructor of Oliver North at the Naval Academy, noted that it 'comes down to cliches. Honesty is not the best policy — it is the only policy.'

'I don't believe there is any excuse for lying inside our government,' says retired Admniral Stansfield Turner, former head of the Central Intelligence Agency. 'The norm has to be you don't lie, you don't shred documents, and you don't take money.'

Retired Admiral Bobby Inman, a former deputy director of the Central intelligence Agency, said that officers are 'taught at every step along the way to uphold the Constitution and laws of the United States. No assignment as an action officer can subjugate that.'

It is difficult to follow the thinking of Moorer and Zumwalt, that oaths can be set aside by changing one's clothes. It is particularly hard to believe of graduates of the Naval Academy where the Midshipman's Code of Conduct reads: 'A midshipman will not lie, cheat or steal or tolerate those who do.' It is a proud boast of the Academy that, from its inception, it has developed graduates 'who are firmly grounded in honesty, maintain a strong sense of personal integrity, are morally upright and sound, are acquainted with and have internalised the values of the profession and are thoroughly dependable and loyal.'

Although definitive conclusions of personal culpability must be left to the special prosecutor and the courts, there can be no serious doubt that several key actors in the Iran-contra affair failed to address significant questions of law. Such questions demanded restraint and caution, not blatant attempts to push the limits of the law.

Military officers (active *or* retired, in my view) are obligated to show a decent respect for our political system and the laws that govern it. The very credibility of the military and ultimately the capability and strength of our armed forces rests on the confidence that the people and the Congress (which raises the armed forces and manages the purse) have that military officers *do* respect the system.

It has been suggested by some that there are 'grey areas' in the Boland amendments (legislation which prohibited any intelligence agency from aiding the contras). Assuming this is true (although my reading of the statute finds the language quite clear), one might have expected the proponents of the Iran-contra dealings to have taken *extra care* to ensure the proprietary of their actions rather than resorting to creative interpretations for the purpose of making secretive end-runs around legitimately set rules.

North et al trumpet their concern for democracy in Nicaragua, but are discomfited with the democratic processes of legislative government in the United States.

Why do so many military officers harbor such deep suspicions of Congress? Many factors, of course have come into play — the internalized norm of loyalty to superiors and the President's role as Commander-in-Chief; the view that Congress is too slow, parochial, and divided to play a positive role in foreign policy (many officers seem to think, wrongly, the Constitution places foreign policy exclusively in the hands of the President); the view that Congress is predominantly 'liberal,' 'anti-military,' and more interested in pleasing constituents and gaining reelection than in ensuring national security; and the view that congressmen cannot keep secrets (especially if they are political opponents of the administration).

One military officer told me that, despite their unwillingness to admit it or perhaps even to recognize it, many military officers are simply uncomfortable withy democracy — particularly with constitutional democracy.

Military Officers are accustomed to a clear, hierarchical chain of command, whereas our system of shared powers often seems to promote intragovernmental conflict and stagnation.

The Founding Fathers sought to structure a government that was slow to move, not one that was quick to change. Checks and balances embodied the concept that doing nothing was preferable to doing something that might later be regretted, that might infringe on someone's rights, or that might place too much power in the hands of certain factions.

Military officers, on the other hand, are taught early on that decisiveness is something of intrinsic value. For the officer, making a decision, good or bad, and then carrying it out, is better than waffling in indecision and reflection. After all, battle requires quick decisions, often with limited information. There is a universal belief that great generals, whose campaigns are studied at the military academies, were bold and decisive men who took great risks, while losers were wracked with indecision. *A constitutional system of checks and balances simply does not jive with the military mode of decision-making.*

Nonetheless, it is the duty of officers to conform to the will of Congress. And as for the position that Congress is 'anti-military,' it is a bit hard to swallow since Congress has appropriated over $1 trillion ($1,000,000,000,000) for defense since 1980.

