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The Royal Malaysian Navy in the Midst of Modernisation

Indonesia's Fast Attack Craft Acquisition: Toward a "Balanced" Fleet?

Americans in Darwin

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Letter to the Editor

Dear Editor,

In line with Dr Lewis, I was dismayed at the recent announcement by Navy that the pursuit of the award of Victoria Crosses to Naval personnel involved in past actions would not longer be undertaken.

To suggest that in the last 113 years where the Nation was involved in conflict and significant Naval battles that no single action of gallantry achieved the levels required for the award of the VC is nonsense.

Now we are accepting and setting a precedent, through political expediency, that in the past and arguably into the future that no Naval personnel serving in ships will qualify for award of the VC but for an alternative collective award.

This not only denies natural justice for those who made or risked the ultimate sacrifice in the most gallant circumstances but flies in the face of those Navy Signature Behaviors where we value Navy's history, identity, and reputation.

The past and serving men and women of the RAN deserve better. There is an obvious wrong to be righted. The continued adroit pursuit of the appropriate awards should be made with the courage and loyalty demanded of those who serve in the RAN and in the memory of those shipmates whose gallant actions are now part of Navy history.

Lieutenant Commander Michael Edwards, OAM, RAN(rtd)
Donnybrook WA



A ship's signal lamp captures the image of ABIS Chantell Bianchi as she photographs an LCM8 and a "suspect vessel" as part of Exercise Sea Lion 2013.

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Contents

Some Influences on Current Chinese Naval Strategy in the South China Sea 4

The Royal Malaysian Navy in the Midst of Modernisation 24

LIGHTNING 28

The Barrow in Furness Australian Submarine Memorial 30

World Naval Developments 36

A Navy ANZAC Day or Remembrance Day Speech 39

Indonesia's Fast Attack Craft Acquisition: Toward a "Balanced" Fleet? 42

Americans in Darwin 44

German Navy - a capable submarine fleet 46

Submarine Trends in Asia Pacific: Air-Independent Propulsion A Game Changer? 48

K-IX Australia's only WWII submarine 51

German Navy Corvette Exposé 56

Book Reviews 58

Visions from the Vault 67

Style Notes for Headmark 69

ANI Membership Application Form 71

*Front page :
HMAS Choules'
Standing Sea Fire
Party prepares to
fight a fire as part of
a Damage Control
Exercise during
Exercise Sea Lion
2013.*

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SOME INFLUENCES ON CURRENT CHINESE NAVAL STRATEGY IN THE SOUTH CHINA SEA

BY W. STEEN ANDERSON

In a recent article published in the *Naval Review* magazine, the Author¹ describes a series of surprise attacks. These were against Pearl Harbor in Hawaii and Darwin in Australia by the carrier aircraft of the Imperial Japanese Navy. These attacks instigated World War II in the Pacific in 1941 and 1942.

The 7th December 1941 attack on Pearl Harbor damaged the port infrastructure. Battleships and other units of the United States Navy Pacific fleet were sunk or damaged on that Sunday morning.² By luck United States aircraft carriers were at sea and escaped destruction. This intelligence failure by Japan was to have far-reaching consequences.

Darwin was attacked in two air raids on the 19th February 1942. A coast watcher on Bathurst Island radioed a warning to the authorities on the mainland as the 71 Japanese dive bombers and 81 torpedo bombers, escorted by 36 Zero fighters, passed overhead on their way to Darwin harbour. This warning was dismissed by the military authorities. They mistook the planes for a flight of United States Army Air Corps Kittyhawk P-40s.

The second raid arrived about lunch time. Two waves of Nell and Betty bombers attacked the Royal Australian Air Force base south of Darwin. One came from the north-east, the other from the south-west. Again there were failures of intelligence, this time by the local defences. Broome was also attacked in March of that year, with 86 lives lost, the second deadliest air raid of the war on Australia. All together, 107 raids took place over two years.³

The *Naval Review* article argues that a surprise attack could be relevant given modern strategy. This is especially relevant to the rise in military

and naval capabilities of the Chinese Peoples Liberation Armed Forces over the last decade, and China's desire to exercise control over most or nearly all of the South China Sea. This is particularly so, in view of the surprise attacks by Al Qaeda using passenger planes on the east coast cities of the United States at the start of the last decade.

However, there are other episodes in World War II that should give modern strategists even more cause for concern. Any weaker power trying to achieve severe damage on an enemy, or war aims against a stronger power, would probably employ a surprise attack against some important target. It would happen where the opponent least expected it.

But according to the thinking of the philosopher on war, Carl von Clausewitz "surprise of itself is not a war winning strategy."⁴ It is equally true that, by its very nature, surprise can rarely be outstandingly successful. It would be a mistake therefore, to regard surprise as an element of success in war. "Basically surprise is a tactical device".... "Therefore in strategy, surprise becomes the more difficult, the more it approaches the higher levels of policy."

The attacks on the Twin Towers in Manhattan, New York City, and on the Pentagon in Washington DC are illustrative. These led to a ferocious and sustained military reaction by the Government of the United States. Two limited wars in Iraq and Afghanistan

resulted in the complete destruction of their governments and military forces. This was accompanied by constant battlefield attrition, networked linked warfare, global positioning systems (GPS) targeting and unmanned aerial vehicle (UAV) missile strikes on terrorist targets from the Yemen and Sudan on the one hand, to Afghanistan and Pakistan on the other. The United States has, with its allies, put the terrorists and their protectors almost out of business and certainly very much on the defensive.

The *Naval Review* author argues that given the rise in Chinese military and naval air, ship and missile power over the last 15 years,⁵ the South China Sea area could be the focus for a Chinese surprise attack of some sort. Chinese policy aims to regain sovereignty of Taiwan and exercise

Aircraft Carrier USS Theodore Roosevelt, background, joins a multinational battle group formation including a People's Republic of China Navy multi-role missile destroyer Guangzhou and the Pakistan Navy frigate PNS Badr



undisputed sovereignty over that sea and its mineral deposits.

CONTAINMENT. 1

"The act or condition of containing, especially of restraining the ideological or political power of a hostile country or the operations of a hostile military force." Collins

In the 20 years leading up to the year 1900, political relations between Britain and France were often tense. French naval thinkers were trying to develop a naval strategy that could succeed in wearing down the might of the Royal Navy in the event tensions escalated into conflict.

This "jeune école", (young school), of naval thinking had two elements to it. One agreed that fleets of small, well-armed fast torpedo boats, operating in the English Channel, could pose a severe threat to British merchant shipping, and so damage British commerce.⁶ The more radical thinkers took the idea further. They believed torpedo boats moving at high speed would be a severe threat to the battleships and cruisers of the Royal Navy fleet, especially in narrow seas. This was an idea that could use the latest technology to tip the balance more in favour of France in the event of naval conflict.

The British, it was argued would be reluctant to use their valuable expensive capital ships in littoral waters, where the threat of mines and torpedoes was so high. French torpedo boats with swiftness of manoeuvre at sea, low water line silhouette, produced at relatively low cost, with easy to produce marine components, were the key. It meant it was, for the French, a much less expensive but potentially much more effective form of warfare for the weaker naval power of those times.

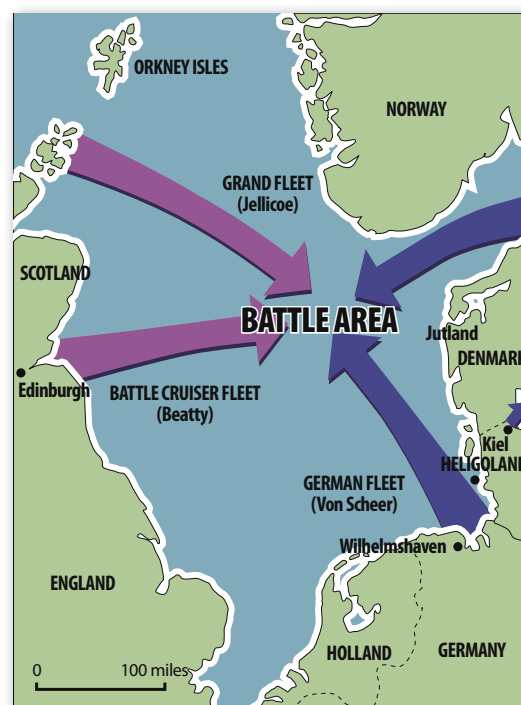
The French fear was that their merchant marine and naval operations

would be contained by the Royal Navy blockading offshore, as it had often been during the Napoleonic wars. Their ability to extend naval power across the world's oceans to their overseas territories would be limited or blocked. This school of thinking has strong similarities to many of present day naval articles written on littoral and asymmetric warfare. In the event, Britain and France were never to come to outright hostilities before World War I.

British naval containment of a continental power did however come about in World War I. But it was exercised against the fleet of Imperial Germany, not France. It was to lead, in time, to the Battle of Jutland on 31 May 1916.

The aim of the German naval strategists was to have a naval fleet that could seriously damage or weaken the Royal Navy in a battle of attrition.⁷ The Germans could never surpass, or even equal, the power of the British North Sea Fleet, and at the same time maintain huge continental sized army forces. The strain on the German economy would have been unbearable. A weakened Royal Navy Fleet, it was argued, would have to loosen its grip on the blockade of Europe. This was a more aggressive form of containment specifically aimed at the German economy. The weakened grip would allow German maritime access to the oceans of the world to obtain essential supplies.

Jutland took place at a time of great technological change. Aircraft, airships, submarines, torpedoes, mines, the telegraph, radio transmissions and reception, steam turbine engines, range-finding techniques for naval gunnery, munitions technology and knowledge, were all subject to rapid rates of progress and innovation. Naval battle drill manuals were becoming obsolete, not quite redundant, but open



to serious discussion and challenge as to relevance in a fast moving, modern battle at sea.

How to manoeuvre lines of heavy naval ships at high speed in battle in order to obtain the best advantage was a real problem. The previous series of naval battles during the Russo-Japanese War had been of the pre dreadnought era. In these new circumstances the normal "fog of war"⁸ had been increased enormously.

Commanders and in particular, Admiral Jellicoe, the British Naval Commander at Jutland, were very concerned not to have their heavy units led into a trap. Submarine torpedo ambush and mines were a formidable threat. Destroyer torpedo attacks out of smoke, rain or bad weather fronts were also a real added risk.

From 1905 the Admiralty believed commercial blockade of Germany would form the main thrust of the war effort. Written by Admiral Jellicoe the Royal Navy battle fleet orders ran to 70 pages. They were first issued in August 1914.⁹ Given his wariness about ambush, attacks by enemy flotillas were to be met by turning away. This action mitigated against a quick decision

Some Influences on Current Chinese Naval Strategy IN THE SOUTH CHINA SEA

in battle and also against the taking of the tactical offensive. The actual composition of the Royal Naval battle fleet was one of a combination of speed and enormous firepower. This mix of fast battle cruisers and battleships was required for its basic offensive tactical role. It aimed to destroy as effectively as possible, an enemy fleet trying to escape. So, to some little extent Jellicoe's battle fleet orders stood against the purposes of the main fleet, and how it was composed.

During the battle Admiral Jellicoe was faced at a couple of points with critical decisions. His training, tactical and strategic senses acted together with his long experience. As a result he was brought to the point in time and place where deploying his ships to starboard would have brought on a major battleship action with the German Fleet.¹⁰

On the other hand deploying to port was much more cautious, delayed the occurrence of a major battle, but was much less risky. This was the decision he took. It has been criticised by some later commentators as being not offensive minded enough. The battle was therefore delayed until much later in the day. By then the light was fading fast. Despite the offensive nature of his fleet therefore, tactically this decision was far less offensive and therefore far less risky.

The Battle of Jutland was a "tactical failure" for Jellicoe.¹¹ The Royal Navy lost more ships, more men and sustained more damage than the German Fleet. There were lots of good lessons to be learned and absorbed from the battle. There had been problems connected to communications within the fleet and to the fleet from Naval Headquarters. There were problems over how intelligence was used, about where it should be generated, assessed and how should it be passed to the fleet

commander on the spot. The battle cruisers' armour was weak. Armour piercing shells failed when German ships were hit. There were faults in munitions handling. Other faults were exposed through the actual experience of battle.

Strategically, however, it was a British naval victory. It maintained the British fleet in being. It also contained the German surface fleet for most of the rest of the war. The Battle of Jutland showed how Admiral A T Mahan's ideas were best pursued.¹² Had the German fleet been destroyed it would have been by far the better outcome. Greater command of the seas would have resulted and the bulk of the Royal Navy battle fleet would have been released to pursue other possibilities. However, containment was maintained.

Germany was now faced with breaking this containment by a war of attrition, using the submarine offensively, by means of unrestricted submarine warfare. The submarine was then the "asymmetrical" form of war. It was the latest technology in the very early stages of development used by the weaker power. It involved attrition of allied merchant ships on a great scale. Eventually it forced Britain to reintroduce the convoy system. Only after the submarine was defeated did command of the seas return to the allies, albeit not completely.

The allied armies on the continent had their western flanks protected by naval power in the channel and the North Sea throughout the war. These armies were also supported and supplied by allied naval power. This resulted in the defeat of Imperial Germany in 1918.

CONTAINMENT 2

Japan in the 1930s felt increasingly constrained by the economic forces generated by the world depression and the effects of United States trade

sanctions. By 1939 its government was faced with shortages of essential raw materials, especially oil.¹³ The hard line nationalist government decided it had to react to this increasingly disadvantageous situation. It decided there was a limited opportunity to invade neighbouring territories and established an inner area defensive perimeter of captured islands. They had to do this in the western Pacific, before oil reserves gave out completely.¹⁴

In order to gain time to carry out this policy and strategy, Japan planned and executed the Pearl Harbor and Darwin air raids. These surprise attacks had two very different purposes, however.¹⁵

The raid on the U S Navy base at Pearl Harbor on Hawaii on 7th December 1941 was a strategic surprise attack. It aimed to cripple United States naval power in the Pacific. This force was the only real obstacle to Japan's Imperial ambitions. Japan aimed to destroy the Pacific fleet, giving Japanese forces enough time to invade and capture the ring of islands it had earmarked as part of the perimeter of its new economic zone of control. The Japanese Government could then proceed to negotiate from a position of strength with the United States. It would, by then, have gained its essential raw materials and strengthened its defence in depth. The United States would have needed years to rebuild its naval power.

The Darwin attack on the 19th of February 1942 was, by contrast, as part of an overall strategic offensive strike against what is now Indonesia. This aimed to secure the mineral rich islands.

The aim here was to shut down Darwin as a base of supply, hence logistics support to allied forces operating in what was then the Dutch East Indies. It was part of a three-pronged attack to deter the allies from resisting Japanese invasions of the

chain of islands. This had three axes of advance, towards Java, Bali and Timor. Success in securing Bali and Timor helped secure the success of Japan's invasion of Java from the east.¹⁶

Rapid Japanese conquests followed. In the east these were from the Philippines down to Guadalcanal in the Solomon Islands. To the west the arc of outer defence aimed for was from central China and Burma down to New Guinea in the south. They achieved their strategic aim through surprise attacks and rapid advances using naval power to check and destroy any naval interference from the western allies. It had achieved "Hakko Ichiu" (the eight corners of the world under one roof), for the first time in Japanese history.¹⁷

The original plan, when drawn up, had assumed it would take six months to reach the final island objectives, with losses expected to be 30%.¹⁸ By the first of May 1942 they found their conquests had come a lot quicker and with far fewer losses than expected. Japanese naval planners, as a result, argued that they should extend the perimeter of the defence out further, to a line of islands further east. This included the Aleutians, Midway, Hawaiian Islands, and South Fiji, Samoa, and New Caledonia to New Guinea.¹⁹

Logically it made sense. It would give even greater space for Japan to consolidate its defences and to manoeuvre inside the intended perimeter. The logic was solid enough. It meant the Japanese had to destroy what was left of United States Naval power in the Pacific in 1942. Otherwise it would be subject to sustained counter offensives.

It may have been logical. It was sustained by euphoria from the initial successes. The logic was reinforced by the USAAF Doolittle raid on Tokyo on 18 April 1942, another complete surprise attack. This Tokyo raid was something the Japanese Government

had made plain to its people could never happen. The militaristic government lost face.²⁰

Clausewitz did not say that war has its own logic. He did say that it had its own "grammar" however.²¹ Did this theory support this second phase of the Japanese strategic offensive?²²

THE GRAMMAR OF WAR AND THE BATTLE OF THE CORAL SEA (MAY 1942)

The Battle of Jutland was a confused battle. The Commander was critically short of accurate information up to and during the battle. It was fought at a period of great technological change. Tactics were open to question because the capabilities of the new weapons were relatively unknown in war. Tactics therefore were exercised conservatively. Systems were untried in battle. Jutland was a strategic victory for the Royal Navy if a tactical defeat. The Battle of

the Coral Sea had very many similar characteristics.²³ It was the first carrier versus carrier battle in history. Given the euphoria in the Japanese Naval and Military High Command, from the success of the first phase of island invasions, they had no hesitation in extending their island invasion strategy further into the Western Pacific.

One of these planned naval thrusts was around the South Eastern end of New Guinea towards Port Moresby, the Capital. This aimed to land ground forces near there, and capture it. Another part of this same thrust was

HMS Dreadnought (Lewis collection)

Dramatic shot of the detonation of a 1,000-pound (450 kg) bomb on Shōhō during the Battle of the Coral Sea (US Navy)



Some Influences on Current Chinese Naval Strategy IN THE SOUTH CHINA SEA

to capture Tulagi Island and use it as a seaplane base in order to exercise control further south, down the Solomon Island chain. It was a logical extension to the original one phase plan.

With air and seaplane bases at Port Moresby, Tulagi and military influence south to Noumea, Japan could cut the supply route to Australia from the United States. It could begin to isolate Australia from United States supplies and reinforcements. It could “Darwinise” the Australian ports and air bases in Queensland and along the Queensland Coast.

But there existed a fundamental flaw in Japanese naval strategy. “Whenever the Japanese planners disposed of sufficient strength, they divided forces and drafted an elaborate plan, the successful execution of which required a tactical competence rare at any time in any navy.”²⁴

The plan also required the enemy forces to have a passive role. If the Japanese had concentrated on just one of the three aims outlined above the odds they would have succeeded. But they did not. Basically they divided their large naval forces into four groups with subsidiary missions as outlined above. There is a contradiction here.

Japanese naval thinking had been very much influenced by the ideas of Admiral Mahan.²⁵ He believed that concentration of the fleet was essential. The Japanese division of forces may have arisen because of overall command decisions of the Imperial Army which had a tight grip on national strategy, or there may have been other reasons. The military hierarchy and government in Japan at that time may not have understood the flaws in these fleet dispersals used for multiple ends. They could not grasp some of the essentials of naval thinking.²⁶ Naval commanders of the operation should really have had more

understanding.²⁷ This has lessons for commanders of combined operations and captains of ships in the present century and the South China Sea today.

So Japanese naval and support groups came to be dispersed across the north Coral Sea and in the island area to the north east.

United States and allied support groups were also scattered for various reasons. From the time of Lord Nelson and probably before, fleet commanders have bemoaned ships being dispersed from the main fleet for whatever reason. In this instance United States ships were refuelling, some were running before bad weather, some had been sent to meet Japanese forces but had been given the wrong chart co-ordinates for target interception.

Indeed on 7 May 1942 opposing carrier forces were only 70 nautical miles apart and neither side was aware of the other’s position. The “fog of war” was again making its presence felt. As in the case of Jutland there was a delay in action. Had they known each other’s position they would have fought on the 6th and 7th.²⁸

On the 8th May aircraft from United States carriers *Yorktown* and *Lexington* found the heavy Japanese carriers *Zuikaku* and *Shokaku*. In turn Japanese planes found the United States carriers.

In this first carrier versus carrier battle all losses were inflicted by enemy air action. No ship on either side sighted a surface enemy ship. The Japanese light carrier *Shoho* was lost with some other small ships. *Shokaku* was heavily damaged and out of action for two months. *Zuikaku* lost most of the attached planes and was out of action until 12th June 1942. Had these two carriers been active in the Battle of Midway, 4th June 1942, the United States Navy might have not had sufficient margin of force for victory in that supremely important battle.

At the Coral Sea, on the allied

side, the carrier *Lexington* was sunk and carrier *Yorktown* badly damaged. The United States lost more men and ships of quality. It was a Japanese tactical victory therefore, similar to the German position after Jutland. Strategically the Japanese failed to capture Port Moresby, though they did capture Talagi. They were, however, forced back. Never again were Japanese ships beyond, to the south and west of the Luisades Islands. Their strategic objectives had been thwarted.²⁹ Phase two of their expansion was halted.

Admiral Frank Fletcher, at the Coral Sea, made essentially correct tactical decisions during these battles. Yet tactically they lost, because attrition took place, and each lost more naval units and men than the enemy. This may seem like a contradiction in terms. Although Clausewitz noted that “war has its own grammar” he was not writing about naval warfare. He was experienced in land warfare. But he was writing about war in general.

Perhaps the internal dynamics of strategically defensive sea battles, fought to preserve containment, at a time of rapidly developing technology, have a tipping point of some sort or other.

This may dictate that the rate of attrition on the forces doing the containing is greater than those doing the attacking. But at the same time in the battle, the strategic momentum of the attacking forces is lost and is never regained. If this is correct, then one difference between the two battles is that the mass concentration of forces at Jutland was far superior on the Royal Naval side compared to the mass on the United States side at the Coral Sea. This was partly because capital ships in 1942 were now aircraft carriers compared to battleships. They were not needed in a concentrated form in order to generate mass firepower. Their planes did that.

This may have profound implications for a modern naval battle fleet contending with land based missile power. The modern idea is that firepower concentration does not have to originate from forces which are themselves concentrated. In turn this has probably serious implications for unit positioning in any modern naval battle.

So Gray's law certainly applies to Jutland. This says that "Average Statecraft, strategy and operational and tactical skills can be blended to achieve success reliably when they function in a fault tolerant environment provided by friendly superior mass."³⁰ But whether it applies to carrier operations in the same way around the time of the Coral Sea battle may require more analysis. Certainly the fact that Admiral Nimitz, the overall US Naval Commander, had access to good intelligence about Japanese intentions, provided a large degree of comfort.

The Coral Sea battle affected the Battle of Midway. Midway proved the Japanese could not afford to lose the time bought by their tactical victory at Coral Sea. Midway was another island target on the phase two outer perimeter element of the extended original Japanese plan. At Midway Japan lost four fleet carriers and over 200 front line planes along with their pilots of great experience. Japanese carrier offensive naval power was destroyed by attrition. The balance of naval power slipped back, more in favour of the United States.

Time had been gained for American industrial power to be geared up and brought to bear on this Pacific War, indeed on the war as a whole. Command of the sea allowed United States war material and manpower to flow on a scale sufficient to support Australia and also the United States island hopping strategy across the western Pacific towards Japan. New,



Asymmetric strike - the carrier HMS Formidable after a kamikaze hit (Lewis Collection)

more modern planes, ships, weapons and supplies, backed up with trained manpower and replacements, kept these and other World War II battle fronts going.

Japanese industrial and defence policy had not envisaged, or planned for a long war of attrition.³¹ Japan failed, unlike Germany, in World War II, to develop advanced weaponry as the war progressed. Even Germany did not produce enough ground to ground missiles like the V and V2, Hydroxide powered submarines and jet aircraft for example, or enough in time, to make a significant difference.

Japan did have a considerable lead in technology in some respects. Its torpedo technology and zero fighters were superb and they had built up enormous experience in carrier operations. There were some subsequent technical advances but these were no match for what the United States was to produce.

Time gained at Midway also allowed the United States to solve some of its serious naval and operational problems. Its submarine arm, for example, suffered from restrictive operational tactics and practices.³² Many of the submarine commanders were poor, quite a lot were too old for

the job, morale was not good in the service and most torpedoes were duds or at best unreliable.³³ Restrictive and anti offensive rules of operation were the norm. As the year 1943 progressed these problems were largely resolved.

The United States submarine fleet began to inflict more and more damage on the Japanese merchant and naval marine forces. Japanese Army garrisons on various islands were left cut off from supplies or supplies were reduced to a trickle as more and more Japanese supply ships were sunk.

IWO JIMA AND OKINAWA - CONTAINMENT TIGHTENS - ATTRITION ON A GRAND SCALE

The Japanese Army, Air Force and Navy used suicide pilots in these battles. Executed with standard navy aircraft, packed with bombs and explosives these pilots, (Kamikazes) flew their planes directly into their targets. Inevitably most of these pilots perished. These were essentially very accurate guided missiles, with extremely accurate terminal guidance onto their targets. This has serious lessons for those naval strategists at present assessing how to respond to the growth in the Chinese Peoples'

Some Influences on Current Chinese Naval Strategy IN THE SOUTH CHINA SEA

Liberation Army, Navy, (PLAN) capabilities.

Although the Japanese Kamikazes were subsonic, they give a clear indication of the course of possible future naval battles. Large numbers of planes were flown on these suicide missions. At present Chinese land based artillery forces and their naval equivalent have built up large numbers of mobile land based ship destroying missiles. They are, however, having extreme difficulties with terminal guidance problems.³⁴

An analysis of the Kamikaze attacks shows that they were responsible in the ten months in and around when these battles took place, for more than 48% of all US Naval warships destroyed, and 21% sunk during the entire course of World War II on all fronts.³⁵

In the 12 weeks battle for Okinawa, United States forces lost heavily. However, Japanese forces lost 3,800 aircraft and 117,000 personnel. Overall over 250,000 people lost their lives in these battles.

Here then is a good instance of the so-called asymmetrical technique in war. Untried, relatively inexpensive equipment, ideas and tactics were used by the Japanese to fight a superior opponent at a period of rapid technological change.³⁶ Again attrition set in and led to horrendous losses in men, planes and ships. This was total war.

The Chinese are currently faced with perfecting the terminal phases of their anti-ship missile trajectories so that targeting of United States carriers can be assured. This is an extremely difficult task to achieve. Quite a proportion of their tracking equipment for longer range missiles is sea based, with all the attendant problems that brings about.³⁷

But for shorter range missiles aimed at ships, fleets and targets within the South China Sea, this may not be quite

such a problem, but a real problem never the less. A policy of "sea denial" is well on its way to being achieved. Their existence begins to pose a serious threat to United States naval forces there and perhaps also in the western Pacific. If missile accuracy is not 100% they certainly have the numbers. Mass matters. Attrition on a large scale therefore, again threatens the United States fleet's presence in the South China Sea areas as at the end of the Pacific War in World War II. It is the new asymmetrical form of warfare for the weaker naval power.

