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# **JOURNAL OF THE AUSTRALIAN NAVAL INSTITUTE**

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## 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 \$10.
5. Inquiries and application for membership should be directed to:—

The Secretary,  
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### 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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The front cover features a photograph of the polar exploration ship MV *WYATT EARP* forcing through rough ice off King Edward VII Land in Antarctica in 1936. The flags are at half-mast since it was then thought that the American explorer, Lincoln Ellsworth, had been lost in his aircraft *Polar Star*. The *WYATT EARP* later became HMAS *WYATT EARP* (see Ships and the Sea page 40).

— National Geographic Society photograph



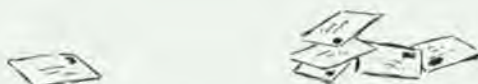
## CHAPTER NEWS

### CANBERRA CHAPTER

A meeting of the Chapter was held on Thursday 6 December to hear Mr John Fozard speak on 'The Impact of VSTOL Aircraft on Maritime Operations of the Future.'

As Chief Designer of the Harrier family of aircraft, Mr Fozard was able to give valuable insight into the development of these aircraft to date and the possibilities for the future. Commander Harry Julian chaired the meeting which was attended by 15 persons.

An active 1980 programme with the first meeting in March after the summer recess is being drawn up by the Canberra convenor, Commander George Nekrasov. Details were however, not available when this journal went to press.



## Correspondence

### ELIGIBILITY FOR REGULAR MEMBERSHIP

Dear Sir,

The letter from Captain F.G. Swindells RANR (February, 1979 Journal) is the latest which questions the membership limitations placed on Reserve and Retired naval persons, ie. as Associate Members they are unable to vote at general meetings or be elected to office within the Institute.

The basis for questioning the present constitution appears to be that the rules imply an adverse distinction between the professional capabilities of the PNF and Reserve/Retired persons, and this inhibits the latter group from participating actively in the affairs of the Institute.

As a foundation member, I am aware that no discrimination was intended. Indeed, several Reserve officers undertaking a period of PNF service have served on the Council. The purpose of the limitation on persons not serving full time was perceived as being necessary to ensure that the objects of the Institute would always remain totally sympathetic with the contemporary Navy and that the Institute would thus be seen as a totally apolitical professional organisation.

Very few would doubt the sincerity, loyalty and professionalism of Reserve/Retired persons. However, it could not be guaranteed that the majority of their opinions on Institute matters would be tempered by a necessary detachment from political affairs and a continuing close knowledge of the Navy AS IT IS.

I genuinely believe that there is ample opportunity for an Associate Member to achieve satisfaction and/or recognition by regular contributions to the Journal or by participating in the proceedings of the various Chapters. I believe this because in a few short years, capping a reasonably long career, I will be practicing the principle that I preach.

'Dijudicate'

Dear Sir,

Since the foundation of the ANI in 1975 there has been sporadic debate about the pros and cons of allowing Reserve Officers Regular membership.

Dijudicate's letter above argues for the retention of the present system. I do not share his views. I am one who believes that the aims of the institute will better be served if PNF and Reserve Officers enjoy precisely the same status within the Institute. My reasons are several. The principal ones are set out below.

Firstly, I see it as likely to encourage wider participation in the Institute's affairs. At present I believe we do not gain the benefit we could from our Reserve Officers because they see themselves (rightly or wrongly) being regarded as second-class citizens by the ANI. Remove that stigma and I believe greater participation will ensue.



Secondly, it would be consistent with official departmental policy to improve the status of the Reserves.

Thirdly, I consider it would encourage more contributions and a wider range of views to be expressed at Chapter meetings and in the journal.

Fourthly, it would encourage officers leaving the service at the end of long careers to continue to participate in ANI activities. I fear that for every Djidjicate, who obviously does not mind the prospect of changing from 'Regular' to 'Associate' membership, there are several whose interest wanes when they realise they can no longer be full members of the club.

Lastly, I see the probability that membership of the ANI would swell, giving the institute a more influential say in maritime affairs in the Australian area.

'I Claudius'

*Printed above are two letters outlining the case for and against a change of the ANI's membership rules. The Council has considered this matter at length and regards it as important that members' views be sought. Gauging the will of the silent majority is a difficult task; members are invited now to let us have their views through the correspondence columns of the Journal.*

The Editor

## THE PROTECTION OF SHIPPING

Dear Sir,

Whilst I agree with the concept of convoy operations, there are two points that I wish to take issue with Lieutenant Commander Barrie in his article 'The Protection of Shipping — What Some Strategists Think', published in the November 1979 journal.

When one considers the state of many of the Malta Convoy merchant ships when they arrived at their destination it was a wonder that they were still afloat; but they were and they had achieved their aim of providing vital supplies for the defence of Malta.

These vessels, whilst en route, largely had undergone severe air attack. Although their superstructure was considerably damaged, often they did not sink. A more recent example of air weapons inability to destroy a large merchant ship was the British abortive attempt to dispose of the *TORREY CANYON*.

Modern above water weapons are designed to disable warships rather than to sink. A missile exploding in the vicinity of a destroyer's sophisticated superstructure would cause considerable damage to aeriels and weapon control systems. This would not have the same effect on a very large crude carrier (VLCC) which may continue steaming, probably only superficially affected by the blast in its vicinity. Even if badly holed and damaged above the waterline, it is quite likely it will be able to continue steaming.

Although it is tactically sound to only disable an enemy warship, it is necessary to sink a merchant ship. It is fact that the best way to sink a ship is to open a hole in its bottom and a torpedo does this very effectively.

At the risk of disagreeing with Vice-Admiral J.T. Hayward USN Retd, I do not believe that missiles will normally be employed against merchant ships. With the introduction of long range, wire guided torpedoes, a submarine no longer has to penetrate the screen but can carry out a stand off attack at a range from his target which does not place him at significant risk. Anti-ship capable missiles (ASCMs) will normally be used to disable escorts prior to closing to destroy merchant ships with cheaper and more effective weapons. ASW defence of the convoy will continue to be the primary role of escorts.

This does not imply that convoys will not be in danger from surface forces and air attack. These threats will still be present and the contingencies of war will still continue to strongly influence the optimum deployment of forces. In addition, the development of precision guided munitions (GMs) will give surface and air forces much greater fire power than ever before. However because of the submarines unique ability to remain on extended, covert patrol along shipping routes and his possession of a highly effective sinking weapon, the submarine will remain the greatest threat to convoy survival.

My second criticism of Lieutenant Commander Barrie's article is that the nature of convoy operations will vary considerably depending upon whether or not nuclear weapons are being employed. A large convoy at typical World War II spacing of 1000 yds or less is a perfect target for a tactical nuclear weapon.

Nuclear spacing of merchant ships may make the formation too unwieldy and will considerably increase the problems of escorts in countering conventional attack. Once tactical nuclear weapons have been employed it may be necessary to revert to independent routing.

Yours faithfully,

F.A. Allica  
Lieutenant Commander, RAN

## DESTROYER DESIGN

Dear Sir,

I am indebted to Mr Hope for his carefully written and informative article on destroyer design (ANI Journal, November 1979). I was especially interested in his comments about steam-electric plants, which he suggested, owed some of their attractiveness to their inherent configuration flexibility in warship design.

Indeed this is so, because with electric-drive propulsion, machinery can be controlled by switches which can be placed in any convenient part of the ship. There are other advantages too, e.g. full power is available for going astern and turbines can be operated at constant speed with the attendant benefit of steaming economy and reduced maintenance effort. On the other hand, it introduces another link in the power transmission chain, and Jutland illustrated the high vulnerability of such a link when shock broke circuits and threw switches in several ships. Another disadvantage is that electric drive can be more expensive to make and install than reduction gearing, and of course there is a penalty in transmission efficiency.

Electric drive first appeared in 1913 in the collier *JUPITER*, later to become USS *LANGLEY* (CV-1), the US Navy's first carrier. This was highly successful and electric-drive was installed in the battleship *NEW MEXICO* and retained in all dreadnoughts until the 1937 programme when the new fast battleships were designed with geared turbines.

The point I would make is that the USN probably only developed electric-drive because of the very limited gear-cutting capacity in the USA earlier this century. It is an interesting observation in the light of today's Australian industrial capacity; it is a good illustration of how successfully a local, lower technology can be applied.

Yours faithfully,

D.J. Campbell  
Commander, RAN



## FROM THE EDITOR

1980 is a Federal election year in Australia and we appear to be in for what the press is calling 'a khaki election'. The situation in Iran and the Soviet invasion of Afghanistan have brought on a rush of recent newspaper and magazine articles dealing with defence issues. There are indications that the outcome for Australia's defence will be rather more than a political 'flash in the pan' and some new purpose may emerge in Australian defence posture to lead us on into the 1980s.

Two important defence decisions have been made already — the Australian Defence Force Academy is to go ahead and a new military airfield is to be constructed near Derby in North West Australia. 1980 should see further major decisions with regard to the replacement aircraft carrier, tactical fighter and follow-on destroyer. These decisions will have a major influence on the size and shape of Australian defence budgets during the 1980s.

What is interesting from a Naval Institute viewpoint is the greater awareness of maritime strategy being shown in some recent press articles. Inevitably the nature of the situation in the area of the North West Indian ocean suggests a requirement for a greater Australian maritime defence presence in the Indian Ocean — at sea and in the air above. Although the situations which have brought about this shift of emphasis in our force posture are to be lamented, the spin-off in terms of the widening discussion of naval and maritime matters gives some cause for satisfaction.

The major articles in this Journal deal with topics which have not surfaced recently in our pages — Antarctica, the aircraft carrier, coastal surveillance and amphibious warfare. They are all topical issues. The second part of the discussion of destroyer design considerations by Mr Ken Hope has been held over to the next journal. I also draw the attention of readers to a letter by Lieutenant Commander Frank Allica which makes a very relevant contribution to the protection of shipping discussion.

The circulation of our Journal continues to grow steadily — in terms of both ANI membership and institutional subscription. I would like to think that the Journal is beginning to achieve some status as a naval and maritime publication of importance not just in Australia but elsewhere as well. The editorial team would be rewarded if our efforts were reaching an even larger forum.

To ensure that 1980 sees the further consolidation of the ANI Journal, I seek the co-operation of all readers in providing further support for the Journal — by either forwarding material for possible publication or helping to widen our readership by any means deemed appropriate — such as lending this copy to a friend, encouraging new ANI members (an Application for Membership form appears towards the end of this journal — photocopy it if you do not wish to cut the page out), or by recommending the Journal for library or institutional subscription.



## From the Secretary's Desk

This journal issue includes a list of Institute members as at 1 January 1980. Since 1 January 1979, 79 new members have joined the Institute with the total membership now standing at over 450.

I have two requests for members:

- Please give me as much notice as you can of address changes in order that the system may be updated;
- On going to press, 69 subscriptions were outstanding. You will appreciate that the ANI runs on a very tight budget and is unable to carry debtors for relatively lengthy periods. Subscriptions are due annually on 31 October and members are requested to forward their subscriptions promptly after that date.



# CHUKAR II

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# SOVEREIGNTY IN ANTARCTICA — A CASE FOR INTERNATIONALIZATION

By Brigadier F.N. Paramor

*The paper presents an historical survey of Antarctica which points to the influences militating against any reasonable attempt to ascribe rights of ownership to signatory nations to the Antarctic Treaty — sovereignty being an essential pre-requisite for resource exploitation. It summarizes the political, economic and military interests in the region and, notwithstanding strong bids by Australia and other claimant nations, proposes a solution based on the internationalization of Antarctica, predicated on the clear evidence that there is no other defensible solution, having regard of the complexity of the issue of sovereignty and for the urgency now developing to proceed with resource exploitation in a regime unhindered by continuing, or potential, international dispute.*

The most vexed question affecting the economic and political future of Antarctica which has a direct bearing on the mutual relationships between nations having a vested interest in the region, whether that interest be direct or indirect, is the question of sovereignty. Until a satisfactory formula can be found the development of resources known to be present in the region, or of those potentially available, will be inhibited, at a time when the world supply of like or similar resources is in a state of steady decline. Because of the broad canvas of pressures now developing for a more acceptable distribution of world wealth, so long as exploitation is denied, Antarctica will remain the breeding ground for international tension, a situation which must be avoided at all costs.

In the search for a solution history only serves to compound the question. Legend has it that a New Zealand Polynesian war canoe, under command of Ui-te-Rangiora, probably sailed at least as far south as the frozen ocean in about the year 650 AD. Knowledge of the existence of the polar region, albeit sketchy, would seem to date from about that period. Even if that event could be substantiated, New Zealand would be hard pressed to win international recognition of ownership rights on that ground alone.

The first political participation occurred late in the fifteenth century when, under several Papal Bulls, all uncivilized lands further west of a meridian some 370 leagues to the west of Cape Verde Islands were allocated to Spain, and those east of that longitude to Portugal. This arbitrary

division, which continues to influence the affairs of Argentina and Chile, was contested almost a century later when Elizabeth I of England declared that discovery, unsupported by continued and effective habitation of the areas concerned, did not confer sovereign rights. Disputa-tion was already developing at that stage.

In the period 1772-75, Captain James Cook first circumnavigated the globe in the high southern latitudes. He proved that the so-far mythical Terra Australis, if it existed at all, lay beyond the ice packs he discovered in the vicinity of latitudes between 60° and 70°S. From around this era British involvement began to strengthen.

The period from the 1760s to 1900 saw the exploitation of Antarctic and sub-Antarctic seas by many nations, the principle of these being the United States and the United Kingdom, but followed closely by the Argentine, Australia, South Africa, New Zealand, Germany and Norway. The exploitation was directed entirely at

## THE AUTHOR

Brigadier Paramor graduated from the Royal Military College, Duntroon, in 1951. He completed operational tours in Korea and in Borneo, during confrontation, and has served in a variety of command and staff appointments throughout his service. He is a graduate of the RAAF Staff College, the Joint Services Staff College and the Royal College of Defence Studies. He is currently Director-General, Joint Plans and Operations, Department of Defence. This article was an RCDS paper written by the author.





The 'Heroic Era' of Antarctic history. Shackleton's *ENDURANCE* lies trapped in ice at the mercy of a giant iceberg. Winter 1915. The ship was later crushed leaving her crew in a perilous situation. Their story is told in *Shackleton's Argonauts* (Book Review in this journal).

— photo by F. Hurley from *Shackleton's Argonauts*

the winning of fur seals and whales. Geographic and scientific expeditions did occur in the period, however, the most significant being a circumnavigation in 1819-21 by the Russian Bellingshausen; a British expedition in 1819-20 under Bransfield, to chart part of the Antarctic Peninsula; a French expedition in 1837-40, under Dumont d'Urville, when Adelie Land was discovered and claimed; a United States expedition in 1838-42, when Charles Wilkes explored a large section of the East Antarctic coast; and a second British expedition in 1839-43 in which James Clark Ross discovered the Ross Sea and Ross Ice Barrier. By the beginning of the Twentieth Century national interests were already substantial, diverse in character, and potentially contentious through lack of any clear national aspirations.

The first two decades from 1900 became known as the 'heroic era' during which great progress was made in the collection of geographic and scientific knowledge of the region. Throughout this period national prestige, territorial acquisition and scientific inquiry provided the motivation for the endeavours of Englishmen,

Belgians, Russians, Germans and the French, but still no clear picture emerged of any long-term national interests.

Early expeditions and discoveries led to controversies over territorial claims and geographic nomenclature. Particular difficulties arose over the land peninsula due south of Cape Horn, which the Chileans called O'Higgins Land; which the Argentinians called San Martin Land after the heroes who helped win independence from Spain; which the British called Graham Land after a former First Lord of the Admiralty; and which the Americans called Palmer Peninsula after Nathaniel Palmer the sealer who, it was alleged, discovered the region in 1850. Yet none pressed its own national claim seriously.

In retrospect, the first half of the Twentieth Century, including the 'heroic era', would best be described as the colonial period, in which seven nations claimed sovereignty over pie-shaped sectors centred on the South Pole itself. Many other nations, including the United States, the Soviet Union, Japan, Sweden, Belgium and Germany, conducted explorations as well, without lodging territorial claims, even though individual party leaders with high national motives



occasionally announced sovereign claims. The United States Government, for example, has never taken up claims made by Admiral Byrd in 1929 (an area presently unclaimed), by Ellsworth in 1935 (an area now claimed by Chile) and later in 1939 (an area now claimed by Australia). Other claims have been transferred, such as that by Ross in 1841 in respect of the Ross Sea, an area later transferred by the United Kingdom to, and now claimed by, New Zealand.

Following the French claim to Adelie Land, in its demand for retaliatory action the American State Department pronounced in 1974 that:

'It is the opinion of this Department that the discovery of lands unknown to civilization, even when coupled with a formal taking of possession, does not support a valid claim of sovereignty, unless the discovery is followed by an actual settlement of the discovered country.

Until revised this American position still stands.

During World War II the Antarctic seas were used by Nazi raiding vessels. This prompted the British Government to maintain surveillance over the northern Antarctic Peninsula (Graham Land) and led to a conflict of ownership with Argentina which, having regard for the implications for the Western Alliance of a pro-German Argentinian government and, therefore, of the possible hostile control of the Cape route, resulted in the development of a permanent British base on Deception Island, to control movement through the Drake passage. This caused the Argentine and Chilean governments to increase activities and to back-up their respective territorial claims, which ultimately led to an exchange of small arms fire between Argentinian and British personnel. Although an exchange of notes and an apology by the Argentinians served to de-fuse the issue, the example points up the sensitivities which underlie the ownership question.

