



# Journal of the Australian Naval Institute

No 114



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**Front Cover:** Artist's impression of HMAS *Armidale* (RAN)

**Back Cover:** Clearance Diver and HMAS *Swan* circa 1997 (RAN)

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- to encourage and promote the advancement of knowledge related to the Navy and the maritime profession; and
- to provide a forum for the exchange of ideas concerning subjects related to the Navy and the maritime profession.

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The Editorial Board seeks letters and articles on naval or maritime issues. Articles concerning operations or administration/policy are of particular interest but we will consider papers on any relevant topic. As much of the RAN's operational and administrative history is poorly recorded, the recollections of members (and others) on these topics are keenly sought.

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## CORRESPONDENCE/NOTICES

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### ***The Passing of Admiral Beaumont, AC RAN (Rtd)***

*(Vice Admiral Chris Ritchie, RAN - Chief of Navy)*

- It is with great sadness that I inform the Navy of the death of Admiral Alan Beaumont, AC RAN (Rtd) who passed away on 21 September 2004.

Admiral Beaumont was born in Newcastle NSW in 1934. He joined the RAN College in 1948, graduating in 1951 and undertaking training in both the RN and RAN before promotion to Lieutenant in 1954. He completed a torpedo anti-submarine specialist course with the RN in 1959-60 and later served periods of exchange service with the RN and USN as a specialist in that field. As a junior officer, he served in HMA Ships *Australia*, *Bataan*, *Shoalhaven*, *Vengeance*, *Fremantle* and *Quickmatch* and HM Ships *Maidstone*, *Armada* and *Lewistone*. His shore postings included HMAS *Cerberus*, HMS *Vernon*, HMAS *Watson*, Navy Office (Canberra) and the USN fleet anti-submarine warfare school in San Diego. He was officer-in-charge TAS School, HMAS *Watson* 1969-1971, having been promoted to Commander while Executive Officer of HMAS *Brisbane* during the ship's period of service in the Vietnam conflict in 1969. He commanded HMA Ships *Ibis* (1962), *Yarra* (1972-73) and *Vampire* (1978-79).

His staff postings in Canberra included Director of Underwater Weapons, the follow-on destroyer project officer and Director General of Naval Plans and Policy. He was also Director General Defence Force Administrative Policy and Assistant Chief of the Defence Force (Policy) in ADF Headquarters.

Admiral Beaumont was promoted to Rear Admiral in June 1987 and assumed the duties of Assistant Chief of Naval Staff (Development). He was appointed to the post of Assistant Chief of the Defence Force (Personnel) in December 1988. Admiral Beaumont was promoted to Vice Admiral in September 1989 and assumed the appointment of Vice Chief of the Defence Force, serving in that position until October 1992. He was promoted to Admiral in April 1993 and commenced his appointment as Chief of the Defence Force, retiring from the RAN on 6 July 1995.

Admiral Beaumont was a graduate of the Australian Joint Services Staff College (1976). He was promoted to Companion in the Military Division of the Order of Australia in the 1992

Australia Day honours list for services as the Vice Chief of the Defence Force. In so doing, he became the first Australian to achieve three awards in the Order of Australia, having been appointed a Member of the Order in 1982 for service as Director of Naval Plans and Officer in the Order in 1989 for service as Assistant Chief of Naval Staff (Development).

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### **Membership Renewals**

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# The colour of the uniform does matter

Commander David Hobbs, MBE RN\*

*In his paper in Edition No. 113 of the Journal, Lieutenant Commander Tim Leonard said 'the colour of the uniform of the pilot and maintainers is irrelevant'. In order to stimulate continued discussion on the subject, I put forward a different perspective.*

On 12 August 1966 a stick of bombs from a single US Navy (USN) carrier-borne strike aircraft destroyed the strategically important Hai Duong Railway Bridge in North Vietnam. The target had no direct naval or even maritime significance but its destruction was a major objective for an aircraft carrier operating in the Gulf of Tonkin.

This fact will come as no surprise to those who have studied and understand the many and varied uses of sea-borne aircraft. It may not be known to those with a less than complete knowledge of strategic air operations throughout the fifty years before the attack on the bridge took place. Those with a darker motive to hide the important contribution made to national war fighting strategies by naval aviators from their flexible sea bases may even have obscured such facts from political debate in an attempt to focus attention on land based aviation.

In my previous paper (Edition No. 112), I argued that aircraft carriers have achieved a utility for asymmetric warfare beyond that of land-bases. The air forces of many nations have failed to grasp the flexibility of carrier strike forces and have consistently tried to remove them from the order of battle. Despite numerous operations that demonstrate the critical advantage that aircraft carriers have given, and continue to give to a nation's ability to carry out a range of military actions, there are many 'light blue' officers in Australia and the UK that continue to argue implacably against sea-based aviation on principle. One has to ask, therefore, why any government would seek to involve them in a carrier strike project for which they have such little institutional enthusiasm. If they are not 'bringing something to the party' then why invite them?

Air forces have successfully created 'niches' for themselves, in which they 'situate the appreciation' with scenarios, which are

constructed around existing bases, procurement and force levels. They rely on politicians' lack of strategic or historical knowledge and the tactics of the bully to get their way. An excellent example of this thinking was the RAF's Tactical Support for Maritime Operations (TASMO) concept that followed the cancellation of the RN's *Queen Elizabeth*/CVA 01 carrier project in 1966. This assumed that an emaciated Royal Navy would, from the early 1970s, only operate as part of a NATO force in the Eastern Atlantic. Any other scenario, such as an opposed amphibious assault on a distant shore, was dismissed as 'not credible' or 'outside the scope of the UK's NATO contribution'. When Royal Marines landed on East Falkland in 1982, the RAF TASMO fighter squadrons sat uselessly at airfields 8,000 miles away in the UK. Air cover was critical to the whole operation and came from four squadrons of Sea Harriers; one of them formed at a few days notice. Their development had been dismissed by the RAF as being 'of little practical value' but they were there, embarked in two small carriers, each less than half the size of the planned *Queen Elizabeth*. A handful of RAF Harriers eventually joined the battle but they needed the Navy's ships to get them there and the carriers to get them into action. The facts of the South Atlantic War could have been written to illustrate the importance of sea-based air power. What made the failure of British strategic planning even more lamentable in 1982 was the fact that the majority of the TASMO aircraft were Buccaneers and Phantoms which the RN had been forced to hand over to the RAF. The failure of generations of air force officers to support the 'wider picture' could not have been more emphatically illustrated. The colour of the uniform really does matter and it is clear to those with eyes to see that air force officers of many nations have little to offer and much to learn about expeditionary warfare from the sea. It is no accident that carrier aviation has withered when the RAF has been involved in it and led the world during the periods when the RN has had complete control. Even today, ten years of indecision on the size and capability of the British future carrier (CVF) can be attributed in large measure to 'light

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blue' procrastination after their involvement in the project as an equal partner.

Getting the best out of a weapons system is, I believe, the key point at issue. I am not a bigot and do not claim that aircraft from other services and allies should play no part in sea-based aviation in the twenty-first century. There are examples of joint tactics that have enhanced war-fighting capabilities. Of these the Doolittle Raid of 1942 stands out. The melding of navy and army air force assets created a two-stage weapons system able to strike at the heart of Japan at a time when it was important to do so and nothing else could. USS *Hornet* was available and naval aviators were able to train the army pilots to launch from her in far from ideal conditions. If Brigadier Billy Mitchell had had his way in the 1920s, the availability of either could not have been taken for granted.

A similar concept came near to fruition with a British unit deployed to the Far East in 1945. A special RAF squadron, 618, was created to operate Mosquito bombers from aircraft carriers with a development of Dr Barnes-Wallace's bouncing bomb. The unit formed in secret with hand picked personnel. It deployed to Australia in 1945, intended to strike at Japanese warships but was too late to see active operations and disbanded after VJ Day. Post-war British carrier designs, starting with the abortive '1951 carrier' were intended to operate 'Canberra-sized RAF bombers' if necessary, but the RAF failed to respond to the potential. Where RAF assets have been integrated into a maritime plan, they have been very successful. Examples include Belvedere helicopters embarked in HMS *Centaur* in action against East African army mutineers in 1964, Harriers in HMS *Hermes* in 1982 and Chinook helicopters in HMS *Ark Royal* in 2003. The Meteors that equipped 77 Squadron RAAF during the Korean conflict were carried into the war zone in the British aircraft carriers *Unicorn* and *Warrior*.

As recently as June 2004, 'light blue' officers within the UK Ministry of Defence criticised the CVF as being 'inferior to a land base in terms of sortie generation'. Despite recent experience with Joint Force Harrier and the Joint Helicopter Force, they quoted scenarios that have been created to illustrate their point but do not withstand rational study. You have to be there to generate sorties and such ill-considered criticism does little to enhance the perception that they have something positive to offer a sea-based project. If it is nowhere near the action, the theoretical advantage of a land base is irrelevant, as were the TASMO bases in the UK in 1982. In the Korean War of 1950-53, the RAF

was not there, it played no part and its sortie generation rate was zero, despite having some impressive land bases a long way from the action. Aircraft carriers of the RN and RAN provided tactical air power and operated in the Korean littoral throughout the war and afterwards. In the Suez Campaign of 1956, RN aircraft carriers deployed only one third of the British tactical aircraft, but they flew two thirds of the attack missions because they were better positioned to reach the variety of targets that had to be neutralised. The larger force of RAF aircraft was too far away in their bases in Malta and Cyprus. In operations off the Former Republic of Yugoslavia during the 1990s, carriers manoeuvred to remain in good weather when NATO air bases on land were 'clamped' by fog or bad weather. Again despite theoretical scenarios, the reality was that land based sorties were zero while carriers went on flying. USN carriers off the coast of Korea, Vietnam and the Lebanon enjoyed similar advantages. The ability of the USN/RN Strike Fleet to attack the Soviet Union 'from the sea' was better understood by the communist bloc than by western politicians. When the Cold War is more widely understood and analytical papers have been written, this will become clear and the examples quoted by Commodore Robertson in the last edition add to this impressive list. Perhaps the best illustration of 'being there' can be seen from British post 1945 air combat statistics. Since 1945 the RN has shot down 25 enemy aircraft in air combat; the RAF can claim one. By virtue of its mobility the RN was where the action was; the RAF on its static bases was not. After two exchange appointments with the RAF, I am very aware that facts about the wider use of aviation are suppressed and replaced by institutional dogma in which combined operations play little part. It is time for arguments about the utility of tactical aviation to be brought out into the open and the only way to do that is to look at the whole picture, not just the part the dogmatic members of 'light blue' organisations want to be seen.

The RAAF took just such a line in 1945-46 when, as in Britain, a force created to expand the role of aviation put considerable effort into opposing its wider use. When it failed to prevent the RAN from procuring carriers, the airmen campaigned to operate the aircraft from them, ignoring the precedents set by the UK, the US, Japan and others. Had they succeeded the next step would, no doubt, have been to commission a study that would show that land bases were 'more efficient at sortie generation'. Scenarios could then be written that would 'improve' Australia's military preparedness by scrapping the carriers



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and moving their aircraft ashore. Any future attempt to procure a carrier capability for Australia would no doubt encounter similar bigoted opposition, but carefully prepared arguments based on truth can be prepared in advance to reveal the fundamental weakness of the time-worn 'light blue' dogma. Lieutenant Commander Leonard mentions the British example of Joint Force Harrier, yes it has been made to work. However, it should be noted that the RN proposed just such a force in 1961, first with the abortive P 1154 STOVL strike fighter and then, in 1968 with the Phantom. The 'light blue' fought against the concept and the RAF TASMO squadrons, when they formed, were not joint and produced aircraft that were **less**, not more, capable of acting flexibly in the national interest. The same people fought to cancel the Buccaneer, the world's best low-level strike aircraft. How can an organisation that has done so much to limit the national capability to deploy tactical air power be taken seriously in the twenty-first century? What can they 'bring to the party' that is positive and new and not based on a dogma that should have been abandoned in 1945?

