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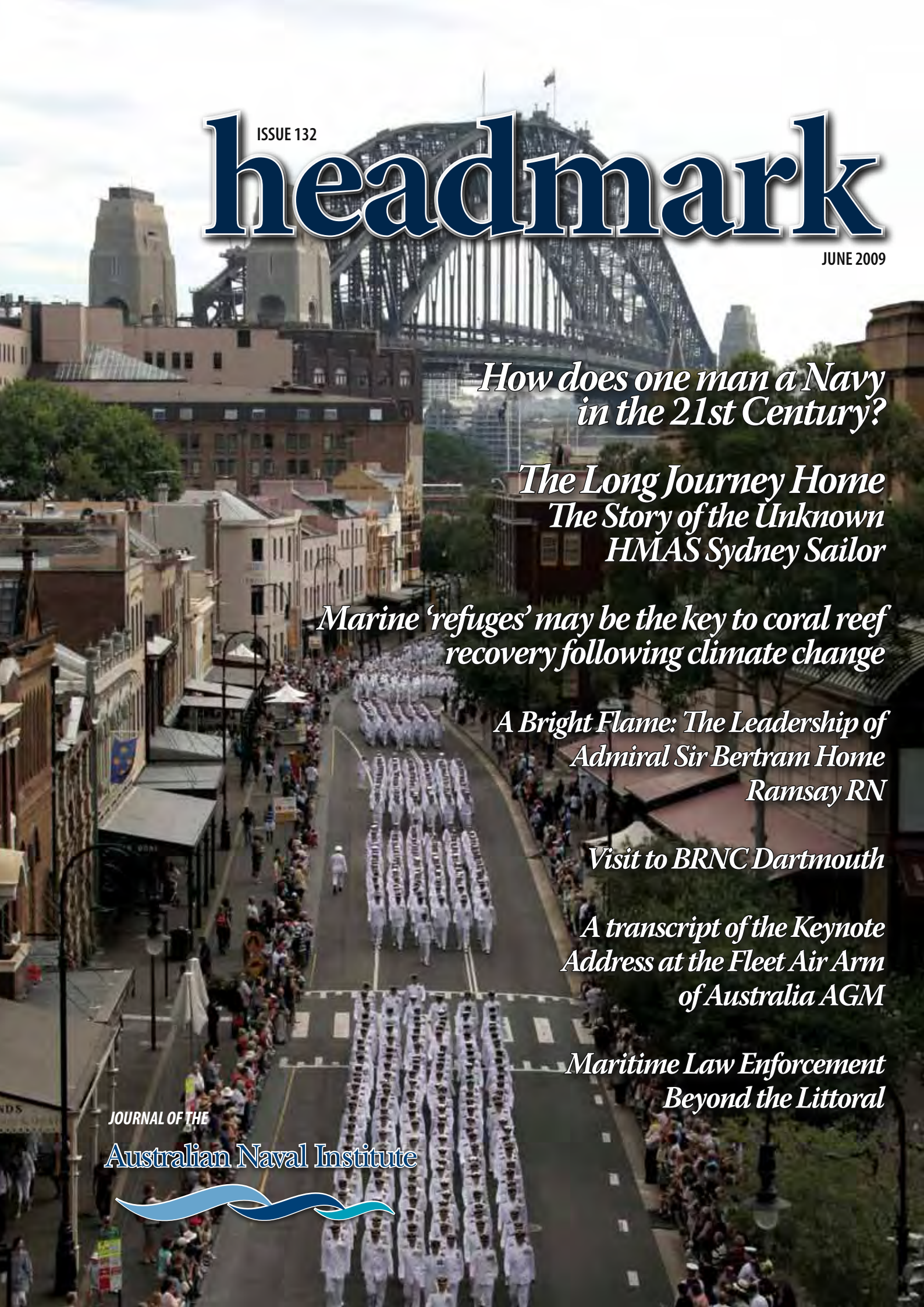
JUNE 2009



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Maritime Law Enforcement Beyond the Littoral

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New South Wales Police Commissioner Andrew Scipione APM, challenges the Royal Australian Navy led by Rear Admiral Nigel Coates prior to entry to the City of Sydney, during the Royal Australian Navy Freedom of Entry Parade.

14 March 2009

Navy makes history in Freedom of Entry Parade

Sydney Central Business District was a sea of white on Saturday 14 March 2009, as approximately 4,600 Royal Australian Navy personnel marched through the city's streets. The Freedom of Entry Parade involved the ship's company from *HMAS Ships Sydney, Darwin, Newcastle, Anzac, Ballarat, Stuart, Manoora, Kanimbla, Success, Sirius, Diamantina, Hawkesbury, Yarra, Norman and Gascoyne* along with Collins Class Submarine *HMAS Farncomb* and Navy land establishments *HMAS Kuttabul, Waterhen, Watson, Penguin, Harman, Albatross and Creswell.* Over 150 Australian Navy cadets also took part in the parade.

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Front page: Officers and sailors from the Royal Australian Navy begin their Freedom of Entry Parade down George Street, Sydney.

Issue Number 132

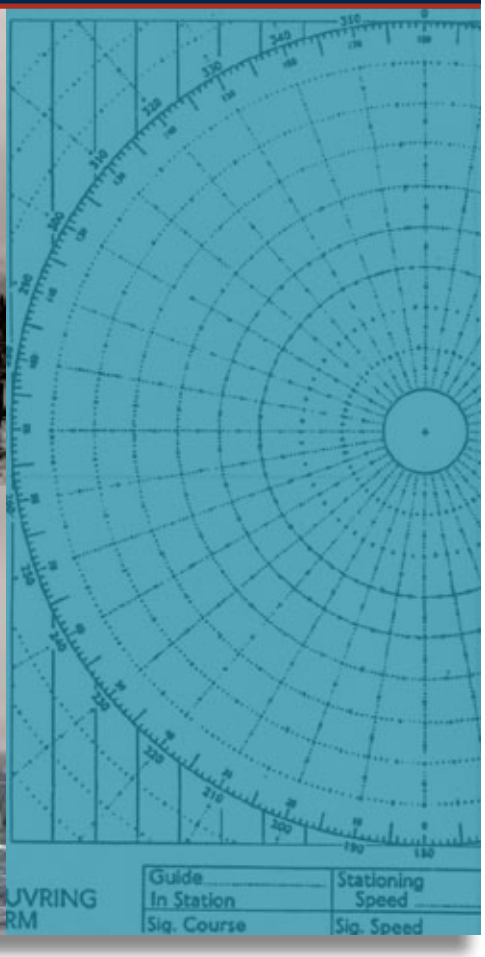
Printed by Everbest Printing Company

ISSN 1833-6531

Design & DTP: Diane Bricknell diartist@bigpond.net.au

The Commonwealth Navies: 100 Years of Cooperation

2009 King-Hall Naval History Conference
30-31 July 2009



THE COMMONWEALTH NAVIES: 100 YEARS OF COOPERATION

The sixth biennial King-Hall Conference will be held in Canberra on 30-31 July 2009. The conference will be organised by the Sea Power Centre - Australia with assistance from the School of Humanities and Social Sciences, University of New South Wales at the Australian Defence Force Academy. The King-Hall Conference has become a significant event in the national and international sea power communities for its wide-ranging discussion of topical naval historical and maritime strategic issues. The conference is open to the public, and previous events have attracted a wide range of naval historians, academics and retired and serving military personnel, as well as interested lay people from Australia and overseas.

The theme of the 2009 conference is Commonwealth Navies: 100 Years of Cooperation. In 1909, Australia, with the encouragement of of the British Admiralty, decided to acquire a modern ocean-going fleet; one which would not only protect local ports and shipping from enemy incursions but also support the Royal Navy in its determination to retain command of the sea. Other members of the Empire followed, and over the next 100 years the various Commonwealth navies have routinely sailed together in both peace and war and with a remarkable degree of interoperability. Arguably the most successful international grouping of its type, Commonwealth naval cooperation can also be seen as the precursor to more recent intitiatives such as the US Navy's Maritime Partnership.

GENERAL INFORMATION

Venue:
Adams Hall, Australian Defence Force Academy, Canberra ACT.

Registration:
Registration will be at no cost, however, the number of delegates will be limited by the size of the venue. Early contact with the Sea Power Centre - Australia is recommended.
(Registration includes lunch and light morning tea).

FURTHER INFORMATION

Sea Power Centre-Australia
Conference Co-ordination Cell
Department of Defence
Canberra ACT 2600

Tel: (02) 61276514
Fax: (02) 61276521
Email: Seapower.conferences@defence.gov.au

THE UNIVERSITY OF NEW SOUTH WALES

AUSTRALIAN DEFENCE FORCE ACADEMY

Australian Naval Institute

NAVY

How does one man a Navy in the 21st Century?

LIEUTENANT MICHAEL NEWMAN

Dealing with different people - Charles James Shaffer swims through Guantanamo Bay during his first certification dive as part of the Soldiers Undertaking Disabled Scuba program (Courtesy US Navy)

To ask a Warrant Officer to tell you what has changed in the RAN since he[1] joined is to subject oneself to a rant encompassing alcohol testing, women at sea, 'up-top' trips and rental allowance (to name but a few 'issues'). Whatever your stance on any of these, the simple fact is that the Navy has changed a lot in 25 years and what made SMN Smith join in 1983 is not offered to his son or daughter in 2008. Quite simply, the RAN in 2008 has been forced to move in concert with the 'zeitgeist' and as such conforms, as best it can, to the societal norms and expectations of the time. Unfortunately, these very measures that are employed to recruit and retain the uniformed workforce may in fact be the cause of its demise.

I have heard countless stories of Command teams (indeed whole ships) sailing from ports completely inebriated with the punch line being, invariably, "but you couldn't get away with that these days." You certainly could not and it would be a reckless organisation that condoned otherwise. The concern, however, is that a lot of old sailors (I use the term generically rather than as a designation of rank) joined the navy to travel the world on a taxpayer funded, life-long drinking adventure. As a consequence the 'new' navy in which their mess mates live ashore, their drinking is curtailed and their 'up top' trips have been replaced by border/OPLAT patrols does not afford them their chosen lifestyle.

Ideally the aforementioned sailors would move on and a new breed of serviceman, who knows nothing of the more relaxed epoch that preceded him, would take the helm and steer the RAN smoothly through the 21st Century.

The reality, however, is that the previously mentioned 'old sailors' are not a product of their time but are in fact a product of the profession they have chosen. At the risk of degenerating into a "chicken or the egg argument" at this point, I am simply suggesting that the profession of arms (and more particularly the navy life) espouses a certain lifestyle that is attractive to the adventurous and fun-loving in our society irrespective of the century in which they joined. As such, the RAN finds itself in a difficult position where it needs to recruit the same type of men and women that it always has done without being able to offer them the same incentives. We cannot lure people to stay with the promises of 'parties up-top' because we are too busy counselling people for alcohol abuse and fraternisation!

The modern navy, therefore, finds itself conforming to standards far beyond what is expected in the wider community whilst demanding its personnel perform roles far beyond the scope of the wider community. Discipline is certainly a cornerstone of military life but it has been a hallmark of service in the ADF (until recently) that we "work hard and play hard." As begrudgingly as the troops took the requirement to sail early or remain at sea for longer, it was reconciled in the past by the understanding that once land was eventually reached,

1 I apologise for the gender specific personal pronoun employed here, and indeed for the masculine tone of the essay, however, said tone is based purely on ease of argument! My argument rests on a certain 'type' of person which encapsulates people of all ages, race and gender.

How does one man a Navy in the 21st Century?

The changing dynamic of manning modern navies - Boatswain Mate Seaman Ronald Finch stands lee helmsman watch on the bridge of the aircraft carrier USS Theodore Roosevelt (Courtesy USN)

the celebration would be large and (within reason) without consequence. The enjoyment derived from a good run ashore with all your mess mates is something that the navy alone can offer. This in turn gives the RAN an edge over civilian employers which, when properly managed, is an invaluable tool for retention.

The challenge is balancing the above with OH&S. Invariably duty-watch should be breath tested as the safety of the ship and all personnel rest with them. But it is inappropriate to suggest that a twenty year old is an alcoholic because he has 'blown over' on a couple of occasions. Certainly stand the individual down and offer counselling (if necessary) but don't tarnish his career because he happens to work for an organisation that can rigorously police rules that few civilian organisations are able to enforce. Are we trying to protect the individuals or are we trying to protect the RAN's image? If it is the latter, whom are we safeguarding it from – potential recruits, the media or probing political masters? The socialising and travelling culture is a fundamental aspect of naval service and to combat it for any reason other than personnel safety is counter productive. This balance remains one of the Navy's greatest challenges and I raise it not in the hope that our stance on alcohol use will revert to pre 2003 days. I simply urge caution in the manner in which we administer those who fail our rigorous requirements. There exists a very real danger that left unchecked, we will in time lose the wonderful social side of this profession.

To be fair, I have brazenly grouped the whole RAN together which belies the fact that throughout the centuries people have put to sea at the behest of their government for many reasons other than wine and travel! Patriotism, pride and honour are treasured values in any armed force and they contribute, at least in part, to most recruits' determination to don their uniform. Obviously three square meals a day, a steady pay packet and subsidised housing also prove very alluring. But it is on these last *tangible* benefits of RAN service that we as an organisation are focusing all of our retention and recruitment efforts.

Anyone with a rudimentary understanding of economics and history appreciates that when unemployment is low, the ADF struggles to both retain and recruit people. The contention is that more highly paid jobs that afford a better quality of life are available outside the service. I will address the 'quality of life' argument later but for now I wish to examine the prudence of enticing people to join (or stay) with promises of money, housing, education and free medical treatment.

Without question such benefits make the ADF a more competitive employer and it is highly likely that many young adults have chosen tenure in the military based on the complete package of benefits offered to them. The issue here is twofold: firstly, you reach a point where the government cannot compete (financially) with industry; and secondly, people who join for financial remuneration are not necessarily the best candidates for naval service. The outcome of both issues is simple – people leave. Consequently financial incentives are only a stop-gap. As soon as someone who is motivated solely by money is given the opportunity to advance their position they will take it. For this reason I have specifically referred to their military 'tenure' as opposed to their 'career'.

The need for people to make a career out of the RAN is obvious – we cannot laterally recruit people except from foreign navies[2]. If people choose to leave after their minimum period of service they are well equipped to gain meaningful employment outside the ADF. We, on the other hand, are left with empty billets at the level in which we need them most – middle and upper management. Because you cannot recruit into such positions

2 Under current doctrine this is the case. While the concept is outside the scope of this essay, lateral recruitment from civilian organisations deserves thorough investigation and may in fact rescue the military in the future if managed correctly.

The Navy has changed - Able Seaman Cook Tahlia Boneham would not have been allowed to be a navy cook 30 years ago (Photo by Leading Seaman Helen Frank)

you must promote people earlier and the end state is an inexperienced workforce.

Essentially no single strategy will address this issue but the key to success is providing your workforce with something unique whilst also attending to their material needs. I don't think the navy should return to the period of open bars at sea and drunken departures from foreign ports. But I do not believe the solution lies in attempting to turn the RAN into any other commercial enterprise either. It is not a civilian company and we should not try and compete along the same lines. We are in the business of war and everything we do should be aimed at recruiting, retaining and training those personnel suited to this line of work. People should join the military for reasons that extend beyond pay. The RAN offers a niche employment over which we have a monopoly – we just have to make sure we play to this strength.

The key it would seem is to afford people a lifestyle that they enjoy and will endeavour to retain, irrespective of the financial rewards offered elsewhere. Rectifying this issue will therefore prevent people leaving for a better 'quality of life.' But herein lays the issue; who determines what a better quality of life is? I would suggest that for many people it would be regular working hours affording them the greatest opportunity for time with friends and family. Unfortunately, the RAN cannot offer this and nor should it. Such a lifestyle is catered for amply by civilian employment and people seeking such an existence should transition freely. We must endeavour, where possible, to avoid recruiting people who aspire to this lifestyle because their time, and the RAN's budget, will be unfairly wasted.

As previously stated we need to cater to those most suited to naval service; the fun loving and adventurous men and women in the community. Partly because these people are made of the 'right stuff' and partly because they will make a career out of the service and will thus take up the middle and senior leadership positions in due course. But perhaps most importantly these individuals, when inspired and engaged, provide the foundations for the morale of the organisation.

A motivated officer or sailor who joined the RAN for travel, adventure and in the knowledge that they are engaging in an honourable profession can exponentially elevate the morale of those around them when they are employed gainfully. Conversely, someone who seeks only the financial rewards will not generally enjoy the sea time and will most likely provide less of a service. They tend to bemoan the fact that they are away from their home and their complaints bring down everyone around them.

While it is unrealistic to assume that you could fill a ship, let alone the RAN, solely with sailors of the motivated ilk, that should not lessen one's determination to try. Even a ship with 25 percent of the crew falling into this desirable category will achieve remarkable results: morale is infectious. The cost to the RAN is nothing more than delivering the adventure to those who seek it.

Failing to do this delivers a middle ground solution that does not cater to either school. As such, the adventurous leave through disappointment and the 'regular hours' individuals depart of their own accord when their time is up. The RAN, thus, finds itself in a position where it can only throw money at those whose loss would hurt most in the hope that they will remain, however begrudgingly, until their replacement can be trained and the cycle can continue.

While money is definitely important it is not in itself the solution. A wise Chief Petty Officer[3] once offered up the slogan "Better Ships and Better Trips." The message is simple; give people capable and exciting ships in which they can travel to new and exotic locations. By expending funds in this manner everyone wins; the RAN maintains a formidable capability, with numerous relationship building exercises, and SMN Smith is afforded the opportunity to man the Toplite weapon system as his AEGIS destroyer pulls into Hong Kong.

The above scenario is only a few years away from fruition and now the government is finally delivering this capability to the Navy, we owe it to ourselves to use it. We need to keep the momentum going and we must push ahead with the next round of

3 CPOET Martin whilst working at the PWO Faculty circa June 2008.

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exciting developments. In turn, we need to showcase these assets to the world. Northern Trident[4] was, reportedly, an amazing exercise and must have helped, albeit in a small way, retention in the RAN. We need a lot more of this if we are to be a competitive employer in the 21st Century.

In discussions about recruitment and retention statistics it is often suggested that 'Generation Y' is not motivated by values together with the more common assertion, that 'people don't have just one career anymore'. There is some truth in both these statements but the overriding fact is that aspiring naval officers and sailors should not be squeezed into these categories. The calibre of the men and women we seek means that we are not choosing from the same pool as everyone else and we should not try and adapt to satisfy 'Generation Y'. We should adapt by building "Better Ships and Better Trips" and we should incorporate a sensible approach to alcohol consistent with the overall approach to OH&S. We can still sell the message of socialising and travel provided we sell it smartly.

As much as the RAN has changed and as much as the hypothetical Warrant Officer might lament this new period in which we serve, the core role of both the organisation and its personnel remains the same. We are still a navy that puts ships to sea to stand in harm's way so that others may enjoy their 'regular hours' jobs. We need people who are willing to perform this role with determination and vigour. We need men and women who are capable of supporting the training and deployments that go into the maintenance of this capability. These people will steer the RAN safely and proudly into the 21st century and it is to them that our recruitment and retention must be focused if we are to maintain our position in the regional ORBAT.