By the mid-1950s many nations had active Antarctic interests, some commercial, some scientific but most of them political. In 1947-48 Australia established stations on Heard and Macquarie Islands and in 1954 built Mawson on the Mainland, as a basis for its own claim to Australian Antarctic Territory. Since then there has been a steady profusion of permanent and temporary bases established on the mainland, with accompanying tensions in disputed areas. Details of national claims are shown on the sketch map in Figure 1.

In 1950 the Soviet Union sent a memorandum to other interested parties intimating that it would not recognize any sovereignty decisions in Antarctica which might be taken without its participation. This atmosphere prevailed up to the International Geographical year (IGY) of 1957-58 and continues to this day.

The lead-up to, and conduct of, the IGY went a long way towards the subordination of territorial disputes in favour of the more genuine, scientifically inspired search for knowledge, but in an attempt to prevent a regeneration of tension in the post-IGY period the United States government took an initiative in 1957 which led to the formulation of an international Antarctic Treaty, signed in Washington on 1 December 1959.

The Treaty, entered into by the 12 nations which cooperated in the IGY, was signed by Argentina, Australia, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, the Soviet Union, the United Kingdom and the United States, all being nations which, to varying degrees, had become involved in the historic development of Antarctica and most of which had, in some way, declared their accompanying territorial claims. Since then, and as provided for in the Treaty, Brazil, Czechoslovakia, Denmark, the German Democratic Republic, the Netherlands, Poland and Romania have each acceded to the Treaty, the Eastern bloc members, particularly, further compounding the already complicated territorial issues.

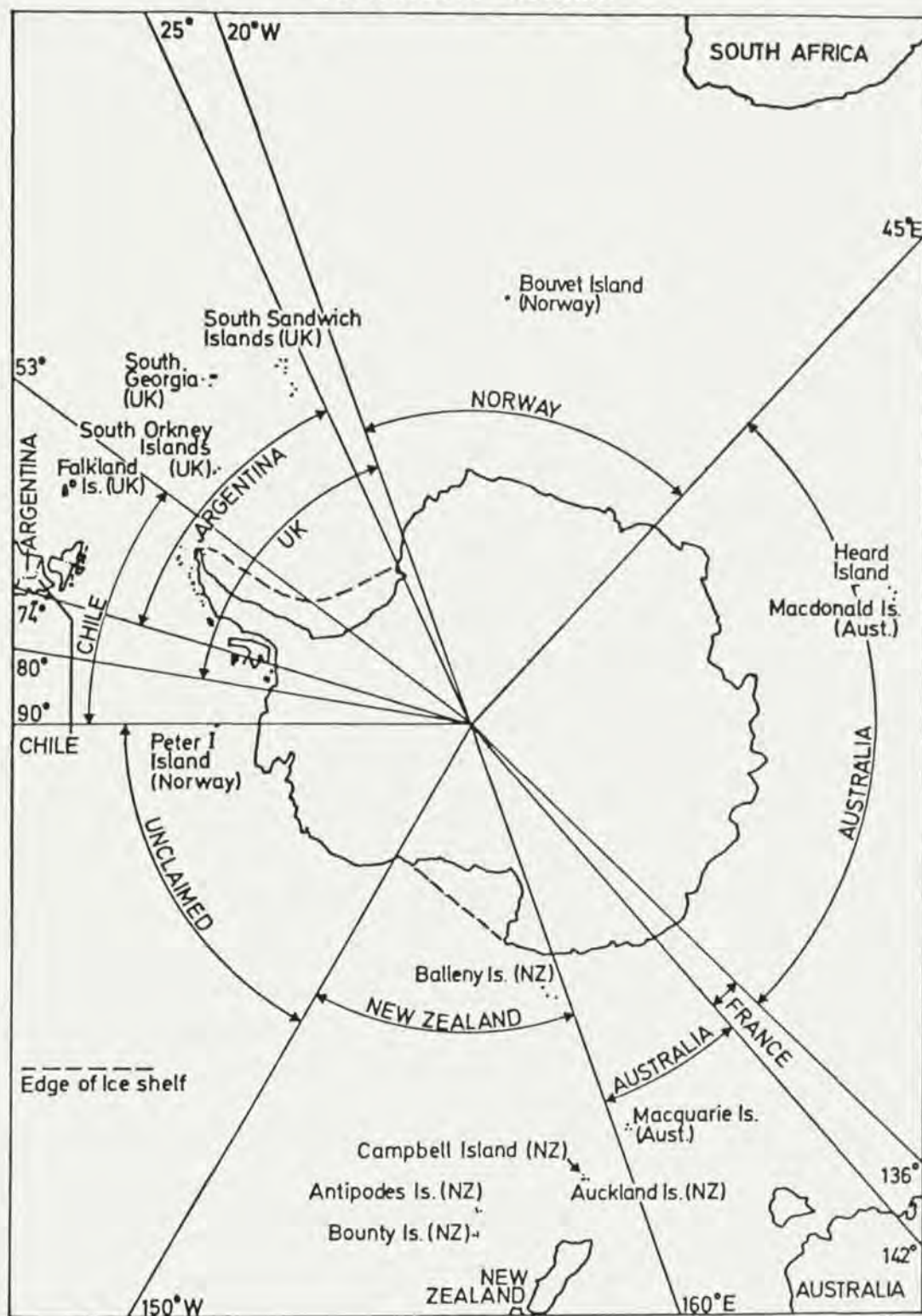
In the contest of sovereignty, the substantial provisions of the Antarctic Treaty are Article I which provides for the peaceful use of Antarctica; Article II for the freedom of scientific investigation; Article IV, which defers the very essence of the present day problem by putting aside all existing or future claims to sovereignty during the currency of the Treaty; Article V for the prohibition of nuclear explosions and of the disposal of nuclear waste; Article VIII for the jurisdiction over observers and scientists; Article IX for the consultative arrangements for Treaty management; and Article XII for the Treaty time limits. Notwithstanding these particular proscriptions, looked at in its entirety there is a wide range of equally substantive and contentious matters which have been omitted from the Treaty. As arrangements stand at present, however, these have been left to be resolved by agreements arrived at under the consultative processes provided for in Article IX. Included amongst these difficult matters are the sovereignty issues which must certainly arise, notwithstanding the operation of Article IV. Sovereignty, after all, is all-pervasive in Antarctic affairs.

Scrutiny of the recommendations of the Consultative Group meetings authorized under Article IX, of which there have been nine, shows that the greatest attention has been, and will probably continue to be given to processes which identify the resources available in the region, and the procedures governing their exploitation where commercial development proves to be an economically viable proposition.



Figure 1

# ANTARCTIC CLAIMS







Antarctic supply ship MV *KISTA DAN* trapped by ice February 1956.

Consider first, however, those substantial issues already enshrined in specific but less-than-satisfactory terms in the Treaty, several of which are sufficiently important to divert attention from the resource question notwithstanding the attempts to de-fuse their effects by the Treaty.

To begin with, Article XII provides that, after 30 years, any of the contracting parties may request that the provisions of the Treaty be reviewed. The year 1991 is the earliest date for such a review but the intervening 11 years is a relatively short period during which a signatory government could prepare for whatever policies it might wish to press, and for any actions it might wish to take during and subsequent to such a review. In the extreme case it would be totally realistic for a government to prepare now for its eventual withdrawal from the obligations imposed by the Treaty, or to work for the demise of the Treaty itself. It is important to realise, therefore, that pressures arising now from the unresolved sovereignty question must be seen as fore-runners to more difficult times, and that nations are now beginning to manoeuvre into positions of strength in anticipation of the certain negotiations which must follow.

It is impossible to overstate the importance which must be attached to reaching agreement before the expiration of the present Treaty for, although the establishment of military bases and the conduct of training and weapon testing are prohibited, the deployment of military personnel in

general support of the region can occur and, by covert means, a government could establish itself in considerable strength and be in a position to impose its will once a decision is taken to contest the Treaty. So far as one can judge such a build-up is not occurring at the moment so that peaceful renegotiation of the sovereignty question should be possible and should be embarked upon before such a build-up could occur.

Turning now to the economic considerations, great interest is being shown in the inherent importance of the known and predicted mineral and hydrocarbon deposits, and in the presence of protein-rich plankton in the coastal and near ocean waters. Rock formations have revealed no less than 150 mineral species; some five percent of the world's coal reserves are known to exist in the region; and oil bearing structures have been identified which the United States Government estimated in 1974 to contain 45 billion barrels of oil in 115 trillion cubic feet of gas in the western sector of the region alone. Great hopes are also held for the harvesting of plankton (sometimes referred to as krill) which could yield millions of tonnes of high protein food per year. Whether the exploitation of these and other less substantial resources is economical is a question which will probably not be seriously addressed in the absence of a policy on sovereignty and is a matter, therefore, less important at this juncture than that of ownership. In fact the question cannot be sensibly addressed at all, for the only international organization with some control over the region is the Consultative Group which operates under Article XII. This, of course, has no statutory powers to issue prospecting licenses, or the more important mining rights. It is the goodwill so far demonstrated by the signatory nations which maintains the credibility of the Treaty clauses. Whether, in the event of an abrogation of the Treaty, the signatory nations would combine forces against one of their number, or against a non-signatory nation, is a matter for conjecture. It is very doubtful, however, that any nation would willingly become embroiled in an Antarctic confrontation.

Application of the law of the Sea, now being developed under United Nations auspices, also has interesting consequences for Antarctica. Questions as to the claiming of territorial waters, and to the control and surveillance of economic exploitation zones, bear directly on the powers to be conferred on sovereign nations as a consequence of that law. As matters stand at present, all coastal waters within the Antarctic region must be regarded as part of the contiguous oceans and, by definition therefore, as comprising part of the high seas. This being so, and recalling that resource exploitation in the high seas is proposed to be controlled by an international assembly of as



yet unknown structure, immediate conflict becomes inevitable between those signatory nations claiming sovereignty, whether it be clear cut or contested; the Soviet Union and the United States who derive their superpower interest as a consequence of their presence and investment in the region rather than on specific territorial claims; and those non-signatory nations which constantly demand the right to bring to bear the power of the Third World on each and every question concerned with the distribution of uncommitted world wealth amongst the under-developed and developing nations.

There can be no escape from the simple fact that the determination of the sovereignty issue will be extremely difficult, if it is possible at all. On the one hand there are the diametrically opposed views of the United States and the Soviet Union which maintain a total oversight of the region, and the views of those nations which maintain the right to ownership. On the other hand there are the contested claims of some of those nations which uphold the ownership argument. Then there is the dilemma which accompanies the application of the Law of the Sea and the exploitation rights in a

situation where ownership just cannot be established. Integrated with each of these factors is the Third World influence which militates against any form of solution which is likely to be universally acceptable.

Notwithstanding these difficulties the problem must be tackled head on now. Continued deferment would probably suit the super powers because, by implication from their present stands, they would conveniently not recognize that a problem exists. Deferment does not however satisfy the interests of the remainder, for while the present Treaty remains operative governments will continue to procrastinate and impede further discovery and exploitation of those resources which are falling increasingly into short supply.

Australia is clearly in a position where its national interests would best be served by establishing sovereignty over that part of the region known as the Australian Antarctic Territory. In order to be consistent with this policy Australia must also support Norway, the United Kingdom, France, New Zealand, Argentina and Chile in their similar claims, and she does. However, it would be quite impractical not to recognize that there exist other powerful nations



Casey Station during changeover, M.V. *Thala Dan* is anchored in the Bay.

— Antarctic Division photograph by K. Gooley



having non-specific claims which cannot be ignored. The reasons for Australia's stated interests bear examination because, to varying degrees, they apply to many, if not all, claimant nations.

A glance at Figure 2 shows that Antarctica lies closer to the centre of oceans than does any other continental mass, and is in a dominant position in relation to the Great Circle routes which interconnect those masses. In particular it lies across the southern approaches to the Australian continent and provides a viable alternative sea route from the Atlantic, should either of the Cape routes be denied. Antarctica could also provide stopping-over points for trans-polar air routes, and is important in routine weather forecasting.

A hostile maritime power of adequate naval resources located in Antarctica could, with moderate ease, dominate shipping lanes on the east and west coasts of Australia and those across the Southern Ocean. In concert with a hostile Asian power it would be possible to impose a total maritime blockade on Australia, whether for economic or for military purposes, or for both.

There is little likelihood of a military blockade so long as Australia continues to maintain a low strategic profile but the prospects of varying levels of economic pressure from external sources is less remote, in circumstances where Australia might wish, or indeed be forced to involve itself in some form of resource diplomacy.

Lesser forms of pressure are also feasible, each of which might impose a relatively low level of threat but all of which, cumulatively, might force Australia into some form of precipitate political and military action to preserve her sea lines of communication.

In strict military terms Australia does not, at this stage anyway, present a worthwhile military target. However, the prospect is occasionally, but not seriously, debated that she could become a nuclear hostage in any East-West confrontation, because of the presence of United States military bases on Australian soil. It is nevertheless true that the existence of long range military and civil aircraft, the development of inter-continental ballistic missiles, the applications of space technology, the enhanced performance characteristics of surface and submerged naval vessels and the consequences, generally, of modern military inventories leave Australia as susceptible to the unpredictable threat as any other country.

In planning to counter this threat the consequences of a hostile neighbouring Antarctica must not be overlooked. It follows, then, that although Australian Government attitudes publicly suggest there is no immediate or medium-term direct threat to Australia's interests,

these attitudes could alter in circumstances where a military build-up occurred in Antarctica. Such a build-up would obviously be intended to demonstrate a more visible threat than presently exists from the eastern European land mass, and from Soviet naval resources, afloat or submerged.

Australia's interests in obtaining internationally recognised sovereignty, and the military autonomy this ownership would imply, stand in stark contra-distinction with its aims of avoiding the militarization of the region, which would almost certainly follow a repeal of the Antarctic Treaty. The credibility of a military threat is low, however, and on balance sovereignty interests remain overriding.

A major factor which must influence any supporter for the cause of sovereignty must be the economic gain from the resources available for exploitation. This should provide strong motivation to resolve the matter but, although progress in exploration was reasonably good in the early years of the Treaty, the pace has now slowed down in favour of ecological and conservation studies. While these are perfectly defensible, per se, such studies provide ready made alternatives to the more pressing ownership question. There is a very real risk that the matter may only be addressed once a crisis arises. As is so often the case this will probably be too late in the day to achieve simple results.

In the face of strong territorial claims by Australia and other nations, equally strong Third World support is developing for the internationalization of Antarctica, and for the general sharing of revenue from resource exploitation. Arguments have been proffered which suggest that internationalization would militate against exploitation because of the complications connected with non-ownership, but it seems that recourse to international law provides the only feasible solution to the present dilemma.

Certainly internationalization would involve a renegotiation of the Antarctic Treaty but this could be arranged in a way which preserves the peaceful use of the region (Article I), the freedom for scientific investigation (Article II), and the nuclear prohibition (Article V), but which revokes the present proscriptions relating to sovereignty (Article IV), jurisdiction (Article VIII) and Treaty Management (Articles IX to XIV) in favour of United Nations sponsored provisions governing true internationalization. This is attractive as a concept so long as the changes can be comprehensively drafted in a manner acceptable to all nations and so long as any new Treaty is free from ambiguity. International ownership would provide a solution without parallel in world affairs and would pay due deference to the interests of the superpowers, the industrial nations and the Third World. More to the point, it would demonstrate a



Figure 2

# ANTARCTICA - Political Position





level of international goodwill otherwise unprecedented in world affairs and, above all, would clear the way for resource exploitation.

The organization for international management would need to be designed to offset the disadvantages of internationalization as would be seen by the proponents of sovereignty. In particular it would be necessary to develop a formula which provides for an equitable contribution to future exploitation and management costs and for an equitable disbursement of revenue. In the true spirit of internationalization, the total re-investment of revenue would provide the most equitable formula, but there should be little objection to a return on investment to the present signatories to the Treaty, but for that return to be amortized over a reasonable period.

Careful attention would need to be given, also to the management structure itself. An Executive would be required with adequate representation of all factional interests. Ultimate responsibility would need to be vested in the United Nations General Assembly in order to maintain true internationalism. Any lower echelon structure would inevitably mirror the General Assembly and would prove unworkable.

A more precise definition of Antarctic boundaries would be required. A degree of latitude, as is currently used, is too arbitrary in the context of the Law of the Sea which, by implication, turns on the definition of the boundaries of a land mass and its contiguous waters. The present definition does not meet this criteria but could be easily made to do so.

It may be that the concept of internationalization is too idealistic and would prove too difficult to negotiate in such a diverse and divisive forum. If this proves so, as may well be the case judging from other attempts to de-politicize organizations whose decisions have far reaching political consequences, there would seem to be no option but to leave future managements to develop piecemeal fashion as the existing consultative arrangements provide.

What will prove essential, short of a lasting long-term solution for the region, will be to discourage either superpower from assuming a decisive posture which might aggravate an already sensitive community of participating nations. If the alternative prevails, that is that superpower involvement escalates rather than diminishes, Antarctica is likely to loom larger in the affairs of all interested nations than most would like, particularly in the affairs of those nations closest to the region, which would almost certainly become involved in the power play resulting from the uncertainty as to ownership and responsibility which the Antarctic Treaty, as it presently stands, seeks to prolong.

A great deal of care and patience will be required in the coming years. Overriding will be the need to encourage the international community to negotiate a lasting and meaningful status for Antarctica. This can only be done in the true spirit of compromise — a spirit best manifested in a arrangement for international management and benefit sharing. There would seem to be no place for national sovereignties in Antarctica.