I have taken a hard line against the 'light blue'

dogma that is evident in the US, UK and Australia. Land-based aviation does have a part to play in modern warfare but it would be utterly wrong to believe that it is the only part that matters. A few harsh truths need to be highlighted to get that point across and the sooner the better. The RN has probably taken too soft an approach for fear of sparking another bitter inter-service battle like those seen in the US in 1949, the UK in 1966 and Australia in 1982 over bombers versus carriers. One should never lose sight of the fact that 'independent' air forces were created to fight what was believed to be a new form of warfare with strategic bombers that would render navies and armies obsolete. It did not work out like that and we still rely on troops on the ground and fleets at sea to get them ashore and sustain them in action. They both need aircraft to do their job. Do we still need air forces that are independent and, if so, is their opinion relevant to actual, rather than theoretical war fighting? Can we now put away those 'situated appreciations' and see if a team can be created that will advance the cause of aviation and listen to the hard-won experience of naval aviators.

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# The evolution of Labor's policy on an Australian Coast Guard

Professor Stephen Martin\*

Following the re-election of the Coalition in 1998, the Beazley Labor Opposition undertook a re-examination of all its policies, particularly in view of the number of changes that occurred in terms of responsibilities within the Shadow Ministry. The 1998 Labor Defence Policy similarly was the subject of such a review.

The concept of an Australian coastguard was not new. But it had died something of a natural death within Labor's policy radar and had last been considered by the Party when in government. At that time, the Minister for Defence, the Hon Kim Beazley, ruled it out essentially on the basis of cost and the reluctance of Australia's defence force to support an initiative that it considered was not mainstream Defence responsibility.

However, with the continuing threat of incursions from unauthorised entries into Australia's maritime approaches, coupled with a deterioration of the region's security environment (the arc of instability), it was considered in the office of the Shadow Minister for Defence that the time had come to revisit this issue.

Calls for tighter surveillance were mounting amid concerns about organised immigration rackets, the risks of introducing exotic diseases and the prospect of political and economic uncertainty to our north sparking an exodus of refugees. It was already clear that Australian law enforcement agencies faced serious and growing challenges, especially in the areas of illegal migration and narcotics trafficking.

These issues coalesced politically, playing on the collective fears of Australians in times of insecurity. Of course, it was the Coalition Government, led by the manipulating efforts of the Minister for Defence Peter Reith in the 2001 election campaign, that lifted this form of untruthful, exaggerated spin doctoring to new heights.

In the months following the 1998 election, Kim Beazley formed a National Security and Trade Committee (NSTC) of the Shadow Ministry. The concept of an Australian Coast Guard (ACG) was first raised with that Committee in early 1999. In the initial drafts of the policy, the Shadow

Minister for Defence proposed that the Coast Guard actually be part of the military. It was considered that for the concept to gain understanding and acceptance in the community at large, it had to be linked to issues of national security and therefore required the full weight of the ADF behind it.

In discussions within the NSTC, the concept was generally accepted. The Shadow Minister for Defence took a proposal to the Shadow Cabinet in late June 1999. That proposal suggested that Australia faced a law enforcement challenge.

Two problems were identified with the current system. One was the lack of a whole of government approach to maritime surveillance and enforcement. Existing arrangements were based on the principle of partnership and shared responsibility. No one agency had the responsibility for taking a holistic view of the requirements for coastal surveillance. Customs, Australian Quarantine Inspection Service (AQIS), Australian Federal Police (AFP), Fisheries and the Attorney-General's (AGs) Department amongst others were all involved in some way. But these individual agencies were responsible for risk assessments and for translating them into tasks for Coastwatch.

The second problem was that the system suffered because Coastwatch was a private enterprise operation with civilian status. Labor considered that coastal surveillance was a vital national security task that required a paramilitary, or even a military organisation with proper equipment and appropriately trained and disciplined personnel. However, Coastwatch operational staff were civilians and received less thorough training.

Similar problems of organisation, training and discipline applied to the patrol boats operated by the Customs as part of Coastwatch. These vessels were not armed and their civilian crews not trained or authorised to carry weapons. The new and larger vessels being acquired by Customs would not add to this effectiveness unless they were armed and operated by members of a properly trained and disciplined force.

\* Professor Stephen Martin is the Chief Executive Officer of the University of Wollongong in Dubai. First elected to the Australian Parliament in 1984, he was the Shadow Minister for Defence between 1998 and 2001.



In terms of Defence policy, there was a movement away from the Defence of Australia and its sea air gap to one of developing regional community security. This presented a new set of challenges. In the future, the operational focus of the RAN and the RAAF was likely to be concentrated beyond Australia's environs. Their focus on the high technology end of maritime operations tended to concentrate on training and equipment policy as well as war fighting doctrine rather than constabulary tasks. Continuing budgetary pressures and the need to bolster less capable regional forces, leaving them to concentrate on sovereignty and constabulary task, would reinforce this.

On the other hand the changing nature of warfare and the Revolution in Military Affairs put a higher priority on constabulary tasks such as peacekeeping and similar crypto-law enforcement tasks.

Dealing with the problem was seen as not just a matter of having an effective surveillance and response system. Nor was it just a matter of giving total responsibility to an existing law enforcement agency such as the AFP or Customs. The former was already too small and under-resourced, as well as focused on shore bound operations. Customs was better placed but inadequately trained and equipped, especially to handle what were likely to be escalated threats in the future.

The challenge would be to cope with offenders who would themselves be well equipped and increasingly well armed. Officers would be faced with offenders using sophisticated electronic equipment and weapons of considerably more power than basic small arms.

Chief of the Defence Force, Admiral Chris Barrie noted at the time that the role of non-state players as a source of threats may continue to increase, while the traditional state on state wars may become localised, and between smaller states. He believed that, increasingly, Governments would need to structure against a broader range of threats rather than focus solely on traditional state on state based war.

The submission concluded that there was a fundamental need for a single paramilitary enforcement agency to have leading responsibility for national surveillance and enforcement in our huge area of offshore jurisdiction. The formation of an ACG could reflect considerable economies of scale.

An ACG was expected to focus on the enforcement of Australian sovereignty and law in Australian waters. Processes being pursued by Customs to improve their effectiveness could be refined by an ACG that would then devise an appropriate structure for their command and control. Additionally, the research and specifications for types of equipment more appropriate to coastal surveillance roles, fisheries patrol and protection of off shore resources would be more likely. At the time civilian agencies preferred the economy and flexibility of contracted services, whilst the ADF were concerned with combat capability.

The proposal also indicated the range of patrol and other vessels as well as fixed wing and rotary wing aircraft that would be required. It concluded that most of these were available or in the process of being acquired, such as the replacement for the *Fremantle* class patrol boats. The *Jindalee* Over the Horizon Network was thought also to add significant value, while the need for an enhancement of two or three bases such as Broome, Cairns and Darwin was recommended. The use of the existing Australian Volunteer Coastal Patrol and individuals through Neighbourhood Watch-type operations would add a community input into the concept.

As it became more widely debated with other Shadow Ministers whose portfolio responsibilities were affected, concern was expressed that the full military option was not the best solution. In a typical soft response, members of the Left argued that, like the US Coast Guard, its home should be within a portfolio like Transportation. This



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reflected the view that since Fisheries, AFP, Customs and Attorney-Generals would in some way be affected because of existing legislative restraint, the softer option should prevail.

In truth it was more about the perception of anything military that had some of the Shadow Ministers nervous.

In the final analysis, a number of Shadow Ministers, including Robert McClelland, Duncan Kerr and I, were given the task of fine-tuning the policy. It was ultimately agreed that the Coast Guard would not be military in a command sense, but would have its staff drawn from across the military and civilian jurisdictions. In time of war, it would in effect become the fourth arm of the military.

Having received approval for the policy from both the NSTC and the Shadow Ministry, the policy was then presented to the Caucus National Security and Trade Committee. Although some questions were asked related to the detail of staffing proposals and its quasi-paramilitary appearance, the Committee approved the concept. This Committee was generally comprised of right and centre left members of Caucus, so its passage was pretty much assured.

Finally, the policy was presented to a full Caucus meeting for approval. Such was the interest of the Caucus that not one question was asked at the time. Kim Beazley, Duncan Kerr and I formally launched the policy in Darwin in late 1999. All Labor policy launches were choreographed to get maximum media attention. This was no different, and over the next two years considerable effort was spent in promoting the concept around Australia.

In August 2000, the formal inclusion of the Coast Guard policy within the ALP National Platform at the Party's National Conference in Hobart was completed. This followed a number of months of consideration by the Foreign Affairs, Defence and Trade National Policy Committee in consultation with the relevant Shadow Ministers. But by this time, the concept had received some interested response and was not challenged.

The policy was taken to the 2001 election, but like most of what Labor had to say on national security and defence issues was drowned in the wake of the Tampa and children overboard affairs, 9/11 and Afghanistan.

Following Labor's third consecutive loss that year, incoming Labor leader Simon Crean announced that all of Labor's policies were to be totally reviewed, but that the Coast Guard policy would remain. As the issue of security, border protection and Australia's involvement in a number of significant world conflicts continued to

dominate, the policy was again reviewed by Mark Latham, Shadow Minister for Economic Ownership and Community Security.

The fundamental principles of the original policy remained in the policy announced in November 2002. Costings associated with acquiring appropriate maritime and aerial surveillance vessels and aircraft were updated to reflect changes made by the Government in increased expenditure in Defence.

Labor's policy continues to be the establishment of an Australian Coast Guard.

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# What is the secret to getting promoted?

## An Insider

*As a former PR5 Section 6 reporting officer and a member of a number of Qualification Based Boards (QBB) I am frequently approached by officers who seek my advice on what they have to do to get promoted. This article has been written for wide dissemination amongst the officers who are wrestling with this perennial problem. I can't pretend to provide the perfect solution to every individual circumstance, but by following the self-evaluation principles, I believe that most officers can answer most of the questions themselves. Please take the advice I offer in the spirit in which it is given. The RAN Officer's Promotion System can be mysterious at times, but it is important for officers to know that there are no secrets.*

As a member of a number of QBB, I take my responsibility for being able to provide guidance and frank feedback very seriously. Until I became a QBB member I felt, like most officers, that there were too many mysteries concerning how it all worked and how officers could find out 'the secrets' of getting promoted.

Let me enlighten you on my 'secrets' to getting promoted and my answers to the questions most frequently asked by Officers (especially when the promotion signal comes out in December each year).

### How the \*#@;€ did they choose those officers ahead of me?

Like you and everyone else who has not served in the Directorate of Naval Officer Postings (DNOP) or been part of the promotion board system, I always wondered what information the QBB worked with. Here's the first secret:

*All the QBB members have to work with is the information that is on your 'Blue Jacket': your PR5s/NOPARs, any censures you might have incurred and your individual submission to the QBB if you took the time to write one.*

Officers occasionally have some issue with the contents of at least one of their PR5s/NOPARs, and wish that they had an opportunity to put the content of the report into the context of the promotion selection criteria. For the last two QBBs, the great majority of officers in the zone did **not** bother to send in a personal submission. So here is my second secret:

*Your personal submission is placed in your BJ so that it is the **first** thing that the QBB members read*

*(and believe me when I say that every QBB member closely reads them). DNOP's call for personal submissions is an open invitation for you to point out to the QBB why you should be rated well in each of the criteria.*

The criteria and weighting that the QBB uses to develop an Officer's Order of Merit (OOM) is not a secret. It has been widely promulgated by signal and memo and can be found on the DNOP website. As an example, here is a modified extract from the DNOP home page for promotion from LCDR to CMDR:

| Criteria/Considerations                                                                                                                                                                            | Weighting  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <b>PQ Experience</b>                                                                                                                                                                               | <b>35%</b> |
| <ul style="list-style-type: none"> <li>• employability as CMDR in PQ</li> <li>• PQ employment and qualifications</li> <li>• command/charge experience</li> <li>• currency of experience</li> </ul> |            |
| <b>Recent Performance</b>                                                                                                                                                                          | <b>25%</b> |
| <ul style="list-style-type: none"> <li>• level of recent performance</li> <li>• difficulty of posting</li> </ul>                                                                                   |            |
| <b>Past Performance</b>                                                                                                                                                                            | <b>15%</b> |
| <ul style="list-style-type: none"> <li>• level of past performance</li> <li>• difficulty of postings</li> <li>• disciplinary issues (DFDA, censure, etc)</li> </ul>                                |            |
| <b>Breadth of Experience</b>                                                                                                                                                                       | <b>5%</b>  |
| <ul style="list-style-type: none"> <li>• non PQ employment (functional employment)</li> <li>• spread of employment types (sea, HQ, policy etc)</li> <li>• shore command/charge</li> </ul>          |            |
| <b>Education &amp; Qualifications</b>                                                                                                                                                              | <b>10%</b> |
| <ul style="list-style-type: none"> <li>• academic qualifications</li> <li>• staff training</li> <li>• non PQ specific qualifications</li> </ul>                                                    |            |
| <b>Potential</b>                                                                                                                                                                                   | <b>10%</b> |
| <ul style="list-style-type: none"> <li>• outstanding performance / attributes</li> <li>• potential for progression beyond CMDR</li> </ul>                                                          |            |

You can see from this extract that some criteria are viewed as being of more significance than others. Not surprisingly, PQ and recent performance rate very highly for LCDR to CMDR. Understandably potential for higher rank becomes more important for CMDR to CAPT while PQ has less relevance.

