



JOURNAL OF THE AUSTRALIAN NAVAL INSTITUTE

VOLUME 6

NOVEMBER 1980

NUMBER 4

AUSTRALIAN NAVAL INSTITUTE

1. The Australian Naval Institute has been formed and 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.
- c. to publish a journal.

2. The Institute is self supporting and non-profit making. The aim is to encourage freedom of 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 Forces, 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 — A person who has made a distinguished contribution to the Naval or maritime profession or who has rendered distinguished service to the Institute may be elected by the Council to Honorary Membership.

4. Joining fee for Regular and Associate members is \$5. Annual Subscription for both is \$15.

5. Inquiries and application for membership should be directed to:—

The Secretary,
Australian Naval Institute,
P.O. Box 18,
DEAKIN, A.C.T. 2600

CONTRIBUTIONS

As the Australian Naval Institute exists for the promotion and advancement of knowledge relating to the Naval and maritime profession, all members are strongly encouraged to submit articles for publication. Only in this way will our aims be achieved.

DISCLAIMER

In writing for the institute it must be borne in mind that the views expressed are those of the author and not necessarily those of the Department of Defence, the Chief of Naval Staff or the Institute.

JOURNAL OF THE AUSTRALIAN NAVAL INSTITUTE (INC.)

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Articles or condensations of articles are not to be reprinted or reproduced without the permission of the Institute. Extracts may be quoted for the purpose of research, review or comment provided the source is acknowledged.

The cover features a drawing of the ocean minesweeper, HMAS WAGGA (1942-62), by Chief Petty Officer G. Vollmer whose book of paintings and drawings of Australian warships was recently published and will be reviewed in the next ANI Journal. (*Australia's Men of War* published by Reed, recommended retail price \$16.95.)



Correspondence

AUSTRALIAN AMPHIBIOUS CAPABILITY

Dear Sir,

I read with great anticipation the article entitled 'Australian Amphibious Capability — An Essential Element of National Seapower', in the February edition of your excellent journal. Unfortunately, my anticipation was ill-rewarded when I digested a resume of amphibious operations, raids and activities, which ranged from the Duke of York and Albany's maritime Regiment of Foot of 1664, to Malaya and Vietnam.

The writer seems to have ignored the trends of other nations, with regard to amphibious warfare, and tends to generalize when reaching the stage of giving his views as to Australia's needs. How many ships would we require and why? Would the vessels be maintained say, in Sydney Harbour, ready for any amphibious operation, if not, what availability would they **really** have? And perhaps most importantly **WHAT WOULD BE THE COST** of such a capability? The RUSI meeting in London earlier this year on the topic 'Amphibious Forces in the 80's' suggested that, because of the costs of specialised equipments and the developments in weapon technology, "...the need for the expensive LPD/LSL type shipping may have passed. In lieu the use of existing container ships and ROROs should be examined."

The ANI Journal article ignores the relative economies of the amphibious ships proposed, and also any other options to carry out the same tasks. I refer here to the present day capabilities of aircraft, helicopters and parachuting techniques. (Even the Royal Marines flew to Vanuatu.) Perhaps even more importantly the article really fails to delineate any roles for the amphibious capability which it proposes, and with no role, there can be no justification.

Having so far been extremely critical of the article, I must now agree with the author on a major point he makes, relative to the most recent war in which we have been involved, Vietnam. I refer of course to the US Amphibious activities which were "...only used in providing support for a predominantly land campaign." Dare I, as a soldier, suggest in this august journal that the 'normal' involvement of the three Australian Services, or for that matter those of any nation with a large land mass, will **NORMALLY** evolve around what is fundamentally a land campaign? (Of course there will be exceptions!).

Unfortunately, your author failed to develop the full impact of the waters surrounding Vietnam, and their effects on the war there. Although this theatre of war saw the greatest use of airpower since man first flew, over 98% of all materiel arrived in Vietnam by Sea Transport. Surely this is important? Surely the logistic support of a force, however deployed, is more important than a capacity to 'provide for the deployment of battalion groups variously structured for varying amphibious tasks.' As a nation, we already have several ways to deploy our forces, either within Australia or overseas; but our capacity to support those forces for a protracted period, once away from the main infrastructure, is indeed limited.

I contend that Australia cannot afford the 'luxury' of an amphibious capability, at least until we have sufficient sea transport available to enable us to deploy heavy equipment and maintain a force, in a remote area of Australia or overseas, for a protracted period.

Defence Forces are often accused of spending their time fighting past wars; a nation with Defence Forces as small as Australia's, with such wide responsibilities, just cannot afford to fall into this trap. History does not **always** provide the basis, or a justification for a modern Defence Force capability. It would seem that the approach used in the article could also be developed to justify a re-establishment of the Camel Corps in today's Army. If, however, detailed conceptual studies were to determine a role and requirement for amphibious shipping, (or camels), then perhaps the lessons of history could correctly assist us.

Finally, may I suggest that it is unnecessary to spend enormous amounts of the Naval share of the Defence Budget on the proposed specialist equipment and vessels, in order to conduct amphibious raids. Our Special Air Service and Commando units already train closely and successfully with the RAN, using existing equipment and vessels. If, at some future time, Australia alone is called upon to police the entire south-western pacific area, perhaps that **MAY** be the time to raise an amphibious fleet?

Yours faithfully,

K.L. DUNCAN
Colonel

11 Richmond Avenue,
Cremorne, N.S.W. 2090

JARGON

Dear Sir,

In the book review by Tony Howland on page 45 of the May, 1980 issue he mentions a conversation with a 'long retired fairly senior officer'. I only fit the first of his two categories but am also rather puzzled by some modern developments.

Although 24 years out of the R.A.N., I try to keep in touch with developments and am a member of six learned defence institutions and hope soon to be a member of another.

I understand most of the content of articles in their journals and even, by means of various U.S. publications, understand most of the jargon.

However, I am lost in trying to unravel the article by Commander Daw on pages 18/22 of the May issue. Not only long retired officers surely would scratch their heads over

'If behavioural course and subordinate objectives are developed, then evaluation of the students using instruments which are congruent with the objectives gives a valid measure of course effectiveness.'

Jargon, when universally applied and understood, is a necessary part of any discipline, e.g. technical terms in seamanship.

Old war time hands will understand the confusion caused by the uninitiated using such terms as 'Tie up that gizmo to this doofroyd'.

The terms or jargon used by Commander Daw will be understood by and impress the professors at Florida State but God help the students at the Staff Course.

Despite all the changes in materiel, surely two of the prime qualities of a good staff officer are clarity of mind and clarity of expression.

The Admiral wants somebody to be able to rapidly pick the bones out of a confused situation in a clear appreciation, written or spoken, with the minimum of words, in clear English.

Perhaps this should be included as an objective of the Staff Course.

I am, Sir,

Yours faithfully,

R.J. Bassett
Commander R.A.N. Retd.

P.O. Box 2,
Albrighton,
Wolverhampton, UK

ANI SEMINAR

Dear Sir,

I was delighted to read in the Vol. 6 No. 3 Journal that plans have been made for the next Institute Seminar, SEAPOWER 81.

A dissatisfying thought, however, is that once again the Academy of Science in Canberra has been listed as the venue for the Seminar. Whilst I realise that our beloved nation's Capital (no disrespect intended) is centrally located within the Eastern Australian Area, and the home of the Institute, it is my belief that holding our Seminars in a different state Capital on each occasion would serve our Institute's aims, certainly the more remotely located members, to a greater degree. With the installation of the Cockburn Sound Naval Base, for example, the theme for the SEA-POWER 81 Seminar would better provide material for discussion in the city of Perth, not in Canberra.

Looking ahead, I hope to see comments and criticisms from other members. Further to this, if enough interest is shown, then perhaps this point could be listed as an item of discussion for the agenda of the Annual General Meeting for 1981.

In the meantime, I thank the Contributors and Editorial Staff of the Journal once again for providing the Institute with an ever-increasing standard of quality of our Journal. Incidentally, is it just me that seems to think that we still have a lot of 'regulars' in the Journal; or am I mistaken in that actually there are quite a lot of members and readers out there eagerly penning away for our cause? Looking forward to our continued prosperity,

Yours faithfully,

Garry Canning
ABETW3

HMAS HOBART
GPO Sydney

ELIGIBILITY FOR REGULAR MEMBERSHIP

Sir,

In further discussion as to those members who should become eligible for Regular membership to the Institute, I concur fully, with the categories available, and to the rights of members to join those categories.

It was with amazement and horror, that I read in the Correspondence Section of your May 1980 Journal (volume 6, number 2), the thoughts of Commander Grazebrook, RANR. This decision to alter the membership rules to permit those persons with the Citizen Naval Forces in lists 1, 2, 3, 4, 5, 6 and 9, his so-called 'Active Reservists', is to deny such privileges to those persons in Lists 7 and 8. Lists 7 and 8 are for medical and dental officers.

Does Commander Grazebrook, RANR, feel that we, in Lists 7 and 8 are sufficiently elite that full membership is unwarranted or deserved, or does he feel that we are unable to offer any contribution to the future benefit of the Institute? Again, he may wish to cause friction among the medical and dental branches, those in the Permanent Naval Forces being entitled to Regular membership, whilst those in the Citizen Naval Forces being entitled to Associate Membership.

Whatever his motives be, I certainly admire his courage in allowing his opinion of medical and dental branches to be published.

Sincerely yours,

KEVIN COLLINGS,
Surgeon Lieutenant Commander, RANR

P.O. Box 146,
Double Bay, NSW, 2028

NOM DE PLUMES

Sir,

As I have now been a member (albeit associate) long enough to have received seven copies of the journal, I presume to make a suggestion.

Your aim is, I am sure, to establish the Institute and its image, the journal, on the same high level as other Institutes throughout the world concerned with defence studies.

However, is your policy of printing articles under a nom de plume consistent with a learned journal?

The article by 'Master Ned' in the May, 1980 issue, even to a graduate of the R.A.N.C. of forty five years standing, makes very good reading and the guts of it probably has a relevance to other such colleges (even in Mother Russia?).

But is not its impact rather diminished by the fact that only to the "In" circle is his identity and, therefore, his authority known?

To accept articles by authors who are unable to unwilling to stand up and be counted surely loses you some standing, particularly among the international readership.

Beware of descending to the level of 'Woman's World' and its ilk, with Dorothy Dix letters from "Puzzled", "I've Blundered", etc.

I am, Sir,

Yours faithfully,

R.J. Bassett,
Commander, R.A.N. Retd.

P.O. Box 2,
Albrighton,
Wolverhampton, UK

I certainly take Commander Bassett's point and would prefer not to have nom de plumes but it remains the prerogative of the author to be anonymous.

THE EDITOR

FROM THE EDITOR

Two important decisions, crucial to the future force structure of the RAN, have been announced since the last Journal went to press. Firstly, the Government has decided to replace HMAS MELBOURNE with a purpose designed ship to operate ASW helicopters but with the potential for operating short take-off and vertical landing (STOVL) aircraft. Secondly, the Government has made the decision to commence the Follow-on-Destroyer programme with the building of two FFG-type vessels.

The major articles in this Journal cover a diversity of topics, ranging from the saga of a great sailing ship owner, Captain Gustaf Erikson, to a discussion of industrial support for Australian maritime power. The latter is a topical subject in view of the theme of the Institute's next seminar, SEAPOWER 81. There is also a particularly commendable ANI Silver Medal prize-winning essay from Course 1/80 at the RAN Staff College.

Of special interest to readers will be an article concerning the Fishery Protection Squadron of the RN. In this, James Goldrick discusses the operations and organisation of the squadron before considering the possible relevance of the concept to the RAN. It is a timely article in view of the Government's forthcoming review of civil coastal surveillance. If an archetypal navy, such as the RN, can be extensively involved in civil law enforcement at sea, then why not the RAN?

Plans for SEAPOWER 81 are becoming firmer and a brochure announcing this Seminar and an advance registration form are included in this Journal. The Organising Committee for SEAPOWER 81 will need help and assistance from other members in the months ahead and volunteers will be very welcome. If you feel you could make some time available to this worthy cause and will be resident in Canberra during the early months of 1981, then please contact the Seminar Director, Captain Nigel Berlyn, on Canberra phone 66 4284.

It is with considerable regret that I record the death of noted naval historian and correspondent with this Journal, Mr. Alan Payne. At the time of his death, Alan was working on two articles for the Journal — one of which on his concept of the light frigate, based on the RN's Offshore Patrol Vessel Mk. II, would have been published in this number of the Journal. Alan Payne, through his writings, made a major contribution to naval history in Australia and to the public's awareness of the RAN. We will miss him.



HMAS ADELAIDE (FFG 01) on sea trials.

— Defence Public Relations photograph

1979/80

PRESIDENT'S REPORT

Delivered at the Annual General Meeting of the Australian Naval Institute held on Friday, 24 October 1980, in Canberra, A.C.T.

This last year has been another year of considerable progress for the Institute.

His Excellency the Governor General Sir Zelman Cowen, AK, GCMG, GCVO, KStJ, QC, became Patron of the Institute in May this year. This honour at the present stage in our history is something of which all can be proud.

The principal activity of the Institute remains the ANI Journal and its quality continues to improve, with the number of articles submitted by members increasing with time and with the interest in, and demand for, it increasing. Nevertheless, the scope and quality of the Journal must, as in the past, continue to be subject to budgetary considerations.

The ANI collection of books which is forming the basis of a library is steadily expanding in volume and in quality. Our stocks were boosted recently by a generous donation by the Canadian High Commission of books on the official history of Australia in both world wars, presentations by Admiral Sir James Eberle KCB and the Heavy Engineering Manufacturers' Association. The policy regarding administration of the collection will be a matter for consideration by the incoming council.

Your Council has continued to be concerned as mentioned in my last annual report, that our annual subscription, having regard to inflationary and other pressures, might not be sufficient to meet the needs of the Institute in the years ahead. The annual subscription of \$10 has not changed since the inception of the Institute but costs are increasing and Council has placed an item on the agenda for this Annual General Meeting regarding a variation in subscription rate.

Your Council has been very mindful of the need to address the longer term aspects of management of the Institute and the need to develop policy and procedures related to this. Specific actions taken during the year by Council have included: the establishment of a Financial Sub Committee; a policy on insignia trading whereby we ensure there is trade on a 'no loss' basis; a policy on the preservation of investment reserves against erosion by inflation and consumption of earnings; a policy of establishing procedures to reflect costs of prizes and medallions in the accounts of the year in which they are presented; investigations into appropriate investment avenues; development of a yearly budget as an integral part of the financial process; and a decision that the journal editor should be an office bearer, subject to the necessary constitutional amendments in due course. I am confident that these measures should assist in keeping the Institute on a firm financial basis in the years ahead.

The membership of the Institute continues to increase steadily. This year has seen an increase of some 70 members resulting in a total of 478 financial members. Noting this continuing and encouraging trend your Council has given some thought to our future administrative capacity to run the Institute effectively in the coming years, recognising that all office bearers are volunteers and tasks undertaken can be at times quite time consuming. It will be a matter for consideration during the coming year for the new Council to gauge the future administrative capacity and perhaps to consider whether, in the longer term, some semi permanent assistance might be appropriate to ease the burden from some of the councillors and enhance the growth of the Institute.

The outstanding success of 'SEAPOWERS 79' led the Council to examine the question of holding another national SEAPOWER seminar. After much deliberation your Council decided that there would be considerable merit in holding another seminar two years, as opposed to three years, after the last seminar. This decision and subsequent planning has occupied much of the Council's time. The Seminar — SEAPOWER 81 — will take place on 10-11 April 1981 in Canberra. You will appreciate that the final program for the Seminar is not quite 'set in concrete' yet as some speakers have to confirm their willingness to participate. We do know, however, that 'SEAPOWERS 81' will be opened by His Excellency the Governor General and such distinguished overseas speakers as Admiral of the Fleet, the Lord Hill-Norton, Admiral Sir Anthony Griffin and Sir Ronald Swayne have accepted invitations to participate.

Included amongst the Australian speakers who have accepted are Sir Arthur Tange, Mr Kevin Gosper, Professor Wolfgang Kasper, Dr Robert O'Neill, Mr Neil Stevens, Mr Rollo Kingsford-smith, Mr Peter Scott Maxwell and Air Commodore Geoffrey Michael.

Captain Nigel Berlyn has accepted the task of being Seminar Director and judging by his efforts to date and those of the team of members he has gathered to assist, the Institute can look forward to another successfully organised seminar in 1981.

Before concluding I would like to pay tribute to the activities of the various chapters. During the year the council decided to keep the chapters informed of proceedings and to correspond regularly with the convenors and, as a matter of policy, space is made available in the Journal, for reports of their activities.

The Sydney Chapter met on three occasions. Presentations were given on the US Coast Guard by Vice Admiral R. I. Price USCG, on the Sea Harrier by Mr John Fozzard and Mr Nat Gould of British Aerospace and on the US/Soviet strategic relationship by Dr. R. N. Lebow.

The activities of the Canberra Chapter are again worthy of mention also. At the last Annual General Meeting, Mr John Hazell of Krupp-Atlas Elektronik addressed members on the theme of 'Industrial support for maritime power', a topical subject which will be pursued during next years 'SEAPOW 81' seminar. Mr John Fozzard, Marketing Director of British Aerospace addressed the Canberra Chapter in December on the subject of 'The Impact of VSTOL Aircraft on Maritime Operations of the Future'. The highlight of the year was an address by Admiral Sir James Eberle KCB, the Commander-in-Chief Fleet, given in July at which about 200 members and guests attended. Also represented were the USI, Navy League, Naval Association, Naval Historical Society, the Committee for the Establishment of a Centre for Maritime Studies plus the British High Commissioner and the UK Naval Adviser.

In summary, this has been another important year of progress for the Institute. The decision to hold a seminar in 1981 augers well for this coming year. I am sure that the valuable work being done by those involved in planning 'SEAPOW 81' will ensure that it will be as important a milestone in the Institute's activities as was 'SEAPOW 79'.

In conclusion, I would like to mention that during the year there has been a number of changes in the Council and I take this opportunity to thank without reservation, all councillors for the dedication and time they have given to the Institute. I am confident that members would agree with me that your Journal Editor, Captain Sam Bateman, deserves special mention. I wish also to express my appreciation for the continuing support of all members. It is this dedication, time and support which augers so well for the future of the Institute.



FROM THE SECRETARY'S DESK

The main item of interest to members arising from the Annual General Meeting is that concerning the increase in the annual subscription rate to \$15 effective from 1 January 1981. Members should be aware that this is the first increase in the subscription rate since the inception of the Institute and naturally \$10 buys less today than it did six years ago. The Council hopes though that it will not have to approach members for further funds for some time.

The seminar, *Seapower 81*, promises to be a great success, since already there is strong interest from industries wishing to attend. The quality of the speakers and the issues they will cover will ensure a heavy demand for the 380 available seats. Members are going to be offered a very attractive rate for the seminar and are advised to secure a seat quickly.

Members are also reminded that subscriptions are now due. Until December 31 members can renew their subscription at the old rate of \$10 pa. From the start of the new year \$15 will be expected.

Membership of the Institute continues to grow steadily which is a healthy sign and one which augers well for the future.

FINANCIAL STATEMENTS

AUSTRALIAN NAVAL INSTITUTE AUDITED ACCOUNTS FOR THE 12 MONTHS ENDED 30 SEPTEMBER 1980

BALANCE SHEET

AS AT 30TH SEPTEMBER, 1980

ACCUMULATED FUNDS

Balance as at 1.10.79	5,094.31
Less: Net Loss for year	34.50
	5,059.81

LIABILITIES

Subscriptions in Advance:-	
Year 1980/81	300.00
Year 1981/1982	50.00
Year 1982/1983	10.00
Creditors (August Journal Printing)	1,969.60

\$7,389.41

ASSETS

Sundry Debtors	522.20
Commonwealth Bonds	4,500.00
Cash at Bank	1,004.34
Stock on Hand at Cost:-	
Insignia	284.00
ANI Medals	386.07
ANI Medallion die at W.D.V.	392.80
Advance Sea Power 81	300.00

\$7,389.41

INSIGNIA AND MEDAL TRADING ACCOUNT

INSIGNIA

Stock on Hand 1.10.79	591.40
Purchases	—
Gross Profit Transferred	71.60
	\$663.00

Sales	379.00
Presentations	—
Stock on Hand 30.6.80	284.00

\$ 663.00

MEDAL

Medals on Hand 1.7.79	—
Purchases (12)	486.66
	\$ 486.66

Presentations (3)	100.59
Medals on Hand 30.9.80	386.07

\$ 486.66

INCOME AND EXPENDITURE ACCOUNT

EXPENDITURE

\$

Audit Fees	110.00
Stationery and Printing	6,419.12
Postage	377.47
Bank Fees	35.30
Advertising	27.30
Expenses Chapter Speakers	279.12
Library Additions	50.00
Prizes	95.00
Lodgement Fees	2.00
Presentation ANI Medals	100.59
Depreciation on ANI Medallion Die	98.20

\$7,594.10

INCOME

\$

Advertising	945.00
Joining Fees	349.31
Subscriptions	4,634.60
Journal Sales	304.10
Speaker Cost —	
Reimbursement	68.85
Interest — Bonds	241.25
Interest — Savings	
Investment A/C	75.59
Donations	62.50
Journal Subscriptions	806.80
Gross Profit Insignia Trading	71.60

\$7,594.10

STATEMENT OF RECEIPTS & PAYMENTS

RECEIPTS	\$	PAYMENTS	\$
Cash at bank 1. 10.79	1,967.51	Audit Fees	110.00
Joining Fees	349.31	Postage	377.47
Annual Subscriptions	3,550.00	Advertising	27.30
+ 1978/79	20.00	Stationery and Printing	4,449.52
Advertising	695.00	Prizes	95.00
Journal Subscriptions	708.70	Medals	977.66
Insignia Sales	379.00	Bank Charges	35.30
Journal Sales	305.00	Library Additions	50.00
Interest Received	241.25	Transfer to Bonds	3,000.00
Subscriptions in Advance	290.00	Speaker Costs	279.12
Donations	62.50	Seapower 81 Advance	300.00
Speaker Costs & Catering		Refund	5.00
Reimbursement	68.85	Lodgement Fee	2.00
Investment Account	2,075.59	Cash at Bank 30.9.80	1,004.34
	\$10,712.71		\$10,712.71

BANK RECONCILIATION AS AT 30TH SEPTEMBER, 1980

Bank Balance as per Bank Statement	1,004.34
Less: Unpresented cheques	—
BALANCE AS PER CASH BOOK	\$1,004.34

SEAPOWER 81

STATEMENT OF RECEIPTS & PAYMENTS

FOR THE PERIOD 8TH AUGUST 1980 to 30TH SEPTEMBER 1980

RECEIPTS		PAYMENTS	
Loan from ANI	300.00	Stationery	6.85
		Postage	4.84
		Cash at Bank 30.9.80	288.31
		as per Bank Statement	
	\$ 300.00		\$ 300.00

AUDITORS' REPORT

8th October, 1980

The President,
The Australian Naval Institute Inc.,
P.O. Box 18,
DEAKIN ACT 2600

Dear Sir,

Please find attached an Income and Expenditure Account, Statement of Receipts and Payments and Balance Sheet of the Institute which relate to the twelve months ended 30th September, 1980.