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# AUSTRALIAN AMPHIBIOUS CAPABILITY — AN ESSENTIAL ELEMENT OF NATIONAL SEAPOWERS

By Commander P.J. Shevlin, AM, RAN

Due largely, it is suspected, to the accidents of Australia's history, it is contended that the rightful place of national amphibious forces in any viable maritime defence force has been seriously neglected in the development of Australia's post World War Defence Force.

Historical study informs us that:

- this island continent was secured for the Crown by a series of small scale amphibious landings by marines and sailors from single ships of the Royal Navy;
- Australia's one and only independent national joint operation of war to date and the first actions of the newly-created RAN involved the raising of a battalion group size amphibious landing force, (the Australian Naval and Military Expeditionary Force — ANMEF) and the planning and execution of amphibious landings into Kabakaul Bay in September 1914 capture the German Navy's Pacific Squadron's radio station Bitapaka and then to go on to capture Rabaul and then Madang and, in just 12 days, wrest the whole of what is now Papua New Guinea from the German Empire;
- the most serious military threat to Australia to date resulted from the success of a series of Japanese amphibious landings, which by mid-1942, gave their forces control of most of the island archipelago to our north from Sumatra to the Solomons, providing naval and air bases from which to menace Australia and the country's essential lines of communication; and then,
- repeating 1914 history, Australia had once again to raise from nothing a national amphibious force comprising:

*From the RAN,*

3 Landing Ships Infantry, each with a troop lift for 1260 and with 18 landing craft;

RAN Beach Commandos (the WW2 equivalent of today's Amphibious Beach Team);

*From the Army,*

trained landing forces of;

2 Divisions (7th and 9th);

2 Armoured Regiments (1st and 9th); and

1st Amphibious Armoured Squadron (with Tracked Vehicles);

in order to play its part in the allied campaigns to drive the Japanese from New Guinea, the Solomons, Philippines and Borneo.

Nevertheless 1980 finds the Defence Force without either the ships or the troops to effect even a small scale national tactical landing. What is more disturbing is the seeming lack of concern

## THE AUTHOR

Commander Shevlin went to sea in the Royal Navy as a Midshipman in May 1943 and in an Assault Minesweeper participated in the three Mediterranean major amphibious landings. As a Sub-Lieutenant, he served in an Eastern Fleet destroyer which participated in the landing into Malaya at Port Swettenham in 1945. Post-war he served in Mediterranean destroyers, including participation in an amphibious landing into Aqaba during the 1948 Arab-Israeli War, and then qualified as a Gunnery Specialist in 1951. His Gunnery appointments included exchange service in the RAN as 'G' of HMAS TOBRUK in Korea, Squadron 'G' of the 6th Destroyer Squadron at the Suez landing, and Squadron 'G' to the Aircraft Carrier Squadron participating in NATO amphibious exercises.

As a Commander, he had a Persian Gulf frigate where he commanded the NGS group at the Kuwait landing; instructed at the RN Tactical School and JWE on gunnery and amphibious warfare; was Executive Officer of the RN's first LPD, HMS FEARLESS, which in 1966 conducted two amphibious operations against South Arabian insurgents; and was then SOO in the NATO North Atlantic HQ at Petreavie, Scotland. He came to Navy Office in January 1969 and has been Director of Joint Warfare policy since then.

While Canberra-based he has been an observer at 5-Power, SEATO, and NATO amphibious exercises into Malaya, Philippines, Holland and Norway. He has also been Project Director for the new LSH TOBRUK since 1975.





RAN LCH HMAS WEWAK landing a USMC unit in Shoalwater Bay during Exercise Kangaroo Two.

in many minds of both 'dark blue' and 'khaki' at the missing national capability, and even worse, the apparent opposition in some quarters to making good this serious national defence deficiency.

As attendees at, or readers of the Report of, the Institute's 1979 SEAPOWER Symposium held in Canberra will have noted, speakers (both Service and Civilian) made the point that SEAPOWER involves both Sea Assertion and Sea Denial, and both can require the ability to project sea power inland. To control a sea area, or to deny it to an enemy, a strategic island may need to be secured or neutralised; a coastal naval or air base facility may need to be established or destroyed; a vital fuel or mineral offshore resource may need to be protected. Why then the wide spread complacency that although the RAN and RAAF can strike at enemy forces on, under or over the seas, they have between them little capability to project maritime power inland other than by a short duration air strike?

The fact that New Zealand is the only other nation in Australia's strategic area with a similar defence limitation points to this common deficiency in military appreciation springing from both countries' similar histories of military development.

Prior to the inception of the Royal Australian Navy and the Royal New Zealand Navies, the major units of the Royal Navy squadrons based on either side of the Tasman had their own permanently embarked detachments of Royal Marines ready to land, with supporting field guns manned by bluejacket gun crews, whenever it was necessary to project sea power inland. Following in this tradition, the fledgeling RAN in 1914 was able to quickly raise and train from Naval Brigade and Army militia resources the ANMEF previously referred to whose landings from HMAS *BERRIMA* secured the German New Guinea islands and removed logistic and communication facilities for the German Navy. Subsequently RAN personnel from the ANMEF produced the 'Bridging Trains' which served with distinction in support of ship-to-shore movement of British and Australian Army units at Suez, El Arish and Gallipoli.

During the 1920s and 1930s, economic depression made it sufficiently difficult for Australia to maintain a Navy at all, and in that period there were Royal Navy cruiser squadrons with embarked Royal Marines landing forces in the Indian Ocean and the China Sea. There was clearly no urgent requirement at that time for Australia



to be developing specialist amphibious forces. That era ended forever on 8 December 1941 when Japanese amphibious forces landed in Malaya and New Guinea, Borneo and the Dutch East Indies. By mid-1942 Australia faced a hostile archipelago to her north, with the residue of the Royal Navy's battered Far East Fleet withdrawn to the western side of the Indian Ocean and with the badly-mauled US Pacific Fleet — though fortunately not its Carrier Strike Force — without a base closer than Pearl Harbour.

Usually the average naval officer knows what subsequently occurred in the Coral Sea and Midway battles, but he is much less well informed — if at all — on the series of sea power projections by amphibious operations that enabled the allied counter offensives to be developed in both the Pacific and Indian Oceans. While the Japanese were still expanding their thrust down through the Solomons, HMAS *WESTRALIA* (a Landing Ship Infantry) with a US Army landing force secured the New Hebridean Island of Efate in March 1942 to provide naval and air base facilities to enable an allied counter offensive to the Solomons. As an important prelude to naval and air operations against the Japanese in both the Philippines and in Borneo, the strategic Celebes island of Morotai had to be seized in September 1944 by US landing forces from HMA ships *MANOORA* and *KANIMBLA* supported by the 8 inch guns of HMA ships *AUSTRALIA* and *SHROPSHIRE*. To ensure secure air and naval base facilities for Indian Ocean operations, the island of Madagascar had to be secured in August-September 1942 and the four 'N' class destroyers of the RAN's 7th flotilla participated in three separate British brigade scale landings, with HMAS *NAPIER* conducting a single ship Commando amphibious raid on Morondava. Two years later these same destroyers were involved as fast amphibious transports to land 3 Commando Brigade Royal Marines to capture in turn the islands of Akyab, Myebon and Cheduba to obtain forward fighter airfields to provide cover for the 14th Army's advance down the Burma coast.

Unfortunately for the development of an Australian natural concept of amphibious operations, right from the time that General MacArthur, as Commander-in-Chief South West Pacific, ordered the development of Australian amphibious forces, the RAN and Army units which trained for amphibious warfare were not allowed to operate as a national force. The three LSI's (*MANOORA*, *KANIMBLA* and *WESTRALIA*), formed a major element of the redoubtable Rear Admiral Barbey's 7th Fleet Amphibious Force and for two years carried US Army and Marines landing forces. General Blamey had two Australian divisions trained for amphibious warfare but while the RAN amphibious training took place in Port Stephens, that for the Army was at Toorbul in Queensland. It

was not until the four Australian landings into Borneo in 1945 that Australian Army units landed tactically from RAN amphibious ships under the cover of RAN gunfire. But even here, although Australians provided the landing Force Commanders and the Air Commanders for these operations, USN officers provided the Amphibious Force Commanders, the majority of the amphibious shipping, and the majority of the amphibious planners.

Thus, the Australian Defence Force entered into the post-war era with considerable practical knowledge of amphibious warfare procedures gained from many successful operations but with little experience of amphibious planning or of the command and direction of joint amphibious forces. The selection of initial peacetime capabilities reflected the lack of any agreed national defence policy on amphibious warfare. The RAN acquired six 2500 ton LSTs in 1945 which were formed into the 10th LST Flotilla, but they conducted no amphibious training but instead were used principally as administrative transport, bringing equipment back from all the overseas territories in which Australian forces had been in action, and with one, the original HMAS *LABUAN*, being employed as an Antarctic re-supply ship to Macquarie and Heard Islands.

The Australian Army was too busy contracting from a five division force to one to comprise three battalions, an armoured regiment and supporting arms to participate in joint amphibious training but, a little intriguingly, two specialist amphibious units were retained in the CMF until the Korean War:

- an Artillery Amphibious Observation Battery whose dedicated officers worked up RAN destroyers and frigates in NGS prior to deployments to Korea; and
- an Armoured Corps Amphibious Assault Regiment equipped with the LVTs they had not been permitted to use in war.

Only four years after the end of World War II, the outbreak of the Korean War was to re-emphasise the important effects to be achieved by amphibious sea power projection, ranging in scale from the strategic divisional landing by the US Marines at Inchon 150 miles to the rear of the advancing North Koreans, to the Royal Marines Commando strength raids on east coast lines of communication and to USMC/ROK Marines seizure of offshore islands to serve as air strips or air defence radar sites, or simply to deny such facilities to the enemy. But although HMA ships participated in several of these amphibious operations as NGS ships, once again the Australian Services were not involved in amphibious planning (other than for NGS work-ups in Australia) and there were no Army landing forces.

The termination of active hostilities in Korea witnessed the retention of powerful British and





UK LSL *SIR GALAHAD* leaving Rosyth, Scotland, for a NATO amphibious exercise loaded with vehicles and with *MEXEFLOTE* pontoons attached to the ship's side.

American forces in SE Asia to which Australia contributed forces, but on a largely single Service basis for operations against Malayan communist insurgents, Indonesian 'confronters' and Communist Vietnamese. For the operations in Malaya and Borneo, the Royal Navy maintained a Singapore-based Fleet Amphibious Force comprising LPH and LSL types, a 22 strong Wessex troop lift helicopter squadron, and a brigade-minus of Royal Marines Commandos. For the Vietnam campaign, the US Navy maintained two Amphibious Ready Groups in the South China Sea area, each with a battalion group equivalent landing force and its own composite squadron of medium, utility and gunship helicopters. Both nations' landing forces were used to good effect, but unfortunately for Australian Defence Force development — these amphibious forces were, in the event, only used in providing support for a predominately land campaign.

This author ascribes to the historical accidents summarised above the fact that so many misunderstandings are made evident in any discussion of matters amphibious in the Australian Defence Force. He has found:

- the very meaning of the word 'amphibious' challenged;
- the need for amphibious ships questioned;
- confused views on how HMAS *TOBRUK* should be employed;
- suggestions that non-amphibious roles should be found for the ship to justify her place in the Fleet;
- views that it is entirely up to the Army as to whether or not Australia needs amphibious forces, and that it should be purely an Army matter as to what sort of ships are provided for their support; and

- lack of appreciation of the essential needs of joint amphibious planning.

It is the intention of this article to suggest why a viable number of ocean-going amphibious ships and — equally important trained landing forces, together with supporting sea mobile air support and gunfire support, are **essential** elements in an island nation's maritime defence forces. The 1947 Congress — assigned roles of the United States marines corps expresses the concept succinctly when it states that:

The Marine Corps shall be organised, trained and equipped to provide fleet marine forces of combined arms together with supporting air components for service with the fleet in the seizure and defence of advanced naval bases and for the conduct of such land operations as may be essential for the prosecution of a naval campaign.<sup>1</sup>

Thirty years later, Admiral J.L. Holloway USN, as Chief of Naval Operations, confirmed these roles when he stated in a speech to the 1976 Navy League Convention the use of carrier aircraft and Marines in the projection of military power can be an absolute requirement in ensuring our control or continued safe use of areas of the high seas essential to our national needs.<sup>2</sup>

In the Royal Navy it had been recognised three hundred years earlier that naval forces needed trained landing forces and the Duke of York and Albany's maritime Regiment of Foot was raised in 1664. This regiment's direct lineal successor is the Royal Marines Commando





LCHS of the RAN's First Australian Landing Craft Squadron leaving Sydney Harbour.

Brigade supported by a Commando Artillery Regiment, Commando Logistic Regiment and Commando Engineer Squadron provided by the British Army. But where are the Landing Force units to support the RAN's operations?

In the 1980s, if the Australian Defence Force is to possess the capabilities to ensure the safe and timely arrival of the country's essential imports, and the safe export of the country's wealth-earning resources; to bring succour to Australia's friendly overseas neighbours; or to deny sensitive sea areas to hostile naval forces, then it is clearly imperative not only to be able to counter an aggressor's forces on, under or over the sea, but also to deny him the use of strategic forward bases. The Defence Force must be able to ensure physical control of such strategic island territories as those in the Torres Straits, or Cocos and Christmas Island; in the days of advanced VSTOL aircraft it would be intolerable for Lord Howe Island airstrip to be in enemy hands; a pair of dividers will indicate a number of other islands in Australia's vicinity which could not be allowed to be developed as an aggressor's advanced bases.

To ensure control of — or denial to an enemy — of such strategic territories, a capable and well-practised team of amphibious ships, landing forces, and ship-to-shore movement assets is as important a weapon system in its own right as ASW forces or surface strike forces. Plucking some examples at random, the raids on Zeebrugge and St Nazaire had greater effect on naval operations against Germany than many actions fought at sea; the seizure of the strategic

island of Pantelleria in the Mediterranean to provide an allied, instead of an enemy, base astride the allied invasion route to Sicily greatly facilitated the safe passage of the invasion convoys; the swift seizure by the Iranians of the islands commanding the Hormuz Straits entrance to the Persian Gulf ensured Iranian control of this strategic water-way when UK forces were withdrawn from the Gulf; and the equally swift seizure of the island of Tiran by the Israelis ensured for them control of the entrance to the Gulf of Acaba.

In this writer's view, the Defence Force needs to acquire as quickly as is economically feasible the following amphibious capabilities, for which support elements like carrier air, NGS and MCM already exist:

*By the Navy,*

- ocean going amphibious ships which, between them, could lift in the region of 1000-1200 men, in order to provide for the deployment of battalion groups variously structured for varying amphibious tasks;
- ship-to-shore movement assets, organic to the ships, both heli-borne and water-borne, which, between them, can place an Army company size force ashore in one move;
- elements of a Joint Amphibious Beach Team (ABT) for landing craft control and helicopter control; and most importantly,
- senior officers and staff officers trained in and regularly practiced in the maritime





Artists's impression of the amphibious heavy lift ship (LSH).

aspects of amphibious planning and in commanding joint amphibious forces, as it is Australian doctrine that a naval officer commands the whole of any amphibious force until the Landing Force is securely established ashore.

*By the Army,*

- infantry, armour and engineer units trained for tactical lodgement;
- artillery to provide close support;
- NGS Forward Observer parties;
- Army elements of Amphibious Beach Teams;
- Terminal Regiment units to take over from an ABT the running of a secured beach;
- amphibious ship Army detachments;
- landing craft, amphibians and pontoons to assist in ship-to-shore movement; and again most importantly
- staffs trained in amphibious planning and in directing land operations from afloat.

It is emphasised that, with Australia's lack of Marines, the provision of trained Army units as listed above is just as necessary a national contribution to maritime warfare as are mine warfare vessels or ASW helicopters. The fact that such maritime warfare-required landing forces can equally well be used in support of land operations makes them a flexible weapon system, just as a destroyer can swing from ASW operations to Naval Gunfire Support. On the other side of the coin, while having stressed Army's need to provide amphibious force units to support

maritime operations, it must not be forgotten that one of the navy's roles is to be able to support land operations.

It is recommended to members of the Naval Institute that the Australian Defence Force must develop a viable tactical amphibious capability as rapidly as possible to make good the present glaring inadequacy in national Defence capabilities, and that the navy must insist that its amphibious ships are kept as well exercised in tactical operations as in logistic support.

No longer can Australia expect the Royal Marines or the United States Marine Corps to conduct necessary amphibious operations in our strategic area. There is a pressing need for the Defence Force to obtain:

- a national amphibious warfare policy;
- a credible core force of amphibious ships, landing craft and ship-to-shore movement helicopters;
- trained amphibious landing force units; and
- trained joint amphibious planning staffs and commanders.

Such forces would be available for participation in either maritime or land campaigns.

**NOTES**

1. United States National Security Act of 1947, as amended in 1973.
2. United States Marine Corps Gazette article of September 1977 "The power projection of Marines ashore is an Essential part of Sea Control".



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# A SOLUTION TO AUSTRALIA'S SURVEILLANCE PROBLEM

By Wing Commander W.A. Trewartha RAAF

In the 1976 Defence White Paper, the Minister for Defence, Mr D.J. Killen, emphasised the importance of maritime surveillance, reconnaissance and offshore patrol. Australia's declaration of a 200 nautical mile Australian Fishing Zone (AFZ) further increases the importance of surveillance and patrol at a time when men and equipment devoted to protecting our resources are 'either inadequate or not correctly employed to provide both effective surveillance and policing.'<sup>1</sup>

During 1978 many boats containing refugees from Vietnam arrived undetected in the north-west of Australia. Additionally, reports of numerous intrusions of Australia's airspace by light aircraft are widely accepted as fact by Northern Territory residents. Although the responsibilities for policing such incursions are shared by many Commonwealth departments (including Health, Immigration, Business and Community Affairs, Primary Industry and Transport), criticism over the demonstrable ineffectiveness of surveillance activities is invariably levelled at the Defence Force.