These missiles are to be supported by 36 Backfire bombers, (TV-22M3). The engines have been purchased from the Russians and air frames built under licence. Designated H10, these give a range of operations well beyond the chain of islands off the Chinese mainland.³⁸ "Few armies in the region operate defensive systems likely to counter the missiles carried by the Backfires." Only the United States Navy has the fighters able to shoot down these planes. Failure to shoot these down means they are free to return to base, re-fuel, re-arm, attack again and so on until the defence is exhausted.

The Backfire bombers are much more likely to be able to track and target United States carrier escort groups more precisely than can the Chinese land-based anti-ship missiles, at least at present. Each bomber has its own sea search radar. So these may augment Chinese over the horizon radar and satellite tracking precision. The missile, fired from the bomber, is data linked to it. The bomber crew, once the missile is locked on directly to the target from over the horizon, can fire it. It is at that point of firing³⁹ that the bomber may be vulnerable to fleet defences.

The current main anti-carrier missile is the Russian supplied AS17 (KL-31) anti-radar, or anti-ship version. This

supersonic rocket ramjet has a range of over 100 nautical miles. Given these modern unmanned "Kamikazes" therefore, reaching out from the Chinese mainland in such numbers, what doctrine or theory of use could be used? Could, as the *Naval Review* article argues, they be employed according to the ideas of the Chinese thinker on war Sun Tzu?⁴⁰ Perhaps they might be used at the start of any outright hostilities rather than as a last act of desperation as in the way the Japanese employed their Kamikazes. Perhaps they could be used as part of some surprise attack as happened with Pearl Harbor and Darwin?

This thinking is, in some respects, akin to the British strategist Basil Liddell Hart and his strategy of the indirect approach idea. There is an indication in their thinking to try to achieve victory by avoiding a battle or battles, to use strategic surprise⁴¹. Neither was a naval man. Sun Tzu refers to water in only 16 of his 380 three tenets on war. He does however, write a whole section on the way of "The Attack by Fire". The fifth way for instance, in this section, is to lure dropping fire amongst the enemy. Modern land based missiles certainly fit that category.

Sun Tzu was writing around 512BC when China was rife with feudal armies and regional chiefs struggling for power and land. Both writers emphasise surprise, outflanking or out manoeuvring the enemy.⁴² Every effort must be made, it is argued, to attack command and control centres, or render the leadership of enemy forces useless, confused or ineffective.⁴³ Enemy strategic leadership and coherence is therefore lost. So the effectiveness of front line forces is crippled. Speed of execution is also important. It is vital to outpace the enemy in any counter moves that may be made. However, these events in World War II bring home some serious lessons. In the strategy of

containment by naval powers, surprise attacks and asymmetrical use of forces have led to attrition and battles on an enormous scale.

CONTAINMENT AND ESCALATION

Escalation also took place in World War I.⁴⁴ The “quick” strike of the German Army using the Schlieffen Plan to outflank the French defences and go through neutral Belgium, failed and stalled.⁴⁵ The Imperial German Army was faced by a build up of French Forces and British and Commonwealth Forces carried across the Channel by sea power. It was slowed and halted by the Belgian Government flooding their vast dyke area. A couple of gunshots in Sarajevo had dragged the Austro-Hungarian Empire into a false strategy. Once mobilised, Austria had to be supported by Germany. More support was needed when Russia mobilised in support of their Serbian kinfolk.

In the end almost the entire continent of Europe was engulfed in total war. On the Western front stalemate existed on the entrenched battlefields across northern France and Belgium, because defence was stronger than offence. The technical developments of armaments favoured the defence over offence. The quick “knock out” blow by German forces, designated by the High Command to achieve a quick victory and avoid a two-front war, descended into attrition on a great scale on two fronts.

In World War II, Nazi Germany aimed for a quick knockout blow using massed tank forces backed by dive bombing and artillery. Rapid and deep breakthroughs of defended fronts took place once weakness had been found. These panzer group tactics aimed for military head quarters and communications junctions, behind enemy lines. The fast-paced tank groups bypassed formidable

fortifications, leaving those to be captured later. This was based on the ideas of the theorists about warfare, JFC Fuller and BH Liddell-Hart.⁴⁶ They were matured and practiced endlessly in secret during the 1930s by the German Army. This technique destroyed French and British Army Forces on the continent in a very short period in 1940.

But escalation took place. Soviet Russia was attacked next. Japan's military government used this opportunity to attack in South East Asia.⁴⁷ It took advantage of the fact that Soviet Forces were heavily engaged in European Russia against the German Army. World War II finally ended in the dropping of the atom bombs on Japan.

However, “For many of the same reasons that great amphibious enterprises tend to exhaust the military imagination of their planners with the securing of a beach head, so great enterprises in continental conquest have a way of running out of capital in strategic imagination when they reach the water's edge.”⁴⁸

Imperial Germany, Nazi Germany, and Imperial Japan all aimed to fight short limited wars. Surprise was a key component in their respective strategies. That is except for Japan

fighting China and against the Far East forces of the Soviet Union in Manchuria in the mid and late 1930s before the outbreak of the Pacific War. Nazi Germany aimed to knock the United Kingdom out of the war by concluding a peace before turning to attack the Soviet Union.

Imperial Japan aimed to destroy United States Naval power in the Pacific, after which the government aspired to hold onto these newly controlled territories and negotiate from a position of strength. Success would have given the government freedom to continue their continental war against China.

In each case the limited war strategy failed. Strategic goals-i.e. peace negotiated from strength and lightening surprise military and naval strikes, eluded both governments. The means employed failed to produce the ends required. The political situation that both governments tried to attain internationally never materialised. Protracted total war developed with whole nations and continents involved. Destruction and attrition of military and naval forces, along with whole societies resulted. Their political and military strategies had failed to produce the ends required.



*Backfire bomber and missile graphic
(Courtesy SimHQ)*

Some Influences on Current Chinese Naval Strategy IN THE SOUTH CHINA SEA

CONTAINMENT OF CHINA 2012

The People's Republic of China Government maintains it is the target of a United States containment policy. The US Government denies this. Certainly the Chinese Government aspires to exert far greater control over the South China Sea and their waters.

There are sound strategic reasons for this policy. Greater, or indeed total control, means control of undersea raw materials, oil, gas, metals and fish. These are needed to power its economy and fulfil the rising economic expectations of its 1.3 billion population. It also aims to be able to exert enough military and naval pressure to prevent the United States Navy and its allies from moving aircraft carrier and heavy escorts through the Straits of Taiwan.

The United States Navy did this in the Taiwanese crisis of 1995-1996 when Taiwan threatened complete independence.⁴⁹ At present certainly, the gradually escalating threat to United States Navy carrier escort groups from these land based and Backfire launched rocket forces, makes it much more insecure for the United States Navy to carry out a similar transit in the event of a crisis. China is compelling the United States to reduce its China Sea naval activities through increasing land, air and sea based threats.⁵⁰ It has become true that carrier groups would be so focused on defence that their potential influence for offensive operations has been significantly reduced. This in turn weakens the United States' ability to support allies in the region, not least Taiwan.

China also aims to over-awe the countries in the area with which it has disputes. It is pushing outwards its general political power and influence.⁵¹ China is compelling the United States, in the South China Sea, to give up its

tactical and strategic naval influences. The United States is trying to curb or deter the rise in power of the Chinese People's Liberation Army-Navy (PLAN). The Chinese are acting on the tactical offensive and strategic defensive. The United States is acting on the strategic offensive and tactical defensive. However, the United States extends its influence right to the 12 mile Chinese costal limits. This makes the Chinese Government uneasy.

The line of island barriers hemming in Chinese naval influence from the greater Pacific would be broken once Taiwan was fully regained. Wake Island is then the only island barrier left. Here again therefore, like Japan in World War II, the islands round the Western Pacific littoral perimeter become important in geo-strategic politics and naval strategy. Japan is an island maritime power. China is a continental power with maritime and naval ambitions. So-called asymmetrical warfare, surprise attacks, trying to put the enemy off balance, we have seen from World Wars I and II have led to attrition and destruction on an enormous scale⁵² where great power interests were at stake.

Escalation has always taken place in twentieth century warfare. At least that is up to that period in history where nuclear weapons were used effectively. After that point the threat of use of nuclear weapons kept escalation from going all the way to total war. However, in all those limited wars of the mid and late 20th century, battles and attrition were often considerable. Great losses took place.

The Cuban missile crisis was very nearly the exception. Indian-Pakistan relations have at times been extremely volatile. Both are now nuclear armed. North Korea is reputed to be nearly or actually nuclear armed.

THE INFLUENCES DRIVING CHINESE NAVAL STRATEGY

Sun Tzu did not write anything about escalation⁵³ as modern strategists know and recognise it. But he was very aware that it was better to fight and win a war with methods that caused the least damage or destruction to the Feudal Kingdom.⁵⁴ Also the costs had to be kept as low as possible. It was also better, he wrote, that wars should not be prolonged. In a way he was a limited war analyst and supporter. He recognised the inherent dangers to a state in a prolonged and costly war. He did not write specifically about fighting on the oceans.⁵⁵

He is neither a theorist nor philosopher of war in way the way the thoughts, theory and philosophic method of Carl Von Clausewitz approached the subject. Sun Tzu's texts are very prescriptive. There is a fair amount about morale, training, terrain and the cost of armies. But he did not expand in detail as much as did Baron Jomini in developing a set of rules of war.⁵⁶ Tzu's influence has been traced, and developed considerably in recent strategic analysis about China, its Navy, and how China might fight a war.⁵⁷ There are however, other influences at work on Chinese strategy.

THE COMMUNIST INFLUENCE OF CHINESE STRATEGY IN THE SOUTH CHINA SEA

Sun Tzu may well be an influence. But combined with it are Communist legacies from the Soviet Union and Mao Tse Tung, legacies rooted in their more, "scientific lessons of history". Mao Tse Tung for example had a great interest in campaigns and their importance in war. Chinese strategists are rooted in the "science" of war. Operational art and rules form a high priority.⁵⁸ They examine the sea campaigns of the past very carefully for their "lessons".

They also examine very carefully the situations where western politicians and strategists give commanders freedom to make decisions. In conformity with their scientific approach they try to establish texts and doctrine for these tactical decision making situations as well. Warfare to their way of thinking is far less an art. It is much more a science.

A South China Sea denial campaign is perhaps more akin to this way of encouraging strategy. Their policy is composed of a series of incremental and consistent tactical offensive moves. These are designed to progressively deny access to or inhibit the operations of the United States Navy and other naval marine assets near the Chinese coast and offshore. Strategically defensive but tactically offensive it is the stronger of war according to Clausewitz. It is a policy pursued in conjunction with and use of the legal treaties of the International Law of the Sea. This doctrinaire scientific process of sea denial is therefore likely to be somewhat along the lines indicated by Admiral Gorshkov of the Soviet Navy in the last two decades of the Cold War.

The Soviet Navy was able to develop tactics to influence United States Navy battle groups during the Cold War. Hence they influenced political and diplomatic behaviour. They did this four times in crises up to 1981.⁵⁹

In the Middle East crises surrounding the Yom Kippur War of 1973 the Soviets brought four anti-carrier groups to bear on United States Sixth Fleet operations in the Mediterranean. They shadowed each of the United States attack carriers and United States amphibious groups.

These anti-carrier forces were appropriate for their mission. Their surface ships were older units, so more expendable. With formidable firepower using anti-ship cruise missiles and six inch guns they had no anti-submarine

capability. The Soviets did not surface their submarines but submarines are an essential anti-carrier battle group element. However, at other times, during the Cold War, the Soviets did surface their submarines to show they were there and ready to be used.

In these four cases the non-appearance of submarines was a clear signal that the threat to the United States carriers was present. The threat could be used in the event the United States interfered directly to support Israel. In these cases the threat was limited. It had not reached the higher stage on the escalation index which a submarine sighting would have indicated.

So, submarine sightings are an indication to the carrier battle groups that the threat to them has gone up a notch. Chinese submarine sightings have already taken place in the South China Sea.⁶⁰ Therefore the view that submarines are inherently ill suited to the exercise of limited naval force "is unsound, at least in certain circumstances".⁶¹

In effect the Chinese are now telling the United States something new. That is, that unlike when the carrier escort group passed through the Straits of Taiwan, during the 1995-6 crisis over that island, the next time the United States Fleet passes through the straits the threat level has been raised. The group could suffer serious damage. At the very least, it will have to devote so much of its efforts to self defence, surveillance and prospective threats, its



influence in any Taiwan crisis will be severely curtailed.

The (PLAN) is also developing surface craft, heavily armed, small with high speed, which would be similar in purpose to those older units confronting the United States Sixth Fleet in the Mediterranean.

Essentially they are human controlled, self sacrifice units. Their mission is to destroy United States naval ships which are much heavier in weight and purpose and are very high technology naval capital assets. These craft are there in sufficient numbers to "swarm" against an enemy force and destroy it by sheer numbers of craft and missiles.⁶² They are naval Kamikazes. The thinking goes right back to the French "Guerre de course" and "Jeune Ecole" torpedo boats idea. Traditionally it is a tactic to be used by a weaker power against a stronger. This may be traced through Soviet influence.

This was a naval tactic planned for by the Soviet Navy during the Cold War in regard to denying their close shore waters to hostile naval units or groups. These craft were heavily armed with long range anti-ship missiles. "Soviet small surface combatants represent a potent force often disregarded in the west in enclosed sea theatres, especially when strongly supported by naval attack aircraft

The 4,000km-range Dong Hai-10 (DH-10) land-attack cruise missile (Public domain image)

Some Influences on Current Chinese Naval Strategy IN THE SOUTH CHINA SEA

and protected by land based fighter interceptors.” (Admiral Gorshkov).

Basically, because these fast missile craft are best dealt with by airpower, they have to be defended from the air. Their usual combat unit is to operate in pairs. They combine to attack from two sides, usually on the port and starboard quarters. This is tactically offensive.

It is significant that the early Chinese PLAN was very proficient in smaller boat operations at the end of the civil war conflict between communist and nationalist Chinese. In these operations small craft were handled with “some flair and distinction” in engagements with the Nationalists. They also, accompanied by mine operations, “in which the Chinese are traditionally skilful,” contribute “a formidable threat in inshore operations.”⁶³ This core strength has been developed. It is now upgraded, increased and extends a lot further out to sea.

These craft are supported by a formidable force of mobile land-launched anti-ship missiles. There are also considerable numbers of anti-ship air and land-launched cruise missiles. The quality, strength and depth of fighting power of the rest of the PLAN surface and submarine units are also rapidly developing. The whole fleet is covered by even more sophisticated fighter forces including the latest 5th generation of very long range stealth fighters. These fighters are capable of being air refuelled.⁶⁴

The PLAN is also developing other tactics. Sub munitions of very high power could render a United States carrier or missile cruiser ineffective without sinking it. They may believe they could achieve the same tactical end without too great a risk of escalation. However, whether this is really useful is very debatable. Anti radiation sub munitions or electromagnetic pulse sub munitions

may be used against radars or command and control centres.⁶⁵

This is something Sun Tzu would surely approve of. But incoming conventional missiles of this calibre do not distinguish themselves from ones which are intended to sink ships. The potential for escalation is therefore very high indeed.⁶⁶ A warning shot or the blinding of ships’ radar may not be recognised as a deterrent to further encroachment or escalation. It may more probably be read as a very significant naval and world event which threatens further conflict at sea at the very least.⁶⁷ A United States Navy ship is United States sovereign territory. So any attack would be viewed in the gravest way.

China has invested much economic intellectual and technical capital and many resources on developing its mobile, land based, anti-ship ballistic missile. A lot of the writing in the literature, in the English language outlets has Chinese analysts exploring all these developments. They are therefore readily open to foreign nationals and can easily be followed.

But perhaps this is deliberate. Sun Tzu has plenty to say about confusing and misleading the enemy.⁶⁸ Perhaps this writing aims to shape the perceptions United States Department of Defence and Defence Departments and analysts of the other powers. There is almost nothing written in Chinese or English about the Chinese anti satellite weapon. This was launched successfully on the 11th January 2007. Perceptions are certainly being shaped to some extent.⁶⁹

There may be a disinformation campaign at work. There is a strong school of thought inside China that takes the view that the mobile, land based anti-ship ballistic missiles are “arrows without bows.”

There are very many technological problems with them. Accurate

targeting and tracking are difficult to achieve. They are escalatory by nature. However, assuming for the present that these problems have been solved, and that is a huge assumption, then China can launch large numbers of these missiles from land. Offence will have become stronger than defence at sea. China’s strategic strength and ability to destroy carrier escort groups will have been considerably enhanced. The range, speed, accuracy and sheer numbers impose the threat of attrition on Allied Navies and on an enormous scale similar to the effects of the Kamikaze attacks in World War II. The weaker naval power is following in a long tradition in trying to impose its will and control the sea by asymmetrical means and from the Continental shore.

Indeed these missiles create other problems. The Anti-ship Ballistic Missile (ASBM) development by China may undermine the 1987-88 Intermediate Range Nuclear Forces Treaty, (INF-1987), between Washington and Moscow.⁷⁰ This treaty “prevents the United States and Russia from possessing conventional and nuclear ground launched ballistic and cruise missiles which have ranges of five hundred to fifty five hundred kilometres.”

Furthermore the Chinese ASBM’s are controlled, not by the Navy, but by the Second Artillery Corps of the Army. The Army was originally given control of the Navy when naval morale plummeted at the end of the Chinese Civil War.⁷¹ This was after the Nationalists had escaped to Taiwan, having been forced out.

There is a situation here rather similar to that prevailing in Nazi Germany and Imperial Japan where a military hierarchy has some control over naval strategy. Naval strategy is not something of which a continental focussed military is likely to have a

deep grasp.⁷²

While the Navy has been elevated in status and power recently, the Army badly needs reforming and brought up to date. This will lead to competition with the Navy for resources, the Navy, by nature, being heavily capital intensive and requiring a manpower with advanced skills. This competition is likely to pose serious problems for senior Chinese policy makers and their power bases.⁷³

Continental powers, Imperial Germany, Nazi Germany and Imperial Japan in China, with splits between the Navy and Army over attack by sea or deeper involvement in the Continental wars have failed to exercise naval strategy effectively.⁷⁴ Continental focused policies and security have vastly different requirements from those for sea operations and maritime strategy – diplomacy. Aggression at sea in the past did not produce the ends desired.

THE INFLUENCE OF THE WESTERN NAVAL STRATEGISTS ON CHINESE MARITIME AFFAIRS

However, Chinese naval scholars are also studying the earlier western naval theorists Admiral AT Mahan and Julian Corbett.⁷⁵ Both had much to write about the exercise of sea power and the use of fleets in naval warfare and diplomacy.

Admiral Mahan wrote much about keeping the naval battle fleet concentrated and using it to destroy the enemy battle fleet.⁷⁶ By so doing command of the sea could be gained and held. After a victory command could not really be disputed thereafter, though that did not mean there could be no more ship to ship actions or battles and sinkings. Once command of the sea had been gained it had to be maintained by constant patrolling and action.

Julian Corbett accepted this view to begin with. But he extended the ideas on the influence of sea power. He began, in his later works, to explore how the intelligent application of sea power to awkward diplomatic or defence issues could bring results far beyond the actual war making potential of the fleet.

He then progressed to qualifying his earlier views by noting that “our best minds must not cramp their strategic view by assuming unconsciously that the sole function of a fleet is to win battles at sea”, “though it is the supreme function of the fleet.”⁷⁷ Other possibilities are being opened up therefore.

Recognising this, China is supporting its additional naval sea battle forces with legal “tactics” using UNCLOS, the International Law of the Sea Treaty. It is a policy similar in character to the Chinese generated Strategic Group of Nations Agreements. This policy has been instituted and pursued around the land borders in Central Asia and with states therein. It aims, through the policy of “no outside power interference in internal affairs”, to exclude United States influence in the new Continental Asian states that came into existence after the collapse of the Soviet Union.⁷⁸ These States have oil, mineral deposits and communications links to markets beyond. This continental heartland policy has been relatively successful so far in its short life.

A parallel policy is being employed at sea in a similar way. China explains, or claims its historical links with various islands offshore. It institutes or consistently references and reinforces the claim by every means short of war, but up to and including minor and potentially serious naval incidents.⁷⁹ It rigorously disputes counter claims by other Asean nations around the South China Sea. It can, if successful in its

claims, then apply UNCLOS, with the two hundred mile fishing and mineral rights exclusive limits around the islands. This tactic pushes, or attempts to push, the Chinese territorial contiguous controlled ocean further out. China interprets the United Nations Law of the Sea rulings on scientific research as including military and naval research.

This is an interpretation the United States does not accept, though the United States is not a signatory to the UNCLOS treaty. China is pushing the legal boundaries and interpretation as far as possible to claim sovereignty.⁸⁰ It is then reinforcing these boundaries with a military and naval interpretation defined in and through its research. Julian Corbett, a lawyer by training, would surely have admired this naval policy in support of Chinese tactics and this interpretation of the strategy of sea power.

It is consistent. Means are limited to the ends. Strategically defensive but tactically offensive, it is a strong form of strategy in support of policy. Should an incident at sea escalate it, in theory therefore should be able to be contained.⁸¹

PROBLEMS – ESCALATION ENHANCED

For the loyal reader who has managed to make it this far, and who has not suffered the MEGO effect, (my eyes glaze over), there are other problems.

There now exists, as there did at the time of the Battle of Jutland, and again at the time of the Battle of the Coral Sea, a period of rapid technological change. The power and range of weapons is greater than ever and is expanding. Supersonic anti-ship missiles and rockets, wake homing super fast and rocket torpedoes, “clever” sea mines, stealth aircraft, drone technology, satellite capability, electronic intelligence gathering,

Some Influences on Current Chinese Naval Strategy IN THE SOUTH CHINA SEA

electromagnetic weapons, long range and high definition radars, all encourage much longer range ship to ship and ship to shore engagement.⁸² All are escalatory in nature, but some are deniable: “it wasn’t one of our mines your ship hit”.

Weapons threaten, through their high engagement velocity, long range, increased kinetic and explosive power, deadly accuracy and their automatic or semi automatic engagement and defence systems to accelerate and develop low level incidents into ones that cannot be controlled at a local level. Speed of decision, thoughtfulness of decision, awareness of risk, historical, political and tactical perspective are all the more important now for ship commanders, than they were at the time of Jutland and The Coral Sea.

Indeed the high speed and longer range of these rockets and missiles blurs the distinction between land and sea warfare. Their potential for linkage and inter change has developed and is now much more intertwined. Actions at sea may now be more than ever influenced by decisions taken by a commander on land and the opposite is also true.

Furthermore, the link and connection between tactics and strategy has been tightened. The dialectic between the two is more intense, perhaps even squeezing the operational level of war in a linked land sea land battle down to near insignificance. Decisions have to be taken more quickly and the political overview becomes as a result more important. The technology influences tactics and therefore perhaps strategy much more quickly. So the need for good quality ship command decisions is all the more essential.

A number of other problems exist. These, when analysed further, give some clues that indicate the Chinese



9:11 attack as the second aircraft is about to strike the Twin Towers target (Public domain)

strategically defensive but tactically offensive posture may not be as stable as some analysts indicate.

OTHER ESCALATING ENHANCING DYNAMICS

The Chinese calendar is replete with “humiliation days”. On these days the state expects the people to remember the period in the past when China was occupied by foreign powers. Destruction wrought by these powers is well remembered each year. This justifies the present Chinese Government’s policy stance on defence.

Museums reinforce the message. Especially remembered are Japan’s invasion in the last century and the vicious nature of that occupation. Saving face and dignity internationally, with redressing those wrongs are important to China. The Chinese mainland government at present is possibly closer to the rigid Taiwan Governments of the 1980s than it is to the cruel communist period of Mao Tse Tung. It has been changing up to the recent elections at the 2012 Party Conference. But how this new smaller party central committee manages these nationalist forces and the rising economic expectations of

its people, remains to be seen. There are some similarities between the present position the Government finds itself in now compared to the rigid governments of Imperial Germany in World War, Imperial Japan in World War II and Nazi Germany.

All faced rising economic expectations, global international financial, economic and resource problems, and as certainly in the case of Nazi Germany, a feeling of being wronged in the past. Extreme nationalism, with heavy militaristic influences was also to the fore. Increased access to minerals, resources and wider markets were demanded by all three governments. The relationship between China and Japan at present is particularly fraught with tension.⁸³ Furthermore, China also views the United States and its containment strategy with considerable concern for its security both as a government and for its people.

THE DETAILS

Strategically China has only very recently acquired a mature sense of security. It is not, however, a maturity of quiet ease and tranquillity. Rather it is one of anxiety and concern. The

Government is worried about the overwhelming weight, power and range of the United States conventional and nuclear arsenals arrayed against it. Deterrence is the corner stone or bedrock of the United States defence policy and underpins United States support of allied forces in the South China Sea.

For this reason China is developing and deploying its more secure second strike strategic nuclear capability. This is the ability to retaliate with force and accuracy if China is attacked first, its strategic rocket forces and deterrent having sufficiently survived that attack. The possession of this second strike capability should, in theory, make it more secure in protecting its population and more confident in its pursuit of its policy towards greater control of the South China Sea.⁸⁴

Greater confidence may make the Government more aggressive in its tactics offshore. It may make it more inclined to take risks and to use compellence¹ in its tactical moves. The use of cohesiveness, assurances and provocative naval tactics, from China's point of view, are needed to change the status quo. However, to try to alter the status quo is fraught with dangers.

Compellence is more difficult than deterrence.⁸⁵ China is building its new deterrent capability at a strategic level. It is using compellence on a tactical level. This is supported by its interpretations of the Law of the Sea, so carrying forward a tactical maritime offensive. This is more risky than deterrence. Deterrence accepts the status quo and defends it with threats, implicit or otherwise and assurances. It uses tactically robust and defensive measures. It is the stronger form of policy and war. Time is on the side of those doing the deterring.