In my opinion the attached accounts are properly drawn up so as to give a 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,
G.P. MANN, REIS & ASSOCIATES

THE AUSTRALIAN NAVAL INSTITUTE'S SECOND NATIONAL SEMINAR

SEAPOWER 81

INDUSTRY AND SEAPOWER

For its second National Seminar, *SEAPOWER 81*, the Council of the Australian Naval Institute has selected the theme, 'Australia's Maritime Defence and its Relation to Industry'. Under this general theme and within Australia's maritime defence strategy, it is hoped that discussion will centre on Australian industry's long term contribution in support of our maritime forces.

The Seminar will be held in Canberra on Friday 10 and Saturday 11 April 1981.

On the first day of *SEAPOWER 81*, some authoritative views will be presented on International and Regional aspects of Maritime Defence, Shipping and Communications leading to a projection of Australia's maritime defence needs.

The second day will be devoted to the industrial infrastructure upon which maritime defence must rest. Here too, distinguished speakers will provide a balanced background against which the present capabilities and the way ahead for Maritime Defence Industry in Australia can be addressed.

During *SEAPOWER 81*, there will be a unique opportunity for informed discussion and strengthening of the vital nexus between Maritime Defence and Industry. Independent speakers of the highest calibre have already been attracted, but the Council of the Institute is very conscious that the ultimate success must rest on the quality of discussion which it hopes will be promoted both at the Seminar and in the days ahead.

For *SEAPOWER 81*, strong support is expected not only from members of the Institute and those with regular Defence interests, but also from a wide representation from Industry. This support should provide the forum for the vital interaction and exchange of views. Members are invited to advise the Seminar Director of industry representatives who may wish to attend the seminar.

You are cordially invited to attend *SEAPOWER 81* and your early registration would be much appreciated. A Seminar brochure with registration form is included with this Journal. Additional brochures and/or registration forms may be obtained by writing to the Registrar, *SEAPOWER 81*, P.O. Box 18, DEAKIN, A.C.T. 2600. Please pass unused registration forms on. You will note that there are two types of form — one for members and one for non-members.

NEW MEMBERS

Mr M.R. Booker
20 Gawler Cres.
Deakin A.C.T. 2600

Lieutenant C.W. Darby
HMAS *CRESWELL*
Jervis Bay A.C.T. 2540

Mr H.H. Straw
"Bogadillan"
Via Corowa N.S.W. 2649

Commander J. Merrillees
7 Palmer St.
Garran A.C.T. 2605

Lieut. Cdr. Noel Parker
36 Albatross Rd.
Nowra N.S.W. 2540

Mr Clarence Gaudry
2 Perkins Place
Torrens A.C.T. 2607

Captain Owen Hughes
13 Fishburn St.
Red Hill A.C.T. 2603

Lieutenant Donald Bell
HMS *Vernon*,
Portsmouth
Hants U.K.

Mr Francis Ryan
36 Stawell St.
Romsey VIC 3434

Commodore I.H. Richards
ANRUK
c/- Australia House
Strand London U.K.

Midshipman Paul Koerber
RANC
HMAS *CRESWELL*
Jervis Bay A.C.T.

Commodore Ian Burnside
50 Amaroo St.
Reid A.C.T. 2601

Mr Peter Scott-Maxwell
c/- Vickers Australia Ltd.
Melbourne VIC 3000

Lieut. Cdr. John Newman
58 Bertel Cres.
Chapman A.C.T. 2611

Lieutenant Simon Woolrych
2 Maranboy St.
Fisher A.C.T. 2611

Commander Stuart Wilson
Wardroom
HMAS *BRISBANE*

Lieutenant Philip Davies
39/34 Archer St.
Chatswood N.S.W. 2067

Lieut. Cdr. Richard Francis
Fleet HQ
HMAS *Kuttabul*

Commander G.P. Kable
9 Sproule Circuit
Evatt A.C.T. 2617

INDUSTRIAL SUPPORT FOR MARITIME POWER

by Lieutenant Commander J. Hazell, B.Sc., RANR.

Foreword

It should be pointed out in the first instance that although the author belongs to an industrial organisation which supplies equipment to international maritime powers, the views which are presented in this article are entirely those of a private associate member of the Institute. These views are presented in the interests of stimulating discussion and debate within the forum of the Institute on a subject closely related to the Navy and the Maritime profession.

Introduction

Having selected such a generalised subject, the lines along which it is intended to develop the discussion should be introduced.

Firstly, the term 'Maritime Power', is interpreted in its most general sense. Any nation or group of nations which desires a capability to exercise maritime power will need to develop an industrial structure whereby equipment required to implement the capability can be supplied in a timely fashion. 'Supply' should once again be interpreted in its most general sense which means not only the provision of new equipment but also the repair, refurbishment, replacement, etc. of damaged or faulty equipment. Depending on the particular nation this industrial structure will be represented by a mix of organisations, namely:

- in-house industrial resources
 - e.g. Naval Dockyards
- Government factories
 - e.g. munitions
- indigenous commercial enterprises
- overseas industry — Government agencies
 - Commercial enterprises

Nations can be desirous of acquiring a capability to exercise maritime power for any number of reasons, for example

- protection of maritime trade to ensure economic survival
- defence against aggression mounted by a potential enemy's maritime forces
- offence directed against a potential enemy's maritime forces, trade, offshore resources, coastal installations, etc.

- exertion of international influence by deployment of maritime forces beyond territorial waters
- provision and protection of a logistic support chain supplying land and air forces in remote areas within or without the sovereign territory, etc.

These examples are by no means exhaustive.

Such roles of a nation's maritime forces are decided on the basis of intrinsic geography, demography, economy; by foreign policy, by strategic and political developments within a region. The decisions are made by Governments and implemented by the national Military organisation within the allocated financial and manpower resources.

Before examining in more detail the term Industrial Support, it should be stated that, as general rules:

- *industry is only responsive to the requirements for maritime power.*
- *industry does not initiate policy.*

It is agreed that there have been precedents where Industry initiative has produced the equipment required for the exercise of maritime power but these precedents are more relevant to the specific aerospace and electronics industries and also more relevant to the past than today and tomorrow. As a more general rule the above statements are considered valid for industrial support today.

THE AUTHOR

Following graduation from the Royal Australian Naval College in 1962, John Hazell served in a number of HMA Ships and Establishments during his naval career as well as undergoing general and specialist training in the U.K. and the U.S.A. In 1968 he graduated from Melbourne University with a Bachelor of Science Degree, majoring in Physics. He was the Surface Weapons Trials Officer at the RAN Trials and Assessing Unit from 1973 until the time of his resignation from the RAN in November 1974. After leaving the RAN, he became Manager, Defence Systems and Allied Technologies, at Plessey Australia Pty Limited and was appointed to his current position of Regional Manager South East Asia, Fried Krupp GmbH Krupp Atlas-Elektronik, in May 1978.

While the foregoing assertions imply a passive role for Industry in this regard, a nation's industrial capability should of course be taken into account by policy makers and implementers when deciding on specific equipment to provide the required capability to exercise maritime power.

Examination of historical precedent provides excellent examples of this axiom. In the battle for maritime supremacy in the Atlantic in World War II, both Britain and Germany had made some basically erroneous policy decisions during the preparatory periods. Britain's naval construction programme ordered over the period 1936-1939 consisted of:

- 5 battleships
- 6 aircraft carriers
- 19 heavy cruisers

British Industry duly responded and built the vessels. The assumptions that led to such a programme namely:

- the Germans would never revert to the merciless unrestricted submarine warfare of W.W.I.,
- the ASW potential of the combined British and French fleets, and
- the performance of ASDIC,

were consequently proved invalid. Unfortunately, the first indication did not come until April 1939 some five months prior to the outset of maritime hostilities, when Hitler announced his intention to exceed the limits of the 1935 Anglo-German Treaty which provided for equivalent submarine tonnages for each nation. At this time, the Admiralty ordered the construction of 56 Flower Class ASW Corvettes — a small, highly manoeuvrable vessel that could be produced quickly and inexpensively in Britain's shipyards. Even under the accelerated productivity of a war economy, the first Flower class did not commission until June 1940 by which time 300 British ships totalling over 1 million tons had been sunk by U-Boats. The real effectiveness of these vessels in minimising shipping losses due to U-Boats was not felt for at least another 12-18 months when they were available in sufficient numbers.

On the other side of the North Sea, the Germans also had their problems. Admiral Raeder's Navy came a poor third in competition for financial and manpower resources with the Fuehrer's Army and Goering's Luftwaffe. Further, Hitler opted for the balanced naval force, the Z plan, which concentrated priority of industrial production on surface vessels particularly battleships and pocket battleships because he liked their looks. Consequently, (at the outbreak of war) Doenitz had at his disposal only 22 ocean-going submarines of greater than 500 tons, and 24 small coastal boats suitable only for Baltic operations and training. Of the ocean-going boats, only one

third could be maintained on patrol at any one time, one third being in base for rest and repair and one third in transit to and from patrol areas. In the first 12 months of the war, German submarine production, working to the low allocated priority, could barely produce at a rate to cover the losses which were running at an average of 2 per month. By the time priorities changed in Doenitz's favour leading to a peak production rate of 30 submarines per month in the summer of 1942, the tide of the war had started to turn against the U-Boats due to:

- increasing effectiveness of Allied ASW forces due to experience, application of new technologies such as radar and HF/DF, greater number of escorts, consolidation of effective convoy operating procedures, etc., and
- increasing inexperience of U-Boat crews caused by the very high attrition rate of personnel. (70% of German submarine personnel failed to survive the war).

Both these examples illustrate the passive role of industry in responding to policy changes and also importantly, the lead time required for the user to receive effective benefit of that response.

It is intended to discuss the industrial capabilities for maritime power firstly in relation to a global macroeconomic basis, then magnifying this to the Asia-Western Pacific Region which is of primary interest to Australia; these situations will be presented as are currently seen and then some possible future developments are discussed. Some reference has already been made and will be made to historic precedents of industrial support for the exercise of maritime power but it should be borne in mind that the relevance of historical precedent to today and tomorrow in this matter is debatable. It can however provide sound illustrations of principle.

With some trepidation it is intended to examine in more detail the Australian industrial structure and then conclude with an idea or two which may be of benefit to a future Defence-Industry relationship. The word trepidation is used purposely because so much has been written or spoken or debated or committed in this country in the very recent past on the subject of Defence Industry that the Australian reader will be very familiar with many of the considerations.

Global Macroeconomics

Treaties, alliances, pacts etc. tend to give military power (and particularly maritime power) an appearance of international composition. However, the industrial support for a free-world nation's military posture is essentially a national issue.

In the post World War II years, particularly in the 1950s, it was not uncommon for the strongest partner in an alliance to be supplying the majority of military equipment requirements for other members either by aid measures or direct or enforced sale. Industrial development on the one hand, and internal socio-economic factors on the other, have resulted in a shift in both developed and developing countries in creation of their own military industrial infrastructures. In the future, this trend can be expected to continue. In mid-July 1979, the OECD released a report which was titled *Facing the Future. Mastering the Probable and Managing the Unpredictable*. The major conclusion of this report which attempted to probe the future to the year 2000, was that relations between advanced industrial societies and the less developed economies have entered a period of transition that could well endure into the 21st century.

In specific terms, the report stated that industrialisation would become more internationalised and competitive despite the emergence of some neo-protectionism. Income shifts would occur and economic weights among countries would change. The so-called Third World Countries

would no longer remain in the periphery of world economy, although they would still be in need of the developed countries' markets, technology and finance.

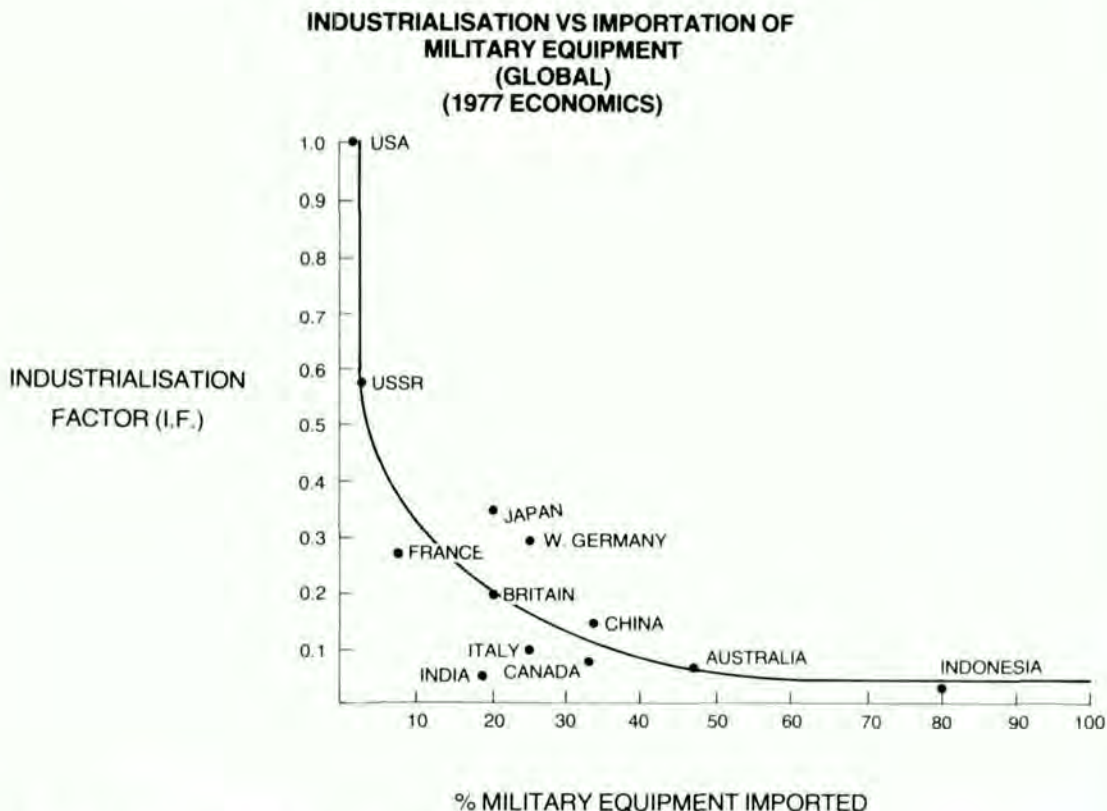
These changes can be expected to occur within and, in some instances, because of, a context of:

- natural resource and ecological constraints
- technological advances
- demographic and social pressures
- evolving political institutions.

It is important to note that the OECD did not consider their report as a forecast and I quote 'The future is not written'. The view of the coming world was offered for reflection and hopefully an increased awareness of long term issues.

The reason that a potential increasing spread of industrialisation is important is that there is a relationship between a nation's total industrial base and not unnaturally, its capability to supply its own needs for a military capability, or expressed in a complementary manner, the percentage of military equipment it has to import from foreign sources. Exact data to quantify this relationship is not available but it would probably be reasonably represented by the hypothetical curve shown as Figure 1.

Figure 1.



The Industrialisation Factor Scale on the ordinate is normalised with U.S.A. at 1.0. A line of best fit drawn through these points would most probably be asymptotic in nature and is of academic interest only from about 0.2 I.F. upwards. Nations above this level have the industrial capability to meet the large majority of their own requirements, raw materials supply assumed, but often choose to either work in joint ventures with near continental neighbours, or take economy advantages of a friendly source's volume production for small quantities or one-off buys.

Japan for example would be to the right of such a curve mainly by inclination because of the Japan - U.S. security treaty, the Japanese Self-Defence Forces Law and the presence of some 50,000 US troops in Japan. Although Japan has designed and built its own naval vessels, it has normally been content to manufacture US designed military equipment under licence (such as the recent 45 P3C and 100F15 aircraft) and direct its industrial research and development into the non-military area aimed primarily at export markets. Japanese use of its undoubted industrial capacity for military production could well expand in the future due to the ever increasing Soviet Naval presence in the North West Pacific and continuing reduction of US Forces in Japan (40% over last 8 years). There should not be any doubt that Japan could, under the appropriate circumstances of provocation, turn on a very powerful self sufficient industrial military capability. In any case, as mentioned previously, the curve from about .2 upwards on the IF scale is largely academic and is presented mainly for reasons of perspective.

democratic and is presented mainly for reasons of perspective.

The lower portion of the curve is much more interesting as it is here that the changes are occurring now and showing medium to high probability of occurring in the future. In 1977, the position of Australia would be as shown almost exactly on the curve indicative of the fact that Australia's military industrialisation situation is largely dictated by free-market forces. The greater the degree of economic regulation, either by for example, protectionist measures or forced creation of a self-reliant or self-sufficient Defence Industrial Infrastructure, the further this point could be expected to move to the left, as can be seen in the case of India.

The source for determination of the Australian position is the 1977 Defence Report which tables five years 1972/73 to 1976/77. During this period Australia imported 71.5% of its capital equipment requirements for the Armed Forces and 24.4% of the Armed Forces Requirement for Replacement Equipment and stores, giving an overall average of 47% imported component. Just for interest, in 1977/78 the per cent spent overseas was 46.8%, and the estimate in 1978/79 was 44%. (see figure 2).

Now, if we were to magnify the lower portion of this curve the picture seen would be similar to that shown as figure 3. Japan of course is well out of the bracket high and Canada is included only for reference purposes. Asean countries from an industrialisation viewpoint could be expected to be in the lower right as shown.

FIGURE 2

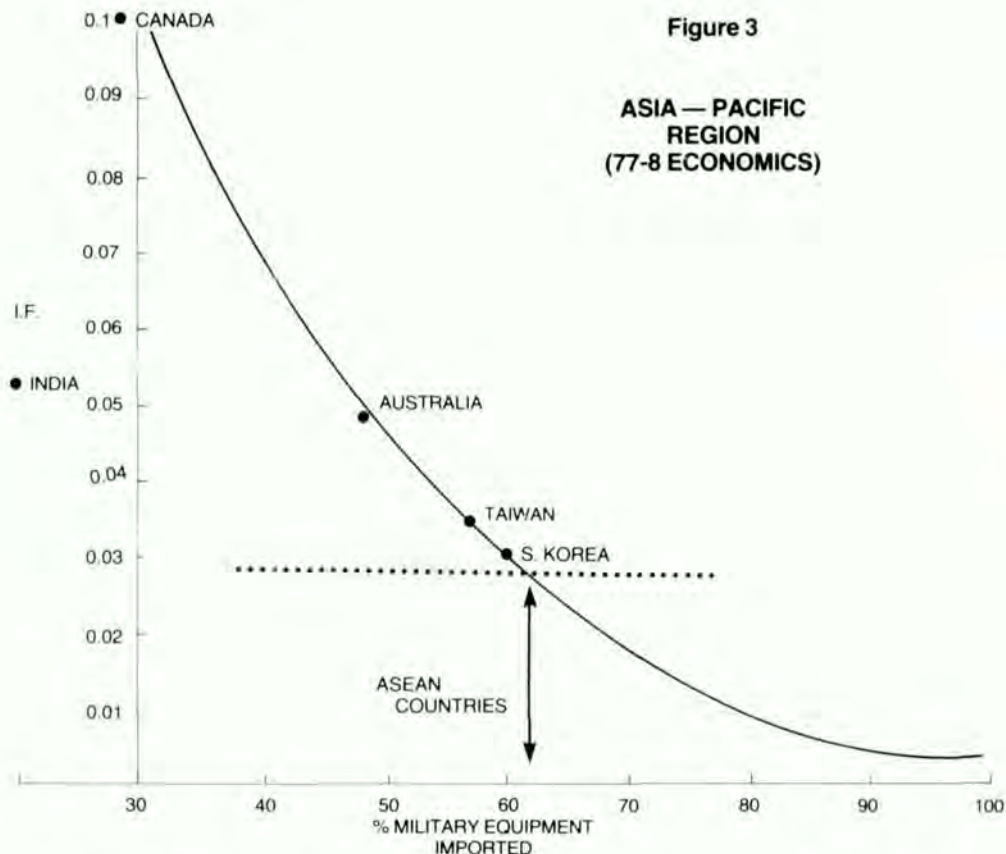
AUSTRALIAN DEFENCE OVERSEAS EXPENDITURE

	\$M CAPITAL EQUIPMENT	\$M REPLACEMENT EQUIPMENT	\$M TOTAL
1972-3	85 (61)	29 (20)	114 (40)
1973-4	52 (57)	30 (24)	82 (38)
1974-5	58 (67)	29 (21)	87 (39)
1975-6	105 (76)	41 (24)	146 (47)
1976-7	217 (81)	62 (31)	279 (60)
TOTAL	517 (71)	191 (25)	708 (47)

NOTE: (-) = % of Total expenditure

1977/8% = 46.8

1978/9% = 44



Asian-Western Pacific Region

Having now shifted the focus to the Asian region it is appropriate to expand the discussion on this area on a macroeconomic scale but firstly there is another axiom considered relevant to Industrial Support for the exercise of Maritime Power.

In any sustained conventional maritime conflict, the relevant industrial capabilities of the proponents will be a significant determining factor of the outcome.

The industrial capability required in a conflict situation is to replace battle loss and repair battle damage in the minimum possible time. World War II again provides historical precedent. In the early phases of the war, the real significance of the U-Boat effectiveness was found in the fact that British shipping was being lost at a much greater rate than the capacity of British shipyards to replace them. With the entry of the US into the war in October 1941, a crash shipbuilding programme was launched. In 1939-1940, only 102 seagoing ships were constructed in the US. In the first 15 months of the accelerated programme, 646 freighters were completed. By 1943, 140 Liberty Ships were being launched each month. At the

peak of wartime effort, US shipyard workers were able to construct a Liberty Ship totally in 80 hours 30 minutes. The earlier situation was now reversed as US shipyards were producing ships faster than the German U-Boats could sink them.

If one looks at the orders of battle of Asian navies today and the relative industrial capabilities, it is reasonably fair to say that only India and Japan would be capable of exercising maritime power for any sustained period utilising indigenous resources. Others perhaps could sustain localised coastal defence operations. There is evidence however which suggests that changes can be expected in the future.

The OECD Report referred to earlier used the illustration of the Asian region as an example of the potential future changes. It stated:

'With Japan's increasing prominence, the industrialisation of South East Asia and China's new policy, a zone may emerge in the Far East which would be one of the important centres of the world economy.'

With such an optimistic outlook for the future of the Asian-Pacific Region, some serious thought should be given to development of an assessment of economic prospects and opportunities over the next 20 years.

Population Growth Rates will gradually decline, leading to a higher per capita income, but the growth of the labour force will be firm so a labour surplus will persist in many countries. One effect of this situation will be the continuation of the problems of unemployment and underemployment with the uneven distribution of personal income thus implied. Conversely, however, this situation will lead to greater opportunities for rapid industrialisation particularly of the labour intensive export-oriented type.

There will be increased exploitation of natural resource endowments. New oil and non-oil mineral discoveries are probable. Food production will increase mainly due to increased application of modern agricultural technologies.