In speaking of the necessity for defence forces, despite their high cost, Dr T.B. Millar has said 'We do not have to be looking for enemies to justify expenditure on defence; we have simply to look to our own determination to protect our people, our society, our property and our values'.<sup>2</sup> Problems arise, however, in justifying the use of high-cost, specialized military equipment to detect illegal entry by boats. Conversely, in a period of severe financial restraints, the Defence Force is hard pressed to obtain enough of the equipment it needs to meet its primary role, without having to meet surveillance tasks which necessarily detract from important specialized training requirements.

The essentially civilian 'policing' nature of Australia's present problem ideally calls for an integrated agency much like the Coast guard of the United States. Financial practicalities however rule out such an agency in the near future. The Defence Force therefore will be required to continue its involvement in both policing and defending Australia's resources. This being the case, emphasis must be placed on co-ordination of all existing resources together with a carefully selective acquisition programme designed to obtain maximum surveillance effectiveness at minimum cost while progressively building up an autonomous policing agency.

## THE AUTHOR

Wing Commander Bill Trewartha joined the RAAF in January 1960 as a trainee pilot under the Cadet Aircrew scheme. He underwent flying training at RAAF bases in Point Cook and Pearce, and graduated in April 1961. After completing No 1 (Bomber) OCU he was posted to No 6 Squadron at RAAF Base Amberley, flying Canberra aircraft. A tour of duty with No 2 Squadron in Malaya followed, after which he was posted to a Flying Instructors Course at Central Flying School, RAAF Base, East Sale. On completion of the course he underwent instructional training on Dakota aircraft before being posted to RAAF Base Pearce as a flying instructor on both Vampire and Dakota aircraft. During this tour he trained on Macchi MB326 aircraft and took part in the first delivery flight of these aircraft to RAAF Base Pearce. In 1969 he was posted to Malaysia again this time to fly Dakota aircraft. A ground posting as Commanding Officer of the South Australian Air Training Corps followed, after which he spent two and a half years as Training flight Commander with No 34 (VIP) Squadron at RAAF Base Fairbairn. Prior to his posting to RAAF Staff College in 1978, he spent two years as a loan officer with the Papua New Guinea Defence Force first as Director Air Operations, and, for the final six months, as Chief of Staff to the Commander PNGDF. On completion of No 32 RAAF Staff College Course WGCDF Trewartha was initially posted on to Staff at the College and in July 1979 he was posted to his current appointment, SO(Admin.) to CDFS.



This paper will discuss existing policing equipment and the problems related to its use, with the aim of determining the best possible surveillance force obtainable within financial limitations. Guidelines within which such a force could be developed will be proposed.

### **The requirement**

With the 200 NM Fishing Zone, Australia faces the immense problem of maintaining control of a maritime area roughly equivalent in size to that of the Australian mainland. Even now, as Dr Millar says, 'foreign naval, intelligence, fishing, pearling or other vessels can operate in our environment beyond our capacity to do anything about them. Air Force or Naval reconnaissance aircraft may observe them, but the Navy just does not have the ships to intercept them.'<sup>3</sup> While this is quite true, there are many different operating factors which should be considered when seeking to improve the situation.

Broadly, surveillance is carried out so that information can be obtained on the movement and purpose of all air, land, sea and undersea vehicles in a specified area. Ideally Australia's needs in this area are:

- a capability for surveillance and policing of littoral areas, off-shore resources and deeper military surveillance;
- an ability to deter hostile actions and to defend focal areas and port approaches;
- readily transportable and mobile land air and naval forces to meet hostile actions; and
- a mobile continental air defence capability.

Problems arise, however, because military surveillance and civil policing activities become interwoven, with the consequent diversion of expensive specialized equipment to tasks which could adequately be carried out by much less expensive vehicles. Short-term financial restrictions dictate the continued use of expensive equipment for coastal surveillance, but the long-term aim should be to develop an effective policing capability which will enable re-direction of specialized military equipment to its primary military role.

In short, the requirement is for a firm long-term policy for the conduct of coastal surveillance, with clear direction as to the final composition and structure of the force required to meet policy aims.

### **Surveillance problems**

Successful policing of maritime zones requires (among other things) the capability for detection, identification, arrest and search, together with the use of applicable levels of coercion. Some of these capabilities can be

provided by aircraft, and some obviously must be provided by surface vessels. For an effective surveillance capability, the equipment must be of sufficient numbers to satisfactorily cover the zone of responsibility. Although air surveillance could be stepped up using available military and civilian resources, the paucity of available surface vessels severely limits our interception and arrest capability. Additionally, the immense area of responsibility and the present disposition of Australia's surveillance assets practically guarantees unacceptably long reaction times in checking suspected illegal operations.

Compounding these difficulties is the present spread of responsibilities between several Government departments with the consequently expensive duplication of effort, the lack of compatibility of techniques and equipment, and poor cost effectiveness.

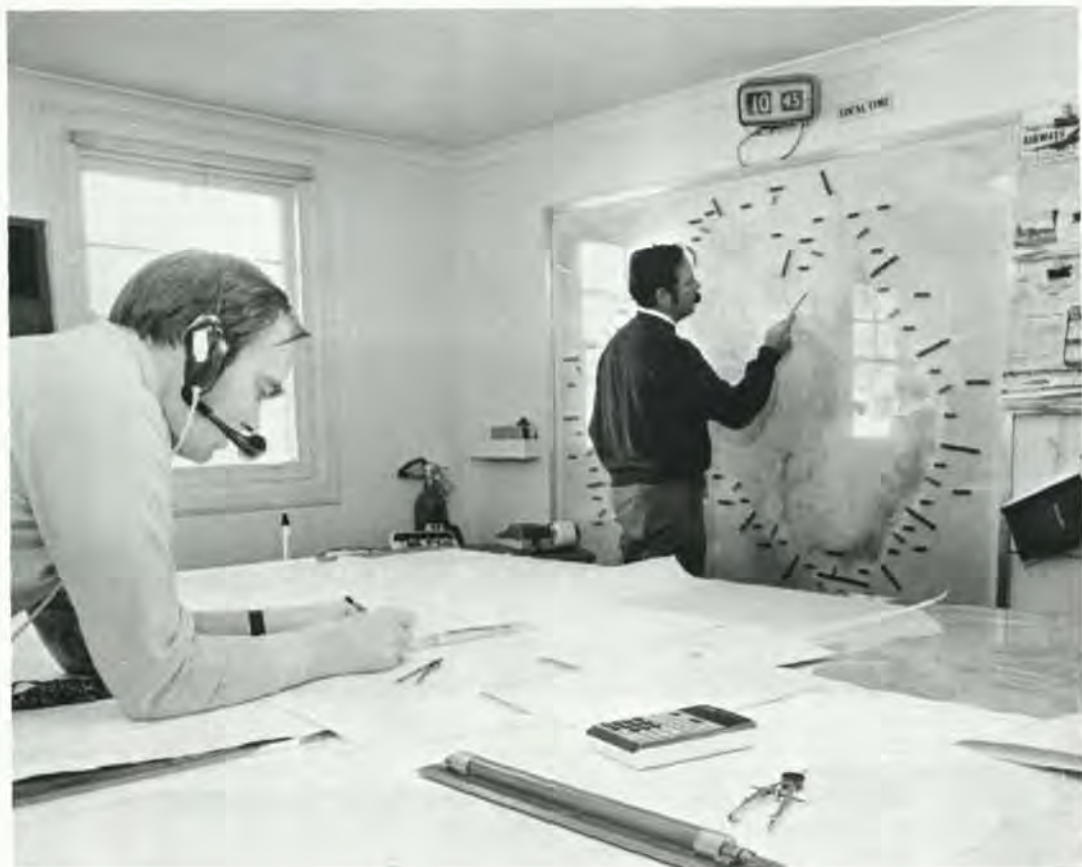
In discussing problems faced by the United Kingdom, an article in the *RUSI Journal* commented that 'Departments are funding the RAF and the RN for resources activity, but the vehicles used (Nimrod aircraft and Island class frigates) are war machines, and any extra vehicles for replacement will still require a war-fighting role'.<sup>4</sup> A very similar situation also faces Australia, with deep concern being felt about the 'overkill' in cost and capability when using ASW aircraft and larger Navy ships in policing roles.

Mr Killen has expressed disquiet at the 'problems associated with the armed forces fulfilling functions involving the powers of apprehension and arrest'.<sup>5</sup> The Norwegians are sufficiently concerned about the use of armed forces in this role to have formed a coast-guard service for the purpose of maintaining law and order; and the Foreign Ministry considers that 'the coastguard vessels should be of such an appearance as to differentiate the ships and their personnel from other naval units'.<sup>6</sup> The Commonwealth Heads of Government Regional Meeting at Bowral dramatically highlighted the contentious issue of the use of armed forces in essentially civilian capacities. Similar problems will certainly have to be faced at sea if Defence Force personnel continue to be used in policing roles.

### **Current surveillance assets**

For the task of aerial surveillance, Australia presently uses a mixture of both civil and military aircraft. Light Civil aircraft are chartered (on an irregular basis) by specific Government departments to provide an essentially visual search capability. RAAF P3 aircraft, although costly to operate, are used for surveillance of specific areas, while RAN S2G aircraft are used for selected periods to search the north-western approaches to Darwin for refugee boats. There is,





Department of Transport officers plotting contacts in the operations room at the Australian Coastal Surveillance Centre.

— by courtesy Department of Transport.

in fact, a considerable amount of aerial surveillance carried out at present, and a more effective coverage could be readily achieved, but at the cost to the military of a large diversion of effort from primary tasks.

This aerial surveillance capability, however, substantially outweighs our surface intercept and arrest capability. There are seven RAN patrol boats and three Customs launches available to patrol the area from Geraldton to Cairns. Such a force is scarcely able to 'show the flag' in most areas, let alone attempt the timely interception and inspection of the many 'contacts' made by aircraft. Understandably, the RAN has little inclination to divert larger ships to the task, and the acquisition of fifteen new patrol boats will not greatly increase surface inspection capability because of the planned concurrent phase out of the *Attack* class boats. Purpose-built Customs boats are few in number and most are fully utilized. Unfortunately therefore, the sea-borne policing task — although the weakest link in our surveillance chain — seems to have little immediate prospect for expansion.

Apart from the assets already discussed, Australia does have a considerable amount of potential surveillance capability in existence, but as yet untapped. Offshore oil rigs, scheduled civil flights, Royal Flying Doctor Service aircraft, geological survey teams, road haulage companies, shipping lines, fishing boats and military training tasks are all potential sources of information. Additionally, remote farms and mission stations could report on unusual aircraft movements, while police and council workers could easily be organized to include coast-watching as part of their normal duties where appropriate.

Obviously, if all such sources were to be used, a properly manned and equipped control centre would be necessary to sift and collate reports, to evaluate the information, and to co-ordinate any required action. It would be far better to establish, test, and refine such an organization in a low-threat period than to wait for the confusion of priorities inevitably associated with the emergence of a threat.



## Technological advances

In discussing the policing roles of the United States Coast Guard, the Asia Pacific Defence Forum said in part 'Because of the potential for confrontation and the nature of the devices available to dissidents and terrorists, the weapons and sensors of Coast Guard ships and aircraft must keep pace'.<sup>7</sup> Although Australia does not have a Coast Guard, we must nevertheless remain current with technological progress in surveillance areas so that maximum value can be derived from our limited resources.

World-wide real-time surveillance using satellites already enables the super powers to detect and monitor any major military activity. Presumably Australia would have some access, even though restricted, to pertinent information from present satellites and from future more capable satellite systems. Whether Australia should set up a satellite surveillance system would be debatable considering the enormous cost and the possible vulnerability of satellites.

US Airborne Early Warning and Control Systems (AWACS) such as the Grumman E2C and Boeing E3A are capable of searching both air and surface areas on a massive scale, and potentially can provide 200 mile coverage against air intrusion as well as detection of small surface 'targets' and control of the complete electronic spectrum in a given area. The UK has had ten years experience in AEW with its modified Shackleton aircraft. The ability of the Shackleton to detect naval vessels and control aircraft against them is such that semi-covert attacks can be made against surface forces hundreds of miles outside the cover of fixed radars.<sup>8</sup> Again, such systems are expensive and are perhaps as vulnerable as satellites. However, it behoves our Defence Forces to continually monitor such technology so that they could procure and operate the equipment if the need arose.

Further down the scale of technology, there has been a proliferation of specially designed or modified aircraft for the surveillance role. Aircraft such as the Fokker F27MPA and the Hawker Siddeley Coastguarder can provide quite sophisticated electronic surface-search capabilities at comparatively low cost, while the profusion of light twin-engined civil aircraft modified for less sophisticated operation demonstrates the extent of the eventual market foreseen by manufacturers.<sup>9</sup>

Over-the-horizon (OTH) radar systems being developed should eventually have a range of 2000 kilometres against surface targets and even greater ranges against airborne targets, but local-

ization and identification of targets is a problem which can only properly be overcome in conjunction with AWACS aircraft and surface vessels. Nevertheless, the potential of OTH radar should be understood and maximum advantage taken of its capabilities.

Local area 'gap-filler' radars such as the Westinghouse AN/TPS-63 and the Thompson CSF coastal radar generally have ranges out to 120 kilometres against low flying aircraft, but even though some of these radars are air-transportable, they lack the range of AWACS aircraft and the flexibility of less complex surveillance aircraft. Ship-borne radars generally suffer from the same limitations as gap filler radars when used for surveillance, but improved performance by radars in later RAN ships might be anticipated.

When in service, Australia's new patrol boats will have much improved speed, range and sea-keeping capabilities than the present *Attack* class boats, but there will not be enough of these boats to properly conduct arrest and search operations. Of particular interest to Australia therefore is the private venture proposal from the Hawker de Havilland Australia company for a 26 metre patrol boat. Although without the sea-keeping qualities of the RAN's patrol craft, this type of vessel is significantly cheaper and should combine good speeds with reasonable ranges and low maintenance requirements. Computer studies indicate that such a boat could operate in most of the sea states likely to be met in Australia's northern waters, therefore it could provide a comparatively cheap method of increasing the Australian capability to conduct surface policing actions.

While amphibious aircraft could be particularly useful in surveillance tasks in addition to providing a platform for boarding and arrest parties, present generation aircraft are hampered by their relatively low sea-state capabilities and by salt water corrosion. Amphibious aircraft should therefore be kept under consideration in case future technology can overcome their present limitations and enable their full potential to be realized.

Although generally regarded as a military requirement only, the need for rough-terrain vehicles should not be ignored when considering surveillance problems. Access into remote areas not serviced by roads is a capability required for Customs and Quarantine tasks as well as for Army operations, and the new generation of Armoured Personnel Carriers (APC) and off-road vehicles being considered for the Army could well have characteristics very much suited for non-military purposes.



### Use of a civilian force

In announcing a program to upgrade Australia's coastal surveillance and enforcement capabilities, the Minister for Transport, Mr Nixon, said that 'The concept of a separate coastguard system had been examined and rejected for the time being as a costly duplication of existing and available resources.'<sup>10</sup> Whilst this may be true, the legal complexities of using the Defence Force for civil policing duties are already evident, and there seems to be a very strong case for increasing the civilian involvement in surveillance, with the long-term structure of our coastal protection agency being entirely civilian in nature.

Estimates for the required composition of a separate coastguard vary greatly, but a minimum force of about 30 aircraft supported by 20 or more patrol boats would seem to be required. The US Coastguard has much more equipment than this of course, but its roles include search and rescue, maintenance of maritime navigation aids, ice-breaking, and oceanographic research. To meet the cost of its coastguard, the US has determined that fees and fines paid by foreign fishermen should not only be enough to cover all costs of the coastguard, but also provide additional revenue.<sup>11</sup> Although such a system could be operated, Australia would face an enormous bill (estimated by some sources to be as high as \$A400M) to initially establish a civilian agency.<sup>12</sup>

Training times for personnel and the initial establishment of bases and infrastructures would impose a considerable time penalty on this operation, and could well cause an appreciable increase in estimated costs.

The alternative to a coastguard for Australia would be an upgrading of present activities. At present there are several different Government departments with differing responsibilities and budgets all engaged in activities which are partly related to coastal surveillance and protection. This situation has been demonstrably inefficient in the past, and in a time of stringent financial measures is an unjustifiable waste of resources.

### Use of the defence force

'The first thing that is seen to disappear in a state which is disintegrating is the Navy.'

— Daveluy

Although Daveluy was not referring to Australia, the RAN is in fact suffering from a shortage of vessels, and the situation is not likely to change dramatically in the foreseeable future. With the Minister for Defence already on record as having said that it is 'difficult to draw up defence reports when there (is) no clearly conceived threat to the nation',<sup>13</sup> there is no great likelihood of increased defence budgets for some time. If the Defence Force should have to carry an increasing share of surveillance responsibilities, however,

the serious shortage of policing vessels would have to be redressed by diverting even more naval ships away from their primary defence tasks. It is important that Australia's limited funds for defence should not be used to provide equipment primarily suited to the peacetime role of coastal surveillance.

That is not to say that the Defence Force does not have a peace-time surveillance role. Although military equipment is mainly used in more sophisticated roles than that of policing, a great deal of assistance can be given to civilian agencies as a 'by-product' of normal defence patrolling. The admittedly low effectiveness of present surveillance activities could be dramatically improved merely by having a central co-ordinating authority to receive, process and act upon the information already available from many sources.