The principles used by promotion boards have not changed and are promulgated in ABR 6289. (The **bold italics** in the following extract are mine to highlight some important aspects):

***1320. The promotion of officers is based on their potential to perform at higher rank. The following principles, which have been derived from analysis of Promotion Board outcomes, apply.***



a. Officers selected for promotion are **invariably amongst the better performers** in their current rank. Unless an officer can perform very well in the present rank, he or she is unlikely to be selected for higher rank.

b. Officers appear more likely to be selected if they have completed advanced and/or staff training and have otherwise developed themselves through postings and higher education to be **able to undertake a wide range of employment at higher ranks**. Conversely, officers who have become highly specialised in niche areas tend to offer less potential for promotion except where specific specialist opportunities arise.

c. Particularly in the Seaman, Aviation, Engineering and Supply specialisations, **officers who lack operational currency in their Primary Qualification (PQ) are less likely to be amongst the most competitive for promotion**. This reflects the need for a continuing supply of officers, to higher ranks, who can go to sea or perform other operational duties where professional currency is vital.

d. With few exceptions, Navy can only obtain senior officers through the internal promotion process. Therefore, as a general rule, officers selected for promotion ideally should have sufficient time remaining in the Service to serve in the next rank and be able to be considered for further promotion and effective service.

So here's my third secret:

*You can use the criteria and weightings yourself to calculate a rough Order Of Merit for you and the peers with whom you consider you are competing for selection.*

If you have rated others ahead of you, work out why that is the case. Why are they more broadly employable in the next rank? What have they done to place themselves ahead of you in the competition?

Importantly for some of you, my fourth secret is:

*The QBB doesn't care about your age.*

This important principle is widely reinforced in a number of publications, including ABR 6289 Para 1317:

*'Officers .. are considered by subsequent Promotion Boards, until either selected for promotion (subject to a 'NOW' recommendation for promotion) or reaching retiring age for rank or, for those serving on an Open Ended Appointment, an age where they would be unable to render 12 months service in the higher rank before reaching the Compulsory Retirement Age of 55 years.'*

I was struck with how forcefully the QBB members regulated themselves and each other if the question of age came up, to the extent that they said to DNOP that the date of birth should be taken off the QBB summary sheets. The QBB looks at **all** officers who are eligible for

promotion. If an officer is unable to complete 12 months in the new rank before reaching CRA then he/she is ineligible and won't be considered. I think if you look at some of the selections to CMDR and CAPT during the last two to three years you will see the names of several people who, until then, might have been thought of as 'passed over' because of age.

### **I didn't get promoted last time but how competitive was I?**

QBB members are not able to give you direct feedback on how the Career Advancement Board (CAB) rated you. CAB feedback is sent to the relevant officers by DNOP/Director General Naval Personnel and Training around two months after the promotion signal is released. The QBB provides some **assessments/recommendations** to the CAB but they have to be ratified/amended/confirmed by the CAB before they can be released. QBB members have no view of what the final CAB assessment/recommendation will be. You will just have to wait. But the process I have described so far enables you to do your own analysis of your **relative** Order of Merit.

### **What do I have to do to make myself more competitive?**

If you understand that the OOM rates eligible officers against their peers, then here's how you can probably work out the answer to this perennial question yourself:

STEP 1: grab the latest Navy List and work out who amongst your contemporaries are your 'competition'. I don't necessarily mean all of the officers in zone for your PQ, but perhaps just your contemporaries of similar seniority/experience against whom you feel you are truly competing. Generally, all officers in the zone are **suitable** for promotion, but some are more suitable than others. The OOM process is designed to allow the QBB to determine a ranked list of contenders as the basis for further deliberation:

STEP 2: analyse yourself and each of your competitors against the criteria and the principles, and create your own rough OOM;

STEP 3: if you are not at the top of the list, think about what those who are ahead of you have done that made them:

- i. a **better** performer than you in the past;
- ii. able to undertake a **wider** range of employment at higher ranks than you;
- iii. have **more** professional/operational currency than you.

STEP 4: finally, look at the types of postings/experiences/qualifications that you need to pursue to put yourself ahead of the competition.



This process won't get you promoted, but it will help you work out for yourself where you are in the pecking order (OOM), how competitive you are, and what you can do to make yourself as competitive as you can.

**There must be more to it than that!**

Congratulations! You've discovered the REAL secret: *There are no secrets to getting promoted!*

You can't stop people being more competitive than you, but there is a lot that you can do yourself to make it more difficult for them. There is a logical process to working out how competitive you are and what you have to do next.

If you have followed the process that I have described, you are probably in a good position to be able to fill in your next dream sheet and hold meaningful, informed discussions with your DNOP desk officer to discuss where you need to go next and why.

In the end, promotion and advancement is very competitive. There are more very good Officers in the zone than positions available in the next rank, but at least you now know how to position yourself near the head of the pack.

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## Main battle tanks in littoral operations

Lieutenant Commander Glenn Kerr, RAN\*

On 7 November 2003 the Government's announcement of the outcome of the Defence Capability Review confirmed the need to replace the Australian Army's Leopard AS1 tanks with a more modern armoured direct fire platform. Some commentators have suggested that the main battle tank (MBT) has no place in littoral operations, and that a lightly armoured direct fire platform such as the US Army 105mm armed LAV-III Stryker Mobile Gun System would suffice. Others have even suggested that the tank is to the Army an expensive but essentially useless status symbol, much like the aircraft carrier is perceived to be to the Navy, driven more by a desire to participate in expeditionary coalition operations with America than any requirement of Australian national security. Even within the Australian Defence Force (ADF) many have questioned why an expensive and seemingly marginally useful program should receive such high priority, given the overall constraints on the capability budget, and the fact that the Army's Leopard tanks have not deployed outside Australia despite many overseas operations in recent years. These attitudes need challenging, especially paying regard to the integral role that tanks have played in combined arms operations in the littoral in the last 60 years.

Complex terrain characterises Australia's littoral environment. Tropical and sub-tropical jungle and rainforest and urban terrain restrict vehicle movement, observation ranges and weapon effectiveness. The presence of civilians in urban areas makes the use of indirect fire (from artillery, mortars and naval gunfire) and non-precision aerial munitions prone to potentially unacceptable levels of collateral damage. An MBT provides the advantages of a high level of protection from hostile fire, manoeuvrability, communications and precision direct fire support. At the same time, in selecting a replacement for the current Leopard, there are a range of issues, which need to be considered in the future ADF procurement equation.

In many ways MBT are similar to warships in terms of advantages and the need to strike a balance between armament, speed and protection. Indeed, it is no coincidence that the British initially called them *landships*, the term *tank* being simply a disingenuous code word to conceal their function

from the enemy. They possess *mobility in mass*, being able to move larger amounts of weapons and equipment than infantry units. A four-man infantry section operating in close country might carry a single 5.56mm machinegun, three rifles (one with a grenade launcher), two 66mm anti-tank rockets, eight hand grenades, ten rifle grenades, and 1,500 rounds of ammunition. The Leopard, which has a four-man crew, in the same scenario carries a 105mm cannon, two 7.62mm machineguns, four rifles, six hand grenades, 59 rounds of 105mm ammunition, 4,400 rounds of 7.62mm machinegun ammunition, and 1,680 rounds of 5.56mm rifle ammunition. They have *reach*, able to self-deploy over greater distances in a given period of time than troops on foot - approximately 450km across country at a maximum road speed of 65km/h. They possess *resilience*, being able to absorb damage and continue operating due to their heavy armour, which reduces the risk of mission failure. They have *poise* and *persistence*, being able to operate day and night in all weather, particularly when equipped with thermal imaging sights. Finally, they have *deterrence* - a tank is a large, noisy, intimidating machine, whose presence in the field can lower the psychological commitment of an opponent in attack or defence.

To draw a naval analogy, an MBT may be likened to an armoured cruiser of the dreadnought era. In open seas they could operate independently, using their speed, heavy armament and armoured protection to sweep away enemy light cruisers, destroyers and torpedo boats. However, in restricted waters they became vulnerable to attack by enemy torpedo boats and destroyers, due to the short ranges, restricted vision, limited ability to manoeuvre, and the heavy punch of the enemy torpedoes. In these situations it was necessary for the armoured cruiser to operate with a flotilla of destroyers in a *combined arms* task force, each providing mutual support to the other. The destroyers used their speed and manoeuvrability to keep the enemy light forces at a distance, while the armoured cruiser used its long-range, heavy armament to protect its escorting destroyers. Likewise, in open areas such as the deserts of the Middle East, tanks can operate relatively independently, sweeping away lighter opposition.

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However, in close country, such as the littorals, tanks and infantry must operate together in combined arms groups in exactly the same manner as the armoured cruiser and its escorting destroyers. The infantry protects the tank from enemy infantry armed with anti-tank weapons, while the tank provides heavy fire support for its escorting infantry force.

While some would relegate the MBT to the plains of Europe or the deserts of the Middle East, Australia has been involved with tanks in littoral operations since the outbreak of war in the Pacific in 1941. The Imperial Japanese Army employed the Type 94 TK and Type 97 Te-Ke tankettes, the Type 95 Ha-Go light tank, and the Type 89 Chi-Ro and Type 97 Chi-Ha medium tanks throughout the Pacific War. American M4 Sherman medium tanks, M2A4 and M3/M5 Stuart light tanks, and M10 tank destroyers fought throughout the Pacific War. M3 Stuart light tanks and M3 Lee medium tanks operated with the British 14<sup>th</sup> Army in Burma, while New Zealand Army Valentine Mk III Infantry Tanks participated in the invasion of Green Island in 1944. Australian M3 Stuart and Matilda Mk 2 Infantry tanks operated in the South-West Pacific from 1942 to 1945.

Australian tanks first fought in the littoral at Cape Endiaderre and Sanananda in 1942. Because the Army's primary tank, the 50 tonne M3 Grant medium tank, could not be transported to New Guinea, the 32 tonne M3 Stuart light tank was substituted.<sup>1</sup> Although they achieved their mission of supporting the infantry, these light tanks suffered unnecessarily heavy losses of vehicles and crew due to their light armour, poor cross-country performance, and lack of experience in infantry support operations. By the time of the next armoured operation in November 1943, the surviving M3 tanks were replaced by the heavily armoured Matilda, a tank designed specifically for infantry support. They were used successfully for operations in New Guinea, Bougainville and Borneo, providing invaluable close support to infantry operations. As Brigadier Dougherty of the 21<sup>st</sup> Brigade wrote in his Balikpapan after action report: *'The operation was a lesson on the use of fire-power. The old hands of this division (7<sup>th</sup> AIF) remember the Owen Stanleys...where one tank would have saved 200 lives [emphasis added] if we had only had it.'* Although the Leopard has never been deployed on operations since its procurement, evaluations in 1997 and 2001 by the Defence Science and Technology Organisation found that direct fire support causes about 40% of battle casualties, and in complex terrain dominates close combat by suppressing enemy attack or defence. This highlights the importance of a direct fire

weapon system for combined arms operations in complex terrain.