4 HMAS Anzac, 2006 Around the World trip

Lieutenant Michael Newman, RAN, graduated from the Australian Defence Force Academy in 2002. He completed his seaman officer training in HMAS Adelaide in 2005 before conducting further service in STS Young Endeavour and HMAS Stuart. LEUT Newman commenced his Principal Warfare Officer course in January 2008 and at the time of writing was the Operations Officer in HMAS Darwin.

PETER MITCHELL ESSAY COMPETITION 2009

The Sea Power Centre - Australia (SPC-A) is conducting the 2009 Peter Mitchell Essay Competition, which is open to all sailors and officers of British Commonwealth navies of commander rank and below.

Details of the competition can be found at www.navy.gov.au/spc; and enquiries should be directed to:

seapower.centre@)defence.gov.au.

One prize may be awarded in each of the following three sections:

- Open section (one prize only - AUS$1500) all essays are eligible for this prize.
- Officers section (one prize only - AUS$1000).
- Sailors section (one prize only - AUS$1000).

The topics for the 2009 Competition are:

- Is there a better alternative to the current rank structure used by navies?
- How might the current global financial crisis impact on the future of navies?
- What is the potential impact on international shipping, trade routes and the naval protection of shipping if the Arctic North West Passage is increasingly ice free?
- How might naval cooperation, either bilaterally or multilaterally, lessen tensions?

Essays can be any length up to a maximum of 3500 words. Essays must be original works, in a suitable layout, in English on international a4 size paper. The author's name is not to appear on the essay; a pseudonym, which is to appear on the title page of the essay, is to be used. Essays should be in electronic copy in Microsoft word format and emailed to seapower.centre@defence.gov.au, accompanied by the declaration form located in the competition rules at www.navy.gov.au/spc. Entries are to be received at the SPC-A by no later than 28 October 2009. Late entries will not be accepted without a compelling reason.

The Long Journey Home

The Story of the Unknown HMAS Sydney Sailor

BY GREG SWINDEN

He was badly wounded and dying, but somehow he made it into the Carley Float. Whether he fell into it, was blown in by a bursting shell or was placed there by his shipmates we will never know. When the light cruiser *HMAS Sydney* was sunk off the Western Australian coast on 19 November 1941, in her final battle with the disguised German raider *Kormoran*, it was the start of one man's long journey home.

A few months later on 6 February 1942 a battle damaged naval pattern Carley Float (a metal tubular life raft covered with cork and canvas) was spotted drifting off Christmas Island - then British Territory administered from Singapore. The Harbour Master, Captain James Smith, ordered his assistant Edward Craig to bring the float ashore and the badly decomposed body of a man wearing a white boiler suit was found in the raft. The Island's doctor, Dr J Scott-Clark, ascertained that the body was of a Caucasian male who had been dead for some time and the description of the Carley Float later given by Smith indicated it was from a naval vessel and that the float had been in the water for several months.

Also found in the raft was a shoe or boot with the broad arrow (indicating Government property) and a manufacturer's name of McCowan or McEwen stamped on it. First hand evidence suggests that the shoe size was not compatible with the body and it was speculated that there may have been another man in the raft prior to it being recovered.

The overalls worn were described as both white or blue, that had been bleached white by the sun, and with four press stud fasteners at the front as opposed to buttons. The body had lain in the raft in a peculiar fashion and the Assistant Harbour Master later stated, in 1981, that a coffin had to be built to conform to the way the remains were preserved. In mid February 1942 the body was buried in an unmarked grave in the Old European Cemetery with military honours. A report on the incident was delivered to the RAN by Captain Smith when he returned to Fremantle later that month. On 31 March 1942 Christmas Island was invaded and occupied by the Japanese and there the matter and the unknown sailor rested for many years to come.

In 1949 the matter was examined by the RAN when one of the men who had been present at the funeral, Sergeant JW Brown of the Christmas Island volunteer platoon, wrote an article for a WA newspaper but nothing came of this investigation. Again the matter was consigned to the footnotes of history being only briefly mentioned in the RAN's Official History for the War 1939-1945 (published in 1957). At Christmas Island the unknown sailor lay in his un-marked grave, but every now and then Mr Jack Pettigrew, who had been on the island in 1942 and returned there in 1946, would take interested people to see the grave site. One day in late 1950 he took Mr Brian O'Shannassy, an ex RAN Signalman working on the island as an accountant, to see the grave and Brian took a photo of the cemetery. Pettigrew is alleged to have also made a comment that he recalled the body had a 'perfect set of teeth' (or words to that effect). Brian O'Shannassy's photo was to prove to be of significant value some 55 years later.

In the early 1980s there was resurgence in interest regarding the loss of *Sydney* and two books on the matter were published. These were Michael Montgomery's *Who Sank the SYDNEY* (1981) and Barbara Winter's *HMAS Sydney - Fact, Fantasy and Fraud* (1984). Both mentioned the sailor buried at Christmas Island. From these two books the pressure began to mount to have the wreck of *Sydney* located and the body at Christmas Island exhumed. Throughout the 1990s more books on the loss of *Sydney* were written and more Australians became interested in the whole story. One of these was Mr Ted McGowan whose older brother, Able Seaman Thomas McGowan, had been lost with the ship. He had heard the rumour that the body had a perfect set of teeth

Above: German raider Kormoran

Top: HMAS Sydney in Sydney Harbour

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and, linked with the details of the shoe found in the raft, he believed that the body could be that of his brother. His efforts over the next 15 years were to prove to be one of the main catalysts in having the body exhumed.

Eventually enough pressure was brought to bear within Parliament to have the Joint Standing Committee for Foreign Affairs, Defence and Trade investigate and report on the loss of *HMAS Sydney*. The inquiry commenced in early 1998 and released its report in March 1999. The Government formally responded to the report in June 2000. Amongst the reams of paper was the recommendation that the body at Christmas Island should be exhumed for further analysis. In June 2001 Lieutenant Commander Richard Chartier RAN took a small team to Christmas Island to attempt to locate the grave, with a view to returning at a later date to recover the remains..

Richard Chartier's team included anthropologist Dr Denise Donlon – a RAAF Reserve Squadron Leader with several years of experience in the recovery of human remains including those from crashed World War II aircraft – a Mr Kevin Lourey and Mr Ted McGowan. Mr Lourey had lived on the island during the period 1949-69 and stated he knew the location of the grave. In 2001, however, the now overgrown and dilapidated cemetery was virtually unrecognisable. The team cleared the undergrowth, based on Mr Lourey's recollections, and he identified a location in the front portion of the cemetery as the likely site. Using this evidence it was decided to push ahead with a search later that year.

In late August 2001 the official expedition commenced work at Christmas Island. Lieutenant Commander Chartier had been authorised by the Government (Department of Defence and the Department of Transport and Regional Services who issued the Exhumation Order) to exhume the body of the unknown sailor. The expedition included Denise Donlon, two forensic odontologists (Lieutenant Commander Matt Blenkin, RAN and Lieutenant Russell Lain, RANR) and two pathologists (RAAF Wing Commander Johan Duflou and Army Captain Alan Cala). The team set to work but despite excavating several tonnes of soil (40 cubic metres) in the front part of the cemetery no remains were found. After two weeks of digging the expedition was called off.

Over the next few years Mr McGowan, and others, wrote frequently to the Government calling for a second search but this was to no avail. In 2004, however, Mr John Perryman became the Senior Naval Historian in Canberra and took a renewed interest in the case following the receipt of submissions from Mr McGowan and Western Australian author Glenys McDonald. John examined the previous research and a photocopy of the photo taken by Brian O'Shannassy and recommended to Navy Headquarters that O'Shannassy be interviewed. He also interviewed another Christmas Island resident, Mr Say Kit Foo, who had been born on the island and who as a child had often played in the cemetery. These interviews were conducted separately by Mr Perryman with the assistance of Lieutenant Commander John Maddock, RANR. Both Brian O'Shannassy and Say Kit Foo identified an area at the rear of the cemetery, within a few feet of each other, where they recalled the grave being located.

Brian O'Shannassy further advised that when he took the photo he used the actual headstones as markers to identify the location of the unmarked grave which he recalled was to the right of the main line of graves at the rear of the cemetery. Additionally the Commonwealth War Graves Commission was contacted to ensure that rumours that the body had been exhumed during the late 1940s and re-buried in Singapore were incorrect. They advised that no body had been exhumed from Christmas Island, although other bodies had been exhumed from other remote locations (including Cocos Island) and re-buried in Singapore when Kranji War Cemetery was opened in the 1950s.

John Perryman used this new data to convince the Navy that a new search was warranted and in September 2006, Captain Jim Parsons, RANR was authorised take a team to Christmas Island to commence the second expedition. The team consisted of anthropologist Denise Donlon, forensic odontologists Lieutenant Russell

The dig team in action at CI in 2001 (Courtesy CMDR Matt Blenkin)

HMAS Sydney unmarked grave 2006 (Courtesy RAN)

Christmas Island dig 2006 (Courtesy RAN)

Denise Donlon sifts soil at Christmas Island 2006 (Courtesy RAN)

Lain and Commander Matt Blenkin, archaeologist Tony Lowe and Mr Brian O'Shannassy. Interestingly Denise Donlon, Russell Lain and Matt Blenkin had also taken part in the 2001 expedition to Christmas Island.

Using the new data test trenches were dug alongside the main row of graves in the locations identified by Brian and Say Kit Foo; but nothing was found. When the second dig was proving to be fruitless Captain Parsons called a halt and decided to re-check the data provided. On 29 September 2006 he stood where Brian O'Shannassy had stood over 50 years before and examined the old photograph. In 1950 the photo included a marked grave that was not there in 1942 (that of Karl Ystenes who had died in 1948). Between Ystenes' 1948 grave and the grave in front of it (that of Bruce Stewart buried in 1909) was a three foot gap – not enough for a normal coffin but perhaps big enough for one built to conform to a body lying in a peculiar way. Parsons rang John Perryman to confer and to also advise him he was going to commence digging slightly outside the existing 'dig' area.

Digging re-started at the new location and an hour or so later the tell tale sign of disturbed earth was found. The team continued to dig and at about a depth of five feet the first signs of a wooden coffin were found; it had been buried at a right angle to the other graves. Then bones were found with an ankle bone being the first located – Christmas Island Man as he was to become known had been found and his long journey home had begun. The body was lying face down at a peculiar angle and the state of the body corresponded with details provided by the Deputy Harbour Master in his 1981 letter. The remains of four press studs were also found which further indicated the body was that of the unknown sailor who had been buried in 1942. CI Man was then flown by a RAAF aircraft to Sydney and placed in the Shellshear Museum of Physical Anthropology at the University of Sydney for further examination. In early February 2009 a memorial cairns was dedicated at Christmas Island to mark the location where the Unknown Sailor had lain for 67 years.

Throughout 2007-08 extensive investigations, directed by Commander Fiona McNaught from Navy Headquarters, were undertaken to try and establish the identity of the unknown sailor. Anthropological data indicated he was a tall 'gracile' Caucasian male, between five feet six inches and six feet two inches in height with a shoe size of around size 11 indicating a man on the taller side of this range. He was also assessed as being between the age of 22 and 31 years due to bone development. The remains showed signs of degeneration of the vertebral column, an old healed small depressed fracture of the right side of the skull, and an old healed broken toe.

It was obvious from the head injuries that the man had suffered – bone loss in the vicinity of the left ear – that he had fractured his skull from the result of a fall or being thrown against a solid object such as being blown by the force of an exploding shell (a small piece of shell fragment was found embedded in his forehead but this was deemed not to have caused his death). Forensic analysis indicated that without medical attention this man would have died as a result of receiving these head injuries.

Burial of unknown sailor 2008 (Courtesy RAN)

There were also wear marks on his leg bones, known as squatting facets, indicating someone who perhaps had grown up in a rural region or possibly in a culture where squatting was a common activity. Equally possible was that the wear marks could have been caused by other activities such as sports which involved flexing the foot back against the leg. The dental examination was of particular interest as the man had significant high quality and expensive dental

Unknown sailor grave - burial (Courtesy RAN)

Chaplain Barry Yesberg - Christmas Island memorial cairn (Courtesy RAN)

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work, with several gold fillings, and there was also a missing tooth but with the gap completely closed over by another tooth, but at a noticeable angle. Mitochondrial DNA was extracted from the teeth but all attempts to extract nuclear DNA failed. The DNA found was identified as coming from Haplogroup J1 which is common in southern Europe and the Middle East but also found in other regions of the world including Britain and Australia.

The Australian War Memorial (AWM) staff analysed the press studs and found portions of cloth still present. This cloth was assessed as being originally white (or undyed) and of a particular weave which was not consistent with the blue twill cloth used on RAN Ratings or RAAF Airmen's overalls. Examples of RAN and RAAF overalls held at the AWM were examined and found to be of a coarse blue twill cloth and with black buttons as fasteners. This finding was supported by photographic evidence and first hand evidence from ex RAN Ratings and RAAF Airmen from World War II. Ex RAN officers from the World War II era were interviewed and many recalled being issued white overalls, with press stud fasteners at the front, or being issued white cloth and then getting a civilian tailor to make up the overalls using either buttons or press studs as fasteners. This evidence was supported by Australian Naval Orders of the era regarding officers' overalls. Thus much of the evidence pointed towards CI Man being an officer or warrant officer.

It appeared that with all this evidence the identity of CI Man would soon be known; but this was not to be. Matt Blenkin and Russell Lain had analysed over 330 dental records of the men lost in *HMAS Sydney,* but none matched CI Man, and the other records could not be found in Defence Medical Records in Canberra or had been lost with *Sydney*. Commander Greg Swinden, a naval historian, constructed a database of the 645 men killed using their service records to identify age, height and any notable injuries (such as broken legs or missing fingers). Using this data, and the dental records, a short list numbering just over 100 men was created for further investigation.

From this data base a smaller group, comprising mainly officers, was selected as being the most likely to provide a positive answer. Relatives were invited via media releases to come forward for DNA testing. Several did but in a number of cases further research was required to find relatives as many did not know they were related to a man from *HMAS Sydney*. Over the next 18 months the painstaking work of the research team saw several DNA samples and photographs (which could be used for comparison with the sailor's teeth) collected from all over Australia and even as far away as the United Kingdom. Unfortunately no positive results were obtained.

Throughout the investigation process members of the public and the media made claims that the research should include all *Sydney* personnel and some claimed the body was not of a man from *Sydney*. This latter claim is highly unlikely. The first hand evidence from 1942 indicates the Carley Float was of a naval pattern and manufactured in Australia (when the metal tubing was opened it was found to be stamped with 'Made in NSW/ Australia' and 'Lysaght' which was an Australian manufacturer of sheet metal from which the raft was made).

The weed growth on the bottom of the float was assessed by Captain Smith, an experienced mariner, as indicating the raft had been afloat for several months. The Senate Inquiry in 1998 had also ruled out the raft coming from another ship, having identified the date and location of all vessels lost in the Indian Ocean and South East Asia during 1941-42. The inquiry ascertained that no wreckage from these ships could have made it to Christmas Island due to unfavourable currents and winds or it being physically impossible due to the speed at which the raft would have had to travel.

Also, and more importantly, the metal fragment found embedded in the forehead of the remains was examined by a forensic ballistics investigator who indicated it was a not a small arms

Sydney Sailor/Geraldton War Cemetery (Courtesy RAN)

Captain Jim Parsons sprinkles earth at the grave site 19 November 2008 (Courtesy CMDR Greg Swinden)

Minister Snowden at memorial Christmas Island (Courtesy RAN)

bullet but a shell fragment from a larger shell or projectile. This fragment was further analysed by the AWM and the Australian National University and found to contain a large percentage of manganese and silicon, consistent with German hardened steel materials used in high explosive shells.

In September 2008 the Navy, in consultation with the Office of Australian War Graves, made the decision that CI Man was to be re-buried with or without a name. While the government team, consisting of naval historians, anthropologists and forensic dentists, continued to conduct research into CI Man's identity, the Navy undertook preparations to re-bury the unknown sailor in Geraldton War Cemetery. Geraldton War Cemetery was technically the most appropriate site as it was the closest Australian War Cemetery to Christmas Island, but it had several other factors making it the best site. Firstly, the recently discovered wreck of *Sydney* was off the Western Australian coast only some 120 nautical miles from Geraldton. Secondly, *Sydney* had visited Geraldton several times while stationed in Western Australian waters including a visit only a few weeks before she was lost. Finally, the *HMAS Sydney* Memorial, including the Dome of Souls with 645 stainless steel seagulls representing each man lost as well as the black marble Wall of Remembrance with each man's name engraved upon it, is located there on a hill over looking the harbour.

Geraldton was the ideal final resting place for CI Man and for many families of those lost this is the spiritual home of the ship and her men. In late October 2008, the remains of the unknown sailor were collected from the Shellshear Museum where he had lain for nearly two years under the watchful eyes of Denise Donlon. She later stated – *So he is on his way – I was sad to see him go*. The final part of his long journey had started.

On 19 November 2008, 67 years to the day that *Sydney* was lost, there were a number of memorial services held at sea, around Australia and in London to commemorate those who had lost their lives. In Geraldton a memorial service was held in Queens Park attended by politicians, senior defence personnel and the families of those who were killed. At sea the frigate *HMAS Sydney* (IV) escorted the amphibious transport ship *HMAS Manoora* which had embarked hundreds of family members of those lost in SYDNEY (II), to the site of the ship's final resting place and a service was held over the site of the wreck

But it was at Geraldton that the final farewell to the unknown sailor took place. The coffin bearing his remains and covered by the Australian White Ensign was centrepiece to the service as the highest in the land came to offer him and his shipmates the praise they deserved. John Perryman reminded those gathered that while *Sydney* had been lost with all hands she had still sunk the *Kormoran* and removed a dangerous enemy from Australian waters. It had been a high price to pay for victory, but it was a victory none the less.

Then as the service concluded the coffin containing the unknown sailor was removed to make the final short journey to the War Cemetery. Accompanied by senior public officials, naval personnel, the expedition and research team members and most importantly by four men who had served in *Sydney* up until only a few weeks before she was lost, the cortege made its way to the cemetery. Principal Chaplain Gary Lock, RAN conducted a brief service and then the coffin was lowered into the ground while a volley of shots was fired by an honour guard

The Long Journey Home
The Story of the Unknown HMAS Sydney Sailor

2006 Christmas Island Expedition Team at the Unknown Sailors Grave (CMDR Matt Blenkin absent) (Courtesy RAN)

of sailors from *HMAS Sydney* (IV). The unknown sailor's journey home that had started 67 years before was finally over.

The search, however, for the identity of the unknown sailor is far from over. While some claim he should not be identified, as by remaining unknown he represents all 645 men who lost their lives, there are others who would like his identity known. The RAN continues to undertake further action to identify this man and DNA testing will continue in the future. Additionally it is proposed to undertake isotope testing which will use small samples taken from his remains to try and identify the region where he was born, or lived his last few years, using oxygen and strontium levels in the bones and teeth. We owe this to him; he has traveled so far and for so long to tell us who he is and we should do all we can to identify him.