The two basic problems in diverting Defence Force activities to peace-time patrol duties are firstly the inevitable waste in using highly-trained personnel and specialized equipment in roles that detract from the primary tasks of the military, and secondly the contentious issue of the legal rights of servicemen when they are used in civilian tasks. Given Australia's present economic situation, continued involvement of the Defence Force in civilian-type operations will have to continue for some years, but the cost of such activities must not be borne by the Defence Force, and a solution to the legal question must be found urgently.

The White paper on Australian Defence was presented to Parliament in November 1976. Although the nature of Australia's overall defence characteristics is outside the scope of this paper, one characteristic which receives substantial emphasis in the White Paper is that of 'readily transportable and mobile land forces, with adequate capability for reconnaissance, to meet hostile incursions at remote localities.'<sup>14</sup> With the greater proportion of our land forces and their equipment based in the south-east of the continent, and all incursion and policing problems occurring in the north and north west of Australia, the mobility of our land forces should be closely examined. Road and rail communications with the more remote areas of Australia are notoriously unreliable for long periods each year, therefore land forces would have to rely on sea or air transport for mobility.

Rapid deployment by air presents particular problems in that, although troops could be moved if necessary by civilian aircraft, much specialized equipment can only be transported by C-130, and in fact the deployment by air of an Army division with its equipment could completely occupy our air transport elements for several weeks even if no tactical transport support were required.



Selective prepositioning of some specialized equipment could alleviate deployment problems, and the use of such equipment during appropriate joint exercises would have the benefit of providing realistic training to the Defence Force, while at the same time increasing the military presence in remote areas, with the 'spin off' of providing more comprehensive intelligence on terrain and coastlines, and better surveillance over a greater area of our coastline.

### Combined operations

The realities of Australia's present position are such that combined military and civilian surveillance operations are inevitable in the short term. There is ample evidence to suggest that independent operations conducted by several different agencies are wasteful of both manpower and finance. The Defence Force is clearly unable to take over all policing and patrolling duties without an injection of substantial amounts of extra money, and even so any extra equipment purchased would probably have capabilities far exceeding those required for coastal surveillance. For the sake of expedience, a combination of civilian and military activity should continue at present, but the arrangement must clearly be

recognized as expedient and temporary, and all future civilian and military surveillance decisions should be made in the light of the eventual evolution of an autonomous civilian Maritime Control Agency (MCA) controlled by the Department of Transport.

The MCA envisaged would have facilities at selected population centres — with existing airfields and small ship berthing facilities — around the northwest and north coast of Australia. There would be a central headquarters responsible for receipt and processing of surveillance information, and for co-ordinating patrol and policing activities within and outside of the MCA. Personnel would be mainly civilians from the relevant Government Departments with all uniforms, ship and aircraft markings, vehicles and flags such that ready identification and recognition of the MCA could be assured.

Provision could be made for military personnel to be seconded to the MCA as part of their normal career progression, and MCA equipment would be basically identical to that of the Defence Force, but internally equipped to meet the specific requirements of the civilian force. Defence Force exercises would be conducted at MCA bases and surrounding areas, with full participation by MCA aircraft, ships and vehicles.



The Department of Transport navigation aid vessel MV *CAPE PILLAR* which is employed on coastal surveillance duties around the Australian coast on an opportunity basis.

— by courtesy Department of Transport



Legislation would be in force allowing full powers of arrest and search to MCA personnel, and enabling revenue from fines, confiscations and licences to go directly towards the operating costs of the agency. Such an agency would require time and money to establish, but an effective force could be in operation fairly quickly at comparatively low cost if it were predominantly military at the beginning, with a gradual 'civilianization' of the agency over a period of years.

### **The concept**

If the military is to remain involved in policing and peace-keeping operations, legislation would have to be enacted to give a form of 'law-enforcement' power to specified Defence Force personnel. Additionally, revenue obtained as a direct result of these operations would have to go automatically towards the operating costs of the proposed MCA. For many reasons, the necessary administrative action empowering the formation of an MCA (initially using both military and civilian personnel), allowing the directing of funds derived from policing activities towards the cost of maintaining the MCA, and conferring specified powers of arrest and search on members of the MCA (military and civilian alike), should be taken simultaneously, and should be the first step towards the eventual establishment of an autonomous agency.

The Marine Operations Centre in Canberra has been strengthened and renamed the Australian Coastal Surveillance Centre (ACSC). This centre aims to better co-ordinate existing surveillance activities and encourage increased reports of incidents from voluntary reporting systems and the general public. With such responsibilities, the ACSC already is ideally placed to form the basis for the eventual MCA headquarters. Experience will dictate whether the headquarters eventually should be relocated, but for reasons of economy and ease of access to Government departments who may have vested interests in MCA activities, there would seem to be a strong case for the policy making and co-ordination activities to remain in Canberra, provided always that effective communication with MCA bases could be maintained.

The optimum number of MCA bases required will again be dictated by experience. At various times Geraldton, Learmonth, Port Hedland, Broome, Darwin, Gove, Weipa, Cairns and Townsville have all been suggested as bases for one or another type of surveillance activity, but the eventual number and location of bases will depend largely on the surveillance and patrol capability of the equipment used. There already exists a capability for visual surveillance by RAAF aircraft at Darwin and Townsville; Broome has been used by detachments of RAN Tracker aircraft and has Customs launches based there;

while Learmonth has existed for some time as a prepared forward base for the military. In keeping with the concept of establishing the MCA at minimum cost, Learmonth should be the location for the establishment of a first base. Formulation and refinement of operational procedures would be the initial aim of the bases, with co-ordination between the headquarters and the base, and the base and its surveillance assets, being of prime importance. With an existing Customs facility and previous use as a base for Tracker aircraft, Broome would be the logical position for a second base, with further bases being established in other locations as time and experience dictate.

The responsibilities of the MCA initially would be limited to policing of the Australian Fishing Zone together with customs and quarantine duties. These activities would gain revenue to help defray operating expenses, and also would provide a variety of operations to test and refine operational procedures and air to surface co-ordination. As the Agency becomes more established, a search and rescue role could be added, and eventually the MCA could be responsible for further activities such as the upkeep of marine navigational aids, port control, pollution detection, maritime anti-hijack and counter-terrorist duties, and hydrography. At all times compatibility of equipment and procedures with those of the Defence Force would be necessary so that the agency could function as a specialized coastal arm of the military forces in times of threat.

To contain initial expenditure, part of the existing facilities at RAAF Base Learmonth could be used for the first MCA base. Aircraft refuelling and parking areas, personnel accommodation, small ship mooring, and a refuelling jetty already exist at or near the airfield. A customs launch will be deployed to Port Hedland in the near future; should the location be changed to Learmonth, and should the Defence Force simultaneously deploy two Nomad aircraft and one or two patrol boats to Learmonth, a basic unit equipped for co-ordinated air and sea patrol and policing would be in existence. With suitable compatible communications, techniques could be developed for shore and area searches, co-ordinated aircraft and ship activities, and search and arrest. Communications networks between Learmonth, ACSC and military electronic surveillance aircraft could be established and tested, and later Broome (with Tracker or Nomad aircraft, a customs launch, and possibly a patrol boat) could be established as a second MCA base to further test operational techniques, communications, and co-ordination.

Equipment purchases by any Government department, in relation to coastal patrol or policing, should be aimed at commonality of type for the future MCA. To this end, the eventual structure of the MCA should be defined as quickly



as possible. As a postulation, the composition of the MCA could be along the following lines: a large number (20) of relatively inexpensive aircraft with search radar, accurate navigation equipment, and the ability to record and store data in a manner that would stand up to analysis in a court of law if necessary; a smaller number (2 or 3) of larger, more specialized surveillance aircraft; 15 of the less expensive 22 to 26 metre patrol boats; three or four larger vessels of the same type as the new RAN patrol boat; communication equipment compatible with that used by military surveillance aircraft and patrol craft; and the capability to readily fit in-service military weapons to all craft.

The build up of such a surveillance force could readily be adopted to assist Australian industry. Initial experience with Army Nomad aircraft could profitably be utilized if, for example, Searchmaster 'L' aircraft were chosen to build up the MCA. An order for 15 *ARAFURA* patrol boats (to be phased-in to the MCA over a period of years) together with the ordering of a further three 42 metre Brook Marine patrol boats, would give substantial impetus to Australia's defence industry, and could well give rise to further orders from neighbouring countries because of the resultant commonality of equipment and the on-going defence co-operation programmes in the region. The larger, more specialized surveillance aircraft would not be required quickly, and could, therefore, form part of a purchase order for new tactical transport aircraft for the RAAF. A rear-loading version of the well-proven F27 has been proposed as a Caribou replacement, with a good deal of design and production work available to Australian industry if the air-craft were ordered. Two such aircraft could easily be equipped for surveillance while maintaining a useful freight capability should the aircraft be required for unscheduled tasks.<sup>15</sup> No doubt similar proposals have been made on behalf of the HS748 and its Coastguard derivative. The advantages to be gained by having proven aircraft with a history of Australian operating experience are many.

Manning of the MCA would be predominantly military at the beginning, with the ratio of Servicemen to civilians gradually changing as the agency builds up its operation until finally there would be a civilian controlled and operated MCA with perhaps some specialized military men assisting the agency when required. Participation by Servicemen in the agency could best be achieved by secondment or attachment to obviate possible associated legal problems, and while military personnel would wear MCA uniform during their tour of duty, such tours would be regarded by the Defence Force as part of normal posting and career progression. Civilian personnel would

likewise be drawn from the applicable Government departments, and would return to their departments on tour completion. Administrative complexities such as length of tour (for military and civilian personnel); allowances and conditions; and regulations governing servicing, operating and manning of aircraft and boats during 'civilianization' of the agency would have to be resolved during the formation of the agency.

### **A time-table for change**

In determining a possible program for establishing and building up an MCA, many factors must be considered. Some, such as available finance and manpower, are restrictive now and probably will continue to be so. Others, such as related military equipment procurement and the attitudes of neighbouring countries towards Australia, may be subject to considerable change during the life of the program. Notwithstanding these factors, definitive guidelines as to the eventual structure of the force should be established, and a time-table determined to enable that structure to be achieved in as short a time as possible, while at the same time allowing for flexibility in the event of changing conditions.

The following time-table calls for a fully established civilian operated and controlled agency to be in operation by 1989. Maximum use is made of existing manpower and facilities so that an operating force can be formed quickly but cheaply, with the force then progressively being strengthened and civilianized as resources permit.

As a first step, legal and administrative processes should be taken to enable the formation of the MCA, to give personnel within or seconded to the MCA search, arrest and impounding powers and to provide for revenue gained from MCA activities to be used in defraying the cost of the agency. The final organization, composition and responsibilities envisaged for the MCA should be clearly detailed so that duplication, incompatibility of equipment and wasted effort can be avoided. Responsibility for co-ordination of present and planned surveillance resources, and for planning of communications requirements should be given to the ACSC, which, in conjunction with military personnel, would form the headquarters for the MCA.

During 1980, two Army Nomads, one Customs launch and two *ATTACK* class patrol boats should be deployed to Learmonth so that operational techniques and co-ordination of activities can be tested and refined. Plans should aim for the first permanent MCA base to be operational by 1981, and for the second base at Broome to become operational by 1982.





A Nomad Searchmaster variant L aircraft to be used for coastal surveillance in North Australia by the Australian Coastal Surveillance organisation. The Litton 360<sup>0</sup> surveillance radar radome is apparent. Two of these aircraft will be based in Darwin and one in Central Queensland.

— by courtesy Department of Transport

During 1980-81, Orion, Tracker and chartered aircraft should still operate as at present while the MCA bases are 'working up'. A decision on the less-expensive type of aircraft required for the MCA should be made so that orders can be placed in time for the first aircraft to become available in 1982. An order for the cheaper type of patrol boat should also be placed so that the craft can be phased in to service from 1981.

The present requirement for Customs to replace their vessels, and the contract shortly to be let for light, twin-engined surveillance aircraft are pertinent reminders of the urgent need to define the long-term structure of the MCA so that incompatibility of equipment and wastage of resources can be avoided. Orders for the RAN-type patrol boats and the specialized larger surveillance aircraft should be placed when appropriate for both the MCA and for the related procurement programmes of the Defence Force.

Additionally, during 1980-81 the ACSC should define the roles and responsibilities of a volunteer coast-watching net, and plan for the co-ordinated processing of information from other 'casual' sources.

During 1982-86, progressive 'civilianisation' of the MCA would take place, further bases would be established, and the previously ordered

equipment would be received into the agency. 'Military-compatible' communications systems, refined operating techniques, and active participation in 'tailored' Defence Force exercises in and around MCA bases would all assist in increasing the effectiveness of personnel and equipment.

From 1986 to 1988 the most expensive equipment (the larger surveillance aircraft and the large patrol boats) would be introduced into service, the chain of bases would be completed, and, apart from a few seconded military personnel, the force would be a fully operating, autonomous, civilian MCA under the overall control of the Department of Transport. Close links would be maintained with the Defence Force, including participation by the MCA in pertinent military exercises and re-equipment programmes.

### Conclusion

Establishment of an embryonic agency, largely with Defence Force personnel and equipment, followed by a steady progression towards an eventually autonomous civilian MCA is a practical, albeit comparatively slow, alternative for Australia. Clear guidelines and a definite concept for the eventual composition of such a force,



however, is needed to enable Australia to steadily upgrade her control over the AFZ while at the same time phasing out the present misuse of expensive, specialized military equipment. Even though the process may still be expensive, full cognizance should be taken of the fact that some revenue will be earned to defray costs, that Australian defence industries will receive an appreciable boost, and that Australia will have gained a permanent para-military presence in her more remote and presently unprotected areas.

The Defence Forces, freed from essentially civilian policing duties, would be better able to concentrate on their specific military roles. Purchase of new military equipment of a low scale MCA related type would be undertaken only after consultation with the Agency and with full cognizance of the long-term structure of the MCA. Higher technology equipment such as E2C or E3A aircraft, satellites and OHR would be capable of providing an information 'spin-off' to the MCA, and the introduction of any such equipment into the Defence Forces should provide for the channelling of pertinent information into the ASCS.

To achieve maximum effectiveness, the MCA should be equipped with the same basic types of aircraft and vessels as are in service with the Defence Forces and should participate in regular military exercises so that it can readily change from a role of off-shore policing in peace time to that of an efficient and effective coastal protection force should the need arise. Malcolm Booker recently stated that 'whatever power dominates the water approaches to Australia can control Australia'.<sup>16</sup> The very existence of an

efficient and well trained para-military force along Australia's coastline will contribute greatly to the protection of our marine resources in time of peace, and will greatly enhance the capabilities of our Defence Force to control our water approaches if circumstances should so dictate.

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## SHIPS OF THE IRANIAN NAVY



**ROSTAM** — Frigate built in UK 1972 (1,120 tonnes, 94.5 m overall, Seakiller and Seacat missile systems, one 4.5 in. and two 35 mm guns, one Limbo ASW mortar).



**ARTEMIZ**—Destroyer built as HMS *SLUYS* 1946 and transferred to Iran in 1967(2,350 tonnes,108 m overall, four 4.5 in. guns, one Seacat missile system, one squid ASW mortar).



**BOOSHEHR** — Fleet supply ship built in West Germany 1974 (3,400 tonnes, 108 m overall, one helicopter, combined tanker and store ship).

— photographs by courtesy of Chris Gee



# THE GENESIS OF THE FLEET AIR ARM

*Commonwealth Navy Order 137/1925 which formally established a Fleet Air Arm in the RAN is reprinted below for the interest of members.*

## CNO 137/1925 ESTABLISHMENT OF A FLEET AIR ARM OF THE ROYAL AUSTRALIAN NAVY.

The Naval Board have decided to establish a Fleet Air Arm of the Royal Australian Navy, based, as far as practicable, on the scheme adopted in the Royal Navy, as set forth in Admiralty Fleet Order No. 1058 of 1924, and subsequent relative AFOs.

2. Applications have been invited from Officers wishing to undergo the Long Air Course of four years, commencing in January 1925.

3. Officers volunteering for the Fleet Air Arm must be of the rank or relative rank of Sub-Lieutenant or Lieutenant, and must not be above the age of 28 on 1st January in the year in which they commence the course. Sub-Lieutenants must have obtained their Watchkeeping Certificates. In the main, Officers selected will be of the Executive Branch, but a small number of (E) Officers are also required. Officers before selection will be required to pass a medical examination.

4. Officers who apply are required to volunteer for service in the Fleet Air Arm, involving attachment to the Royal Australian Air Force for certain periods, the duration of which will be decided by the Naval Board from time to time. No Officer who volunteers will be required to undertake a second or subsequent period of attachment otherwise than with his own consent. For the present, it is intended that the periods of attachment and General Naval Service shall be approximately as follows.

A. First Period	Air	Four years, which will include a period of training
B. Second Period	General Naval Service	Two years
C. Third Period	Air	Two years for 50 per cent of the Officers who have completed A — the rest remain General Service.
D. Fourth Period	Air	Two years for 60 per cent of the Officers who have completed C — the rest remain General Service.
E. Fifth Period	General Service or Air	For remainder, if any, of Lieutenant-Commander's time, for all Officers, who have completed D.