North and Poindexter are exponents of the philosophy that the ends justify the means. These men circumvented our legal system because they were totally committed to the goal of freeing the American hostages and supporting the contras.

The danger in this line of thinking was pointed out in *The Economist:*

> 'That has been the philosophy not just of the villains who have caused millions to die . . . [but] also the view of the apparatchiks who served them, many probably as decent and as well-meaning as Oillie North.'

North's assertion that when an officer receives an order, all he does is salute and say 'Yes, sir', does not survive even a cursory review. Prince Frederick Charles of Prussia disposed of that notion in the late 19th century when he reminded officers that they received their commissions because they knew when *not* to obey an order.

Capt. John E. Shephard, Jr., USA, points out that the idea that military officers owe a loyalty to the President alone has not been widely accepted since World War II. American officers, says Shephard (an assistant professor of political science at the United States Military Academy), have long been trained that 'adherence to the "chain of command" is no excuse for acting outside the law.'

Officers serving the President who find themselves in conflict with the law have the same choices of action as do officers that find themselves in conflict with the President: resignation or request for reassignment. **The officer who elects to go outside of the law, even when he believes that he is carrying out the intentions of the Commander-in-Chief, must assume *personal* responsibility for his actions *just like any other citizen who elects to evade the law.***

'When (a military officer) pursues policies that he knows may be inconsistent with national law,' says Shephard, 'he deserves both professional and legal condemnation.'

Support for the services depends on military officers following the law and being responsible for their actions if they evade it. Without this, the trust which the armed services need to survive will evaporate and with it could go democratic government itself.

AUSTRALIAN NAVAL INSTITUTE INC

* APPLICATION FOR MEMBERSHIP
* NOTIFICATION OF CHANGE OF ADDRESS

(Block Letters)

Rank: ..... Surname: ....

Other Names: .... Service: .....

Street: .....

City: .... State: ..... Postcode: .....

* I apply to join the Australian Naval Institute Inc as a Regular/Associate member, and enclose my cheque for $25 (being $5 joining fee and $20 annual subscription).
* The above library/organisation wishes to subscribed to the Journal of the Australian Naval Institute Inc and encloses a cheque for $20.00 annual subscription.

If accepted for membership, I agree to abide by the Constitution and By-laws of the Institute.

....
(Date) (Signed)

(Members or subscribers who join during the year will receive back copies of the current volume of the Journal).

* Delete as appropriate.

INSIGNIA ORDERS

Please forward:

..... pairs of cuff-links @ $13.00 $ ..... journal binders @ $ 6.00

..... mounted crests @ $13.00 $ ..... ties @ $ 7.00

I enclose my cheque for $ including $ postage if delivery is to be by Australia Post.
(delete if alternative means of carriage are arranged.)

Name: .....

Address: .....

.... Post Code .....

All cheques/money orders should be made payable to The Australian Naval Institute Inc and should be in Australian currency. This address is:

The Australian Naval Institute Inc.,
PO Box 80
CAMPBELL ACT 2601

AIR MAIL RATES

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

For those in	New Zealand, PNG	A$ 6.00
	Indonesia, Malaysia, Singapore	A$ 8.00
	Hong Kong, India, Japan	A$10.00
	USA, Canada	A$13.00
	UK, Europe, South America	A$14.00
	Other countries	on request

BOOK REVIEWS

THE UNITED STATES NAVY AND THE VIETNAM CONFLICT VOLUME II: FROM MILITARY ASSISTANCE TO COMBAT 1959–1965

Edward J. Marolda & Oscar P. Fitzgerald

Naval Historical Center, Department of the Navy
Washington DC
1986

There are few tasks more daunting to the historian than the preparation of an Official History while the actors within the events to be detailed are still alive. Even the necessity for extreme circumspection on the subject of intelligence material and sources is a minor difficulty by comparison with the prospect of lengthy negotiations with self justifying veterans. And if the process is awkward enough in the wake of a war won, it is far worse after a war lost.