In 1993, when the then Prime Minister, Paul Keating, spoke at the interment of the Unknown Soldier at the Australian War Memorial he stated, *We don't know who he is – and we never will.* Perhaps one day, however, the Unknown Sailor will be identified.

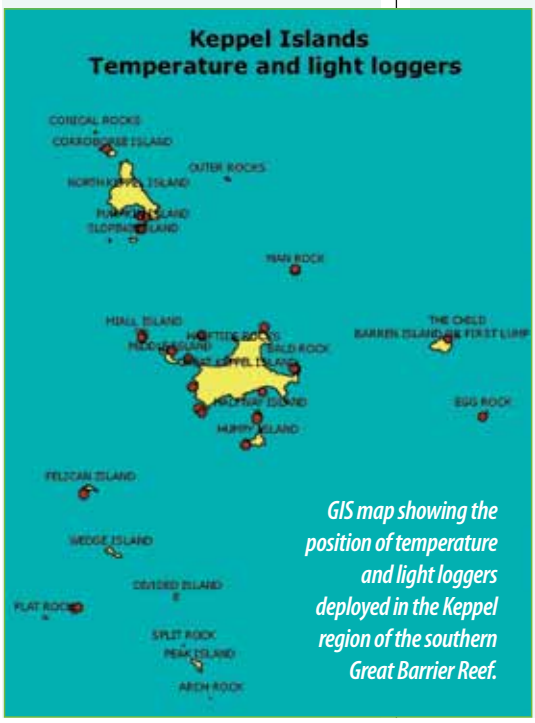
Marine 'refuges' may be the key to coral reef recovery following climate change

BY ALISON JONES

One of the most potent weapons that marine managers have in helping coral reefs adapt to climate change is the creation and protection of marine 'refugia' (Riegl and Piller 2003). Pockets of highly diverse marine life could be the key to the survival and regeneration of coral reefs as climate changes take effect over the next century (Schneider, Semenov *et al.* 2007). The survival of the reef-building corals (Scleractinian) are the key to retaining the structural integrity of coral reefs as these provide habitat, food and shelter to a variety of other marine life.

To this end, we set about identifying coral 'refugia' in one of the most vulnerable and highly valued marine systems, the inshore reefs of the southern Great Barrier Reef (GBR). The Keppel region lies at the mouth of the Fitzroy River Catchment (23.1°S, 150.9°E) which makes it vulnerable to both climate change-induced sea temperature rise and increased sedimentation as a result of soil disturbance along the river system. The Keppels has a history of multiple disturbances in the past including coral bleaching and flood (Byron and O'Neill 1992; Furnas 2003). However, its strong recovery in the past indicates that coral refuges do exist as these have probably re-seeded reef regeneration following previous disturbance. In April 2008, the AIMS research vessel *Cape Ferguson* visited the Keppel Islands region of the southern GBR to begin surveying reef sites that may make good coral 'refuges'.

Since April 2008 we have completed surveys at 18 sites in the area and expect to complete further surveys over the next year. In addition we have deployed temperature loggers at 20 sites and light loggers at three sites (Figure 1). Light loggers will be rotated around the 20 sites where the temperature loggers have been placed and data from these loggers will be incorporated into GIS maps. Data from the coral surveys will be analysed using Coral Point Count with Excel extensions (CPCe version 3.4, National Coral Reef Institute). These coral cover estimates will also be incorporated into ArcMap to produce an interactive map of coral cover and biodiversity. Samples of the most dominant Acropora species were taken to determine the symbiont community structure at each site.



GIS map showing the position of temperature and light loggers deployed in the Keppel region of the southern Great Barrier Reef.

Two local dive businesses were chartered to conduct the surveys after departure of the AIMS vessel in April. Volunteers from the Central Queensland community have been an integral part of the fieldwork (Figure 2,3). Weather has prevented us from conducting fieldwork over a great proportion of the summer but winter usually brings calmer weather and better visibility. The AIMS vessel will again visit the region in April 2009 during which time we will continue the coral surveys in order to cover as much reef area as possible. Fine scale mapping is an integral part of the response of natural resource managers to identify the resilience of ecosystems. In this way, managers can identify pockets of biodiversity that may deserve higher protection from anthropogenic impacts than other areas. As such, this project may serve as an example for other regions to enhance the capacity of ecosystems to survive climate change.

Alison Jones, Central Queensland University/Australian Institute of Marine Science, Doctor of Philosophy candidate

Two of the volunteers who took part in the fieldwork for the Keppels 'refugia' project. The picture was taken at the local island dive shop, Keppel Reef Scuba Adventures on Great Keppel Island showing the Envirofund logo in the background.

A volunteer takes notes using an underwater pen along a 50m transect line at North Keppel Island.

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A Bright Flame: *The Leadership of Admiral Sir Bertram Home Ramsay RN*

BY SUB LIEUTENANT GLYNIS BAILEY

It is somewhat ironic that Bertram Home Ramsay is best known for action taken after he had been retired from the Royal Navy (RN). Born on 20th January, 1883, Ramsay rose to the rank of Admiral on the 27th April, 1944. During World War II while technically retired, Ramsay was responsible for organising and executing many of the momentous British amphibious operations. As Vice-Admiral of the Dover area, he oversaw the colossal task of evacuating allied troops from Dunkirk and ensured the continued protection of the south-eastern coastline from potential invasion. He was heavily involved in planning many of the combined allied amphibious operations in Northern Africa (eg, Operation Torch) and Sicily (eg, Operation Husky). Perhaps most significant of all, he was heavily involved in the planning and execution of the invasion at Normandy (eg, Operation Overlord), serving as the naval commander of the largest amphibious operation of all time. It is without any doubt that Ramsay was the RN's master of amphibious warfare during World War II. It was a dark day for the Navy when not long after this on the 2nd January 1945, Ramsay was killed when the plane he was aboard crashed after takeoff.

The two most significant achievements of Ramsay's career are undoubtedly the successful evacuation of allied troops from Dunkirk (ie, Operation Dynamo), and the successful command of the naval component (ie Operation Neptune) of the landings at Normandy (ie, Operation Overlord).

The evacuation of allied forces at Dunkirk came in the context of a number of smaller evacuations from along the French coastline. As a result many in Ramsay's staff were already exhausted by the time Operation Dynamo was put into action. It was itself a momentous feat of planning and execution. The operation involved not only coordinating an astounding number of heterogeneous vessels, ranging from the RN destroyers to small fishing vessels, but organizing the support required. Fuel, charts, ammunition, stores, and ongoing maintenance were all required and the impact of these demands was felt across the country. When the evacuations began on the 27th May, 1940, the fleet was subject to heavy attack from air, sea and land. The crews of the vessels were so exhausted it was not unusual for the captains of the RN Destroyers to collapse asleep on the bridge immediately after shutting off their engines upon returning to Dover. Such was Ramsay's ability to inspire his men into action that even when they thought the evacuation was over on the 1st June, and they bordered on extreme exhaustion, he was able to muster them willingly for three more arduous days of action.

While one cannot deny a variety of factors played a role in the success of the Dunkirk evacuations: from the indomitable courage of thousands of naval and civilian sailors to a degree of luck[1], one also cannot deny the pivotal role that Ramsay played in the operation – from restoring conditions at Dover Command to the execution of the task. It was his planning, organization and ability to inspire fatigued men to feats of extreme endurance that ultimately secured the successful evacuation of so many men. Operation Dynamo officially ended on the 4th June, 1940. It had started with the forlorn hope of evacuating 45,000 men of the British Expeditionary Force and ended with the successful rescue of 338,226 allied troops[2].

In 1943, Ramsay started the complex task of planning the allied invasion of Normandy; what was to become the largest seaborne invasion ever conducted. Ramsay was appointed as overall commander of the Allied Naval Expeditionary Force and the orders for Operation Neptune, the initial naval assault phase of Operation Overlord, were in excess of 1,000 pages. For this he amassed the largest armada ever formed with some 6, 939[3] vessels and over 850,000 troops taking part[4]. Operation Neptune began on 6 June, 1944 and ended on 30 June, 1944. In addition to getting the troops ashore the navy was tasked with close protection of the force from submarines, warships and aircraft while simultaneously bombarding the beaches in support of the landings. The operation also required ingenious solutions to problems such as the underwater Pluto pipeline which was designed to refuel ships offshore at sea. It is considered by many the greatest amphibious operation ever staged.

The success of these operations hinged largely on Ramsay's leadership style which for the time represented a mix of both the traditional and modern. On the traditional side, he was

an undoubted disciplinarian. On assuming command of *HMS Broke* in 1917 he filled more than two pages with faults, most summed up with 'discipline – bad.'[5] His need to have everything done properly stayed with him through his junior years to his most senior commands and was noted by those around him. He was strict, fair but never harsh. The exacting standards he set for himself and his senior staff meant they set a very high standard to his subordinates. From Ramsay's own perspective his strong need for discipline helped him form an organized representation of his world. It is likely that this trait permitted him to successfully conduct such ambitious, complex and dynamic operations as Dynamo and Neptune.

The precision in his orders and in his training of those working with him ensured that his operational orders were carried out successfully and without him having to attend to every detail. Ramsay believed that success of command at sea rested upon two principles. Firstly, his subordinates should know precisely what is expected of them both in a general sense and in regard to their specific role. Second, work should be delegated. Ramsay was adept at delegation and there is no doubt that without an excellent ability to delegate neither Operation Dynamo nor Operation Neptune would not have been a success. Indeed, he held a modern outlook for the time that amongst other things involved a decentralized command structure[6] that permitted flag officers more time to think. Where ever possible he preferred to alter methods to improve efficiency.

Ramsay also continuously sought to improve his knowledge and he was amongst the second group to attend the RN War College. Ramsay sought and accepted responsibility throughout his career but never was this more obvious than at the outset of World War II when, despite being on the retired list, he arrived at the admiralty and started work.

His decisions and calm demeanour in stressful situations inspired confidence in those around him. Similarly, Captain WG Tennant, the Senior Naval officer at Dunkirk said that Ramsay inspired confidence because 'all of us with a job to do felt that we were trusted.'[7] Trust, like accountability, is a great motivator.

For the most part Ramsay had good relations with his superiors and his subordinates. Indeed, he was one of the few commanders who got on well with General Montgomery, whom most of the British and American commanders could not stand.[8] While serving as the executive officer of the battleship *HMS Benbow* in 1915 he

American assault troops in a landing craft huddle behind the protective front of the craft as it nears a beachhead, on the Northern Coast of France. Smoke in the background is Naval gunfire supporting the land (Courtesy US Navy)

A Bright Flame: *The Leadership of Admiral Sir Bertram Home Ramsay RN*

earned the respect of her crew through his keen organisational abilities and by distributing duties across the ship.[9] When Ramsay was placed on the retired list in 1938, the Admiral of the Fleet Sir Reginald Tyrwhitt wrote to him, 'I have always looked upon you as a future First Sea Lord and I think you would have made a damned good one.'[10] The First Sea Lord, Andrew Cunningham trusted him implicitly during their operations together and gave Ramsay his unreserved support to be in charge of Neptune. However, not all of Ramsay's relationships were smooth. The breakdown of his professional relationship with the Commander-in-Chief of the Home Fleet Admiral Blakehouse, and their professional disagreements on leadership and personnel management led the then Rear-Admiral Ramsay to resign as Blakehouse's chief of staff in December 1935. It was this incident that was ultimately responsible for Ramsay being placed on the retired list in 1938. He was not reinstated to the active list until shortly before being promoted to Admiral in 1944.

Ramsay possessed an unusual degree of flexibility in planning and commanding operations that enabled him to adapt quickly to changing conditions and to anticipate many of the eventualities. By his own admission[11] the frequently changing nature of both the situation and operational requirements for Operation Dynamo were its greatest challenges. Part of his operational success stemmed from his ability to pre-empt situations such that when requests were made for naval support he already had the vessels in place. He had exceptional organizational and management skills, and was considered among the RN's most intelligent and capable officers during World War II.[12]

Ramsay is perhaps not as well remembered as he deserves to be.

This photo tells the story of how the France beachhead was supplied on "D-Day". (Public domain)

While this is not unusual for significant naval figures or even for naval achievements in general, Ramsay's critical involvement in Operations Dynamo and Neptune begs for greater recognition than he receives. While he was considered to hold a unique place in the hearts of the British people immediately after Operation Dynamo it is doubtful that many would know his name or achievements today even though a statue of him stands at Dover. He is a forgotten commander, no ship or establishment bears his name.

By rescuing the bulk of the British land forces and many free French from the beaches of Dunkirk, Ramsay ensured they would be available for the invasions in Northern Africa and Europe that he would subsequently plan and execute, most notably the Normandy landings for Operation

War Tunnels in the White Cliffs of Dover. From inside these tunnels, Ramsey orchestrated Operation Dynamo (Courtesy ASA Summer Programs)

Overlord. We can only guess at how successful the evacuation of Dunkirk or the Normandy landings would have been without Ramsay's command. Moreover it is likely that the outcome of the war would have been significantly different had either of these operations not been successful. We are also left to speculate as to what influence Ramsay would have had on not only the RN but also amphibious and combined operational doctrine had he not been killed so soon after the war.

Sub Lieutenant Glynis Bailey BSc (Hons) PhD RAN joined the Navy as a Seaman Officer from the University of New South Wales where she was a Research Fellow and occasional Lecturer in Psychology. This essay was completed as a requirement for the New Entry Officers Course. She commenced the Junior Warfare Application Course in 2009.The author is grateful to comments provided by Lieutenant Desmond Woods on an earlier draft of this essay.

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(Endnotes)

1 e.g., the presence of mist that allowed for the hidden advancement of allied troops along the beaches or that the harbor channel at Dunkirk remained clear of the wrecks that littered the bay.

2 Chalmers, W. S. 1959, Full Cycle: *The Biography of Admiral Sir Bertram Ramsay K.C.B., K.B.E., M.V.O.*, p 271.

3 Composed of: 1213 warships, 4126 transport vessels, 736 ancillary vessels and 864 merchant vessels.

4 Chalmers, op cit, p 271.

5 Howarth, S. 1992, *Men of War: Great Naval Leaders of World War II*, p 359.

6 as opposed to the centralized structure favoured by some of his superiors and which he considered paralysed staff performance.

7 Chalmers, op cit, p 77.

8 Simpson, M. 2004, *A life of Admiral of the Fleet Andrew Cunningham: A twentieth century naval leader.* p 157.

9 Chalmers, op cit, p 29.

10 Chalmers, op cit, p 50.

11 Ramsay, B. H. *The evacuation of the allied armies from Dunkirk and neighbouring beaches: Dispatch to the Lords Commissioners of the Admiralty 18 June, 1940*, Printed as a Supplement to The London Gazette, 15th July, 1947. pp 3295-3318.

12 Madsen 1998, *The Royal Navy and German Naval Disarmament 1942-1947.* p 10.

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Visit to BRNC Dartmouth – CDRE Harry ADAMS prize

BY SUB-LIEUTENANT MATTHEW NORRIS

As a relatively new member of the RAN (joining in January 2007), I was incredibly honoured to be given the opportunity to visit the British Royal Naval College (BRNC) *Dartmouth* in the UK in December 2008. The trip was my prize for winning the CDRE Harry Adams essay competition.

I chose to visit BRNC in their final week of operations for 2008, enabling me to witness their Passing Out parade and Christmas Ball. Having annual leave available enabled me to incorporate the airfare prize money into a two month around the world itinerary. The end result was my visit to England expanding to include Christmas in Paris, New Years Eve in New York, and a week on the beach in Jamaica.

Built in 1902, BRNC became the home of Naval Officer training. Prior to this, training was conducted onboard the former warship *Brittania* which was moored on the River Dart. The College was opened in 1905 by King Edward VII. Apart from a period of evacuation during WWII, Officers have trained here for the RN ever since.

Upon arrival at BRNC, my first impressions were confirmed that this is an establishment seeped in history and tradition, but on a much grander scale than I could have ever imagined. Progressing up the sweeping roadway which led us to the magnificent Quarterdeck and main buildings, I was aware that I was in for an amazing experience.

The Wardroom was very inviting, with spectacular views over the local town of Dartmouth and the River Dart. The ceiling offered some interesting "graffiti" with the signatures of Prince Charles, Prince William and Prince Andrew on the 18ft high ceiling!

The Senior Cadets' mess was equally impressive, offering the use of the original 1905 table and chairs, views of intricate stained glass windows and displays of historical photos around the walls.

The corridors of the College revealed further history with displays of Napoleon's original uniforms, artefacts from the original *Brittania* and other antiques. The structure itself shows evidence of the reconstruction required after the college was damaged during bombing in the 2nd World War.

My week at BRNC included a full tour of the grounds and buildings, an afternoon on the River Dart experiencing each of the RHIBs in use by the RN and time in the Bridge Simulator. A visit to Dartmoor was also included where the adventure training exercises are conducted. However, the main event for the week was being able to witness the Passing In and Passing Out Parade (PIPPOP) of graduates, followed by the equally impressive BRNC Christmas Ball.

The training undertaken by Junior Officers at BRNC is very similar to that undertaken by RAN Officers. The training period is slightly longer, but the content is almost identical. Regardless of the rank of new Officers, all recruits wear an additional Midshipman rank to depict that they are still under training. This proved especially effective during the Sea Training Phase.

The adventure training exercises held on Dartmoor are very similar to those held at *HMAS Creswell*. They are spaced throughout the training process and include similar activities and objectives. The main difference being Dartmoor weather is incredibly unpredictable, with the weather changing from clear and cold to being blanketed in fog and rain in less than 30 minutes!!

The Passing In Parade Passing Out Parade (PIPPOP) was very impressive.

Brittannia Royal Naval College

Dartmoor

Two photos above: Passing In and Passing Out Parade at BRNC

Visit to BRNC Dartmouth – CDRE Harry ADAMS prize.

Braving the cold and windy conditions, the Parade Ground was full to capacity. The PIPPOP allows for the new entry Officers to Pass In to the College, alongside the Officers who have completed their initial training and are Passing Out of the College. Sailors from *HMS Raleigh*, another training establishment, also participated to enable them to share in this major milestone of a Junior Officer's career. In the past, a member of the Royal Family has attended the Parade when possible. While this did not occur for this parade, the guest of honour was RADM Ibbotson, Flag Officer Sea Training and CAPT Franzini of the Uruguay Navy.

It was interesting to note the diversity of cultures and ethnicity of Officers who train at BRNC. Training alongside the RN Officers were Officers from the Navies of Oman, The Bahamas, Iraqi, Kuwait, Nigeria, Pakistan, Jamaica, Sierra Leone, Qatar and Bahrain.

Another highlight of the visit was the Christmas Ball. Being welcomed at the entrance by artists juggling fire sticks indicated that it was to be a memorable occasion. The focal point was the indoor parade ground, which had been transformed into the dance floor. The Royal Marine band played as guests were treated to champagne and canapés. Dinner was a traditional English roast, followed by a visit to the chocolate fountain! A mini casino with pre-issued chips was set up offering a very popular option for guests to try their luck at Blackjack without having to part with any cash. A chance to get some fresh air was available as the fireworks were set off later in the evening. To conclude the festivites, "breakfast" was served in the Senior Cadets mess at approximately 0100h before we retired for the evening.