5. Appointments of attached Officers will be made by the Air Board on the nomination of the Naval Board.

6. Naval Officers attached to the Royal Australian Air Force will be granted Air Force rank during attachment, the initial rank granted being that of Flying Officer, and they will be eligible for advancement in the Royal Australian Air Force, irrespective of their rank in the Royal Australian Navy. They will be given temporary RAAF commissions while attached; such commissions will be given to ensure the status and authority of attached Naval Officers under Air Force Law while under training, or at such times during their attachment when they may have to command RAAF personnel not under the Naval Discipline Act, and will not in any way whatever affect their Naval status or authority.



Attached Naval Officers will invariably be addressed by their Naval titles, and if their Naval rank is relatively higher than their Air Force rank, they will take precedence (but not command) among Air Force Officers in accordance with their Naval rank. They will continue to wear the uniform of their Naval rank, but will wear also a distinguishing badge indicating that they are attached to the Royal Australian Air Force for service in the Fleet Air Arm.

7. They will continue during the attachment to draw their full naval pay, and will receive in addition an allowance of 6s per day. This allowance may be drawn in addition to (E) pay, or to Gunnery, Torpedo, or other similar continuous Specialist Allowance. It will be paid during attachment under the general conditions laid for Submarine Allowance. During the periods of Naval General Service, however, when the officers cease to be attached to the Royal Australian Air Force, the allowance for flying duties will not be payable.

8. When attached to R.A.A.F. Establishments on shore, they will either be accommodated and rationed, or will be eligible to receive in lieu, in addition to Naval full pay and flying duties allowance, where applicable, lodging and victualling or provision allowance at R.A.N. rates.

9. When embarked during periods of attachment, their flying duties will be considered as equivalent to specialist duties. They will, therefore, have the rank and status and authority of their Air Force rank when they are engaged in specialist air duties; at other times, when they are engaged in General Naval Duties, they will have their Naval rank, status and authority. They will be available for ship duty in addition to flying duty, and in order to emphasize this, they will, when appointed to a carrier or other of H.M.A. Ships, receive an appointment from the Naval Board as well as an appointment from the Air Board.

10. Attached Officers will, as stated in paragraph 6, be eligible for advancement in the Royal Australian Air Force, under R.A.A.F. Regulations, irrespective of rank in the Royal Australian Navy, and such advancement will be determined by the Air Board, in consultation with the Naval Board.

11. The promotion in the Royal Australian Navy of R.A.N. Officers serving in the Fleet Air Arm will be governed by Naval Regulations, and this service will be considered to be as good as service towards promotion as if they had served in any other specialist branches.

12. Attached Officers, while serving at R.A.A.F. Establishments on shore, are to be borne nominally on books of H.M.A.S. Cerberus; when serving afloat they will be borne on the books of the ship in which they are serving.



## NAVAL AVIATION

'It is impossible to resist an admiral's claim that he must have complete control of, and confidence in, the aircraft of the battle fleet, whether used for reconnaissance, gunfire or air attack on a hostile fleet.....The argument that similar conditions obtain in respect of Army cooperation aircraft cannot be countenanced. In one case the aircraft take flight from aerodromes and operate under precisely similar conditions to those of normal independent air force action. Flight from warships and action in connection with naval operations is a totally different matter. One is truly an affair of cooperation only; the other an integral part of modern naval operations.'

*Winston Churchill: Memorandum for Lord Inskip, 1936*



# THE ROYAL AUSTRALIAN NAVY WITHOUT AN AIRCRAFT CARRIER

By Commander R.A. Howland, RAN

'To decide not to continue with carrier borne naval air power will force the RAN to change its structure and concept of operations and such changes may create a situation whereby the navy can no longer perform the defence tasks that have been entrusted to it by the Nation.'

('Proteus', The Case for Seaborne Air Power, *Pacific Defence Reporter*, October, 1979)

Thus spoke 'Proteus', a well-known proponent of sea-borne air power in his latest attack on the public and political consciousness. His case was well put in that article, and as he so rightly concludes 'Surely ... the question ... needs no further debate.'

Unfortunately for Proteus, the Navy and indeed the Nation, a strong case may not be enough to carry the day when the political decision is to be made. Anyone who is even remotely aware of the Aircraft Carrier project, and its financial implications, is acutely conscious that the bill may be too high, and the Navy may indeed have to do its job without a carrier.

It is therefore both prudent and timely to begin a public examination of the shape and capabilities of such a Navy. That is the purpose of this article.

The examination will be prudent because there can be no assurance that, even if the economy of Australia proceeds in its present state of moderately good health, the decision to invest \$600M to \$1000M in an aircraft carrier will be made. In that case, as 'Proteus' has said, there will be a requirement for the Royal Australian Navy to change its structure and concept of operations. This article will attempt to demonstrate the enormity of that change.

The examination will also be timely, indeed it is already seriously overdue, simply because of the time and effort required to effect the necessary changes. This is not to suggest that some work is not already being done in this area. I am aware that it is. But, if the Navy is to be seen to be both objective and thorough in offering its case for the aircraft carrier, it must also expose itself to public debate of the alternatives.

What the examination will not be, therefore, is popular, and this for several reasons.

Firstly and obviously, any examiner will have to learn to live with the role of an 'anti-god'. The question must be asked 'Is there an officer available in this Navy in which carrier borne airpower is

an article of faith, who has both the experience and the objectivity to argue against that article?' In this regard, a mild criticism may be levelled at 'Proteus' and the Navy's case in general. The basis of our argument has always been 'what we can do with a carrier', rather than the less appealing but equally valid theme of 'What the Navy can do without a carrier.'

This leads to the second reason for the unpopularity of the examination.

Probably as a matter of negotiating tactics, the Navy's case has always avoided any direct reference to its projected capabilities without a carrier. Admittedly this line of arguing could be seen as negative, but it does preclude the possibility that there may just be an acceptable alternative, even if it means that the Navy will be less capable than is currently perceived as desirable.

An examination of the no-carrier Navy offers two clear benefits, each equally valuable. A detailed examination which provides a series of clear structure and capability options may demonstrate that the expected reduction in the Navy's effectiveness is in fact the strongest argument in favour of the carrier. Alternatively, if the decision still goes against the carrier, much of the ground work will have been done to effect a change in the Navy's course, thus avoiding a dangerous period of floundering whilst we return, too late, to the drawing board.

## THE AUTHOR

Commander Howland joined RAN at Jervis Bay in 1958, and later qualified as an ASW Specialist. He has served in a wide variety of ships including HMA Ships *BASS*, *VOYAGER*, *STUART*, *HOBART* (Vietnam 1967) and *BRISBANE* twice, first as ASW Officer and then as XO for the Spithead Review. He completed the RN Staff Course at Greenwich in 1973-74 and served for two years as the Fleet ASW Officer. He is currently on the Directing Staff of the RAN Staff College.



Surely it is prudent to plan **in detail** for the day, if and when the decision goes against the carrier, to offer immediately the alternative, complete with a concept of operations and a shopping list.

In fairness, it must be made clear that this statement is not a criticism of the Navy's Aircraft Carrier project team. Their task has been to justify the carrier and look at carrier options, and they have to an extent succeeded. The task of looking at alternative force structures quite rightly was not part of their brief.

What then might such an examination reveal? What would a no-carrier Navy look like? What could it do and how would it operate?

Readers are not about to be offered a neatly bound package containing a new no-carrier Navy. Rather they will be offered some thoughts for further and, your author hopes, detailed examination.

The planning for the no-carrier Navy should follow the same procedure as is used in any force structure considerations, and therefore starts from the following assumptions:-

- Australia's Strategic Assessment remains unchanged. Briefly, no country is perceived to have both the ability and the intention to invade Australia in the short term. Nevertheless, the country will attempt to continue to exist and indeed prosper in a world in which it seems nothing is predictable. National objectives — security, prosperity, stability, progress — will remain unchanged.
- The assigned roles of the Defence Force as a whole remain unchanged, at least initially, as do, again initially, the roles of the RAN.
- Obviously there is no aircraft carrier. To be completely objective, I will assume also that there is also no lesser version — the dreaded 'Woolworth's Carrier' — in the inventory. In fact, I will write out of the options any sea-borne fixed wing capability.
- The RAAF's Tactical Fighter Force, in whatever form, will enter service at about the same time *MELBOURNE* departs.



The amphibious assault ship *USS GUAM* (LPH 9) operating AV-8A STOVL aircraft. The LPH is one of three aircraft carrier platform designs identified by the Australian Minister for Defence in August 1979 for further investigation by the RAN. A decision on the RAN's replacement of *HMAS MELBOURNE* is expected by the end of 1980.



- The proportion of the budget allocated to Defence, and in particular to the Navy is no more than at present and certainly no less.

Let me now examine in more depth the roles of the Navy. Currently the assigned roles could be summarised as follows:

- the protection of sea-borne trade;
- sovereignty duties; and
- projection of power, either independently or in participation with allies.

### The Protection of Sea-borne Trade

In a recent debate conducted in the pages of the *Financial Review* on the very subject of MELBOURNE's replacement, one correspondent made the following assertion:

'Australia is not dependent ... upon international trade ... and ... is well placed to survive, intact, without overseas trade'.<sup>1</sup>

So radical is this statement and so contrary is it to the popular view that it may be dismissed out of hand as untrue. But in fairness to its author, he did modify it by noting that 'it is economically convenient for Australia to be a trading nation.'<sup>2</sup> He might also have mentioned that international trade contributed to the national wealth and prosperity and indeed that Australia could not exist in a 'peaceful' world without its trade. But the Navy must contemplate a situation where that peace is partially or completely removed. The *Financial Review* correspondent could be right. Has any study ever been done to determine the survivability of the country without trade? Such a study should form an essential part of the examination for both the carrier and no-carrier Navy, if only because in a threat situation there can be no guarantee that the foreign owned shipping which carries the majority of our trade will continue to sail in our support. If no such guarantee can be given, the requirement for the protection of sea-borne trade will largely cease to exist.

Nevertheless, in the absence of such a study, I will continue to assume that the Navy will be required to protect our maritime trade.

### Sovereignty Duties

For convenience, I will gather under the heading of Sovereignty Duties all those activities concerned both with the surveillance and policing of our off-shore and coastal waters, and the deterrence in a higher threat situation of a direct sea-borne attack on the mainland.

I feel justified, without further discussion, in saying that the Navy has a significant and valid role to play, in conjunction with land-based air forces in the execution of Sovereignty Duties.

### Projection of Power

The phrase 'projection of power' is a catch-all, covering as it does everything from showing the flag, through gun boat diplomacy to full scale sea-borne assault on sea or land areas beyond the sea area of Australian sovereignty.

Here too, indisputably, the Navy has a role to play. Within the limits of fitted armament, it offers, either as a single ship or as a Task Force, an essential range of military and political retaliatory options. Nothing except a ship can offer so much for so long with so little outside help.

The assigned roles just discussed can be assumed to remain valid. The next question then must be 'how do we go about fulfilling our roles without an aircraft carrier'.

To abbreviate the length of this article and on the grounds that it is intended only to initiate discussion, I will limit any answer to this question to generalizations about a single aspect of maritime warfare.

Amongst the basic premises of the pro-aircraft carrier argument is the Naval Commander's requirement for air superiority over his force at sea. The means of achieving a degree of such superiority may be land-based air but this of course presupposes that the force remains within range of the air-fields.

To venture beyond that range, with the current weapon fit of the ships of the RAN reduces the Task Force's survivability significantly provided — and note this 'provided' well — provided the force proceeds within the range of enemy air forces, be they either land- or sea-based. And amongst the sea-based air threats I include ship-, air-, and submarine-launched missiles, in the full knowledge of course that the bases are mobile, may be submerged and will probably be able to launch their weapons from beyond the range of those of our Task Force.

The problem confronting the Task Force Commander is well known. He must detect and identify the weapon platform and hope that it is within the range of his weapons. If not, he must wait until weapon launch and then react. Alternatively his first indication of a threat may be a fast closing radar contact. Again he must react, but in this case more quickly. Both the DDG's and the FFG's have weapon systems which, in theory at least offer a reasonable chance of countering a 'whites-of-the-eyes' threat. They might survive a low or medium intensity attack, but would almost certainly suffer in a high intensity attack.



The basic point of the foregoing is that in a no-carrier Navy, we must accept the fact that in our attempts to achieve air superiority over the Fleet, we will almost invariably be re-acting rather than acting. Our tactics must become defensive rather than offensive, and given our current weapon-fit, we will probably lose ships. The emphasis then in the no-carrier Navy must be on survivability. This is a word which encompasses many aspects of weaponry and tactics, and so deserves some further examination.

Survivability depends initially on the capability to counter effectively successive waves of attacks delivered from a variety of launch platforms with a variety of weapons. It refers, therefore, not only to the quality of weaponry but also very much on the quantity, both in a single ship and in the force as a whole.

Any consideration of survivability must also address the distasteful prospect of failure to counter attacks successfully. At the lower end of the scale is the ability of a ship to absorb damage and still keep on fighting effectively. At the upper (or perhaps it is even lower) end of the scale is the prospect of a ship or ships being destroyed, and survivability then is a question of the Fleet continuing as a fighting unit — in other words, simply numbers of ships to replace those lost.

This discussion has emphasized survivability because it is such an all-encompassing measure of Fleet effectiveness. It is also, within certain limits, fairly precisely quantifiable, both in reference to a single ship, and in sum to the Fleet as a whole.

Any studies of force structure should express their findings in terms of the individual and collective survivability of the units comprising the force, against a range of possible threats. In a study of a no-carrier Navy, this is particularly important. All the studies associated with the *MELBOURNE* replacement so far have emphasized the importance of air superiority over the Fleet, particularly outside the range of land-based air support. If it remains the role of the Navy to operate 'out there', then we must be able to provide some easily recognisable measure of our ability to do so, initially with a carrier, but more critically, without. That measure is survivability.

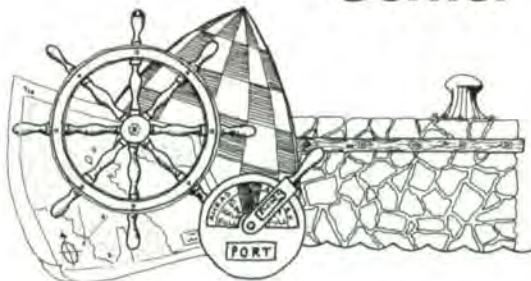
In conclusion, I would re-emphasize my theme. I have not argued against the carrier. Rather I have called for a closer and more public examination of the alternatives, starting with the worst case of no sea-borne fixed wing capability at all. My justification for this call is that only by examining the alternatives in detail can we test the strength of our case for the carrier. I have not been made aware that such a detailed examination has taken place.

I hope then that the generalities I have put forward will provoke both thought and action. And for the peace of mind of 'Proteus', I would say, not that the question needs no further debate, but that he may profit from a whole new debate.

#### NOTES:

1. Wright, K.W., Letter to the Editor, *Financial Review*, 23 October, 1979.
2. *Ibid.*

## Shiphandling Corner



### ALL IN A DAY'S WORK

At 1530 one Friday not so long ago, a Destroyer Escort, whilst steaming off the East Coast of Tasmania, suffered a complete steering gear failure. The situation was complicated by two additional factors, due to the temporary machinery defect the ship was limited to 50 per cent power and a full south westerly gale was in progress.

The ship had departed from Hobart on the previous day for return passage to Sydney and despite the gale blowing on the port quarter was making fairly comfortable progress along the Tasmanian coast. As was customary in these conditions, the course was being controlled by the ARCAS automatic steering system which copes with quartering seas much better than a human helmsman.



When the steering system failed the rudders were found to be seized in the "hard-a-port" position. The fairly comfortable progress rapidly deteriorated as efforts were made to control the ship using main engines and the engineers struggled to return the rudders to "amidships". This was achieved, with great difficulty, at about 1610, when course for Sydney was resumed steering by main engines, but still with the limitations of reduced power.

Most ships, of course, are most difficult to steer with quartering seas and a River Class ship is no exception to this general rule. With fixed revolutions on the port shaft, it was necessary to vary the revolutions on the starboard shaft from stopped to maximum available at various times to maintain a reasonable heading. Generally, a variation of 40 RPM either side of the mean was sufficient, with an occasional larger wave requiring greater power changes. Maintenance of heading required the full attention of the Officer-of-the-Watch and, therefore, for the remainder of the passage to Sydney, two qualified officers of the watch were employed with the second officer attending to all the other duties involved. Conning the ship required intense concentration in order to detect and anticipate any swing. Accordingly this duty was rotated every thirty minutes.

During the first watch that evening, it became apparent that the ship's own workshop capacity was inadequate for the task of restoring the steering system and it was accepted that the ship would not have steering until after return to Garden Island Dockyard.

A general improvement in the situation occurred overnight, when Gabo Island was rounded and there was a very considerable abatement in the wind and sea. All things are relative and, although the seas remained moderate to rough, the conditions seemed positively idyllic compared to our previous situation. Throughout the passage this ship encountered very little shipping and this fact simplified the problems.

The efficacy of the Vosper stabilizers was once again demonstrated during the difficult hours after the steering gear failure. At one stage a minor electrical fault immobilized the stabilizers for ten minutes or so and during this period the ship tended to fall away from the face of the waves making course maintenance practically impossible. Without the stabilizers, an alternative destination would have become necessary.

Naturally, having regard to all the circumstances, entry into Sydney harbour with a "broken wing", was made on Saturday afternoon when small craft density was at its height! As the ship was still restricted to 50 per cent power, tug assistance was requested for the entry and this was forthcoming in the form of a large commercial tug and two small naval tugs. The large tug was most professional and secured himself by a single point to the DE's transom and proceeded to act as a large and very effective rudder. The two small tugs stationed themselves either side of the bow, in case any swing developed. In this manner the ship commenced the entry.