National Economic Systems will show a marked trend towards hybridization. Free enterprise economies will be increasingly subject to centralized planning, government regulation and public ownership. Isolationist and command economies will, on the other hand, gradually allow a measure of liberalisation and individualism.

Defence spending will remain as a major component of Government budgets.

Growth Strategy for the more developed countries will be the maintenance of export orientation and the production of more advanced

industrial goods. The less developed resource based countries will expand non traditional labour intensive exports (primary and manufactured) while simultaneously attempting to develop larger and more mature domestic markets.

The rates of real GNP growth will most likely be continually rising for the currently less developed countries and falling for the more developed and developed countries. (See figure 4.)

Most of the shifting within national economic structures will tend to favour the manufacturing sector and secondly the tertiary sector. The Extractive and Agricultural sectors will however continue as significant contributors in Asia Pacific economies.

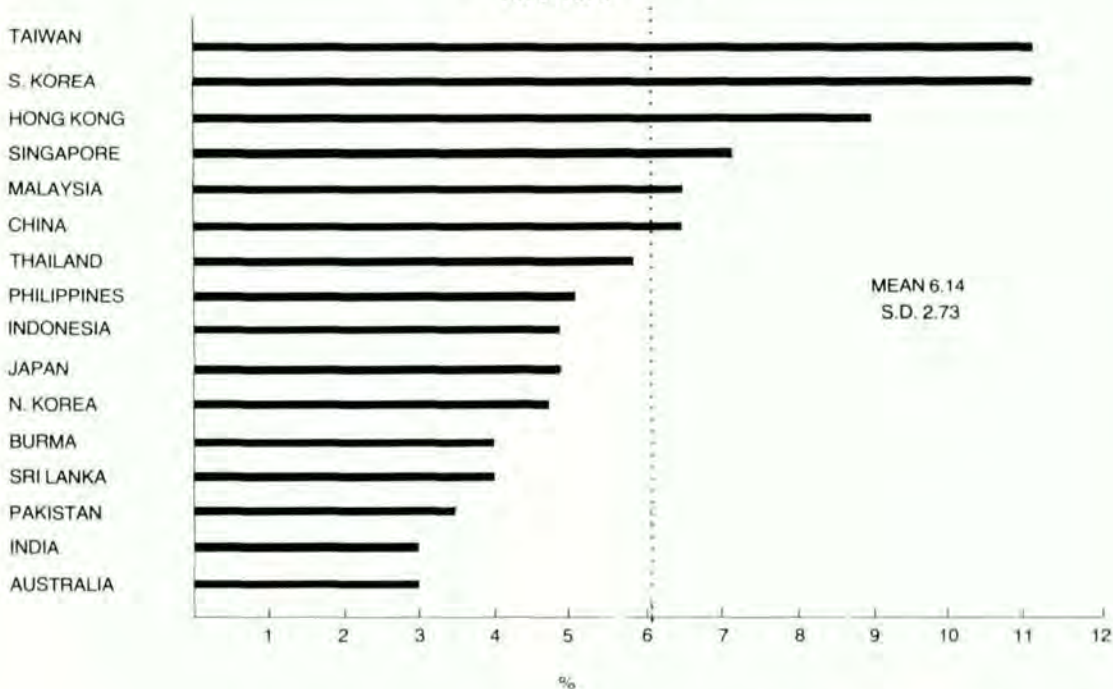
To provide an example of how these trends are already developing, let me quote from *The Australia*, Thursday 18 October 1979 in its supplement on Indonesia.

'During the second Five Year Plan (or Replita II) which ran from 1974-1979, per capita incomes were increased by 25 per cent, based on a 2.3% annual population growth over the five year period.

Population growth seems well within reach of its target of 2% p.a. by the year 2000.

Figure 4

REAL GNP GROWTH RATES 1978-1979



Agriculture: grew by 3.8% p.a. over the period

Mining: grew by 4.8% p.a. over the period

Manufacturing Industry: grew by 12.7% p.a. over the period

Transport and Communication: grew by 11.3% p.a. over the period

Construction: grew by 11.0% p.a. over the period

Other Sectors: grew by 8.4% p.a. over the period

Replita II also changed the fundamental composition of GDP by reducing agriculture's share from 40% in 1974-5 to 34% in 1978-79. The non-agricultural sectors rose from 60% to nearly 70%.

Returning to the general Asian-West Pacific region, it is foreseen that, *by the end of the century*, the less developed countries at present should achieve *semi-industrialised status*; countries now *semi-industrialised* will become *fully fledged industrial economies*.

When looking ahead to the international trade situation in the region it is most probable that:

- The 'open' character of the region will not diminish.
- Commodities will persist as major exports but manufactured goods will accelerate as development evolves. S.E. Asian countries and China are new areas to watch in this regard.
- Competition for shares in the world market will become keener in Asia-Pacific countries, forcing efforts towards product diversification. The region's domestic markets themselves will be an area of contention. Sub-regional blocs will gain strength as a result.

In order to reduce the variables in this regional economic assessment, future evolution of social-political conditions have been largely ignored; the assessment provided here is thus dependent on continued political stability especially of the non-communist countries.

In summary therefore, the next decades should see the *Asian Pacific region* as a *large and rapidly growing segment of the world economic community*. Its importance will be significantly more visible as its potential is increasingly exploited and as it moves towards greater self sufficiency.

Australian Economic Situation

How is Australia affected by this pattern of economic development in the region? As a basis for an answer to this question, the most recently released authoritative report was compiled by the

Economist Intelligence Unit, and released on the 13th September 1979, can be used. In general terms, the report forecasts that the majority of Australians can look forward to improved economic conditions and growth over the next 5 years. The minority are the unemployed whose job prospects are not expected to show any significant improvement. The report quotes:

'In the 5 years to 1983 Australia's GDP is likely to grow in real terms by an average of 3.8% per year which is a full percentage point higher than the average growth rate achieved during the five years to the end of 1978. In the longer term, there is scope for a return to more normal annual growth rates of around 5 per cent per annum.'

The report forecasts business growth in the extraction and agricultural industries in satisfaction of increasing markets for industrial raw materials, energy and agricultural products in the region, and non-residential construction industry to satisfy renewed office space demand in the early eighties.

The forecast for the manufacturing industries is predictably not so rosy.

'Without significant restructuring, Australian manufacturing will not be well placed to expand exports appreciably at any time, although under favourable demand conditions they may be able to retain their present markets. Light manufacturers and the medium-technology sectors are most at risk and without a boost to productivity these industries will face the prospect of increased import penetration at home and the loss of overseas markets.'

The report further submits:

'Investment in light manufacturing sectors should however, be approached with some caution in the light of development of the sector in neighbouring regions where it is much more cost-effective.'

In summary, forecast free-market conditions do not give any expectation of expansion of Australia's limited overall industrial base to the point where the indigenous industrial capability to support the exercise of maritime power will be enhanced; the more likely event would appear to be a contraction. This local situation will occur while Australia's regional neighbours will be becoming increasingly industrialised, some of them at spectacular rates, and such increases being due largely to progress in manufacturing sectors; these developments will of course be continually enhancing these countries' indigenous industrial

capacities to support their desired capability to exercise maritime power.

The Requirement for Industrial Support in Australian Defence

In recent months, two leaders of Australian Defence Department have been quoted in the National press as stressing the need for Australia to become increasingly self-reliant in defence. In *The Australian* Wednesday, 27th June 1979, the then Permanent Secretary of the Department of Defence, Sir Arthur Tange, was quoted:

'The best contribution to Australian self-reliance is to be able, at an acceptable economic cost, to have the maintenance, support and replacement capability in Australia itself — in its factories, in its dockyards and its service industries such as computers.'

Sir Arthur continued, 'but there is a point, admittedly difficult to define, at which the cost to the peace-time economy is not acceptable.'

If reference is made to the hypothetical curves in Figures 1 and 3, it would appear unlikely that in the future, Australia will reduce its dependence on imported military equipment by moving up the curve. Any improvement in this regard will have to be achieved by a lateral movement to the left which will be against the run of forecast free-market forces and hence most probably involve a higher cost to the taxpayer.

Admiral Sir Anthony Synnot (current Chief of the Defence Force Staff) writing in the 3 July 1979 issue of *The Bulletin* stated:

'.....we Australians must take the primary responsibility for our own security.

Such a policy means that our defence force must have a significant degree of self-reliance. By this I do not mean complete self-sufficiency, because such are the implications of modern military technology that this is practicable now only for the superpowers. Our self-reliance should give us a capability to operate as a unified Australian force with its own Logistics, supported by a repair and modernisation capacity.'

From these two statements, it would appear that the requirement for Industrial Support of Military Power in Australia could be summarised as:

- indigenous re-supply of Logistics
- indigenous maintenance and repair capability
- indigenous modernisation and replacement capability, and
- largely overseas sourcing of technology for acquisition of new equipments.

While the fourth requirement could be regarded as not essential to the sustenance of a capability to exercise maritime power in a conflict situation, the three former requirements must be considered as necessary elements of a self-reliant industrial support infrastructure.

By 'own Logistics' this phrase is interpreted as replacement of consumable stores and items many of which would be non-Defence specific but some, such as ammunition, would be, of course, pertinent only to the Defence function. The exercise of maritime power could not be sustained for any reasonable period without such an indigenous re-supply capability.

There can be little doubt that the specialist naval dockyards, Garden Island, Williamstown and Vickers Cockatoo between them provide a comprehensive capacity for maintenance, refit and repair of naval fleet and support units. Their capability for modernisation is arguable — sure they can do the actual work, but a lot of the design work and project management is done outside the yards, mainly in Navy Office but also in some instances by private contractors. The design and systems integration for new construction and modernisation work consumes high-level technical resources at a voluminous and fast rate and is an area which will demand much more attention in future projects.

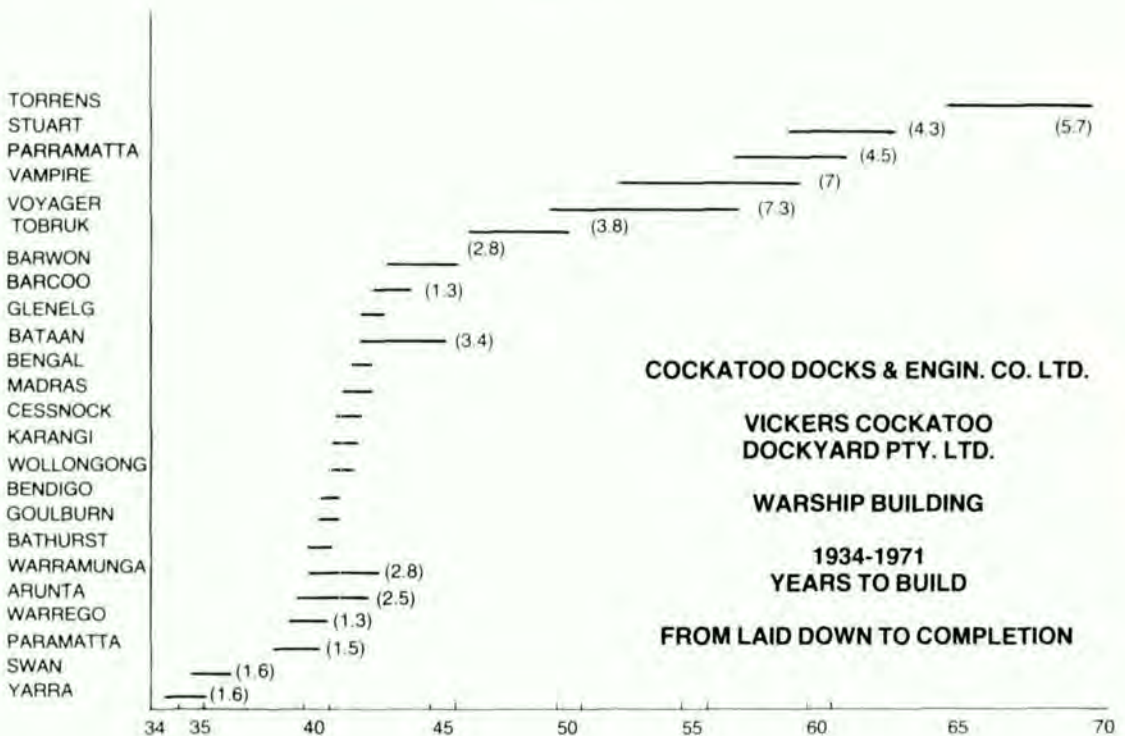
Australia's Aircraft Industry comprising mainly Commonwealth Aircraft Corporation, Government Aircraft Factories, Hawker de Havilland, between them, possess the necessary capability for maintenance, repair and overhaul of military aircraft in the inventory.

While the foregoing industrial capabilities place Australia in a reasonably sound position to support a unified Australian force and to repair battle damage sustained in a maritime conflict, the industrial capability to replace battle loss must be questionable.

Perhaps Australia's strategists believe that potential conflict scenarios involving the exercise of this country's maritime power will be largely unopposed by potential opponents' maritime forces as was the case with US Naval forces in Vietnam. Perhaps it is felt that potential conflict scenarios involving Australia will be of such short duration that replacement of battle loss equipment is not a feasible proposition for which to prepare.

The answers are not known to the author — only the doubt and the questions are raised. One clear fact should be stated however — the Industry of any country will be in a very poor position to effect the timely replacement of equipment lost due to battle attrition if the requisite industrial skills, experience, management, etc. are not being maintained in peacetime. The shipbuilding record of Vickers Cockatoo Ltd. 1934-71 can be used to illustrate this point. (see figure 5.)

Figure 5



It can be seen that pre World War II and during World War II, construction times at the yard were comparable with British yards for ships of similar class. The effects of lay-offs or non loading can be readily seen with the last 5 war ships built by Vickers culminating in HMAS *Torrens* which was completed in 1971. The lead time for any new construction contemplated now would obviously be extremely long.

As Admiral Synnot quite rightly said, it is impracticable for Australia to possess the technology base which is necessary today for a modern military equipment inventory. Implicit in such a statement is the recognition that Australia will continue to source advanced technology and/or advanced military equipments from overseas suppliers.

So, where does Australian Industrial Support for the Defence function actually stand today and where is it going?

As a base-line reference, one could hardly do better than refer to the transcripts and submissions of the Parliamentary Sub-Committee formed to enquire into Industrial Support for Defence Needs and Allied Matters 1976-77 (Hamer Committee). From the copious volume of evidence examined by this Committee, some fairly stark conclusions were drawn viz:

'The Committee takes the view however, that whatever the level of (threat) probability, there should be national awareness of the substantial gaps that exist in our Defence Industrial capacity and the problems we could face if suddenly forced by world events to become at least largely self-reliant or, in the extreme, self-sufficient. Such awareness is an important step towards the exercise of balanced judgement and the initiation of reasoned action while there is still time to do so in an orderly manner.'

The Committee went on to record problem areas in Defence — Industry relationships in communication particularly in forward planning and equipment procurement practices. In discussing the role of industry in Defence R & D, the Committee considered it 'extremely important that industry be involved to the maximum extent feasible in design and development programmes because only in this way does it appear possible to sustain a fully effective defence support capability.' This point must be arguable, as it appears to ignore some fundamental Australian, Australian Defence and Industry problems. By opting for a balanced force structure concept, (once again I

quote Admiral Sir Anthony Synnot 'our defence force must not be closely tailored to meet a specific situation. It must be versatile. Our force needs to include many capabilities', and because of the national Australian characteristic of small number of manpower, this country will need to acquire the most effective manpower utilisation equipment which will normally, although not necessarily, invoke advanced technologies

Australia's defence equipment inventory will incorporate a wide range of technologies in small numbers of actual hardware. The commercial feasibility of extensive industry involvement in Defence Research and Development sustained by minimal follow-on production must be assessed as very low.

When it is understood that the Australian *Telecommunications Commission* (Telecom), the largest buyer of technology-oriented equipment in Australia, sources technology from overseas but, for the large quantity and/or critical network items, insists on local licence manufacture to ensure indigenous industrial support, it should become clear that the emphasis has to be shifted towards *production* to ensure support rather than Research and Development.

The talented resources available in-house in the Australian Defence Science and Technology Organisation are funded by the taxpayer and exist for the purpose of carrying out research and development into unique Australian military problems, of assisting the single-service user in evaluation and acquisition of technology equipment and setting up for its in-country support. The transfer of any part of this valuable military resource into local industry could well result in its diminution over the long term if it were not able to be maintained as a justifiable commercial undertaking, a real possibility in the peaks and troughs of the Australian Defence market place.

The Defence requirement for self-reliant industrial support is to repair and replace military equipment. Industry's capability to effect timely repairs is significantly enhanced by its participation in the original manufacture occasioned by access and familiarity with documentation, test procedures etc; more importantly, local industry's capability to effect timely equipment replacement will always remain at a low-level if it has not played a significant part in the initial manufacture, ideally by phased-in assumption of total responsibility over the period of the project.

The Hamer Committee Report must be seen in perspective, their enquiry being now some 2-3 years previous. It is fair to say that, at that time, Defence Industry structure in the Australian Government was still recovering from a series of significant re-organisational steps. In recent times however, there have been some very encouraging signs, maybe as a result of the Hamer Committee findings, that the importance of a Defence Industry manufacturing capability is being realised:

- naval shipbuilding contracts being let to Australian yards
Patrol Boats to NQEA in Queensland
Landing Ship (Heavy) to Carrington Slipway in Newcastle, and the
AOR to Vickers Cockatoo Ltd. in Sydney.
- unpublicised but intended rationalisation of the electronics industry with the award of significant H.F. communications equipment contracts to 2 Australian companies involving meaningful and substantial local participation in original equipment manufacture.
- establishment of the Katter Parliamentary Sub-Committee to enquire into the Defence procurement processes which hitherto have created difficulties for industry.

Perhaps, in the future, Industry could play an even more meaningful role in the support of Australia's intended exercise of maritime power by increased participation in project management incorporating systems design and integration, so much of which is conducted in-house at present. The balanced-force concept of Australian Defence, particularly in the maritime field, will mean the continued acquisition of a wide variety of capabilities and skills which in turn means a large number of projects always in the system. Advancing technologies will increasingly stretch the ability of in-house service resources to cope with the requirements of project and systems management which will become more demanding of high level technical and managerial resources.

A planned process of divestment of these responsibilities to a rationalised industry with continuity of loading could provide significant benefits for industrial support for Australia's maritime power, and by the creation and consolidation of complementary skills, enhance the prospects for Australia to become involved as an important maritime partner with its rapidly developing regional neighbours.



CAPTAIN GUSTAF ERIKSON (1872-1947)

by Commander Robin Pennock RAN

Whilst reading the many books and articles needed to research *Ships and the Sea*, I found that one name kept appearing in connection with the wind driven ships. In the dying days of windjammers, the name of Captain Gustaf Erikson became synonymous with the (sail) shipping trade and in particular with the Grain Races from South Australia. Doubtless there are inhabitants of the Gulf Ports who remember those tall ships and the name of Captain Erikson. The same man's name and history has passed into an almost revered history in his home port of Mariehamn, Finland.

From all the upsets and displacements of World War I, only two ship owners emerged who were able and willing to carry on the tradition of sailing (cargo) ships. One of these was Captain Erikson, who eventually became not only the more famous, but owned the largest fleet of sailing ships in the world. He achieved this not only by his love of sail, but also by astute business acumen.

Erikson became a collector of windships, all old, but well cared for and well run. Aided by post war factors denied to, or overlooked by other shipowners he bought first class vessels at scrap prices. The ports of the world were congested with idle sail tonnage and having dispelled the spectre of depreciation by astute buying, Erikson began to build up his reputation. Operating uninsured and with an almost unlimited supply of Scandinavian personnel and premium Apprentices, he solved, what in other countries, were insuperable difficulties. His shrewdness and energy was combined with a business ruthlessness. When a vessel became unprofitable or required expensive repairs they were either sold or scrapped. The ship *GRACE HARWAR*, due for an expensive survey and refit in 1935 was sold for breaking up. But above all this, Erikson had an affection for and an understanding of deep sea sailing vessels.

(Aside —

for those who wish to be technically correct; a *Ship* is a vessel with three or more masts, square rigged on all masts;

a *Barque* has 3 masts, square rigged on the fore and main, and fore and aft rigged on the mizzen;

a *4 masted Barque* (as the name implies) has 4 masts, square rigged on the fore, main and mizzen, and fore and aft rigged on the jigger.)

Gustaf Adolf Mauritz Erikson was born on Hansa's farmstead, Hellestromp, Lemland near Mariehamn, Aland on 24 October 1872. Although his birth was registered by an over-zealous parish Pastor as Gustafsson (son of Gustaf) in the parish register, it was indeed Erikson. At the time of his birth and childhood the Aland townships were full of optimism for sailing ships, building and owning vessels of all sizes and rigs for all the recognised trades, from deep sea to North Sea and Baltic. Surrounded by ships and seafarers, it was inevitable that Erikson would go to sea in one way or another. Thus at the age of 10, he began his seagoing career in the barque *NEPTUN* (April 1882). As the Cabin Boy, he was expected to look after the Skipper and the cook and, not the least of his duties, study Biblical history. Spending the year 1884 at home, the young Gustaf sailed again in *NEPTUN* as Cook (1885/86) and in the following years as a seaman, Bosun and Steward in the skonertskepp *ADELE*, barque *ANSGAR*, schooner *FENNIA* and barque *SOUTHERN BELLE*.

(Aside —

Aland, a collection of over 6000 islands, many mere rocky outcrops, is situated at the mouth of the Gulf of Bothnia in the northern Baltic. Aland, the main island is only 18 miles long but contains the capital Mariehamn. Originally part of Sweden the

THE AUTHOR

Commander Robin Pennock is presently serving in HMAS *ALBATROSS*. His interest in wind driven ships dates back many years but by necessity lay dormant until the inception of the *Ships and the Sea* column of the Journal. He is an avid believer in practical training, especially in the dying art of seamanship.



Part of Erikson's fleet at Mariehamn in August 1935. The *VIKING* is in the foreground with *WINTERHUDE*, *PESTALOZZI* and *PENANG* from left to right in the background.

Aland Islands were, after capture by the Russians in 1809, ceded to the Tsar. Subsequent to Finland gaining independence from Russia in 1917 both Finland and Sweden laid claim to Aland but a referendum proved more favourable to Sweden. Sweden however relinquished its claim and in 1921, in its first settlement of a territorial claim dispute, the League of Nations gave Aland to Finland.)

At age 20 (1893), Erikson took command of the *ADELE* and after two years sat for, and gained his Master's Certificate. Later, whilst serving in the barque *FINLAND* he fell from the foretop when the ship was alongside in Pensacola (USA), breaking his thigh. After six weeks in hospital (then the maximum time allowable by law) and several weeks ashore, he found a berth as Mate in the barque *MARIEHAMN*. Erikson joined complete with crutches. Returning home he visited a doctor in Finstrom, and on his next visit home threw away his crutches. From then on he became Master of the barque *SOUTHERN BELLE* (1901/05) on the North Sea trade. In 1905, he became engaged to the 16 year old Hilde Bergman and in the spring of 1906 took command of the full rigged ship *ALBANIA*. He and Hilde were married in Swansea, South Wales, and his bride sailed with him in *ALBANIA* until reaching South Africa.