Overall, the visit was an amazing experience. I was welcomed into the College and Wardroom as a colleague and friend. A great deal of interest was shown by the RN Officers about transferring to the RAN. It was great to experience being part of the greater RAN family and to be involved in all of the celebrations. BRNC is steeped in tradition, making our Navy seem very young in comparison. The visit made me appreciate the importance of tradition in the RAN and allowed me to experience an opportunity that few Junior RAN Officers will have access to. For this, I am extremely grateful to the ANI. I can only urge other Junior Officers to enter the CDRE Harry Adams essay competition this year, or to apply for other exchange initiatives such as Exercise Longlook. It's an experience you won't forget.

A transcript of the Keynote Address given by Commander Nat Gould RAN (Rtd) at the Fleet Air Arm of Australia AGM

- 27th October 2007, in the White Ensign Club - HMAS Albatross.

Gentlemen,

Thank you for inviting me down today.

When I was asked to say a few words, as usual I've reservations about addressing a gathering like this, because a lot of you know me and I'm terrified of being accused of shooting a line. It's very difficult to talk about your own career without saying a few words and being a little immodest. The other worry I have is that my memory is not what it used to be, so if I get dates, and places and people a little bit mixed, tolerate me, please.

Now to talk about myself, I grew up in Brisbane as a pre-war bloke, and all I wanted to do was fly aeroplanes. It was the days of Kingsford-Smith, Amy Johnson, Bert Hinkler, and some of the RFC WWI blokes were still around. All I wanted to do was fly, but we couldn't afford it, so what I did was go out and collect cow manure, and mushrooms, and sell them to the local people at one and sixpence a bag or whatever, until I had collected 10 shillings and then I could go out to Archerfield and get myself half an hour.

Eventually I got a licence at the age of 18, and incidentally in the meantime I'd joined the Army Reserve and I'd become a Bombardier in the Artillery. When war broke out in 1939, I was actually in camp with the Army, but as I had a licence and they'd started the Empire Air Scheme at that time, I was asked to join the RAAF. It was rather nice that I didn't have to apply.

In our course, which was No 1, nearly all the chaps had flying experience of some sort. I did my basic training at Archerfield in *Tiger Moths*. We didn't even have a rank or a uniform. We wore civvies and they gave us, overalls and a beret. We had no rank. Sergeants called us 'Sir'. God knows why, I was only 18 and a civvy.

Anyway we finished with Tiger Moths, graduated, and went to Wagga, and we were the first people to go direct from Tiger Moths onto Wirraways. It was a bit of a jump, because not only that, but the instructors didn't know much about the aeroplane themselves. My instructor was a Flying Officer pre-war RAAF, absolutely terrified of Wirraways, claiming demons and "wapites"and that sort of thing. So being brash I taught him aerobatics in a Wirraway, but at that age, I was only 20, you can do those things. Finally I got my wings and came out as a Sergeant Pilot from Wagga Wagga.

We were losing the war in those days – this was the end of '40; September/ October 1940 – things weren't going very well so we rushed off to the UK and I got there in January '41 and went to an OTU down on the East Coast near The Wash, where the cloud base never got above 800ft, it never stopped raining, it was freezing, and we hadn't flown for a long while because it took us six weeks to get there.

A Pilot Officer, Royal Air Force, who had been shot at a few times, came over to introduce me to a Hurricane. But first of all he sat me in the back seat of a Harvard and gave me a couple of circuits. I think I touched the stick once and then he said "OK off you go in a Hurricane". It sounds terrifying, and it was, but remember that in those days the Battle of Britain was just over, and things were pretty grim and they were enthusiastic about getting some recruits. I think there were 12 of us from the RAAF at that time. Anyway I got into a Hurricane and it was a very early model, and the radio didn't work but I took off and got airborne and got up into some cloud, but finally found my way home.

Commander Nat Gould RAN (Rtd)

The second trip in a Hurricane, Sutton Green was the name of the airfield down near The Wash, I got airborne in this machine but by the time I got my wheels up, the radio didn't work of course, I was in cloud and came up above cloud and I didn't know where I was. I saw what I thought was a Bristol Blenheim bomber so I thought he'll find his way to some airfield so I tried to formation on him. But I couldn't catch him. He kept going but I couldn't catch him, and I'd only had about an hour and a half on a Hurricane. So I shot out over the North Sea and let down and found my way back. As I got out of the aeroplane, everyone clapped and cheered "well done Nat"! When I asked what for, they said I had just chased a JU88! It turned out that the JU88 had just bombed the airfield, knocked out Sergeant Smith and had killed two people and they all thought here's this brave Australian just on his second trip chasing after him. My aircraft recognition was nil, but

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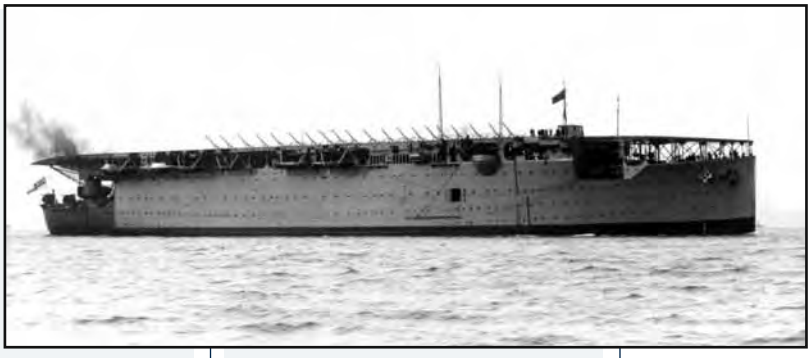
I told them the truth, I couldn't take credit for that.

Anyway I graduated. We all graduated – even if you couldn't handle the darned thing you still graduated, they needed you, and I got sent to a very, very famous Royal Air Force Squadron, called No17. No 17 had been in the thick of the B of B, and they had lost a whole pile of blokes, they had shot down something like 70 or 80 aircraft, and one poor bloke I got talking to had been shot down twice in one day.

Anyway, I joined 17 Squadron and fortunately they were due for a rest and got sent up to Scotland. I had my 21st birthday up there. There was no war on up there and being young and enthusiastic and it was still mid-1941 and the desert wasn't going very well, and with Australians there, I wanted to go out to the Middle East, so I asked for a transfer, and I finally found myself in a little airfield near Catterick in Yorkshire, and I started getting issued with a lot of flying clothing like passion killer things, flying suits, flying boots and so on, which didn't look like they were for the Middle East to me.

Anyway there were three other Australians with me, and the next thing I knew we were on a little aircraft-carrier called the *Argus*. I was still a Sergeant Pilot, and it was *HMS Argus*, which people didn't know very much about, and a lot of people who did know about her got it wrong. She was the very, very first aircraft carrier in the world, long before the Americans. She was commissioned as an aircraft carrier in 1918. I've learnt all this since of course, BTW.



HMS Argus (Courtesy naval-history.net)

Anyway here I was with 120 hours or something, in this *Argus*, and we still didn't know where we were going of course, and my knowledge of strategy and international politics and how the war was going – as a sergeant of 20, I didn't know much about it. Anyway, got aboard this aircraft carrier, never seen one before, we went out from Glasgow out of the Clyde, turned right, and I said that's not the way to the Middle East, and as it happened it wasn't, it was the way to Russia, So they told us we were going to Russia, and I though that was strange because I thought we were fighting the Russians – I told you I didn't know much about all this. Actually it wasn't long after when Britain and Russia decided we were all on the same side.

We got on this carrier, low cloud, fog and so on, and after a while on our way to Russia, and we were up near Spitsbergen, and we were flying different Hurricanes, Mk.2s – didn't know much about them – the compasses had never been swung, but it didn't matter, because I'm sure as you are all aware, being near the North Pole a compass always points north. So our briefing was take off, do a port turn, we'll put a destroyer on the starboard beam, line her up, pull your directional gyro out, and line her up. Now that made sense to me, and they said now fly along for half an hour or whatever it was, (oh by the way, they gave us maps which were in Russian and which we couldn't read anyway) and fly till you hit it, Russia's a big country, you can't miss it, and when you hit it, turn right, go along a little bit and then and go down the river and on the right you'll find an airfield!

I should mention that *Argus* had a little ramp on it, something like the ski jump on the modern RN carriers, way back in 1941 they had this and the whole idea was to scoop you up in the air but none of us had ever been on a carrier before, and none of us had ever flown these aircraft which hadn't been tested for many weeks.

They lined us up one at a time, as far back as we could, but there was no wind over the deck, and poor old *Argus* was flat out, and if she could do 20 knots I would be surprised. Anyway we went charging along and we got airborne – I did at any rate – but two of the blokes hit this little ramp and broke their undercarriage. We were also briefed and told later on not to worry if we went in the water, because it was so bloody cold you weren't going

Hurricane

to last very long, and in any case the destroyer's not going to stop and pick you up because there's a lot of trouble around.

We eventually got to this place called Vianga, just outside of Murmansk; just an airfield, the snow hadn't started then, this was July, and the Russians had funny little Fighters there, and some Dive Bomber things, and they had no two-way radios. They had no radar of any sort, and the Germans had a big base at Passano,which was not very far away, 40 or 50 miles, that sort of thing, with ME109s and JU88s, so the first thing we knew about a raid on us was either when the flak opened up or the bombs dropped. And just to show a little bit of support, we had nothing else to do, but get airborne. The strange thing was too that at some stage, the Finns, who were then enemies of the Russians, had Hurricanes, and so too a lot of Russians, the Hurricane was the 'baddie', and we got jumped quite a few times by the Russians, which confirmed my idea that we should have been fighting them instead of being with them.

This was a bad time and the Russians were losing the war, and so Mr. Churchill had promised them some help, so that is why the two Hurricane squadrons were there. The whole idea was not just for us to teach them to fly them, which was fairly easy, but also how to maintain them, because the Hurricane was a quantum leap on the little agricultural things they had. Rolls Royce Merlins and 100 octane were a bit of a surprise for them. That was what it was supposed to be, but we did get involved in quite a few sorties and we were officially confirmed with 15 German aircraft. It was quite a few more than that. The Russians themselves were strange people and they didn't want to give us any confirmed. We found out afterwards that they themselves got X number of roubles for every German aircraft they shot down and they didn't want to share any of it with us, and in any case one of our bright blokes said that well, if we kept the money we would lose our amateur status.

What a peculiar war it was. It's almost hard to believe. You have to remember that the Russians were very strange people at this time in that they just had very little to say, had no two-way radio, had no radar, and the army were fighting a very big battle only about 20 or 30 miles away from us. The Germans had a couple of Infantry Divisions trying to take Murmansk, a warm water port. We could go to bed at night and hear the guns at the front, so it wasn't very far away.

'A' flight were sent to escort a couple of these Russian dive bombers who were going to give close air support to their troops up one of the big inlets. My flight went off to give some sort of support to the Russian destroyer which was up this fiord because of the presence of the German 109s and the JU88s. It was a beautiful day, with not a cloud in the sky, you could see everywhere. To my absolute astonishment, I saw the lead Russian dive bomber dive down and dive bomb the Russian destroyer. To my further astonishment, I saw the destroyer open up and shoot this bloke out of the sky. We saw the crew bale out and so on. That's how strange the war was…

Eventually came the day when it got really and truly in to winter and it was time for us to go and we had handed over the aircraft but there had been no organisation to get us back, no real organisation, so another young Australian – Nobby Clark – and I, went down to the wharf at the fiord. There was an RN destroyer called the *Intrepid* and I went up to the destroyer and asked the bloke where they were going and he said back to UK. So I asked for a lift and he said "sure, hop aboard" so Nobby and I got on board this destroyer.

I got a pair of twin Lewis guns out on the bridge, I'm not sure what for, but this bloody mad Captain, instead of going back to Scapa Flow and back to UK, was going in and out of all the fiords at night looking for that something, and eventually he found his something, and it was a German troopship tied up alongside at Passano, so he torpedoed it. Then he found he needed more fuel so off we had to go, back to Vianga, to refuel. We then headed back to Scapa and UK, and eventually I got back to London and reported in down there. I went in and said "Sergeant Pilot Gould here", and they said "you're missing in action" and I said "I hope you haven't told anybody".

The Squadron then went to Northern Ireland for a rest and we got re-equipped with Spitfires. It was very pleasant in Northern Ireland then, I can't remember what the weather was like, but we did some nice flying, but it was non-operational, and we escorted the odd convoy coming in off the coast. And then for some reason, they commissioned me and I became a Pilot Officer.

Oh by the way, on the way back from Murmansk to UK, December 1941, Pearl Harbor happened. We heard about it over the ship's system. Again, you need to put your mind back to those sort of grim days, we were losing the war, no doubt about it, and we were terrified about what was going to happen with the Japanese and Australia. So we four Australians said we wanted to come home, and they "yes you can" after a little time. I remember it was St. Patrick's Day, 1942, when I sailed from Belfast and came back via Canada and the US on the first American troopship to come to Australia, and I eventually got back in May '42.

A couple of weeks leave, and then I joined RAAF 75 Squadron which

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had been up in Moresby, and those of you who know anything about the history of Moresby know it was a very bad time for 75. It had been shot out of the sky almost to the last pilot, and certainly to the last aircraft, and so they were in a bad way. It was not only myself of course, but a lot of other Australians had come home via various ways, and so we got rushed up to join 75 Squadron, which were flying P40 Kittyhawks.

Before I left, I had a couple of weeks in Kingaroy, and then went back up to New Guinea to a place called Milne Bay, and we got up there round about June or July '42, and we had a very bad time. Milne Bay was just a little strip in the mud with this PSP planking stuff all over it and if you went off the runway you would hit a coconut tree, no taxiways worth talking about. Poor ground crew, I take my hat off to them, it never stopped raining, it was mud, and there was no cover at all, they worked on the aircraft, the armourers and fitters and riggers, God knows how they did it.

We all had malaria; I had malaria and dysentery at the same time, going at both ends! I hope you're all enjoying this! The sort of thing that happened is you would be in your little tent on your stretcher, and the Doc would come in and say "don't you get out of that stretcher", and as he walked out the CO would come in and say "go and get airborne", so you would go and get airborne. It was unpleasant flying in the Kittyhawk with the diarrhoea. I remember you would take your mask off and have a quick vomit, and then put your mask back on, but the diarrhoea would be running down the back of your legs and you had another hour and a half on patrol, and the chance of a dog fight in the middle of it.

We did very well up there, (but) we lost a hell of a lot of blokes I think. One day we lost five from the squadron in one day, and 76,who were with also us up here, they too lost a few. However, the biggest deal was not the aerial combat. The Japs were coming in to land at Milne Bay, and because the weather was foul, the B25s and B26s from Moresby couldn't get out. So the two Kittyhawk Squadrons went off with 2 x 500lb bombs instead, and our briefing was go for the troopships of course, never mind the naval ships, and try to stop the landing.

RAAF Kittyhawks in formation. Although a fair fighter, the machine was no match for the Japanese Zero

Again a typical area of low cloud and rain and the Japanese were quite well escorted, a lot of flak ships and destroyers and so on, so I came out of the cloud and of course the squadron was split up and dispersed because the flak was pretty intense, so I went down to dive bomb a troopship, dropped my bombs, then back up in the clouds and came home. The boss came over when I landed and said "well done Nat" and I said "what for" and he said "you sunk that flak ship" and I said "well I was aiming at the bloody troopship"! So that's how good my dive-bombing was!

Anyway the biggest part of the war in Milne Bay from our point of view and from the armourer's point of view, and I don't know whether people realise this, but it WAS the first time the Japanese army was beaten on land. The army did an incredible bloody job there, they finished up hand-to-hand fighting.

At one stage, the Japs owned practically their end of the strip and we owned this end. We used to take off up over the water, and crouch down over the armour plating, pull your wheels up, breath a sigh of relief, turn round and strafe. A sortie was something like 10 to 15 minutes. Between the water's edge and the mountains was only about three or four miles, and it was thick jungle canopy and the army was fighting through this stuff and they asked us to give them strafing support and what they did, the leading unit would fire a red Very through the canopy and then a number of whites for every hundred yards past the reds (it was something like that but I can't remember the exact figure now,) and of course it sounds pretty good but if you're in a Kittyhawk with low cloud and you've got two or three blokes with you and you're pulling out of low cloud at 180 or 200 hundred knots or whatever it is, and the mountains are there, and up through the canopy comes this thing - trying to pinpoint where was almost impossible. So what you tried to do was line something up on the coast. Anyway to make sure you strafed well ahead of where you thought it was, you strafed well ahead of where you thought it was, and we did this for a couple of days, and to our astonishment, the army said it turned the battle for them so they were very grateful.

Well, we came out of Milne Bay round about Christmas time 1942, and I was sent to Mildura, which was the Fighter School, and that was far worse than any war I ever went to because the kids were coming out of school with their wings, 200 hours, maybe 250, and they came to Mildura and we had them for six weeks. Six weeks was all you

Clive Caldwell

had them for and in that time we had to convert them – we had three front line aircraft at the time, Boomerangs, Spitfires and Kittyhawks. You converted them to whatever, and taught them fighter tactics – we weren't flying instructors – and we had blokes from the Middle East all twitched up with DFCs, DFMs, and blokes who'd been in tank battles and so on and you had to sit in the back seat of a Wirraway, as if you were an instructor, and teach these blokes fighter tactics.

On the day I arrived there they killed four, and on the dive bombing range I think there were more casualties than there were bombs at one stage, because these blokes didn't have enough time. You put them in a Kittyhawk and sent them off solo, then air combat, strafing, dive bombing and so on.

After about two months of this I went up to the Group Captain and said "Can I get out of this bloody place" and he said "get in the queue" but finally a very famous Group Captain, Clive 'Killer' Caldwell came. He and I had been great friends for many years and when he took over I thought here's my chance so I went up to him and he said "where do you want to go", and I said "anywhere". He then said "well, I'm going up to take over the Wing in Darwin, the Spitfire Wing, how would you like to come". Oh boy, so, to cut a long story short again, I found myself up in Darwin with 457 Squadron, flying Spitfires. However, the war was tailing off up there, the Japs were moving away and I think I fired my guns only once. Anyway, it was good fun and I enjoyed it, but after about 10 or 11 months I got sent back to Mildura.

About this time, the Royal Navy came out in a big way, and I'm now talking what, early '45, or late '44/early '45, and I don't know if there are any RNers here, but they brought out a magnificent new force, which a lot of people probably don't know about, and included were aircraft carriers. Some of you would know them of course, the *Implacable, Indomitable, Indefatigable* and *Formidable*.

I served at sea in both the *Implacable* and the *Indomitable*, and we had 80-odd aircraft in each ship. It was quite an armada, seeing so many ships together, and we had a lot of aeroplanes in the sky.

About this time, the RN and the RAAF got together and said, look we're going up to get ready for the attack on the home (Japanese) islands, and you've got plenty of pilots, can we have some? The two governments agreed of course, and so one day I was a Flight Lieutenant with a big moustache, and the next day I was a Lieutenant RNVR, without a moustache!

This was early '45, and we went to Schofields, just outside Sydney. There were 12 of us and we were all quite experienced, ranging from Pilot Officers to Squadron Leaders, and we all became Lieutenants, there were some pretty gonged-up blokes too. Anyway they put us onto Seafires, and the Squadron I joined had 36 aircraft and that same number of pilots, and I'd been in the Navy half a dog watch, and I was the Senior Pilot, didn't even speak the language.