The entry did not proceed smoothly for long because, after turning to enter the Western Channel and with a 40,000 ton containership outbound, the entire Middle Harbour Yacht Club racing fleet, sailed across the bow at about fifty yards distance. Naturally, the ship had to go astern to avoid collision and this action, in turn, caused the master of the large tug astern some concern. Anyway, collision was narrowly avoided, the tug master placated and the entry resumed.

Abeam Chowder Bay, the next concern was a large sailing ketch running free down the middle of the channel. No signals had any effect and she eventually sailed between the ship and the tug on the starboard bow. The skipper turned out to be a middle-aged lady, who was completely unmoved by the stream of invective directed at her by the crew of the tug and cheerily waved a can of "Fosters" as she passed!

Once again, it was disturbing to observe the lack of awareness of "Rule of the Road", seamanship and common courtesy which is so prevalent amongst small craft on the harbour. When I subsequently discussed this with a prominent member of a Sydney yacht club he, quite seriously, proposed that the harbour "should be closed to the Navy and all commercial shipping at weekends". I have no doubt that this is a common viewpoint among yachtsmen.

The ship's unusual return to Sydney concluded at 1700, when she, with the aid of the three escort tugs completed a stern board alongside HMAS STALWART at the EMS mooring, without further incident. The first glass of beer tasted exceptionally good; I wonder why!?

DDF





# SHIPS AND THE SEA



## RAN ANTARCTIC SHIPS

In 1947 the Australian Government decided to send a government sponsored expedition to the Antarctic. Known as the Australian National Antarctic Research Expedition (ANARE 1947) it was the first time members and ships of the RAN were to be involved in the Sub-Antarctic and Antarctic. One of the aims of the expedition was to establish a full class 'A' weather station on Heard Island. The Heard Island party was to take cosmic ray observations, and carry out topographic and geological surveys. In general, the expedition was to carry out scientific and exploratory work and observations of great value to Australia.

The two ships chosen for the expedition were HMAS WYATT EARP and HMAS LABUAN (ex LST 3501). The WYATT EARP was a wooden ship of 402 tons gross built in 1919 in Norway as a fishing and sealing vessel. She was purchased by the American explorer Lincoln Ellsworth for his 1933 Antarctic Expedition. The ship was refitted and sheathed with armour plate. She made four trips to the Antarctic between 1933 and 1939. In 1939 she was purchased by the RAN. During the second World War she served as HMAS WONGALA as a fleet auxiliary and examination vessel. On 17 November, 1947 the ship recommissioned as HMAS WYATT EARP under command of Commander K.E. Oom, OBE, RAN.

The second vessel chosen was LST 3501, one of the six LSTs transferred from the RN to the RAN on loan in 1946. LST 3501 was renamed HMAS LABUAN on 16 December, 1948. The 2,300 tons (displacement) vessel was chosen for her obvious logistic support capabilities, apart from a large amount of stores, the ship also carried a Walrus aircraft. She was commanded by Lieutenant Commander G.M. Dixon, RANVR. An aircraft was also carried by the WYATT EARP. In addition, she was fitted with a 25 foot motor cutter and two 27 foot whalers, as well as a fully equipped laboratory on her boat deck.

RAN personnel involved were 30 ships company of HMAS WYATT EARP and 116 of LST 3501.

On 31 October, 1947, LST 3501 left Sydney on her first of seven voyages to the Antarctic, calling in at Melbourne. She left that port on 14 November with a party of 14 plus stores and equipment to last 12 months. On the way she established a reserve fuel base for the WYATT EARP on Kerguelen Island with permission from the French government. This fuel base consisted of a large quantity of 44 gallon drums with an improvised jetty nearby.



HMAS LABUAN (LST 3501) made seven voyages to Antarctic waters between 1948 and 1951.





MV WYATT EARP with Ellsworth's aircraft, *Polar Star*, embarked in Antarctica July 1936.

— National Geographic Society photograph

HMAS WYATT EARP left Melbourne on 19 December, 1947, calling in at Hobart. However, the elements proved too much for the small vessel and because of serious defects, especially in the main engine, she was recalled to Melbourne for repairs, where she arrived on 7 January, 1948 to be docked at Williamstown. She sailed again on the 8th of February and this time reached her objective, Macquarie Island, under severe weather conditions on the 20th of March and found LST 3501 there already at anchor. The two ships returned to Australia early in April that year. The expedition was well publicised in the Australian and world wide press and newspaper articles regularly had featured progress reports on the ships voyages.

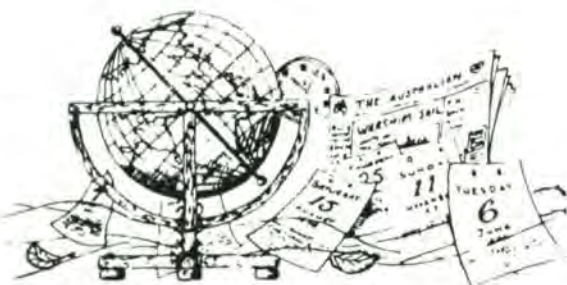
On return of HMAS WYATT EARP to Australia, it was decided that the vessel was unsuitable for Antarctic service. The manning with RAN personnel of a vessel larger than WYATT EARP and the setting up of the additional organisation to undertake a programme of Antarctic development as part of a normal peace-time requirement was

considered to be beyond the present and forecast capacity of the Royal Australian Navy.

Consequently HMAS WYATT EARP was paid off on 30 June, 1948 and sold out of service. HMAS LABUAN continued her Antarctic service until she arrived at Fremantle on 1 March, 1951. The ship's condition had vastly deteriorated, particularly the rusting and corroding of her hull. A series of mishaps culminated in her breaking down 120 miles off Fremantle and the ship had to be towed into port by HMAS KARANGI. HMAS LABUAN was sold for scrap on behalf of the RN on 9 November, 1955. In the early 1950s, when WYATT EARP had just been sold, it was at one stage suggested that HMAS LABUAN be accompanied on her trips by one or two frigates. The following ships were mentioned: HMAS SHOALHAVEN, CONDOMINE, CULGOA and BARCOO. This never eventuated and in 1953 the Australian government chartered J. Lauritzen's KISTA DAN. Lauritzen vessels have been used ever since.

**TOM STRASSER**





*I was there when ....*

## **'UNITED WE CONQUER'**

During the last three years of World War II, a new branch of the Navy came into being. It can be described in two magic words, *Combined Operations*. The Combined Operations section of the Navy was perhaps the most fascinating in the Service. Of course all RAN's ships are more or less at one time or another involved in Combined Operations with the other Services; but only a small number have been set aside, and in many cases specially reconstructed, for such work. The kings of Combined Operations vessels were the Infantry Assault Ships, better known officially as Landing Ships Infantry (large). They were the largest invasion vessels, the "queens" of the Amphibious Forces.

For this type of ship a liner of from ten to fifteen thousand tons gross was needed. A number of Armed Merchant Cruisers filled the bill admirably, and their absence from the trade routes was not regretted in days when their prestige was very low. Each ship had to be entirely reconstructed, and designed, to carry at least an Assault Battalion with its equipment on a journey of from one day to three weeks. On the arrival of the force off the enemy coast these ships formed the spearhead of the attack. They worked hand in glove with the Army and Air Force. Indeed the three Services worked as one. Hence the motto of Combined Operations personnel, 'United We Conquer' inspired by the leadership of their Chief from March, 1942 — Admiral Lord Louis Mountbatten.

The people most affected by the complications attendant upon a new type of warship were, obviously, those who have to man it. And complications there were in plenty. Firstly, even if the ship was known as a Landing Ship Infantry, it still had to be run in the correct manner. There are no orders which say, "forget all you may have

learned and run the ship as you like". Every ship in the Navy is run on fundamentally the same lines. You do the same things in every ship, the only difference being that as the ship gets bigger you find more ceremony and detail with which to contend. When I first joined a cruiser during the war, the First Lieutenant, who had served in the Navy for twenty-seven years, told me this in as many words. We were standing on the fore-castle and he said to me, 'Where are you from, Swan?'. I replied, giving the name of the sloop from which I had been transferred. 'Well,' he said, 'You'll find things very much the same here, only with a lot more happening'.

To man a Landing Ship, officers and sailors were drawn from every branch of the Service. There was no apparent reason for the selection of any particular man. What reasons existed remained within the four walls of the Navy Office. Apart from complete physical fitness and a thorough grounding in the way the Navy works I cannot think of any particular attributes necessary for a Combined Operations officer or sailor. Naturally the ship, apart from the Navigator, did not carry any 'specialist' officers as they would be needed for the front-line ships and their work could be done by others. Also young officers who need to be trained should not be carried in these ships for obvious reasons. Unfortunately, however, it was found impossible to adhere strictly to this. We had many green officers appointed to us and had little time in which to train them.

It is impossible to appreciate the difficulties existing aboard a ship if you are on shore, and many times we heartily cursed the administrative staffs in their offices. Yet rarely a worry arose that we could not master ourselves by putting our heads together and pooling our knowledge. In many cases it was absolutely imperative that we did this as we were greatly dependant on each other. Some of the Officers, for instance the



Captain's Secretary, were carrying out their particular duties for the first time. The Armament Officer, I remember, would frequently come to me for advice as I had carried out those duties in a sloop for over a year. In turn, I used to see the Executive Officer about many little points that had me 'stumped'. I was in charge of the inside of the ship, and on occasions things ran far from evenly.

One little trouble I had continually to contend with was travelling troops wandering into spaces reserved for our ship's company. This was strictly against our rules, and had to be rigidly enforced for the benefit of both parties. When we had troops on board the standard of cleanliness of the inside of the ship naturally went down. Sailors love to keep their messes and passageways well scrubbed; but it was well-nigh hopeless to keep this up with hundreds of soldiers walking along to the canteen, and to the dining hall for their meals.

In *WESTRALIA*, we had the 'cafeteria' system of messing, and were the first ship in the Royal Australian Navy to have it installed. Each man drew his food on a specially impressed tray from a servery, and as he left the dining hall he rinsed his tray and washed his knife, fork, spoon and cup. There was some grumbling at first, yet after a while it became quite popular. We had to nurse the system through its initial stages, and learn by trial and error the fastest and most satisfactory way of feeding the men. At night in harbour we used to show movies in the dining hall, and these were much appreciated by sailors and troops alike. I think our American 'cousins' were glad to have their beloved movies when aboard us, and would come and watch the doings of the Hollywood stars in homesick silence.

W.N. SWAN

## Nobody asked me, but...



### SWORDS

Would somebody tell me whence originated this quaint legend that naval officers have to drag their swords to indicate they are not gentlemen? The story varies wildly and centres around some antique Royal Navy mutiny, the disgrace of which was so great that an enraged Sovereign declared that naval officers were not to hook up their swords. Now, as the mutiny in question ranges from that of the *WAGER*, to the *BOUNTY*, to the *HERMIONE*, to the Nore, to the Invergordon Affair, and the monarch from Queens Elizabeth I, to Queen Mary II (without her William), to Queen Anne, to Queen Victoria (note both the consistent femininity of the Sovereigns and their lack of connection with the mutinies listed), one may beg leave to consider that the tale is a *little* far-fetched.

In fact, a study of portraits — civilian, military and naval — between the years 1600 and 1850 indicates that swords and the methods of wearing them were as much subject to the demands of fashion as any other piece of kit. Between 1600 and 1700 swords were worn hitched up, largely, it seems, because they were light weapons designed to thrust rather than cut and thus not so heavy that their wearing on a waistband would be uncomfortable. Then, in the 18th century, swords became much heavier and were unhooked. By the late 1700s only certain branches of the Army

continued to wear swords 'up'. The primary reason for this, one might think, is because on horse-back a sword has to be hitched up to the belt.

Now, when in about 1800 the fashion reversed what was the Navy in the process of doing but devising a standard uniform? Being, as always, conservative, no new-fangled notions about going around with one's sword strapped to one's waist were entertained by Their Lordships of the Admiralty. Officers thus continued to wear their swords unhooked and have done so for all the years since.

One wonders what the reaction to the suggestion that they were not gentlemen would have been from such worthies as Admiral of the Fleet the Earl St Vincent, Admiral Lord Duncan, Admiral of the Fleet Earl Howe, et cetera, et cetera. It would be interesting to have one of those gunnery worthies who pontificate at such length on the matter standing in front of 'Old Jervie', or 'Black Dick' Howe.

Still, I could be wrong, there may be some truth to the story. Me, I just 'hae me doots', I was brought up to think that you shouldn't believe everything you hear at *CERBERUS*.

'MASTER NED.'



## BOOK REVIEWS



**THE FRIGHTENED COUNTRY.** By Alan Renouf. MacMillan Australia. 555pp. Recommended price \$19.95.

Alan Renouf is impressively well qualified to write on Australian foreign policy. Six ambassadorial posts, numerous missions, including the U.N., and the Permanent Head of Foreign Affairs before his last appointment as Australian Ambassador in Washington were included in his 36 years of service. Those years extended from the Foreign Affairs Department's embryonic days in World War II to the present, and gave him an inside view few can have experienced. It is therefore disappointing that, while his book is in many ways excellent, it reveals some limitations in the author, and by implication his former department, particularly with regard to Defence matters. It is not so much that his judgements on Australia's past use of defence forces in support of foreign policy are all that arguable, it is rather that his understanding of a suitable military strategy for a more self-reliant Australia is based on current conventional opinion, and is consequently superficial. Observing the important and influential positions he has held this is a matter for some concern.

Renouf makes the bold assertion that 'Australia is indefensible from her own unaided efforts'. Tom Millar rejected that conclusion in 1965 in no uncertain terms as 'a grossly misleading and inaccurate deduction' since 'the adequacy of defence is strictly relevant to the size and volume of the threat'. Despite Renouf's basic position on the indefensibility of Australia unaided, he does suggest we need bigger forces 'to defend the continent from the continent'. This would seem to imply a belief that the old bogey of invasion should be our major concern. Yet Mr Killen was at some pains last March (at least five months before this book was published) to point out the immense difficulties, and hence the unlikelihood, of mounting such a threat. As for sea lines of communication, the author acknowledges their importance but subscribes to the conventional wisdom that they are 'long and well beyond (Australia's) capacity to defend'; another questionable assertion based on a very limited understanding of a more complex but vital problem for Australia's defence.

The danger is that the logical end of Renouf's essentially defeatist premises can lead to the view expressed some years ago by a very senior member of F.A. who said that 'Australia is a small country that has to live by its wits'. His meaning was abundantly clear to the all-military audience being addressed: 'Australian interests cannot be defended by its own military forces, therefore we should not spend too much on them; what is needed is clever diplomacy'. I hasten to add that Renouf does not say this, on the contrary as I have mentioned, he opts for bigger defence forces. But to what purpose if they cannot independently provide effective defence of Australian interests? Only as a contribution to collective security? But what about the Guam Doctrine? (Not mentioned in the Index).

Since defence forces exist to support foreign policy it would seem there is an obligation on F.A. to have a much sounder grasp of defence matters, including a very clear understanding of the differences between national, grand and military stra-

tegies. In the latter connection, although the author comments on the need to co-ordinate foreign, economic (trade), and defence policies, and the resulting effects on Australian industrial structure and then consequences for domestic politics, he does not achieve anything like the clarity of Professor Francis West whose excellent address was published in the February 1979 edition of this journal. It is worth re-reading for comparison.

Renouf lists the primary determinants of foreign policy as 'geography', 'power', and 'history, tradition and culture'. 'Wealth and climate', 'national politics', 'the public service', and 'the foreign policy of others' are listed as influences. 'Power' is not defined except by implication. No doubt the division and labelling of elements for analysis can be somewhat different without much consequence. But Morgenthau, in his *Politics Among Nations*, devotes a whole chapter to the nature of national power, and among other things says, 'the most stable factor upon which the power of a nation depends is obviously geography'. It seems to me that Morgenthau's analytical framework is to be preferred, at once less clumsy and more thorough.

Despite these criticisms, *The Frightened Country*, is a very useful book and ought to be required reading for members of the Defence Department and in Staff Colleges. The expositions of the history and development of Australia's relations with various nations and groups are illuminating, and provide valuable insights into important areas of our recent history. Beware though, there are some obvious errors of fact, such as the dates concerning the end of Confrontation (pp 434, 435). Similarly, Australian ships were acting as shore support gun batteries at Sibatik in Borneo in 1964, long before the Australian battalion went there in 1965. There may be other mistakes I have not detected. And, surely, the reason why Britain could not actively participate in the Vietnam war was because she was co-chairman, with Russia, of the Geneva Commission on Vietnam; whether she would or could have participated with her hands full in Malaysia, if free to do so, is quite another thing.

It is easy to warm to an author who comes across as an ardent Australian nationalist, yet one who keeps a broad perspective on the world, and who sees Australia's position in it in realistic terms. He deplores the attitude of some Australians who would rather be dependants than allies. He is critical of Australian governments whose behaviour has run quite counter to Teddy Roosevelt's sound advice to 'walk softly and carry a big stick'. Amen. He even offers us some national objectives. There are, of course, other examples to praise but I suggest you find them for yourself. The principal message, which gives the book its title, is that Australia should be less fearful, and so less selfish in international posture, and that foreign policy should be less influenced by domestic political considerations. It is hard to disagree with that advice.

*The Frightened Country* is a valuable and, I believe, sincerely well-meant attempt to put the author's experiences and the conclusions derived from them to the benefit of his fellow-countrymen. But it is a book to argue with as I have tried to show, though by no means exhaustively. The author gives the impression that he is big enough to welcome disagreement in the interests of arriving at the best future for Australia.