Returning to Fredrikstad, *ALBANIA* having paid off in Rio de Janeiro, Erikson took command of the barque *LOCHEE* (mid 1909) and remained her master until 1913 when he came ashore to Mariehamn. During the 20 year period, 1893-1913, the Aland fleet had undergone radical changes and all the signs were that the days of sail were numbered.

In September 1913, Gustaf Erikson set himself up as a 'Ship's Husband' by entering into a partnership with six other Captains to buy the composite barque *TJERIMAI*. This was to be the start of the great Aland's revival of sailing vessels, albeit under the one owner. Before the year was out Erikson had bought the four masted barque *RENE RICKMERS* for the equivalent of £6,500. He owned 15/100th shares, with 50 others becoming small holders in the (re-named) *ALAND*. Wrecked on 20 August 1920 off New Caledonia, *ALAND* was paying her way. *FREDENBORG* was his next purchase owning 75/100th shares. When sold for breaking up in 1916 she was helping to make a profit too.

During 1918, under pressure and some difficulties, Erikson contemplated selling his small fleet. Indeed he offered his ships for sale in August. His asking prices were high and there was to be no sale. The asking price for his fleet was Kr 5.4 million, showing shrewd



business ideas and conjecture is that he wanted the cash to be able to re-invest as the war faded and freight rates rose. Immediately after the Armistice, in fact on 12 December, he wrote that he was buying vessels of between 2,500 and 4,500 tons dwt and that he was interested in the German windjammers laid up in Chile. Whilst Erikson was building up his fleet in the early 1920s, other Åland shipowners were transferring their interests to Helsinki. He was more than content to remain in Mariehamn. Since 1916 he had been negotiating with August Troberg (of Helsinki) about the purchase of ships, and over the years virtually bought Troberg's fleet. His largest purchase *LAWHILL* served him faithfully from 1917 to 1942.

As the years progressed, Erikson continued to buy ships and enlarge his fleet. His purchase of the now legendary *HERZOGIN CECILIE* in 1921 helped to bring his name to notice amongst shipowners of the outside world. Indeed the popularity and publicity enjoyed by Erikson in the thirties can be said to be attributed to the white hulled *HERZOGIN CECILIE*, the 'Duchess', his flagship and his yacht. By 1935, his fleet totalled 15 deep sea vessels (Cape Horners as Alan Villiers calls them), three former deep sea vessels (*LINGARD*, *KYLEMORE* and *PESALOZZI*), five small barques and barquentines, several auxiliary schooners and a wood fired tow boat. He also owned a slipway at Nystad. In 1936, his fleet totalled 44,728 tons gross and included eleven 4 masted barques. With 100 premium and indentured Apprentices at sea in his fleet

Erikson was demonstrating that sail training was still viable and popular. The approximate monthly wages paid in sailing ships in 1935 are shown in Table 1.

(Aside —

In the 1936 grain race, 14 of the 17 vessels taking part were Erikson owned and between them transported over 50,000 tons of wheat. In the days of low freight rates, gross rates amounted to only £68,000 or £1.7.0 per ton.

In the 1938 race, 10 of the 14 starters were owned by Gustaf Erikson. In comparison they lifted some 40,000 tons at a gross of approximately £80,000 or £2.0.0 per ton.)

One of the hardest blows came to Erikson at the end of the 1936 grain race, often referred to as the Great Grain Race. After a record breaking run of 86 days, Pt Lincoln to Falmouth (for Orders), *HERZOGIN CECILIE* went aground off Sewer Mill Cove, South Devon on 24 April 1936. Refloated and towed to Salcombe (Starehole Cove) on 19 June, her back was broken in an onshore gale. The salvage attempt was abandoned on 17 July and her remains are still in that spot. Fortunately many fittings were recovered and the figurehead is preserved at the Ålands Marine Museum. So too is the saloon, re-erected within the



The four-masted barque *LAWHILL* built in 1892 and owned by Erikson 1917-1942. She was condemned at Lourenco Marques in 1942.

museum and complete with the photographs of Gustaf and Hilde Erikson. (These were obligatory in all of his vessels.)

The 'Duchess' has been the subject of many books, articles and photographs, so perhaps the best tribute was in words. Mrs Pamela Eriksson, wife of the Master (Captain Sven Eriksson) described her thus in her article, *Min Basta Selgats II*:

'Under ideal conditions, she set a record of 21 knots in the Kattegat, but 16, 17 and 18 knots were not unusual, sailing with a strong breeze, slightly abaft the beam. If her sails held in hard weather, she seemed to want to set her course for the moon itself, throwing off the sea and rising from the waves like a bird, without it costing her any effort.'

Since its inception in 1921, *HERZOGIN CECILIE* had won the grain race 4 times, a record unequalled. The winners of the Grain Races between 1921 and 1939 are shown in Table 2.

It is said that 'time and tide wait for no man', and neither does progress. Eventually Erikson moved into the steamship and motorship era. In the 1930s when other Aland ship-owners began to buy into tramp steamer tonnage, Gustaf Erikson invested in most if not all the companies. When the Aland Aktiebank found itself in a difficult situation, Erikson gave it a helping hand and acquired most of the shares. The shipyard at Nystad was bought by him when it was on the verge of bankruptcy. He also pioneered fur farming in the Aland Islands. Everything he touched prospered.



Loading wheat in Melbourne December 1929. The ships are from left to right — *MELBOURNE*, *POMMERN* and *BEATRICE*.

Fame came to Erikson in the 1930s and as one of the accolades, he was made a Marine Counsellor. There was no doubt in any Aland home as to whom *Sjöfartradet* or even *Sjöfartsradinnan* (Marine Counsellor's Lady) referred.

TABLE 1

**APPROXIMATE SALARIES AND WAGES
PAID TO PERSONNEL IN DEEP SEA
WINDJAMMERS. (1935 SCALES)**

Masters	between	£5	and	£22/10/—
Mate	"	£9/10/—	and	£10/10/—
2nd Mate	"	£7/10/—	and	£8/—/—
Carpenter	"	£5	and	£5
Sailmaker	"	£5	and	£6
Steward	"	£8/10/—	and	£10
Cook	"	£4	and	£5
Able Seaman	"	£2	and	£3

(all are monthly rates)

Cadets and Apprentices paid a premium of £50. If paid at all their rate was approximately equal to a Deck Boy i.e. well below the wage of an Able Seaman.

TABLE 2

WINNERS OF THE GRAIN RACES 1921 to 1939

Year	Vessel	Time (days)	Owner	Master
1921	MARLBOROUGH HILL	91	Finnish	
1922	MILVERTON	91	Groenblom	
1923	BEATRICE	88	Swedish	(no Erikson contender 23/24)
1924	GREIF	110		
1925	BEATRICE	103	Swedish	
1926	L'AVENIR	110	Belgian Govt	
1927	HERZOGIN CECILIE	98	Erikson	de Cloux
1928	HERZOGIN CECILIE	96	Erikson	de Cloux
1929	ARCHIBALD RUSSELL	93	Erikson	K. Sjogren
1930	POMMERN	105	Erikson	Granith
1931	HERZOGIN CECILIE	93	Erikson	Sven Eriksson
1932	PARMA	103	Laeisz	
	PAMIR		Erikson	K. Sjogren
1933	PARMA	83	Laeisz	
1934	PASSAT	106	Erikson	K. Sjogren
1935	PRIWALL	91	Laeisz	
1936	HERZOGIN CECILIE	86	Erikson	Sven Eriksson
1937	POMMERN	94	Erikson	Broman
	PASSAT		Erikson	Gronlund
1938	PASSAT	98	Erikson	Lindvall
1939	MOSHULU	91	Erikson	M. Sjogren

Before his death on 15 August 1947, the Erikson Company owned sixteen steamships and eight motorships. In the late 1970s, as a result of his astute business sense and leadership, the Company owned a large fleet of specialised ships in trade around the world. But I digress and get ahead of the story. Another hard blow hit Gustaf Erikson when in his 70th year. His son Gustaf-Adolf died when at sea when his ship *SS ARGO* was torpedoed in June 1942. A daughter, Greta, also preceeded him to the grave and so when the end finally came in the evening of 15 August 1947, it was left to the eldest son, Edgar Erikson, and grandson Bjorn, to run the company. As a permanent family memorial, the Captain's old office was dismantled and relocated within the new office block when built in mid 1970.

As perpetual gifts to his homeland, Captain Gustaf Erikson donated considerable sums of money to the Aland Cultural Foundation, the Aland Maritime Museum and the Lemland Parish Home. The chapel in the Mariehamn cemetery is also a gift from him to the people of the town. The names of Gustaf and Hilde Erikson are perpetuated in a trust



The 4-masted barque *POMMERN* launched in 1903 and now preserved at Mariehamn.

fund set up for seamen's widows and unsupported children; and the fund for the widows and children of Aland Merchant Naval officers was set up to the memory of his son (The Gustaf-Adolf Erikson Fund).

The 4 masted barque *POMMERN* was presented to the people of Mariehamn by Edgar Erikson and his sister, Eva, as a memorial to the sailing ship history of the Aland Islanders in 1952. Permanently moored near the Aland Sjöfartsmuseum, it enjoys a similar relationship to *CUTTY SARK* and the National Maritime Museum at Greenwich.

There remains only to give the subsequent history of the Erikson windjammers that remained after the end of the Second World War:

ARCHIBALD RUSSELL — put up for sale in England. No buyers, broken up 1948.

VIKING — recommissioned and sailed under the management of Edgar Erikson until 1949. Sold, she is preserved at Gothenburg.

BLAKOON — sold in 1943, converted to a motorship in 1945. Ended her days when the hull became part of a bridge between two islands in the Finnish Archipelago.

PASSAT — recommissioned and returned to sea. With *PAMIR* sailed from Australia in

1949 with a grain cargo. Sold in 1951 to German owners, extensively refitted and used as a cargo carrying, sail training ship. Withdrawn from service post 1957 and now preserved at Travenmunde.

PAMIR — seized by the New Zealand Government during World War II and returned to the Erikson family in 1947. With *PASSAT* sailed from Australia in 1949 with a full cargo of grain. Sold in 1951 to German owners, extensively refitted and used as a cargo carrying, sail training ship. Lost in the Atlantic Ocean in 1957 whilst on passage River Plate to Germany. Overwhelmed by hurricane *Carrie* with a loss of 80 lives, most of them cadets.

POMMERN — remained at Mariehamn. In 1952 presented to the townspeople of Mariehamn by Edgar Erikson and his sister Eva (Mrs Eva Hohenthat). Used as a museum ship permanently berthed near the Aland Sjöfartsmuseum.

A full list of sailing vessels owned by Captain Erikson is shown in the Annex.

Sources *The Call of High Canvas* (AA Hurst)
The Way of a Ship (Alan Villiers)
The Last Tall Ships (Georg Kahre)
Shipping Wonders of the World (Ed by Clarence Winchester)

ANNEX

SAILING VESSELS IN CAPTAIN GUSTAF ERIKSON'S FLEET

NAME	TYPE BUILT	TON. LGTH(ft)	BUILDER	DATES OF OWNER- SHIP	SUBSEQUENT FATE
TJERIMAI	3m b 1883	1550 188	MEUSING AMSTERDAM	1913- 1925	lost in collision 22 August 1925
ALAND ex RENERICKMERS	3m b 1887	3300 283	RUSSELL & CO PT GLASGOW	1913- 1914	stranded and wreck- ed August 1914
FREDENBORG	3m b 1881	600 131	HENRIKSSON ALAND	1914- 1916	sold 1916, broken up 1916
BORROWDALE	3m b 1868	1850 226	POTTER & CO LIVERPOOL	1916- 1917	torpedoed 1917
GRACE HARWAR	3m s 1889	2950 266	HAMILTON PT GLASGOW	1916- 1935	sold for breaking up 1935
PROFESSOR KOCH	3m b 1891	2350 236	RUSSELL PT GLASGOW	1916- 1923	condemned 1923
INGRID	3m sch 1907	650 132	SODERSTROM ALAND	1917- 1919	sold to British owners 1919; re- named RIGDIN

SOUTHERN BELLE	3m b 1871	850 146	MULCAHA NOVA SCOTIA	1917- 1919	sold for breaking up 1919
LAWHILL	4m b 1892	4600 317	THOMPSON DUNDEE	1917- 1942	condemned 1942
MARGARETA ex CRAIGERNE	4m b 1889	3100 270	DUNCAN PT GLASGOW	1917- 1917	torpedoed 1917
WOODBURN	3m b 1896	2600 242	RUSSELL PT GLASGOW	1919- 1924	sold 1924, hulked
HERZOGIN CECILIE	4m b 1902	4350 314	RICKMERS BREMERHAVEN	1921- 1936	wrecked (English Channel) 1936
LOCH LINNHE	3m b 1876	2200 235	THOMPSON GLASGOW	1922- 1933	wrecked Aland Island 1933
POMMERN ex MNEME	4m b 1903	4050 294	REID & CO GLASGOW	1922- 1953	preserved at Mariehamn, presented to town 1953
CARRADALE	4m b 1889	3300 285	STEPHEN GLASGOW	1923- 1924	sold for breaking up 1924
PENANG ex ALBERT RICKMERS	3m b 1905	3250 265	RICKMERS BREMERHAVEN	1923 1941	missing Southern Ocean 1940
OLIVEBANK	4m b 1892	4400 326	MACKIE & THOMPSON GLASGOW	1924- 1939	sunk by mine 1939
KILLORAN	3m b 1900	3050 261	AILSA TROON	1924- 1940	sunk by enemy action 1940
CARMEN	3m b 1921	850 176	LEMLANDS V ALAND	1924- 1934	abandoned 1934
POLSTJERNAN	4m Sch 1920	1600 202	SKINNERVIKS DRAGSFJAND	1924- 1925	sold March 1925
BALTIC	4m 6tn 1919	750 171	A/B BALTIC ALAND	1924- 1939	sold May 1939
ARCHIBALD RUSSELL	4m b 1905	3950 291	SCOTT & CO GREENOCK	1924- 1948	sold for breaking up 1948
HOUGOMONT	4m 6 1897	4000 292	SCOTT & CO GREENOCK	1925- 1932	dismasted, used as breakwater 1932
LINGARD ex WATHARA	3m b 1893	1600 213	FEVIGS ARENDAL	1925- 1935	sold 1936
OSTROBOTNIA	3m sch 1919	800 163	LUNDQVIST JAKOBSTAD	1925- 1934	hulked 1934
WINTERHUDE ex MABEL RICKMERS	3m b 1898	3250 267	RICKMERS BREMERHAVEN	1925- 1944	sold to German Navy: 1944
LALLA ROOKH ex KARKU ex EFFENDI	3m b 1876	1450 196	EVANS LIVERPOOL	1926- 1928	sold for breaking up 1928
ESTONIA	3m btn 1921	800 305	WAMMUS GUTMANNSBACH	1927- 1936	wrecked 1936
MELBOURNE ex GUSTAV ex AUSTRASIA	4m b 1892	4250 305	RUSSELL PT GLASGOW	1929- 1932	sunk in collision 1932
MADARE ex FOX III	4m sch 1919	900 155	ARUESKJOBING	1929- 1939	sequestered and sold 1939

VIKING	4m b 1307	4000 293	BURMEISTER WAIN COPENHAGEN	1929- 1951	sold 1951, preserved at Gothenburg
PONAPE ex BELLHOUSE ex REGINA ELENA	4m b 1903	3500 283	BACINI GENOA	1929- 1936	sold for breaking up 1936
PAMIR	4m b 1905	4500 316	BLOHM & VOSS HAMBURG	1931- 1951	sold 1951; lost at sea 1957
L'AVENIR	4m b 1908	3650 278	RICKMERS BREMERHAVEN	1932- 1936	sold 1936, renamed ADMIRAL KARP-FANGER; lost at sea 1938
PASSAT	4m b 1911	4700 322	BLOHM & VOSS HAMBURG	1932- 1951	sold 1951, preserved at Travemunde
ONDINE ex ASTRELLA ex ONDINE ex PAULINE	4m sch 1917	1600 248	McEACHERN OREGAN	1933- 1933	sold 1933
VARMA	3m b 1922	1400 201	NYSTADS NYSTAD	1933- 1937	sold 1937
ELAKOON	3m b 1920	1400 209	NYSTADS NYSTAD	1933- 1943	sold 1943, converted to Motor-ship 1945
VELLAMO	3m sch 1919	550 139	NYSTADS NYSTAD	1933- 1939	sold 1939
VALBORG	4m sch 1919	1500 197	CHOLBERG VICTORIA BC	1933- 1943	condemned and sold 1943
KYLMORE ex SUZANNE	3m b 1880	1900 226	REID PT GLASGOW	1934- 1937	sold for breaking up 1937
PESTALOZZI ex CLAUDIA	3m b 1884	1600 206	BLOHM & VOSS HAMBURG	1934- 1937	sold for breaking up 1937
REGINA	4m sch 1919	1000 182	KYNTZELL BORGIA	1934- 1935	lost by fire 1935
DIONE	4m btn 1923	1000 160	DONNER JOMALA	1935- 1942	sold 1942
MOSHULU ex DREADNAUGHT ex KURT	4m b 1904	4900 335	HAMILTON PT GLASGOW	1935- 1947	sold 1947, pre-
SIRIUS ex BJERKVIK ex MARTEN	3m sch 1901	180 93	NORSTOM VASTERVIK	1942- 1946	sold 1946

Explanation of vessel types in column 2

3m	three masted
4m	four masted
b	barque
s	ship
sch	schooner
btn	barquentine

This list only shows vessels in which Erikson was the major shareholder. It does not list the others in which he had shares.

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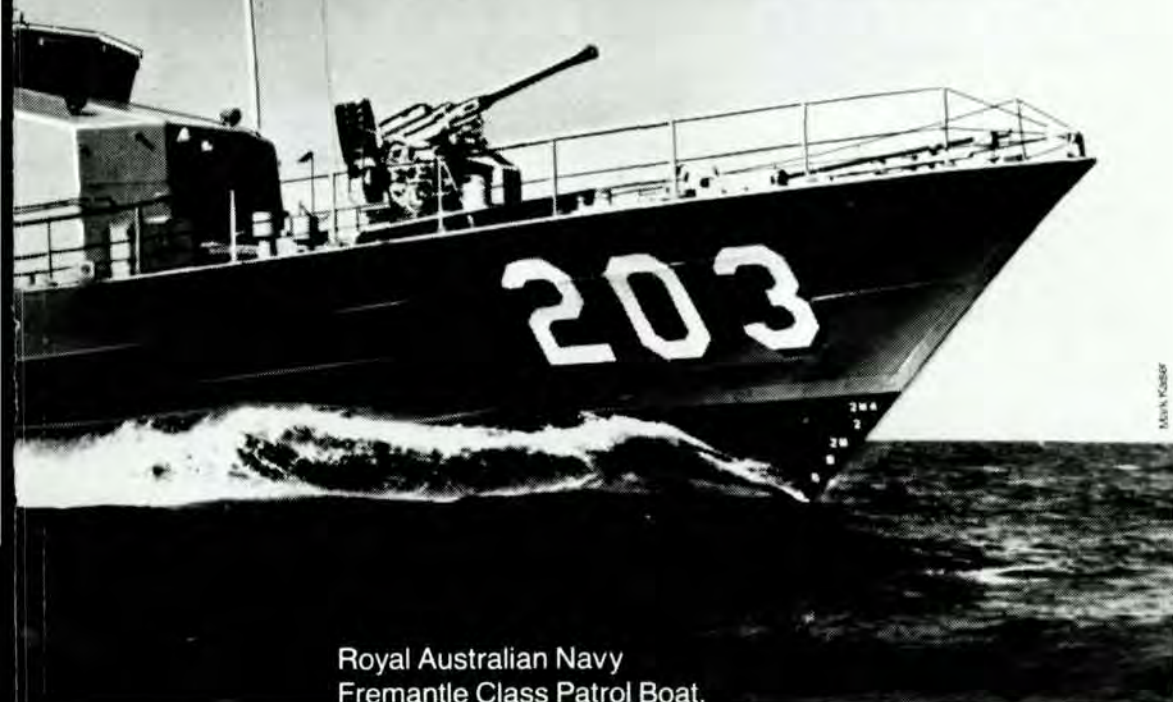
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THE SOVIET MERCANTILE OFFENSIVE

by Micheal Melliar-Phelps

At the present time, there are fifteen Soviet State-owned Shipping Companies and they are:

- Baltic S.S. Co. (Leningrad)
- Black Sea S.S. Co. (Odessa)
- Far Eastern S.S. Co. (FESCO)
(Vladivostok)
- Northern S.S. Co. (Arkhangelsk)
- Murmansk S.S. Co. (Murmansk)
- Estonian S.S. Co. (Tallin)
- Latvian S.S. Co. (Riga)
- Lithuanian S.S. Co. (Klaipeda)
- Novorossisk S.S. Co. (Novorossisk)
- Georgian S.S. Co. (Batumi)
- Azov Sea S.S. Co. (Zhdanov)
- Caspian Sea S.S. Co. (Baku)
- Soviet Danube S.S. Co. (Izmail)
- Kamchatka S.S. Co. (Petropavlovsk)
- Sakhalin S.S. Co. (Kholmsk).

These 'companies' are obviously only regional groupings for the sake of administrative convenience. Funnels are usually white for motorships and black for steamers, with a red band on which is a gold Hammer and Sickle. Hulls are either black, white or grey, but there does not seem to be a definite ruling, as far as cargo ships are concerned, as to which ships have which colours. Passenger ships apparently are consistent within individual classes.

Back in February 1918, Lenin signed a Decree nationalising all Russian shipping, and it was several ex-Tsarist vessels which formed the nucleus of the *Sovtorgflot* — *The Sovietskoy Torgovaya Flot* — literally translated as the Soviet Merchant Fleet. Formerly privately owned or Government ships were taken over in Russian Ports, and others which had been taken to foreign ports by the pro-Tsarist

Whites were returned as the new regime gained international recognition. However, three Romanian ships which had served in the Russian Navy during the First World War had to be returned to Romania by the Soviets.

By the late 1920s, most of the ex-Tsarist vessels must have been either demolished or unserviceable, and so the first Soviet-built passenger ships were produced by the Severney and Baltika Yards at Leningrad in 1928. The first foreign-built new buildings were ordered in this year; two ships from the Krupp Yard at Kiel in Germany (sisterships to four built at the Baltika Yard). In 1935 one Dutch and one British liner were purchased, followed in 1937 by a British cableship which was converted for passenger use. As well as purchasing second-hand tonnage, orders for new vessels were given to Italy in 1937 and to the Netherlands in 1939.

The Soviet invasion of the Baltic States of Estonia, Latvia and Lithuania in 1940 resulted in three coastal passenger ships being added to the fleet at the expense of Estonia; as far as is known neither Latvia or Lithuania possessed any passenger ships of note.