HMAS Formidable fleet aircraft carrier (Royal Navy photo)

Seafire Mk III after breaking a carrier arrester wire

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We embarked in *Indomitable;* did our deck landings just off the coast here, which went pretty well all right, though we lost one bloke off the coast here. Then I went to *Indefatigable* and did a tour round New Zealand, which was great fun. Then I went to *Implacable*, which, with the rest of the fleet went off to the home islands. We're now getting towards mid-45 and half a dozen of us were put on a small escort (carrier), can't remember the name of it now, part of the fleet training, to back up the main fleet, and we got just north of Truk. When we got to Manus, in the Admiralty Islands, we saw an armada you'll never see again in your life, the Yanks, the Brits and the Australians getting ready for the attack on the home islands. There were battleships, aircraft carriers, as far as you could see, cruisers too, it was an enormous sight.

One night in the mess I got talking to some Yanks and they wanted to talk about Spitfires and I wanted to talk about their aeroplanes. I said I wanted to fly Hellcats and they said ok, have mine buddy – and I had a flight in a Hellcat the next day, so I've got a Hellcat in my LogBook!

We got up to north of Truk in this little escort thing, and they dropped the 'Bomb' on Hiroshima. So we did a '180' and came home, and that's nearly the end of my story you'll be glad to hear. But not quite because we got back, and our Flag Officer Aircraft Carriers was Sir Philip Vian - amazing bloke. He loved us, and he called us his Abos. He gave us a party aboard his Flagship, can't remember its name now, and we all got a little bit drunk, and he said "what are you all going to do, you'll be out of work"? I didn't know, I still loved my flying and I was only what, 25, I didn't want to be a civvy, and he said "would you like to join my Navy?"

I thought about it for a while and a couple of us got together and decided it wasn't a bad idea, so I went back to him, here I was this lowly Lieutenant RNVR, and I said to this extremely high ranking Admiral "Sir, I would like to join your Navy on one condition" and he asked what condition, and I said "that we continue to fly", because I could see us all going back to the UK, poor tired old UK, because the war was over, and they weren't going to waste any money on us flying aeroplanes, we were going to get a dead-end job somewhere. And he said "I'll fly the arse off you".

Seafire Mk III readying for takeoff

Four of us went across, and the next day we joined the Royal Navy, and signed up for four years. He kept his word, and they spent a lot of money on me. They sent me to Central Flying School, Instrument Flying Instructors School. School of Naval Air Warfare, and I was then fully qualified. In 1948, Australia bought the carrier *Sydney,* and the RAN FAA was born, and I had a letter from the Australian Commonwealth Naval Board, "Dear Lieutenant Royal Navy Gould, would you like to join our Navy!" I said you bet, the money was better and in any case I wanted to come home, I had been away for two and one half, nearly three, years I suppose! Anyway, you know the rest of my story, I joined the Royal Australian Navy and came home.

Just to end up, one of the saddest things to me is we no longer have a carrier with fixed wing, and I hope one day and there are signs that it's possible, that we may fly again though we won't call it a carrier. I believe the ship they're looking at is 600 or 700 ft, about 20,000 tons, which is about the same size and shape as *Sydney* was. If you get one of these with VTOL aircraft I hope and pray we get back into fixed wing flying, and I don't see any reason why we shouldn't, because if you want to project your power in this part of the world and show something, you've got to have a carrier with fixed-wing aircraft on it, and project wherever you want to.

Seafire F XVII SX 336 wings up (Kennet Aviation image)

Gentlemen, thank you very much for listening to me.

Transcript by Tom McDonald, 15 November 2007; edited in places by Tom Lewis

Maritime Law Enforcement Beyond the Littoral

BY LIEUTENANT TIMOTHY A MARTIN

Maritime law enforcement is distinctively complex in part due to the environment in which it is carried out, and partly because in the post-Cold War era, cooperation of maritime security elements in regional areas has required careful diplomacy between actors through mainly weak international institutions. In some maritime regions only relatively weak institutions exist to counter-balance the influence that powerful foreign actors might impose. Nevertheless, existing maritime law enforcement mechanisms in two archipelagic regions, Southeast Asia and the Caribbean Sea, have been able to address different facets of the same problems that arise in other regions, which in all cases is the persistent incidence of crime at sea.

Enforcing law on land requires an adaptation to the environment and context in which the event takes place. In a similar way, enforcing law on the sea has involved a projective reach of state power from the littoral, into the territorial waters, and onto the vast high seas environments. Challenges to such extensions of state interests and power include protecting isolated shipping routes, and a limited capacity of local authorities to enforce law at sea (at least for some states), resulting in the ease of making a quick and complete getaway for those who commit crime at sea.

Addressing this problem of 'escape' across state territorial, maritime borders and hiding in the coastal deltas has long been the bane of law enforcement authorities. Cooperation has been limited in scope and duration. Caribbean Sea states currently have cooperative maritime security arrangements with north, central and South American, as well as Europe national strategic and commercial interests. Due to its proximity, there is also a strong history of USN and US Coast Guard involvement and influence.

During the 1990s, in the dawning post-Cold War era, shifting priorities affected regional security relations between states.[1] Henceforth, regional systems of states could increasingly depend on the protection to their territorial sovereignty afforded by international law rather than super-power allegiance. Michael Bahar noted in the conclusion to his 2007 treatise on naval deterrence and anti-piracy, that 'since, and perhaps because of, the demise of the Soviet Union, asymmetric and law-enforcement type threats have dominated the strategic landscape'.[2]

This evolution away from major power dominance allowed law enforcement authorities to interact with states directly in actively seeking non-military agreements. Minor state actors have been expected to interact as defence partners, rather than act as strategic competitors in the post-Cold War era. Changing dynamics of world events are providing strong reasons for states at the regional level to develop and strengthen their maritime security within a framework of cooperation. Maintaining maritime security at a level that satisfies international expectations and avoids foreign intervention beyond the level of diplomacy and indirect assistance, requires that policy makers in maritime regions determine a future strategy that encompasses protection of sovereign rights of states, ensures that maritime trade routes remain open for business, and allays the concerns of powerful foreign actors. The expectations of foreign actors, in particular the US and China but also India to the west and Japan and Korea to the north, force states in Southeast Asia to reassess how they respond to heightened threat levels, to security in general, and maritime trade in particular, and a reassessment of priorities for littoral

HMAS Anzac Boarding Party in the Gulf (Courtesy RAN)

states.

Crime at sea is associated with violence, theft, injury, illicit drugs and death. It is the responsibility of state governments to uphold legal and moral obligations to protect seafarers, migrants and refugees against abuse at sea, as well as preventing the smuggling of weapons by sea to destinations where they could contribute to misery and death. Human Rights Watch considers crimes committed at sea are broadly defined as violations against humanity.[3] Attacks against ships in maritime regions, such as South East Asia, and increasingly off the coast of Somalia and Nigeria directly affect professional seafarers, who have variously been robbed, held at gun-point, assaulted, taken hostage and in some instances, murdered. Piracy is defined by international law in different ways, but is universally accepted to be a criminal act under international law. Illegally boarding a vessel for the purpose of committing robbery, violence or hijacking against the vessel and its crew is a crime against the interests of the state where the vessel is registered. In other maritime regions, such as the Caribbean Sea, illicit drug trafficking (smuggling) increases the prevalence of illegal arms, violence and murder rates ashore.[4] This presents a problem where the coastal state has no municipal laws prohibiting such acts, and does not have the political will to enforce them, or a capability to do so.[5]

Enforcing international law at sea can place authorities in a tenuous legal position, requiring specialized response mechanisms and procedures, and a clear understanding of what is legally acceptable and what is not. Determining what is 'reasonably suspected' is likely to be contestable, as many states reserve the right to ship military, nuclear and other materials by sea, and there is nothing in the United Nations Convention on the Law of the Sea, 1982 (UNCLOS) – the most comprehensive set of international codes of practice for mariners – which specifically prohibits the transport of weapons of mass destruction (WMDs) through international waters.

Despite contextual differences, both Southeast Asia and the Caribbean Sea have shared common problems in policing crimes committed at sea through acting cooperatively to prevent maritime law enforcement getting bogged down by those rules, regulations and codes of practice provided through UNCLOS. Given the relative scale of seas and straits compared to the capacity of states to patrol them at any given time, maintaining a continuous maritime policing presence is difficult. While coastal radar systems, maritime aerial patrols and the presence of the U.S. Coast Guard and other international naval forces in the Caribbean, and 'Eyes-in-the-Skies' programs, and coordinated patrolling in Southeast Asia extend the range of surveillance, in practice they are subject to strict rules of engagement, and scope of interdiction.

Interdiction has traditionally referred to the strategic operations of naval forces when denying access or transit through specified maritime regions during times of war. Since World War II, 'interdiction' has increasingly referred to law enforcement operations, as a means to enforce trade sanctions, to prevent the movement of weapons of mass destruction (WMDs), and specifically in the case of the Caribbean Sea, the smuggling of illicit drugs. Where international waters meet territorial seas, perceptions about the meaning of interdiction becomes complicated. 'Interdiction' is used here in its maritime law sense, provided by Devon Chaffee, described as the interception of ships and vessels and 'ensuring that no proscribed activities are being conducted.'[6]

Nevertheless, there are similarities in the incidence of sea crimes in the Caribbean and Southeast Asia. Typically, crimes occur relatively close to coastal state territories. Increasing numbers of violent sea-crimes and illicit drug and small arms smuggling have indicated a corresponding increase in crimes ashore. Crimes documented by the International Maritime Bureau (IMB), International Maritime Organization (IMO), Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) [Information Sharing Centre (ISC)][7] and other maritime security watchdogs, have occurred at sea where theft of money or valuables, or demand for ransom for the return of vessel and/or crew appeared to be the objective. Politically inspired insurgency has also been a suspected motive, even before President George W. Bush declared a 'war on terrorism', although incidents of maritime insurgency are not easily linked to other crimes that occur on the high sea.

Despite setbacks to international intentions to secure Southeast Asia against lawlessness at sea, and notwithstanding official rhetoric from coastal state governments, there remains some resistance to what is considered in some quarters as foreign interference. Nevertheless, financial incentives and resource

Boarding Party closing in (Courtesy USN)

A VBSS team, assigned to the dock landing ship USS Carter Hall, approaches MS Al-Kausar, an Indian cargo dhow to conduct a master consent boarding (Courtesy USN)

assistance of those states with vested interests in securing the seaways, including from the U.S. Japan, India and China, continues to influence the way that maritime law enforcement is managed. Agreements have not reached the stage of being codified in Southeast Asia but similarities with the Caribbean Regional Agreement (CRA)[8] model suggest this may not be an impossibility.

The CRA is an example of a cooperative approach that has potential to improve the capacity of Caribbean Sea micro-states to address drug trafficking and its associations with organized crime, and implications for societal security. Benefits for states may include wider strategic influence, increased financial investment and potential military aid. By agreeing to also adopt the International Ship and Port Security (ISPS) Code, which has developed from the U.S. led Proliferation Security Initiative concept that seeks to limit the risk of WMD distribution internationally, many smaller states may accrue beneficial U.S. attention in the future. Larger and smaller states derive benefits from such multilateral efforts but cultural, political or historical issues may prevent an easy association with one or more states in any long term multi-lateral mechanisms. Therefore, a proposal that seeks to address law enforcement at sea must identify core common denominators affecting state's maritime security interests. The question is, will these form the basis for a successful formal agreement?

Pirate attacks on shipping, and the activities of smugglers prompt law enforcement as well as military challenges, particularly if police have limited maritime capabilities restricting their capacity to operate into and beyond the territorial sea.[9] Land-based policing patrols, for example Singapore's Water Police, operate within the territorial sea and thus the jurisdiction of the state of Singapore, as a natural adjunct role to coast guard and naval forces operating beyond it.

However, Ken Booth's trinity of diplomatic, military and police functions suggest that interrelationships between the military and police can be of limited utility. While naval forces demonstrate a 'prestige' presence as Booth indicates, they also extend state power through a visible image. Nevertheless, the state's control of law and order, at least beyond its own jurisdiction, is limited and may or may not be considered a core role of military forces.[10] Making a distinction between the diplomatic, military and policing roles of navies, Michael O'Conner argues that where there is a crime without political legitimacy (such as terrorism), the military can only be an appendage to police and intelligence investigations in law enforcement issues.[11] Modern

detection suites, such as radar, are of little use against small, speeding 'go-fast' boats full of balaclava-clad pirates or semi-submerged vessels commonly used to smuggle illicit drugs.

While municipal police provide limited investigative capability close to shore, some coast guards, notably the US Coast Guard, provide a constabulary role to the limit of the territorial sea and into and beyond contiguous and extended economic zones. If the role of naval forces is extension of state power beyond all territorial borders, only coast guards are capable of carrying out law enforcement, that is, a 'constabulary' role, beyond (to seaward of) the territorial sea. This is certainly the case for the U.S. Coast Guard, although its *posse comitatus* limitation has resulted in some imaginative use of the U.S. Navy in assisting with law enforcement.

Carrying goods by sea is still the preferred and most cost efficient means of transport between trading states, and James J. Wirtz links the increased interconnectedness of international trade, that is, globalization, to the spread of democracy. However, in circumstances where a naval presence would be provocative, a Coast Guard offers a less threatening means of providing international cooperation, training and awareness.[12]

Julian Corbett's imagined maritime construct remains relevant, as the sea and its littorals continue to hide modern sea-raiders.[13] Corbett considered that the conditions peculiar to conflict at sea 'both make possible and dictate a greater degree of strategic dispersal than on land.'[14] Patrols by small craft are well suited to 'strategic dispersal,' as they represent assets which, due to low relative cost, are usually available in greater numbers, and to smaller states than far more costly major assets such as warships. There are additional advantages of scale such as manageable deployment but this still relies on a political willingness of states to support police, military, and intelligence gathering agencies.

Where conflict is a result of a criminal act, such as piracy, policing has dual meaning; naval (military) and civilian jurisdictions apply. The nexus of coastguard/military cooperation will depend on political decisions about need and cost. Booth raises questions about the function of navies, including its military, diplomatic and judiciary (policing) roles but it still positions naval forces as an adjunct to regional law enforcement and order.[15] Wirtz argues that a (US) naval role has become an important and relevant component of the globalized 'peacetime' of the post-Cold War era because of its flexibility to relocate large force elements and logistical backup quickly to remote regions, without relying on an intact infrastructure being available ashore. Carrying all supplies and armaments with them, having a capacity of thousands of tonnes, naval forces fulfil a role which neither an air force nor army is able to do efficiently. Only naval forces could get ashore on northern Sumatra's battered littoral in January and February 2004 following a devastating earthquake and tsunami, as roads and airports were unusable. Beyond an emergency response role, naval forces are important as they are able to influence globalization through the protection or denial of shipping. Naval theorist Corbett, considered the real value of targeting commercial and industrial vessels is to avoid direct conflict with superior military assets.[16] In the Caribbean Sea at least, increased naval activity has also translated into increased interdiction of drug smugglers.

Employing private security forces onboard commercial ships may prevent pirate attacks but this undermines perceptions that state authorities remain in control.[17] In the Caribbean Sea multiple bilateral agreements to CRA principles that improve cooperation on matters such as 'hot pursuit' of suspects vessels into territorial waters have allowed littoral states to retain control of maritime movements within their territories while enhancing the law enforcement capability through cooperation with (primarily) the US Coast Guard.

Boarding Party members from an Australian Navy ship (Courtesy RAN)

The behaviour of non-state actors, the most likely source of disruption to maritime security in peacetime is a costly concern for all who use the sea. The political affect of attacks on military, civilian and commercial targets is evident in the attacks on the *USS Cole* (12 October 2000), *MV Limberg* (6 October 2002)and *Super Ferry 14* (26 February 2004). The *USS Cole* attack was a significant precautionary lesson in the need for solid regional awareness and intelligence. The other attacks caused grief to crew members and passengers, added risk to the passage of goods and transport of people, and translated resulting fears into pressure for higher insurance premiums for shipping companies. In the Caribbean Sea, a high level of drug smuggling has caused a reported increase of criminal violence and facilitated illicit drug trafficking ashore, consequently tying up naval and other law enforcement authorities of several countries in sometimes complicated maritime interdiction.

Boarding team members from guided-missile destroyer USS James E. Williams (DDG 95) board North Korean cargo vessel Dai Hong Dan (Courtesy USN)

Reaction of governments to the challenges facing enforcers of law at sea are varied. John F. Bradford points out that while Japan and Singapore have both made maritime piracy a national security issue, the problem has only been 'politicized' by Malaysia and remains essentially 'non-politicized' in Indonesia.[18] Maritime piracy is officially recognised as a threat in Japan and Singapore but down-played by other South East Asian actors. Rekizo Murakami, of the Japanese Coastguard Academy, points to the need for a SE Asian cooperative network. Despite improvements since 2004, Murakami argues that the lack of joint legislative frameworks and laws for the collection and submission of evidence and/or the transfer of criminals between countries will limit successful prosecution of those who commit crimes against shipping.[19]

Conflation of pirate attacks at sea or drug smuggling with jihadist insurgency are also possibilities, despite basic differences in rationale for each type of behaviour, and lack of evidence to suggest this is other than a low probability threat. Graham Gerard Ong suggests an overlap of threats, with similar roots, nature of violence, use of the sea, nature of threat and impact, as well as legal status. However, while pirates and drug smugglers are interested in sustained trade, maritime terrorism is 'often pyrrhic'.[20]

In an historical context, maritime law enforcement cooperation has been a mix of tradition, norms and legal context. In the early 1600s, for example, the Dutch East India Company sought legal clarity to support its claim that a Dutch privateer was within its rights to apprehend a Portuguese galleon in the Strait of Malacca. Whereas a similar event occurring today would be regarded an act of piracy, at the time, Law of the Sea was a debatable negotiation of colonialist interests, uncertain geographic proprietorship, and limitations of power. Hugo Grotius argued that an incident had to be seen in the context of contemporary understandings that oceans were not territories, so that law that applied on land did not necessarily apply upon the sea. Grotius was to write his foundational text, *Mare Liberum* (*Freedom of the Seas*) based on a premise of 'natural law'. 'Law of the Sea' had emerged from such disputes over maritime territoriality but also indicated the need for policy by which sovereign authorities could administer and police and know the limitations of that authority.[21]

The United Nations notes that the 'freedom of the seas doctrine' of the seventeenth century, national rights and jurisdiction of territorial waters and open oceans, was understood,

if not yet codified. This situation prevailed until the mid-twentieth century, when claims to offshore resources caused states to seek clarity on ownership of the sea. In 1967 Malta's Ambassador to the UN, Arvid Pardo, called for an 'international regime' over ocean resources which extended beyond 'national jurisdiction'. A conference on Law of the Sea was convened in 1973 and ended in 1982 with what the UN terms a 'constitution for the seas', the United Nations Convention on Law of the Sea (1982).[22]

Multiple negotiated agreements between maritime states for the provision of security at sea, can be termed a 'regime' if acceptance of the terms of the agreement become law, are enforced, and become normalized. A security regime exists where an agreed authorization is given, or arrangements are made whereby limited authority can be sought to pursue suspect vessels across maritime territorial boundaries. Processes of negotiation between states remain problematic, extensive, and built upon previous bi-lateral and multi-lateral successes and failures. Negotiations are dynamic, requiring ongoing maintenance through negotiation between signatories and reassessment of the context in which sea-crimes occur.