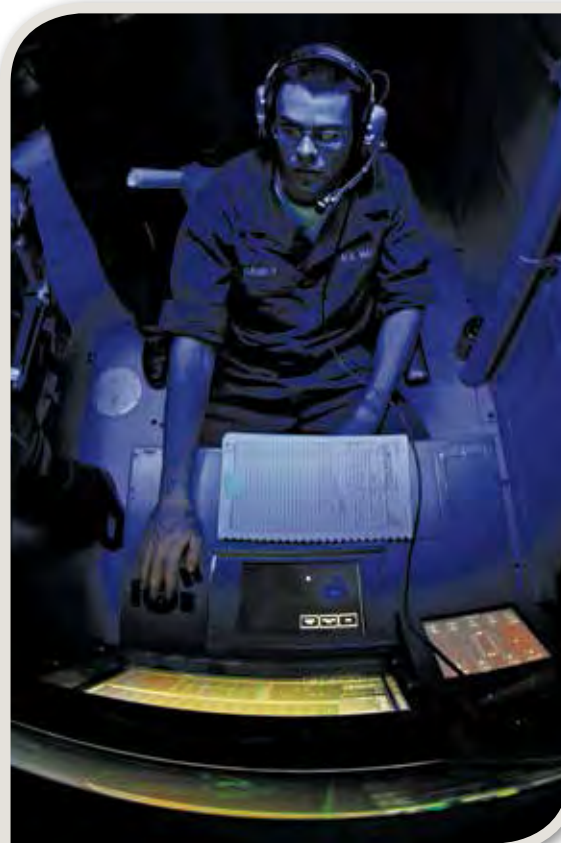
1 Compellence is the situation in which an actor ceases or reverses actions because the costs imposed by other actors are or will soon outweigh the gains of those actions

It is easier to deter than to compel. Without credible assurances an island in dispute, with a population, has little incentive to comply with compellence. The Falkland Islanders in the Falklands war are an example. If the island has no population different tactics apply. The question then is if some or all participants in the South China Sea believe they are defending the status quo.

This is a situation rife with the risk of conflict and escalation, at least at sea. China does not believe in the status quo. Change therefore has to take place and uncertainty creeps into the situation. This creates risk, which has to be managed by diplomacy. If not, escalation results.⁸⁶ Skilful diplomacy in this instance consists in arranging things, so that it is one's opponent who is embarrassed by having the last clear chance to avert disaster, by abstaining from what he wanted to accomplish or turning away.

China has declared a "no first use of nuclear weapons". Except for China, the status quo in the area is more accepted by all participants. Also, as time passes, the status quo becomes more entrenched. This is a more fraught and risky situation therefore compared to the quality and character of the status quo in Europe during the Cold War.⁸⁷

Then the status quo was not really accepted by any state. The "Iron Curtain" 1947 to 1989, as it was called, split Europe into two. But all nations had reasons for change. Germany wanted to be reunited. Poland and the Eastern European countries yearned to return to independence. United States nuclear missiles and conventional cruise missiles arrived in West Germany and the United Kingdom in the decade of the 1980s. These new missiles were the counter balance to the massive ground forces the Warsaw Pact had built up in Eastern Europe and deep into Eastern Russia.



Sonar Technician (Surface) Seaman Apprentice Joseph Barnes reports simulated mines during an under-sea warfare training scenario in the sonar room aboard the Arleigh Burke-class guided-missile destroyer USS Kidd (US Navy)

The Soviets had two types of weapons in forward deployed positions. Formidable numbers of conventional weapons and missiles and nuclear missiles overlapped significantly on the ground. The Soviets may even have used the same command and control systems for both on occasions.⁸⁸

The battlefield doctrines which guided their potential use saw them as part of the same arsenal. They were intermingled in a way not appreciated or controlled by the western powers and the United States.

In the west it was recognised that a real firebreak existed. There was a much greater awareness of, doctrinal appreciation of, and policy difference towards these weapons. Deterrence worked. Strategic stability was maintained while political change took place. Because the status quo was never really accepted once politics re-engineered the underlying situation sufficiently, strategic stability was maintained. Throughout the

Some Influences on Current Chinese Naval Strategy IN THE SOUTH CHINA SEA

period of change the reconfiguring of the political boundaries in Europe did not test the core security of the key interests of the major powers. Deterrence worked. The experiences of the Berlin Crisis and Cuban missile crisis had given politicians the confidence and experience to manage the situation.⁸⁹

The situation in the South China Sea therefore, indicates the Soviet-Communist influence on China's Land based forces of the doctrine of intermingling conventional and nuclear weapons, perhaps using the same command and control links. These may not be very resilient or have redundant systems.⁹⁰ The new sense of security based on possession of a growing second strike capability is not very strong. China faces overwhelming conventional and nuclear capability at sea and on land rather like NATO did in the early 1980s.

Moreover, the status quo regarding the ownership of islands in the South China Sea is accepted in general terms by the rest of the Asean Nations. It makes therefore, for a more unstable political strategic situation if a change or series of changes is attempted through compellence.

THE ECONOMIC BACKGROUND

The older more mature economics of the world are under extreme stress. Overwhelmed with debts they are advised to seek "growth" out of which interest on the debt can be serviced and the debt paid off. However, the growth model has become unsustainable, except for the new developing BRIC countries, Brazil, Russia, India and China. Perhaps this is true also of Africa in the future. The world economic situation is as bad as the nineteen thirties. It is highly likely to get a lot worse. China needs eight percent annual growth or more if it

is to sustain the rising expectations of its one point one billion people. The People's Liberation Army badly needs reforming. Corruption in it and elsewhere is rife. The Chinese Navy will continue to demand more skilled labour and capital investment if it is to continue down the paths indicated.

The pressure on the Communist Party to reconcile these forces and to keep its control is enormous. The Chinese Government spends more on controlling and on internal security, watching its population, than it does on defence.⁹¹

The People's Liberation Army operates under a tight Communist Party Control. Little of the struggles for power and advantage come to public attention. The People's Liberation Army is a mass army, much in need of reform to bring it up to modern standards. Considerable investment is needed. Traditionally it controlled the Navy. The top Command of the PLAN have recently been elevated to the supreme committee that allocates resources to the armed forces. It now is more able to access these resources than before.

CONCLUSION

How the various strands of historical strategic influences indicated evolve and interact in the South China Sea situation poses a series of dilemmas for Chinese Political leaders and the Peoples' Liberation Army and PLAN top commands.⁹² Which strategic influences can best yield success, in China's policy of compellence in its search for great control over that body of water?

Will it be Mahan or Corbett? Will Sun Tzu - Liddell Hart, or Soviet Marxist Communist interpretations of strategic doctrine hold sway? Is compellence or deterrence better able to force the western and ASEA nations sea powers out of that area? Will

China continue to use its aggressive interpretations of the Law of the Sea Treaty? Each has importance.

The mix is further complicated by the fact that a continental power is trying to exercise power and strategy beyond the high tide line. History has shown that continental powers do not do this very successfully.⁹³ Battles at sea, war and attrition usually results in their defeat. Even island sea powers like Japan have failed on occasions. Britain did so in the American War of Independence and in the Anglo Dutch Wars of a much earlier period.

Furthermore, should an incident in the South China Sea become dangerous, threatening to escalate rapidly, have the protagonists the experience and knowledge to defuse the situation? They say that you only need diplomats when things become insecure.

Have the politicians the skills to manage the situation and prevent escalation? Just because the Cold War has ended and it has been decades since the Cuban Missile crisis and the atom bombs dropped on Japan, it does not mean that strategy, with or without nuclear weapons, can be neglected. It should not be and cannot be a lost art. The existence of nuclear weapons does not mean strategy is redundant. Far from it. It is more important than ever.

The speed, range, and power of weapons now links warfare on land and sea like never before in naval history. Politicians and naval commanders need wisdom, awareness and knowledge of naval and military history like never before if escalation is to be stopped or managed. A surprise attack is likely to promote retaliation on a scale commensurate with the attack. Attrition, at a very fast rate could suddenly result on any naval fleet.

China is more likely to prefer a strategy of compellence, island by island, over time to deny access to

the South China Sea. But if internal pressures on the government in China rise to destabilising levels, then they may be forced into a different strategy.

However, it has been shown that use of asymmetrical war in the past has led to attrition. The submarine in World War I, the Kamikaze in World War II, the suicide terrorist in recent wars, have not stopped attrition, nor have they led to success in battle. Cyber attacks also have to cause attrition on a grand scale if they are to be significant. However, retaliation is highly likely, if not escalation, which switches to other forms of counter attack. Mass endurance in defence, knowledge of the theorists, knowledge of past battles, and campaigns matter. Never before has the premium on wise and knowledgeable political and naval leadership been so high or been of such importance. Too often it is lacking.⁹⁴ 🚩

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2 Slogett, Dave. Dr. IBID. Paragraph 20.

3 Lewis, Tom. "A War at Home." Darwin: Tall Stories, 2007. Lewis, Tom, and Peter Ingman. "Zero Hour in Broome." Adelaide: Avonmore Books, 2010.

4 Howard, Michael. and Paret, Peter. (Eds.) "On War" Clausewitz, Carl Von. Princeton University Press. 1984. Book 3. "On strategy in General." Ch. 9. "Surprise."

5 Slogett. Paragraph 21.

6 Marder, Arthur J. "From Dreadnought to Scapa Flow." Vol 1. "The Road to War." Oxford University Press. London 1961. Ch XII. Evolution of Pre War Strategy and Tactics. Part 4. "The Guerre de Course Bogey." P358

7 Grove, Eric. Dr. "Fleet to Fleet Encounters." Arms and Armour Press. London 1991. Only the most extreme exponents of the "jeune ecole" school thought torpedo boats could sink capital ships. Mostly the thinking was to attack merchant ships and so damage the trade of the enemy. "Guerre de Course" (Running War). But the Imperial German Navy did use torpedo boats in an aggressive, offensive fashion, in naval battles in the North Sea, including Jutland. Pages 69-70 for torpedo boat use and chapter 4 for tactical composition and deployment of opposing forces.

8 Howard, Michael, Paret, Peter. "On War" Clausewitz, Carl Von. Book One, Chapter Three, "On Military Genius". Page 101 (quote). Ranft, Brian. (Ed.) "Technical Change, and British Naval Policy 1860-1939. Hodder and Stoughton. London 1997. Chapter Two, "On the Theory of War." Page 140, also Clausewitz, Book Two, "Third Property: Uncertainty of all Information". Chapter Seven, Page 131. Intelligence failures, confusions, and false information led Jellicoe to distrust Fleet Headquarters information. He had to rely on reports received from his own fleet and these were often confused or not forthcoming. But no operational orders were in place for this contingency. Given modern tendency for Naval Headquarters to rigidly control naval units at sea, this could be a similar problem for any modern Commander in a naval battle.

9 Marder, Arthur J. Vol Three. Chapter Three. "Battle Fleets in Action." P86 to 95.

10 IBID "Many had been the critical situations which British Admirals in the past had been called upon suddenly to solve, but never has there been one which demanded higher qualities of leadership, ripe judgement and quick decision." Corbett, J. Sir. Quoted Page 86.

11 Schurman, D. M., "The Education of a Navy." The Development of British Naval Strategic Thought. 1867-1914. Chapter Six. Richmond, Herbert Sir. Page 113.

12 Schurman, D.M., Chapter Four, The American, Admiral Alfred Mahan, Page 79. This Mahanan influence was to carry on into the Washington Naval Conference, (12th November 1921). It was inherent in United States -Japanese Naval rivalry of that period despite official reports into World War One that a protracted war was more likely in future. See Asada Sadao, "From Mahan to Pearl Harbour." "The Road to Washington." Page 60. Annapolis Maryland, Naval Institute Press 2006.

13 Asada Sadao: Chapter Ten, "The Southward Advance and the American Embargo." The total western embargo,

except for oil, was consolidated against Japan on July 27th 1941. Japanese assets had been frozen on July 25th in the United States.

14 Willmott, H.P. "Empires in the Balance." Japanese and Allied Pacific Strategies to April 1942. London Orbis 1982. Chapter Three. The Japanese Situation. Pages 67-71 especially.

15 IBID Willmott. Pages 71-75 and 79-82.

16 Van Der Vat, The Pacific Campaign, Dan. London, Hodder and Stoughton 1992. Chapter Three. Japan Attacks, Page 129.

17 Morison, Samuel Eliot. History of United States Naval Operations in World War Two. Vol Three. "The Rising Sun in the Pacific 1931-April 1942. Chapter One. "Hakko Ichiu. Pages 3-6.

18 History of United States Naval Operations in World War II. Vol IV. Coral Sea, Midway and Submarine Actions, May 1942-August 1942. Chapter One, South from Rabaul. Page Five.

19 Stealth at Sea. The History of the Submarine, Van der Vat, Dan. London Orion Publishing, 1994. Scene III. America versus Japan. Page 251. For the strategic significance of this raid for Japan see Willmott Empires. Page 447-451.

20 Van der Vat, D. The Pacific Campaign, Chapter Four. The Giant Awakes. Page 153-158.

21 Howard, M. And Paret, P., Clausewitz Books, Chapter Six B, "War is an Instrument of Policy." Page 605. "Its grammar, indeed, may be its own, but not its logic."

22 Asada, Pages 102-103. This push was probably enhanced by the internal background of "The General Plan for Strategy." This accompanied the new Japanese National Defence Policy reflecting the obsession of Kato Kanji, the new head of the Naval General Staff from 1923. His obsession was "quick engagement, quick showdown." His whole strategic idea ran counter to research papers after World War I indicating the national need to endure a prolonged war. This rationale of his ran deep through Japanese Naval Command until the late nineteen thirties. See also, Men, Organization, and Strategic Visions 1931-1941, Chapter 7.

23 Morison, S. E., Vol IV, Page 63. "It was a tactical victory for the Japanese but a strategic victory for the United States." Van der Vat, Dan, The Pacific Campaign, P177 and P179- Admiral Nimitz, the man who could "lose the war in an afternoon," as the British Admiral Jellicoe could have done at Jutland.

24 Morison, S.E., Vol 4. Coral Sea, Midway and Submarine Actions. May 1942-August 1942. Chapter One, South from Rabaul. Page 13. "The Influence of Sea Power upon History 1660-1783." Lomdon, Sampson Low, Marstow and Co., Ltd, 1889. Pages 132 and 137-8, on combat fleet superiority in battle, not commerce destroying is what is important. The fleet must be kept

Some Influences on Current Chinese Naval Strategy IN THE SOUTH CHINA SEA

concentrated, Pages 495, 513, 514, 519, 588 and so on for the original Mahanian ideas.

25 Asada, Ch2, for Mahan's influence on Japanese Sea Power, P26-44. Morison, Vol 4, Ch1, P6.

26 Vigo, Milan. "Thinking between Strategy and Tactics." Regardless of success, wars at sea are won or lost at the strategic and operational levels." Proceedings, Annapolis Maryland, U S Naval Institute. Feb 2012. P63, puts the Japanese failure at the Coral Sea down to the Japanese having no operational art. However, in the case of this battle there was a failure to understand Mahan and his theory, despite his importance to Japanese Naval Staff in the nineteen thirties. There was also an underestimation of the opposition, with intelligence failures. The "fog of war" intervened as it always does. The question arises therefore as to how these two conditions interact. There will always be the "fog of war," by extension therefore, "operational art" can never be perfected. Vego states without Operational Art "war at sea consists of randomly fought major and minor tactical actions, with relative attrition as the only measure of success or failure." P64.

This assumes no direction whatever from above. But in both these battles, allies suffered more attrition than the enemy forces. They also lost tactically. However, strategically they won. That might not be down to better "operational art," but to other factors like leadership, morale or intelligence information. Carl von Clausewitz had much to say about these as did the Chinese Military theorist, Sun Tzu.

27 Livezy, William E. "Mahan on Sea Power," Oklahoma. University of Oklahoma Press, 1981. Sea power here and always includes not only naval strength afloat, but equally, the peaceful commerce and merchant shipping of a nation. P45. Mahan was influenced by the Swiss theorist of war, Baron Henri Jomini's dictum that, "the organised force of the enemy are ever the chief objective," P43. Willmott condemns Admiral Yamamoto's strategic ability." He seems to have been incapable of adhering to the fundamental principal of war-the concentration of force to achieve the objective." See "Empires," Pages 456 and 459. See also Till, Geoffrey, "Seapower, a Guide to the Twenty First Century," 2nd Edition, London, Routledge, 2009. P42-43.

28 Morison, S.E. History, Vol IV, Page 31. For five fundamental questions to ask about maritime strategy.

29 IBID, P63, "It was a tactical victory for the Japanese but a strategic victory for the United States." This battle, rather than Midway, may have been the real turning point in the Pacific War, rather than the bigger battle of Midway. Van der Vat, Dan, "The Pacific Campaign," P177. Hodder and Stoughton, London, 1991.

30 Gray, Colin. S. The Leverage of Sea Power," London. The Free Press 1992. P259.

The "fault tolerant environment" at The Coral Sea Battle may have been supplied by the fact that the United States and its Allies knew the outline of the Japanese plan thorough being able to decipher the Japanese code. The normal "fog of war," could so easily have been made a lot more obscure. The battle was fought across and near the junction of two different command areas. One was General McArthur's S. E. Asia Command Area. The other was Admiral Nimitz, S.W. Pacific Command Area. (160 degrees E-17degrees S, through to 165degrees E-10degrees S). Admiral Fletcher's force had to cross this boundary after refuelling. But there were other problems, most notably the flawed and inaccurate interaction of land and sea based airpower and ship location intelligence supplied to the local commander. One must consider the vast areas of ocean needing covered here. But land based airpower was not up to the job, and land based pilots often mistook what ship types they spotted.

Also code breaking intelligence was handled by United States Army deciphers on even days of the month and by United States Navy deciphers on odd days. See Aldrich, Richard J. "GCHQ" the uncensored story of Britain's Most Secret Intelligence Agency. London, Harpers Press-2011. P40. Also Bamford, James.- "The Puzzle Palace," America's National Security Agency and its special relationship with Britain's GCHQ. London, Sidgwick and Jackson. 1983. P42-3. Admiral Nimitz reckoned the intelligence was worth "a whole battle fleet." This cut throat competition between American Intelligence Agencies continues today. It has also led to lack of forewarning to the United States Government about the attacks on 11th September 2001. See London Times. July 20th 2010. "Intelligence failures caused by overload of spooks." For example-They missed The Times Square car bombing by Faisal Shahzad in May 2010 and perhaps missed the 9/11 attack itself since the FBI had not shared intelligence with the CIA.

31 Willmott, Empires, P454-456.

32 Van der Vat, Dan, "Stealth at Sea," the History of the Submarine. Orion, London 1994. Pages 245-250.

33 IBID. The US Gato class submarines were the best of all Allied submarines. The United States Submarine Service had the worst torpedoes of any belligerent nation in world War Two and there were serious commander and morale problems.

34 Erickson, Andrew S. and Yang, David D. "On the Verge of a Game Changer:- A Chinese anti ship ballistic missile could alter the rules in the Pacific and place United States Navy carrier strike groups in jeopardy." Proceedings Annapolis Maryland. 2009. P27-32.

35 Munson, Kenneth. Fighters, Attack and Training Aircraft. Blandford Press, London. 2004. P15.

36 IBID. P116. Though Mitsubishi built 465 special Kamikaze versions of the A 6m7,

Model 63 of the Zero-Sen Japanese Naval Air Force carrier fighter, Zeros of all kinds were used in the Kamikaze attacks.

37 Erickson, Andrew, and Chang, Amy. "China's Navigation in Space-what new approaches will China's space tracking take?" Proceedings USN Institute, Annapolis, Maryland. 2012. P42.

38 Friedman, Norman. "Back to the Future." Proceedings USNI. August 2012. P90.

39IBID

40 Sloggett. The Naval Review. P158.

41 Handel, Michael I. "Masters of War." Classical Strategic thought. Frank Cass. London. 1996. P19 for a table comparing Sun Tzu and Clausewitzian approaches to war.

42 Clavell, James. The Art of War. Sun Tzu. London, Hodder and Stoughton. 1981. Section Five. Out of twenty three tenets in this section: numbers 3,4,5,11,12, are on the relationship between direct and indirect methods of fighting a battle, basically they mean, "disguise the main thrust." Section 6, on "Weak Points and Strong". Out of 33 tenets, numbers: 7,10,29 apply,-basically they mean "search out the weaker points".

43 Luvaas, Jay. The Education of an Army. British Military Thought 1815-1940. P397-400. Here Liddell Hart uses his study of Sherman's Campaign in the American Civil War to illustrate his approach to battle and strategy, "The purpose of strategy, he contended is to diminish the possibility of resistance by exploiting the elements of movement and surprise." For his thoughts on battles: Liddell Hart: "Thoughts on War." 1944 Faber and Faber, London. Chapter three, "The Military aim." P50. "Battles-their Limitations in Experience."

44 Escalation defined as "An increase in scope or violence of a conflict, in international crisis situations, deliberate or unpremeditated." Herman Kahn of The Hudson Institute think tank, in the nineteen fifties, and sixties, would have pointed out that it involved an increase in violence but also competitive risk taking between the antagonists. Not so for the large nuclear powers but may be for the smaller ones like Pakistan and North Korea. Chambers dictionary definition is: "To increase rapidly in scale or intensity". On containment: "The act or policy of preventing the spread, beyond certain limits of a power or influence regarded as hostile, by means other than war."

45 Cimballa, Stephen J. "Clausewitz and Escalation: Classical perspectives on Nuclear Strategy. London. Frank, Cass & Co., 1991. P3.

46 Friedman, Norman. Dr. "Nationalism Unleashed." Proceedings USNI. Annapolis, Maryland. Nov 2012. P91. Bond, Brian. Liddell Hart – A Study of his Military Thought. London, Cassell and Co. Ltd. 1977. Chapter two, "The Strategy of the Indirect Approach 1925-1930". Luvaas, Jay.

Dr, "The Education of an Army." P352-363. For Fuller's Ideas on Tanks and Mechanised Warfare. Also read Brian Holden. "J.F.C.Fuller. Military thinker. MacMillan in Association with King's College, London. 1987. P228.

47 Asada. Chapter Ten. Specifically the sub section. "The German Soviet War and Japan." P250-252.

48 Gray. P226. "Leverage of Seapower".

49 Friedman, Norman. Dr. "Nationalism Unleashed." Proceedings. Nov 2012. P90. This superb article analyses the dynamics of the Chinese-Japanese relationship in considerable depth, past and present. This is a fair way removed from the South China Sea problem, but relevant. China: Coast to Taiwan: 220KMS; China to Japan across E. China Sea - 890KMS; South China Sea to Japan: 1990K; Taiwan to Japan: 1000K; North Korea to Japan: 500K; Siberia to Japan: 910K.

When attempting to analyse warfare, nationalism and the forces at work see also: Proceedings. April 2012. Erickson, Andrew. and Chang, Amy: China's Navigation in Space. P47. "Unexpected GPS disruption probably caused the Army, (PLA), to lose track of the second and third of a three missile salvo fired in March 1996 into the East China Sea, 11.5 miles from Taiwan's Keelung Naval Port. It was part of a larger effort to deter what Peking perceived to be a pro Taiwan independence move."

50 How history repeats itself? "Made in Taiwan-Lost Colony: The Untold story of China's first Great Victory over the west". Androde, Antonio. 2012. Princeton, New Jersey- tells the remarkable story of how the Chinese recaptured Taiwan from the Dutch in the late sixteen sixties.

51 For current developments see eg: Proceedings, USNI. April 2012 for five articles on the rise of Chinese Naval Power.

52 Clavell, James. The Art of War. Sun Tzu. "The Nine Situations," in the Art of War. 1988. Hodder and Stoughton. Tenets No: 54 and 55, indicate the Chinese approach to the South China Sea problems.

53 Wars of Independence, civil wars, and wars of nationalism against colonial power have all been limited. Korea, Vietnam, Malaysia, Oman, Dhofar, Biafra-Nigeria, South Africa-Angola, India, Pakistan, (three wars so far), Arab Israeli Wars, Iraq- Iran, 1st and 2nd Gulf Wars, Soviet-Afghanistan, NATO-Afghanistan to mention but a few. They may not have been limited to those involved, but they did not escalate beyond a certain limit. Carl von Clausewitz's insights apply to them all as it does to World Wars One and Two. His insights still apply. See Gray, Colin. S., "Clausewitz, History and the Future Strategic World." University of Reading. England. June 2003 paper prepared for the "Strategic and Combat Studies Institute Conference-"Past Futures." Royal Military Academy, Sandhurst 3-4 July, 2003. and Marine Corps Command and Staff College, Quantico, Virginia, USA. 9TH-10TH

September 2003.

54 Clavell, James. Sun Tzu. Chapter Two. Tenets 2 and 3. "If the campaign is protracted the resources of the state will not be equal to the strain." Also Tenet 5, "have no stupid haste but also clever enough not to have long delays!"

55 IBID-only 12 Tenets mentions water, marshes, river flooding and so on. Numbers 29,31,32 refers to how tactics (on land), should follow how water flows from one place to another.

56 Swiss Theorist of War, who unlike Carl von Clausewitz, had developed a quite formal and prescriptive set of rules. Born 1799, died 1869, as a Russian General. Antoine-Henri Jomini, perhaps most famous for: "All Strategic combinations are faulty, (vicious), if they do not conform to the basic principle of operating with the greatest possible force in a combined effort against the decisive point." Paret, Peter. (ED) . "Makers of Modern Strategy from Machiavelli to The Nuclear Age." Oxford Clarendon. 1991. Jomini. P152.

57 Sloggett, Dave. Dr. The Naval Review.

58 Erickson, John. "The Development of Soviet Doctrine: The Significance of Operational Art and the Emergence of Deep Battle." In Strategic and Combat Studies Institute. Occasional Paper No: 30. "The Origins of Contemporary Doctrine." Gooch, John. The Strategic and Combat Studies Institute U. K. 1997. P81-112.

59 Dismukes, Bradford and McConnell, James. Ed. New York. Pergamon Press. 1979. Chapter Five. "Super Power Naval Confrontation", Roberts, Stephen. S. Ed. Especially P211. "Naval Confrontations during Crises."

60 A Chinese attack Submarine of the Song Class, (2200 tons displacement), surfaced within nine nautical miles of the United States aircraft carrier, Kitty Hawk, (80,000 tons), and Escort Group while on exercise between Japan and Taiwan on 26th October 2006. It was reportedly not detected before surfacing but also, reportedly, the Escort Group had its Anti-submarine Warfare detection systems off at the time.

61 Dismukes, McConnell. P212. Submarines are an essential element of any anti-carrier warfare group. (AWC).

62 Soviet Naval Tactics. Vego Milan. Maryland, U.S.A., U. S. Naval Institute. 1992. Chapter 16. "Joint Tactics against Surface Ships." Missile Craft, Torpedo Craft, P 254-267 - especially P265, 266, and 267. Patch, John. Admiral Retd. Proceedings. U. S. Naval Institute, April 2010. "Thoroughbred Ship Killer" P49. The Twin Hull Houbei Class, (Type 022), at 225 tons, carries long range fourth generation, anti ship, cruise missiles, (ASCM's). These craft have a range of 140 nautical miles and are based on the Australian Twin Hull Catamaran design. Estimates are that there will be 100 of these in commission by 2015.