THE AUTHOR

Michael Melliar-Phelps is a member of the United States Naval Institute, the ANI and the Naval Historical Society of Australia. He is currently employed by the Australian Broadcasting Commission and his interests include naval history, photography and classical music. He has recently co-authored a book with Ross Gillett on shipping in Sydney Harbour and this is to be released shortly.

The wartime losses of Soviet merchant ships were very high, although exactly what passenger ships were lost due to enemy action is not known with any certainty. In 1941 the United States transferred two ex-German liners of World War One vintage to the USSR in order to reinforce the fleet. It was the defeat of Germany, however, which provided the greatest impetus to the *Sovtorgflot* passenger fleet. Twelve large passenger ships and several smaller ones were either seized from the Germans, received as Allied allocations of prizes, or salvaged from German waters at the end of the War. Most of the larger vessels are still in service today.

Germany's allies of Finland and Romania did not escape having to compensate the USSR for war damage from their own small mercantile fleets — six Finnish and three Romanian ships were handed over between 1944 and 1950, and a further two ships were taken from Japan as a result of the short-lived war status between that country and the Soviet Union.

With the reconstruction of East German shipyards after the Second World War, there became available a source of new tonnage for the Soviet Merchant Fleet, and it has been the Mathias Thesen Werft Yard at Wismar which has provided the bulk of passenger tonnage by delivering nineteen ships of the *Mikhail Kalinin* Class and five of the larger *Ivan Franko* Class. Another Communist state — Bulgaria — has

produced a class of at least twelve coastal passenger ships for the shorter sea route of the *Morflot*.

In 1961, the A. Zhadnov Yard at Leningrad built the first of ten vessels in a class which were the first Soviet-built passenger ships since 1932, and it was in the early 1960s that the title *Morflot* was introduced, replacing that of *Sovtorgflot*. *Morflot*, or to give its full title, *Ministerstvo Morskoi Flot* — Ministry of the Seagoing Fleet — is the Ministry in Moscow which controls all Soviet merchant ships through the previously mentioned fifteen companies based in the major ports throughout the Union, and recently a further department, *Morpasflot* — *Morskoi Passazhirskogo Flot* — Seagoing Passenger Fleet — has been established for the management of the Fleet's passenger ships.

With the worldwide rise of bunker oil prices in 1973, many Western passenger ships were laid up or sold for demolition, and this gave the *Morflot* the opportunity to purchase two Cunard Line ships in 1973, and a large modern West German ship (the *Hamburg*) the following year. She was only six years old and the pride of the City of Hamburg. A smaller cruise ship was bought from Vickers Ltd., Barrow, in 1975, after the builders had not handed her over to the Danish company which had ordered her. 1975 also saw the delivery of the first of a class of five cruise ships ordered from a Finnish yard; the *Morflot* now taking a good



The Soviet passenger ship, *FEDOR SHALYAPIN*, built as the Cunard liner *IVERNIA* in 1955, re-named *FRANCONIA* in 1962, and sold to the USSR in 1973.

— by courtesy John Mortimer

share of the lucrative world cruising trade as a source of foreign currency. This is possibly the first time for some years that the larger vessels have been run on a profitable basis.

But now a trade war of sorts is developing between the Soviets and the traditional shipping lines, and the latter are screaming 'un-fair'. We have already seen one example of the Soviets forcing a shipping line out of Australia — Chandris Lines have ceased operation here as a direct result of Soviet undercutting.

So, what is happening on the world trade routes?

In the heart of Siberia, across thousands of miles of forest and permafrost, the Soviets are laying new railroad tracks. It's the Baikal—Amur Railway. It will go from the Pacific Coast (north of Lake Baikal and join up with the Trans-Siberian Railroad. Containers will be shipped to Nahodka on the Pacific coast; loaded onto high-speed intercontinental goods trains, and then taken across the new stretch of the Trans-Siberian to join up with the established main line, and thence all the way to the Baltic. From there, they will be trans-shipped to wherever they are supposed to go in Europe. This will, of course, have an absolutely devastating effect on the European—Oriental shipping runs.

At the moment, it takes about six weeks to ship cargo around the Cape, or about five weeks through the politically unstable Suez Canal. Doing the journey by rail would cut the time down by about three weeks, and it would be much cheaper. Of course, this is a long time into the future, but for this very lucrative North Pacific and Far East-Asian trade, the battle-lines are being drawn up.

The Soviets are constructing new harbours for new ships together with the most modern port facilities. They are building ice-breakers to keep these ports open all the year round, and even new ice-breaking and container ships. In 1978, the Soviets claimed to have clocked up a record: they transferred containers from ship to rail in only 90 seconds each. On the Baltic and Pacific coasts, the Soviets are building some of the largest container terminals in the world, and they are building the ships that will match and supply them. At Vostochny in Northern Siberia, they are building (with Japanese technical help) another huge container terminal.

Whatever terms one uses to describe these startling developments, the figures speak for themselves. The Soviet Union now has the sixth largest Merchant Navy in the world. Twenty years ago, it had only 26th place. By this year, 5,000,000 tons dwt will be added to that fleet. That's 55 ships, and that should bring them up to somewhere around



HMAS MELBOURNE viewed from the bridge of the ORSHA during 1976. The question may be asked whether an Australian National Line ship would have a similar berth in Leningrad.

— by courtesy of the author

20,000,000 dwt, and that's a considerable fleet in anyone's language. At the moment they have the largest conventional cargo liner fleet in the world, but they are building additional fast Ro-Ro container vessels and bulk oil carriers as quickly as possible. Just suffice to say that of all the ships that are building at present in the world, over 20% are destined to sail under the Hammer and Sickle.

The Soviet shipping rates have set 'the cat amongst the pigeons' in the Pacific, and that's one of the areas where it affects Australia. With crews paid the equivalent of only 30 dollars a week, and with low overheads, they are supposed to be undercutting established shipping lines by 15 and 20%. There are even reports of 40 and even 70% reductions in tariffs. Overall, the Soviets now haul about 12% of world liner cargoes. But that vastly understates their impact. Avoiding as far as possible heavy, low-profit commodities on the world scene, Soviet masters and their agents batten on such lucrative freight as cameras, small high-quality machinery and electronic components. In other words the small volume,



The general cargo vessel PRAVDINSK, 10954 g.r.t., built in East Germany in 1974, leaving Sydney Harbour June 1980.

— by courtesy John Mortimer

high value cargoes. State-owned, financed and operated by a system that permits no large-scale internal competition, and fuelled from State-owned oil reserves and refineries at prices which are approximately 30% of world prices, Soviet masters are often able to break into new routes using operating methods which would most likely prove to be ruinous to Western shipping firms. For example, individual Soviet vessels will operate and leave harbour only half-full as often as they can, thereby using saturation tactics to 'swamp-out' competition from as many shipping lines and nations as they can manage.

Why have the Soviets become such cut-throat capitalists? Aside from gaining precious foreign exchange, Moscow's merchant fleet bolsters the Soviet Unions prestige by showing the Hammer and Sickle in as many farflung ports as possible. The last time the Western world saw much rapacious competition potential was in the 'bad old days' of the 1890s in the United States of America when unbridled commercial greed created the vast railroad and shipping empires owned by such moguls as the Astors, the Vanderbilts and J.P. Morgan himself.

So far, the Soviet Merchant Fleet operates on an 'intrude and conciliate' strategy. Soviet negotiators claim they simply want to join — not wreck — the established shipping conferences. When pressed, as they were in 1977, by a proposed U.S. law aimed at limiting third-

flag shipping, the Soviets were conveniently quick to reach a deal with the conferences; but the shipping conferences have been putting pressure on Western governments around the world to create legislation designed to keep the Soviets in check.

With unemployment high throughout the West, and with many shipyards overseas idle and some trade stagnating, the Soviet threat is ominous. In August 1977, West Germany, Holland and Belgium delivered private messages of protest to the Soviet Union. British officials met Soviet counterparts separately; but on a Black Sea cruise ship. However, as one trade agreement after another lurches towards a signed but shaky compromise, Moscow shows few signs of letting up on its long-range goal of carving out for itself a disproportionate share of the world's commercial shipping. October 3 last year saw the formal acceptance of the Black Sea Shipping Company as a full member of the India-Pakistan-Bangladesh Conference which controls the trade between the region and the U.K. and Continent. The 22 existing members of the Conference are re-assigning a proportion of their share of the trade to the USSR.

Australia herself has contributed to Soviet as well as flag-of-convenience carriers with her fantastically high seaman salaries combined with multi-month vacation time. A stark contrast with the Soviet seaman's \$30 approximate per week.

Bear in mind that the Soviet Union does not have a Merchant Marine structured, organised and directed by the free-wheeling Western understanding of the term. The Soviets possess the most modern, fastest-growing Navy in the world. The Soviet High Command looks upon all units of the Merchant Fleet, both passenger and cargo, as indispensable unit extensions of the Navy. I have colour photographs which clearly show otherwise ordinary Soviet cargo vessels in merchant livery replenishing major naval units on the high seas. Only in the last couple of years, the *Fedor Shalyapin* was involved in a mid-ocean nocturnal contact with a submarine whilst a cruise was in progress. I personally witnessed, through a telescope, the surfacing and subsequent submergence of a 'Whisky Long Bin' class submarine about fifteen miles off Collaroy beach eight years ago. Operation *Okean* in 1976 (and its successors) was designed to demonstrate the operational and replenishment world-wide capabilities of the entire Soviet marine structure.

Even whilst acknowledging the obvious massive intrusions of international airline operations, one cannot help but notice the almost total disappearance from Australia of

passenger *line* operations in any capacity. The identity of the principal cruising operator in this part of the world was hardly a mystery: until its operator invaded Afghanistan, that is. Now their passenger vessels are forbidden the use of Australian ports until further notice.

The traditional Western way lies in equal trading opportunities for all with corporate behaviour governed by more-or-less mutually agreed upon legislation. If we continue to allow our shipping operations to wither through lack of judiciously-conceived and quickly-applied legislation, then our ships will rapidly become useless in themselves and we will be unable to purchase their replacements through lack of trade-earned moneys. Even now we are unable to economically build replacements, and our skilled shipbuilding talents are dispersing. Our active merchant fleet is a shadow of its former self, and we could be in real trouble in a future conflict as a result. If the west is either unable or unwilling, through the apathy engendered through 35 years of questionable 'peace' to control or contain Soviet mercantile expansion, then we will be gambling with our long-term national security. And when gambling, it's not nice to know that the Soviets, with their record, provide the only game in town.



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AN APPROPRIATE MARITIME STRATEGY FOR AUSTRALIA POST 1980

By
Major N.A. Bowman

Introduction

Determining a maritime strategy for Australia is essentially a problem of perspective and balance. It is a problem of balance because it requires the coordination of interests and national power; the ends and the means. But it is also a problem of perspective because neither interests nor power have absolute measurements. Both are complex mixtures of objective factors and highly generalized abstractions. Nevertheless strategic doctrine must not become something theoretical. A wrong strategic doctrine can lead to disaster while in the absence of strategy a nation's decision making processes becomes costly and incohesive.

The purpose of this paper is to question national strategy. It does not seek to find simple answers to complex problems.

Taking the advice of the great naval theorist, Sir Julian Corbett, I have not attempted to treat maritime strategy as a separate subject. I have first tried to obtain a direction from a brief examination of strategic theory. This theory suggests that since war is a continuation of policy by other means, the determination of a strategy must start with the aims of policy. I have then attempted to examine the maritime requirements of that policy.

The Meaning of Strategy

Because its implications are so broad, the term 'strategy' needs continual definition. Prior to the period of Napoleonic warfare it existed primarily as an operational concept referring to the maintenance and employment of armed forces. Strategy was defined narrowly as 'the art of the general' because the battlefield, the environment of strategy, was limited in its parameters of time and space. However, the French and Industrial Revolutions represented the political and technological dimensions of a social upheaval which led to fundamental changes in both the conduct and meaning of war. Industrialization meant that the resources available to the state to wage war increased dramatically. As a result success in war came to depend on the economic strength to create, move and maintain large forces. Moreover the vastness of the resources required for war and the increasing popular participation in government made power a function of national will as well as capabilities.

These changes had important implications for the meaning of strategy. War was no longer an independent phenomenon of military force but a social development and political instrument. Clausewitz was one of the first thinkers on strategy to recognize the broader implications of strategy. He described strategy as a trinity composed of political motivation, operational activity and social participation. However, Clausewitz's most important contribution was in establishing the fundamental importance of the relationship between war and politics in his famous dictum: 'War is not merely a political act, but also ... a continuation of policy by other means'. He defined strategy as 'the art of the employment of battles as a means to gain the object of war'.

Unfortunately the true implications of Clausewitz's philosophy of war were not recognized. Misled by Clausewitz's tendency to the extreme, his disciples accepted the destruction of the enemy's armed forces in battle as the proper objective of strategy. In the First World War the consequences of this misconception were disastrous. The military considerations affecting the actual application of force completely dominated political objectives and as a result the outcome was marked mainly by the disparity between the end sought, the price paid and the results obtained. Even in the Second World War, allied strategy was characterized more by the practical application of technology to operational and industrial problems than by the successful attainment of policy objectives.

The problem was that while the importance of political, economic and social forces as components of national power were recognized, these

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were seen as the means of developing greater military force to be applied in battle. Once battle came to be accepted as the only means to a strategic end, it was an easy step to confuse the means with the end and to reach the conclusion that in war every other consideration should be subordinated to the aim of fighting a decisive battle. The distinction between the national objective, the purpose of policy, and the military aim had been lost. Attaining a military aim is in itself valueless unless it assists in gaining the objective of national policy. The true concern of strategy is the effect of the application of power.

It is now possible to form a conceptual understanding of strategy as the direction of power in different planes, with national strategy as the direction of all elements of national power, military strategy as the direction of military force and tactics as the immediate employment of military forces in combat. The focus or centre of gravity of these planes is provided by the perception of national interest. This perception is expressed in the different dimensions as a national policy objective, a military aim and a tactical mission. The actual shape of these planes is determined by national policies.

Having established this hierarchical relationship between national and military strategy, it might be concluded that the problems of military strategy can be solved deductively. In this approach once fundamental national interests are articulated into national security objectives and the constraints of policy are established, determining a military strategy is essentially a technical problem of applying the available means to the desired end. However, in practice this is rarely true despite the apparent logic of this approach and its attraction to the military professional.

The problem is that abstract national interests are difficult to translate into achievable objectives. Both objectives and policies may be broadly defined and are liable to sudden change according to circumstances. The formulation and execution of policy are rarely distinct processes. Instead policy is dominated by the play of events as they are perceived and interpreted by the interest groups in power. Thus, it is misleading to think of strategy as a fixed plan for the application of given resources to a particular end. Rather, it is the creation of the flexibility to be able to react to likely circumstances in a way which allows a nation to influence, and ideally control, events in its favour. As defined by Eccles, strategy is the comprehensive direction of power to control situations and areas in order to attain objectives. But, in addition, there is a psychological dimension to strategy. It also provides a perspective for decision making. By defining likely dangers and how to deal with them, by projecting feasible goals and methods of attaining them, strategy furnishes a basis for action.

An Approach to Australian National Strategy

Having examined the meaning of strategy, it is necessary to determine an appropriate strategy for Australia, highlighting the place of maritime strategy. As seen, the aim of strategic doctrine must be to maximize the control a nation can exercise in its international relations. However, because Australia's interests are, in varying degrees, global and its resources are finite, our aim in practice must be modified. What we desire is a strategy which balances ends and means in a way which provides the best opportunity of influencing those situations which are most important from the point of view of national interests.

'Important' situations may be defined in two ways. Either as those likely to threaten our vital interests or as those situations affecting our interests which are most likely to occur. Our strategy must be able to react to both sets of circumstances. If a strategy does not protect vital interests, its value may well be questioned. Equally, a strategy is likely to disintegrate and be discarded if it does not have the flexibility to deal with likely contingencies.

The basis of a sound strategy must be a clear identification of national interests. However, I have pointed out that it is more difficult in reality than in theory to convert interests into specific objectives. This is particularly true in Australia at present. It is frequently argued that Australia does not currently have either stated national objectives or a clear national strategy. In part this is due to an absence of a credible short term threat to Australia. The way in which a nation defines its interests into objectives is closely related to its perceptions of external threats. At times when there is scepticism about the realities of threats, there is equal uncertainty about the nature of objectives. This difficulty in deriving clear objectives may also be attributed to the paucity of informed debate on defence and the increasing difficulty of obtaining consensus in Australian society on many issues of national importance.

Notwithstanding the above discussion, much of the current pessimism about the lack of objectives is unwarranted because it is based on misconceptions concerning the detail in which objectives need to be, or are able to be, stated in Australia's current circumstances. The purpose of current defence objectives is two fold; to provide broad options for decision makers and to make assessments on the requirements for certain defence capabilities and infrastructure. At times when threats are difficult to identify, objectives are more likely to be generalized and closer to the expression of national interests. It is only when threats are clearly identifiable that objectives will be specific. In summary, it may be concluded that at present a broad statement and explanation of interests is as close as we can come to the formulation of objectives.

There are strong reasons, therefore, for suggesting that at present, objectives are less necessary for determining a national strategy than is sometimes suggested. A more valid approach to deriving a military strategy is to identify national interests concerning security and how these interests might be threatened, to examine the factors likely to affect the form and extent of Australia's reaction and finally establish the appropriate national defence strategy. Maritime strategy will be an element of national strategy.

A Definition of Australian Interests

While Australia has a broad range of peripheral interests, only two are so important as to be regarded as vital interests. The foremost of these is the protection of the nation from attack and from the threat of attack, a hostile infringement of national sovereignty including Australian territory, territorial or exclusive economic zones. Such an attack may involve varying levels of force. At the lowest level it may be the application of limited force against carefully selected objectives to disrupt normal activity or cause physical damage. These attacks could be aimed at provoking such a disproportionate response that an Australian government, possibly under the pressure of public opinion, would make concessions in the favour of the aggressor. At a higher level, force could be applied by conventional armed forces. Such attacks could also be coercive in terms of influencing Australian policy or may be directed at the control of a particular Australian resource. The highest level of threat would be the use of massive force to the extent that our continued existence as a nation state is endangered. Such an eventuality would require the application of massive offensive power in the context of an irreconcilable clash of national interests and a widescale breakdown in international relations.

A complementary interest is to protect Australia from the threat of some military, political or economic action that would adversely affect national sovereignty, the exercise of fundamental rights or national and international prosperity. This form of threat is closely aligned to the actual employment of force. In many cases, force is applied at one level to increase the coercive effect of the threat of greater force. For practical purposes, protection from actual use of force and the threat of force should be regarded as a single problem.

Australian interests regarding security may be stated from a general consideration of how such threats outlined above may be countered. The first response would be diplomatic. Australia should seek to influence international relations in such a way that reduces the possibility of international disputes developing into conflicts. One means of achieving this aim is to support inter-

national and regional bodies such as the United Nations and ASEAN which provide a mechanism for resolving or at least limiting disputes. This support would be in concert with normal bilateral diplomacy.

Alternatively, Australia may seek to control the development of a threat by use of armed force. Within this option there are several possibilities. The most attractive is to maintain sufficient armed forces so that no potential aggressor could hope to be successful in an armed attack. That is, an attack would be deterred by the clear ability of Australian forces to respond successfully. Finally, there is the option of using force to resist an attack. While this option is the least attractive because of its costs, human and economic, the credibility of an armed response must be the foundation of all other alternatives.

Thus Australian security interests may be defined as:

- To actively support international and regional bodies as effective organs for the resolution of conflicts.
- To deter armed attack on Australian national territory.
- To react successfully in the event of an armed attack.

The second of Australia's basic interests is the maintenance of the economic well-being of the population. While it is beyond the scope of this paper to discuss domestic economic policies, it is necessary to consider the international context of Australian prosperity. The most obvious factor is international trade currently valued at over \$23 billion per year. While this trade is not critical to our survival in the sense that energy imports are to Japan and some EEC member states, the continuation of this trade in general is necessary for our present standards of living.

In addition, continued access to particular products such as heavy oils and key manufactured goods is essential for the economy to continue to function at an adequate level of production. It has also been argued most strongly that Australia's economic future will depend heavily on the nation's ability to increase its international trade. The essential supports of trade are the strength of the domestic economy, the strength of the Australian currency, access to overseas investment, access to markets, and the general economic stability of the world economy. There are a number of ways in which trade could be threatened; by disrupting the internal economy, by denying Australia access to key imports or by disrupting the transportation of Australian goods.

Our national security interests in relation to trade may be expressed as:

- To protect key areas of industry from disruption.

- To promote measures supporting international economic stability and the removal of barriers to trade.
- To ensure uninhibited passage of shipping carrying Australian trade.

The Determinants of a National Strategy

Any proposal for a national defence strategy must take into account those permanent and long term factors which have national policies. As seen, Australian's fundamental interests are largely fixed. Equally, there are a number of factors which limit the freedom of manoeuvre of Australian governments in formulating policies to further these interests. For convenience these factors may be grouped under the broad headings of internal and external factors.

A primary and obvious determinant is geography. Briefly, the dominating considerations from geography are that this country is an island continent, wealthy in natural resources and isolated from her natural friends and allies but close to a region of present and potential instability. The areas of important resources in the north and north west are separated by a broad inhospitable hinterland from the major concentrations of population and industry. The most superficial glance at this geography leads to the observations that the north and west of the country are the most vulnerable areas to attack and that in these regions the distance from support areas, lack of local infrastructure and poor communications would severely inhibit an Australian response. Moreover, geography indicates that not only would a military force be required to use the sea for its initial lodgement but also that the continued use of the sea would be essential for the maintenance of a force of any size on Australian territory. Further, control of the sea would be important for subsequent operations which would be required to leapfrog along, or at least hug, the coast.

It is also clear that geography requires that Australian be able to use the sea. If Australia is to maintain its access to important raw materials, to sources of military material and come to assistance of friendly powers, then it must use the sea. Even Australia's internal trade is heavily dependent upon shipping. It is because Australian governments have in varying degrees always recognized that Australian defence must be essentially a problem of controlling the sea that alliance with a major naval power has always been a key feature of national policy.

Since strategy concerns the application of national power, the nature and extent of a nation's power must influence its strategy. If a country has much greater power than any possible rival, it has the freedom to act aggressively or react extremely passively according to its perception of its interests. Where, however, the power of a country is limited it must choose its policies carefully to gain

maximum benefit from limited resources. It is evident that in Australia's case, we do not have the economic or human resources to be a major power. Nevertheless, this does not mean we are defenceless. Rather, we have sufficient national wealth and industrial capacity to maintain an effective defence force for most foreseeable eventualities provided our resources are carefully allocated.

The aim is to find a strategy that is suited to fulfil our inherently limited objectives in the most economic way. At first glance, it might seem that a purely defensive strategy is the most economic method; but this implies strategic defence which historical experience has shown to be a dangerously brittle method on which to rely. Economy of force and deterrence are best achieved by retaining the mobility and force for quick offensive action.