Understandably, then, this second volume of the United States Navy's official history is moderate in its description and reserved in its analysis. The book is certainly an honest and thorough attempt to detail the facts, but it is little more than that. The questions inevitably raised by any treatment of the Vietnam War as to the efficacy — and the sense — of the American effort remain unanswered. We see hints as to the real difficulties, the incongruency between the USN's 'can do' methods and the Vietnamese way of doing things, the American frustrations with the political and social problems of the country, but they remain hints, deductions implict in the often too straightforward exposition.

Nevertheless, there is much of interest to the thoughtful student of the conflict within this book. In particular, the authors have produced a well balanced chapter on the Gulf of Tonkin incidents in 1964 between American destroyers and North Vietnamese torpedo craft. As an object lesson in the complexities of such 'low level contingency' operations, in the problems of identification and, notably, in the need for sensible rules of engagement, this section is a most valuable production.

Well illustrated and with a style of writing that follows more closely the traditions of reports of proceedings than it does rigorous scholarship, the book is easy to read and simple to comprehend. The authors have by no means produced the last word on the subject, but they have contributed more than their mite to our understanding of the Vietnam War.

MILITARY STRATEGY: A GENERAL THEORY OF POWER CONTROL

J.C. Wylie, Rear Admiral, USN

First published 1967
Australian Naval Institute Press Edition
Published 1987

Australian Naval Institute Press
71 Milson Road
Cremorne
NSW 2090

$10.00

To attempt to produce a general theory of power control within the course of 109 pages of text was an ambitious step. Yet it is testimony to Admiral Wylie's abilities that his little book remains as refreshing and as relevant as the day it was first published.

Good strategy, it is sometimes said, is simply a combination of the blindingly obvious and the

apparent ease with which Admiral Wylie can draw the reader on to contemplation of his general theory bears this out. But Wylie's coherency is nothing less than the product of many years hard thinking by someone who was not simply a theoretician but a first class practitioner and who was profoundly aware of the difficulties of achieving a successful combination, however obvious its components.

This work is highly recommended for the general reader as a first class guide — easily and quickly digested — to a much misunderstood subject. It is an essential study for those at whatever level who will become involved in the formulation and execution of strategies — and of a national as well as purely military nature.

Wylie has taken 109 pages to say what others in the field have been unable to enunciate in 500. As a 'primer' on strategy it is unmatched. The Australian Naval Institute can be well pleased with the first publication by its Press.

JAMES GOLDRICK

AUSTRALIAN NAVAL INSTITUTE

BY-LAWS

PREFACE

These By-Laws having been approved by Council in conformity with Article 22(2) of the Constitution are promulgated to assist in the smooth functioning of the Institute.

Each member upon election to the Institute shall receive a copy of the By-Laws and upon written application to the Secretary and payment of a fee of $1.00 or such other sum as may be approved from time to time by Council a member may purchase a copy of the Constitution of the Institute.

Signed for and on
behalf of Council

November, 1975

President
Australian Naval Institute

CONTENTS

AUSTRALIAN NAVAL INSTITUTE

BY-LAWS

1. MEMBERSHIP

1.1 Consideration of Application for Membership

a. The Council shall prescribe regulations governing procedure in matters relevant to the consideration of applications.

b. Rejection by the Council of an application for membership shall be recorded in the minutes of the Council. The reason for the rejection shall not be noted in the minutes.

c. Following the rejection of an application, the applicant concerned shall be notified of the fact but shall not be entitled to be furnished with any reason for the rejection. The application cannot be renewed within one year from the date of such notification. All fees paid by the applicant shall be returned with the notification.

1.2 Membership Certificate

a. Every elected member, having made all proper payments, shall be entitled to a certificate of election. All certificates issued shall be the property of the Institute and shall remain valid only so long as the holder remains a member of the Institute. The certificate must be returned by any person who has resigned or whose name has been removed from Register upon receipt of notice requiring him to do so.