Two of Australia's MBT's were specifically chosen in competitive trials for their ability to operate in the jungle terrain of the Australian littoral environment. The Churchill Mk VI Infantry Tank was selected in 1945 to replace the Matilda over the M24 Chaffee light tank and the M4 Sherman, after trials in New Guinea and Bougainville. The Chaffee was found to be unable to sustain low speeds for infantry cooperation or deal with heavy forest, rendering it unsuitable for jungle warfare. While both the Sherman and the Churchill were deemed suitable for jungle operations, the latter was found to have better manoeuvrability, particularly at low speeds, thicker armour, and better ground clearance. The Leopard, which replaced the Centurion in 1976, was selected as the best vehicle in competitive trials against the American M60A1 based on recent Vietnam experience and an assessment of the overall Australian operating environment, including strenuous jungle trials in North Queensland.

The Mk 3 Centurion MBT, which replaced the Churchill in 1951, deployed to South Vietnam in 1968, providing integral armoured support to the Australian Task Force. They were highly effective in attacking enemy bunker complexes.

*'Enemy fighting from bunkers were difficult to overcome and it was found that infantry fire and movement, supported by artillery fire and air attack was not usually sufficient to remove them...The lessons of light infantry requiring the support of tanks to defeat an enemy fighting from bunkers had been learnt against the Japanese in New Guinea during the Second World War.'*<sup>2</sup>

In 1972 the Centurions were withdrawn *'after having dispelled the myth of tanks not being able to lend support to infantry fighting in jungle counter-insurgency operations.'*<sup>3</sup>

While Australian tanks have not deployed on littoral operations since 1972, the British Army took two troops of 8 tonne light tanks to the Falklands in 1982.<sup>4</sup> Their low ground pressure and transportability by CH-47 Chinook made them suitable for employment in the marshy conditions of the Falklands, where they provided critical close support to infantry forces. However, because of the climatic conditions and limited infrastructure, operations in the Falklands were characterised by non-complex terrain and open areas where opposition could be relatively easily detected and countered. Accordingly, their light armour was not seriously threatened by Argentine weaponry.

The argument for light armoured vehicles in the littorals on mobility grounds alone is only one part of the equation. Vehicles such as the American



M551 Sheridan or the Russian PT-76 (used by Indonesia) only have a ground pressure of 0.50 kg/cm<sup>2</sup>, but pay for this by carrying weaker armament, less ammunition and lighter armour. By contrast, main battle tanks have a higher ground pressure, but carry heavier armour, higher armament and can survive damage from anti-tank weapons. The MBT's mooted to replace the Leopard are: the 56 tonne Leopard 2A4 (ground pressure 0.83 kg/cm<sup>2</sup>); the 62 tonne Challenger 2 (ground pressure 0.9 kg/cm<sup>2</sup>); and the 63 tonne M1A2 Abrams (ground pressure 1.08 kg/cm<sup>2</sup>). The heavier weight of modern MBT does not necessarily preclude littoral operations, as the Matilda and the Churchill had ground pressures of 1.14 kg/cm<sup>2</sup> and 0.92kg/cm<sup>2</sup> respectively. In WW2 light armour and engines optimised for high speed were found to be unsuited to jungle conditions. *'It was discovered that a heavier tank, with thick armour, suitable for low-speed work and able to crash through jungle, was the type required for operations in the South-West Pacific.'*<sup>5</sup> On Guadalcanal the US Army also found that light tanks were vulnerable to enemy gunfire, mines and anti-tank guns, difficult to manoeuvre in dense jungle, and under-gunned for dealing with bunkers and emplacements.<sup>6</sup> They were thereafter replaced by the M4 Sherman medium tank. The Army's replacement MBT needs to be able to operate optimally in low-speed close country.

Light tanks suffer in complex terrain because their light armour makes them vulnerable to unsophisticated infantry weapon systems such as the widely available RPG-7 anti-tank launcher and anti-tank mines. The lethality of these weapons, limited over long-range, increases exponentially at short-range in complex terrain. The Stuart tanks deployed at Buna in 1942 were disabled by unsophisticated weapons including howitzers, molotov cocktails, satchel charges, and small arms. The US Army had a similar experience in Vietnam, where the 16 tonne M551 Sheridan air transportable tank was trialed in place of the 50 tonne M48A3 Patton on the theory that a light tank would be more suitable to jungle operations. Whereas the Patton could sustain mine or RPG damage with little or no injury to the crew, and be easily repaired, the aluminium skinned Sheridan would usually sustain fatalities and was often totally destroyed. These types of weapons are readily and cheaply available in the Asian arms bazaars, not just to State military forces, but also to non-State actors such as terrorists, pirates and other criminal groups - *'in certain parts of the region such as Mindanao, Cambodia and southern Myanmar, government security forces have found themselves confronting weapons that are equally as powerful as those they*

*have access to, including ...man-portable missiles and RPGs.'*<sup>7</sup> Australian forces operating in the littorals against groups armed with such weapons require a range of options to ensure mission success at a cost acceptable to the Australian Government. MBT's provide an additional option to the use of lightly armoured vehicles such as the ASLAV and Bushmaster.

A major issue for the ADF if the Army is operating MBT in the littorals is in loading, transporting, landing and supporting them. Generally speaking, few regional airfields could sustain the weight of an aircraft like a C-17 or C-5 necessary to carry an MBT. This suggests that the main mode of transport will continue to be by sea. In early WW2 deploying Australian tanks on operations was logistically difficult, as the RAN lacked the necessary specialist vessels for the task. The Dutch freighter MV *Karsick* was employed to transport Stuart tanks to Oro Bay in 1942, but transportation of the vehicles to the attack position at Cape Endiaderre relied upon clumsy and vulnerable barges towed by motor launches. By mid-November 1943 United States Navy tank landing ships (LSTs) were available to transport Matildas of the 1<sup>st</sup> Army Tank Battalion to the Huon Peninsula and to subsequent operations in the Pacific.

Based on this experience, the RAN loaned six Royal Navy LST Mk 3 from 1946 to 1955. After their disposal the Army operated four medium landing ships (LSM5) from 1960-71 specifically for the purpose of transporting their Centurion tanks within Australia's littoral region. Ironically, they were not used to transport the Centurions to and from Vietnam, although the vessels themselves deployed to Vietnam. The tanks were freighted in two shipments aboard the leased freighter MV *Jeparit* to Cam Ranh Bay. Here they were unloaded by crane. The first shipment was moved to Nui Dat by American utility landing craft (LCUs), the second to Vung Tau aboard the Army's LSM5 *Clive Steele*. In the first instance a 70 tonne floating crane was brought down from Saigon to offload the vehicles. In the second, wharf cranes were required as the floating crane could not be made available.<sup>8</sup> This highlights problems associated with a lack of self-unloading capability in tank transporting vessels. The return of the Centurions from Vietnam in 1972 was problematic, as the *Jeparit* had been returned to trade and the LSM5s had been removed from service. In the end, 28 Centurions were returned to Australia aboard the Japanese freighter MV *Harima Maru*. This in itself created problems, as the tanks required demilitarisation to comply with Japanese legislation, including the removal of the main gun armament.



The RAN was advised of Army development of MES 9 for the Centurion replacement to ensure that any replacement for HMAS *Sydney* would be capable of embarking the chosen vehicle. As a result, the heavy landing ship (LSH) HMAS *Tobruk* can carry 23 MBT on the vehicle deck and five on the upper deck. The amphibious landing platforms (LPAs) HMAS *Manoora* and HMAS *Kanimbla* can carry up to 29 MBT on the vehicle deck. The *Balikpapan* class heavy landing craft (LCH) can carry three MBT, and can transfer vehicles ramp to ramp with the larger amphibious sealift ships. However, for future amphibious sealift vessels, the ability to self-unload is an important one. In littoral operations where port infrastructure suitable for RO-RO operations is not available, the ability to unload MBT will depend on crane transfer to wharfage, direct unloading across a beach, or transfer by smaller landing craft. Redundancy will be highly desirable, requiring suitable internal ship structures, such as ramps, to allow MBT to be transferred to the necessary offloading point.

The Government's announcement on 7 November 2003 of its decision to replace the LPAs and LSH with two large amphibious ships and a large sealift ship means that any future MBT will have the ability to deploy to the littorals if required. The LPAs can discharge all cargo MBT via the crane from the forward flight deck, but *Tobruk* can only transfer the five MBT carried as cargo on the upper deck in reach of the derrick, lacking ramps from the vehicle deck to the flight deck. Future vessels must be designed with these requirements in mind. Consideration might also need to be given to providing workshop space for maintenance and repair of MBT aboard ship by RAEME units, particularly where the footprint of Australian forces in a littoral country is to be reduced. A range of logistic support will need to be provided for MBT, including transporting drive train components, which will be more extensively replaced under littoral operations than in open-country manoeuvre operations, main armament barrels, fuel and ammunition. In addition to the amphibious and sealift vessels, this may have implications for the design of future ADF replenishment ships.

Tanks have proven themselves in littoral operations since 1942, demonstrating not only their ability to operate in complex terrain, but also their ability to reduce friendly casualties through the provision of protection and direct fire support. The Leopard AS1 has been admirably suited to Australia's defence requirements since its introduction in 1976. However, the Australian Army requires a replacement MBT if it is to remain effective across the full range of littoral challenges into the future, given the continuing threat in even

low-level peace operations from unsophisticated anti-armour weaponry in complex littoral terrain. Light armoured vehicles, even if fitted with large calibre weaponry, lack the necessary mobility and protection to minimise the risk to vehicle crews and the supported infantry. Accepting that the new MBT will be part of the Army's order of battle for at least the next two decades, it is essential that the most appropriate vehicle is selected, and that the ADF's new amphibious, sealift and logistic support assets are suitably designed to provide the ability to transport, offload and support the vehicles if deployed on operations.

**Editor's Note:** Since this article was written, the Government has chosen the Abrams tank as the Leopard tank replacement.

<sup>1</sup> The M3 Lee tank, of which the M3 *Grant* was a British modification, subsequently operated successfully in close-terrain with the British army in Burma. Transportation, not suitability, was the main issue in 1942.

<sup>2</sup> I Kuring, *Australian task force operations in South Vietnam 1966-1971*, in Peter Dennis & Jeffrey Grey (eds), *The Australian Army and the Vietnam War, 1962-1972*, Army History Unit, Canberra, 2002, p. 134.

<sup>3</sup> J Bruni, *On weapons decisions: How Australia chooses to arm itself (1963-96)*, Southern Highland Publishers, 2003, p. 119.

<sup>4</sup> Four 76mm armed FV101 Scorpion, two 30mm armed FV107 Scimitar and one FV106 Samson Armoured Recovery Vehicle.

<sup>5</sup> P Handel, *Dust, sand and jungle: A history of Australian armour 1927-1948*, RAAC Memorial and Army Tank Museum, 2003, p. 65.

<sup>6</sup> See *United States Army in World War II: The War in the Pacific* series. Analyses of lessons learnt sections include weapons systems findings and recommendations.

<sup>7</sup> P Chalk, 'Light Arms Trading in SE Asia', *Jane's Intelligence Review*, 1 March 2001.

<sup>8</sup> see J Coates, 'Preparing Armoured units for overseas service' in Dennis & Grey (eds) *The Australian Army and the Vietnam War, 1962-1972*, pp. 78-79.



## Armidale class patrol boats - forging ahead

Commander Wes Heron, RAN\*

Patrol boats have served the Navy proudly since the introduction of the first *Attack* class patrol boat in 1967; the larger and more robust *Fremantle* class later followed these. In 2005 after some 25 years of outstanding naval service, the first of the *Fremantle* class will be replaced by the state-of-the-art *Armidale* class patrol boat (ACPB).

While the *Attack* and *Fremantle* have both made a significant contribution to national defence, particularly in border protection through their surveillance, patrol and response roles, it is anticipated that the larger, more capable *Armidale* is set to provide even higher levels of border protection capability through superior seakeeping and a state of the art surveillance system.

### Project history

The issue of a patrol boat replacement for the *Fremantle* had its genesis in 1993 when an initial proposal for a replacement patrol took the form of a collaborative patrol boat program with Malaysia (the offshore patrol combatant/joint patrol vessel). When a decision was taken not to pursue this option, Government approved a Life of Type Extension for the ageing *Fremantle*. In 1999, based on the high ongoing maintenance costs of the *Fremantle* compared with developing a new patrol boat, a decision was taken to actively embark upon a Replacement Patrol Boat (RPB) program - Project SEA 1444.