A more intangible determinant of defence strategy is the attitude of Australians to defence. From its beginning, Australian society has had a preoccupation with the threat of external aggression. Since the early nineteenth century the role of the chief menace has been given at various times to France, Czarist Russia, China, Japan, Indonesia and the Soviet Union. However, except for a two short periods, immediately before and after the First World War, this preoccupation has not led to the formulation of a credible defence strategy. Instead the Australian response has been to seek the protection of a major ally and rely upon a general call to arms when danger threatens. There are a number of factors which challenge the credibility of both expectations. Nevertheless views are widely held and the effects are real. The effect of excessive reliance on a major power has been to distort our view of the world into seeing international relations purely in terms of great power rivalry and as a result inhibited Australian governments from devising flexible policies capable of responding to the rapid economic and political changes occurring in the Asian-Pacific region. But in contradiction, the effect of our vague confidence to react as necessary has made the public at large complacent on defence. The danger is likely to be that long term defence planning may be dislocated by alternate periods of government interest or neglect accordingly to current international events and that popular indifference may limit a major military response being initiated to the last possible moment.

In addition to the above internal factors, there are a number of important external influences in determining a strategy. The most important of these are: a nation's attitude to the central balance of power, its attitudes to other powers, its trading patterns, its membership of collective groupings and its conception of the geography of its strategic situation. If any one of these elements

is more important than the others in defining Australia's policy, it is the central importance attached to the global balance of power.

While possessing a number of apparent important differences of emphasis, the policies of both the Whitlam and Fraser governments have been reactions to new trends in US-Soviet relations rather than coherent domestic initiatives. Thus while the American alliance will continue to be of fundamental importance in determining an Australian strategy, the problem for Australia is to ensure that the benefits of this alliance outweigh the costs. Specifically we must ensure that an alliance essentially for the purpose of deterring the highest levels of threat does not become an end in itself and mislead us as to the nature of our true interests.

An Appropriate Military Strategy for Australia

To a considerable extent, Australia's national interests can be supported by a combination of diplomatic and political means. International trade and diplomacy can contribute to national security in a sense that they reduce potential causes of friction. In the final analysis, however, a nation must fall back on its military force to preserve its interests. But, it must always be remembered that the object of war is a better peace. The use of force must be directed at giving a nation the ability to control a situation so as to give a favourable outcome. In doing so there must be a sound calculation and coordination of ends and means. Diplomacy and defence are not alternatives. Military power should be 'unable' in opening initiatives in policy.

The nature of Australia's interests and the determinants of her foreign and defence policies require that Australia's strategy be essentially defensive. In most instances we will be required to wait until threats materialize before taking precautionary action. The problem is how to develop a military strategy which allows Australia to retain the initiative in these circumstances. The solution is that Australia requires two forms of national power. Firstly it requires deterrent power, the ability to influence the behaviour of a potential enemy through the threat of retaliation. Secondly, defensive power, the ability to counter possible enemy action, is required. Clearly there are many common elements between these two forms of power, but they are not the same. The essential difference is that while defensive power depends essentially on military force, deterrent power is a psychological force.

Deterrence power is difficult to measure because it involves an assessment of risks concerning many factors, some of which are extremely subjective. Also deterrence proves itself negatively, that is in the fact that things do not happen. Success can rarely be measured as it is difficult to show why something has not

occurred. Nevertheless deterrence power is valuable because it allows a direct influence to be exerted on the will of an opponent without the risks and costs of war. The first requirement of an effective deterrent posture is that the adversary be made aware of what range of actions is likely to be regarded as unacceptable and what the reaction will be. The clearer, more salient the line a potential aggressor must not cross and the less ambiguous the reaction, the more successful is deterrence likely to be. Establishing this line is a question of a government reaching clear decisions on its vital interests. Communicating a position to a potential aggressor is a function of foreign policy. The second requirement of deterrence is the capability to convince a potential enemy that the costs likely to be incurred from his initiative will outweigh the possible gains. Therefore, deterrence is not a fixed level of force but a measure of a potential enemy's perceptions of costs, gains and values. Australia's deterrent power will depend on both an assessment of the capability of present forces and an assessment of Australian's ability to create larger forces in time to counter more serious threats.

Because Australia is unlikely to maintain large forces in peace, the deterrent power of the Defence Force must rely largely on equipment and technical competence. Equally, planning for expansion must be carefully designed to necessitate a disproportionate response on the part of the aggressor. Finally, the third element in deterrence is credibility. Not only must a potential aggressor be aware of the capability to inflict unacceptable losses, but also of the certainty that this capability would be used.

However, non-nuclear deterrence is fragile since there is considerable room for miscalculation and mistakes. Deterrence must therefore be backed up by defensive power. One requirement of defensive power is that it has depth. That is depth in both planning and capabilities. Australia's strategy must ensure that the force in being is sufficient to undertake likely short term tasks and has the relevant skills and equipment to be capable of timely expansion to meet a developing situation. In addition, our Defence Force must contain the capability to conduct operations in depth. It must possess the ability to engage an enemy in or near his base areas, on the approaches to Australia and ultimately in sustained operations on the Australian continent. It should not be thought that these operations must be purely defensive in nature. The aim of Australian strategy must be to conduct operations aggressively so as to regain the initiative and control over events. The number of missions required means that each Service will require a variety of capabilities often in the same equipment.

Defence in depth also includes operations not directly related to the defence of Australian territory. A vital additional requirement is the need to protect Australia's lines of communications. Expansion in a time of crisis will depend on the ability to ensure the passage of merchant vessels carrying military equipment and strategic raw materials. In addition, Australian strategy should include precautionary operations within the area of Australia's primary concern. The aims of precautionary operations would be to provide military aid and assistance to the governments of neighbouring states. Such assistance could be relatively limited and provided on a bilateral basis. However, the possibility of a larger contribution to an allied force in the region should not be discounted entirely. Nevertheless it should be clearly stated that the structure and development of the Australian Defence Force should be primarily directed to providing those capabilities required for the defence of Australian territory.

In summary Australian strategy should be based upon deterrent and defensive power obtained from:

- a clear statement and communication of Australian vital interests;
- a force in being capable of defeating likely short term threats;
- a core force capable of timely expansion to provide the necessary capabilities to counter longer term threats;
- a strategic strike capability capable of providing a credible deterrence to a regional power;
- the ability to protect essential supply lines;
- the capacity to provide defence assistance to neighbouring states when requested;
- the ability to participate in allied forces within our own area of interest.

The Role of Maritime Strategy

It is now necessary to turn to the particular role of maritime strategy. Maritime strategy concerns exploiting the sea for both economic and military purposes. Mahan was careful to point out that maritime strength does not only consist of naval and air forces used to project power at sea or from the sea, but also bases, seaborne trade and fishing fleets. These additional elements are even more important now than when Mahan wrote. The use of the seas for transport has become more than a source of wealth for in many instances nations depend on trade carried in shipping for the very existence of their national economy. In addition the oceans are now exploited for an infinitely larger range of resources. A basic objective in Australia's maritime strategy must, therefore, relate to the economic exploitation of our territorial waters and exclusive economic zone.

A major economic and military weakness is the present paucity of Australian controlled over-

seas merchant shipping and parallel decline in the Australian shipbuilding industry. Nevertheless there are no easy solutions to these problems. Australian shipping cannot be given an unlimited subsidy at the expense of the economy but equally the existence of some form of shipbuilding capacity and control over at least limited merchant shipping is crucial to a national strategy.

The role of seapower, or the application of force at or from the sea, may be considered under the four basic missions of seapower, deterrence, sea control, naval presence and the projection of power ashore. As has already been argued, Australian military strategy should initially be based upon deterrence. Thus an important role for the maritime forces is to deter hostile intrusion into maritime frontiers. At the simplest level this will require reconnaissance and surveillance activities by aircraft and patrol boats often working in cooperation. But at a higher level it involves having the ability to apply significant military force at sea against the potential enemy. If the approaches to Australia are defended the difficulties of an aggressor in mounting an attack on Australia increase enormously. Such an enemy would be required to acquire the expensive and sophisticated equipment necessary to fight his way to a lodgement area, conduct an opposed amphibious assault and then support a force by sea on the Australian continent in the face of continuing opposition. The deterrent power of maritime forces could be further enhanced should the enemy be faced with a severe interdiction of his own seaborne trade or by the possibility of sudden strikes from the sea against his homeland or base areas. The flexibility and power of modern maritime forces are capable of placing a very high price on attempted aggression.

Assuming, however, that deterrence failed, the primary role of maritime forces would be sea control. Control of the sea may be achieved defensively by denying the enemy the use of the sea or offensively by using the sea for one's own purposes. In the former instance, maritime forces would be required to conduct the type of operation described above. This requires operations based on causing such losses to the aggressor that he cannot use his maritime forces in key areas such as the approaches to possible lodgement areas. Alternatively, there will be occasions when our use of the sea will be vital such as in operations in support of ground forces and the protection of convoys. In such instances Australian maritime forces must be capable of defeating all forms of attack that the enemy is capable of mounting. To some extent this division is artificial since forces deployed for sea control will also deny an area to an enemy. Sea control is a concept which can be applied only in actual conflict; until that time forces can only demonstrate their determination and potential for sea control.

In periods short of conflict maritime forces may be used as an extension of foreign policy. In some circumstances the aim may be related to deterrence and in others at reassuring allies and neighbours of Australian support. In an era of increased constraints on the overt use of force, the naval pressure mission has assumed considerable importance.

The projection of force ashore may take many forms. Firstly the conclusions drawn from a review of Australian geography suggests that the Defence Forces will require a high degree of strategic and tactical mobility in conducting operations on the Australian continent. The ability to move and maintain army elements from the sea would be a valuable capability. In addition, there are many islands included in Australian offshore possessions requiring an amphibious capability respond to requests for assistance from neighbouring states. In fact an amphibious capability is in all probability essential for such support. A special use of an amphibious capability is in sea-borne raids by special forces. Such operations would be a valuable element in deterrence and in the strategic strike operations. Finally, naval projection of force ashore would be required to provide supporting fire to army operations.

Capabilities Required

The determination of the specific capabilities required for Australian maritime forces is an extremely complex task beyond the scope of this paper. However an attempt will be made to outline some of the more critical capabilities considered to be essential to fulfilling the maritime element of Australian military strategy. It should be noted that because of the complexity and acquisition time associated with its equipment, the Navy's present structure must be more closely related to long term objectives than the other two Services.

The primary capability required by the maritime forces is the ability to detect, identify, and sink, enemy shipping on the approaches to Australia. We should, therefore, possess a range of anti shipping weapon systems carried in airborne, surface and sub-surface platforms. A combination of systems is required to provide an overlapping range of capabilities and to complicate the enemy's defence. The most effective combination available to Australia at present is the sub-surface to surface missile and torpedo armed submarine. The long range, weapon capacity, and survivability make this an essential weapon system for Australia. Additional combinations which Australia should possess are the long range maritime reconnaissance and strike aircraft and destroyer size warship armed with stand-off anti-ship missiles. The distances involved in operating in the Australian environment indicate that a destroyer size vessel is required to possess adequate endurance and sea-keeping ability. However, because these vessels are expensive and the num-

ber we can afford is limited, they should be supplemented by a larger number of patrol craft. Additional capabilities required are minewarfare vessels and an airborne early warning aircraft.

The second major role required of maritime forces is to control selected areas of the sea for use by Australian allied vessels. In this instance what is required is the ability to form a force capable of providing collectively anti-air, anti-surface and anti-submarine capabilities. Thus the platforms required will be essentially the same as determined for sea denial. The equipment may be required to have several capabilities. For example, a large destroyer might have weapon systems capable of defence against all three types of threat. It is likely, however, that ships and aircraft optimized for one role will work in company with other units providing supporting characteristics. In considering this topic a key question is the need for carrier aircraft. There is no doubt that this capability is expensive and that a carrier is liable to damage or destruction, but equally a carrier provides great flexibility and significant increase in defensive capabilities. It would be a major loss should it no longer be possible to maintain a carrier.

A third role required by maritime forces is amphibious warfare. This role would require those capabilities indicated as necessary for sea assertion plus special amphibious warfare ships. This capability would give the Defence force additional capacity for strategic and tactical movement on Australian Territory and also provide the government with the flexibility to undertake military assistance operations in our region.

Conclusion

This paper has not sought to answer the many questions concerning force structure which arise out of a consideration of maritime strategy. Rather it has sought to provide an understanding of how to approach the subject. It has been argued that in Australia's circumstances, strategy cannot be taken to mean the determination of a set solution to a particular problem. Moreover, strategy is concerned not with the destruction of an enemy's armed forces as an end in itself.

The paper has argued that strategy involves the use of national power to give a nation the flexibility to control or influence the outcome of events in favour of its national interests. As such it exists in two dimensions. Strategy concerns both the creation of the physical elements of power and also the establishment of a psychological framework for decision making to provide an insight into the relationship between events and interests.

Australian interests and policies require that Australian national strategy be essentially defensive in nature. However, Australia does not possess sufficient national power to permit her to

passively allow threats to arise before taking action in her defence. Australian national strategy should seek to resolve this apparent ambiguity by in the first instance having sufficient deterrent power to influence the behaviour of a potential enemy. Should deterrence fail Australian strategy should be based on possessing the defensive power, both actual and potential, to counter enemy initiatives and regain control of events. Maritime strategy has an important role in creating both forms of national power.

In peace seapower is a highly visible means of demonstrating the capabilities of a nation's armed forces and the national determination to vigorously defend its interests. Further, strong Australian maritime forces support deterrence in that they add significantly to the difficulties of a potential aggressor seeking to establish a military force on Australian territory.

In war, seapower is a significant element in providing the capability to conduct defensive operations in depth. Maritime strategy must also give Australia the capacity to control selected precautionary operations in the region. In the final analysis, a maritime strategy must give a government the capacity to influence events rather than allowing a nation's future to become a reed in the wind of changing fortunes.

NOTES

1. 'Strategy depends for success, first and foremost, on a round calculation and coordination of the end and the means'. Liddell Hart, B.H. *The Strategy of the Indirect Approach*, London, 1952, page 336.
2. Much energy can be expended trying to reconcile perception with reality. See McCarthy J.M. *Australia and Imperial Defence*, St. Lucia, 1976.
3. Corbett, J.S. *Some Principles of Maritime Strategy*, London, 1972, p.8.
4. Michael Howard argues that the era of decisive battle in the sense of decisive victory and defeat was really limited to the 200 years between Gustavus Adolphus and Moltke. Before that time nations did not have the resources to win a decisive victory but by the start of the twentieth century national resources were too vast to make decisive victory in a single battle possible. Howard, M. 'The Demand for Military History', *Australian Army Journal*, July 1970, pages 36-77.
5. In place of the old rules and constraints, 'modern' war tended to free itself of limitations. Modern war was nourished by nationalism and ideological conviction, it became equipped with the products of the industrial revolution, and it was manned by the system of universal conscription. With the Napoleonic era warfare became a clash between whole peoples for their political and physical independence, see Booth, K. 'The Evolution of Strategic Thinking', in Baylis, J. (ed) *Contemporary Strategy: Theories and Policies*, London, 1975, page 23.
6. Howard, M. 'The Forgotten Dimensions of Strategy', page 982.
7. Von Clausewitz, C. *On War*, London, 1940.
8. Clausewitz was aware that his 'Absolute War' was an abstract idea of war as an act of violence carried to an extreme conclusion. In practice he recognized that in 'Real War' the energy exhibited would always be modified by the value of the object.
9. Booth, op. cit., pp.37-8.
10. Liddell Hart, B.H. *The Strategy of the Indirect Approach*, p333.

11. Liddell Hart, *The Objective in War*, page 31.
12. 'As tactics is the application of strategy on a lower plane, so strategy is an application on a lower plane of grand strategy'. While practically synonymous with the policy which guides the conduct of war, as distinct from the more fundamental policy which should govern its object, the term 'grand strategy' serves to bring out the sense of policy in execution. For the role of grand strategy — higher strategy — is to coordinate and direct all the resources of a nation, or band of nations, towards the attainment of the political object of the war — the goal defined by fundamental policy. Liddell Hart, *The Strategy of the Indirect Approach*, p.335-6.
13. The usual deductive approach to strategy is that national security interests, objectives, policies and commitments constitute 'ends' or guidance for achieving them. The means are all the elements of national power. Strategy is regarded as matching the two within the rules established by policy. See, Collins, J.M. *Grand Strategy: Principles and Practices*, Annapolis, 1973, pp 1-7.
14. The attraction to the Anglo-Saxon military professional is two fold. Firstly, while it re-affirms the primary of political control of the military, it seems to promise the insulations from the intrusion of politics into the actual military decision making process. Secondly it has a sociological attraction in fitting into the hierarchical perspective of military thinking.
15. Eccles, H.E., 'Suez, 1956: Some Military Lessons', in *War, Strategy and Maritime Policy*, page 242.
16. Eccles, H.E. *The Basic Elements of Strategy*, in *ibid*, page 75.
17. Kissinger, H., 'American Strategic Doctrine and Diplomacy' in Howard, M. (ed.), *The Theory and Practice of War*, London, 1965, p.276.
18. For example, Mediansky, F.A. (ed) *The Military and Australia's Defence*, 1979, page 33.
19. Gaddis, J.L. 'The Cold War: Some Lessons for Policy Makers', in *War, Strategy and Maritime Power*, page 256.
20. Renouf, A. *The Frightened Country*, Melbourne, 1979, page 1. Collins, op. cit., page 1.
21. This should also be taken to include the threat of internal aggression.
22. I am referring to incursions involving the use or threat of the use of force and not incidents such as fisheries poaching or customs evasion.
23. Millar, T.B. *Australia's National Objectives*, Lecture to Joint Services Staff College, 26 September 1979.
24. For example, an overflight by military aircraft or small scale raid may be used to indicate an ability to escalate a situation and to demonstrate the impotence of an adversary.
25. Renouf, op. cit., page 1.
26. Commonwealth of Australia, 1979 Yearbook.
27. Kasper, W. (et al) *Australia at the Crossroads: Our Choices to the Year 2000*, Sydney, 1980.
28. Liddell Hart, *The Strategy of the Indirect Approach*, page 368.
29. Since the announcement of the Guam doctrine in 1969, Australians have been becoming increasingly aware of physical limits to American power and the domestic constraints on its use. In addition, while in 1914 and 1939, Australia did "muddle through" the difference between the situations are rarely examined in the public forum.
30. Patience, A. and Head, B. *From Whitlam to Fraser: Reform and Reaction in Australian Politics*, Melbourne, 1979, page 28.
31. Bell, C. *The Diplomacy of Detente: The Kissinger Era*, London, 1977, pages 184-200.
32. Kissinger, op. cit., page 275.
33. Williams, P. 'Deterrence', in *Contemporary Strategy*, pages 71-2.
34. See Ball, D. and Langtry, J.O. Development of Australia's Defence Force Structure — An Alternative Approach, *Pacific Defence Reporter*, September 1979, pages 7-16.
35. At 30 June 1977, there were only 20 Australian owned overseas trading vessels of 908,193 tonnes deadweight. Transportation costs for imports for 1976-77 were \$1,218 million.

THE FISHERY PROTECTION SQUADRON OF THE ROYAL NAVY

by Sub-Lieutenant J.V.P. Goldrick RAN

Introduction

The Fishery Protection Squadron of the Royal Navy is one of the oldest constituted units of HM Fleet. The RN has been involved in fishery protection since the despatch of a 'Wafting Ship' in 1586 to the North Sea for the herring season, and armed ships were operating under local jurisdiction for two hundred years before that date.

Full time fishery protection operations began in 1891 with a single gunboat and have grown steadily over the years to require the present 15 operational units, which are divided into the Offshore and Coastal, or Inshore Divisions. The former consists of the seven modern *ISLAND* class Offshore Patrol Vessels (OPVs), while the latter includes eight of the elderly *TON* class MCMVs.

Duties

The tasks of the Fishery Protection Squadron are defined as follows:

- To enforce National Fishery Laws.
- To enforce International Regulations relevant to fishing in UK waters.
- To prevent fishery incidents, whether illegal or merely ill mannered.
- To investigate and, if necessary, adjudicate fishery disputes.
- To assist distressed fishing vessels.
- To locate and identify foreign fishing vessels within the UK Exclusive Economic Zone.
- Boardings and provision of detailed information on fishery matters by inspection.
- To provide platforms if requested by the concerned civilian Ministry for authorised members of the Sea Fisheries Committee to enforce by-laws.

In addition, the Squadron has more recent tasks assigned it, first in the matter of dealing with pollution at sea, by dispersing oil slicks or otherwise dealing with them, and, second, to provide a deterrent presence and surveillance of gas and oil installations with the capability of rapid response to any emergencies which may occur.

Government

The higher administrative organization is somewhat complex. The Ministry of Defence, in operating the FPS, is involved primarily with three other Departments. The first two are the Ministry of Agriculture, Fisheries and Food (MAFF), which has responsibility in England, Wales and Northern Ireland for the establishment and maintenance of appropriate UK, and, where applicable, European Economic Community, rules for fishery protection and conservation, and the Department of Agriculture and Fisheries for Scotland (DAFS), which has the same responsibilities for waters around the latter country.

The third is the Department of Energy, which has policy responsibility for the protection of offshore gas and oil installations. The Ministry of Defence is thus responsible to these Departments for the operation of the FPS to meet their requirements. In return, the three authorities provide from their own budgets a substantial portion of the costs of the FPS — notably in the Offshore Division.

The three Departments also pay for the cost of the frequent RAF Nimrod 'TAPESTRY' flights, which maintain a watch on the oil rigs and provide a most detailed and extensive flow of information concerning the operations of fishing vessels in UK waters.

The fact that much of the FPS' costs are paid for by other sources than the MOD budget is of great significance, for 'he who pays the piper calls the tune'. In fact, co-operation between the Ministries is very good on this

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matter and neither Energy nor MAFF make objection to the occasional use of the FPS for purely naval requirements.

The ships of the FPS are not the only vessels employed on fisheries duties in the UK. Notable in addition are the vessels run by DAFS, which include the two fore-runners of the *ISLAND* class, *JURA* and *WESTRA*. The former actually served a term under the *White Ensign*, but she has now been dismissed and returned to DAFS control. The cost of running the DAFS vessels is far lower than that for the RN's, but, it must be said, so is their efficiency. Constrained by mercantile regulations and routines, they can do neither the number of boardings nor constitute as effective a deterrent as the RN units. On more than one occasion, because the DAFS vessel has been unable to make any threat of force, its instructions have been coolly disregarded by fishing vessels.

Patrol Areas

There are four Offshore Patrol Areas, as displayed in the attached chart of UK waters. Each area has vastly different concerns and problems attached to it. Area 1 is largely the preserve of DAFS and must be considered the most 'low pressure' area, since the majority of fishermen are British and those foreign vessels which do operate there are almost always legal.

Area 2 is of more interest, including as it does the more northerly oil and gas installations. Russian trawlers frequently operate around the boundaries of the EEZ and must be watched to ensure that they do not intrude. *ISLAND* class OPVs are occasionally employed in surveillance duties with Soviet warships transiting to and from the Northern Fleet. French and Norwegian fishing vessels are numerous, many large stern trawlers or long-liners congregating along the 11 fathom line to the north of the Shetlands.