2. SUBSCRIPTIONS

2.1 Amount

a. All members on joining the Institute shall pay the joining fee and the annual subscription as specified in Rule 30 of the Constitution. Those members who join in the last quarter of the financial year of the Institute shall have one half of the paid annual subscription credited against their annual subscription due for the following financial year

2.2 Arrears of Subscription

a. If at any time subscriptions are due from a member and unpaid for three months and such members shall fail to pay the same within two months after a written notice has been sent to him by the Secretary, the Council may delete the name of the member from the Register of members.

b. Re-admission to membership of the Institute may be allowed on re-application of election in accordance with the By-Laws in force at that time. The Council may in the case of readmission stipulate that the applicant shall pay by way of extra subscription the amount of arrears previously unpaid by him.

2.3 Resignation

a. If all of the member's dues or indebtedness have been paid no further liabilities shall accrue in respect of subscription to membership as from the date of receipt of the resignation by the Secretary. If all of the member's dues or indebtedness have not been paid, the Council may authorize the acceptance of the resignation with exemption from payment of all or any of the indebtedness or subject to the member being liable for the subsequent payment of all or any of the indebtedness. No refund of subscription is claimable by a member on resignation of his membership from the Institute.

3. INDEMNITY OF OFFICE BEARERS AND OTHERS

No officer, Ordinary Councillor or member of the Institute shall be liable for the acts receipts neglects or defaults of any other Officer, Ordinary Councillor or member on account of his joining in any receipt or other act or conformity or for any loss or expense happening to the Institute through the insufficiency or deficiency of title to any property acquired by or on behalf of the Institute or for the Institute or for the insufficiency or deficiency of any security in or upon which any of the moneys of the Institute shall be invested or for any loss or damage arising from the

bankruptcy insolvency or tortious act of any persons with whom any moneys securities or effect shall be deposited or for any loss or error of judgement omission default or oversight on his own part or for any other loss damage or misfortune whatever which shall happen in relation to the execution of the duties of his office or in relation thereto unless the same happen through his own wilful default or neglect.

4. JOURNAL

a. There shall be published quarterly, or at such periods as the Council may decide, a Journal containing such papers and documents as may be approved by the Council, together with editorial and professional notes deemed of value to the Navy and maritime affairs.

b. A member shall be eligible for one copy of the Journal of the Institute published in the quarter containing the date of acceptance of his application for membership and also he shall be eligible for one copy of each Journal published after the membership application acceptance date, providing the member's subscriptions are fully paid up.

c. Surplus copies of Journals may be sold to members for a sum determined by the Council from time to time.

d. Suitable business and other organizations with similar interests may be invited by the Council to take out Journal subscriptions for an annual sum to be determined by the Council. A Journal subscription will not give membership to any member of the business or other organization taking out the subscription.

5. ACCOUNTS

5.1 Examination of Accounts

The accounts of the Institute may be examined by a member on written application to the Secretary.

6. CHAPTERS OF THE INSTITUTE

6.1 Formation- Convener

a. The Council may form Chapters of the Institute as necessary to further the aim and objects of the Institute within the rules contained in the By-Laws. The Chapter will be distinguished by a name to be approved by the Council.

b. A Convener of a Chapter shall be appointed by the Council to manage the affairs of the Chapter in conformity with the Constitution and By-Laws. The Convener may co-opt members of the Institute to assist him in the management of the Chapter.

c. Each Chapter shall operate on a sound financial basis and shall not incur indebtedness on behalf of the Institute. The Council may remit to each Chapter for the purposes of administration such funds as it may from time to time determine.

d. The Convener of a Chapter is to forward annually to the Council at the end of the financial year of the Institute a report of the Chapter's activities and financial status.