Keen to explore innovation in financing this program, the Minister for Defence agreed to develop a Private Financing Initiative (PFI) appropriate for SEA 1444. Consequently, a tiger team was formed to examine the benefits of a PFI against traditional acquisition. Based on the team's main finding that private financing offered a potential advantage over direct acquisition, the Government agreed to test the market on the basis of a PFI strategy. Interested parties were required to bid on both a direct capital purchase and on a PFI basis. After due process the Government decided against private financing for the RPB capability because of uncertainty as to whether the requisite capability could be provided on a value for money basis.

The overall tendering strategy for the ACPB

embraced innovation by linking through life support to the purchase of the platforms. Instead of the traditional Defence process of specifying a number of vessels with a given performance, the ACPB tendering strategy followed a 'performance based' model. Thus, the tender asked for a patrol boat system to provide 3000 days of operational availability of specified performance, with the capacity to surge to 3600 days to meet operational contingencies in any one year. Unlike previous patrol boat programs the emphasis was on a capability at sea to meet operational requirements, not on the number of boats purchased. It was up to the tenderers to meet the 3000 sea day requirement with a reliable patrol boat force rather than a predetermined number of vessels.

Embedded in these requirements were specific performance requirements. These included the ability for the platform to conduct surveillance and response boarding operations at the top of Sea State 4 (wave heights of 2.5m) and a required capability to maintain surveillance to the top of Sea State 5 (wave heights of 4m). Other requirements included a significantly longer range and endurance than the *Fremantle* - 3000nm with 25% burnable fuel remaining; a 42 day mission period; a doubling of the number of seaboats; and a 25mm gun capability. Importantly, the Commonwealth divested itself of the need to maintain and support this new capability and the winning tenderer was required to provide a suitably robust sustainability and support solution to meet the through life period of 15 years with an extension option.

After the culmination of a rigorous tender evaluation process, on 17 December 2003 a contract was awarded to Defence Maritime Services. This \$553m contract was for the design, construction and in service support of 12 patrol boats. The *Armidale* class is currently being constructed by Austal Ships at its Henderson yard near Fremantle, Western Australia.

### Capability

The increased capability of the *Armidale* is a result of her relative size when compared with her forebears. She is a much larger vessel than either the *Fremantle* or the *Attack* boat (length of 57m

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vs 42m, breadth of 9.5m vs 7m) The *Armidale* also has a 25% increase in range overall than the *Fremantle* - up to 3000nm at economical speed. This offers greater tasking flexibility in the *Armidale*, which will have the capacity to comfortably remain on task for longer periods in more areas than previous patrol boats. Specifically, the *Armidale* will undertake sustained operations both in the northern waters and those as far south as 50 degrees. She will be able to maintain operations in Sea State 5 to 1000nm offshore, be deployed for up to 42 days and will also be capable of surviving cyclonic conditions (up to Sea State 9).

This opens up new patrol areas to the *Armidale*. In addition to deployment in traditional areas she has the range and the seakeeping capability to conduct extended patrols in new parts of the Australian Exclusive Economic Zone (AEEZ). While continuing with traditional tasking in the AEEZ, the Southwest Pacific and into Southeast Asia, the *Armidale* will offer a sustained patrol and response capability around Christmas and Cocos Islands and will also be capable of conducting protracted operations to 50 degrees South onto the South Tasman Rise fishing grounds (some 300nm south of Tasmania).

The *Armidale*, built to combined commercial and naval standards is fitted with state-of-the-art systems optimised for its surveillance patrol and response tasking in support of its roles. The aluminium hull is propelled through the water by two MTU 16V M70 diesel engines. This will give the ship an operating speed of at least 25 knots and the capacity to conduct all surveillance and response tasking (including all boarding related evolutions) to the top of Sea State 4. Its two diesel jet propelled 7.2m Rigid Hull Inflatable boats (RHIB's), rapidly launched and recovered using the Vest davit system, essentially doubles the boarding and response capability inherent in the *Fremantle*. The fact that the RHIBs are over-the-horizon capable, with stand alone communications and safety systems is a significant force multiplier for the *Armidale*.

The *Armidale* has a formidable onboard surveillance and communications suite underpinning its patrol and response capability. This system comprises twin radars, a radar warning system (PRISM III), and an electro optical detection system (TOPLITE) for short range detection. The *Armidale* is also fitted with a fully calibrated and integrated Direction Finding system (WARRLOCK).

A state of the art communications system complements the onboard organic sensors by providing both strategic and tactical

communications capabilities using HF, VHF and UHF communications. Networked satellite links onboard provide situational awareness for the *Armidale* through access to the wider Defence operating picture. Satellite television services are also provided onboard.

In terms of armament, the *Armidale* is equipped with a Raphael Typhoon 25mm automated gun. The mount is unmanned and fully operable from the bridge. With a rate of fire of 200 rounds per minute the gun is interfaced with the Electro Optics Surveillance System (EOSS). The cannon is the same as that fitted to the Army's Bushmaster APC's offering some value for money maintenance benefits to the Australian Defence Force.

The platform will be multi-crewed by 18 crews of 21 personnel. The crews will be divided into three Divisions, two located in Darwin and one in Cairns, to coincide with the homeporting of eight boats in Darwin and four in Cairns. It is envisaged that the multi crewing concept will facilitate both maximum use of the *Armidale* in line with the 3000 sea day (plus surge) capability, while providing for adequate crew rest and balancing work/life commitments. In essence the multicrewing model provides an 18 ship capability using 12 hulls. Crew accommodation consists of modern two, three and four berth ensuite cabins - substantially better than the mess-deck style of the current *Fremantle*.

The ship also has the capacity to embark an additional 20 personnel for specific missions. This significantly increases the flexibility of the platform and adds to the range of tasking variables which can be met by the *Armidale*.

Following the historic naming convention for RAN ships which epitomises the close cooperation between Navy and the wider Australian community, the *Armidale* class will be named after Australian cities and towns with close links with naval heritage. The first of class HMAS *Armidale* is named after the original *Armidale*, a *Bathurst* class corvette, which served with distinction in World War 2. The other 11 boats are to be named (alphabetically), *Albany*, *Ararat*, *Bathurst*, *Broome*, *Bundaberg*, *Childers*, *Launceston*, *Larrakia*, *Maitland*, *Pirie* and *Wollongong*.

## Conclusion

Construction of HMAS *Armidale* commenced in April 2004 and will enter service in May 2005 with the final boat planned for delivery in May 2007. The project is currently on schedule to deliver this important new capability.



# Maritime security cooperation in the Malacca Straits: prospects and limits

Mushahid Ali and Jeffrey Chen\*

The announcement by the Indonesian Navy Chief Admiral Bernard Sondakh on 29 June 2004 that he and his Malaysian counterpart have agreed to institute some form of 'joint' patrols of the Malacca Straits, along with Singapore, represents a major step forward in settling the controversy over a regional maritime security initiative for the waterway. The three littoral states would now step up measures to counter the threat of maritime terrorism as well as piracy.

According to the Indonesian Admiral they would deploy up to seven naval vessels each and a form a task force of security personnel which would patrol the straits in a coordinated manner, but operate under their respective national commands. Military officials of the three countries would meet soon to work out the arrangements for the combined patrols to be carried out all year round, up from the four yearly patrols they had been conducting along the straits.

Acknowledging that this falls short of the 'joint patrols' he had proposed with Singapore, Admiral Sondakh said he did not rule out in future a joint force for the patrols, based in Belawan, North Sumatra; Lumut, Malaysia; and Singapore. He also said cooperation with other countries including the United States was possible, but would be limited to the sharing of intelligence and training exercises. Southeast Asian littoral states had initially rebuffed an American proposal to help patrol the Malacca Straits. As the Malaysian Navy chief, Admiral Mohd Anwar Nor explained *'We don't want outside forces having a role in the Straits of Malacca.'*

The latest move by Indonesia, Malaysia and Singapore is seen as a coordinated response to international calls to step up security amid increasing piracy attacks in the straits and the threat of terrorist attacks against major seaports using hijacked ships.

It appears however, that the mode of the security cooperation among the three states will be coordinated patrols (like the current arrangements between Indonesia and Singapore, and Indonesia and Malaysia) rather than joint patrols involving all three naval forces, for now. Such coordinated

patrols get round the sensitivities of the littoral states especially over the question of sovereignty. As Admiral Sondakh stated *'...maybe some day we will do this joint patrols but not for now because every country has its own policy.'*

This commentary discusses the prospects and limitations to maritime security cooperation among the littoral states in the near term. It will also consider how other powers can play a role in supporting regional cooperative efforts. Finally it will suggest how sustained regional cooperation in maritime security can be achieved in respect of the Malacca Straits.

## Prospects for cooperation

Prospects for regional maritime security cooperation have improved now that defence ministers and officials of Southeast Asian states recognise the need for some measures to be taken to increase security of shipping through the Straits of Malacca. They however emphasise that the impetus for any regional security initiative must come from within the region. Extra regional powers like the US and Japan cannot drive these cooperative efforts, though they can help to underwrite them with technical assistance, resources and training.

Besides the issue of sovereignty, the rationale for keeping such an initiative regional is four-fold: Firstly, the Malacca Straits is a waterway that lies between Indonesia, Malaysia and Singapore. Should there be a major collision along the straits the environment of these littoral states will be immediately and severely affected. Secondly, the Malacca Straits is the economic lifeline for the three littoral states besides serving global trade and the flow of half the world's crude oil. Thirdly, both Malaysia and Indonesia have expressed their sensitivities about outside powers deploying their security forces to patrol the Malacca Straits. Apart from the issue of sovereignty, they assert that the foreign forces would not have the local knowledge or familiarity with local culture to deal with the regional threats. Hence any external help must be in consultation with littoral states and their acceptance. Finally, it is easier for the littoral

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states to coordinate patrols of the Malacca Straits since their navies already have cooperation and joint exercises with one another and are familiar with the regional waters and coastlines.

### Limits to cooperation

However there are some limits to regional cooperation in maritime security. Firstly, the littoral states have yet to agree on the exact form and scope of such cooperation. While such regional cooperation would be driven by the littoral states, Indonesia, Malaysia and Singapore, they also need the assistance of external powers to share intelligence, provide training and resources. The external powers have to play a supporting role. The Chief of the US Pacific Command Admiral Thomas Fargo now seems agreeable to a role for US naval forces that involves cooperation with the littoral states, rather than direct intervention in the straits.

While both Malaysia and Indonesia have rejected the participation of external forces, Singapore on the other hand, has stressed the need for maritime powers like Japan, South Korea and the US (which have a stake in the safety of the waterway), as well as international bodies like the International Maritime Organisation (IMO) and shipping communities, to be involved. Indonesia along with Malaysia (and Thailand) said that any help from external powers such as the US would be limited to intelligence sharing, training and equipment.

### Steps to joint patrols

The littoral states could take the following initial steps in building regional cooperation. First, they could start to have more information exchange at the working level among their maritime and security officials. This exchange of information would serve to build and increase confidence among the different agencies of the littoral states that oversee maritime security.

Next they could extend their cooperation to physical activities such as linking up the maritime search and rescue coordination and operational centres of the three states. This would facilitate the coordination of patrols by their navies or coasts guards. After this is achieved external powers could get involved by providing resources, training and intelligence sharing. It's only when the littoral states are comfortable with the working relationship among themselves that external help would be accepted.

The final phase is to have joint patrols by the naval forces of the littoral states, aided by intelligence from both their own security agencies and external sources. The littoral states would

then be driving the regional maritime security cooperation but with the assistance of the international maritime community, without any fear of compromising their sovereignty.

### Concerns and challenges

The question is how quickly and how effectively the littoral states come to grips with the urgent need to effect such regional cooperation before the international community feels obliged to act, either multilaterally through the IMO or unilaterally to protect their shipping through the Straits of Malacca, regardless of the sensitivities of the littoral states.