In Area 3, which includes the majority of the North Sea, and the oil and gas fields, many more smaller British vessels operate, as well as ships from practically every North European country. A great deal of time is spent keeping watch on the installations in the area — it is only after a patrol in Area 3 that one begins to comprehend the immensity, and vulnerability, of the British offshore oil and gas production effort. What Britain's position would be without North Sea oil is mercifully difficult to imagine.

Area 4 is the area of greatest activity in surveillance and prosecution of illegal foreign fishing vessels. Political considerations generally determine which countries are to be 'blitzed' and which are not. The Spaniards are

generally the worst offenders, not only for illegal fishing, but for the whole gamut of under-sized nets, immature catch and every other conceivable offence. The generally elderly and rather decrepit Spanish vessels make an interesting contrast to the big and modern French ships. Sympathy with the unfortunate arrested Spaniard can, however, be somewhat modified by the discovery that the owner/skipper is actually an extremely rich man at home!

The various coastal areas, whose domain normally extends to the twelve mile limit, contain very different problems. Up to the twelve mile limit includes waters which are governed by local by-laws and 'Historic Rights'. What these two considerations amount to is a general result that any fishing activity which has been going on for a long time is legal, despite whatever modifying laws may have been introduced. There are certain exceptions to this, notably in the matter of bans on species, such as herring, which are being over-fished, but a case will not be brought to court if a fisherman is doing what he has always done in the waters in which he has always worked.

The body of law and custom in coastal waters is so complicated that it is frequently wise to request the presence of a local fisheries inspector onboard whether or not such a move has been suggested.

Fishery Problems

An area of activity which will be of particular interest, because it demonstrates the folly of employing the Navy on purely **national** fishery duties, is that of salmon patrols. Poaching salmon is a time-honoured, popular and very well organised activity on many parts of the coast. Small and fast boats laying and hauling pre-positioned nets can catch vast quantities of the valuable fish.

Their intelligence and communications are excellent. Even the fastest naval sea boat can rarely come up on them unawares, or even catch them in an outright stern chase. Evidence is difficult to assemble and a prosecution, in the face of intense and skilful defence, almost impossible to secure. Local sympathies are very much on the side of the poachers and it has more than once happened that a naval boat chasing a poacher into harbour has been hissed, abused and even stoned. The local constabulary, it should be remarked, frequently display a suspicious lack of enthusiasm for the entire affair.

The fact is that Navy should not be employed on domestic police duties and becomes extremely unpopular when it has to execute such duties in the long term. The Navy can only work in the fishery protection role if it can be seen to be keeping foreigners well in check.

CHART OF OFFSHORE & COASTAL PATROL AREAS AROUND GREAT BRITAIN (Not to Scale)



Definitions:

- Area 1: 4 degrees West off Northern Scotland, north to the median line with the Faeroes, south to a line joining Mull of Kintyre
- Area 2: 4 degrees East to UK/Norway median line, south to 57 degrees 30' North outside 12 miles
- Area 3: 57 degrees 30' North, south to 52 degrees 30' North, east to UK/Norwegian/Danish/German line outside 12 miles
- Area 4: 52 degrees 30' North, south to the median line UK/France, West to UK/Eire median, East to UK 12 mile limit 5 degrees West

Coastal Areas

- Scottish: 12 mile limit, south to Berwick & Solway Firth
- North Sea: Berwick to 2 degrees West in the Channel, East to 12 mile limit
- English Channel: 2 degrees West to the Scillies and out to the median line to 5 degrees West between UK and France. To the 12 mile limit further West.
- Western: Scottish border to the Scillies, out West to UK/Eire median in the north and out to UK 12 mile limit further south.

British ships do not take kindly to being boarded and inspected when foreign vessels (legal or not) sail blithely by. It is generally politic, even if one is perfectly well aware of the fishing activity in an area, to ask a skipper being examined 'if he has seen any foreign fishing vessels recently'.

Another matter in which the Navy must tread particularly carefully is that of the long standing dispute concerning French trawlers fishing over pots in the vicinity of Selsey Bill on and south coast. The British potters frequently claim that the Frenchmen have trawled over and dragged up their pots, knowing that they are operating in areas closed to trawling by mutual agreement. Feelings run very high — there is some truth in the accusation — but the fact of the matter is that far more often the British fishermen have laid their gear outside the areas allotted for potting and the French have been quite within their rights in trawling up the pots. As might be expected, it requires considerable tact and forbearance on the part of the Captain and crew of a Fishery Protection Ship to deal with the complaints of British fishermen who expect the FPS to sort out 'the Frenchies' right or wrong.

Co-operation between the Ministries is generally very good, save for the fact that DAFS cannot be regarded as a paragon of efficiency. A case in point is the Scottish Law requirement for two 'responsible' witnesses to testify in court to secure a prosecution. DAFS policy has been that the two must be officers, but the FPS has very sensibly and repeatedly

pointed out that a Senior Rating such as the Coxswain should be quite competent to act as the second witness. DAFS had, at the time of writing, agreed in principle on several occasions, but had failed to actually do anything practical.

Another point of concern is the matter of the level within the Ministries at which the decision is taken to prosecute or not to prosecute. On more than one occasion a unit of the FPS has brought in foreign fishing vessels for prosecution on the instruction of MAFF or DAFS only to find that such action has imperilled complex and delicate international regulations. Conversely, orders have been passed to release arrested fishing vessels when it appeared absolutely clear that prosecution was not only desirable but politically essential.

Grenada and Oil Rig Protection

The Fishery Protection Squadron shares responsibility with other RN vessels and Service Commands for two most important duties. The first of these is the patrol in the waters around Northern Ireland against gunrunners. This is demanding work and, at times, very dangerous. TON class MCMVs and smaller craft are usually employed. The Royal Navy has developed, drawing from its experience in Confrontation and in Hong Kong, great skill in dealing with suspicious and possibly armed vessels.

The second task, oil rig protection, falls mainly upon the *ISLAND* class, although *TONS*



The Island Class patrol vessel HMS ORKNEY (920 tonnes standard displacement, 60 m overall, built 1977, one 40 mm gun, speed 16 knots, complement 34).

— by courtesy James Goss

are sometimes used in the southern parts of the North Sea. The major duty is simply maintaining a presence, being seen in the vicinity of oil and gas installations and developing a liaison with the personnel on the rigs themselves. Exchanges are frequent, much helped by the fact that a large number of the personnel on the rigs are ex-Royal Navy.

One major problem concerns the possibility of a violation of the 500 metre safety zones around each rig. Unless injury or major damage can be proved, no warship has any authority to stop or arrest any vessel for violation of the zones outside territorial waters. Thus, a ship can sail within yards of a rig and nothing can, legally, be done about it. In fact, the authority of the White Ensign is such that vessels will stop, accept reproof and the warning that 'the matter will be reported to your authorities...' but erring ships would be quite within their rights if they failed to stop — and the warship would not have any right to resort to force in the event of such disobedience.

The escape for the FPS is that many of the violations are made by fishing vessels and that any failure to heave to and accept a boarding party — whether or not on specific fisheries inspection — can be taken as refusal to obey a British Sea Fisheries Officer and thus an offence for which the skipper is liable to prosecution.

The situation is, however, most unsatisfactory. Legislation has not caught up with practice or, still worse, the problem was not even foreseen when the first regulations were decided. It is clearly essential that the body of law by which patrols are to be operated and installations protected requires quite as much attention as the methods of protection themselves. This situation is also yet another demonstration of the need for naval officers to be fully aware of the minutiae of national and international law at sea.

The *ISLAND* class OPVs participate in frequent exercises with *COMACCHIO* Company, the newly established unit of the Special Boat Service of the Royal Marines which has responsibility for protecting the oil rigs and dealing with any terrorist activity. Co-operation between the Company, the *ISLAND* class and the Fleet Air Arm's commando helicopter squadrons is excellent. The *ISLANDS* possess every facility for the carriage of a platoon of Marines and their gear and aircraft-ship and ship-to-ship transfers can be accomplished with great speed and efficiency. Australia would do well to watch and emulate Britain's system of rig protection, especially in the matter of developing expertise in Commando tactics and communications between the units which would be involved — the latter, it being the exper-

ience, require just as much work as the former. The *ISLANDS* can, by themselves, do nothing active to deal with a terrorist take-over of a rig; in such incidents it is they who support the troops and not the other way about.

Organization

Barring a number of relatively minor problems, the Fishery Protection Squadron must be considered an efficient unit. Support staff and facilities, shared with the Captain, Mine Counter-Measures, are based at Rosyth, centred upon *LOCHINVAR* Block, named in memory of the old base at Port Edgar, across the Firth of Forth.

The greatest criticism which can be expressed concerns the staff, which, if anything, display a loading far too much in favour of purely naval matters and not enough on the fishery side. No officer who has served recently in command in the FPS is on the staff and their actual practical expertise in fishery protection is not such as to be of any service to the ships at sea. Although ships requiring instructions such as whether or not to arrest a fishing vessel request advice from FPS, the latter merely act as a staging post for MAFF or DAFS and do not in fact constitute an essential part of the command chain.

There is some confusion apparent in the training programme for the *ISLAND* class, largely because the latter have no clear war role. The obvious solution is to work the ships up wholly and solely for fishery duties, but against this must be put the requirement to maintain the state of naval training of the ships' personnel. The *TON* class MCMV have, of course, no such problem and frequently exercise themselves in sweeping techniques while on patrol.

The initial training of Commanding and Executive Officers for fishery work is very good indeed. A three week 'fish' course is run by the Ministries concerned and this covers the whole range of fishing methods, fish identification, boarding techniques and legal problems. The standard of knowledge of the graduates is very impressive and their expertise is consolidated by the practice whereby a civilian fisheries inspector accompanies them to sea on their first patrol and qualifies them as British Sea Fisheries Officers. The First Lieutenant is normally the Boarding Officer, accompanied by the Correspondence Officer (CORRO) or Midshipman, if the latter is borne. The *ISLANDS* often aim to have two officers qualified as inspectors in order to be able to conduct double boardings, thereby speeding the inspection task greatly. The average *ISLAND* will conduct in the region of 120 boardings a year, the *TON* class rather less.

The morale of the crews is generally reasonable, despite all the difficulties of the situation. Many of the ratings are Scots or 'Geordies' and have volunteered for the area and the duty. What major problems which do occur seem to be confined to officers. The RN is certainly open to criticism for its policy of posting an officer straight from his OW (Stage III) Course to a *TON* for a billet job as NO or CORRO or to an *ISLAND* as CORRO and keeping him there for 18 months. This is a grave mistake, for although it may do much for an officer's confidence and self-reliance, it robs him of the essential experience of fleet work and big ship routines. Certainly a far better programme would be to have such officers for only 8-9 months in the FPS, sending them on to frigates or destroyers thereafter.

The task is, in the long term, an arduous and monotonous one. Patrols interspersed with maintenance periods provide relatively little light relief and amusement — what would be a delightful routine in, say, the climate of the Barrier Reef, becomes very hard work in the north of Scotland. This problem is fully appreciated by the authorities. Spurred on by the present C-in-C Fleet, Admiral Sir James Eberle, who has declared that the RN should have more 'Fun in the sun', the FPS ships are allowed a 'summer holiday', with a visit to a European port of their choice. In another, associated measure, OPVs now do short maintenance periods in Gibraltar.

A third step has been to reduce the sea-time required from ratings from the standard 27 months before shore posting to 18 months. The workload and routines more than justify this decision and, indeed, the case could be made for the FPS to run on an 18 month (or less) commission per ship with block drafting in the old fashion. The rule supposedly applied to officers is that no one should do more than one winter in the squadron, but it seems that this is more honoured in the breach than the observance.

The Ships

The *ISLAND* class are, on the whole, a great success. They are cheap to buy, economical in manpower and resources, relatively mechanically reliable and very efficient in their duties. There have been some problems in settling down. Because of their size and facilities it has been rather difficult to decide whether they should run as big ships or small ships.

The equipping of the OPVs with the 5.4 metre *SEA RIDER* rigid inflatable has been an enormous success. These boats are so much an improvement over the now time-honoured *GEMINI* as to defy description. The problem in boarding now is only whether the boarding party can get on board the fishing vessel safely. With care, although it is not the usual practice, the boats can be operated in Force 7/8



The Bird Class patrol vessel HMS *PETEREL* (190 tonnes, 37 m overall, built 1977, one 40 mm gun, speed 21 knots complement 24). This class is based on the *SEAL* Class RAF rescue launches with stabilisers and improved sea-keeping qualities.

— by courtesy John Callis

conditions. Force 6 is normally the upper operational limit. One example which indicates the effectiveness of the *SEA RIDER* was the occasion when an OPV was due to act as the victim of a boarding exercise by a Type 42 destroyer. The latter hove over the horizon and signalled that the exercise was cancelled because the weather was too bad for her boats. In reply, the OPV cheerfully sent away a *SEA RIDER* with mail and some Dover Sole 'for the Captain's supper'. Game, set and match to the FPS.

The major problems with the OPVs have been their extreme liveliness in a seaway and their speed. The OPV is quite big enough to face any weather, but, like the *FLOWER* class corvettes of World War II, moves so much in oceanic conditions that the crew become worn out. The roll has been damped by fitting deepened bilge keels in the first five of the class and rather erratic stabilisers in *ALDERNEY* and *ANGLESEY*, but all pitch very badly in a head sea.

The OPVs have only a 16½-17 knot maximum speed. When dealing with large and fast fishing vessels, this is an inadequate margin of superiority and can result in some very long stern chases.

The *TON* class MCMV, for their part, do a sterling job but are becoming increasingly decrepit. There are exceptions — *CUXTON*, for example, recently commissioned after 22 years spent in reserve — but most leak abominably, are cramped and uncomfortable, subject to frequent breakdowns and will naturally roll on wet grass. They are practically incapable of operations in Force 6 or over — and veterans of operations around the British Isles will realise just what a limitation this constitutes.

The solution appears to be to consider the *ISLANDS* as replacements for the *TONS*. Attempts were made to employ *KINGFISHER* class patrol boats, and these still work around North Ireland, but they have proved to be even more cranky than our own *ATTACKS*. The *ISLANDS* carry only one more man than the *TONS*, they are very cheap and very roomy. Their great draft does restrict them somewhat in coastal operations, but the flexibility of the *SEA RIDERS* more than compensates. They can also be employed in the Offshore Patrol Areas, which the *TONS* cannot.

Two *CASTLE* class OPVs Mk II are presently under construction in Hall Russell Ltd, of Aberdeen. With greater length than the *ISLANDS*, a speed of 20 knots and a helicopter flight deck, they and additional members of the class should prove to be an admirable supplement to the *ISLANDS*, replacing them in the more exposed patrol areas. Thus, we could expect a

squadron of five *CASTLE* class OPVs Mark II, in addition to nine *ISLAND* class OPVs Mark I.

There is another line of development, which began with the recently paid-off *TENACITY* and is continuing with the operational evaluation of the surface effect ship *SPEEDY*. *TENACITY*, plagued by engineering problems and structural weaknesses, was never a success. The hope is that the jet-foil *SPEEDY* will provide a 'sprint' capability; remaining in harbour until she has precise information concerning a fishing violation she will then proceed at 55 knots to the scene of action.

There is certainly a lot to be said for this idea, but it is so much more expensive to purchase and operate a *SPEEDY* than an *ISLAND* that it is unlikely, unless the trials with *SPEEDY* are unusually successful, that the cost can be countenanced.

This matter of the cost of units and the level of technology which can be employed is one of great importance. Because DAFS, MAFF and the Ministry of Energy pay a proportion of the costs they are very keen to ensure value for money and will resist attempts to introduce ships or systems which they do not perceive to be cost-effective for the duties in which they are to be employed.

Such thinking brought about the introduction of the *ISLAND* class despite all the protests over their lack of armament and mercantile design. It was fully justified by the results. Similarly, the Ministries resisted the proposed introduction of the OTO MELARA 76 mm gun with the *CASTLE* class because of its great cost and lack of relevance to the fishery protection role. The Navy is not likely to get warships on the cheap through the FPS — although the *CASTLES* must be seen as something nearer to the ideal than their predecessors.

Conclusion

Inevitably the question must arise as to whether the Fishery Protection Squadron's duties can more adequately be carried out by a Coast Guard on the model of that of the United States. The answer seems to be Yes, but it must be stressed that such a conclusion is hedged about with reservations and that it should in no way be taken as evidence that Australia should establish a Coast Guard.

There are a number of reasons for arguing in favour of a British Coast Guard, but not an Australian one. First, and most important, the duties of the FPS are primarily commercial and economic, removal of the FPS to a Coast Guard would not mean any real reduction in the military surveillance effort around Britain. To create an Australian Coast Guard would definitely result in a degradation of the defence information gathering network in the North of Australia.

Second, there is the element of scale. Were the functions of the FPS, the DAFS units at sea, the seaborne Customs and excise patrols, the present HM Coast Guard, Service SAR units and Trinity House to be combined a true 'Fourth Service' would be brought into being. In Australia such a Service would be far too small to be a workable proposition and would in any case drain both the RAN and RAAF of their limited fighting strength. The RAN's patrol boats, unsophisticated as they are, constitute a significant part of the Navy's actual and potential fighting strength and would be the front line in the event of any limited conflict in Australia's northern waters.

Third, the environment is completely different. There is no doubt at all that relations between British Fishery Protection ships and foreign fishing vessels are far more civilised and are conducted on a far more controlled basis than those in Australia. A fishing vessel which refuses to stop will, even if she reaches her home port, finally be dealt with — can the same be said for a Taiwanese fishing vessel which has the edge of speed over its RAN pursuer?

Fourth, the quality of 'high command' is, for the reasons already discussed, inevitably

higher in Australia. Having been in patrol boat operations for over a decade the RAN has built up considerable expertise and is very interested in maintaining such expertise. The FPS is, when all is said and done, not an integral part of the Fleet. The lack of interest in the FPS and the ignorance of its functions among the 'fighting' Fleet are astonishing. The same cannot be said of the RAN — the criticism that has been levelled that patrol boat command is 'only a stage in an officer's career' is quite mistaken because the fact that success in small ship command is now almost an essential for the RAN seaman officer means that *all* senior officers will eventually be intimately acquainted with the details of surveillance and fisheries work. It is a great pity that this can never be the case in the Royal Navy, which has become very much bound up in the PWO syndrome.

Finally, British national fisheries need far more policing than do the Australian. The salmon patrols already mentioned are just one example — the scale of operations being so much greater and the problems more complex than in Australia. The Royal Navy would be well pleased to rid itself of such police duties; the RAN has no such problem.

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BOOK REVIEWS



THE ROYAL TOUR 1901. By Petty Officer Harry Price. Webb & Bower. 196 pp. Illustrated. Recommended price \$34.95

The ship's company, especially the seamen, were highly delighted with the turn of events; as today was "Sunday", and they knew that there would be no divisions. It appears that the cancellation of divisions due to foul weather was welcomed by the sailors of 1901, just as it is today.

This book is a facsimile of the journal of Petty Officer Harry Price, and covers the tour in the Royal Yacht HMS *OPHIR* by the Duke and Duchess of Cornwall and York (later King George V and Queen Mary) in 1901. Amongst the colonies and countries visited were Malta, Singapore, Australia, New Zealand, South Africa and Canada.

Price was a seaman petty officer who joined the Royal Navy as a Boy Second Class in 1893, transferred to the Royal Fleet Reserve in 1907, re-enrolled in 1912 and was finally demobilized in 1919. He died in 1965 at the age of 88. His service certificate is reproduced at the beginning of the journal and shows by the deprivation and restoration of various Good Conduct Badges, character assessments of less than Very Good and a couple of demotions, that he had a few brushes with authority. Nevertheless, he comes across as a loyal and patriotic sailor, and was awarded the DSM at the end of World War I.

Profusely illustrated with sketches in line and watercolour, the journal presents a very readable and eye-catching account of the tour from Price's viewpoint. In copperplate writing and an easy flowing style which is not really spoilt by numerous spelling mistakes, he chronicles the day to day happenings on board and ashore. He writes in a straightforward way of events such as a funeral at sea, a crossing the line ceremony, coaling and stowing ship, shipboard concerts and sports days, and the warm and lavish receptions accorded the Royal couple at all their ports of call. However, he records only a few details of his personal life or involvement in the tour.

From a professional aspect, I was a little disappointed that there is not more in the journal covering seamanship and other evolutions which must have been undertaken with the numerous RN Squadrons and single ships that were met. But there is one hair-raising account of an under way transfer of dispatches from the *OPHIR* to the torpedo boat destroyer HMS *QUAIL* near the mouth of the St Lawrence River. The method used was to run the mail bag out to the end of the *OPHIR*'s lower boom while the *QUAIL* was instructed to steam alongside and recover the bag. As Price records, "We were steaming about fifteen knots at the time, but she came up alongside quite easily, but a little too far out to reach the bag; she then made another try, and whether we then moved our helm or not I can't say, but just as they reached the papers, the destroyer was drawn right under our bows, and as we came together, she heeled over alarmingly, and the ashes came up her funnels in dense clouds, but as you know these boats have an extraordinary speed, so she went full speed ahead, and just managed to slip round the other side of us, missing our stern by a few inches only".

Shortly after this incident, Price notes that the *OPHIR* entered the river, and one wonders whether the near collision might have been caused by a combination of pressure and suction, and shallow water effects which were probably little understood in those days.

Webb and Bower also published the well known *Country Diary of an Edwardian lady*, which I am sure many of us have presented to a lady relative or friend. *Country Diary* sold one and a half million copies in two and a half years. Because of its narrower interest I cannot see *The Royal Tour 1901* approaching these sales figures, but with Christmas approaching a broad hint to a recipient of *Country Diary* might be appropriate.

J. M. KELLY

THE ILLUSTRATED HISTORY OF SHIPS. Edited by E. L. Cornwell, Octopus Books Limited London 1979 pp. 477. Recommended price \$29.95

With around 6000 years of history to draw on for its material, any book that attempts to follow mankind's long progress from the floating tree trunk through to modern day cruise liners and nuclear powered leviathans, requires considerable powers of concise English and compression of fact. The stated aim of the book is important because it sets the scene of what the editor is trying to do for the reader, namely:

to present a balance illustrated history by selecting a number of the major aspects of mankind's association with the sea and each of these areas to trace the significant line or lines of development in roughly chronological order.

The book traces the beginnings and goes on to discuss the evolution of sail. The process is interrupted by a segment on Navigators and discoverers before returning to 'Ships of War', and 'Naval Weaponry'. Before discussing the world Navies, a segment on Piracy, Mutiny and smuggling appears. Discussions on the world's navies are confined to the USA, UK, Germany, France, Russia, Japan, Italy and South America. Why South America should appear with the other notable naval maritime nations is not clear to me. The book goes on to discuss in potted segments, Commerce and Trade (including a few well known ports and shipping lines), Science at Sea, propulsion, Ships at War, Sea travel, a very interesting section on Dangers and Disasters, Safety at Sea and Pomp and Circumstance.