63 Martin, Laurence. Professor. "The Sea in Modern Strategy." London: The Institute for Strategic Studies, 1967. P80, for a farsighted glimpse of PLAN and USN interaction as it seems in 2013.

64 McCartney, Jane. and Evans, Michael, "Stealth Fighter is obvious warning to United States about Beijing's military ambitions. London. The Times. 12th November 2011. Its maiden flight on 11th November 2011, coincided with a visit by United States Secretary of Defence, Robert Gates to Beijing to discuss defusing tensions between the two superpowers.

65 Erickson and Yang. Proceedings. U.S.N.I. May 2009. Page 29 for various scenarios for use of the Chinese Anti-Ship Missile.

66 Friedman, Norman. Dr. "Back (fire) to the Future?" in World Naval Developments. Proceedings. U.S.N.I. Maryland. August 2012. In the paragraphs on "The Outer Air Battle" section, paragraph two, he argues stealth attacks like this might not risk nuclear retaliation.

67 Holloway III, James. L. Admiral. (Ret'd). "If the question is China....." Proceedings. U.S.N.I. Maryland. January 2011. P56. He argues China may not use small nuclear weapons near a United States Carrier if missile terminal guidance is not great. However, any type of like action would be very serious indeed. It would be well up the scale of escalation, if not at or near the top. In fact, a war would in all probability be very close to beginning. Things could well be much more serious than in the Cuban Missile Crisis of October 1962. Admiral Holloway III was Chief of Naval Operations, 1974-78, with long experience of dealing with Chinas Military hierarchy. See Also: Hooper, Craig and Albon, Christopher. "Get off the Fainting Couch," Proceedings. April 2010. O42 on "soft kill," warheads.

68 This is happening in more ways than one. Friedman, Norman. Dr. "Blocking the Path." Proceedings. Maryland U.S.N.I. January 2011. P88 indicates how the Chinese may have "captured" information from American Chilean Internet Servers for twenty minutes. Included were addresses and information on United States Military Personnel, which were presumably copied. It casts doubt on the idea that the internet is so universally valuable that no nation would vandalise it for national ends, for example to distort or jam the Global Positioning System, (GPS). There have been numerous Chinese cyber attacks on many other internet sites, for instance on Google and Japanese sites. London Times, 4th August 2011. China accused over "biggest ever" cyber hacking campaign. McAfee Web Security reported seventy two groups attacked over a five year period including six United States Government Agencies, 13 defence contractors. The Governments of Taiwan, India, South Korea, Vietnam and Canada. Hackers also penetrated the U. N. Secretariat in Geneva in 2008, and quietly stole two years worth of secret data. Also The Times London 8th May 2013, "Chinese

Some Influences on Current Chinese Naval Strategy IN THE SOUTH CHINA SEA

hacking on the Brink of Cyber Warfare”, says United States Pentagon Spokesman.

69 Skelton, IKE. The Honourable. “The Future of the U.S. China Security Relationship.” Proceedings. April 2010. P8. See also The London Times. August 26th 2011. China also launched a long range interceptor rocket from the Xiang Satellite launch centre in western China on 16th May 2013. Described as a DN2 high earth orbit attack missile, it did not have a target to hit unlike the previous anti satellite launch. China described it as “studying the earth’s magnetic field”. It had a liquid fuelled fourth stage giving a high energy thrust.

70 Erickson, Andrews, and Yang, David. D. “On the Verge of a Game Changer.” Proceedings. May 2009. P32.

71 Martin, Laurence. Prof. “The Sea in Modern Strategy. London. Chatto and Windus for the Institute of Strategic Studies. 1967. P80. This book despite its early publication date, continues to yield valuable insights in the 21st Century.

72 Gray, Colin. S. Leverage. P231, 232 and 236 for Hitler’s problem with a Maritime Strategy, (a continental power comes up short at the water’s edge). Also, “It may be pointed out in the first place, that if a nation be so situated that it is neither forced to defend itself by land, nor induced to seek extension of its territory by way of the land, it has by the very unity of its aim directed upon the sea, an advantage as compared with a people, one of whose boundaries is continental.” For Japan’s Naval Commands desperate struggles to organise sensible operational plans see Asada. P266-268 and 271-275.

73 Li, Nan. “Scanning the Horizon for New Historical Missions.” The Peoples Liberation Army Navy, (PLAN), is the special beneficiary of its Governments embrace of “externalization.” Maryland. Proceedings. USNI. April 2010. P19. The PLA was reduced in size by 500,000 in 1997 and again by 200,000 in 2002. This echoes Premier Krushchev’s efforts to reduce the size of the Red Army in the late nineteen fifties and concentrate on rocket forces.

Gray, Colin. S. “Strategy and History, Essays on Theory and Practical. London. 2006. Routledge. Page 63, quoting Mahan.

74 Gray, Colin. S. “Strategy and History, P65. “Overall the problem of composing and executing military strategy suitable for assault upon the strategy of an essentially maritime enemy, has proved beyond solution by continental statesmen.” That is not to say it has not happened in the past.

75 Sherman, Donald. “The Education of a Navy.” London. Cassell and Co., Ltd. 1965 is perhaps the best initial introduction to these two theorists of Naval Strategy and Diplomacy.

76 Mahan, Alfred T. “Influence of Sea Power on History 1660 – 1783. Sampson, Low, Marston & Co., Ltd. London 1890. On the necessity for concentration of the fleet,

P130-134, P136-138. (Combat superiority of the fleet in battle not commerce destroying is important), P495, (keep the fleet concentrated, also P513, 514, 519 and 538.

77 Corbett, Julian. “Some Principles of maritime Strategy.” London. Longmans, Green and Co., 1918. Ch11. P150. He says “the sooner this is done the better.” But he goes on to write that blockade, naval or commercial or both may also be a means to the same end. P165. It forces the enemy naval fleet to come out and protect the nations’ commercial lifelines at sea. Thereby a battle may result. Corbett’s subtle analysis may be very easily not quite fully understood. See Armstrong, J., “The Battle for the South China Seas: World War Two Today and into the Future.” Headmark, Journal of the Australian Naval Institute. Issue 147, March 2013 Page 39. Paragraph 2. Attack of merchant marine is a means to an end not an end in itself.

78 Bell, Coral. Dr. “Canberra Papers on Strategy and Defence. No167. 2001. Canberra. ACT. Australia. P35.

79 Dutton, Peter. A. Commander. “Through a Chinese Lens,” with Sino-centric visions of International Law and Treaties, China has essentially claimed the South China Sea as its own.” Proceedings. USNI. Maryland. April 2010. P25. Commander Dutton, a retired Navy Judge Advocate, is an associate Professor in the China Maritime Studies Institute at the U.S. Naval War College in Newport, Rhode Island.

80 Lewis, Leo. The Times. London. 25th July 2012. “Beijing christens City in the Sea but few see cause for celebration.” Sausa City, population 1,100 were settled on a rugged rock with sand bars and shoals. This rock “Yongxing” is 220 miles from the nearest Chinese Island of Hainan. China is using Island colonies where possible to establish and maintain sovereignty. This process has been set back by the recent Japanese purchase of Diaoyu, (China), or Senkaku, (Japan), south west of Okinawa which both nations claim. The Chinese protests, which resulted, took place on the anniversary of Japan’s invasion of Manchuria in 1931. Also Ben Macintyre, “Can Profit beat Pride in the Asian Falklands?” The Times. London. 21st Sept 2012.

81 Goldstein, Lyly and Knight, Shannon. “Coming without Shadows, leaving without Footprints.” Proceedings. April 2010. P30. For examples of Chinese Undersea, Unmanned Vehicle Progress.

82 Here the attack on *HMS Sheffield*, Tuesday 4th May, 1982 in the Falklands War, is worth remembering. This was accomplished by Argentina’s adaptation of a French Exocet Missile fired from land. *Sheffield* was ill equipped against low level attack anyway, but missile watch and communication transmissions had blocked each other at a critical juncture in an offshore patrol, and made the ship vulnerable.

83 The Times. London. April 23 2012. “Japan beefs up its defences as territorial tensions grow amid neighbour’s war games on Tokyo’s new surveillance planes.” The Times. London. September 21 2011. “Hackers (i.e. Chinese), breach the defences of Japan’s biggest weapons maker.” Proceedings: “Watching the Chinese”, Paul Giarra Commander, (Rtd) May 2009. P12

84 Christensen, Thomas J. “The Meaning of the Nuclear Evolution.” China’s Strategic Modernisation and U S –China Security Relations.” The Journal of Strategic Studies. Vol 35. No 4. Oxfordshire UK. Taylor and Francis-Infoma, August 2012. P449 and 473 especially.

85 Schelling, Thomas C. Arms and Influence. New Haven, Connecticut. Yale University Press. 1966. P71. Deterrence: “to prevent from action by fear of consequences.” Compellence: requires some movement, pressure is administered, until the opponent acts, the pressure is irresistible. Chambers Dictionary. See Schelling, Chapter 2, for a detailed analysis of both and their interaction.

86 IBID. P101. The Cuban Missile Crisis was resolved partly because the Americans established a naval blockade. This allowed the Soviets the chance to order the Soviet Merchant Skippers to reduce revolutions and slow down as they approached the blockade line. This gave everyone more time to think and work out what to do to resolve the situation to mutual satisfaction. However, more than one example of friction entered the crisis even though it had not quite reached a full conflict. A United States Air Force spy plane was shot down by order of the local Soviet Commander. Washington leaders thought it was on Moscow’s orders and prepared bombers to retaliate. Also the Soviet’s already had nuclear missiles in place and ready to fire at the United States from Cuba. So if the United States had invaded Cuba, the end result could easily have been a disaster, especially since local commanders in Cuba had permission to open fire on their own initiative in that instance. Ury, William. “Getting to Peace.” London. Vicking, 1999. Pages 81-82.

87 Christensen, Thomas J. P 452-3.

88 Freedman, Lawrence: “The Evolution of Nuclear Strategy. 2nd Edition.” The Macmillan Press Ltd. The International Institute for Strategic Studies. London 1989. Ch17. “The Soviet Approach to Deterrence.” P266. “In Soviet plans, nuclear and conventional forces and civilian and military targets appeared intermingled.”

89 That is not to state that managing a crisis, the way the Cuban missile crisis was handled, is by any means a blue print for the future. A guide, perhaps, a blueprint, no.

90 Christensen, Thomas J. P 452-3.

91 Tsang, Steve. Review of “Great Leap Backward.” Toombstone: The Untold story of Mao’s Great Famine. London Literary Review of Books. November 2012. P31.

92 Hurd. P366. Here the retired United Kingdom Foreign Secretary indicates all too clearly, how the Bretton Woods Trade Agreements that powered the post war economic developments, the NATO Treaty, that built security for the West, and the U. N. and Financial Institutions that framed international affairs, peace and justice, are all no longer fit for purpose in the 21st century world.

93 Grey, Colin S. “Strategy and History, Essays in Theory and Practice.” Routledge, London 2006. “Holding the Strategy Bridge.” Page 4. “On the evidence of performance, strategy tends to be a bridge too far for many policy makers and military professionals.”

94 Gray, Colin S. “Strategy and History – Essays in Theory and Practice.” Routledge, Taylor and Francis Group, Oxford 2006. Pages 51-55 – For how theory can help the practitioner.

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Image: Eye in the Sky

The Royal Malaysian Navy in the Midst of Modernisation

SERGEI DESILVA-RANASINGHE

The Royal Malaysian Navy is one of Southeast Asia's most significant naval forces comprising a fleet of submarines, frigates, corvettes and a number of medium to smaller-sized vessels of varying capabilities. The Navy operates in a complex security environment and is a key security provider to the region. It is in the midst of modernizing some of its aging capital assets to adapt to a new era of challenges.

MARITIME SECURITY CHALLENGES

As a seafaring nation located astride the congested Malacca Strait and the volatile South China Sea, the Royal Malaysian Navy (RMN), beholden by the motto 'Ready to Sacrifice', has a formidable responsibility to secure a vast region that includes the waters off peninsular Malaysia, and its two western provinces of Sarawak and Sabah located on the island of Borneo. Malaysia has a maritime area that is twice the size of its land area with a 334,671km² Exclusive Economic Zone (EEZ) and a 4,675 km long coastline: 2,068 kilometres on peninsular Malaysia and a 2,607 km coastline with Sarawak and Sabah.

The fact that over 90% of Malaysia's trade is dependent on access to the sea was recently underscored by Deputy Defence Minister Datuk Wira Abu Seman Yusop, who said: "Malaysia is essentially a maritime nation. Given its geographical setting, it is inevitable that Malaysia's national interest and security concerns are closely related and associated with the sea." He added: "Within this span of water lies rich maritime resources and minerals that increasingly contribute to the country's economy. On the seabed lies underwater piping that transport our oil and gas ashore, as well as



cables that link major international communication networks."

Safeguarding Malaysia's territorial waters and EEZ therefore remains a significant responsibility for the Navy. As the 28th largest oil producer in the world, the nation's oil and gas industry contributes to 20% of Malaysia's GDP and consists of 163 oil fields and 216 gas fields, 186 offshore structures and over 7,400 km of associated pipeline infrastructure.

Another significant industry deemed of national importance is Malaysia's fisheries industry which comprises 2% of Malaysia's GDP and employs over 90,000 fishermen who operate over 36,100 vessels. The protection and management of the nation's fisheries from marauding Indonesian, Thai, Vietnamese and Taiwanese fishing trawlers, which regularly encroach into Malaysia's waters, also remains a major ongoing challenge for the Navy.

However, the impact of, and the threat posed by, piracy, terrorism and ongoing territorial disputes with neighbouring countries dominate

concerns among RMN officials. The incidence of piracy in Southeast Asian waters, particularly in the Malacca Strait, remains another major concern for Malaysia. According to the International Maritime Bureau, in 2012, pirates conducted 84 attacks with a further eight attempted attacks in Southeast Asian waters. In order to mitigate the threat of piracy the RMN has strengthened navy-to-navy cooperation with Indonesia and Singapore, which also have strong vested interests in ensuring that maritime commerce continues to thrive in the region.

Another major threat is infiltration by terrorist organisations that operate in Southeast Asia. Indeed, fear of a spillover from the Islamist insurgency in the Philippines into Sarawak and Sabah has been a longstanding concern for Malaysia, and has for many years led to a heavy naval deployment near Malaysia's maritime boundary with the Philippines. Memories of the six heavily armed Abu Sayyaf operatives who, in the year 2000, entered an island resort off Malaysia's Borneo coastline,

Sailors from the Royal Malaysian Navy and soldiers from the 9th Royal Malay Regiment aboard Utility Landing Craft LCU 1651 during CARAT (RAN photo)

kidnapping 20 hostages and taking them back to the Philippines, is a constant reminder of the threat.

Equally concerning are the lingering and unresolved territorial disputes between Malaysia and some of its neighbours. For instance, there has been an ongoing dispute with Indonesia over the Tanjung Datu and Camar Wulan border regions in Borneo, and the maritime boundary concerning the Ambalat Islands, which may have untapped subsea oil reserves. While tensions periodically arise when fishermen and coast guard personnel are detained, they have seldom escalated into a confrontation. However, in March 2005, a minor skirmish action took place in disputed waters between the RMN and the Indonesian Navy. But such incidents are rare and both countries have

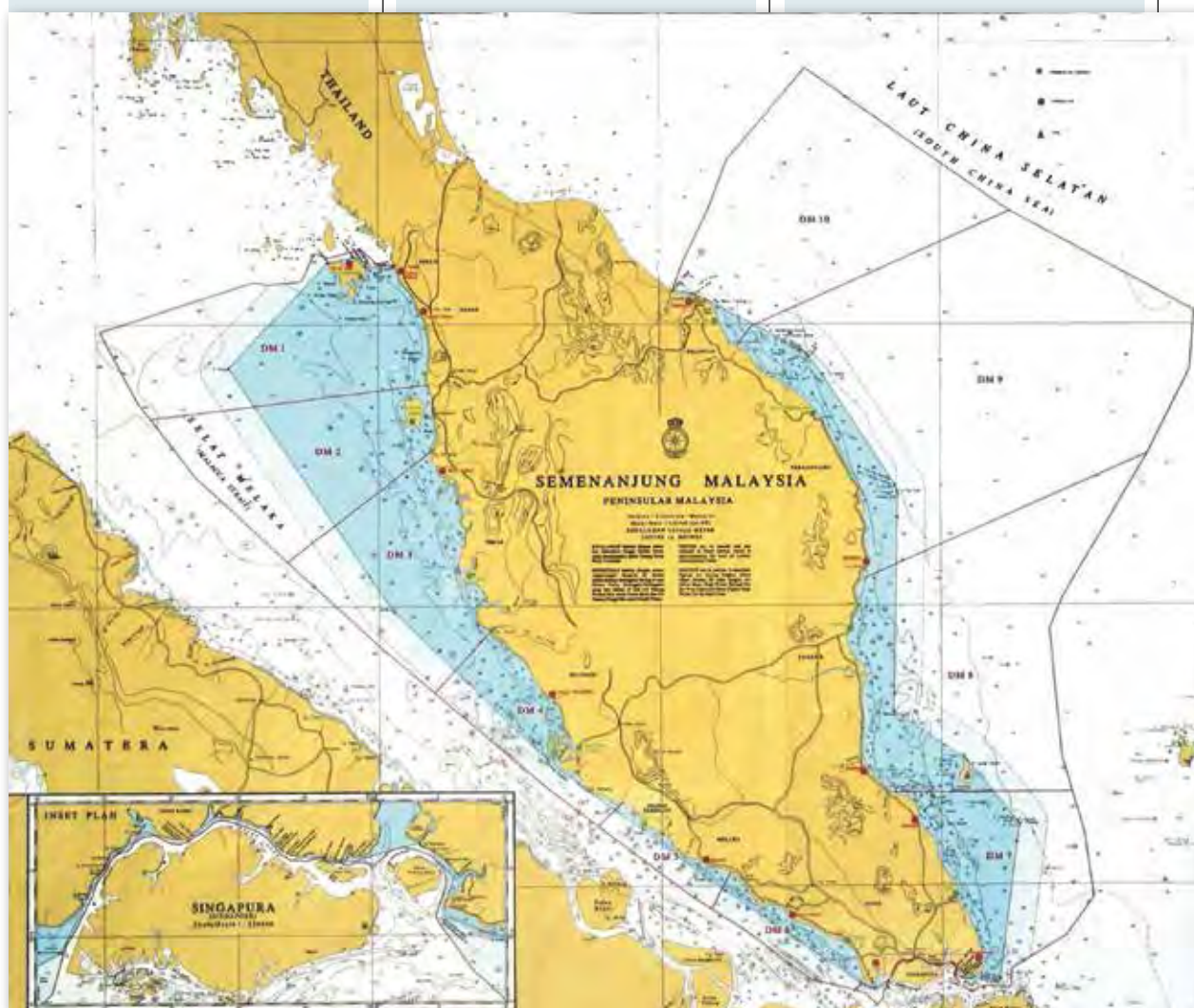
shown a level of commitment to addressing the issue, as seen in January 2012, with the signing of a MoU on Maritime Issue Management Guideline for Fishermen on the Indonesia-Malaysia Border.

While territorial disputes over Malaysia's claim on the southern Spratly Islands overlap in some areas with the Philippines, Vietnam and China, there haven't been any incidents that have led to a confrontation with the RMN. However, the South China Sea remains a volatile region marred by

intractable territorial disputes, made worse by claims that the region's seabed contains potentially large untapped oil and gas reserves. Moreover, the modernisation and expansion of the People's Liberation Army (Navy) and the development of Sanja on Hainan Island into a major naval base has



Malaysia KRI Sultan Nuku (photo by Michael Nitz)



West Malaysia Maritime Zone (courtesy MMEA)

The Royal Malaysian Navy in the Midst of Modernisation

increased regional tensions.

Malaysia has grown concerned about the potential for a territorial dispute in the South China Sea to escalate into confrontation, especially between China and Vietnam, Philippines, India and the US, the consequences of which could seriously destabilise the Asia Pacific region.

The ongoing dispute over the sovereignty of the Spratly Islands has already seen China use its military to either contest or occupy territory. For instance, in 1988, the People's Liberation Army (Navy) sank two Vietnamese Navy ships in a confrontation near Johnson South Reef; while in 1994, China militarily occupied and wrested control of Mischief Reef from the Philippines. There has also been a raft of other less significant, yet notable, incidents involving what appears to be aggressive conduct by China.

Malaysian authorities have responded to the growing tensions by stationing naval and military forces to secure its claim over parts of the Ardasier, Mariveles and Swallow Reefs. Similarly, in May 2009, both Malaysia and Vietnam made a joint submission to the UN Commission on the Limits of the Continental Shelf arguing their respective claims over the southern Spratly Islands: a gesture which angered China and prompted an official protest to the UN.

Although Malaysian officials remain circumspect in making public comments over tensions in the South China Sea, it is likely that the development of the Navy's first ever submarine arm, with the acquisition of two French-built Scorepene-class diesel-electric submarines in 2009 and 2010, was in part due to concerns over Malaysia's ability to defend its sovereignty in the South China Sea. Based at the Navy's Kota Kinabalu base in Sabah, the submarines can rapidly

deploy to the South China Sea and indeed throughout the Southeast Asian archipelago.

NAVAL COOPERATION

Much like its other ASEAN neighbours Malaysia has used a number of forums to promote regional dialogue and manage bilateral tensions. Indeed, Malaysia has even maintained a commitment to extra-regional maritime security, as seen since 2009, by the RMN's ongoing commitment to anti-piracy in the Gulf of Aden as part of Combined Task Force 150 (CTF-150). An insight into the RMN's contribution was provided by Malaysian news agency, *Bernama*, which in February 2010, claimed that a RMN warship on deployment escorted 33 convoys and 45 Malaysian commercial vessels during a six-month rotation in the Gulf of Aden.

Nonetheless, while extra-regional deployments such as the RMN's involvement in CTF-150 is important; both from a practical point of view in protecting Malaysia's commercial shipping, and from a geopolitical point of view in projecting its regional influence; the RMN tends to strongly focus on using naval diplomacy within its own region.

The utility of naval diplomacy is regularly used by the RMN which participates in port calls and bilateral/multilateral naval exercises with countries throughout the region and beyond. Some key examples of RMN engagement include:

- regular joint exercises with the Thai Navy code-named 'Seaex-Thamal' to counter piracy, smuggling and human trafficking, and to check possible Islamist insurgent activity near southern Thailand;
- an annual exercise with



the Philippines Navy dubbed 'Malphi-Laut', which is partly initiated due to concerns of spill over from the Islamist insurgency in the Philippines; and

- the provision of an annual joint exercise dubbed 'Hornbill' with the Brunei Navy.

The RMN also has a close cooperative relationship with the US Navy as seen in August 2012 with the focus on Cooperation Afloat Readiness and Training; with the Royal Australian Navy through its participation in

Vessels sail from Darwin harbour for Exercise Kakadu. RSS Valiant (91) Malaysian Vessel KD Jebat (29) HMAS Ballarat (155)

Amphibious assault vehicles transporting U.S. Marines and soldiers from the Malaysian Army 9th Royal Malay Regiment pass the amphibious dock landing ship USS Harpers Ferry (USN photo)



bilateral naval exercise Mastex; and with both the Indian Navy and the Pakistan Navies.

Yet, while navy-to-navy dialogue and training exercises is central to fostering improved bilateral and multilateral ties, the RMN is also attempting to maintain an edge over its neighbours through modernisation and acquisition programmes.

MODERNISATION

Commenting on the state of the Navy, in January 2010, the RMN's Region II Commander, Admiral Anuwi Hassan, provided an update on the state of the RMN. "Operating aging vessels is a challenge for the navy but RMN was able to put 70% of them into service," he said. "They are not too old to operate and have not exceeded their lifespan, but the cost of maintaining them is unsteady and we are able to repair and put them back to service. We hope to acquire new assets to back up the present fleet under the 10th Malaysia Plan 2011-2015."

This timeframe, however, is likely to be unrealistic given the electoral pressures in the lead up to the contested 2013 national election. The Malaysian government has dramatically cut the 2011-2012 defence procurement budget, and has allocated the funds to other areas. According to *Defence Review Asia*, the Navy absorbed major cuts in its 2012 procurement budget and received only MYR759 million (US\$243 million) of the MYR4.39 billion (US\$1.4 billion) it requested.

The reduction in the Navy's procurement budget has had an impact on many of its ongoing and planned modernisation projects. For example, although the Navy lost its only amphibious operations capable ship, the Newport-class LST *KD Sri Inderapura*, to an accidental fire: the replacement Mutli-Purpose Support



Ship (MPSS) project has not been allocated funding to date. Similarly, there was also no funding provision, as of yet, for the purchase of six anti-submarine warfare helicopters as part of the Navy's efforts to strengthen its air wing.

Conversely, the Malaysian government has allocated funding for the acquisition of the six new indigenously built Littoral Combat Ships in a deal worth MYR 9 billion (US\$2.8 billion). The Malaysian shipbuilding company Boustead Heavy Industries Corporation is expected to deliver the first ship by 2017, with the remaining five to be delivered thereafter at six month intervals. In addition, there are also credible indications that the major upgrade and service-life extension for the two aging *Lekiu*-class frigates will go ahead: enabling the two frigates to remain operational for another 20 years.

Nonetheless, despite the recent defence procurement cutbacks it should be noted that these reductions are likely to be only temporary, as the changing strategic environment and growing tensions in the South China Sea will drive increased interest in developing the capabilities of the RMN.

The recent inference by RMN chief, Admiral Jaafar, who said in April 2012, that the Navy was considering the

acquisition of more submarines, is an indication of the changing regional strategic environment and the need for the Navy to maintain a credible deterrent. This indeed echoes the sentiment of Malaysia's current Prime Minister, Najib Razak, who said in 2007, while the deputy PM: "It is crucial for Malaysia to have a small but credible and effective naval force to not only safeguard its sovereignty and maritime interests but also contribute to the region's maritime security and safety."



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Eurocopter Dauphin AS365 N3 of the MMEA (Courtesy Eurocopter Malaysia)

LIGHTNING

The U.S. Navy's Strike Fighter Squadron 101 received the US Navy's first F-35C Lightning II carrier variant aircraft from Lockheed Martin recently at the squadron's home at Eglin Air Force Base.