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Doctrinal Innovation in the Royal Naval Air Service: Samson, Longmore, and Williamson

BY COLONEL JOHN J. ABBATIELLO, USAF

During its brief existence, Britain's Royal Naval Air Service teemed with pioneer aviators who sought out the best roles for aviation in support of naval operations.[1] In an age when minimal historical experience was available for air organizations to develop doctrine, three men in particular improvised naval air employment concepts while under actual combat conditions of the First World War. At a time when many who served worked to improve the capabilities of Britain's new naval air arm, Charles Rumney Samson (1883-1931), Arthur Murray Longmore (1885-1970), and Hugh Alexander Williamson (1885-1979) employed innovative methods for aircraft, providing leadership during the Great War that transformed Britain's naval air arm out of its early experimental stage into a combat arm of significant value.

In many ways Samson, Longmore, and Williamson shared a common background. All three men were born in the mid-1880s and attended *HMS Britannia* (Britain's pre-commissioning training establishment) as teenagers. Each served on capital ships in the Royal Navy at some point in their careers, and they all learned how to fly in 1911. All three participated in combat operations during the Great War and each one chose to transfer to the Royal Air Force when the world's first independent air force stood up in April 1918. After retiring from military service, all three wrote memoirs. But most importantly, they tenaciously sought to improve the effectiveness and efficiency of naval air power at every opportunity during their time in both the RNAS and RAF.

The differences among the three men are perhaps more striking. Charles Samson, the senior of the three, joined *HMS Britannia* in 1897 and received his commission as a Royal Navy sub-lieutenant in 1902. After serving in a number of ships at home and abroad, including the command of a torpedo boat based at Devonport, he volunteered to be one of the first four naval officers to be trained in flying airplanes. In April 1911, after qualifying for his Royal Aeronautical Club Certificate (certificate no. 71), he became Britain's first fixed-wing naval aviator. He subsequently directed Britain's earliest naval flying school at Eastchurch and led a squadron to Flanders when the Great War began. In spring of 1915, he commanded the RNAS contingent sent to the Dardanelles to support the Gallipoli landings. Throughout his career, he was known to be "impatient of discipline."[2] His service record shows that Samson's commanders lauded his zeal and ability but also lamented his lack of tact.[3]

Arthur Longmore attended *HMS Britannia* three years after Samson, but following a number of assignments afloat, also including the command of a torpedo boat, he likewise volunteered to learn how to fly along with Samson, Lieutenant R. Gregory, RN, and Captain E. L. Gerrard of the Royal Marines. Longmore passed his Royal Aero Club checkride only a few minutes after Samson did and became Britain's 72d fixed-wing pilot and the Royal Navy's second. A year later Longmore moved on to be a flight instructor at the joint Central Flying School, where the British Army, the Royal Navy, and the Royal Marines worked together to train their first generation of pilots. He commanded two naval air stations in the years immediately preceding World War One and took over command of RNAS units around Dunkirk after Samson departed for the Dardanelles in late February 1915. In January 1916 the Admiralty transferred Longmore back to the fleet, where he served as a senior watchkeeper and turret commander aboard the battlecruiser *HMS Tiger*. He saw action at Jutland and later returned to the RNAS to serve as station commander at Eastchurch and then as a staff officer with the Air Board. He finished the war serving as the commander of all RAF units in the Adriatic.

The aft turrets of the HMS Queen Elizabeth seen in 1915

Hugh Williamson's early career was unique for a naval officer. Like Longmore, he entered *HMS Britannia* in 1900, but Williamson soon volunteered for the Royal Navy's new submarine service in 1906 and subsequently captained two submarines. In 1911 he learned how to fly at his own expense – while on leave and on weekends – and finally earned his Aero Club Certificate in November, becoming the 160th British pilot. In 1912 he was posted to the new battlecruiser *HMS Lion*, and in September 1913 he attended the Central Flying School in order to qualify as a naval pilot for the RNAS. Thus, Williamson possessed the unique experience and perspective of being both a submarine commander and a naval pilot during his career.

During the opening months of the Great War, Williamson flew patrols

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along the southeast coast of Britain and in late 1914 was appointed second-in-command and senior flying officer of the *HMS Ark Royal*, a new seaplane carrier converted from a merchant steamer. In March 1915, while spotting *HMS Queen Elizabeth*'s gunfire against Turkish batteries in the Dardanelles, Williamson was severely wounded in a seaplane crash. After convalescing, he was deemed unfit for sea service and transferred to the Admiralty in London, where he first served as the personal assistant to the Director of Air Services and then as the RNAS representative with the Admiralty's Operations Division. In May 1918, he was appointed to command No. 18 Group, RAF, with responsibility to defend merchant convoys sailing along England's east coast.

Samson, Longmore, and Williamson were only three men among a lengthy list of Great War innovators, but they stood out because they helped to establish roles and missions that naval aviators still carry out today. Their experiences also remind us that military organizations often rely on mid-level commanders with operational savvy to employ new technology effectively.

Samson

Charles Rumney Samson was an aviation pioneer in every sense of the word. As the senior officer among the first four of the RN's aviators, he served as the leading advocate at the tactical level for answering a brief yet rather complicated question: in what ways could fixed-wing aircraft support naval operations? The first step was to convince the Admiralty to actually purchase airplanes for the RN; Samson and his three colleagues had learned to fly on airplanes borrowed from a civilian flying enthusiast and under instruction from a civilian volunteer.[4] In October 1911, the Admiralty agreed to purchase two airplanes as well as provide naval ratings to serve as mechanics and approve the formation of a naval flying school at Eastchurch.[5]

Samson and his men immediately went to work in order to develop and prove concepts for employment of naval aircraft. In January 1912, Samson flew a Short pusher biplane off a bow platform from the pre-dreadnought battleship *HMS Africa*, using a track system he had designed himself.[6] A few months later he flew the same aircraft off *HMS Hibernia*, another pre-dreadnought, while she was underway. Other pre-war experiments included dropping dummy 100-lb. bombs from aircraft and transmitting with wireless radio in 1912, flying at night and designing and testing folding wings for shipborne seaplanes in 1913, and practicing formation flying during the summer of 1914.[7]

Samson's most significant pre-war experiment was a series of "proof of concept" exercises involving airplanes attempting to locate submerged submarines and then directing destroyers to their position. In reaction to a January 1912 paper submitted by Lt H. A. Williamson – where the submarine skipper (mentioned above) not only suggested using airplanes to spot enemy submarines but also proposed that the Admiralty should investigate building decks on ships for both launching and landing airplanes[8] – the Admiralty approved a series of experiments for the summer and fall of 1912.[9] Samson played the leading role in these trials, which took place October 1912 in the Firth of Forth. In these exercises, Samson demonstrated that aircraft could spot periscopes and submarine–produced oil slicks easily from altitudes between 1,200 and 3,000 feet, depending on visibility and sea conditions. Once located, he marked the position of the submarine with Holmes Lights – an early floating flare that produced smoke – which served as the pre-briefed signal for destroyers to close on the position. Finally, visual and aural communications between airplane and destroyer proved feasible through the use of airborne Klaxon horns and shipborne semaphore flags and steam sirens.[10]

Although such laudatory pre-war accomplishments set the stage for later developments, the test of armed conflict prompted Samson's most important innovations in naval aircraft employment. While operating in France and Belgium in the opening months of the war, Samson's squadron observed German efforts to improve Belgian ports to later serve as U-boat bases and to construct zeppelin bases. His men also attempted to bomb these facilities as well as German infantry and artillery positions.[11] In November 1914, Samson conducted what was probably the first night bombing mission in aviation history, when he attacked German batteries near the port of Ostend with eighteen 16-lb. bombs.[12] A complicated series of raids under Samson's leadership in February 1915 against German port facilities in Belgium demonstrated the ability of RNAS airmen to coordinate attacks from different directions, by different units, against varied target sets.[13] Samson's leadership of the naval squadron supporting the landings on the Gallipoli Peninsula in 1915, however, established forever the following roles for naval aviation: photo-reconnaissance, naval and army gunnery spotting, close air support, interdiction, strategic attack, anti-ship strike, air superiority, and, finally, anti-submarine patrol.

After the RN failed to force the Narrows at the Dardanelles using battleships alone in February and March of 1915, the British Cabinet decided to land troops on the Gallipoli

peninsula. RNAS aircraft from the seaplane carrier *HMS Ark Royal* had been spotting the fall of shot and conducting reconnaissance during the bombardment of the forts, where pilots and observers developed their own techniques of abbreviating wireless messages to gunnery officers on the battleships. In preparation for the landings, they continued their air reconnaissance and in late March Samson's No. 3 Squadron, RNAS, arrived to set up an airfield on the island of Tenedos, strategically located near the entrance to the Dardanelles. The squadron brought 11 pilots, three observers and over 100 support personnel to employ 18 aircraft of six types. Subsequently, only a half dozen aircraft proved useful in operations, since many of the aircraft suffered from underpowered engines or inadequate structural robustness.[14] This tiny force would be for many months the only air support available to British, Dominion, and French troops fighting the Turks at Gallipoli, as the Royal Flying Corps could spare no units from the Western Front.[15]

Between 28 March and the 25 April 1915, the day of the first Gallipoli landings, Samson and his squadron flew many observation sorties that provided detailed intelligence concerning Turkish positions near the landing beaches. Between April and June of 1915, one of Samson's pilots, Flt Lt C. H. Butler, took over 700 photographs and used them to piece together a photographic map of the landing areas, passing this intelligence to Sir Ian Hamilton's army headquarters on a regular basis.[16]

Aerial photography later played an important role in the Suvla Bay landing, an operation designed to outflank Turkish positions containing the initial landings. In late July, Hamilton's headquarters asked Samson to reconnoiter the heights above Suvla, efforts yielding intelligence that Turkish forces were inactive in that sector. On 6 August, Hamilton noted in his diary that photographs from Samson showed no Turks "on the move" and only 100-150 yards of trench and a half dozen gun emplacements.[17] This information doubtless contributed to Hamilton's decision to land two divisions at Suvla on 8 August. Unfortunately, a lack of initiative to expand the beachhead as well as a rapid Turkish reaction to man the hills above the landings made Suvla another failed operation. Although the Gallipoli expedition resulted in massive casualties on both sides and ended with a brilliant evacuation in January of 1916, Samson's aerial reconnaissance and photographic intelligence proved to be, as historian Alan Moorehead states, the "most important part" of his air support of the troops ashore.[18]

In addition to reconnaissance and photography, Samson and his No. 3 Squadron provided many other services to Allied units fighting the Turks. From the start of No. 3 Squadron's flight operations on 28 March until early November, Samson's pilots and observers flew 349 sorties in support of naval gunfire or army artillery batteries. Most of these flights were of 2½ hours duration.[19] On one occasion in May, one of Samson's pilots spotted for the battleship *HMS Agamemnon*, which was firing on a Turkish artillery battery menacing British and Dominion troops ashore. Three of four howitzers were destroyed.[20] Another case demonstrates the capabilities of early spotting efforts of naval gunfire. A few days after the initial 25 April landings, one of Samson's airplanes spotted for the pre-dreadnought *HMS Prince George*, whose 6-inch guns were firing on a Turkish battery on the shore of Asia Minor. After losing their guns to the battleship's fire, the Turkish artillery crews ran from their positions. The aircrew was able to immediately signal to the gunnery officer aboard the battleship to shift fire "up 200 yards" and use shrapnel; according to the aircrew, only half of the Turkish gunners survived the ensuing barrage.[21] Spotting for the army's artillery was less effective since their supply of shells was severely limited, allowing only for barrages of short duration where spotting was not as useful. Nevertheless, Samson assigned an Army officer serving as an RNAS observer, Australian Captain A. H. K. Jopp, to work with ANZAC gunners in order to devise a system of air corrections to counter battery fire, which met with some success.[22] Samson later claimed that aircraft airborne over Turkish batteries in Asia Minor "always" caused their fire to diminish for fear of incoming British gunfire directed by the airplanes.[23]

During the Gallipoli operation, Samson and his men also developed now-familiar bomb dropping roles for aircraft. In 1915 there was no distinction between close air support, interdiction, and strategic attack, but Samson realized the merits of bombing tactical, operational, and strategic targets. In May, he reported to the Air Department that he normally sent up an early morning bombing attack against Turkish positions each day. He asked for "a steady supply of 100 100-lb. bombs a month" and promised that he would be able to "get rid of them as quickly as they are supplied."[24] On a number of occasions Samson's pilots bombed Turkish troops in the front lines as well as their supporting bivouacs, ammunition dumps, and artillery positions. During a massive Turkish counterattack on 19 May, Samson dropped bombs directly onto assaulting troops, a feat lauded in Hamilton's diary as contributing the successful defense of the Allied trench line.[25] During the summer of 1915

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the squadron began bombing Turkish positions at night, using the light of campfires to serve as aiming points.[26]

Interdiction efforts became more prominent as the stalemate developed ashore. Samson targeted Turkish supply depots along the coast as well as ordering four attacks against a key railroad bridge and dozens against a major railway junction.[27] In his memoirs, Samson wrote that a German staff officer serving at Gallipoli said that the bomb dropping attacks had a "terrible effect…on the transport columns and disembarkation points."[28] Ak Bashi Liman and Kilia Liman, ports at the neck of the Gallipoli peninsula that the Turks used to bring in supplies by sea, became favorite targets for the airmen.

Samson even planned a strategic air attack against Constantinople, but his aircraft were not capable of carrying both bombs and fuel for the long-range flight.[29] Instead, he sought to damage Turkey's overall war effort by attacking the main railway connecting Europe to Constantinople. He chose the Maritza railway bridge, near Adrianople in European Turkey, as his target and sent four bombing missions against it, flying the first one himself. Although these endeavors achieved limited damage – Samson's first attack closed the railway bridge for four days – they did succeed in forcing the Turks to withdraw anti-aircraft guns from other theaters to defend the bridge.[30]

Finally, Samson's men bombed Turkish shipping whenever the opportunity arose. Although attacks against warships were common, the relatively light 100-, 60- and 20-lb. bombs available caused little damage to steel-plated naval vessels. In May, however, one of Samson's pilots bombed an elderly Turkish battleship, putting a turret out of action and killing 10 sailors. Another No. 3 Squadron aircrew sank a Turkish transport with bombs.[31] An interesting series of anti-ship strikes also deserve mention. Although not under Samson's direct command, a seaplane piloted by Flt Cdr Charles H. K. Edmonds was the first aircraft to attack a ship with a torpedo on 12 August 1915. Although the Turkish steamer had already been damaged and beached by a British submarine, Edmonds attack with a 14-inch torpedo from 300 yards proved the torpedo-strike concept. Five days later, Edmonds damaged another steamer, this one underway, from a launch range of 800 yards. Edmonds' wingman, Flt Lt G. B. Dacre, sank a third Turkish ship on the same day while water-taxiing his own seaplane. Thus, three seaplane-launched torpedoes actually struck their targets in that month.[32]

While employing his aircraft as bombers, Samson's men dropped 179 100-lb. bombs and 507 20-lb. bombs through mid-November.[33] Samson himself claimed to have dropped over 4 tons of bombs while in the Dardanelles.[34] Nevertheless, the RNAS established and developed the close air support, interdiction, strategic attack, and anti-ship strike roles for naval aircraft relatively early in the Great War, using underpowered airplanes and employing a pilot force that averaged 6 to 7 available each day.[35]

The final two roles for naval aircraft, which were less regular but no less important from a developmental standpoint, were air superiority and anti-submarine patrol. The RNAS's first air-to-air engagement of the Gallipoli campaign took place on 2 May, when Flt Lt Reggie Marix downed an enemy seaplane near the Turkish coast.[36] Turkish pilots and their German allies avoided flying over Allied lines until the closing months of the campaign, when they occasionally raided Tenedos and the new airfields on the island of Imbros with German-built Taube aircraft.[37] Samson taught his pilots to be aggressive; standing orders called for attacking enemy aircraft as soon as they were sighted, even when on spotting missions. Samson wanted his pilots to open fire at close range in order to guarantee hits as well as ensuring the target was an enemy aircraft.[38] Largely due to the relatively poor performance of airplanes on both sides – that is, rarely achieving speeds over 100 miles per hour – air-to-air engagements seldom ended with a kill. Samson was pleased to report, however, that no RNAS airplane was ever shot down while operating under his command in the Dardanelles, while his men brought down two enemy aircraft during eight months of operations.[39] During the Allied evacuation from the Gallipoli peninsula in December and January, British air superiority prevented German and Turkish reconnaissance aircraft from discovering the withdrawal.[40]

Lastly, Samson made use of his pre-war submarine spotting exercises when the Germans sent Otto Hersing's *U-21* to operate near the Gallipoli peninsula beginning in late May 1915. Hersing torpedoed and sank two British pre-dreadnoughts – *HMS Triumph* on 25 May and *HMS Majestic* on 27 May – and caused great concern to the Allies who relied completely on the sea to supply their expeditionary force on the Gallipoli peninsula. Samson subsequently added submarine patrols to his list of missions for No. 3 Squadron. On two occasions he attacked Hersing's U-boat himself, each time achieving near misses with bombs but causing no damage.[41] It would not be until the closing years of the war, however, that RNAS and later RAF aircraft would become effective at helping to neutralize the danger of the German U-boats.

Samson thus established forever

most of the roles and missions carried out by naval aircraft ever since the Great War. During the Gallipoli campaign, he accomplished this with only a handful of planes and pilots, not being reinforced until late August 1915, when a second RNAS unit arrived with 16 additional pilots and 22 airplanes.[42] In his final, technical contribution to Great War naval aviation, he introduced the use of a towed 60-foot barge – known as a lighter – to serve as a runway for a single Camel fighter. Towed by a 30-knot destroyer, this mini-aircraft carrier's fighter accompanied patrols in the North Sea in order to intercept German naval zeppelins that might be flying nearby. On 11 August 1918, Flt Lt S. D. Culley, one of Samson's pilots, shot down zeppelin *L-53* with his lighter-borne Camel.[43]

Longmore

Arthur Longmore worked closely with Samson during their first year of aviation service at Eastchurch, where Britain's first four naval aviators honed their flying skills and experimented with new employment concepts for airplanes. Longmore worked with aircraft designer Oswald Short to fabricate and test airbags that enabled airplanes to land on the water.[44] After a tour as an instructor at the Central Flying School, Longmore commanded the Cromarty Air Station in the Scottish Highlands, where his three seaplanes worked with naval vessels based at Invergordon at "every opportunity."[45]

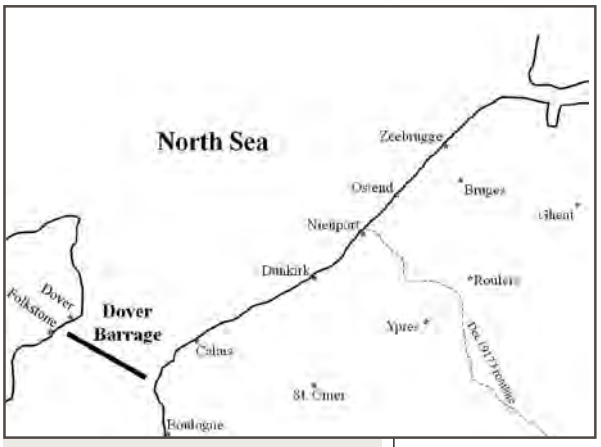
In January 1914, he took command of the Calshot Air Station, which was in close proximity to the extensive complex of naval facilities around Portsmouth. In the early days of the RNAS, the Air Department considered Calshot an experimental station and Longmore thrived in the test environment. He continued submarine-hunting exercises that Samson had pioneered in 1912, and he conducted seaplane experiments with airborne wireless, landing at night, launching torpedoes, and testing new aircraft and engine designs.[46]

Longmore's greatest contribution to naval aviation, however, took place after the Great War began by putting into practice the Admiralty's strategy of attacking enemy zeppelins and submarines while in their bases. Also known as an "attack at source" strategy, the idea was grounded upon the fact that these German weapon systems were easier to locate and destroy at their bases than while operational above or under the surface of the seas – a traditional English method of dealing with pirates and invasion threats since the Age of Sail and a concept not unlike NATO's Cold War plans to attack Soviet naval and air bases with carrier airstrikes.[47] On two occasions, Longmore commanded air units tasked with executing this strategy: first, while leading RNAS air units around Dunkirk in 1915 and, later, when in charge of RAF units in the Adriatic in 1918.