Much research is evident in the production of the book, nevertheless in some areas incorrect descriptions betray the age of, or lack of attention to detail. The illustrations and photographs are of a high quality although the binding will soon show signs of the passage of time. The difficulties of producing a book of this magnitude are appreciated but I feel the editor might have served the aim better by omitting some of the detail, particularly in the warship and weaponry segments. Detail begs criticism!

In summary I think the book would appeal more if it concentrated on history and 'arrived' at the present day without entering discussion in detail. The segment 'The World's Navies' should be expanded to accommodate all or eliminate some, bowing to other notable publications which do it more comprehensively.

Who will read the book? The professional naval officer is likely to want more detail, alternatively is aware of the history and development from other sources. For those with an interest in maritime history, the book would be of interest, as it would to like-minded older children.

D. WEBSTER

DECEPTION IN WORLD WAR II. By Dr Charles Cruickshank. Oxford University Press, 1979. pp 248. Recommended Retail Price \$23.00.

Even the most casual student of military history would recognise the codenames *TORCH*, *HUSKY* and *OVERLORD*, but very few would find familiarity in the codenames *KENNECOTT*, *FERDINAND* and *FORTITUDE*. The former trio of course refer respectively to the Allied landings in North Africa, Sicily and Normandy while the latter are some of the deception operations which preceded them. Facts about these have been slow to emerge from military archives and records, and now Charles Cruickshank has produced a concise history of the development of deception as a weapon in the Second World War.

We are already familiar with some deception operations through dramatisations such as *The Man Who Never Was* and *Was Monty's Double*, and the story of *TAXABLE* and *GLIMMER* involving deception against the Atlantic Wall in the Pas de Calais following D Day has been recounted many times. But Cruickshank's book dispassionately tackles the topic with great thoroughness, neither dwelling on the failures nor glamorising the successes. He recounts the difficulties which the deception planning staffs — 'deceptionists' rather than 'deceivers' — faced, the suspicions, scepticisms, jealousies, patent lack of imagination, shortages of materials and sheer poor planning, together with a regular share of good and bad luck. The author traces the accumulation of experience by the deception experts beginning with methods used to decoy German bombers into bombing dummy British airfields (successful) and deliberately lit 'blazing targets' (moderately successful) through the execution of elaborate tactical deception plans by 'A' Force in conjunction with El Alamein (thoroughly successful) to the first strategic deception operations (total failures). The photographs which accompany the text are fascinating.

The deceptionists tried initially to mount operations on a shoestring with ludicrous results — the pre-invasion commando reconnaissance raids for a bogus assault on the Brittany coast in 1943 (Operation *STARKEY*) were so unsuccessful that the Germans never realised that they had taken place. With experience came the recognition of the need for total participation by all sections of the Allied military machine if deception was to be successful. Deception operations required just as much careful planning and attention to detail, and often a significant proportion of the same resources, as the real operations which they were designed to protect.

Clearly the jewel in the deceptionists' crown was Operation *BODYGUARD*, the overall deception plan to cover Allied assaults on Europe in 1944. It was first drafted in July 1943, and was finally approved by the Combined Chiefs of Staff in January 1944. All the tools of the deceptionists trade were employed — 'inadvertent' security breaches in the press, 'poor' circuit discipline, 'indiscreet' after dinner revelations by diplomats in neutral countries, dummy ships, planes, vehicles and camps, indifferent camouflage, disinformation passed to the *Abwehr* through M15 — controlled German agents, deceptive lighting, misleading beach and aerial reconnaissance missions, and even a deceptive pattern of bombing attacks in France. Need to know was rigidly controlled, the maxim being that personnel involved in deception must remain totally unaware of the fact. In the event *BODYGUARD* proved to be a glorious vindication of the art of deception and with German reserves remaining out of the Normandy area until it was too late, waiting poised for the anticipated Allied attacks in Norway, Pas de Calais, Cote d'Azur and the Eastern Mediterranean.

Dr Cruickshank also provides us with a brief overview of German deception measures which were designed to keep the British in a state of apprehension over invasion, and the Russians in a state of blissful ignorance over German intentions in the East.

In his summary of the effectiveness of deception operations and of its value to the Allied war effort, Dr Cruickshank concludes that there is no doubt that tactical deception was successful, sometimes, as at El Alamein, spectacularly so. Strategic

operations on the other hand had had a patchy record, until *BODYGUARD*, but that the evident success of the latter changed the minds of even the sceptical US commanders. An official US appreciation of deception at the end of the war states that the Americans 'were completely convinced of the effectiveness of strategic deception as an offensive weapon' despite strong reservations held in 1943.

'Deception' has none of the panache or excitement of 'The *ULTRA* Secret' or Cave Brown's 'Bodyguard of Lies' but then it doesn't set out to be that kind of book. It is not so much enjoyable as interesting, and I recommend it to scholars of the more cerebral modes of warfare.

I. E. PFENNIGWERTH

WHALEY — THE STORY OF HMS EXCELLENT — 1830 TO 1980, by Captain J. G. Wells CBE, DSC, RN Rtd. HMSO 1980. pp 247. Price UK £6.50.

This is the story of HMS *EXCELLENT* the Royal navy Gunnery School, 1830-1980. HMS *EXCELLENT*, a three decker of 74 guns, which had fought at the Battle of Cape St Vincent under the Command of Captain Collingwood, was in 1830 moored off the north-west corner of Portsmouth Dockyard with her port broadside pointing up Fareham Creek, when she became the first RN Gunnery School. The book traces the development of the school from its inception on board the *EXCELLENT*, under Commander G. Smith; eventual transfer to Whale Island ('Whaley') in 1891 (the island having been built by convict labour from two mudbanks named Big and Little Whale Island); through to the present, an establishment covering a variety of disciplines (including Ceremonial, Internal Security, NBCD, Naval Weapons Trials and the Divisional, Leadership and Regulating Schools), under the command of Captain R. K. S. Bethell OBE, a TAS officer.

Captain Wells, the author, under whose command the reviewer served at Whale Island, was a 1941 Long Course graduate who had a distinguished Naval Career including command of Whale Island 1961-63 and who is eminently qualified to produce a history of Whaley. The book contains a deal of detail and traces the development of Naval gunnery, particularly that relating to Whale Island, from the Napoleonic Wars through to the 1970s. The people who instigated development are detailed and the book is really about these people and, Whale Island being what it was, inevitably the book is to a certain extent a potted history of the RN in the period.

The author is careful to present a balanced book well spiced with anecdotes and incidents of interest and avoids details of technical minutiae. Indeed the introduction of gun sights, standard charges, Dumaresq deflection instrument, Vickers Range Clock and the Dreyer Fire Control Table is nicely balanced by descriptions of the developers and the innovators, particularly the three 'great' men, Fisher, Jellicoe and Scott at the turn of the century.

The number and variety of non gunnery matters, now well established, introduced by and via Whaley are remarkable. These range from the commencement of a permanent professional career for seamen in the RN at the *EXCELLENT* in 1830 with innovations such as 'permanent corps', 'renewable engagements' and 'advancement according to merit'; the introduction of naval diving in 1839 based at and conducted by gunners at Whale Island (and not transferred to the *VERNON* until post WWII); the introduction of torpedoes and electricity in 1867, passed to the *VERNON*, a hulk that had been a tender to Whale Island, in 1876. Notably it was two gunners, Fisher and Wilson, who championed the need for a separate torpedo warfare school. Their influence is illustrated by an Able Seaman's answer in an examination that 'Electricity is a subtle and imponderous fluid invented by Captain Fisher and perfected by Captain Wilson'; the privilege accorded the RN of providing the gun carriage crew for the funeral of the Sovereign; the acknowledgement of the Navy's claim to the right of the line on ceremonial occasions in 1872.

A continuing thread in the book is that of the Long Gunnery Course and its graduates, running from 1861 with the first qualifiers as Gunnery Lieutenants, through the Long Course, first called such in 1874, to the last Long Course in 1972. A list of graduates together with Captains, Commanders, Commander (G), XP officers, OE officers and others are contained in the appendix to 'Whaley'. Stories of the Long Courses' deeds and misdeeds and those of the Sub-Lieutenants' Course are well covered and range from the 1955 Sub-Lieutenants' elephant on parade to the sale of Whale Island by the 1972 Long Course.

Like the Long Course Officer, the senior sailors — the Gunner's Mate and the Gunnery Instructor — are a major part of the thread of continuity and the foundation of Whale Island and are recognised as such in 'Whaley'. This reviewer recalls his view of the GI of his youth as respectful trepidation, which view in later years was one of pure respect. 'Whaley' makes this point and the knowledge, confidence, smartness and professionalism of the GI are well covered. These first class men of invariably stern visage were however, not without a sense of humour and were seldom lost for an answer. Two 'Whaley' anecdotes make this point. In WWI a Chief Gunner's mate instructing his class on the mysteries of a new type of AA sight.

CGM: 'Now this is called the Woolwich Approximating or Cosine Sight'.

Bemused Able Seaman: 'Please, Chief, what's a Cosine?'

CGM: 'Now my lad that's not for you to know. There's only one on the island and that's kept in the Captain's safe'.

In 1972, the Long Course POGI:

POGI: 'Right Long Course because of your fooling around over the last three days, we have missed two periods'.

Long Course member taking a pace forward:

'POGI, if we have missed two periods we must be pregnant.'

POGI: 'Sir, with your length of hair you probably are.'

The RAN input to Whale Island and vice versa is easily gleaned from 'Whaley'. 67 RAN Long Course graduates commencing with LEUT J. Burnett in 1923, and ending the LEUTS G. P. Martin and D. J. Gaul in 1972, have to date produced ten RAN Admirals. 16 OE graduates commencing with LEUT R. L. Shimmey in 1946, and ending with LEUTS B. P. Frizell and L. W. Renfrey, have to date produced two RAN Admirals.

'Whaley' is handsomely presented, well proof read and well laid out and illustrated. Indeed the photographs are quite excellent and many are of considerable historical significance. The records and statistical researching appear, to this reviewer's knowledge to be good, though the omission of the RAN's arguably most 'distinguished gunner' from the Appendix is unfortunate.

Overall Captain Wells has achieved the aim of producing a history of HMS EXCELLENT admirably, with 'Whaley' being a well written and readable book.

A. M. CARWARDINE

(All applications for copies of 'Whaley' should be addressed to the Anniversary Office, HMS EXCELLENT, Whale Island, Portsmouth, Hampshire. Cost of the copies is £5.50 (plus 50p postage and packing) within the U.K. Outside U.K. £6.50 plus postage and packing).

AUSTRALIAN DEMOCRACY IN CRISIS by A. C. Theophanus, Oxford University Press, Melbourne, 1980. Recommended retail price \$7.95

This is a book for the student of politics. As the title suggests, Theophanus argues that democracy in Australia is in crisis — a crisis of legitimacy. He develops his argument using a carefully constructed socio-economic-political model against which he tests his perceptions of Australian political, economic and social behaviour, giving emphasis to the events of the last twelve years.

There is, says Theophanus, an economic crisis inherent in advanced Western society which extends to Australia. It cannot

be resolved by the short term measures which have been introduced by either the Liberal or Labor parties when in government. Nor, he argues, can the crisis in the social structure be resolved by attempts to hide social problems. Politically, he asserts that the democratic ideal is such an embarrassment to the modern state that the state attempts to create new philosophies of democracy to explain away the ideal. The sense of equality, participation and complete rights which constitutes the democratic ideal is not allowed by the state because to do so would create challenges to the unequal and non participatory character of the existing structure. Ergo, the modern state has a problem of legitimacy, which has assumed crisis proportions.

All is not lost however, as the author argues there is a way out of the crisis. A new form of democratic socialism, termed 'participatory socialism' is postulated. Under this banner there would be progressive transfer of more of the productive sector of the economy from the private sphere to the public one. Simultaneously, these public enterprises would be managed by democratic committees. Parliament would elect a council to co-ordinate public enterprise. While some differentials would remain between incomes for different skills, the amount of total wealth an individual could accumulate would be limited. There would be free social services for all who need them.

The general model developed is based on Habermas's relationships between the socio-cultural sub-system, the economic sub-system and the politico-administrative system. The ideal-type democratic model is Participative Democratic Theory (PDT), heavily laced with Marxian interpretation and the author also draws heavily on Marx for the descriptions of the economic sub-system before reverting to Habermas for the socio-cultural model. Fairly heavy going for the non-student (and many students) of politics, but essential to an understanding of Australia as portrayed in later chapters of the book. If the reader accepts the author's model, then he is likely to find it difficult to refute Dr Theophanus's cogent and articulate thesis.

The naval reader will find scant reference to the Armed Forces in the 450 pages, but may be surprised to find that far from being the servant of the people he may have fondly imagined himself to be, one author at least places him firmly in the 'ruling class' as a member of the 'Military and espionage forces acting for capital' (p.83). That there is little discussion of the role of the military in the work, may or may not say something about the military's socio-economic-political influence in Australia, but the author raises two points which seem important to this reviewer.

First in his use of Playford (p44) to suggest that most members of the armed forces are extremely conservative politically and that therefore many see their role not in terms of democratic principles, but in opposition to radical people. Second is a central issue that arises from a radical perspective (p119). Will a time arise when the defence forces are employed against their own people, to put down rebellions and demonstrations? These two subjects demand thought, both in a personal and institutional sense. In a country of limited population and institutional resources, the temptation for Governments to use their Armed Forces in a quasi-police role must always be a possibility, and one, it is hoped, both Governments and the Australian Defence Force will continue to resist.

Finally, in the other mention of the military in the book, is the old assertion that the Army was placed on the alert during the constitutional crisis of November 1975. As one who was in Canberra at the time, and who has been a persistent questioner since, I have yet to find anyone prepared to state that some form of Armed Forces alert was instituted. Given the leaks which have become fashionable in Government circles nowadays, one can only draw the conclusion that the assertion is just that — an assertion lacking in supporting evidence.

This book is a valuable contribution to the study of Australian society, particularly Australian political society. The radical political sector has always been vociferous and articulate, if not always coherent. Theophanus makes sense, even if you do not subscribe to either his description or explanation of Australian societal behaviour or his 'participatory socialism' solution for the future society.

A. L. BEAUMONT

ROYAL AUSTRALIAN NAVY IN VIETNAM. By Denis Fairfax. Australian Government Publishing Service 1980. 232 pages. Recommended Retail Price \$11.00.

This was very nearly the book that never was! — for after the material had been extensively researched between 1970 and 1974 by Denis Fairfax, an Instructor Lieutenant Commander in the RAN, the author left Australia to transfer to the RNZN. There were several attempts to have the book published and when the funds for preliminary printing had been exhausted, the galley proofs lay languishing until finally, six years after its completion, it has been published by the Australian Government Publishing Service.

I'm very glad the story of the RAN's involvement in Vietnam 1965-1972, has now appeared, covering the operations of four destroyers (over nine deployments), the RAN Helicopter Flight Vietnam and Clearance Diving Team No. 3, together with the sea transport and logistic support provided by HMA Ships SYDNEY, JEPARIT, and BOONAROO. As the foreword by Vice Admiral G.J. Willis AO, Chief of Naval Staff says — "To those who served in Vietnam this book is an appreciation — To those who lost their lives the book is a tribute."

More than this, it is an important record of the RAN's involvement in Vietnam, based mainly on the Official Reports of Proceedings of each ship and unit taking part. The extensive appendices include lists of all RAN personnel 'allotted' for service in the Vietnam War. The photographs are excellent and cover the wide field of the RAN's endeavours. It is also good to see so many of the present senior officers looking ten years younger.

While the printing is of a high standard, I was disappointed in the rather garish, soft cover looking a bit like a telephone directory — apparently the long sought after funds for printing didn't stretch to a hard one. Nevertheless, good value for money that will bring back many memories.

D. W. LEACH
Rear Admiral RAN
Chief of Naval Personnel

AUSTRALIAN IMPERIALISM IN THE PACIFIC: THE EXPANSIONIST ERA 1820-1920 by Roger C. Thompson. Melbourne University Press, 1980. pp 289. Recommended price \$25.

Dr Thompson's account of Australia's relationships with the other islands of the Pacific before and after Federation is yet another example of that meticulous scholarship which has become the identifying mark of the modern historian of Australia.

Perhaps it is testimony to the fact that Australians, historically, engaged vigorously in public debate about the great issues of their day with commendable enthusiasm that there exists such a vast literature upon which the historian can draw. Besides a wealth of official papers, Dr Thompson has culled no less than 201 journals and newspapers all but a few published in Australia. As a South East Asian historian hard put to find a single intact periodical archive, this reviewer stands both envious and impressed.

The main thrust of Dr Thompson's thesis is that in the last decade of the 19th century the Australian Colonies' perception of their northern and western neighbours changed dramatically. What had been a simple combination of missionary zeal and individual economic enterprise in their attitude to the Pacific islands became an obsessive concern with strategic security. The Russian scare of 1878, the renewed imperialism of the French with its threat of establishing penal settlements in the region, and perhaps the greatest crisis of all, the German encroachments in New Guinea, seemed suddenly to undermine the rather smug confidence in the Colonies in the limitless inviolability of their geographic isolation. The apparent drive south of other imperialist powers — in effect an incidental spill-over from the scramble to dismember China and partition South East Asia — created an almost hysterical demand for a stronger British presence in the Pacific lake.

This reaction Dr Thompson argues, can be described as a form of early Australian imperialism. The case is clearly debatable, as the author well knows. As he presents his view here without attempting even a cursory definition of what he means by imperialism, sub-imperialism or expansionism within any form of theoretical framework, it is exceedingly difficult to accept Dr Thompson's contention. Further, at no point does he demonstrate that the attitudes expressed by people, like Service, were anything more than a reflection of the shifting moods of a generalised Anglo-Saxon imperial dream; not as sinister as that of Rhodes with its tragic consequences, but of the same genus. There was nothing especially Australian qua Australian apart from geography about the agitation or the ideology.

The usefulness and the strength of the book lie elsewhere.

In narrating the marvellously turbulent and factious quarrels between an aggressive Victoria and a prickly New South Wales about the virtues of island annexation, Dr Thompson throws an often ironical light on the miracle that was Federation. The spectacle of Queensland dragged back by the scruff of the neck from the off-shore islands of the northern sea has a contemporary relevance. Perhaps of even greater interest is the character of the British response to the combative clamour of colonial Australia: bewilderment, mild irritation and some confusion. Here indeed is a hint of things to come in relations between London and the new Commonwealth at the end of the First World War.

Dr Thompson's book, efficiently edited and produced by Melbourne University Press has much of value for the serious lay reader as well as the scholar.

CHARLES GLYN-DANIEL

THE ROYAL NAVY DAY BY DAY. Edited by R. E. A Shrubbs and A. B. Sainsbury. Centaur Press 1979. pp392.

Admiral Sir James Eberle, KCB, Commander in Chief, Fleet of the Royal Navy honoured the Australian Naval Institute in July by addressing the Canberra chapter. His address showed us that the Royal Navy still plays a most prominent part in British life both at home and abroad. As a memento of his visit the Admiral most kindly presented the ANI with the book *The Royal Navy Day by Day*.

The Royal Navy Day by Day outlines for each day of the year, significant and interesting events that occurred on that day through the years, that formed part of the history of the Royal Navy. Listed are major battles (Trafalgar 21 October 1805), actions (KANGAROO and SPEEDY engaged shore defences at Oropesa 9 June 1801), losses (DERWENT sunk by mine off Le Havre 2 May 1917), dress changes (moustaches banned and beards permitted 24 June 1869), administrative aspects (Senior engineers became commissioned officers 27 February 1847) and people (Nelson met Lady Hamilton 11 September 1793). Short descriptions of some events and people provide colour and are well augmented by the many photographs and sketches.

The diary also includes Australian and Commonwealth Naval events. A comprehensive set of indexes lists RN and allied ships, people, places, medals, aircraft, Fleet Air Arm squadrons, army units and German submarines. There is also a large bibliography for those who have had their appetites whetted.

Should you wish to make a speech or research Naval history, you will find this book a great source of reference. It will add colour and spice to your efforts. If you wish to just browse, you will be fascinated and stimulated by these events. For any person with a bent for Naval history, a love of Naval tradition or interest in the Navy, this book will be of great value. It deserves a place on the book shelf of all Naval Libraries and yours at home.

R.M. JESSURUN

(*The Royal Navy Day by Day* should be available from the publisher — Centaur Press Ltd., Fontwell, Sussex, UK, BN1080TA.)

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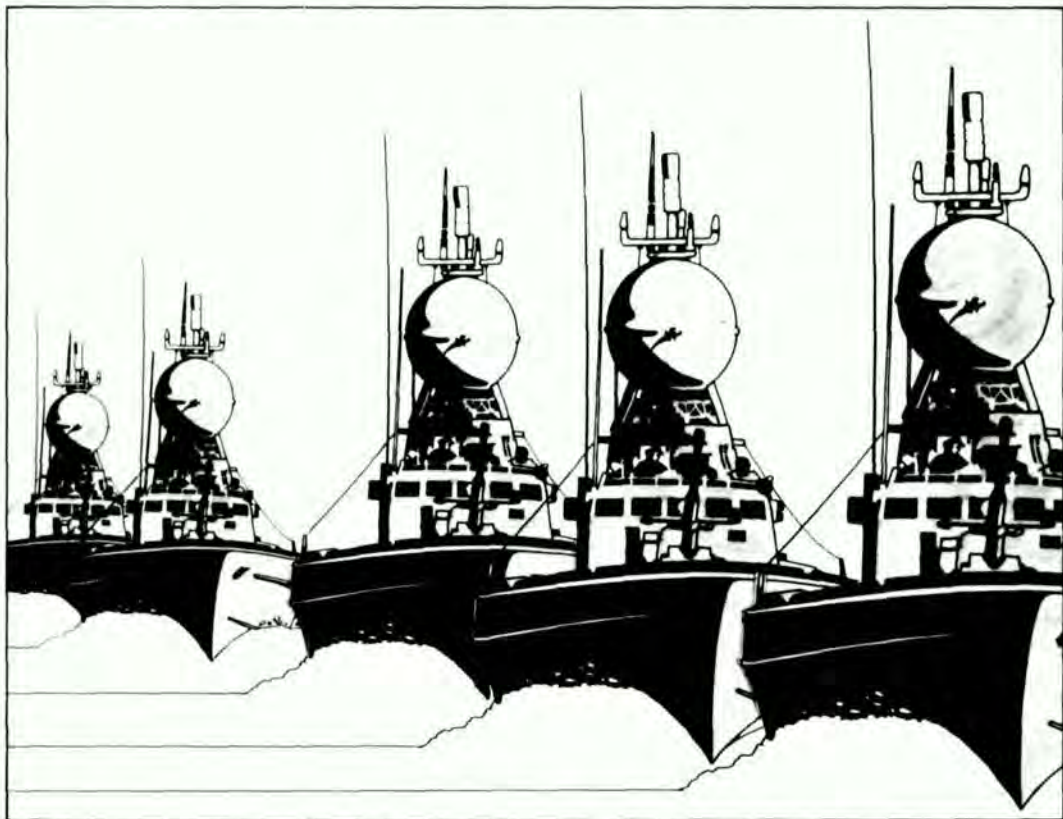
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