Another concern is whether the littoral states have the resources, such as sufficient navy vessels, to contribute to these joint patrols. Malaysia is forming a special coast guard and beefing up its navy while Singapore has a fleet of corvettes and other high speed vessels; but Indonesia's capability is not clear. One way around it, as suggested by the Director of ICC-International Maritime Bureau, is for navy officers from the three littoral states to be aboard vessels of another country. This would facilitate clearance to conduct 'hot pursuits' into the territorial waters of another country as well as 'soften' the issue of sovereignty.

Yet another concern is the effectiveness of such joint patrols. The question is will such joint patrols succeed in deterring maritime threats such as piracy and terrorism. The answer to that is probably yes, judging from the effectiveness of bilateral coordinated patrols such as the Indo-Singa Coordinated Patrols (ISCP) by Indonesia and Singapore to counter piracy in the straits between the two countries. Moreover, showing one's presence can be an effective deterrent to would be terrorists and pirates.

However, the greatest challenge will be the political will of the three littoral states. If any of the national governments of the three littoral states are unable to sustain the momentum of putting maritime security and cooperation high on their respective political agenda, then talk of 'joint' patrols would just be a flash in the pan. Thus it would be in everyone's interest to encourage and support the littoral states to pursue their regional maritime security cooperation with all dispatch.

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# Reflections on the new Indo-Pacific maritime and naval environment

Dr James A Boutilier\*

It is widely recognised that the centre of world economic gravity has shifted from the Atlantic to the Indo-Pacific region. For the purposes of this review, that region will be said to encompass the oil-producing states of the Arabian Gulf area, India and Pakistan, Australia and New Zealand, and the states of East Asia from Indonesia to Japan. While trans-Pacific and intra-Asian trade is booming and megaports are burgeoning throughout the region, dramatic changes are also occurring in the naval realm. Clearly, there is a complex and critical relationship between the growth of commercial shipping and the development of regional navies. Above and beyond that consideration, however, there are a number of fundamental realignments occurring in the roles that navies (and, to an increasing degree, coast guards) are expected to play, the threats they are expected to face and the areas in which they are expected to operate. These realignments are a reflection of tectonic shifts that have taken place since the end of the Cold War in the spatial relationships between the land and the sea; with mercantile activities moving toward the coast and navies moving toward the shore. Simultaneously, the trajectories of weapons and trade have blurred the traditional distinctions between the two domains.

No ocean in the world is as geographically complex, jurisdictionally contentious, and potentially confrontational as the Pacific Ocean. Furthermore, it could be argued that no maritime region is more dynamic and important, locally and globally, than the Indo-Pacific region. This paper reviews the far-reaching changes that characterise the maritime and naval environment that has emerged in the past decade in the Indian and Pacific Ocean areas.

## Dynamic maritime trade

Economic dynamism is the most striking feature of those areas. Over the past twenty years the export-driven trade of East Asia has increased *nearly twice as fast as world trade in general and has already surpassed that of North America.*<sup>1</sup> The statistics associated with that trade are

suitably impressive, no more so than in China which has become the main engine of regional growth. As Andrew Mukherjee has noted, China consumes *about a quarter of the world's steel, a third of its oil and half of its cement.* The People's Republic, he concludes, *has been a bigger contributor to global growth than the United States for the past two years.*<sup>2</sup> When compared with the GDP of other Asia-Pacific countries, the wealth generated by the Pearl River delta region of China (less than 1% of the nation's land area) is almost equal to that of Indonesia or South Korea.<sup>3</sup>

China, in fact, is expected to be the *greatest single factor influencing the world's shipping industry over the next two decades.*<sup>4</sup> That influence manifests itself in at least four ways: shipping patterns, shipbuilding, container traffic, and port development. China's maritime economy grew 17% per year in the 1980s and 20% per year in the 1990s. Much of it was carried in the nation's 300,000 (50 million dead weight tons) merchant ships.<sup>5</sup> Central to that traffic is China's insatiable demand for energy. China's crude oil demand in 1990 was 2.3 million barrels per day (bpd). By 2000, it was 4.6 million bpd.<sup>6</sup> In the interval, in 1993, China became a net importer of oil. Thus, with China's crude oil imports expected to treble over the next decade, the shipping routes or Sea Lines of Communication (SLOCs) from East Asia via the South China Sea, the Strait of Malacca, and the Indian Ocean to the oil-rich Gulf states are becoming increasingly important, commercially and geo-strategically. And regional dependence is also scheduled to keep growing. Oil imports accounted for about 60% of Asian oil consumption in 2000. They will account for nearly 75% by 2010.<sup>7</sup>

There are two major SLOCs in the Indo-Pacific region. The first runs from the Strait of Malacca across the Indian Ocean to the Middle East. Roughly 41,000 ships pass along this route every year, double the number of ships passing through the Suez Canal and triple the number transiting the Panamá Canal.<sup>8</sup> The second SLOC runs from the South China Sea northeast to the Sea of Japan. Like China, Japan and South Korea

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are overwhelmingly dependent on imported energy. So too is India. Over 3800 oil tankers visited Indian ports in the year 2000 and one of the greatest security concerns entertained by New Delhi is the need to ensure the uninterrupted flow of Middle Eastern energy to the sub-continent.<sup>9</sup>

While vitally important, energy flows are only a part of the overall shipping profile in the Indo-Pacific region. In broad terms, there are two shipping patterns in the Pacific; trans-Pacific and intra-Asian. Asian shipping companies announced recently that they expected to carry between 10-12% more cargo from Asia to the United States (US) in 2004 than forecasted earlier.<sup>10</sup> Container traffic was up 16% from China to the port of Vancouver in the first six months of 2003 (for a total of 752,819 twenty-foot equivalent units or TEUs) and overall trade between those two destinations more than doubled from 1999 to 2002 (1,588,000 metric tons to 3,569,000 metric tons).<sup>11</sup> Significantly, only China appears to have been immune to the Asian economic crisis of 1997-98 and this fact is borne out by the continuous growth of China's (and Hong Kong's) trans-Pacific trade during the 1990s (growing from 613,000 TEUs in 1990 to 3.1 million TEUs in 1999).<sup>12</sup> Equally significant (if not more so) is the fact that intra-Asian trade is growing more quickly than trans-Pacific trade. This phenomenon reflects the power and attractiveness of the China market, the general recovery of East Asian economies in the period after 1997, and the emergence of trade facilitation agreements between China and Southeast Asian states. In 2003, China was the recipient of over US\$50b in direct foreign investment, much of it at the expense of other regional polities, and as China's gravitational field becomes irresistible, more and more nations like South Korea are redirecting their trade flows towards the People's Republic.

These flows have increased the demand for hulls in the Indo-Pacific region dramatically. South Korea, Japan and China are at the forefront of world shipbuilding and China's share is growing steadily. Recently, the Shanghai Waigaoqiao Shipyard (SWS), completed the first phase of a US\$389m development programme. SWS is one of China's *key projects* and is by far *the largest and most advanced [shipyard] in the country*.<sup>13</sup> Since May 2001 SWS has received over 4 million tons in orders, an amount almost equalling China's total shipbuilding capacity at present. A second US\$121m phase is planned and when work on the yard is completed in 2005 it will have a capacity of 2.6 million tons per year. SWS is a critical component in Shanghai's ambition to become the world's largest

shipbuilding centre. With a 500-ship waiting list at shipyards around the globe and American demand for Asian exports growing faster than the number of hulls available, it seems likely that there will be no lack of work for Asian yards.<sup>14</sup>

Two further points are worth noting. First is the fact that the growth of regional shipbuilding capacity has significant implications in terms of indigenous capacity to construct naval vessels. Second, is the fact that shipbuilding, ship repair, and ship-breaking are all functions that reinforce the commercial activities that are the central features of the megaports of East Asia.

### Regional navies

The regional navies of the Indo-Pacific region are growing larger and becoming more sophisticated. This phenomenon is part of a related phenomenon, namely a reordering of national priorities away from the land toward the sea. As the age of independence struggles and post-colonial reconstruction draws to a close and Asian nations are drawn more deeply into a global economy they have begun to focus on maritime commerce and port development. At the same time the army formations that were needed during the nation building phase are returning to their barracks, literally and metaphorically. Across the region armies play a smaller overt role in politics, whether in South Korea or Thailand, and national leaders are eager to reduce the numbers of soldiers and render the remainder more professional in their conduct and more technologically sophisticated in their hardware. This is certainly true, for example, in China where the People's Liberation Army has been reduced in size and the Central Military Commission, impressed by America's mastery of the Revolution in Military Affairs in Southeastern Europe and Iraq, has sought to improve the sophistication of PLA assets. Simultaneously, Beijing has recognised that China's own centre of gravity has moved to the provinces facing onto the Pacific, that China is vitally dependent on ocean-going commerce, and that China must, at the very least, be able to exercise sea denial in the approaches to the mainland.

Thus, we see Beijing devoting greater and greater attention to expanding China's naval capabilities. This has involved the abandonment of the old Soviet legacy of coastal and riverine warfare and the articulation of green and blue water doctrines. Concomitant with this doctrinal shift has been the need to introduce new generations of warships and submarines. In this regard the Chinese have pursued two routes simultaneously; build and buy. The latter strategy



has entailed acquiring *Kilo* class submarines and elderly but powerful Soviet-era *Sovremenny* destroyers from Russia. The Indian Navy has gone down the same road while actively developing their own indigenous capacity to construct naval vessels. The same can be said for a nation like Singapore, that saw the first of its *Lafayette* class frigates, RSS *Formidable* launched in France in January 2004; the remainder will be constructed in a local yard.

The Chinese have begun constructing increasingly impressive frigates and destroyers. In some cases, these vessels have been built for foreign buyers. The Royal Thai Navy is reported to have had frigates built in a Shanghai yard. Similarly, in South Korea, the naval industry is capable of building the latest generation of guided-missile destroyers as well as diesel-electric submarines. Hyundai Heavy Industries, for example, is building the first of the KDX III 7000-tonne *Aegis* class destroyers. This programme, worth approximately US\$2.1b, will see three destroyers being fitted out; the first in 2008, the others in 2010 and 2012.<sup>15</sup> Parenthetically, the construction of surface combatants of this size has become a prominent feature of naval construction and acquisition across the region. Virtually all of the navies in the Indo-Pacific are going up-market; acquiring warships with greater displacement and firepower. The *Sovremennys* are a case in point but elsewhere the Indian Navy has acquired the 6700-ton *Delhi* class destroyers, the Japanese and South Korean navies are looking to add 13,000-ton vessels (a 'destroyer' in the first instance and an 'LPX' in the second) in the next decade and the Republic of Singapore Navy has moved from corvettes to frigates.<sup>16</sup>

### Megaports and container traffic

As suggested, indigenous shipbuilding capability has contributed to and resulted from the development of Asian megaports. Lee's research indicates that eight of the ten busiest container ports in the world were located in the Asia-Pacific region in 2000.<sup>17</sup> The Chinese are building what will potentially be the world's largest port at Yangshan near Shanghai. As envisioned, Yangshan will have at least thirty berths with an annual handling capacity of 13 million TEUs by 2020.<sup>18</sup> By way of comparison, Vancouver, Canada's largest port, handled 752,819 TEUs in the first six months of 2002.<sup>19</sup> In order to accommodate the newest generations of container ships, Yanshan will be built on a group of islands and connected to Shanghai by a 30-kilometre bridge. Shanghai was one of the world's busiest ports in 2002 (coming after Hong Kong,

Singapore and Pusan) and during the same year Shenzhen leapfrogged both Rotterdam and Los Angeles (Long Beach) to become the world's sixth largest container terminal.<sup>20</sup> It is instructive to reflect upon the fact that only a few decades ago Shenzhen was little more than rice fields on the outskirts of Hong Kong.

China is the largest producer of containers in the world. This is important in at least two respects. First, the concentration of wealth in China's maritime provinces reflects not only the realities of explosive export growth but the inadequacy of the land-based infrastructure. A key feature of the new 'just-in-time', 'door-to-door' supply chain that has come to characterise the global economy is the way in which those chains stretch well inland, blurring the distinction between the land and the sea in the process. In China's case, road transport is probably the most efficient way to move containers within five hundred kilometres of a port like Shanghai. The Chinese authorities are dedicated to enhancing the multi-modal nature of their transportation system, but, for the moment, limitations in transportation encourage an even greater concentration of industrial production and commerce close to the sea.