When the war began, Longmore and his pilots supplemented Samson's force in Flanders and flew coastal patrols in Britain until taking complete responsibility for RNAS operations on the continent once Samson departed for the Dardanelles in late February 1915.[48] Longmore's 14 pilots and 130 men, initially named No. 1 Squadron and based at Dunkirk, carried on parallel efforts to mature the roles and missions that Samson so ardently developed in the eastern Mediterranean.

The Air Department charged Longmore's naval airmen with a variety of missions that were eventually codified in June 1915 to include:

To attack the enemy's airships and aeroplanes in the air, or in their sheds.



Belgian Coast

Coastal work comprising patrols to Ostend and Zeebrugge [the main German U-boat bases on the Belgian coast], attacking enemy submarines, observing for fire of ships' guns, and searching for mines.

Attacks on Submarine Building Yards, Power Stations, and other objects of military importance.

Development of wireless spotting and photo-reconnaissance techniques.[49]

These priorities reflected the increased threat to merchant shipping after Germany's first U-boat campaign in early 1915 as well as the growing menace of zeppelin bombing raids over southern England. It is interesting to note that in his memoir Longmore revises slightly his priorities in Dunkirk by listing efforts "to prevent zeppelins and aeroplanes operating from bases in Belgium for raids on England" as his first task, attacking "enemy submarines using Ostend and Zeebrugge and to obtain information as to their movements" as his second task, with the other roles lower in priority.[50]

Nevertheless, Longmore's aviators conducted these operations under terrible weather conditions using relatively "primitive equipment," including prewar British and French aircraft designs.[51] No. 1 Squadron was soon reinforced and Longmore assumed command of a larger No. 1 Wing of six small flying squadrons, expanding the effort to bomb the

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Doctrinal Innovation in the Royal Naval Air Service: Samson, Longmore, and Williamson

German U-boat and zeppelin bases in Belgium to include submarine construction sites in Antwerp and zeppelin sheds in Brussels. No. 1 Wing records indicate a strong emphasis on "attack at source" missions which after ten months under Longmore's command resulted in numerous attacks on German facilities yielding 10 U-boats bombed (but none sunk), 2 of the massive zeppelins destroyed, and 1 zeppelin severely damaged.[52]

One "attack at source" example highlights the challenges that Longmore and his men faced when using "primitive" technology to carry out such varied missions. On the night of 6 June 1915, Longmore received word from the Admiralty that three zeppelins would be returning from an unsuccessful bombing raid on England, providing him an opportunity to intercept them. Before dawn the next morning he sent two aircraft as airborne interceptors to patrol above Ghent and two more to bomb zeppelin sheds near Brussels. In short order Flt Sub-Lt R. A. J. Warneford earned notoriety by downing of *LZ-37* near Bruges. After outclimbing the airship in his Morane single-seater, he dived on his target and dropped six 20-lb. bombs along the length of the zeppelin's hull. The resulting explosion completely destroyed *LZ-37* and almost brought down Warneford, who had to gain control of his airplane after the shock wave turned him upside down. Warneford was awarded the Victoria Cross for achieving the first air zeppelin kill of the war.[53] While Warneford was struggling with his rather large airborne target, Flt Lt J. P. Wilson and Flt Sub-Lt J. S. Mills successfully bombed *LZ-38* in its shed at Evere, near Brussels. Dropped from an altitude of 2,000 feet in the darkness, Wilson's three 65-lb. bombs made a direct hit on the shed, causing smoke but no explosion. Ten minutes later, Mills let go his four 20-lb. bombs resulting in a massive explosion and the destruction of *LZ-38*.[54]

Longmore's "attack at source" efforts resulted in the Germans abandoning their Belgian zeppelin bases, operating henceforth only from their bases along the northern coast of Germany. The U-boat bases, however, continued to serve as a thorn in the Royal Navy's side until the closing months of the war. Longmore's efforts forced the Germans to begin a considerable investment of resources in defending Ostend, Zeebrugge, and Bruges from air attack – attacks which RNAS and RAF would continue until 1918.[55]

As mentioned above, Longmore left Dunkirk and returned to duty with the fleet where he participated in the Battle of Jutland aboard *HMS Tiger*. Later service with the Air Board and at home air stations led to his selection as senior RNAS (and then RAF) officer in the Adriatic in early 1918. In this capacity he received approval to expand the small naval air force based in Italy in order to carry out a bombing campaign against Austrian submarine base at Cattaro, which incidentally served as the headquarters for the German Navy's Mediterranean U-boat Flotilla.

By spring of 1918, Longmore's RAF Adriatic Group Headquarters oversaw the operations of two attack wings:

No. 66 Wing (at Otranto)

No. 223 Squadron (12 Short Seaplanes)

No. 224 Composite Squadron (12 DH9s plus 6 Camels)

No. 225 Composite Squadron (12 DH9s plus 6 Camels)

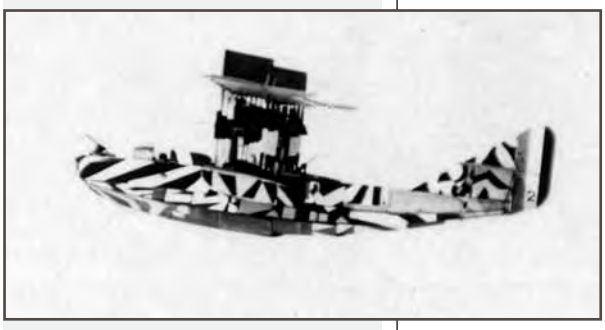
No. 67 Wing (at Taranto)

No. 226 Composite Squadron (12 DH9s plus 6 Camels)

No. 271 Squadron (unknown number and type of Seaplanes)

Longmore's flyers traversed the Adriatic, across 100 miles of open sea, to attack Cattaro, which the Austrians began defending with fighter aircraft as well as anti-aircraft artillery.[56] The need for escort fighters explains the integration of DeHavilland bombers with Camel fighters in composite squadrons. By late October 1918, the RAF had supplemented Longmore's Adriatic Group with flying boats for anti-submarine patrols and also planned to employ large, Italian-made Caproni bombers for airstrikes against Cattaro.[57]

Morane restored single seat fighter (Courtesy Aviation Institute of Maintenence)



British "Large America" flying boat used in anti-submarine patrols during World War I Courtesy of the Livock Collection, Fleet Air Arm Museum Yeovilton

Longmore's air campaign against Cattaro and Durazzo, another Austrian naval facility, got under way in May 1918 and by August had accomplished 19 major raids against the two ports. H. A. Jones's official air history of the Great War, entitled *The War in the Air*, notes that in June 1918 Mediterranean shipping loses were reduced by half. While the introduction of Mediterranean convoys around that time caused much of that reduction, Jones argues that RAF bombing efforts at least deserve consideration as a part of that success against the Austro-German U-boat forces in the Adriatic, where enemy submarines and crews suffered "some damage and much anxiety."[58]

Thus in two air campaigns, Longmore put into practice the concept of attacking German zeppelin and submarine bases "at source." This concept would witness further development during World War II; as Air Officer Commanding RAF units

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in the Mediterranean during 1940, Longmore himself used a strong force of medium bombers to neutralize the Italian Air Force by attacking their air bases in Libya.[59] RAF Bomber Command and the US 8th Air Force likewise devoted many sorties to bombing German U-boat bases and construction yards.[60] The doctrine of employing NATO naval aircraft to attack Soviet bases "at source" during the Cold War therefore owes its existence to Longmore and other pioneer RNAS aviators.

Williamson

Hugh Williamson – the submariner who taught himself to fly and later transferred to the RNAS – was a deep-thinking, articulate officer who was outspoken with his views on naval aviation. Although Williamson was credited with the initial concept of the modern aircraft carrier – a 1915 design that featured a superstructure on the starboard side of the flight deck and a wire arrestment system for landing airplanes – his main contributions to naval aviation fell in the area of anti-submarine warfare.[61] As a staff officer in the key developmental years of 1915-17, Williamson occupied position where he could collect data from air units in the field, decide which ideas were the best, and then write memoranda for senior Air Department and Admiralty officers to consider. His elevation to RAF group command in May 1918 allowed him to put these ideas into practice.

Williamson's importance as an innovator of naval aviation stems from three ideas relating to air anti-submarine warfare: the use of direct telephone lines between stations and higher headquarters to report rapidly submarine sightings; the establishment of monthly anti-submarine reports to share information between air ASW units and serve as a *de facto* doctrine publication; and finally putting "best practices" he had discovered as a staff officer into use when he took command of No. 18 Group, RAF. The most important of these practices was the use of aircraft to provide both a close in and distant air escort for coastal convoys sailing the busy shipping lanes along the east coast of England.

After recovering from his injuries resulting from his March 1915 aircraft accident, Williamson was posted to the Air Department to serve as Personal Assistant to Rear-Admiral Sir Charles L. Vaughan Lee, the Director of Air Services. In this role, Williamson researched and wrote reports on various issues for his chief, represented the RNAS at a number of conferences and boards, and in general focused a great deal of intellectual energy on questions of naval aviation doctrine.[62] In September 1916, he joined the Admiralty War Staff as a member of the Operations Division, where he advised both his staff colleagues and admirals commanding fleets and naval districts regarding RNAS operations and capabilities.

During this latter tour of duty, Williamson expanded a telephone communication system between the Admiralty's London headquarters and the various air and naval stations around the coast of Britain. Known as the Naval Air Exchange System, the communications web allowed the rapid transmission of information, and it was initially used to aid the interception of zeppelin and Gotha bomber attacks by passing radio direction finding information to the nearest intercepting fighter squadrons. To accomplish this, Williamson had a staff of 30 officers and 120 men at the Admiralty to work the lines.[63] When naval air units began coastal anti-submarine patrols in earnest during the spring and summer of 1917, the Admiralty simply

Submarine B3

adapted Williamson's Air Exchange System to track the location of U-boats and send aircraft to investigate sightings and radio direction finding (D/F) information. The fusion of human intelligence from sources in Belgium, Holland, and Germany with existing communications infrastructure eventually led to a submarine tracking room at the Admiralty.[64]

Hugh Williamson photo courtesy Juli Webb

As a staff officer, Williamson was also keenly aware of the need to share the latest developments and patrol results with all naval air units. In June 1917, he published the first monthly *RNAS Anti-Submarine Report* under the auspices of the Admiralty's Anti-Submarine Division. The *ASR*s listed all known U-boat sightings and attacks by RNAS aircraft, as well as statistics summarizing each units' number of sorties, hours, and miles flown. All aircraft sorties, including airplanes, seaplanes, flying boats, airships, and kite balloons, were included. Later editions summarized French air ASW efforts.[65]

As part of the *ASR*s, Williamson

often included general remarks indicating new technology and tactics that RNAS units employed with success. For example, one report recommended the use of floating flares to ascertain whether an object in the water was moving relative to the stationary flare.[66] Another edition admonished naval aviators to take time to study pictures and drawings of German submarines and to coordinate with RNAS units in close proximity to their own.[67] Through his close study of unit reports and his compilation of data into monthly *ASR*s, Williamson in effect established the first air ASW doctrine for the Royal Navy in its history.

After almost three years of serving as an Admiralty staff officer, Williamson finally received a field command. In May 1918, he took over No. 18 Group, RAF, and assumed the rank of Colonel in the new, independent RAF.[68] In this capacity he commanded all naval cooperation air units in eastern England between the Wash and the Scottish border. More importantly this vital command, with the responsibility of guarding merchant convoys traversing the waters off the east coast of England, gave Williamson the opportunity to employ the ideas he had developed over the preceding three years.

When the RAF absorbed the RNAS in April 1918, the new air service agreed to provide each regional naval district with an air group equipped with naval cooperation aircraft. The group would be under the operational control of the commanding admiral, but under the administrative control of the local RAF Area Command. In essence, the RAF provided the aircraft and crews, while the local commanding admiral – advised by his RAF group commander – determined how to employ his assigned assets. The Admiralty was initially pleased with this arrangement, since it meant little change from the RNAS days. For the most part, the operators themselves did not change; former RNAS commanders and aircrew simply donned new RAF uniforms, assumed RAF rank, served in numbered RAF squadrons and groups, but still carried out the same missions for the same naval commanders.

After four months of commanding 20 air stations and sub-stations, with a complement of 300 officers and 4,000 men and 100 aircraft ready to fly each day, Williamson reported to Admiral E. Charlton, the Vice Admiral Commanding, East Coast of England, his views on air ASW.[69] Knowing that the memorandum would make its way to the Admiralty and then to the Air Council, Williamson reported his recommendations on both doctrine and equipment. He found that even though pilots feared straying too far from land, airplanes proved more useful than seaplanes and airships simply because they could withstand worse weather conditions than the other weapon systems. Convoy escort by aircraft in conjunction with surface forces proved effective in hampering U-boat operations. He reported that available weapons (65,100, and 230-lb. bombs) were not powerful enough to destroy submarines, and he planned to experiment with 520lb. versions aboard his new Blackburn Kangaroo airplanes, the only purpose-built ASW airplane to see service during the Great War. Finally, he complained that although they were useful in providing an air presence, the DH-6 trainer aircraft that the RAF had pressed into ASW patrol service needed to be replaced by improved aircraft with long range and sufficient carrying capacity for fuel and bombs.[70]

A month later Williamson reported on his overall scheme of operations in using aircraft to escort convoys.

RAF groups in 1918

His goal, weather conditions and maintenance status permitting, was to have two to four airplanes or seaplanes with each convoy as a distant escort, working in reliefs from his string of bases along the coast. Additionally, he tried to have two airships with each convoy as a close-in escort (within one to two miles of the ships); the extended range of airships meant that they could accompany the convoy during its entire journey through Williamson's sector. Additionally, effective communications existed between aircraft, convoy commodores, and escort vessels by using Aldis lamps. Finally, Williamson brought aircrew and captains of escorting naval vessels together regularly at naval bases to coordinate escort procedures.[71]

According to standing aircraft orders to No. 18 Group, the first priority was for air units to provide air escort of merchant convoys and naval vessels sailing along the east coast. The second priority was to carry out patrols of the war channel and to keep sighted U-boats down by maintaining an air presence over their last known position. The orders clearly delineated assigned patrol areas for each air station. Finally, given

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sufficient warning, No. 18 Group aircraft were ordered to be ready to help in defending against coastal raids by both German surface vessels and zeppelins.[72]

As a result of his air ASW doctrine and the increasing use of coastal convoys, the intensified U-boat activity along the east coast of England in spring and summer of 1918 met with failure. According to Williamson's memoir, no ships protected by both air and surface escorts succumbed to submarine attack on the east coast during the period of his command of No. 18 Group.[73] As a matter of record, during the entire war, only five ships that were accompanied by both air and sea escorts – of thousands of ships escorted in ocean-going and coastal convoys – were lost to German U-boats.[74] Although somewhat neglected during the interwar years, the use of aircraft to counter the submarine threat became a decisive factor in winning the Battle of the Atlantic 25 years later. Williamson's pioneering work in the development of doctrine and infrastructure for air ASW certainly paid off in the latter conflict, where 324 U-boats (of 821 German submarines destroyed during World War II) owed their destruction to Allied aircraft.[75]

The impact of technology on the outcome of the Great War is a well trodden story. Historians of the First World War have already argued the merits of tank and artillery development, submarine warfare, and most recently dreadnought gunnery.[76] Indeed, the Great War witnessed the evolution of two branches of naval warfare that – while not necessarily decisive technologies in the war at sea – proved to be a vital, preliminary stage in weapons development for later 20th Century conflicts. The airplane and the submarine possessed similar characteristics: both had been made operationally viable only a few years before the war's start in 1914; both began as mere auxiliaries to surface forces, but later achieved important independent roles; and both seemed to be at once fragile and great absorbers of combat damage.[77]

Britain's Royal Navy, possessing the world's most powerful fleet in 1914, had a tradition of waiting for new technologies to be proven elsewhere before committing to their use. As John Brooks persuasively argues in *Dreadnought Gunnery and the Battle of Jutland*, the Royal Navy was "a user, not a creator, of technology because it would rely on its suppliers to meet its technological needs."[78] The British did rely, however, on well-educated operators to hone new technology into useable weapon systems for the fleet and also to think through how new weapons would be employed in combat. Such was the case within Britain's relatively small naval aviation community, where Samson, Longmore, and Williamson in particular represented an extraordinary spirit of innovation before and during the Great War.

After the Dardanelles operation, Samson took charge of a seaplane carrier squadron in Egypt, served on the Air Department staff, and commanded the naval air station at Yarmouth. In October 1917, he took command of the RNAS air group responsible for defending the southeast coast of England, and he continued in this position as an RAF colonel until the end of the war. He subsequently served in a number of RAF command positions both at home and in the Mediterranean, retiring in 1929. Samson died unexpectedly in 1931 at the age of 47.

Longmore went on to senior RAF command positions later in his career, including his leadership of the RAF College at Cranwell in 1929, RAF Coastal Command in 1936, Training Command in 1939, and finally RAF Middle East Command from May 1940 to May 1941. He finished the war on the Air Ministry staff and retired in May 1944 after achieving the rank of Air Chief Marshal. Interestingly, Longmore spent the final months of the war going back to his roots – as a volunteer motor boat skipper in the Yachtmen's Emergency Service. He died in late 1970.[79]

After the Great War, Williamson served in Iraq and at the Air Ministry, retiring in 1928 as a Group Captain. Upon the outbreak of hostilities in 1939, Williamson rejoined the RAF where he served as station commander at two Coastal Command airbases and again at the Air Ministry. He retired a second time in 1943 and died in 1979 at the age of 94.[80]

Modern navies owe much of their current capabilities and employment doctrines to the operational savvy of these men. They are only the first, however, of a lengthy list of innovators whose willingness to improvise, think, and adapt made the airplane an important, and in later years a decisive weapon system in naval warfare.