The F-35C is a fifth generation fighter, combining advanced stealth with fighter speed and agility, fully fused sensor information, network-enabled operations and advanced sustainment.

The F-35C will enhance the

flexibility, power projection, and strike capabilities of carrier air wings and joint task forces and will complement the capabilities of the F/A-18E/F Super Hornet, which currently serves as the Navy's premier strike fighter.

By 2025, the Navy's aircraft carrier-based air wings will consist of a mix of F-35C, F/A-18E/F Super Hornets, EA-18G Growlers electronic attack aircraft, E-2D Hawkeye battle management and control aircraft, Unmanned Carrier

Launched Airborne Surveillance and Strike (UCLASS) air vehicles, MH-60R/S helicopters and Carrier Onboard Delivery logistics aircraft.

Squadron 101, based at Eglin Air Force Base, will serve as the F-35C Fleet Replacement Squadron, training both aircrew and maintenance personnel to fly and repair the F-35C. ✈





Few Submarines of this era sailed so far without breaking down. The voyage to Australia took 83 days, 60 days being spent at sea, sailing from the UK on the 2nd March, arriving in Sydney on the 24th May.

This is a tribute not only to the crews but also to those skilled employees of the yard whose skills and expertise made this possible.

Those Submarines were constructed in what was then known as Vickers Ltd Shipyard. Today it is BAE Systems, but to many in the town it will always be known as Vickers or the Shipyard.

These E-Class boats were themselves a major technical advance in submarine construction, something that the yard has excelled in over the hundred years since these boats were built.

For the first time the hull was sub-divided by traverse watertight bulkheads. In addition to improving safety, this added to the hull strength, enabling greater diving depths to be achieved. This may have been a contributory factor for the success of the other Barrow built E-class boats in the Dardanelles.

What these crews achieved is something that the Royal Australian Navy is rightly proud of. The exploits of Lieutenant Commander Stoker and his crew are an integral part of the ANZAC tradition. It being celebrated on the day, the 25th April, that the AE2 broke through the Dardanelles into the Sea of Marmara, raising the morale of the Australian and New Zealand Army Corps.

They did not create the legend - that honour belongs to the troops on the beachheads. But they are honoured as the silent Anzac. The Anzac legend remains today, respected nearly a hundred years later throughout the Commonwealth if not the world. It is fitting that the first Submarine memorial in Barrow should be for the combined Australian and British trail-blazers for those submarine exploits that followed in the Gallipoli campaign.

Neither should we forget the role of many local (Northwest) regiments during this period, the fact that one beach at Gallipoli is known today as the Lancaster Landing is a measure of their achievements. They too remember the deeds of AE2.

Many Barrovians living here today would be fourth, fifth or sixth generation of shipyard worker. They are proud of their heritage, proud too of their ancestor's roles in creating that milestone of Australian history.



A cold day for the Memorial unveiling (Michael Valance - BAE Maritime (Submarine Solutions) Ltd)



Memorial unveiled (Michael Valance - BAE Maritime (Submarine Solutions) Ltd)



AE1:2 Article/Memorial detail (Michael Valance - BAE Maritime (Submarine Solutions) Ltd)

Thank you. We will remember them.

The Guest of Honour, Admiral the Lord Boyce, thanked the Mayor for his welcoming speech. He said:

Mr Mayor, Lord Abinger, Ladies and Gentlemen.

THE BARROW IN FURNESS AUSTRALIAN SUBMARINE MEMORIAL

In October this year, Australia is staging an International Fleet Review to commemorate the first entry of the RAN Fleet into Sydney in October 1913 and I am glad to say that I understand that the RN will be proudly taking part – glad because the RN and I have had a long association with the Aussie Navy – especially the Submarine Service. Indeed my first visit to Australia was in a Submarine – *HMS Anchorite*. And to say that we were well looked after by our Australian counterparts is a serious understatement.

And I still have a close friendship with some of the Submariners that I grew up with from the time I joined the RN and I know this is the case for lots of other colleagues, many of whom enjoyed exchange appointments in each other's services. We shared training and the same ethos, an ethos that started in 1910 and was firmly forged in 1913.

When, one hundred years ago, in May 1913, Submarine *AE1* was launched here in Barrow; and *AE2* in June; and the two Submarines were then commissioned into February 1914 with crews of RN Officers and a mix of RN and RAN Submarine personnel.

And, as I've said, the bond between the two Submarine Services was firmly forged then, and it is one that last until this day – as evidenced by having an RN Submariner standing here today.

After WWI and those first AE Submarines, the RAN Submarine service continued to receive boats built here in UK; and Submariners continued to cross-exchange as a series of different classes of boats were developed over the decades

up until the 1970s.

So, for example we had 6 'J' Class Submarines gifted after the War – again with mixed crews; but they did not see much service. And they were superseded by two 'O' Class Submarines named *Oxley* and *Otway*, ordered from Vickers at Barrow on 31st March 1925 and during WWII a considerable number of Australian Officers served in RN Submarines. They were variously Members of the Royal Navy, RAN and Reserve Forces from both Navies. Several Australian Officers served in X-Craft as well as in full size Submarines of all Classes. Although there were no Submarines in the RAN (except Submarine *K-IX*) several Australian Officers also completed the Commanding Officer Qualifying Course and commanded Royal Navy Submarines. And a number of Australian Ratings also served in Royal Navy Submarines during WWII: especially in late 1944 and in 1945 when RN Submarines were based in Fremantle, Western Australia for patrols in the Far East.

After the War, Royal Navy Submarines returned to Australia in late 1949 to be based in Sydney forming the 4th Submarine Flotilla and then in the 1960s, the RAN decided to re-establish an RAN Submarine Service with *Oberon* Class Submarines again with many of the personnel manning these Submarines being transferees from the Royal Navy but the bulk were RN personnel.

Submarine co-operation between the Royal Navy and the Royal Australian Navy Submarine Services continued with regular exchanges of personnel – including

routine exchanges of Submarine Commanding Officers – until the decision in the 1990s that the Royal Navy would discontinue the employment of Conventional Submarines and to concentrate solely on nuclear powered Submarines.

Since then contact has been maintained with the exchange of ideas on various aspects of submarining, and there is still a great affinity between the two submarine services.

So that is why it is appropriate that representatives from both our countries are here today to remember the brave Australian and British submarines who crewed *AE1* and *AE2* and who set the trend of our sharing for decades the dangers of warfare from under the sea. And binding us together we should remember the words of Winston Churchill who in WWII said – and his words can just as easily apply to WWI as they do today – 'of all the branches of the men in the forces there is none which shows more devotion, and faces grimmer perils, than the submariner. Great deeds are done in the air and on the land; nevertheless nothing surpasses your exploits.'

Ladies and Gentlemen: it is fitting that this memorial is here in the birthplace of *AE1* and *AE2* to commemorate the memory of those submarines and their crews a century on.

And I feel enormously privileged and honoured to have been asked to be involved with its unveiling.'

A 'Service of Dedication' then followed - led by Mr. Alan Jones, the Lay Chaplain of the Barrow in Furness Submariners Association:

The Memorial was revealed by a Chief Petty Officer and a Leading Seaman from *HMS Artful* – currently under construction in the BAE Shipyard - and two Sea Cadets from *TS Sovereign* - Barrow in Furness Sea Cadet Corps who lifted the Royal Navy and the Royal Australian Navy Ensigns which had been concealing the Memorial.

Mr Tom Tribe of *AE1* Inc. U.K. (a descendant family member) and a member of the Australian Memorial Committee then spoke about the *AE1* families:

Tom Tribe told of Lieutenant the Hon. Leopold Scarlett who joined the Royal Navy and became a Submariner in 'B' Class Submarines. He later developed tuberculosis and was invalided from the Navy. Leopold Scarlett then went to Australia where he hoped the dry climate would help him recover. In 1914, after the arrival of

the AE Submarines and, after war broke out, additional Officers were needed to crew the Submarines and Leopold Scarlett volunteered. Apparently cured of his tuberculosis he was accepted and he was appointed to Submarine *AE1* as the 3rd Hand. Two weeks later Submarine *AE1* was lost with all hands in mysterious circumstances off Papua New Guinea.

Tom then read a letter which had been received from the *AE1* Descendant Families' Association in Australia:

To the *AE1* and *AE2* UK Memorials Committee

Dear Tom, Terry and Barrie

On behalf of the Descendent Families Assoc. in Australia we would like to send a greeting and express appreciation on the occasion of the unveiling of the memorial to *AE1/AE2* Submarines and their crews.

When *AE1* was lost, it was the first naval casualty for the new Australian Navy, and the Navy has always been faithful in honouring the memory of her crew. However the loss of 35 men on an island far distant from battlefields of Europe was completely overshadowed by the catastrophic losses of Australian troops there over the following four years.

In many ways our family members mourned alone. To now have their sacrifice and grief acknowledged and their son and brother honoured by the community in the place where *AE1* was built is treasured by their descendants.

Our heartfelt thanks to all those

involved in this ceremony and the memorial honouring the men of *AE1* and *AE2*.

Yours sincerely
Vera Ryan (Convenor), Robyn Rosenstrauss (Secretary)

Finally Tom also spoke about the sad situation of Emma Elizabeth Thomas - the wife of Able Seaman James Thomas of *AE1*. She had embarked in England for passage to Australia with her young children and arrived in Australia not knowing that Submarine *AE1* had been lost. On arrival she was met by a lady who was to be her new neighbour and who had intercepted a telegram from the postman that morning. Realising what news the telegram contained she rushed to the jetty to meet Emma and break the news. Emma decided to stay in Australia and became good friends with her new neighbour. One of Emma's daughters was living in a care home in Australia when the Memorial in Sydney was unveiled in 2011 and attended that ceremony.

Lord James Abinger – related to Lieutenant the Hon. Leopold Scarlett then said:

'It is a great honour for me to be here today, with my wife and children, to mark this very historic occasion. For me personally, it provides the opportunity to talk about the many tragic events that took place nearly 100 years ago.'

The next speaker was Commander Gustaaf Henri Nord-Thomson from the Australian High Commission in London – representing the Royal Australian Navy. He said:

Admiral Lord Boyce, Lord Abinger, your Worship the Mayor of Barrow - Councillor Colin Thomson, relatives here today of those who served in *AE1* and 2, Members

of the Barrow in Furness Branch of the Submariners Association, Ladies and Gentlemen – it is indeed a great honour to be here today to represent Australia and the Australian people at the unveiling of this memorial. As a fellow submariner, I can say that submariners worldwide are a special breed, rarely understood by mere mortals and never by skimmers – those who deem to spend their lives on the surface.

Submariners of all nations understand this and share a mutual respect, knowing the hardship and danger that each has faced to achieve membership of that elite club to which submariners belong. And today is such an occasion to recognise the close submarine bond that exists between our two nations – one that is near on now 100 years strong and also it is an opportunity to salute you for honouring the family members of those who served in *AE1* and *AE2*, present today from both countries.

Following on from previous speakers, today I will take the opportunity to talk about Australian submarines that proceeded *AE1* and *AE2*, and the closer relationship that has continued between our countries since. I will also look to our future relationship in respect of Australia's future submarine programme.

After the loss of *AE1/AE2* the remaining Australian submariners served in a number of British submarines. Several lost their lives, including Rear Admiral Creswell's son when XO of *E47* on 20th August 1917- although born in Australia he was actually Royal Navy. One Australian born submariner – Reuben Mitchell – won a DSM in the Dardanelles in *E14*, the CO of *E14*, Lieutenant Commander White, won a posthumous VC in the same action.

During the Zeebrugge raid in 1918 the CO of C3 was awarded the VC. His XO, Lieutenant Howell-Price was Australian born but Royal Naval Reserve and later transferred to the RAN. We also lost PO Kempster, DSM, RAN in *G8* on 3rd Jan 1918 and one of the first RAN College entrants, Midshipman E S Cunningham in *K17* on 31st Jan 1918. A relationship that began with *AE1* and *AE2* was continued throughout the War, forged in action and sacrifice.

After the War the UK gave Australia surplus J Class submarines in thanks for our wartime efforts. Commander Boyle (who won a VC in the Dardanelles)

THE BARROW IN FURNESS AUSTRALIAN SUBMARINE MEMORIAL

came out from UK to take charge of them. We also still had RAN personnel in British Submarines in the inter war years like Lieutenant R C Casey, RAN who was lost in the submarine *MI* in 1925.

In the late 1920s Australia bought two 'O' Class submarines. Again all our training was done with the British. When we could no longer afford them we gave them back to the UK and they served in WWII.

During WWII several Australians served in British Submarines, again some were lost. One of our most famous submariners was Max Shean who participated in the X-Craft raids in European waters and South East Asia.

Post-war Anti-Submarine Warfare training in Australia relied on the presence of British Submarine Squadrons in Sydney until we got our own Oberon Class boats in the late 1960s.

Oberon Class Submarines

Post-war *Oberons* were built in UK and we relied on British officers to get everything up and running. I think we had an exchange CO programme for most of their life. Indeed I served in *HMS Onslow* which was built in UK and I must say it was a fine submarine! It wasn't until four initial *Oberon* Class Submarines were commissioned that we began to build a strong submarine fleet. While the *Oberons* were not involved in any conflict while in service, their presence was invaluable to the Navy. Four boats were commissioned initially: *Oxley* (March 1967), *Otway* (March 1968), *Ovens* (April 1969) and

Onslow (December 1969) *HMAS Oxley's* arrival in Sydney coincided with the commissioning of the Submarine Base, *HMAS Platypus*, at Neutral Bay, Sydney. In 1977 and 1978 two more submarines were commissioned – *HMAS Orion* and *Otama*.

Collins Class Submarines

To the present day the *Collins* Class submarines are a key element of Australia's Defence Force, both as an intelligence-gathering platform and as a forceful opponent during times of war. The names of the *Collins* Class Submarines commemorate the memory of six members of the RAN who served their country with distinction – being *HMAS Collins*, *Farncomb*, *Waller*, *Dechaineux*, *Sheean* and *Rankin*. They achieve an optimum match between innovation and proven technical prowess.

Future Submarines

Finally moving on to Australia's future submarine programme – the 2013 Defence White Paper highlights the strategic value and importance of Australia's submarine capability and confirms the Government's commitment to replacing the existing *Collins* Class fleet with an expanded fleet of 12 conventional submarines, to be built in South Australia. The Future Submarine Project will be the largest and most complex Defence project ever undertaken by Australia. It is a national challenge of unprecedented scale and complexity, and will span decades.

The Government has now taken the important decision to focus resources on progressing an

'evolved *Collins*' and new design options that are likely to best meet Australia's future strategic and capability requirements.

The Government has also directed that new land-based submarine design facilities be established directed to research, integrate, assemble and test the propulsion and energy systems of the Future Submarine.

The implementation of the project will require a sustained and co-ordinated national effort harnessing the knowledge, skills, expertise and lessons-learned over the last fifty years of Australian Submarine ownership. The success of the project will depend critically on close collaboration with Commonwealth and State Agencies, and strategic partners which already includes the UK.

I conclude with acknowledgements and particular thanks to Admiral Lord Boyce, Lord Abinger and Councillor Thompson. I thank all the Submarine Associations that have worked together to make this Memorial a reality – Barrow in Furness has and always will have a very special link with Australia and its Submariners. Finally, I thank you all for attending this event to honour our first submarine – *AE1* and *AE2* and their Officers and Crew.

Centenary of Submarines 2014

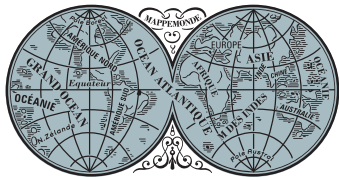
In order to mark a century since the 1914 arrival in Australia of HMA Submarines *AE1* and *AE2*, the Submarines Institute of Australia has established a Submarine Centenary Project.

Australia's Submarine Centenary will commemorate submarine plus important places and people in Australia's submarine history. Celebrations will culminate in late 2014 with activities, conferences and commemorative services in Fremantle, Western Australia – raising the submarine profile continuously through to 2014, other submarine history items are being promoted and pursued at every opportunity. So if you can make it along, you will be most welcome. 🚢



Service anchored in experience and skill

- Fleet operations and management
- Fleet maintenance and management
- Vessel and port services
- Integrated logistics management
- Marine systems support
- Vessel build and modification
- Maritime project management
- Maritime training



World Naval Developments

BY DR NORMAN FRIEDMAN

Earlier this year it was reported that Qinetiq had become the latest US defense contractor to be hacked by the Chinese military. A security problem identified some months beforehand had not been repaired. Considerable information had been extracted from the company's computers.

The author of one account expected the United States to protest this unfriendly action, and he seems to have imagined that the end result of protests might be some sort of anti-hacking agreement. If instead of hacking one called the attack on Qinetiq an example of cyber-espionage, it would be clearer that there will never be an agreement against such penetration, just as there has never been (and can never be) an international convention which stops other forms of espionage. Cyber-espionage is on a par with other kinds of communication intercept, but it is more active, like conventional espionage. It is also much safer: no one sitting behind a computer monitor in Shanghai risks having the FBI break down the door.

Presumably the United States has made some attempt to penetrate Chinese computer security, but the Chinese have less worth stealing and they almost certainly do not rely nearly as much on computer networks. As long as the United States leads the world in defense system development, it will remain the single most attractive target for cyber-espionage, not only by the Chinese.

We can and do invest in computer security, but the most effective way to break that security is to corrupt individuals or to get at their personal computers – what is called social engineering. For example, executives who travel to China for business may imagine that no one would dare to touch their personal computers, but

some of them discover upon returning that someone has, and that their computers are now gateways into their companies' secure data. This type of penetration affects business deals (the Chinese make little distinction between economics and defense), trade secrets, and also defense.

The best defense against penetration via the Internet is to create physically separate computer systems 'air gapped' so that nothing that happens on the Internet can affect them. Such networks are expensive, and are apparently rare. They impose operating problems. The US Navy tried to create one in the form of the Navy/Marine Corps Intranet, but its manifold problems led to its nickname: 'No More Computing Infrastructure Here.' Even then social engineering can be effective. For example, the Iranians air-gapped the control systems for their centrifuges. Yet it was still possible to insert the Stuxnet virus, by the simple expedient of putting it on memory sticks left in Iranian control rooms. The computer operators had to find out what was on the sticks, so they inserted them into their computer – and inadvertently uploaded the virus. All that can be said is that anyone trying to loot an air-gapped system has to remove the results physically (unless he can connect the system to the Internet). Physical security can be effective. In an Internet system, it may be irrelevant.

The current trend towards cloud-based solutions seems to invite cyber-attack, because a single server company may collect data from many possible target companies. Each cloud provider claims that it provides state-of-the-art security, but no form of cyber-based security is proof against social engineering. The only defense raised in the past was to split sensitive data

among many different organizations. The current mantra of information sharing, which has real and important advantages, makes such splitting difficult at best.

Cyber espionage is potentially far more damaging than the older kind of spying because the take can be so much larger. It is currently estimated that the Chinese have extracted tens or hundreds of terabytes of data from the United States, to the extent, for example, that the stealth features of the F-22 may have been compromised so that it may no longer be capable of penetrating Chinese air defenses (as opposed to making it possible for the Chinese to develop stealthier aircraft). That probably applies to other stealthy aircraft, such as the B-2. As described publicly, the new concept of Air-Sea Battle relies on the ability of stealthy aircraft to penetrate Chinese air space at will. What happens to that strategy now? How serious is the compromise?

One terabyte is equivalent to millions of pages. Think of the way spy movies have changed. Once upon a time, the spy broke into some secret place with his Minox camera. He photographed a few pages – the camera did not hold more than 30 or so shots – and then got out. You almost never saw a spy reload his camera – woe to the spy faced by a hundred-page document. The spy also risked mis-exposing or mis-focusing and thus wasting his time altogether. In later movies you watched James Bond break into the enemy's lair, slip a disk into his computer, and download the contents of his hard drive – millions of bytes of data – thousands of pages – with no risk at all of ruining it by mishandling a camera. Bond was still limited by the size of the disk or disks he was using (and he risked compromise if the disks were found on him). The

Chinese have done far better, breaking in remotely and roaming apparently at will in large libraries of data. Are we more or less transparent to the Chinese and probably the Russians, but not to others?

At one time anyone using a classified library had to ask for specific documents, access to which was usually tied to a specific need to know. Much of that restriction vanished when classified libraries went online. Protection moved to passwords and firewalls, but all of them seem to be flawed. There is a constant battle between attacker and defender, and the Qinetiq example suggests that defenders sometimes do not receive sufficient priority. A cynic would suggest that company management puts its money where it earns the most, and that the penalties – if any – for failing to repair reported breaches are not steep enough to attract the needed attention. It may be that enumerating all known security breaches (in order to penalize those not repairing them) would reveal just how poor security is overall, and thus attract further penetration. It may simply be a matter of avoiding embarrassment.

The one bright spot in all of this may be that the computer also invites massive production of redundant and even useless material. Documents are rewritten again and again, because each rewrite does not cost much. In many systems, rewrites are in effect added to the original file. Since data storage is now so inexpensive, there is no incentive to neck down the results. Anyone penetrating a file is presented with lots of data -- much of which is not terribly useful. The bloat is also fed by stored video, which takes up many bytes, but which again offers little content per byte. It is not clear that data mining techniques help a cyber-attacker winnow the chaff to get at what he wants. Many modern search

engines worsen the situation because they can get into the content of items rather than merely the titles. This is not too bright a spot.

Perhaps we should accept that our secrets, at least those generated during the computer era, have limited lifetimes. At one time most classified US documents were marked with declassification deadlines (typically 12 years for Secret). The deadlines should have reminded anyone using those documents that unless something new

was developed, whatever was being described would lose much of its value after time elapsed. The Reagan Administration viewed automatic declassification as a foolish invitation to the enemy, and the idea was dropped. Perhaps it is time to revive it, not as a gift to anyone, but as a reminder to us.

We rely heavily on a research and development system designed to maintain superiority by producing revolutionary systems. Unfortunately we develop and buy systems rather sluggishly, for a whole series of reasons. A revolutionary system whose secrets leak out before it can be fielded is unlikely to remain truly revolutionary, because someone else may copy it (or counter it) before it ever enters service. Perhaps a constant



reminder that secrets go stale would induce us to rethink our development cycle. Perhaps in our quest for truly remarkable results, we have forgotten the time factor. At the very least, we may want to rethink the balance between money spent on development and money spent to safeguard truly vital developments from cyber-spies. Not everything can be protected; we should be thinking about what matters most.

We may want to change systems (or system parameters) periodically so that knowledge of their details, gained by cyber-or other espionage, goes stale. Knowledge of the detailed waveform of some secret radio, for example, does an enemy no good if, after X years, that waveform is changed. This type of planned change (not improvement)

World Naval Developments

becomes easier and less expensive as we move to devices which use software to generate their waveforms (as is currently the case). Of course, because the change is produced by new software, news of the change is also vulnerable to cyber-espionage. All we can do is recognize the new conditions of cyber-warfare, and adapt to them. If the Chinese are aware of some flaw we have identified in the F-22, can we modify the airplane so that a weapon exploiting that flaw becomes useless? Ought we to develop weapons with an eye to making them more changeable?

All of this is apart from the risk to the U.S. infrastructure and economy from cyber-attack rather than cyber-espionage – say, from crashing the stock market. We are certainly vulnerable. Readers will remember a plunge in the stock market when hackers inserted a false claim in the AP

twitter that the White House had been attacked and the President injured. Later the 'Syrian Electronic Army' claimed responsibility, though it could also have been a group of investors planning to short stocks.

The real defense against such attack is deterrence. We may be inclined to treat a cyber-attack just as we treat a physical attack, and deliver either in retaliation. The key to such defense is an ability to identify the attacker so that he can be held responsible. It seems important to distinguish this kind of action and potential reaction from cyber-espionage. There will never be retaliation against cyber-espionage simply because we will already be engaging in it, just as much as our enemies. The only issue is whether we can do as effective a job as they seem to. ✎



*Norman Friedman's latest book is **The Naval Institute Guide to World Naval Weapon Systems***

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A NAVY ANZAC DAY OR REMEMBRANCE DAY SPEECH

LCDR DESMOND WOODS LOOKS BACK...

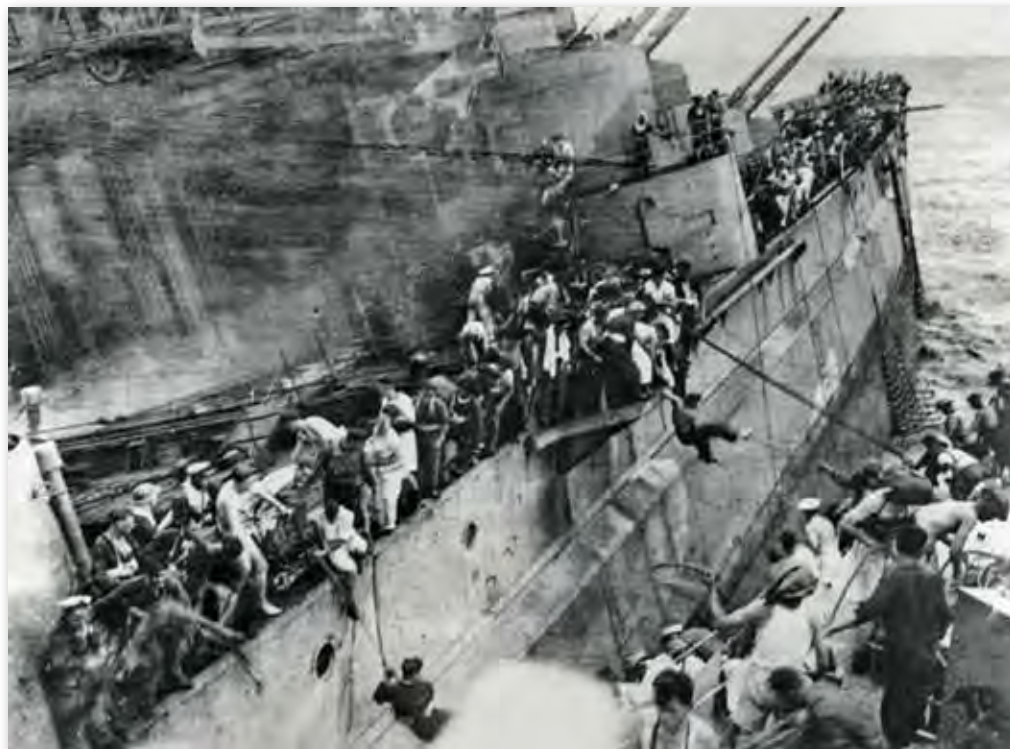
In 2011 the Royal Australian Navy celebrated the centenary of its change of name from *Commonwealth Naval Forces* to *Royal Australian Navy*. That happened in 1911 by Royal decree.