Second, is the growth of the container industry *per se*. Container traffic from Asia to the US grew by about 10% in 2003 while shipments from Asia to Europe were up 14%.<sup>21</sup> Put another way, US-bound exports from China rose 22% in 2003 and the shares of three of the top five trans-Pacific shipping companies (like Singapore's Neptune Orient Lines and Taiwan's Evergreen Marine) almost tripled in the same period.<sup>22</sup> When we look more carefully we see that the trend is not so much toward more container ships but to bigger ones. Vessels with a capacity in excess of 3000 TEUs made up 67% of the total deliveries in 2002. More significantly, however, vessels with that capacity made up 79.8% of the ships on the order book.<sup>23</sup> In terms of dead weight tonnage, container ships are one of the two fastest growing categories of merchant ship (so-called 'miscellaneous tankers' are the other) with displacement rising from 69,216,000 to 82,793,000 (7.4%) in the period 2001-03, inclusive. This *relatively high rate of increase* reflects the growing proportion of manufactured goods being traded in containers.<sup>24</sup> As Cozens observes, *a container ship leaving New Zealand bound for East Asia could have a cargo value of up to NZ\$250m.*<sup>25</sup>

Cozen's observations relate to critically important developments at sea: the growing size of container ships and the multiplication not just

in the number of containers (a factor with serious security implications) but in the value of the goods carried therein. Certainly the trend toward larger and larger container ships appears unstoppable, at least within the limits of naval architecture and safety at sea. Nippon Yusen KK of Japan, for example, has ordered four 6200-TEU container ships from Ishika Wajima-Harima Heavy Industries in addition to five already on order.<sup>26</sup> Other analysts talk of exponential growth in the carrying capacity of container ships in the future. Certainly there are economies of scale to be enjoyed from bigger ships. A 6000-TEU ship probably costs 30% more than a 3000-TEU vessel and requires about the same percentage of extra fuel but needs only marginally more crew.

### Security initiatives

Mariners are well acquainted with the traditional array of seaborne challenges; piracy, smuggling, the movement of illegal migrants, and so forth. Piracy has attracted a good deal of attention in recent years as a result of the number (and more brutal character) of attacks and as a result of enhanced international reportage. There is a rich literature on Southeast Asian piratical attacks and while piracy has a profound effect on ship owners, crews and insurance rates it is a statistically modest affair over and against the tens of thousands of ships plying the world's oceans at any one time.<sup>27</sup> Of greater importance, currently, is the threat of maritime terrorism. The number of vessels that have actually been targeted - vessels like the USS *Cole* and the MV *Limberg* - is almost infinitesimal but the ramifications of anticipated attack are huge. They are huge in at least two ways. First, are the flow-on costs of maritime terrorism. Corder and Rentsch have noted that the flow-on costs to the Port of Yemen of the *Limburg* attacks in 2002 were *approximately US\$180m over six months*.<sup>28</sup> Another widely circulated estimate relates to a terrorist 'dirty bomb' (radiological material scattered by conventional explosive) attack on the port of Long Beach, California; the total cost, US\$58b.<sup>29</sup>

Second, are the gargantuan costs associated with trying to safeguard international maritime commerce from attack. Those efforts highlight a variety of vexing problems: intelligence sharing, dealing with unbelievably large volumes of trade, lack of administrative capacity, the expense of new security technologies, different perceptions of threat, and jurisdictional complexities. At the heart of the matter is the tension - in time and money - between economic efficiency and security effectiveness. The US has been at the forefront of promoting the Container Security

Initiative (CSI). What makes maritime terrorism so complex, at its simplest, is that ships, their crews, and/or their cargoes (for example, liquefied natural gas) can, separately or collectively, be vehicles for attack. CSI focuses on the huge traffic in containers; containers that could be used to transport weapons like dirty bombs. What CSI has done, in effect, is to re-order spatial relationships once again by pushing the maritime boundaries of the US outward in a series of concentric rings. At the outermost limit are the seventeen or eighteen international ports that have agreed to the pre-clearance of containers (frequently by US personnel) before they leave for American ports. Foreign port authorities who fail to embrace the CSI run the risk, in theory at least, of having their cargoes denied entry into the US after July 2004. US Customs officials began patrolling the ports of Klang and Tanjung Pelepas in Johor in September 2002 to screen US-bound cargo for contraband and suspected terrorist materials. Pre-screening facilitates the entry of Malaysian shipments into American ports and, armed with these assurances, the Malaysian government is continuing with a US\$1.5b development of the two ports to accommodate bigger container ships.<sup>30</sup>

The next ring is the 96-hour ring where incoming merchantmen are obliged to communicate their intentions, crew lists, and manifests. These details should be congruent with the contents of containers that were forwarded to US authorities - in accordance with CSI requirements - 24 hours before the ship departed the Asian port. High Interest Vessels (HIVs) and high-risk cargoes are tracked and subject to special scrutiny.<sup>31</sup> The magnitude of the task, however, remains daunting. The US Coast Guard, which bears much of the burden of enforcing these new regulations and the various port authorities are faced with dramatic increases in their responsibilities, but only limited increases in funding. It is no surprise, therefore, that only about 3% of the 16 million containers that pass through the 361 ports in the US receive close attention.<sup>32</sup>

Another interesting and debatable initiative promoted by the US is the Proliferation Security Initiative (PSI). While anchored in a larger concern about maritime terrorism, PSI is designed to prevent the shipment of missiles, weapons of mass destruction (WMDs) and associated equipment. The PSI has several antecedents. In December 2002, Spanish marines, acting on a request from the US, boarded a North Korean freighter, the *So San*, crossing the Arabian Sea. Hidden under bags of cements were fifteen SCUD missiles bound for Yemen. The Yemenis



maintained that the purchase was for defensive purposes only and as neither Yemen nor North Korea were signatories to the Missile Technology Control Regime (MCTR) (and the regime only provides voluntary guidelines) the Spanish and the Americans were obliged to let the *So San* go. As Byers and Droz have noted, *it was the absence of international law, rather than pre-existing rules, that impinged on US interests*.<sup>33</sup>

The American answer to this shortfall was the PSI; an initiative whose wisdom appeared to be buttressed by the realisation that not only had Tehran deceived the International Atomic Energy Agency (IAEA) with respect to the Iranian nuclear programme but that North Korean duplicity, in the form of Pyongyang's failure to honour the Agreed Framework of 1994, and willingness to ship missile components to the Middle East, had severely undermined the Nuclear Non-Proliferation Treaty. PSI, with eleven adherents including Japan and Australia, argues that the high seas interdiction of vessels should be allowed on the grounds that the right of self-defence should include preventative action. The legal basis for interdiction of this sort remains contentious to say the least. Nevertheless, joint naval exercises, involving PSI signatories, were held in the Coral Sea, off the Queensland coast of Australia, in September 2003, with a view to promoting intelligence sharing and military cooperation.<sup>34</sup>

### Spatial realignments

The US Navy is as at the forefront of such initiatives and the War on Terrorism in Asia. Its presence in the approaches to the Arabian Gulf in Operation *Enduring Freedom* (the maritime element of the War on Terror) reflects a profound doctrinal change that has occurred in American naval thinking since the end of the Cold War. In September 1992 the USN articulated a new strategic doctrine entitled *From the Sea*. A more detailed iteration, entitled *Forward From the Sea*, appeared in November 1994. What these concept papers called for was a dramatic re-positioning of USN assets from the deep ocean, where, in simplistic terms, they had focused much of their attention on hunting Soviet submarines, to the littoral regions of the world. The *From the Sea* documents constituted a timely recognition of the complex and unpredictable nature of global threats in the aftermath of the fall of the Berlin Wall. As *Forward From the Sea* observed matter-of-factly, *75% of the earth's population and a similar proportion of national capitals and major commercial centres lie in the littorals. These are the places where American influence and power*

*have the greatest impact and are needed most often*.<sup>35</sup>

Not only has the operational focus of the world's most powerful navy and many of its allied and associated navies, moved from the high seas toward the shore, but the reach of those navies has begun to extend well inland, eroding the land/sea frontier. Power projection, utilising carrier-based aircraft and cruise missiles, allows the USN to strike at targets over a thousand nautical miles inland. At the same time, vessels operating in the approaches to the Indo-Pacific littoral do so in what Pentagon jargon calls a 'target-rich environment', vulnerable to shore-based anti-ship missile systems and interceptors. Paradoxically, the 1990s witnessed a decline in anti-submarine warfare capability, in most, if not all navies. The Soviet submarine menace had been vanquished, or largely so, and what new threats there were appeared to be in the form of incoming missiles. While this remains true, the *From the Sea* construct commits the USN and other maritime forces to operating in the most difficult of all ASW arenas - the shallow in-shore environment - at the very time that it is becoming more and more densely populated with hard-to-detect conventional diesel-electric boats. Submarine acquisition and construction has been, in fact, an important part of the Indo-Pacific proto-arms race of the past decade. Thus, we find India and France completing negotiations in February 2004 to build six, 1600-tonne *Scorpene* submarines in India.<sup>36</sup> New Delhi had already undertaken to buy three Russian *Kilo* class (Type 877 EKM) and three *Amur* class subs in 2001. Two years later, in November 2003, the Indian Ocean stakes were raised even higher when Pakistan, one of twelve countries worldwide to build its own submarines, commissioned an indigenously constructed Agosta 90-B.<sup>37</sup>

### Coast guards

The proliferation of powerful warships and submarines in the Indo-Pacific region stems, in part, from a new nationalistic self-confidence throughout the region. Indeed, some might say that there is a certain Mahanianism in the air. Big ships, however, are not necessarily suited for many of the lower level maritime challenges that abound. There are continuous frictions over disputed territories like the Senkaku/Diaoyutai Islands, the Spratlys in the South China Sea, and the rocky outcrop lying part way between Japan and South Korea. Maritime boundary lines and definitions under the UN Convention Law of the Sea (1982/in force in 1994) remain sufficiently debatable that tensions flare up on a regular basis.

Fishing is also a source of inter-state tensions. In fact, in April 2003, the Indonesian Navy was reported to have attacked several Malaysian boats off Perak on the grounds that they were engaged in illegal fishing.<sup>38</sup> That report was lent further credence when the Indonesian Navy announced that the TNI-AL's Western Fleet Commander, Commodore Mualimin Santoso *was not afraid of shooting foreign vessels that enter Indonesian territorial waters without permission. So far, Santoso declared, only foreign fishing vessels have been shot ...*<sup>39</sup>

These comments underscore the need for good governance at sea. To meet that need, a growing number of Indo-Pacific nations are either converting existing maritime safety agencies to coast guards (Japan), creating coast guards (Vietnam) or contemplating their creation (Australia). Indeed, as Bateman has suggested *coast guards are a growth industry* in the region.<sup>40</sup> His contention is that navies, in the pursuit of sophisticated weaponry have, in effect, *priced themselves out of maritime policing.*<sup>41</sup> The appearance of coast guards in a realm characterised by intense levels of shipping and overt competition for territory and resources, indicates that the third element in Booth's famous maritime triangle - warfighting, naval diplomacy, and constabulary activities - has come to the fore. Coast guards are cheaper and less provocative than navies. On the negative side there is a disturbing lack of comparability across the maritime landscape. Some countries have navies and coast guards, some have only navies, and those that have coast guards may not have endowed them with similar levels of authority. While coast guards may be ideal for monitoring maritime pollution, conducting search and rescue, or maintaining aids to navigation, they may lack, in the final analysis, the power and/or the legal authority to act in particularly challenging circumstances.