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(Endnotes)

1 In its early years, the Royal Navy's aviators called themselves the "Naval Wing of the Royal Flying Corps." Prior to World War I, the RFC was a joint service providing air support to both the British Army and Royal Navy; however, the "Naval" and "Military" Wings rarely worked together and gradually grew into distinctly different organizations. In July 1914, the RN officially adopted the term "Royal Naval Air Service" for its flying units. On 1 April 1918, the air services amalgamated to form the Royal Air Force.

2 Obituary, "Air Commodore Samson," The Times, 6 Feb 1931, 16c.

3 Samson naval service record, Public Record Office, The National Archive [NA], Kew, ADM 196/48, 431-32.

4 Mr Frank McClean and Mr G. B. Cockburn, respectively. Sir Walter Raleigh, The War in the Air, Vol. I (Oxford: Clarendon, 1922), 125-26.

5 WIA, I: 185.

6 Ibid.

7 Ibid., 225, 265-74.

8 Lt H. A. Williamson, "Paper on Aeroplanes for Naval Service," 2 Jan 1912, NA AIR 1/626/17/88. For a summary of Williamson's contributions to carrier aircraft development, see R. D. Layman, "Hugh Williamson and the Creation of the Aircraft Carrier," Cross and Cockade Vol 13, No. 2: 70-73.

9 Admiralty minutes in NA AIR 1/626/17/88 make references to June 1912 airplane-submarine exercises near Harwich, but this author was not able to locate any after-action reports of these trials.

10 Cdr C. R. Samson to Capt R. W. Johnson [Captain of the Submarine Depot Ship HMS Vulcan], 23 Oct 1912, and Submarine Committee Report on Hydro-Aeroplane & Submarine Exercises in the Firth of Forth, 18 Oct 1912, NA AIR 1/626/17/88.

11 Charles Rumney Samson, Fights and Flights (London: Ernest Benn, 1930), 160.

12 Samson, 177-79.

13 Abbatiello, Anti-Submarine Warfare in World War I: British Naval Aviation and the Defeat of the U-Boats (London: Routledge, 2006), 62-63; Harold Rosher, With the Flying Squadron (New York: MacMillan, 1916), Chapter 12.

14 H. A. Jones, The War in the Air, Vol. II (Oxford: Clarendon, 1928), Chapter 1.

15 General Sir Ian Hamilton, Gallipoli Diary (London: Edward Arnold, 1920), I: 110. A French squadron later arrived in May to support French troops in the theater. WIA, II: 28.

16 WIA, II: 28; Samson to Commodore M. F. Sueter, 2 May 1915, in Captain S. W. Roskill, ed., Documents Relating to the Naval Air Service (London: Navy Records Society, 1969), 205. [Hereafter referred to as Documents.] The RFC in France had been conducting aerial photography of German positions regularly a few months prior to Butler's work in Gallipoli. See Terrence Finnegan, Shooting the Front: Allied Aerial Reconnaissance and Photographic Interpretation on the Western Front – World War I (Washington, D.C.: National Defense Intelligence College Press, 2006), 44-48.

17 Samson, 256; Hamilton, II: 54-55.

18 Alan Moorehead, Gallipoli (London: Hamish Hamilton, 1956), 123.

19 Samson, "Report of Operations," 23 Nov 1915, in Documents, 257.

20 Documents, 205.

21 Samson, 238.

22 Samson, 250-51.

23 Samson, 240.

24 Documents, 205.

25 Hamilton, I: 238.

26 Samson, 252.

27 Documents, 257-58; Samson, 279.

28 Samson, 251.

29 Samson, 251-52.

30 Samson, 273-79. Attacks from other units also targeted the Maritza Bridge, including seaplane sorties from HMS Ben-My-Chree, a seaplane carrier operating in the Aegean. WIA, II: 66-67.

31 Documents, 257.

32 WIA, II: 64-65.

33 Documents, 257.

34 Samson, 285.

35 Documents, 257. The maximum number of pilots at Samson's disposal at any one time was 11. Due to illness or injury, the average available was 6 to 7 daily.

36 Samson, 239-40.

37 Samson established a new airfield at Imbros in the summer of 1915. Hans Busk mentions a number of Taube raids on RNAS airfields in his diary. See Mary Busk, E. T. Busk, A Pioneer in Flight, With a Short Memoir of H. A. Busk (London: John Murray, 1925), Chapter 11.

38 Samson's Standing Orders, 4 December 1915, in Documents, 259-62.

39 Samson, "Report of Operations," 23 Nov 1915, in Documents, 257.

40 WIA, II: 74-76. During this period, however, German fighters met with success in downing RNAS aircraft. Admiral Sir Roger Keyes to his wife, 12 and 16 Jan 1916, in Paul G. Halpern (ed.), The Keyes Papers, Volume I (London: George Allen and Unwin, 1979), 322, 328.

41 Samson, 247-48; Moorehead, 213.

42 WIA, II: 62-63.

43 Samson, 363-64. Samson, "Uses of Camel Aeroplanes flown from Towing Lighters," 2 Aug 1918, in Documents, 686-88.

44 WIA, I: 185.

45 Sir Arthur Longmore, From Sea to Sky (London: Geoffrey Bles, 1946), 29.

46 Longmore, 34-38.

47 Norman Friedman, Seapower as Strategy: Navies and National Interests (Annapolis: Naval Institute Press, 2001), 200; Geoffrey Till, Seapower: A Guide for the Twenty-First Century (London: Frank Cass, 2004), 232.

48 Longmore also took part in the February raids on German bases in Belgium, mentioned above.

49 Operations Order A.D. No. 15, "Orders for Naval Air Service Units Based at Dunkirk," 21 June 1915, NA AIR 1/672/17/134/33. Items (a), (b), and (c) are verbatim; item (d) is paraphrased.

50 Longmore, 45.

51 Ibid.

52 Extracts from "Report on the Performances of No. 1 Wing, RNAS during 1915," nd, in Documents, 262-66.

53 Longmore, 45-46; WIA, II: 350-52. Ten days after his air-to-air victory over LZ-37, Warneford was killed in an aircraft accident near Paris.

54 Ibid.

55 Abbatiello, Chapters 3 and 7.

56 Longmore, 75-77. Other sources, such as "Disposition of Aircraft" Reports (NA Air 1/670) and Jones's WIA, Vol VI (Oxford: Clarendon, 1937), each list a slightly different unit strength for the Adriatic Group, depending on the exact month and whether or not units in the process of forming were included.

57 "Disposition of Aircraft on Naval Duties," 31 Oct 1918, NA AIR 1/670/17/124.

58 WIA, VI: 321-23.

59 Samson, 220-21.

60 Historical Section, Admiralty, The Defeat of the Enemy Attack on Shipping, 1939-1945, edited by Eric Groves (Aldershot: Ashgate, 1957, 1997), 165-74.

61 Unpublished Williamson Memoir, WLMN 4, Churchill Archives Centre, Churchill College, Cambridge University, Chapter 8; R. D. Layman, Naval Aviation in the First World War: Its Impact and Influence (Annapolis: Naval Institute Press, 1996), 105.

62 Williamson Memoir, Chapter 9.

63 Ibid., 102-04. See Nicholas A. Lambert, "Strategic Command and Control for Maneuver Warfare: Creation of the Royal Navy's 'War Room' System, 1905-1915," The Journal of Military History 69: 2 (Apr 2005), 361-410, for the story of the genesis of this communication system.

64 Abbatiello, 98-99; Patrick Beesly, Room 40: British Naval Intelligence 1914-1918 (San Diego: Harcourt Brace Jovanovich, 1982), 262-66.

65 Williamson Memoir, 118; ASRs are located in NA AIR 1/2105/207/41. They later became Naval Air Operations Reports after the RAF stood up in April 1918. NA AIR 1/626/17/59.

66 ASR September 1917, NA AIR 1/2105/207/41/4, 4.

67 ASR December 1917, NA AIR 1/2105/207/41/7, 6.

68 Williamson Service Record, NA ADM 196/49, 135.

69 Williamson Memoir, 7b.

70 Williamson, "Employment of Aeroplanes for Anti-Submarine Work," 14 Aug 1918, NA AIR 1/642/17/122/252. For aircraft specifics of the Blackburn Kangaroo, only 11 of which saw service by the Armistice, see J. M. Bruce, British Aeroplanes, 1914-1918 (London: Putnam, 1957), 96.

71 Williamson, "Aircraft on Convoy Escort, East Coast Command," 15 Sept 1918, NA AIR 1/289/15/226/139 Pt II.

72 Vice Admiral Commanding East Coast of England, "East Coast Aircraft Orders," 30 Sep 1918, NA ADM 137/2242.

73 Williamson Memoir, 134.

74 D. W. Waters, "Notes on the Convoy System of Naval Warfare, Thirteenth to Twentieth Centuries, Part 2: First World War, 1914-18," Table III, March 1960, Historical Section, Admiralty, Naval Historical Branch, Ministry of Defence, Whitehall [now located at HM Dockyard, Portsmouth]. According to the Historical Section, 84,570 vessels were convoyed in Home Waters during the period between February 1917 and November 1918. Of those, 257 were sunk by submarines; five of those while under both air and sea escort.

75 Abbatiello, 163-70.

76 John Brooks, Dreadnought Gunnery and the Battle of Jutland: A Question of Fire Control (London: Routledge, 2005).

77 Abbatiello, 11-12.

78 Brooks, 299.

79 Obituary, "Sir Arthur Longmore," The Times, 12 Dec 1970, 12e; Longmore.

80 Williamson service record, NA ADM 196/49, 134-35; Williamson Memoir.

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Visions from the Vault

On 18 February 1982 *HMAS Tobruk* sailed from Brisbane on the first of her many overseas deployments. Embarked were eight RAAF UH-1H helicopters and eight ISO containers packed with stores. All were destined for the Australian contingent of the United Nations sponsored Multi-National Force and Observers in the Sinai.

After an uneventful passage of the Indian Ocean *Tobruk* passed through the Suez Canal and arrived at the Israeli port of Ashdod on 19 March. The four day visit was the first for an Australian warship, but although security was tight the ship's company was warmly received by the local military and the mission successfully accomplished.

This photograph shows one of the Iroquois helicopters being craned out of *Tobruk*'s hold immediately after arrival at Ashdod.

Thinking of Making a Contribution?

Style Notes for Headmark

In general, please present your work with the minimum of formatting.

Paragraphs:

Don't indent, and leave left justified. Separate paragraphs by one line. Single spacing only. Use one space only after stops and colons.

Conventions:

Use numbers for 10 and above, words below. Ship names use italics in title case; prefixes such as *HMAS* in capitals and italics. Book and Journal titles use italics.

Use single quotation marks for quotations. Do not use hyphens for any rank except Sub-Lieutenant.

Citations:

Endnotes rather than footnotes. Use footnotes to explain any points you want the reader to notice immediately. Book titles follow Author surname, first name, title if any. Title. Place of publication: publisher, year of that edition.

So:

Adkin, Mark. *Goose Green*. London: Leo Cooper, 1992.

Adler, Bill (Ed.) *Letters from Vietnam*. New York: EP Dutton and Co., 1967.

Articles use quotation marks around their title, which is not in italics.

If citing web sites please use the convention:

Australian Associated Press. "Army admits mistakes in SAS investigation". 17 February, 2004. <http://www.asia-pacific-action.org/southseast asia/easttimor/netnews/2004/end_02v3.htm#Army%20admits%20mistakes%20in%0SAS%20investigation>

So, web site name. Article title. Full date of accessing the site. Full URL.

Bylines:

Supply your everyday title for use at the beginning of the title, so: Lieutenant Commander Bill Crabbe, or Jack Aubrey, or Reverend James Moodie. At the end of the article, please supply full honours - Lieutenant Commander Bill Crabbe, CSC, RAN - unless you would prefer not to use them. Then please supply a paragraph on yourself, to a maximum of 50 words, including any qualifications you would like listed, and any interesting biographical aspects. **If possible please supply a colour or greyscale head and shoulders e-photo of yourself** for use alongside the article title.

Illustrations:

Do not embed graphs or figures in your text without sending a separate file as well. If supplying photographs use a minimum of 300 dpi. We are keen on colour images but will use greyscale if necessary. We are able to scan prints if necessary, but request a self-addressed stamped envelope for return – please insure adequately if necessary.

Forwarding your article:

Please send to the Editor on <talewis@bigpond.com.au>

Editorial considerations:

The Editor reserves the right to amend articles where necessary for the purposes of grammar correction, and to delete tables or figures for space considerations.

The Queens colours lowered during a Royal Salute to the Governor-General, Her Excellency Ms Quentin Bryce, AC.

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

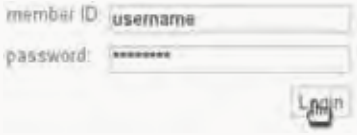

Figure 3

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).

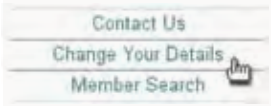

Figure 5

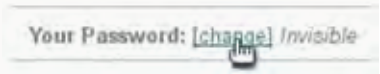

Figure 6

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).

The personal information that you provide will be visible to other members of the ANI but will be hidden from members of the general public. You may provide as much or as little detail as you wish but none of the fields are compulsory. However, you may not change your member ID as it is the link between the on-line database and our off-line records.

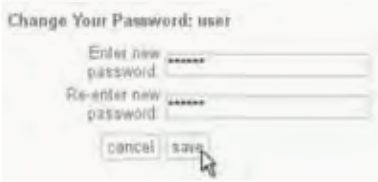

Figure 7

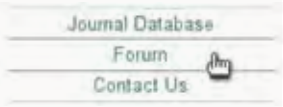

Figure 8

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.

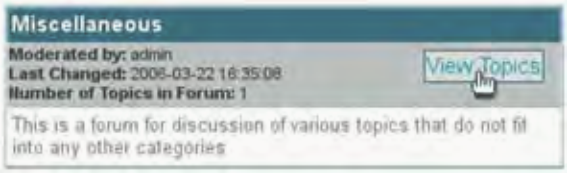

Figure 9

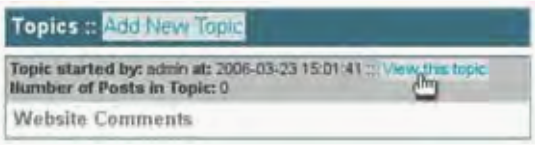

Figure 10

Further questions

If you have specific questions regarding website features or even a feature request, post a topic in the "Website Questions" forum and a site administrator will reply. Otherwise, happy browsing!

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The Australian Naval Institute was formed as a self-supporting and non-profit making organisation; incorporated in the Australian Capital Territory in 1975. The main objectives of the Institute are:

• *to encourage and promote the advancement of knowledge related to the Navy and the maritime profession; and*

• *to provide a forum for the exchange of ideas concerning subjects related to the Navy and the maritime profession.*

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PO Box 29, Red Hill ACT 2603, ph +61 2 62950056,
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Articles should ideally range in size from 3000-7000 words, but smaller articles will be considered, as will the occasional larger piece of work. Submissions should be sent to the Editor in the first instance.
Email: a_n_i@bigpond.com and mark attention Editorial Board.

Articles of greater length can submitted to the Sea Power Centre-Australia for possible publication as a Working Paper (seapower.centre@defence.gov.au)

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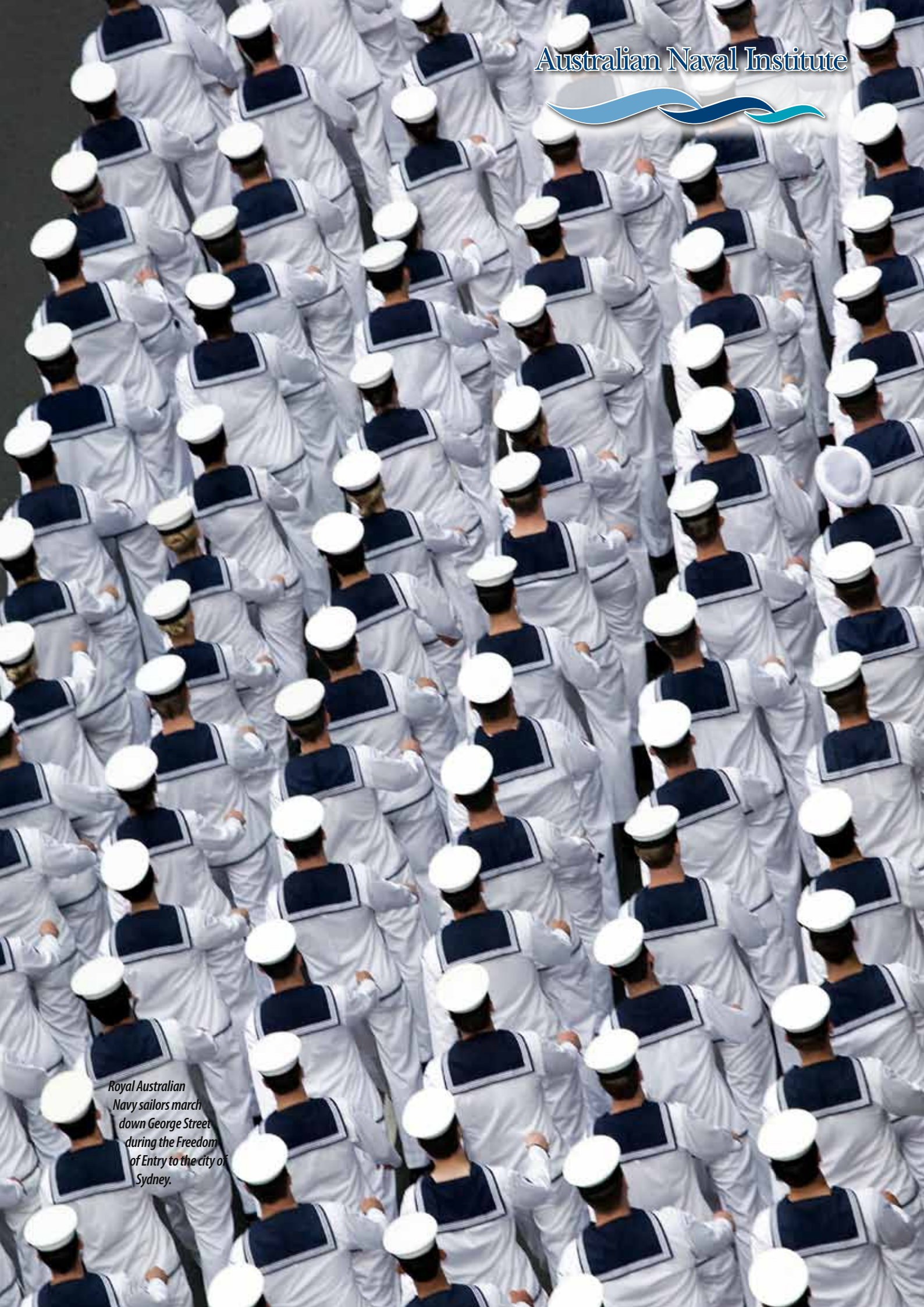

Royal Australian Navy sailors march down George Street during the Freedom of Entry to the city of Sydney.