ALAN ROBERTSON



**AUSTRALIA IN PEACE AND WAR. External Relations 1788-1977** by T.B. Millar. Australian National University Press. 1978. 578 pp. Recommended price \$19.50 cloth, \$9.95 paper.

Dr Millar, who is Professorial Fellow in International Relations at The Australian National University, has provided in this volume the first general history of Australian foreign relations. Thus, it has a unique place in the study of Australia.

He begins his discussion with an analysis of Australia itself, and the pressure groups and influences within Australia which shape its foreign policy. In this analysis, Australia is seen as being too small, too satisfied and too conservative to exert great pressure in the international arena; therefore, foreign policy is mainly one of reaction and not one of innovation. This reaction is modified by our white European heritage and British culture. So the policy makers see the world in such terms, with Australian security allied to countries with similar backgrounds. This policy is activated by the public service and the Defence Force, and both should consistently remind themselves that they are the implementers of a foreign policy, not the formulators.

The study itself begins with the 19th century, during which the colonies saw three problem areas: defence, immigration and trade, but within the British Empire, whose security it was essential to guarantee. Thus during that century three expeditionary forces were sent overseas by the colonies, even before requests were received from the Imperial Government.

Naturally the bulk of this volume deals with the 20th century, when Australia gained her independence and gradually relinquished the apron strings of Mother England. Dr Millar indicates that it was not a rapid evolution, but rather a gradual process which was inevitable, although often resisted by various Australian governments.

The period 1901-39 saw a continuation of the 19th century concepts: secure the Empire and protect Australia against non-whites. The relationship with the United States was essential for protection against Japan, yet in this matter Australia showed naivety in international affairs and at times an unco-ordinated approach.

When the requirement for a Pacific pact to meet Japanese militarism became urgent, the trade leaders placed high tariffs on imports, which directly affected the USA, which was in turn searching for markets to fight a way out of the depression. Thus, the US was less inclined to react to Australian defence proposals.

The inter-war period however, did provide one avenue for Australia to flex its muscles in the international arena — the League of Nations. The role played by the Prime Minister, W.M. Hughes, has become legendary in Australian folklore. But the author believes that Hughes had influence only in two areas: the mandate issue, and the proposed clause claiming equality of races. In these areas, Hughes was successful only because of the support of great and powerful friends.

Dr Millar, however, does not believe that the League of Nations marks the birth of Australian foreign affairs, as some commentators have claimed, but rather it was the Second World War, for due to her vulnerability, Australia required her own assessment of the world situation. In 1940 the first foreign diplomatic posts outside London were appointed, from which a permanent and professional foreign service developed. Japan's aggression in turn also forced Australia to look away from England, and turn to the US, but not without creating difficulties. The author claims Curtin's speech 'Australia looks to the US' was seen by the US and the UK as being both disloyal and showing panic, although Australians saw it as a heroic statement of policy.

Post-war, Australian foreign policy was dominated by two major concepts: the fear of communism, and the requirement for a commitment from the US and UK to guarantee Australia's security.

The early 1950s saw the ANZUS Pact established and 23 years of single party rule, ten of which were spent at war paying the assurance premiums for that pact. Millar is not critical of the

price, for although the pact was not put to the test, there was always the possibility it may have been, but he questions the importance the US placed on the pact. In the case of Vietnam, the author again sees no conflict of conscience, as many have and continue to do, and claims 'it was not dishonourable to support: the right of people not to be attacked, terrorised, murdered; their right to live out their lives in peace and safety'.

Another feature which the author sees as important was Australia's involvement in South-East Asian affairs, with a concomitant decline in European matters, except for trade. This involvement took the form of military support, such as in Thailand and Malaysia, and economic aid through such systems as the Colombo Plan — all designed to make communism unattractive to the South-East Asian population.

In 1972, with the coming to power of the first Labor Government since 1949, the author sees a departure from the general developments of the previous 23 years. Through the Prime Minister, there was an attempt to bring a new realism and individualism to Australia's foreign policy, which unfortunately had to be continually compromised due to the realities of the world situation, making the Government appear insincere on certain basic issues. However, due to their short period of government, their foreign policy was not fully developed. Nevertheless, the new Liberal Government maintained many of the basic features, especially non-involvement in Asian affairs. The author does see one major variation, in that the Liberal Government saw the world as a more hostile environment, and so was less likely to offend our major allies.

In his final chapter, titled 'The Uncertain Future', the author has attempted to plot the future in what he sees as an unstable and hostile environment. Basically, he claims four countries will be essential to Australia's well-being: Papua New Guinea, Indonesia, Japan and the United States. He, like many current commentators sees Japan as the country of future support, especially as the United States turns now to Europe.

This work, as already mentioned, is a very valuable addition to the study of Australia. Dr Millar has produced a work which is balanced in approach, and clear in analysis, although the rugged nationalist may find exception to some of his statements, as may the anti-US, Vietnam lobby. The inclusion of a chronology, and number of source documents, is a valuable addition to this volume. Foot-notes are also very detailed, and there is an extensive bibliography. One disappointing feature in my copy was to find that half the index had been lost, due to poor binding, which is becoming a common feature of books published in Australia. The book should be compulsory reading for any person involved in Australian foreign affairs.

D.J. TAYLOR

#### **SHACKLETON'S ARGONAUTS.**

**The story of Shackleton's 1915 Antarctic Voyage** by Frank Hurley. 1979 Edition, published by McGraw-Hill 185 pp. Recommended price \$14.95.

In early 1915, Sir Ernest Shackleton's expedition to the Antarctic sailed from Buenos Aires in the 350 ton *ENDURANCE*. Eighteen months later Shackleton and five companions arrived back on foot at a whaling station on the island of South Georgia. After three attempts and some five months later he finally rescued the remaining twenty two members of the expedition from a rocky beach in Antarctica. Not one life was lost.

Before even reaching the Antarctic continent, the *ENDURANCE* had been beset by ice, and after a year's imprisonment crushed and destroyed. The party then drifted north with the ice for five months before a hazardous week's open sea voyage to a precarious beach on Elephant Island. There they stayed while Shackleton and four others made an eight hundred mile open boat voyage in freezing gales to South Georgia, followed by the first crossing of that inhospitable island on foot, to seek assistance. For almost two years twenty eight men were entirely dependent on their own fortitude and endurance for survival in a totally hostile environment, without any possibility of rescue by others.



This is an almost unbelievable story of courage, consistently understated by Hurley in his book. Hair raising danger, deprivation and hardship are described in a matter of fact way. There is no analysis of doubts of survival, no point where anybody appears to have questioned his ability to go on. Activities, such as frequently dragging three boats the size of whalers onto ice floes to stop them being crushed, by the half starved men get no more than incidental mention. Perhaps this is because the immediacy of the dangers had faded by the time the book was written: it appears to have been first published in 1948 — thirty years later. This delay may also be the reason why so little emerges of the personalities of Hurley's companions. Shackleton is revered as a leader, but hardly described as a man. Only half a dozen others are even mentioned by name. The remainder are no more than muffled figures in the superb photographs.

It is the photographs which bring the book to life. Hurley was the expedition's photographer. It was a significant act of faith in eventual survival that a selection of his plates were saved at the expense of essential supplies. The early photographs are like many of Antarctic beauty frequently seen elsewhere. However, those of, and after, the crushing of *ENDURANCE* reflect the cold, overcast, and desolation in which the expeditioners existed for so long. No description of Shackleton setting out for South Georgia could possibly illustrate the heroic nature of the endeavour so well as does the actual photograph.

This reprint is well prepared and presented, and it does justice to the photographic record. The writing is elegant but dated. It is an essay rather than a history, since dates are rare and times and distances are not easy to establish, but is a fascinating record of an almost incredible adventure.

As a footnote, the last photograph is of the *YELCHO*, the elderly trawler which Shackleton chartered for the final rescue. It looks like a decrepit, worn out and unstable harbour tug of the smaller kind. I am not sure that I would have wanted to go to sea in it without a reasonable weather forecast, let alone in high latitudes in winter. To the voyagers it represented total safety at last.

B.L. SPARK

**AUSTRALIAN COASTAL SHIPPING.** By Barry Pemberton. Melbourne University Press. 1979. Pp. xiii + 327. Recommended price \$28.80.

It is quite refreshing to discover and read a book on the Australian coastal (shipping) trade which has been so carefully researched and compiled by a self confessed lover of ships. 'When I was fourteen', writes the author, 'Australia's last passenger ship had less than a year to go. Nevertheless, a trip that year on *MANOORA* began a love of ships that has never dulled since ...' How many of us remember the graceful *MANOORA* although she plied the interstate passenger routes until 1961?

Unashamedly, Barry Pemberton admits that he has used his original MA thesis, *The Historical Geography of Australian Coastal Shipping*, as a basis for his book. It has of course been expanded and revised to give what must be the only complete historical and geographical study of the development of shipping and trade on the Australian coast.

Fifteen concise chapters, two appendices and many photographs and drawings make up this work. Photographs which illustrate the difference between the functional general cargo, or specialised cargo ships and the elegantly furnished saloons and public rooms of the now forgotten passenger ships. They create quite a nostalgia for the finer things of life when travel was an enjoyment. The drawings, by the author, show little in the technical sense, but provide an insight into the early days of ship construction and basic working layout of each type of ship discussed. Separate accommodation for the crew and the 'staff'; and as one drawing illustrates those halcyon days when Officers lived forward of the funnel and Engineers either beneath or behind it!

Starting from the tentative early days of shipping on the coast, the author has recaptured the atmosphere of those early days before we are passed through the heyday of the trade and its decline. We read of the early locally built wooden sailing ships, the steel hulled ships built both locally and overseas, then pass into the present day specialised container, bulk and roll-on, roll-off ships. Also covered are the intrastate trading ships, the '60 milers' of New South Wales, the Port Philip ferries and steamers and the little known ships that plied the Gippsland Lakes.

As a reader who fits the flyleaf description of one born in the 30's, I find *Australian Coastal Shipping* a book to recall old memories. Indeed my early days at sea were in some of the ships detailed in one of the appendices. All of these ships are sadly long gone.

Defence and Auxiliary Service ships are part of the colourful history of Australian Shipping and as such rate a chapter to themselves. Not the traditional grey painted ships, but those whose livery was altered for two World Wars. *WESTRALIA*, *MANUNDA* and *KANIMBLA* just to mention three. *BOONAROO* and *JEPARIT* are also mentioned in relation to the Vietnam saga.

In summary, *Australian Coastal Shipping* is a book which begs to be read by all. For those whose interest lies in the sea and ships then it's a must. For the average person it's a lesson to be well learned in how an island can let its shipping fleet decline. In short, a must for every bookcase.

R.J.R. PENNOCK

**CRISIS OF COMMAND.** By Major D.M. Horner. Australian National University Press. 1978. pp. 395. Recommended price \$15.95.

In this extensively-researched book (with 60 pages of references and bibliographies), Major Horner, who is a Regular Army officer and Churchill Fellowship scholar, examines the performance of Australian Generals in the World War II New Guinea campaign, during the period 1941-43, against the criteria for good generals taken from the writings of Field Marshall Lord Wavell and the military historians Fuller and Liddell-Hart. The required criteria, in the order listed, are robustness, cool-headedness, good administrator, courage, leadership, personal presence, creative intelligence and technical skill.

Horner provides an interesting background to his New Guinea campaign studies with his portrayal of a pre-war Australian Defence Force without a Regular Army; bitterness and jealousies between the permanent service Duntroon officers and the CMF officers, exacerbated by the Government decision to give command of the 2nd AIF and its Divisions and Brigades, to non-Staff Corps officers; a 1939 situation where the Chiefs of Staff of all three Services were British loan officers; the divisive effects of raising the all-volunteer 2nd AIF for service overseas which expanded the Duntroon/CMF antagonism into Duntroon/CMF — AIF/Australian Military Force conflicts; the seemingly very inequitable Army promotion prospects to the detriment of the professional officer; and the controversy then over continental defence versus forward defence.

The author then presents two interesting chapters on the appreciation of threats and the planning for the defence of Australia in the months up to the Japanese multi-pronged invasions into S.E. Asia. These would be useful reading for any officer engaged in current strategic planning. How best to use slender national resources for the defence of this island continent is an unchanging problem.

The roles assigned to the Army in September 1941 are ones which the reviewer considers are appropriate today:

- the sure bases necessary to the RAN and RAAF in their roles of defending sea communications and preventing the enemy establishing bases from which to threaten Australian interests; and
- to provide, with RAN and RAAF co-operation, final opposition to raids or invasion.



Similarly, the Chiefs of Staff appreciation of February 1942 was that 'if there were adequate naval and air forces for the defence of Australia, an Army of the numbers required could nearly be met from Australia itself'... but... 'until such time as adequate naval and air forces are available it is estimated that it would require a minimum of 25 divisions to defend Australia'. Little has changed in the past 40 years.

As the story unfolds of the Japanese move into PNG and New Britain, and of the Australian/Allied decision to oppose them there and not wait to fight on Australian soil, the reader is impressed by how little can change when geography, climate and Australian population figures are such important factors in Australia's strategic area. One cannot miss the critical importance of denying Port Moresby and Timor as enemy bases; the vital need for having a proven command and control system instead of the series of hastily-arrived-at and frequently changed Army command systems adopted during 1942/43; (these culminated in one general, Blamey, being simultaneously C in C of Australian Army units in Africa, Australia and New Guinea, Allied Land Force Commander SW Pacific with US Army units under command, and the Field Commander of the Allied New Guinea Force!); the dangers of 'back-seat driving' by senior officers hundreds of miles from a scene of action of whose

details and problems they were unaware; and the importance of amphibious forces for mobile defence.

General Blamey repeatedly sought co-operation from the RAN to lodge his Army forces around the New Guinea coast instead of his troops having to slog their way over the mountains, but (not mentioned in Horner's book), at that time the RAN was only just raising its squadron of three Landing Ships Infantry and Blamey's own troops had only just started amphibious training. In fact the RAN had amphibious ships ready for operations before the Army had trained landing forces and so the RAN Squadron operated with American landing forces for their first two years of service.

At the end of reading the book, this reviewer was left feeling that he had learned about the personal qualities of Australian Generals rather than their generalship capabilities ... and he had read more than enough of General Vasey's letters to his wife. Nevertheless, he had benefited greatly from study of the defence problems of 1941-43 and the solutions adopted. In this latter regard, there is much useful knowledge to be obtained for today's defence planners/students from study of *Crisis of Command*.

P.J. SHEVLIN



## AUSTRALIAN NAVAL INSTITUTE PRIZES — 1979

### AUSTRALIAN NAVAL INSTITUTE MEDAL

The Australian Naval Institute Silver Medal for the best essay on maritime strategy submitted during the second course of 1979 at the RAN Staff College was awarded to Major Bill Kaine of the Australian Army.

### JOURNAL AWARDS

The ANI Council is pleased to award the following prizes for articles printed in the Journal editions in 1979:

#### The Best Major Article

\$75 to Lieutenant Commander M.K. Gahan RAN for his article *Steaming into the Twenty-First Century* in Volume 5, No. 3 (August 1979).

#### The Best Minor Articles

\$10 to Commander R.J. Pennock RAN for his 'Ships and the Sea' article *RAN Fleet Replenishment Ships* in Volume 5, No. 3 (August 1979).

\$5 to Chaplain K.J. Costigan RAN for his 'Nobody asked me, but ...' article *A noose for Judas* in Volume 5, No. 4 (November 1979).

\$5 to 'Plumber' for his 'Shiphandling Corner' article *A Few Steaming Thoughts* in Volume 5, No. 4 (November 1979).

The Council congratulates the winners of the above awards.



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 McLennan G.F.  
 McMillan R.M.  
 Meister J. +  
 Melliar-Phelps M. +  
 Mesley J.S. +  
 Miller J.J. +  
 Minshall P.  
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 Morris C.J.  
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 Parker V.A. (f) (h) +  
 Parr B.E. +

Patterson D.R. (f) +  
 Pearce A.D.  
 Pechey I.D.  
 Pennock R.J.R.  
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 Perrett J.K.  
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 Reilly D.P.  
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 Reynolds P.H. +  
 Rice P.J. +  
 Richardson G.J.D. +  
 Rieck T.K.  
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 Riley J.L. +  
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 Roberts L.I.  
 Roberts W.O.C.  
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 Siegert J.A.  
 Sinclair J.B. +



Sinclair P.R.  
 Sinfield P.R.  
 Skimin A.W. +  
 Skinner C.J.  
 Smith D.A. +  
 Smith G.J. +  
 Smith J.  
 Smith M.K.  
 Smith S.A.  
 Smith V.A.T. (h) +  
 Smyth D.H.D. (f) +  
 Spark B.L.  
 Spooner J. +  
 Spurling J.A. +  
 Stephen K.C. (f)  
 Stephens C.R.F.  
 Stevens E.V. (f)  
 Stevens J.D. (f)  
 Stevens K.L. +  
 Stevenson H.D. (h) +  
 Stewart R. +  
 Stodulka T.D.  
 Stoker N.J.  
 Strachan L.J.  
 Straczek J.H.  
 Sulman L.M.  
 Summers A.M.F. (f)  
 Swan R.C. (f)

Swan W.N. (f) +  
 Swan W.N. +  
 Swenson E.N. +  
 Swindells F.G. +  
 Synnott A.M. (h)  
 Takezoe C. +  
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 Taylor D.J.  
 Taylor K.I. +  
 Taylor M.E. +  
 Taylor T.A. +  
 Terry L.G.  
 Thompson G.M.M. +  
 Thomsett H.W. +  
 Thomson D.J.  
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