In 2013 the RAN will celebrate the centenary of the arrival in Sydney of its first fleet of new ships including the battlecruiser *HMAS Australia*. In those hundred years the RAN has been an essential component in the defence of Australia in peace and war. The nation and the Navy paid a heavy price for keeping the seas free for those who pass upon it on their lawful occasions. Today we reflect on those sailors, who while fighting for freedom, were lost with their ships, or who have no grave but the oceans and seas where they fought.

Seventy years ago the perceived threat to Australia became very real when the Japanese Empire suddenly attacked the British colonies in Malaya and Singapore. To try to prevent this attack the British Government had sent to their naval base in Singapore two capital ships. One was the old battlecruiser *Repulse* and the other was the new battleship *Prince of Wales*. These were both magnificent warships armed with heavy guns for fighting other battleships.

Prince of Wales had been fitted with batteries of anti-aircraft guns but *Repulse* had not been and they were both still underprotected against the new, fast torpedo bombers the Japanese had sent to South East Asia. With these capital ships was the much smaller and elderly Australian destroyer *Vampire*. Her task, along with other British destroyers, was to scout ahead of the big ships and to provide (mainly anti-submarine, Ed.) protection for them.

Within a week of this fleet arriving in Singapore the Japanese attacked the American fleet in Hawaii and started to invade across the beaches of northern Malaya. War had come to our



neighbourhood.

British Admiral Tom Phillips, commanding the Task Force in *Prince of Wales*, saw it as his duty to try to prevent this invasion and took his fleet to sea looking for the Japanese landing ships. His ships were detected from the air and targeted by waves of Japanese aircraft, based in Vietnam, attacking with bombs and torpedoes. *Vampire* also came under attack.

Admiral Phillips found himself in an impossible position, on the cusp of naval history, watching lethally effective torpedoes dropped by skilful pilots destroy his capital ships. Captain Bill Tennant handled his ship, *Repulse*, like a destroyer. His huge battlecruiser was doing 25 knots and heeling hard over to port and starboard as he avoided 19 torpedo attacks. Then the next wave of Japanese aircraft came in simultaneously from all points of the compass and

torpedoed *Repulse* five times below the waterline. No ship was designed to take such punishment and she rolled over and sank in just 11 minutes trapping many of her crew below decks.

After *Prince of Wales* was also crippled by torpedo explosions and was dead in the water, Admiral Phillips and Captain John Leach both waited on the bridge wing, watching men enter the water from their listing ship and waving to them, wishing them good luck. They may have believed that could not honourably try to save themselves while men were still trapped alive onboard. They left their own departure too late. Their bodies, recovered from the sea,

Ship's company escaping Prince of Wales (Public Domain)

Prince of Wales after commissioning (Royal Navy)



A NAVY ANZAC DAY OR REMEMBRANCE DAY SPEECH

showed how they were fatally injured as the ship sucked them under. They died with 513 men from *Repulse* and 327 from *Prince of Wales* who were trapped at their action stations in terrifying darkness below hatches jammed shut as their ships buckled and flooded.

Among them was *Prince of Wales* New Zealand Chaplain, Reverend Wilfred Parker. He was tending a group of wounded, burnt and dying sailors who could not be moved. He was told that if he did not leave them and come onto the upper deck the hatch above him would have to be closed and he would sink with them. He calmly replied that he understood that, but could not leave his men to face their fate without him. He refused to save himself. He saw his duty as staying with his men to the end. He could have scrambled to safety and lived. Instead he met his death with them as he led his sailors in prayer. *Greater love hath no man than this, that he lay down his life for his friends.*

An Australian Midshipman, Robert Davies, recently graduated from the RAN College, was serving in *Repulse* as a gunner. He was seen by many witnesses as he fought to the end. He was at his action station, strapped into his Oerlikon anti-aircraft gun firing at attacking Japanese aircraft and cursing in fluent Australian anyone who got in the way of his gun sights. He went down with his ship as his gun mounting was submerged. He too could have chosen to save himself but decided to almost literally stick to his guns. He was definitely an "Aussie Battler." His name and his raw young courage should be nationally known and be remembered. He was just 18 when he was killed. Davies is among 13 candidates whose names have gone forward for consideration for posthumous honours along with other Australian heroes. A recommendation to the Government will be made as to

whether Davies should receive the Victoria Cross for Australia – the highest award possible for bravery in the face of the enemy.¹

As men were leaving *Prince of Wales* the escorting destroyers acted without orders and came alongside the listing ship in time to rescue over 1000 men before the great battleship sank. The little destroyers were dangerously top heavy with so many men crowded on their upper decks.

The Australian destroyer *Vampire*, was under command of her Captain, Commander William Moran, of Fremantle. He was a career officer who had joined the Navy at the RAN College in 1917. *Vampire* played a magnificent part in the rescue, and at great risk to herself, saved more than 200 of the 800 men not killed when *Repulse* went down. These were men drowning in the fuel covered water with only minutes to live. The two sunken ships had been carrying 2921 men of whom 2031 were saved by the destroyers.

At the end the bows of the *Prince of Wales* reared high into the air, the great torpedo holes below the waterline clearly visible to men watching from the destroyers and in the water. Then there was a terrible noise as machinery broke loose inside and the battleship slipped under the sea. She took five years to build and two hours to sink. One officer up to his chest in water in a float was seen to salute his ship as she plunged to the sea floor, to the amazement of a nearby stoker who thought: "*that sort of thing only happened in books!*"

In the British destroyer *Electra*, covered in fuel oil from the water,

¹ At the time of going to press the decision had been made not to award any of the 13 posthumous decorations. (Editor)



Prince of Wales and Repulse under attack

was Lieutenant Hays. He had been the *Repulse's* Midshipmen's divisional officer. He was told by a Medical Officer that one of his seriously wounded young Midshipmen, aged just 17, wanted to see him. Hays later wrote about this very young man:

Among his thirty gunroom colleagues this Midshipman had appeared the least developed. Immature for his age and often in trouble he had seemed and looked a near child. He had been hit at his action station by a machine gun bullet from the last strafing run by a Japanese aircraft. I asked to be alone with him and took his hand. He gave me a brave smile, which knifed into my heart and conscience for the previous admonishment I had to bestow on him. He held onto my hand with a firm little grip as though trying to express his last tangible feeling in the young life he must have known was slipping from him. I have never before, or since, seen death, or the awareness of death, in that moment of truth, so transform youth to man. Suddenly he was adult, brave and silently perceptive of the tragedy in which we were both enmeshed. He died that evening.

The valiant *Vampire* and her courageous commanding officer had only three months left to live. On 9 April 1942 *Vampire* was attacked while escorting the old British carrier

Hermes near Ceylon. Japanese carrier divebombers caught the vulnerable ships. First *Hermes* was sunk and *Vampire* tried to fight off the attackers with her anti-aircraft guns and survived two near-misses. But then a bomb scored a direct hit in the boiler room and the ship was brought to a dead stop. Now a sitting duck, she suffered four more hits in quick succession. Commander Moran was last seen as he ordered his men to abandon ship and take to rafts and floats. Then another hit broke the destroyer's back; the bow quickly sank, followed by the stern a few minutes after 11 a.m. Commander Moran and seven sailors perished. A British hospital ship, was fortunately able to pluck 590 survivors from both ships out of the sea and brought them to Colombo.

By then *Vampire* had disappeared into a deep trench so far down that she has never been dived on or seen again. Her wreck is an Australian war grave.

Seventy years after these tragic events our remembrance today is not about the rise and fall of Empires, British or Japanese. It about the pity of war and the particular and the personal losses of young men who might have lived to be our fathers and grandfathers and who were lost with their ships far from home and the land they loved.

ANZAC Day is about the men and women of the Commonwealth of Australia and the Dominion of New Zealand, both those well remembered and those lost to our national memory. They gave their tomorrow, in so many theatres of war, so that we might be born into our brighter and safer today. Those young lives were lost in Freedom's Battle and their legacy has been our life-long liberty. We owe them remembrance.

Lest we forget.

LCDR Desmond Woods RAN has served in the navies of New Zealand, Britain, and Australia.



HMS Repulse, possibly in Singapore (Lewis Collection)



Repulse survivors as photographed from a recovery ship (Lewis Collection)



HMAS Vampire (AWM)



HMAS Vampire

INDONESIA'S FAST ATTACK CRAFT ACQUISITION: Toward a "Balanced" Fleet?

BY RISTIAN ATRIANDI SUPRIYANTO

Synopsis

The Indonesian Navy recently received its second locally-made fast attack craft with a plan to procure 14 units until 2014. This is part and parcel of its plan to have a 'balanced' fleet capable of performing wide-ranging naval tasks.

Commentary

SOUTHEAST ASIAN navies have been developing their 'asymmetric capabilities'; judging by their recent procurements. These range from submarines and mine warfare vessels to fast attack craft (FAC) armed with advanced anti-ship cruise missiles (ASCM).

Indonesia, too, is investing in these assets. Having recently secured a deal for three Type-209 Chang Bogo submarines from South Korea, Jakarta now plans to acquire 14 new FAC by 2014. This plan, however, should not obscure Jakarta's intention to have a 'balanced' fleet to perform wide-ranging naval tasks.

Indigenous Fast Attack Craft

On 17 February 2012, the Indonesian Navy (TNI-AL) received its second locally-made KCR-40 FAC, *KRI Kujang*, after commissioning its first, *KRI Clurit*, in April 2011. Assistant for Planning for The Navy Chief of Staff, Rear Admiral Sumartono, said the boats would be deployed in the western part of Indonesia and North Sulawesi.

They further augment TNI-AL's fleet of FAC which currently numbers around 18 boats (four *Todak*-class, four *Kakap*-class, four *Singa*-class, four *Mandau*-class, and four *Selawaku* (ex-*Waspada*)-class). The FAC's asymmetric leverage will also increase when they are fitted with ASCM,

which Indonesia is also trying to develop.

In addition, the Navy has ordered four 130-tonne trimarans from a local shipyard, with four anti-ship missile launchers in each hull, to be delivered by 2014.

Indonesia is also developing its indigenous naval missile technology to reduce dependence on foreign suppliers, and increase the FAC lethality.

In March 2011, Indonesia and China signed a Memorandum of Understanding (MoU) which paved the way for closer defence cooperation, including joint missile production. Indonesia has acquired and tested a substantial number of Chinese C-802 missiles and installed them aboard *Todak*-class FAC and *Ahmad Yani*-class frigates. Regarded as more lethal than the C-802, Indonesia now aims for C-705 and has become its first overseas customer.

With a range of 75-170 km and smaller than the C-802, the C-705 is appropriately fitted for the smaller KCR-40 FAC. Based on the MoU, Indonesia would build a plant to manufacture the C-705, although this is not only related to the FAC project.

In addition, the country recently bought an undisclosed number of Russian SS-N-26 'Yakhont' supersonic anti-ship missiles for US\$1.2 million apiece to replace Harpoon missiles on its frigates. In April 2011, the *Yakhont* was successfully tested and destroyed a designated target over 250 kilometres away.

Jakarta also aims to manufacture 1,000 RHan 122 indigenous short-range ship borne missiles starting from 2014.



705 in launch mode (Public domain)

The FAC and anti-ship missiles will further bolster Indonesia's sea denial capabilities. Together with naval mines and submarines, the FAC will support the TNI-AL's Archipelagic Sea Defence Strategy (Strategi Pertahanan Laut Nusantara, SPLN), which seeks to deny the enemy fleet access to Indonesia's archipelagic waters.

Operationally, they are suitable for Indonesia's complex maritime geography, with many gulfs, bays, estuaries, coves, and islets scattered across the archipelagic landscape. This operating environment will also enable easier force dispersion and concealment when deployed against a larger adversary fleet. They will be effective to patrol maritime choke-points, such as the Malacca, Singapore, Sunda, and Lombok-Makassar Straits; and disputed waters in Sulawesi Sea.

Costing over Rp. 73 billion (approx. US\$8 million) each, the KCR-40 FAC provide a cost-effective means for the TNI-AL to, on one hand, increase its presence in the strategically vital, but criminally-prone, maritime areas, as well as maintain its naval warfighting orientation, on the other.

A 'Balanced' Fleet

Although the FAC might be sufficient to maintain sea denial in Indonesia's narrow seas and archipelagic waters, they are certainly not a leverage Jakarta can exploit to expand its maritime



*KRI Clurit
(Public domain)*

For these reasons, the FAC are unlikely to become the backbone of TNI-AL's force posture. Rather, this is only part of Jakarta's efforts to have a 'balanced' fleet capable of carrying



*Yakhont missile
(US Navy image)*

out various naval tasks, ranging from maritime anti-crime patrols to coastal defence. 🚢

Secondly, as a net oil importer since 2004, Indonesia's energy security hinges on an uninterrupted supply of oil from the Middle East. Growing seaborne trade with South and East Asia further

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interests. Large and versatile naval platforms, like frigates and destroyers, are still largely relevant for Indonesia for the following reasons.

Firstly, sandwiched between the Indian Ocean and Western Pacific, Indonesia's three designated archipelagic sea lanes (ASLs) are the linkages of South and East Asian maritime economies. Being a coastal state, Indonesia has a responsibility to ensure that its ASLs are safe, secure, and open for global shipping.

While welcoming the rise of regional powers, particularly India and China, Indonesia is also very concerned with their naval developments. Indonesian waters are where Indian and Chinese naval expansions meet. Misunderstanding and miscalculation between them in these waters will inevitably generate adverse consequences for Indonesia's maritime and national security.

raises the stake of having a secure regional maritime environment, including and especially, the South China Sea. Indonesia is now respectively the world's third and second-largest exporter of liquefied natural gas (LNG) and coal, bound mainly for China, India, Japan, South Korea and Singapore. This should make Indonesian defence and naval planners start thinking about having an externally-oriented TNI-AL.

Thirdly, with over five million migrant workers overseas, some of them currently residing in volatile regions like the Middle East; Indonesia must begin to seriously make naval non-combatant evacuation operations (NEOs) a priority for the TNI-AL. This also includes active promotion of good order at sea in places beyond its horizons, like participating in multinational counter-piracy operations in the Gulf of Aden.

Americans in Darwin

BY DR TOM LEWIS

The World War II American Alliance was founded in blood and sacrifice in Darwin.

Recently the Darwin Military Museum unveiled a new display – the American Alliance in the Top End. It outlines the partnership that began when the United States Army Air Forces (USAAF) flew the only defending aircraft on 19 February 1942: ten P-40 Kittyhawk fighters against the 188 incoming attackers of the Japanese Navy, launched from four aircraft carriers. In the harbour, and outside it, US ships fought against the enemy aircraft.

But in what other ways did that alliance manifest itself. The answer is in sacrifice of the ultimate nature – blood, and to an extent of over half of those killed on the day.

Of the attackers, the following American personnel died.

Eighty-eight men of the US Navy were killed on board, in the water nearby, or of injuries received, while “fighting their ship” *USS Peary*, a Clemson-class destroyer. *Peary* was hit by “Val” dive bombers and was sunk probably at 1010, within 12 minutes of the raid commencement.

Two US seamen died on board the freighters *SS Portmar* and *USAT Meigs*, under bombing and strafing attack.

Four pilots from the USAAF Kittyhawks of the American 49th Pursuit Group were killed in action. Five of these aircraft of the United States Army Air Forces were airborne and five were on the ground refuelling when the enemy arrived. Those on the airstrip valiantly tried to take off to little avail. Those pilots who survived either parachuted out of their aircraft or survived the crash of their machine, with one



A poor image of probably British Motorist on the left, and Peary down by the stern on right (Darwin Military Museum)

escaping the onslaught to land later.

Fourteen men died on board another Clemson-class destroyer, the *USS William B Preston*. Converted to a seaplane tender and carrying a full load of fuel, the *Preston* was less able to fight but was able to slip her anchor unlike the *Peary*. She was hit heavily in the stern but managed to escape through manoeuvring.

One US Navy member who was crewing a US Catalina flying boat died after the aircraft was shot down by Zeros of the incoming force before it reached the target town.

Four members of the US Army 148th Field Artillery Regiment died on board the freighter *Tulagi* while it was under attack on the harbour.

One US Army man, a part of the ship's defence team, died on board the freighter *Don Isidro* as part of the ship defence team when it came under attack outside the harbour.

This gives a total of 114 US servicemen Killed in Action.

However, further casualties

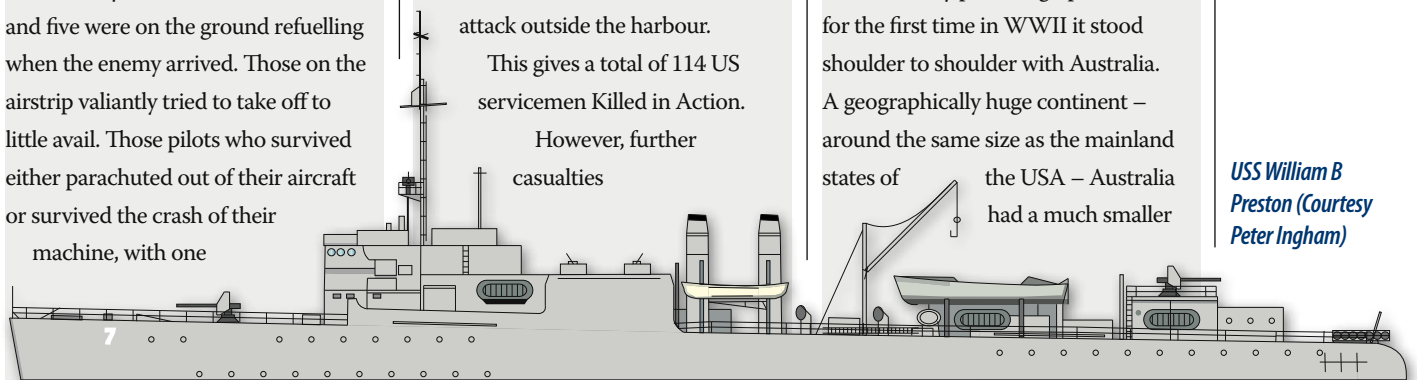
amongst those working for Uncle Sam were incurred on two freighters which had been contracted by the American government at the time: the *Florence D* and the *Don Isidro*. Those who died on board these ships, both attacked following the morning raids, on the afternoon of the 19th, were Filipinos.

Eleven American-contracted seaman died on board the *Don Isidro*, and three on board the *Florence D*.

This gives a total of 128 United States citizens and men contracted by the US who died in the 19th February attacks. The precise figure for the total fatalities of the day is hard to determine, but the Northern Territory Library Roll of Honour, which has done a sterling job of revising the total list of those killed on that day, now¹ stands at 235.

Over half of those who died were fighting for the USA. The American ally paid a high price when for the first time in WWII it stood shoulder to shoulder with Australia. A geographically huge continent – around the same size as the mainland states of the USA – Australia had a much smaller

USS William B Preston (Courtesy Peter Ingham)



population, and was unable to defend itself completely.

The fighting men of the States and their compatriots gave their all, but it was the beginning of a fruitful union which eventually saw Allied victory in the Pacific – and which continues today. ✪



Dr Tom Lewis OAM is the author of 11 military history books and a former naval officer, in which capacity he commanded a US team in Baghdad in the Iraq war of 2006. He is the Director of Darwin Military Museum and the editor of Headmark.

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(Endnotes)

1 This does not reach previous figures such as 243 and 251 because it leaves out some that are uncertain. For example, an aboriginal called "Cahoon" is included in some stories, but reliable evidence showing he was there, or existed, is scarce. In other lists people have also been counted twice, and some have been included who died from wounds and sickness not received on 19 February. The figure of 235 seems an accurate tally of the deaths.



Lieutenant John Glover's P-40 Kittyhawk, brought down during the battle (Courtesy Bob Alford)



Don Isidro, beached and burnt out (Lewis Collection)



Survivor Lieutenant Herb Kriloff of the Preston, in uniform as a Commander on Anzac Day in 2013. Herb lives today in Melbourne. (Courtesy Alix Bradfield)

German Navy - a capable submarine fleet

BY MICHAEL NITZ

The Naming Ceremony of the German Navy class 212A submarine (second batch), *FGS U36*, recently took place at the ThyssenKrupp Marine Systems shipyard in Kiel, Germany.

FGS U36 is the second submarine of the second batch of class 212A submarines for the German Navy. Four submarines of the first batch were commissioned for the force between 2005 and 2007. When the second batch is commissioned by spring 2014 the German Navy will have six class 212A submarines in its inventory.

The contract for building a second batch of two additional 212A submarines was signed between Howaldtswerke-Deutsche Werft (HDW) shipyard in September 2006 and the then German Armed Forces Defence Procurement Agency BWB, which is today BAABW.

Construction of *FGS U36* was conducted at the TKMS shipyard premises in Kiel and Emden. The Emden-based shipyard provided the rear section for *FGS U36*, while the Kiel based shipyard supplied the fore section. Both parts were joined in Kiel.

Both batch 2 submarines will be almost identical with their sisters of the first batch. *FGS U35* and *FGS U36* are also equipped with an Air Independent Propulsion System on Fuel Cell Basis (AIP).

In April 2013 the sister-boat *FGS U32* showed the capabilities of the AIP Fuel Cell Propulsion System, when conducting a permanent submerged transit of 18 days without snorkeling on a transit between Germany and the United States East Coast. This represents a new world record for non-nuclear submarines. *FGS U32* then operated off the US East Coast in a number of naval exercises.

To meet changes in operational scenarios and to take technological advances into account, the submarines of the second batch were fitted with an integrated Sonar and Command and Weapon Control System, as well as a Network Centric Warfare communication system.

A lateral sonar antenna has been installed and one periscope replaced with an optronic mast. A lock system for Special Operation Forces has been fitted.

A great benefit for the submarine will be the installation of a hoistable mast with a towable antenna bearing a buoy to enable communications from the depths. Both submarines of the second batch have a tropicalisation for world-wide operations.

After commissioning in 2014 *FGS U36* will be based in Eckernförde Naval Base with the First Submarine Squadron.

The Italian Navy also has decided to procure a second batch of class 212A submarines, constructed by the Italian shipyard Fincantieri under a licence agreement. The Italian Navy will operate four class 212A submarines in the future.

FGS U36 has a length of 57 meters, a hull diameter of seven meters, a height of 11.5 meters including the sail and a displacement of 1.500 tons. The crew consists of 28 persons.

Michael Nitz, correspondent, Kiel (Germany)

FGS U36





ESSAYS



Submarine Trends in Asia Pacific: Air-Independent Propulsion A Game Changer?

BY MICHAEL RASKA

The contending strategic realities of the Asia-Pacific region compel states to adopt innovations of their rivals. This is the case for new classes of conventional submarine designs, which incorporate an array of innovative technologies in order to maximise their survivability and lethality in diverse maritime operations.

While Europe and North America remain key submarine markets, China's ongoing military modernisation coupled with contending international relations in the Asia-Pacific will increasingly drive submarine procurement in the region over the next decade. In 2011, the total submarine market in Asia-Pacific was estimated at US\$4.4 billion, and for the next decade, submarine expenditures are projected to US\$46 billion.

With changing strategic realities, Asian navies aim to become increasingly flexible, and capable of varying mission profiles: from countering traditional coastal defence missions to protecting sea-lanes and communication lines. Simultaneously, submarines are increasingly valuable strategic resource for both electronic and signal intelligence. To enhance the varying operational capabilities, increase submerged endurance and stealth, installing viable air-independent propulsion systems is thus becoming a strategic necessity.

ADVANTAGES OF AIP SYSTEMS

Designed to enhance the performance of modern conventional (diesel-



electric) submarines AIP is a key emerging technology that essentially provides a "closed cycle" operation through a low-power electrical source supplementing the battery, which may extend the submarine's underwater endurance up to two weeks or more.

AIP systems close the endurance gap between nuclear and conventional

*AIP overview
(Kockums)*

*Agosta-90B
class submarine
PN HAMZA was
launched on 10 Aug
2006 (RAN photo)*





submarines, and mitigate increasing risks of detection caused by advanced anti-submarine warfare technologies – from modern electro-optical systems and surface radars to magnetic sensors, active and passive sonars, and airborne surveillance radars. Advanced AIP technologies thus promise significant operational advantages and tactical flexibility.

In theory, there are four primary AIP designs currently available: (1) closed-cycle diesel engines; (2) closed-cycle steam turbines; (3) Stirling-cycle heat engines with external combustion, and (4) hydrogen-oxygen fuel cells. Each provides a different solution with particular advantages as well as limitations in relation to performance, safety, and cost factors.

Since the early years of the Cold War, while major naval powers shifted to nuclear propulsion, smaller navies – particularly in Europe (Germany, Sweden, Spain, Italy and France)

continued to develop and rely on conventional diesel-electric submarine fleets, given their lower cost and operational relevance for coastal defence. Traditionally, however, these submarines were highly vulnerable to various types of sensors – acoustic, visual, thermal and air – particularly when running on engines.

AIP SYSTEMS IN ASIAN NAVIES

On the other hand, when running on batteries, these submarines became very quiet and difficult to detect, yet their battery capacity, discharge rate, and indiscretion rate (the ratio of diesel running time to total running time) substantially limited their underwater endurance. To overcome these baseline limitations, naval innovation in propulsion technologies over the past two decades has shifted toward AIP systems.

There is a variance, however, in the procurement of AIP systems in select Asian navies. For example, the only AIP steam-turbine system currently available is the French “MESMA” (Module d’Energie Sous-Marine Autonome) module, operational on Pakistan Navy’s two Agosta 90-B class submarines.

Swedish-Kockum designed Stirling AIP technology is installed on Singapore Navy’s two Archer-class submarines, and Japan’s new Soryu-class submarines. The Chinese PLA Navy’s Type 041 Yuan and Type 043 Qing class submarines are also reportedly using Stirling technology. Meanwhile, the Republic of Korea Navy has ordered nine Type 214 submarines with German HDW AIP fuel cell technologies. Three first batch models of the new Son Won-Il class have entered service since 2007, and six second batch models began entering service from 2012.

*Singapore submarine
RSS Archer (Lewis
Collection)*

Submarine Trends in Asia Pacific: Air-Independent Propulsion A Game Changer?



LIMITATIONS AND CONSTRAINTS

Notwithstanding the diverse AIP technologies, the overall effectiveness of each system will depend on how well it is integrated with other critical systems that ensure optimal submarine functions: power systems, sensors systems, safety systems, navigation systems, command, control, and communication systems, weapons systems, and climate control systems. In this context, any critical failure of an AIP during a combat mission or contested areas will mitigate survivability factors as well as tactical options.