6.2 Chapter Meetings

a. The Convener of a Chapter may from time to time convene Chapter Meetings for the purpose of lectures, discussions, seminars or such procedures as he sees fit to achieve the aims and objectives of the Institute.

b. Notice of Chapter Meetings will normally be forwarded to all members of the Chapter by the Convener not less than 30 days before the meeting. The notice shall state the purpose of the meetings. Notice of the meeting will also be placed in the Institute Journal if time allows.

c. Members may bring guests to Chapter Meetings. Members are responsible for the behaviour of their guests.

d. Lectures and papers proposed for presentation to a Chapter Meeting shall be approved by the Convener. The Convener will accept only those submissions which it is considered are of interest and likely to attract attendance from members of the Institute.

e. The conduct of a chapter Meeting will rest with the Convener who will act as Chairman; in his absence, the Chairman will be elected by those members present.

THE AUSTRALIAN NAVAL INSTITUTE INC

PATRON

His Excellency the Right Honourable Sir Ninian Stephen
AK, GCMG, GCVO, KBE
Governor-General of Australia

COUNCIL

OFFICE BEARERS

Acting President
Commodore I.A. Callaway
Junior Vice President
Commander S.E. Tapley
Secretary
Lieutenant Commander S. Lemon
Treasurer
Commander P.K. Coulson
Journal Editor
Lieutenant Commander A. Hinge

COUNCILLORS

Lieutenant J. Dallas
Lieutenant Commander J. Goldrick
Lieutenant Commander J. Hyman
Captain G.P. Kable
Captain C. Skinner
Lieutenant J. Straczek
Lieutenant Commander M. Taylor
Lieutenant Commander P. Torrens
Lieutenant Commander I.W. Weekly

PAST PRESIDENTS

1975–77 Commodore V.A. Parker
1977–78 Commodore J.A. Robertson
1978–83 Rear Admiral R.C. Swan AO CBE
1983–86 Commodore I.B. James AW
1986–87 Captain A.H.R. Brecht

HONORARY LIFE MEMBERS

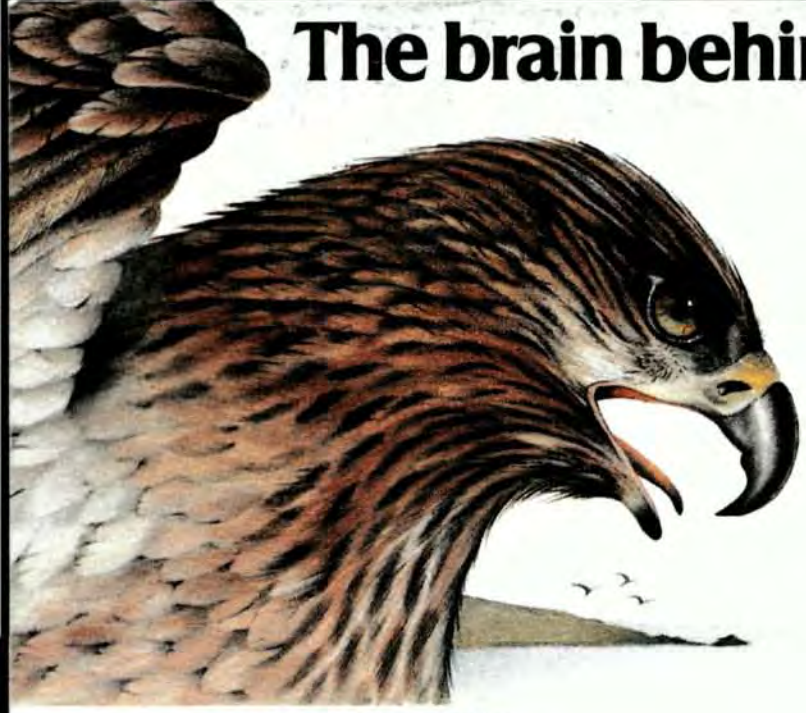
Admiral Sir Victor Smith AC KBE CB DSC
Vice Admiral Sir David Stevenson AC KBE
Admiral Sir Anthony Synnot KBE AO
Commodore J.A. Robertson
Rt Hon Sir Zelman Cowan AK, GCMG, GCVO, QC
Rear Admiral R.C. Swan AO CBE
Commodore I.B. James AM
Commander G. Cutts