Broadly speaking, northeast Asian waters are the purview of navies while Southeast Asian waters are the natural home of coast guards. This fact reflects the difference in the size and power of the states involved in the two sub-regions, the nature of inter-state relations and the frequency of constabulary opportunities in Southeast Asian waters. What commends coast guards is that they are more naturally suited for confidence building measures through mutual cooperation. Japanese Coast Guard (JCG) vessels, for example, visited Southeast Asia and South Asia in November 2000 for exercises with the Indian Coast Guard. Furthermore, JCG vessels and aircraft visit Southeast Asia regularly to participate in anti-

piracy patrols.<sup>42</sup>

### Naval cooperation

There is reassuring evidence that regional navies are adopting a more cooperative attitude as well. Despite the growth of those navies (and the repeated exchange of gunfire between South Korean warships and North Korean vessels in recent years), navies from the Indo-Pacific region are engaging in higher and higher levels of naval diplomacy and confidence building.<sup>43</sup> Some of these interactions are historic in nature. The visit of the USS *Cowpens* to Ho Chi Minh city in November 2003 was the first such visit since the end of the Vietnam War in 1975 and illustrated the dramatic improvement in relations between Hanoi and Washington.<sup>44</sup> Similarly, in the same month, the Chinese and Indian navies held their first ever joint naval exercise off Shanghai; a search and rescue exercise described as *the boldest step in the steadily improving relationship between ... the former foes - and a new twist in the Asian security picture.*<sup>45</sup> The press and professional literature are full of comparable examples - the Indian and Russian navies, the Royal Malaysian and Thai navies as well as the marine police, the Japanese Maritime Self-Defense Force and the Republic of Korea Navy - as well as accounts of long-range, flag-waving voyages by the Indian, Chinese, Singaporean and Indonesian navies.<sup>46</sup> These levels of peaceful naval activity augur well in the Indo-Pacific region and suggest a pan-regional consensus that maritime peace is in everyone's interest.

### Conclusion

The Indo-Pacific maritime arena is the most dynamic in the world. There are unprecedented levels of maritime activity. Trans-Pacific and intra-Asian container traffic is booming. Major shipyards and megaports populate the Asian shore. The Indian and Pacific Oceans are linked by vital energy flows and the overlapping geo-strategic interests of the Indian and Chinese navies. Regional navies are growing more powerful, with bigger surface combatants, more submarines, and greater numbers of sea-going missiles. Regional powers, like China, are repositioning their national interests towards the sea while major navies, like the USN, are repositioning their operations toward the shore. Spatial distinctions between the land and the sea are becoming blurred as weapons systems and supply chains connect the oceans and the interior in a more and more profound way. Challenges at sea have spawned regional coast guards; forces less expensive and less provocative than navies



but ones well equipped to attend to the needs of dense ocean traffic, and disputes over fisheries, boundaries, islets, and deep sea resources. Constabulary functions have become more prominent throughout the two great oceans, and reassuringly, there is increasing evidence that in this, the most contentious and confrontational of all ocean complexes, naval diplomacy and cooperation are on the rise.

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<sup>1</sup> Seo Hang Lee, 'Security of East Asian SLOCs and the Role of Navies' in Andrew Forbes (ed) *The Strategic Importance of Seaborne Trade and Shipping*, RAN Sea Power Centre, 2003, p. 176.

<sup>2</sup> Andy Mukherjee, 'China: Gold Mine or Minefield', *International Herald Tribune*, Wednesday, 28 January 2004, p. B2.

<sup>3</sup> Peter Rimmer, 'Commercial Shipping Patterns in the Asia Pacific Region: the Rise and Rise of China', in Forbes, *The Strategic Importance*, 2003, p. 37.

<sup>4</sup> *ibid.*, p. 35.

<sup>5</sup> James Boutilier, 'The Canadian Navy and the New Naval Environment in Asia', *International Journal*, Winter 2002-2003, p. 184.

<sup>6</sup> Rimmer, p. 35.

<sup>7</sup> Mihir Roy, 'The Sea-Lines of Communication: An Indian Ocean Perspective', in Forbes, *The Strategic Importance*, 2003, p. 87.

<sup>8</sup> *ibid.*, p. 86.

<sup>9</sup> *ibid.*, p. 88.

<sup>10</sup> Tan-Hwee Ann, 'Shippers Raise Forecast for Cargo', *International Herald Tribune*, Wednesday, 28 January 2004, p. B3.

<sup>11</sup> Bruce Constantineau, 'China Trade Boosts Shipping', *Vancouver Sun*, Friday, 21 November 2003, p. G1.

<sup>12</sup> Rimmer, p. 46.

<sup>13</sup> Tian Xiuzhen, 'Shanghai shipyard No Equal', *China Daily*, Monday, 20 October 2003, p. 3.

<sup>14</sup> Tan-Hwee Ann, 'A Tide of Exports Lifts Shippers', *International Herald Tribune*, Tuesday, 28 October 2003, p. B4.

<sup>15</sup> Mahmud M. Ghazemy, 'South Korean Defence Industry: Gearing for the Future', *Asian Defence Journal*, 11/ 2003, p. 24.

<sup>16</sup> *ibid.*, and Boutilier, p. 187.

<sup>17</sup> Lee, p. 176.

<sup>18</sup> Bill Savadove, 'Port City Strives in Shanghai's Shadow', *The National*, Monday, 27 October 2003, p. A6.

<sup>19</sup> Constantineau, p. G1.

<sup>20</sup> James Kynge and Dan Roberts, 'China's Pearl Region is Industrial Gem', *National Post*, 11 February 2003, p. FP13.

<sup>21</sup> Tan-Hwee Ann, 'A Tide of Exports', p. B4.

<sup>22</sup> *ibid.*

<sup>23</sup> Andrew Forbes, 'Maritime Security in East Asia', paper presented at the 14<sup>th</sup> International SLOC Conference, Honolulu, 18-20 January 2004.

<sup>24</sup> *ibid.*

<sup>25</sup> Peter Cozens, 'Too Many Eggs in Too Few Baskets? Reflections on Trends in Ship Design and Implications for Military Operations', in Forbes, *The Strategic Importance*, 2003, p. 139.

<sup>26</sup> *ibid.*

<sup>27</sup> See JN Mak, 'Piracy in southeast Asia: Priorities, Perspectives and the Hierarchy of Interests', paper presented at the 14<sup>th</sup> International SLOC Conference, Honolulu, 18-20 January 2004. Mak makes a series of very important observations about the relative importance of piracy and maritime terrorism in the eyes of Southeast Asian policymakers.

<sup>28</sup> Lee Cordner & Dale Rentsch, 'Terrorism and Maritime Trade: The Next 'Soft Target'?', *What's Next*, December 2003, p. 3.

<sup>29</sup> *ibid.*

<sup>30</sup> MARPAC, 'Asia Pacific Naval Brief', 27 September, 2003, citing *The Straits Times*, 25 September, 2002.

<sup>31</sup> Abraham McLaughlin, 'US Port Security: Is X-Ray Enough?', *The Christian Science Monitor*, 8 May, 2003, edition, <http://www.csmonitor.com/2003/0508/p02s01-usgn.html>.

<sup>32</sup> *ibid.*, and Anon., 'Port Security Comes Up Short', CBS News.com, 01 January 2004.

<sup>33</sup> Michael Byers & Matthew Droz, 'Who Speaks for Canada', *The Globe & Mail*, Tuesday, 02 September, 2003, p. A11.

<sup>34</sup> *ibid.* For a fuller discussion of the legal dimensions of PSI, see Paik Jin-Hyun, 'Proliferation Security Initiative: The Legal Dimensions', paper presented at the 14<sup>th</sup> International SLOC Conference, Honolulu, 18-20 January 2004. In late January 2004 Pyongyang declared its willingness to provide missile components to Nigeria. See, Anon., 'North Korea Agrees to Share Missile Expertise with Nigeria', *The Asian Wall Street Journal*, Thursday, 29 January 2004, p. A8.

<sup>35</sup> 'Forward ... from the Sea: The Navy Operational Concept', March 1997.

[http://www.chinfo.navy.mil/navpalib/policy/fromsea/ff\\_seanoc.html](http://www.chinfo.navy.mil/navpalib/policy/fromsea/ff_seanoc.html).

<sup>36</sup> MARPAC Asia Pacific Naval Brief, 06 February 2004, citing *Defense-aerospace*, 04 February 2004.

<sup>37</sup> MARPAC Asia Pacific Naval Brief, 28 November 2003, citing *Pakistan Link*, 28 November 2003.

<sup>38</sup> MARPAC Asia Pacific Intelligence Brief, 17 April 2003, citing *The Straits Times*, 14 April 2003.

<sup>39</sup> Surya Citra Televisi (Indonesia), 26 October, 2003.

<sup>40</sup> Sam Bateman, 'Coast Guards: New Forces for Regional Order and Security', *Asia Pacific Issues*, East-West Centre (report), No. 65, January, 2003.

<sup>41</sup> *ibid.*, p. 7.

<sup>42</sup> *ibid.*, p. 3.

<sup>43</sup> MARPAC Asia Pacific Naval Brief, 22 August 2003, citing *ABC News*, 19 August 2003. A Republic of Korea vessel fired warning shots at a North Korean ship on 18 August 2003. This was the fifteenth violation of South Korean waters and the fourth time that warning shots had been fired since the beginning of 2003.

<sup>44</sup> Carlos Conde, 'US Naval Ship Plans Port Call in Vietnam', *International Herald Tribune*, Friday, 31 October, 2003, p. 3.

<sup>45</sup> Anon., 'China Holds Manoeuvres with India', *International Herald Tribune*, Saturday/ Sunday, 15 - 16 November 2003, p. 3.

<sup>46</sup> Laksamana Net, 24 October 2003. This source describes the seven month, thirteen-country, 24,000-mile voyage of the Indonesian warship KRI *Dewa Ruci*.

# Maritime security challenges in South Asia and the Indian Ocean - some response strategies

Commander P.K. Ghosh, IN\*

*Who ever controls the Indian Ocean dominates Asia. This ocean is the key to seven seas. In the twenty first century destiny of the world will be decided on its waters.*

*Alfred Thayer Mahan*

The Indian Ocean region, the birthplace of maritime civilisation, was considered a playground of rich industrial European nations during the colonial era. With the commencement of decolonisation in 1946, the euphoria of independence was overshadowed by turbulence following internecine conflicts and inter-state wars. This was followed by the Cold War era, during which the Superpowers reinforced their maritime influence directly or indirectly by an impressive array of available port facilities in this region. History was repeating itself in an evolved form.

The post-Cold War era has since then heralded a socio-politico-strategic shift in thought process accentuated by symbiotic cooperation. Globalisation has acquired dominant hues through a bottom line of economics. This has brought additional attendant maritime security concerns since most of the regional trade is sea-borne. Despite the 'maritime bonding', this region has unfortunately not seen the emergence of a vibrant trans-oceanic community. This may have been rooted in wide dissimilarities and divergent interests, which have ensured economic linkages with Europe or North America, rather than with each other. Inevitably, economic stagnation has consequenced in relative comparison to the prospering/prosperous Atlantic and Pacific communities.

Apart from normal trade, whose disruption may cause considerable security concern, energy flows and its security have been a matter of prime interest to the littorals as a majority of their energy lifelines are sea based.

Since energy is the single aspect that has transcended its economic value and is critical in influencing the geo-political strategies of a nation along with its economic indices, any turbulence in

its supply has serious consequential security concerns for the state. Given the spiralling demand for energy from the 'energy demand heartland' of states like India, China and Japan it is inevitable that there exists an enhanced sensitivity to the security of the sea lines of communication (SLOC) and choke points of the region.

The other challenges in the maritime sphere call for more effective law enforcement and maintenance of maritime order. The challenges are essentially part constabulary, part economic and part human welfare. Due to the nature of the regional atmospherics, maritime crime has seen a rise. At times this is related to issues on land but that is not an abiding principle. Whatever be the root of the challenge, the matter has opened avenues for maritime security cooperation. Opportunities that are easier than on land have yet to be realised of its potential. Hence the problems continue and so do the challenges of overcoming in maintenance of maritime order.

The main objective of this paper is to highlight some of the pertinent maritime security challenges that weigh heavily in the region geographically bounded by the Indian Ocean and with special reference to the South Asian littorals. While the challenges themselves - often well known - have been afforded an overview in this paper, the viable geo-politico-techno-regional response options and strategies have been accentuated as a possible solution to the existing dilemmas.

## Disunity in diversity

Although a maritime oceanic thread binds the littorals together, maritime cooperation and maritime issues have not attained the importance they deserve in this region. To begin with, there is considerable debate on the extent of the Indian Ocean rim itself. Differing definitions have defined the region that has come to include a number of states that range from twenty nine to thirty five.<sup>1</sup> However, the dissimilarities between state capabilities (both economic and military) are also considerable. On one hand, there is India with

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