Indeed, each AIP system design comes with an array of technological limitations, vulnerabilities, and risks, particularly in submerged operations – from the specific acoustic signatures produced by select AIP systems in specific operating regimes, to technical

vulnerabilities in storing oxidizer/fuel, as well as their maintenance regime. At the same time, new anti-submarine warfare sensor technologies may provide viable AIP countermeasures.

Ultimately, AIP-related technological innovation and breakthroughs may not guarantee operational success – strategy, operational concepts, tactical development, leadership, training, and morale will continue to play as important role as emerging technologies and their operational capabilities. 🚢

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Malaysian Scorpene-class submarine KD Tunku Abdul Rakman (Photo by Chris Sattler)

K-IX Australia's only WWII submarine

BY TOM LEWIS

Australia's only WWII submarine lies buried under the sand of a NSW beach. Its 64 metre length is sometimes uncovered, to show any visitor the vessel has been extensively salvaged. In a few weeks the surf and storms cover the wreck once more. It is a strange resting place.

This mystery submarine is *K-IX*, abandoned in 1945. She was officially His Majesty's Australian Ship for a while, but never saw Australian operational service. But *K-IX* can at least lay claim to being Australia's only WWII submarine, for due to some strange thinking before the war, the RAN never possessed a submarine arm during the world's biggest conflict.

K-IX was a refugee from the fighting in the Asian islands to Australia's north. The colonial powers, including Britain, France, Portugal, and Holland, all owned land there before the Japanese onslaught.

Then designated *K-IX*, this big fleet sub was based in the Netherlands East Indies from 1924. By the outbreak of the war in late 1941, *K-IX* was out of commission but she was returned to active service in March 1942. Following the fall of the Netherlands East Indies the boat escaped to Australia, arriving in Fremantle on 13 March 1942, along with two other boats, *K-8* and *K-12*, and a minesweeper, the *Abraham Crijnsen*.

In May of that year the Dutch

government offered *K-IX* to the Royal Australian Navy for use in anti-submarine warfare training. The boat journeyed to Sydney where she was to undergo repairs. On the night of 31 May the submarine was alongside the wharf of the Navy's Garden Island base, near the converted ferry *HMAS Kuttabul*, when the Japanese attacked the harbour with three midget submarines. A torpedo fired at *USS Chicago* missed the American cruiser, and struck *Kuttabul*, killing 19 Australian and two British naval ratings asleep on board.

K-IX was damaged by the explosion. The shock waves rolled the submarine onto her beam-ends, lifted her diesel

engines off of their beds and damaged the aft batteries. The forward part of the superstructure was crushed when the *Kuttabul* sank and hit the submarine.

The officer of the watch was wounded when he was blown off the submarine in the explosion.

The *K-IX* was towed to the dock on Garden Island. Following repairs the boat was commissioned a year later, on 22 June 1943. But the vessel, now known as *HMAS K-IX*, was in poor overall condition and spent most of her time in repair.

K-IX was badly damaged by a battery explosion on 22 January 1944. Historian Geoff Vickridge RANR wrote:

At 0832 a major battery explosion occurred in the after section of

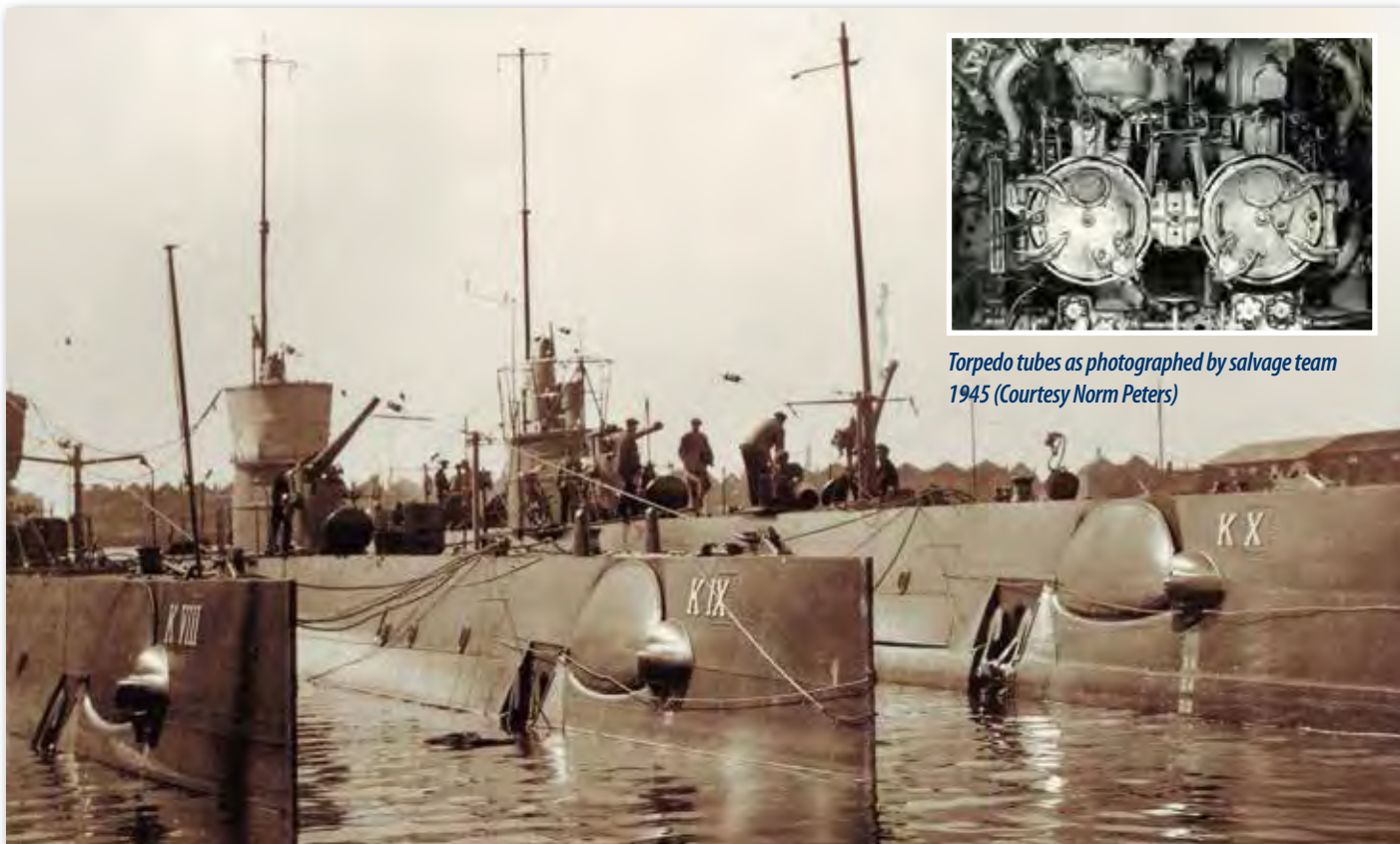
The position of the K-IX wreck site (1945) and the steamer Fiona (1882) are marked. Nearest landmark is Seal Rocks, NSW, Australia.

Top: K-IX under Dutch colours (Courtesy Dutch Submarines.com)

K-IX (right) and K-VIII in Manila, 1926. In the background K-II (left) and K-VII (Photo © E.G. Tall EM2(SS), Collection D.E. Tall ET1(SS))



K-IX Australia's only WWII submarine



Torpedo tubes as photographed by salvage team 1945 (Courtesy Norm Peters)

the main battery of HMAS K-IX.... The explosion was attributed to a defective starboard motor interacting with the poorly ventilated main battery. Although the dockyard had installed the battery, nobody carried out any tests on it to see if it was safe for installation. Because of the explosion, 35 battery cells were damaged beyond repair, the tops of 29 other cells were cracked as well as battery tank plates being buckled, and fittings damaged.

Due to a lack of spare parts the submarine was decommissioned on 31 March 1944.

Following her decommissioning K-IX re-entered Dutch service as an oil lighter. While being towed out of Sydney by the Dutch minesweeper *Abraham Crijnsen* on 8 June 1945, heading for Darwin, the tow broke. The loss of the tow was not noticed by the *Abraham Crijnsen* crew until sunrise at June 8. A plane was called in to

search for the submarine.

The submarine was found on Fiona Beach, Seal Rocks, on the central coast of New South Wales. *Abraham Crijnsen* tried to tow the hulk off the beach but because of adverse stormy weather this was unsuccessful.

Because of the high cost involved the Dutch Navy did not attempt again to get the hulk afloat.

In July 1945 the Commonwealth Disposals Commission sold the wreck (still on the beach) of K-IX for scrap iron to Messrs Humphrey & Batt of Sydney for the sum of 985 pounds. Locals had already started pumping the diesel engine out manually. The new owners recovered the rest of the fuel but not the hull as it was buried too deeply to move.

Shortly after the auction the buyers arrived in the area to strip the vessel of all valuable metals. Special vehicle tracks were laid down through the bush and over sand dunes to reach the stranded submarine.

Locals had stripped some of the internal hull of copper pipe, but the new buyers managed to take a lot of metal and fittings from the wreck. H.Batt later wrote colourfully of his buy.

Re enquiry from *Navy News*, 22 July, about what became of

K-IX and sister boats in early service (Courtesy Dutch Submarines.com)

Below left: View of conning tower during exercises (Courtesy Commodore Bryan Cleary)

Below: K-IX Sub/ Wreck from the sea c. 1962 (Courtesy Gordon Lindsey)





K-IX in the Netherlands Courtesy Dutch Submarines.com)

Submarine *K-IX*, I am the bloke who can tell him. That tin opener you cook with during mum's absence could well be part of her foc'sle ladder; likewise part of her deck plating became the paddles on a stern wheeler that transported timber from Bungwahl to Port Stevens. Some of her stop valves are still irrigating citrus orchards in Gosford. Two-tons of her lead ballast were boiled down in one of the first Australian's drinking tanks at Kirkness' sawmill in Gosford and cast into a keel for the ketch *John B. Setree* which is now trading in the Pacific Islands. My garage is full of *K-IX* including the teak hatches from the battery compartment...

Over the years the vessel has been covered by sand but occasionally

uncovered as storms and other weather moves the dunes. The full length of the deck was visible in 1969, and partially in 1984. The beach is known locally as "Submarine Beach"

In July 1999 the buried wreck of *K-IX* was located by a team from the NSW Heritage Office. Team member Tim Smith recalls: "We covered different areas using a Ferex Magnetometer, and checked a position marked on a coastal chart of the area which was derived from earlier aerial photography. We detected the wreck site beneath the sand of the beach. It is buried in three meters of sand and lies approximately at 35 degrees to the shore, with the bow pointing south and inland. The site is too deeply buried to inspect further. We will have to wait until heavy seas next expose it."

The following year the wreck was slightly uncovered in May, and in 2001 a commemorative plaque was unveiled at the site. That year king tides gave a

great deal of exposure to the wreck.

K-IX seems destined to be regularly buried and exposed. It's a very unusual ending for Australia's only WWII submarine. ✎



Submarine for sale (Courtesy Norm Peters)



Sources:

"Special Historic submarine K IX found." <http://www.dutchsubmarines.com/>

Report by maritime archaeologist Tim Smith. July 1999.

The Daily Telegraph. "Historic submarine found." Angela Kamper. 4 Aug 1999.

Aerial shot of K-IX taken off Broken Bay, Sydney, during sea trials (Bryan Cleary, Commodore RAN rtd and former Acting Sub-Lieutenant of K-IX)

K-IX Australia's only WWII submarine

Boat	<i>K-IX</i>
Type	Patrol submarine for the Dutch colonies
Class name	Named after first of class. "K" stands for "Kolonien" (colonies)
Ordered	27 June 1917
Laid down	1 Mar 1919
Launched	23 Dec 1922
Commissioned	21 June 1923
Design	Electric Boat Company, U.S.A.
Shipyard	Koninklijke Maatschappij De Schelde, Vlissingen, the Netherlands
Displacement	520 t / 715 t standard, and 583 t / 810 t full load
Engines	Two 8-cyl. M.A.N. 2-stroke diesels
Batteries	132 cells
Propellers	2
Speed surf/subm	16 kts / 8 kts
Range surf/subm	3500 nm at 11 kts / 25 nm at 8 kts
Diving depth	50 m
Complement	31
Armament	10 torpedoes type III 45
Guns	1 x 8.8 cm (multi purpose), 1 x 12.7 mm mg
Torpedo tubes	2 x 17.7" bow, 2 x 17.7" stern. 2 x external-traversing planned. Because the construction was delayed the design could be adjusted according to the latest World War I experiences. Therefore external-traversing tubes, which meant an extra danger during depth charge attacks, were not installed
Armour	1 band amidships
Periscopes	Two periscopes with 4 m stroke
Listening gear	Possibly none



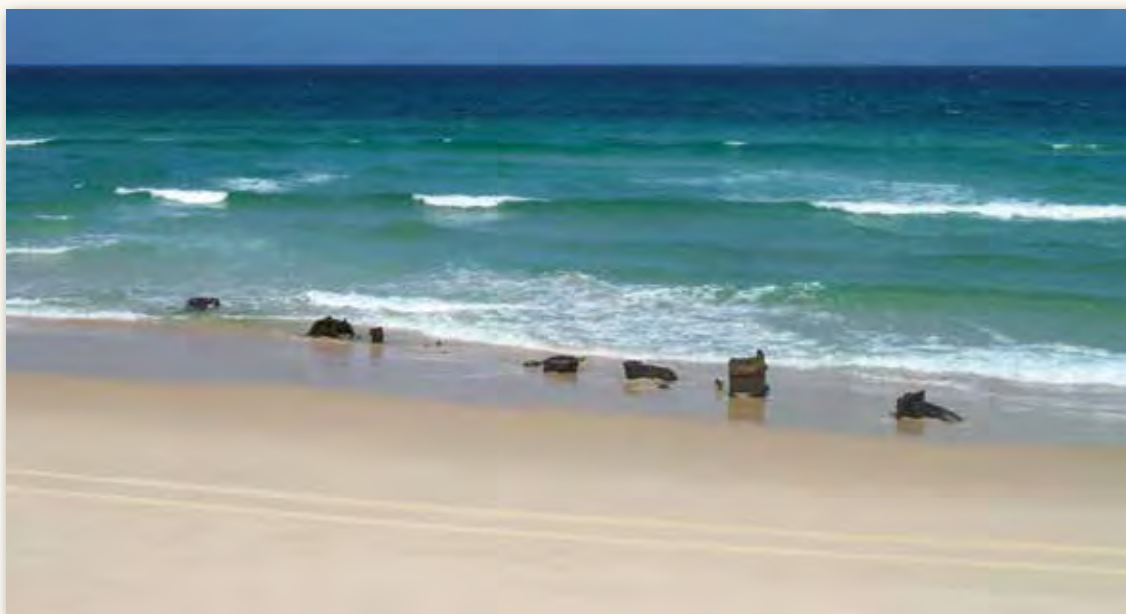
K-IX's aft torpedo loading hatch, note the aft torpedo room hatch in the back ground, Seal Rocks (Australia) 17 Sept 2001 (Photo © Tim Smith)



Tim Smith at the bow of the K-IX wreck, Seal Rocks (Australia) 17 Sept 2001 (Photo © Tim Smith)



K-IX unidentified section, Seal Rocks (Australia) 17 Sept. 2001 (Photo- © Tim Smith)



The wreck of K-IX seen from the dunes, Seal Rocks (Australia) 17 Sept 2001 (Photo © Tim Smith)



K-IX's anchor, Seal Rocks (Australia) 17 Sept 2001 (Photo © Tim Smith)



K-IX's engine room hatch rim, actually the hatch itself is missing, Seal Rocks (Australia) 17 Sept 2001 (Photo © Tim Smith)

**GERMAN NAVY
CORVETTE FGS
MAGDEBURG,
RECENTLY
FITTED
AMIDSHIPS
WITH ITS
MAIN WEAPON
SYSTEM, THE
RBS15 Mk
3 MISSILE
SYSTEM.**

*PHOTOS BY MICHAEL NITZ
— NAVAL PRESS SERVICE*





Book Reviews



CHURCHILL AND SEAPOWER

By Christopher Bell

(Oxford University Press, 2013)

Reviewed by LEUT PS Waring, RAN

Christopher Bell's *Churchill and Sea Power* adds yet another book to a very long list of biographies and other studies of Britain's wartime Prime Minister. It could certainly be argued that there is little left to write or say about the life and career of this iconic, yet at times controversial figure. This mass of material has not diminished with the passing of time but has continued to flourish as access to archives has broadened and the whims of historical fashion have armed historians with fresh perspectives.

Bell's work, as the title suggests, is limited specifically to Sea Power and with a strong naval history pedigree the Canadian academic is well placed to examine a man whose involvement with the Royal Navy spanned half a century. Churchill served twice as First Lord of the Admiralty during both the World Wars, as Chancellor of the Exchequer during the 1920s, Prime Minister during the World War II, and

an interested Member of Parliament for over 50 years. Churchill had a continual association with the Navy during an era which saw the British fleet aid allied victory in two World Wars only to ultimately relinquish its dominance of the seas.

Thoughtful Australian readers will be especially interested in Bell's treatment of Churchill's strategic and political involvement in two particularly noteworthy events in Australian history; the Gallipoli campaign and the fall of Singapore. For many Australians Churchill has come to typify the strategic naivety and imperial indifference of the British high command during both world wars, the excesses of which were supposedly paid for with a disproportionate share of Australian blood. The image of Prime Minister John Curtin wresting the fate of Australian troops away from the whims of Churchill's buffoonery has formed into something of an article of patriotic faith.

Bell is fair in his treatment of these episodes and rightly argues that although Churchill came to "own" these failures he was merely one member, albeit a strong minded one, of a group of decision makers, a majority of whom supported the decision to act. Churchill was not originally the instigator of the Gallipoli campaign, nor was he its only architect and advocate. But he was temperamentally predisposed to support offensive action and so soon became a firm supporter of the Dardanelles campaign, eventually wearing the bulk of the political damage for its failure. Bell argues that the genesis of the Gallipoli adventure lay more in the frustrating stalemate on the western front than from any innate callousness or strategic foolhardiness on the part of Churchill. The growing dissatisfaction with the indecisiveness of operations in France coincided with Turkey's entry to the war, a situation

which provided a new outlet for the collective urge to reclaim the offensive – an urge that would probably have been satisfied whether it was in Turkey or elsewhere and whether or not Churchill was a member of the war cabinet.

With regards to seapower, Bell uses the Dardanelles campaign to highlight Churchill's impatience with the defensive nature of Royal Navy operations during the early stages of the war, an impatience that, according to Bell, grew into fervent doubts about the utility of sea power alone to serve British interests. The patient imposition of blockade was anathema to Churchill's disposition and his enthusiastic search for offensive fleet action and combined operations led to creative and at times rather absurd campaign ideas.

Generally cabinet members become increasingly parochial about the relative importance of their own portfolios. But Churchill seems to have reversed this tendency and by 1915 when he was forced from the Admiralty he appears to have held the sanctity of British seapower in much lower esteem than when he had arrived four years earlier. He believed that only by defeating the German army could victory be assured and that the navy was squandering its decisive advantage by concentrating on a blockade which had only an indirect impact on events in France. The results of this changed view of seapower manifested itself in Churchill's attacks upon naval expenditure whilst Chancellor of the Exchequer in the 1920s and with his restless but mostly unfulfilled insistence on combined operations during World War II.

Bell provides similar context to Churchill's Far East policy during the early stages of the war. He convincingly challenges orthodoxy in his treatment of the dispatch of the ill-fated Z-Force to Singapore in late 1941; a seemingly token gesture that has come to exemplify Churchill's indifference to the Far East and the defence of Australia. But by adding explanatory layers to his narrative, the obvious product of impressive research, Bell does much to salvage Churchill's reputation. He claims that while Churchill underestimated the prospect of war with the Japanese his decisions were otherwise reasonably sound. Churchill believed that the best way to deter Japan was success in Europe and to this end he was unwilling to dedicate scarce resources to a theatre of war that was, until the attack on Pearl Harbor, only a possibility. He also assumed, rightly as it turned out, that a war in the Far East would almost certainly involve the United States and that American resources and assets could be used to help deter Japanese aggression and defend British interests in the event of war. What he did not foresee was the rapidity of the Japanese advance through South East Asia and the destructive success of the raid on Pearl Harbor; factors which together stripped bare his strategy and arguably led to

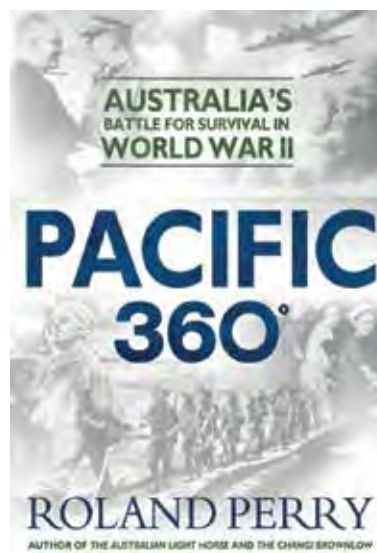
the disaster which befell Singapore in February 1942.

The deployment of HM Ships *Prince of Wales* and *Repulse* (Force Z) was part of Churchill's attempt to deter Japan, a policy which included renewed efforts against Germany together with encouraging the appearance of Anglo-American cooperation. Viewed from the perspective of deterrence the deployment of Force Z appears less of a blunder than commonly believed. Not even its destruction at the hands of Japanese aircraft can be used to support claims of Churchill's strategic naivety as the decision of Force Z commander Admiral Phillips to sail from Singapore and contest the Japanese landings was made without consulting London. The classic conclusion from this episode has been that the dispatch of Force Z with staggeringly inadequate air cover confirms Churchill's naive underestimation of the threat aircraft posed to capital ships. But while he certainly underestimated the likelihood of war in the Far East, Churchill never intended Force Z to hold back the tide of a Japanese advance – rather it was intended to help prevent a war with Japan without unduly weakening Allied forces in Europe.

Beyond the obvious interest of Australian readers in Gallipoli and Singapore, *Churchill and Seapower* contains a great deal of interesting and relevant insight into the dynamics of civil-military relations and the politics of war. While the book is ostensibly a work of naval strategy, a reoccurring theme throughout Bell's work is the manner in which naval and national strategy are inextricably intertwined. Any effort to separate the two will inevitably lead to unhelpful abstractions and the kind of myopic analysis that has perhaps helped poison Churchill's legacy in the eyes of many historians.

None of his decisions, especially as Prime Minister, were made in a vacuum but rather generally reflected unhappy compromises. It may seem ironic that it takes a work of naval history to reveal just how inconsequential navies can at times be, but even while focusing on seapower Bell manages to show just how peripheral the Royal Navy often was. Bell's thorough treatment of the pre-WWI bureaucratic wrangling over the composition and disposition of the Grand Fleet nicely demonstrates the half measures that often result from the clash of intellectual dogma and political necessity. Churchill seems to have not forgotten the obstinacy and political ineptitude of the Admiralty during this episode, a fact which may have further dampened his enthusiasm for seapower.

At times the flow of Bell's prose suffers from the effort of accurately representing the fruits of painstaking research. *Churchill and Seapower* is the work of a serious academic who seems willing to sacrifice style in order to portray the depth and complexity of an important subject. The book is full of figures and laden with the minutiae of bureaucratic manoeuvre, all of which is perhaps necessary to flesh out and engage the grand generalisations and over simplifications that attend Churchill's career. But in parts the balance is tilted too heavily toward detail and analysis affecting the book's appeal and making it perhaps unnecessarily esoteric. Nonetheless, for those willing to persist there is a wealth of insight into the politics of seapower along with a fair treatment of Churchill's record which, according to historian Eric Grove, will ensure that 'even Churchill's greatest critics will have to make some revisions of their opinions.' 🐟



PACIFIC 360: AUSTRALIA'S BATTLE FOR SURVIVAL IN WORLD WAR II

By Roland Perry

Hachette Australia. 500pp

Reviewed by Desmond Woods

Roland Perry is a prolific writer of Australian popular history. His work is highly readable and he paints on a broad canvas for readers who are not historians and are new to an understanding of Australia's past. Recent books are *The Changi Brownlow* and *The Australian Light Horse*. He is also a biographer of Keith Miller, Monash and of Bradman.

This book contains a biography of Curtin as wartime Prime Minister and in particular his relationships with Blamey and MacArthur. Unsurprisingly Perry identifies Curtin's demand for the return of Australian troops from North Africa directly to Australia as being Curtin's finest hour. There is no question that this was a wise and necessary defiance of Churchill, which saved an Australia Division from capture in Rangoon, where Churchill wanted them landed.

In making this decision Curtin saved Churchill from the ignominy of another military disaster, involving Australian troops, following on from Greece and Crete and Singapore, for which he would have been held responsible. None of this material is new or controversial and is well covered recently in Graham Freudenberg's 2010 book, *Churchill and Australia*.

Perry's most contentious argument is contained in chapter 20 where he makes clear his belief that all of continental Australia was considered a viable option for invasion and capture by General Yamashita, the tiger of

Book Reviews

Malaya, and that the Japanese High Command briefly entertained this as a viable option for an operation after the fall of Singapore. Yamashita's plan according to Perry would have involved a thrust south from Darwin using bicycles to Alice Springs and narrow gauge trains through the centre of Australia to capture Adelaide and Melbourne from the landward side. Brisbane was to be taken from the sea and then Sydney in a land thrust southwards in a simultaneous operation.

But the reality is that the Japanese High Command rejected all plans for taking just coastal centres of population by the Navy in December 1941 and deferred to the General Staff's understanding that the capture and holding of Australia was a logistical impossibility. The Army wanted to take British India from Burma.

Ross Fitzgerald, emeritus professor of History and Politics at Griffins University, reviewing this book in *The Australian* in January 2013, wrote of Perry's claim that there was a Battle for Australia, saying 'It is not based on real evidence. The fact is that early in 1942 the Japanese high command rejected the idea of invading Australia. Two of our finest historians, David Horner and Peter Stanley, have persuasively punctured the invasion myth drawing on Japanese records.'

If Perry has been able to find new and conclusive evidence in the Japanese defence archives, which he cites as a source, to demonstrate that invasion and seizure of the whole of Australia was ever contemplated by Tojo, who dictated Japanese strategy, then he needs to reference that source so that his assertions can be tested.