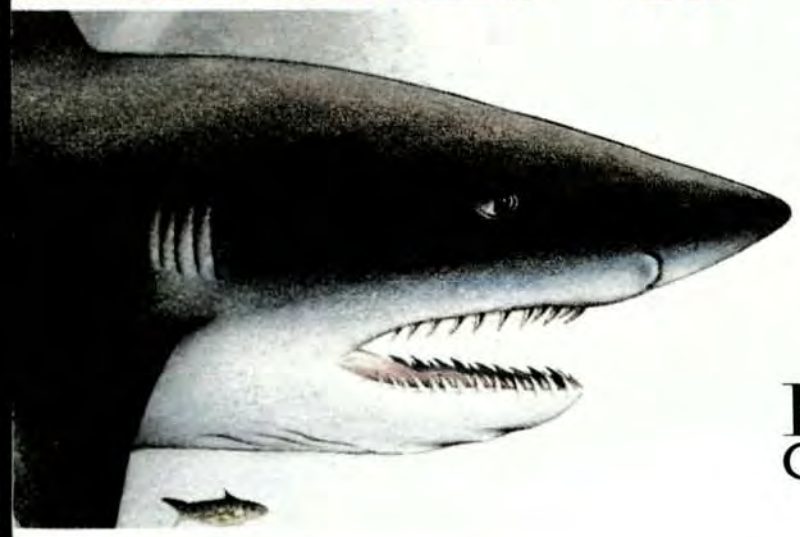
FOUNDATION MEMBERS

Bennett, G.A.
Berlyn, N.R.B.
Bonnett, V.W.L.
Brecht, A.H.R.
Broben, I.W.
Calderwood, G.C.
Cole, S.E.W.
Cummins, A.R.
Cutts, G.
Dalrymple, H.H.G.
Davidson, J.
Dickie, D.D.
Fisher, T.R.
Fox, L.G.
George, J.
Gibbs, B.G.
Goddard, F.C.
Grierson, K.W.
Hall, I.W.
Hermann, F.J.
Histed, G.
James, I.B.
Jervis, G.E.
Josselyn, I.K.
Kemp, W.A.
Knox, I.W.
Lee, N.E.
Loftus, W.B.
Lossli, R.G.
Martin, D.J.
Martin, P.C.S.
Mayson, J.H.
McDonald, N.E.
Macleod, B.D.
Nattey, R.J.
Nicholson, B.M.
Nicholson, I.H.
Orr, D.J.
Parker, V.A.
Patterson, D.R.
Ralph, N.
Read, B.J.
Reynolds, I.
Robertson, J.A.
Scott, B.P.
Sharp, W.R.
Shearing, J.A.
Smyth, D.H.D.
Snell, K.E.
Stephen, K.C.
Stevens, E.V.
Stevens, J.D.
Summers, A.M.F.
Swan, R.C.
Swan, W.N.
Williams, K.A.
York, D.

Public Officer: Captain L.G. Fox RANEM

The brain behind the bite.





Today's strike power, on land, sea and in the air, needs the control of the most sophisticated systems.

No one has more capability than Ferranti in providing computer systems to meet the most exacting demands.

Ferranti is working closely with land, sea and air forces around the world to provide data correlation, missile guidance, command and control, data links, training and simulator systems for current and future needs.

Give bite to your defence.

Ferranti Computer Systems Ltd,
Western Road, Bracknell,
Berkshire RG12 1RA.
Tel: 0344 483232, Telex: 848117

FERRANTI
Computer Systems