Perry is also of the view that Japan should have invaded Australia before attacking Pearl Harbor. This ignores the fact that the point and

purpose of the Pearl Harbor attack was to eliminate a US fleet capable of interfering with the free hand that Japan needed to seize first Malaya and then the oil rich Dutch East Indies, without which Japan's oil-sanctioned economy would have ground to a halt. Attempting to seize Australia in an unsupported pincer movement without those bases and resources would have been a massive overreach for Yamamoto and the Japanese Navy.

Such an attack would have taken weeks to achieve and entirely lost the vital element of surprise and would have alerted the Americans to the peril in which the Philippines were placed. It would have brought the USN into the war with a full fleet of battleships. The Japanese High Command would have bitten off far more than they could chew logistically, with no bases behind them from which to operate. Perry's assertion is in the realm of speculation and the 'counterfactual', not history.

Perry wants there to have been a serious Japanese threat to invade Australia, as Curtin and the Australian population genuinely believed there was in early 1942. But the fact that an existential 'Battle for Australia's Survival,' as he titles his book, did not take place and was not planned, does not detract at all from the valour of those Australians who fought and died in 1942 holding the Kokoda track back to Owen's Corner, outside Port Moresby, and then forced the Japanese to retreat to the northern beaches where they were eventually largely destroyed in 1943.

Nor does it deny that Darwin was the target of a massive and ruthless air campaign because it was fast becoming the indispensable port in the South West Pacific for American operations. Americans and Australians were killed in that onslaught, the first but not the last

to die together resisting Japanese aggression. There most certainly was a Battle for Darwin.

The best part of Perry's book is his battle by battle description of the campaign in Malaya and the epic events on the Kokoda track in 1942 and thereafter. They have of course been extensively covered elsewhere in recent years but Perry encapsulates much of this material and provides a fresh perspective on some of the personalities on both sides.

He interleaves with these accounts of the battles and the progress of the campaign his account of the triangular relationships between Curtin, MacArthur and Blamey. Neither Blamey or MacArthur come out of this book well, and neither should they given their records of vanity and ambition combined with egotistical leadership styles. MacArthur surrounded himself with US Army staff officers, based in Brisbane, who were generally contemptuous of the Australians Army in general and Blamey in particular. They never sought to understand the scale of the opposition that Australian and later their own American troops were up against fighting in New Guinea. They failed to comprehend or educate themselves of the scale of the Japanese defences at Buna, Gona and Sanananda on the New Guinea north coast. MacArthur repeatedly claimed premature victories when the fighting and the dying were still far from done in order to boost his credentials in Washington so that he would be able to justify his calls for a swift return to the Philippines.

Perry believes that the gravest charge that Australians can make against MacArthur is his decision to land Australia troops in Borneo in 1945 at locations which had ceased to be of any significance to the Japanese war effort. Perry claims that while these protracted landings were being planned it was known many Australian POWs were still just alive and hanging on for rescue elsewhere on Borneo. No Australian troops were detached to deal with their captors and save diggers' lives. That should have been the point and purpose of the Australian landings in Borneo, according to Perry.

In 1945 MacArthur sent specially trained units ahead of his main force to liberate the American POWs he had left behind in the Philippines in 1942. The last 600 of the Australians POWs died on the second Sandakan death march starting on 29 May 1945, a month after Australian troops had landed at Tarakan. The last Australians were shot by the Japanese 12 days after the war ended in early August. Perry has a point but he needs to provide more evidence of what was known, who knew it and when, in order to make his case that tragedy could have been averted.

Perry is not an admirer of Blamey. He was not a strategic thinker nor a man able to empathise with his men or to support his best senior officers. Though not mentioned by Perry it has been noted elsewhere that in 1943 Blamey, as the ground force commander, ignored the obvious option of naval gunfire support to soften up Japanese bunkers on the northern beaches of New Guinea before he ordered his troops into frontal attacks against well dug in defenders. The use of a few inadequate Stuart light tanks, easily knocked out, was a futile substitute for effective well directed medium calibre naval gunfire. If before every assault at Gona and Buna and Sanananda an hour of high explosive shelling from correctly fused six or eight inch naval guns from cruisers and destroyers had pounded the Japanese defenders, many Australian and American lives could have been spared and grinding battles of attrition made less costly.

There is a certain irony in the fact that the Australian Defence College's main theatre, where joint operations are taught, is named for Field Marshal Blamey. He had served well under Monash in World War I and did well in the Middle East. But he was himself certainly no Monash, a great commander who faced with the Hindenberg Line used every innovative combination of artillery, tanks and airpower to save his soldiers' lives in 1918.

Perry makes it clear that Curtin, despite his Irish-Australian origin, and his disagreements with Churchill, was far from being opposed to Australia continuing its traditional support for Britain and the Empire. In his speech to the nation in December 1941 he said that Australia would hold its territory for the 'British speaking race'. Notwithstanding his warm, even deferential, relationship

with MacArthur, he was quickly disillusioned with the way in which Australia was treated by the US military and the President. His visit to Washington in 1944 did nothing to reassure him. Curtin knew that Americans, from Roosevelt down, saw Australia as a very junior partner, essentially Britain's colony, and not one which would be of any significance in the post war settlement of the South West Pacific. Australia's value to the United States would cease at the end of the war, when it was no longer needed as a base.

A permanent military alliance with Australia was not remotely on the US horizon during the war. This was a very condescending, cold, realpolitik, approach for a great power to take to a smaller one. It was far removed from the generally warm relations within the imperial family of self governing Dominions which, for all their disagreements with the 'mother country', understood themselves to be linked by ties of race and history and within which Australia was a major member. As early as 1943 Curtin was calling for a post-war revival of the British Empire's role in the world and for greater Australian influence within the corridors of powers in London. This part of Curtin's story is not remembered when his early 1942 speech about turning to America without any pangs as to Australia's relationship with Britain is cited as being a definitive shift in Australia's view of itself in the world. The break was not as clear-cut as popular history has drawn it. His speech was a requirement of the perilous situation which Curtin saw his nation entering into after the failure of the British Singapore strategy which successive Australian governments had supported for two decades.

There are strengths to this book but a few odd oversights. For example

Perry claims that Mt Ainslie in Canberra, where Curtin famously disappeared from view for a few vital hours in 1942, was, 'on the other side of Lake Burley Griffin from Parliament.' Well it is now but it wasn't in 1942! [There was no lake in 1942. The lake was inaugurated by Menzies post-war. Ed.]

The vast majority of Australians know little or nothing about the War in the Pacific other than that Singapore fell, Pearl Harbor and Darwin were bombed, Weary Dunlop operated on POWs on the Burma Railway and there was a battle at a place called Kokoda. Given this huge hole in the national memory for these recent events, this book, full of character and narrative, and which draws so many interesting threads together, serves a useful purpose. It is a 360 degree introduction to Australia's land war in the Pacific and the politics going on in Canberra, London and Washington which dictated how the battles were fought. It has little to say about either the RAN or the RAAF's contribution to victory. The loss of *HMAS Sydney* is well covered and also the attack on Sydney Harbour, but the Battle of the Bismarck Sea is mentioned only once in passing and the RAN's operations in support of the campaign in New Guinea not at all.

As an introduction this book is recommended as an easy and rewarding way for people to gain an overview of the political and military history of Australians at war in Malaya, New Guinea and Borneo. Australia's military history in the Pacific has never been given its proper place in the curriculum of Australian secondary schools. This very readable book would be a good place for young people who, unaccountably, will learn nothing about these events in their school history lessons, to at least make a start on their self-education.

That recommendation comes with a caveat. The book's title asserts that there was a "Battle for Australia and its survival in World War II." That needs to be put into its true historical context before new myths spring up. In reality this book describes the political battles that Curtin fought and the war his fellow Australians waged to liberate our part of the Pacific from brutality and military despotism. That is the great achievement of Curtin and a generation of Australians, whose few remaining members are still among us. The history of the successes and the failures of those who commanded them and their own heroism deserves to be much better known. This book helps with that task. It is a good starting point, but not a conclusion to a study of Australia's Pacific war. 🐼

Book Reviews



THE FORGOTTEN CRUISER - HMAS MELBOURNE 1913-1928

By Andrew Kilsby and Greg Swinden

Longueville Media, Woollahra, NSW, 2013

Reviewed by Dr Jim Wood

On 26 March 1913, *HMAS Melbourne*, Australia's first light armoured 'Chatham Class' cruiser, commissioned at Birkenhead on 18 January 1913, and lay alongside Port Melbourne's Town Pier, on completion of her maiden voyage. On 4 October 1913, *Melbourne*, along with *Australia*, *Sydney*, and the other modern and capable standard bearers of the Royal Australian Navy, entered Sydney Harbour as part of the inaugural RAN Fleet Review.

Less than a year later the nation was at war and *Melbourne* deployed as part of the joint force to seize German territories to Australia's north and as the RAN's formidable sword and shield against the powerful German East Asiatic Naval Squadron. On 8 November 1914 *Melbourne* assumed command of the Australian-New Zealand 36 ship convoy, including her sister ship *Sydney* and the Japanese battle cruiser *Ibuki*, on the day before the historic *Sydney-Emden* engagement off the Keeling Islands Group in the Indian Ocean.

This belated and welcome book is about much more than a pioneer warship, it is about people – the crews who sailed in her from her commissioning in 1913 until she was finally 'paid off' in 1928.

An engaging and compelling feature of *The Forgotten Cruiser's* narrative is the effective use of a range of material to describe the daily lives and personal circumstances of the many individuals who comprised the crews of *Melbourne*, as she moved from times of peace to war to peace, across the seas of contrast, from the extremes of weather and sea states, through the vagaries and complexities of challenging operational conditions,

to the rare opportunities of life ashore and the occasional 'pomp and circumstance'.

Officers and men come alive on the page, whether in the course of grinding routine or exceptional duty, at times of achievement, or during the frank accounts of crime and punishment, of desertion, to the previously unsung heroes, exemplars, and 'everyman', to the stimuli of reinforcement and relief, to the never ending cycle of duty, refurbishment and training and response to new technology such as the aircraft, the submarine and the mine.

The reader is thoughtfully introduced by way of continuing emphasis throughout the book to the realities for the individual of naval life and service, to the 'wear and tear' of constant alertness to the proximity of death in many guises, to matters of leadership at every level, to discipline, to death or injury by enemy action, or accident, or illness, or sea conditions, to the belated 'war deaths', and the comparisons and contrasts between peace and war service. In all these diverse circumstances the ship and the crew are one, totally dependent for their survival and health on the actions and capacities of each other sealed within a cocoon of mutual interdependence.

Yet as the authors vividly reveal, chance is a fickle companion. This is evident in incidents such as the decision by the Captain of the *Melbourne* to protect the Australian/New Zealand convoy, or pass the honour and glory to *Sydney*; or the 40 foot near-miss by a German torpedo in the English Channel en route to Plymouth – there to have the first leave since the war began; to the other near misses as seen in the fate of other ships, or a member of the RN's 'Suicide Squadron' on convoy duty in the North Sea.

The Forgotten Cruiser is an Aladdin's Cave, filled as it is with enchanting images of colourful and stimulating graphics of diverse intent; a copy of the SECRET Sailing Orders of 2 September 1914, a reminder that boys served on *Melbourne* with a copy of a coloured diagram illustrating the correct layout of '1st and 2nd Class Boys Kit'; a copy of the SOS that led to the extraordinary rescue, under the most extreme of conditions, of the 18 crew and passengers of the sinking schooner *Helen B Sterling*; the careful placement of long hidden records and photographs of men, ship and events; the detailed nominal roll of the original commissioning crew in 1913, and finally a comprehensive and enlightening bibliography, footnoting and informative captions.

Congratulations to Andrew Kilsby and Greg Swinden for bringing this treasure chest onto public display and on the quality of the detailed research and technical command of their subject. Alistair MacLean, as author of *HMS Ulysses*, would say 'welcome aboard'. 🚢



THE FORGOTTEN FEW 77 RAAF SQUADRON IN KOREA

By Doug Hurst

*Allen and Unwin, Crows Nest, 2008
ISBN: 9781741755008*

(paperback)

Reviewed by Mike Fogarty

“The flying could be physically demanding as well as emotionally challenging.”

Group Captain Douglas Philip Hurst, MBE (not to be confused with the late Group Captain Douglas Charles Hurst, DFC) is a former RAAF navigator whilst the latter was a former RAAF fighter pilot who served in Korea with 77 Squadron from 1952-1953. Doug Senior (1923-2007) features in this book. He was a WWII pilot who also served in Malaya in the Emergency. Doug, Junior joined the RAAF in 1960 and retired in 1993 on completing 33 years of service. The author, the younger Doug, continues a fine record of military scholarship having previously written several highly acclaimed books; including: *The Fourth Ally* and *Magpies in Vietnam*.

The reviewer worked as a fellow volunteer alongside the elder Doug in the Photographic Section at the Australian War Memorial from 2001-2003. The late Wing Commander Dick Cresswell, DFC had donated his Korean service photographs to the memorial and your reviewer was tasked to caption them. As a former naval type, it was both a mystery and a challenge but big Doug patiently steered staff through the project. A few other former aircrew helped make the job easier. Some of those photographs feature in this book.

As a title, *The Forgotten Few* mantle has been claimed before. General Sir William Slim's 14th Army in Burma earned that appellation earlier. Not to be outdone, the Royal Navy's British Pacific Fleet was ascribed as another forgotten formation. In accepted parlance, “the few” was a well-earned tag given to the RAF pilots who saved their country in the Battle of Britain – also during WWII. But no matter, for as the author attests, Australia was one of the few countries to immediately commit combat aircraft at the outbreak of the Korean War in June, 1950. The piston-driven Mustangs would later be replaced by Meteor jet aircraft.

There is little space to adequately deal with all the variegated themes the author so competently handles. It is enough to merely address some of the points without discussing them in the longer detail they demand. Besides, any aviation enthusiast would be better equipped to assess the points made on reading this useful book. For the author has covered all the bases as he skillfully moves between the strategic, tactical, technical, administrative and logistical layers. He also shows a sophisticated grasp of political history and the public policy outcomes which saw the RAAF choose the British-designed Meteor over the new

generation of US-manufactured jet aircraft, which had only recently entered full-scale production.

The Forgotten Few is well-crafted in an engaging and conversational style while remaining intelligent for any lay reader. Was it VS Naipaul who once wrote that: “We are living in a land without heroes”? But that was fiction, as we had more than enough heroes in 77 Squadron throughout the Korean War. To that pantheon, add the officers Spence, Cresswell, Adams, Susans, Steege and McNamara. I was privileged to meet all – but the first, for Spence was killed in action in the early days of the war. We should not forget all who so served at any and every level in whatever capacity – senior or junior. Any unit is merely the sum of its many parts. Moreover, we should also remember those RAF Meteor pilots who augmented the squadron's ranks. Whether as NCO pilots or as officer pilots know that they lived and died alongside our own. We needed their prior aviator experience to fly operations in combat, whether in Pohang, Hamhung, Kimpo or Pusan, over time.

The book has a driving narrative thrust and a compelling sense of foreboding tension therein. While the author footnoted that jets needed longer runways for takeoff and landings that was the least of their problems. The ebb and flow of the war ran the entire gamut of the Korean peninsula as 77 Squadron staged through several bases in North and South Korea during that so-called “limited police action”. The Australian Archives holds a file which lists all air bases in North Korea by name, coordinates, runway length and width, as well as their composition – concrete or dirt. Hamhung is also known as Hungman.

Korea was a “come as you are” war and the logistical chain soon proved its shortcomings. As always, the Americans were a generous ally and there was much unofficial scrounging of gear and equipment to keep our aircraft aloft. The author compares and contrasts the respective air platforms. As a former aircrew officer, he writes with an informed understanding about the restrictions and limitations he does not shy from confronting. He discusses individual aircraft performance, combat tactics, ground control aids, weather conditions and a respect for the Soviet MiG jet fighters which could safely retreat across national borders whereas political considerations severely hampered any reasonable right of pursuit.

The RAAF can be truly proud of this book, for it adds to the legacy of the late Group Captain George Odgers, who did his own pioneering work on Korea – among other conflicts our air force was heavily committed to. Many pilots, past or present, will earn a fond admiration for the Korean generation, certainly for those few aviator POW's

Book Reviews

who were mistreated in captivity. Some pilots had considerable air combat experience in WWII whereas others were young men in their first flying war. The stress of battle is well documented. These pilots gained valuable operational duty which would acquit them well for their future roles in Malaya, Borneo and Vietnam. Many went on to senior command positions in the RAAF and ADF.

Doug Hurst has presented his research in an orderly manner and the text is not cluttered with unnecessary detail. It is not known whether it will be re-published in later editions. But if it is, then perhaps a few points can be made in the interim. A few more suitable annexes would complement the book. For example, in comparison with the other services, the RAAF in Korea were hardly forgotten – if the scale of decorations awarded is compared. That is not to detract from any individual service. US awards were also deserved. Such a composite annex would disprove that 77 Squadron was really “forgotten”. I doubt if the Koreans themselves have ever forgotten. They have a heartfelt gratitude for our overall contribution, for they remember free men came from afar to aid their party. Australia now hosts many Koreans in its wider citizenship.

That Mustangs segued to Meteors is past history now. The politics of acquisition are well explained. The Meteor itself was handicapped in a jet interceptor role, for many reasons, which also included: speed, maneuverability, ceiling and armament. In its ground attack role, it outfitted itself to optimal advantage. It would have been helpful to list the entire inventory of Mustang and Meteor aircraft but that detail is readily available in other more technical publications commercially available. There was one thing we

learned in Korea. Decision-makers need a realistic acceptance of attrition levels. An itemized list would show that flying accidents, among other incidents, also culled the squadron inventory as much as combat operations. The author Doug Hurst has written an epic history of some very renowned people – names which will never be forgotten in any review of Australia's record in the Korean War. No, these few people will always be remembered by many Australians. ✎



WAR TO WAR: AUSTRALIA'S NAVY 1919-1939

by Bob Nicholls

*Australian Military History
Publications, Sydney, 2012.*

ISBN 9780 98077451.

Reviewed by Ian Pfennigwerth

Bob Nicholls died in 2010. After serving for 23 years with the Royal Navy, Bob joined the RAN only in 1968, but nevertheless managed to produce a series of excellent books on his adopted navy, beginning with *Bluejackets and Boxers* in 1986. His

special areas of interest were those aspects of the RAN and its predecessors that had been inadequately examined in the past, and this book, his final contribution to our historiography, stays with that theme.

There has been very little researched and presented on the RAN and its vicissitudes from the return of the Fleet from overseas in 1919-20 to the outbreak of World War II, in comparison with more ‘exciting’ periods in its history. The outline is familiar, but Bob’s careful research and insightful prose demonstrates how little we have understood about the machinations that accompanied the decline of a proud and powerful Fleet to a small and unbalanced Squadron, barely worthy of the term ‘operational’, in the depths of the Great Depression. The Australian navy’s climb out of these depths back to a modicum of operational respectability in a few short years is a remarkable one which has not previously received its due regard from historians.

Bob is unrelenting in laying the blame for the difficulties which confronted and confounded the RAN between the wars on the inadequacies of the Naval Board and its too-easy resort to advice and assistance from the British Admiralty. What the Board needed to do was to study and develop a corpus of thought on an Australian naval viewpoint, which took due account of the practicalities of the naval defence of the nation 12, 000 miles from Whitehall. The threadbare nature of the ‘Singapore strategy’, with its dependence on the successful passage of a British battle fleet to the Far East should a Japanese threat to British interests – and those of the Dominions – emerge, was recognised and acknowledged by Australia’s naval planners, but they failed to come up with an alternative strategy. Perhaps they had little imperative to do so, as British senior officers seconded to the Australian navy, arguably not a career-enhancing prospect at the time.

The personnel issues that bedeviled the RAN in the immediate aftermath of the Great War, leading to several instances of indiscipline ashore and afloat, are unflinchingly described. These were concerning enough to prompt the RN to consider whether the agreed exchange of Midshipmen should proceed lest their young officers become contaminated by it. There was certainly enough for the lower deck to complain about, but the incidents were unconnected and limited to a few individuals: unlike the RN, the RAN would not suffer the ignominy of a Fleet-wide mutiny in 1931. By then the development of an Australian naval ethos and improved leadership from an increasingly Australian officer corps had brought the causes of grievances under effective control.

Bob observes, however, that the other aspect of this

dependence on the Royal Navy was overwhelmingly beneficial for the fledgling Australian navy. Its officers and men received the same specialist training as their RN counterparts and many applied and developed these skills in complement billets within the larger navy. On the rare occasions when it was possible for a 'cruiser exchange' to be effected, Australian ships served and trained within the ambit of a larger British fleet – frequently acquitting themselves well – and developing the abilities and competence which would soon be called upon from 1939 onwards. Throughout this period of peace, the graduates of the first entries to the RAN College progressed towards positions in command of Australian ships, and the cadres of senior sailors who would provide the backbone of the Navy developing after 1933 and who would train the wartime expansion force were also being nurtured within the British system.

Satisfactory though these developments were, there were other less positive events. The RAN's two flirtations with submarines in the period 1919-1930 were ill-conceived, poorly-planned, short-lived and expensive. The RAN chronically dragged its feet in providing its agreed oil fuel stocks for Imperial use, and Cockatoo Island Dockyard's inability to meet its delivery schedules for ships was a serious concern to the Navy and the government. This didn't stop the politicians ordering the seaplane carrier *Albatross* to keep the yard afloat, a bizarre expedient which worked, however, to ensure that Cockatoo was there when it was needed in the coming years. The onset of the Great Depression was to make matters worse for all, and Squadron training and exercising virtually ground to a halt.

And while this is a book about

the RAN, Bob has included some comparisons with the state of the other two services in these difficult years. The Navy might have felt under pressure, but it was immeasurably better off than the Army and Air Force in organisation, equipment and personnel in the lead up to World War II. Sound decisions made in plenty of time would ensure that the Australian navy was ready to fight on 3 September 1939 and went on to

display its skills with great distinction in all theatres of war. It was a very different and more professional service than had straggled home from Europe in 1919.

War to War has some editorial shortcomings, but it is an entertaining read for expert and layperson alike and a valuable addition to our knowledge and understanding of a crucial time in the development and history of the RAN. It can take its place with pride with the other outputs of the remarkably inquiring and insightful mind of Robert Michael Nicholls. 🦋

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Visions from the Vault

POLICE DOGS



On 5 December 1976 a deliberately lit fire in a hangar at *HMAS Albatross* damaged or destroyed 12 S-2 Tracker aircraft. As one of a range of additional security measures, the RAN decided to introduce police dog teams, something the RAAF had been doing for more than 20 years.

Chief Inspector RJ Hannan was involved in developing the policy associated with introduction and

duties, and negotiated various training programs with the RAAF. The selection of handlers was originally made from the fleet with a standard Naval Police course to follow and then trainees were teamed with a recruit dog to start the final leg of their overall training – that of police dog handlers.

In June 1977 the first Naval Police Dog teams graduated from a six-week basic course at the RAAF Police Dog

Training Centre at Toowoomba. By 1978, ten Police Dog teams were fully operational in supplying an effective source of security to *Albatross* internally and externally. In this photograph, the Naval Police members of the first course receive a short burst on dog anatomy from Corporal Maslen, RAAF, with the aid of a German Shepherd skeleton. 🐾

ANI ON-LINE: A GUIDE TO THE NEW WEBSITE.

Our new website is now on-line! In addition to the features available on the previous site, the new site also features a library of past journals, a discussion forum, a news section and member list. This short guide is designed to help you take full advantage of the new features.

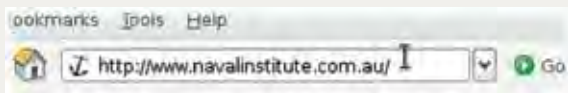


Figure 1

OBTAINING AN ACCOUNT

In order to access the new features of the site you must have a user account for the website. If you have a current subscription to the ANI, navigate to the website www.navalinstitute.com.au using your web browser (figure 1), click the “Members Login” menu item (figure 2), then click the link to download an application form. Fill in the form, then fax or post it to the ANI Business Manager. Once your account has been created, you will receive an email that outlines your member ID and password.



Figure 2



Figure 3

LOGGING IN TO YOUR ACCOUNT

Once you have your account details, you are ready to login and access the new features of the site. In order to login, navigate to the website (figure 1) and click the “Members Login” item (figure 2). Enter your member ID and password as they were provided to you, then click the “Login” button. The case of the member ID and password are important: i.e. “CaSe” and “case” are considered entirely different words by the authentication system. Each letter of the password will appear as a single “*” to prevent others from seeing your password as you type. If you have entered your details correctly, you will be presented with the news page. The grey status bar at the top notifies you of the account you are using (figure 4). You are now able to access all of the new features of the site.

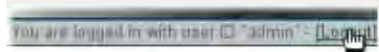


Figure 4

LOGGING OUT OF YOUR ACCOUNT

In order to protect your identity and to prevent malicious use of your account by others, you must log out of the site when you are finished browsing. This is especially important on public computers. In order to log out, click the “Logout” link in the grey status bar (figure 4).



Figure 5

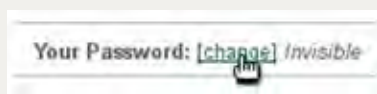


Figure 6

CHANGING YOUR DETAILS

When your account is created, only your member ID and password are stored in the system for privacy reasons. However, you may provide other details that are visible to other ANI members. In order to change your details, login and click the “Change Your Details” menu item (figure 5). Then select the “change” link (figure 6) next to either your personal details or password. Change the text appropriately and click the “save” button (figure 7).

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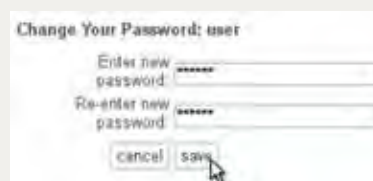


Figure 7

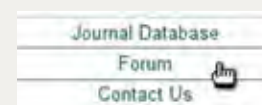


Figure 8

PARTICIPATING IN THE FORUM

In order to post topics and replies in the discussion forum, first login and click the “Forum” menu item (figure 8). Then select a forum that you would like to view by clicking its “View Topics” button (figure 9). Select a topic that you would like to read by clicking its “View this topic” link (figure 10). If you are not interested in any particular topic, you may add your own by clicking the “Add New Topic” button (figure 10). Similarly, once you are viewing a topic, you may post a reply by clicking “Add New Post”. Fill in the heading and body of your reply and click the “Submit” button to add your reply to the topic. If you change your mind while writing your reply, you may click the “Cancel” button and your reply will not be added to the topic.



Figure 9



Figure 10

FURTHER QUESTIONS

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