



Royal United Services Institute  
of Victoria Inc.

Promoting National Security and Defence

*A Constitutional Body of the Royal United Services Institute of Australia*

Patron: The Honourable Alex Chernov AC QC  
Governor of Victoria



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# RUSI VIC NEWSLETTER

Volume 12 Issue 1 – March 2013

Editor: Martin Holme

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## RUSI VIC Council 2013

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## LUNCHTIME ADDRESS

**Defence Plaza – 661 Bourke Street**

**1200 – Auditorium One  
Thursday, 28 March 2013**

**Professor Damien Kingsbury**

*School of Humanities and Social Sciences,  
Deakin University*

**Australia's Strategic  
Considerations:  
Some Recommendations to the  
2013 Defence White Paper**

Professor Kingsbury is an expert on SE Asian politics. He teaches Approaches to Political Development and Conflict Resolution and Development. He has written extensively on Indonesia and East Timor. He is a frequent commentator and contributor on regional political affairs to domestic and international media, and is also a regular contributor on Tuesday mornings to ABC 774's Jon Faine program.

**Time: 11.30 Tea/coffee  
12.00 Address**

**Admission : Members and Guests : \$5.00**

For security reasons please advise the Office of your attendance and the names of your guests by email to [martin.holme@defence.gov.au](mailto:martin.holme@defence.gov.au) or phone 9282 5918 by 5pm Tuesday 28 August. These names are provided to Security to issue Access Passes. If your name is not on the list you will experience a delay in gaining access.

Remember to bring a photo ID with you.

## Cyberlinks

RUSI AUST (inc Victoria)	<a href="http://www.rusi.org.au">www.rusi.org.au</a>
RUSI Whitehall	<a href="http://www.rusi.org">www.rusi.org</a>
Dept of Defence	<a href="http://defence.gov.au">defence.gov.au</a>
Aust Strategic Policy Institute	<a href="http://www.aspi.org.au">www.aspi.org.au</a>
Australia Defence Association	<a href="http://www.ada.asn.au">www.ada.asn.au</a>
RAAF Assoc 'Williams Foundation	<a href="http://www.williamsfoundation.org.au">www.williamsfoundation.org.au</a>
Defence Reserves Association	<a href="http://www.dra.org.au">www.dra.org.au</a>
Defence Force Welfare Association	<a href="http://www.dfwa.org.au">www.dfwa.org.au</a>
Military History and Heritage Victoria	<a href="http://www.mhhv.org.au">www.mhhv.org.au</a>
Department of Veteran's Affairs	<a href="http://www.dva.gov.au">www.dva.gov.au</a>
Shrine of Remembrance	<a href="http://www.shrine.org.au">www.shrine.org.au</a>

## From The Secretary: Captain Martin Holme

Improvements to our new abode in 'H' Block, Victoria Barracks have continued, with pictures being hung and a significant display cabinet in place, with a selection of books from our collection, written by past and current Members. An increasing number of Barracks personnel are dropping in to browse and, as we hoped, we have recruited several as new Members.

Progress in applying the finishing touches to the Library and general area has been much enhanced by a willing and dedicated band of volunteers, whose efforts are greatly appreciated.

Our Patron, His Excellency The Honourable Alex Chernov AC QC, Governor of Victoria, will visit and declare open, our new premises, on 28 May. He will then be given a guided tour of the Barracks which he has never before visited.

You will have received information about our first Field Visit for some years on 21 March, to inspect the future HMAS Canberra, under construction at Williamstown Dockyards. We will be hosted by BAE Systems Australia. This has proved to be a very popular initiative. Unfortunately, we have reached the limit that can be accommodated, so no further responses can be accepted. We hope to arrange a second visit for those who are disappointed.

Tightened Security measures recently put in place in Victoria Barracks have affected our ease of access. No longer will RUSI Members be able to gain access to our Office and Library by simply demonstrating their Membership and being issued with a pass allowing a visit to RUSI.

From now on, on arrival at North Gate you will have to ring me on 9282 5918 and I will then come and sign you in. It is regrettable that we have to go through this process but Security is Security!

We quite often have mail returned to us when Members have changed address without letting us know. I will be seeking possible information from anyone who can help re-establish contact. As a first up – does anyone know where the following are now residing? :

Colonel John Pilbeam AM ED, Captain P.J. Martin  
Mr M. McKinney

### Future Program Dates

21 March  
Field Visit to NUSHIP Canberra , Williamstown Dockyard

28 March  
Lunchtime Address at Defence Plaza  
Professor Damien Kingsbury

18 April -  
Lunchtime Address at Defence Plaza  
Mr Andrew Kilsby, *Military and Heritage Historian*,  
"Prequel to the International Fleet Review:  
HMAS Melbourne (1) 1912 – 1928

### Vale

We record with deep regret the passing of:

Mr Peter Lawson-Hanscombe

### New Members

Since our last issue we welcome the following new Members:

Mr Ian Bakker; Major Ron Brandy; Mr Anthony Brend;  
Mr John Davies; Lieutenant Colonel Craig Hinchcliffe;  
Mr Desmond Lambley; Ms Michelle May; Mr Rex Williams

### Geelong Branch News

The Branch started the New Year on a high with an excellent presentation by Mr Brett McCall on security issues at the February Dinner and we are looking forward to an exciting program for the remainder of the year.

The next Dinner Meeting is to be held on Monday March 18, with Guest Speaker CMDR Terry Makings CSC RAN (Rtd) who will address the current issue of the declining naval presence in the State of Victoria and other current matters affecting the RAN. Dress is Lounge Suit.

The Anzac Dinner will be held on Monday April 15, with Guest Speaker Dr Ross McMullin, author of the biography of Pompey Elliott. This is a formal event with Dress is either Mess Dress, Black Tie or Lounge Suit.

Both events are to be held at The Geelong Club, 74 Brougham Street, Geelong; commencing at 1830 for Dinner at 1900. The cost is \$ 35 per head with beverages available at Club prices. Bookings are required to be made – contact Mrs Margaret Barnes 03 5243 9569.



### And RUSI VIC Needs YOU!

If you have e-mail and can help with Book Reviews or Sub-editing the Newsletter, please contact Martin Holme on 92825918.

## From The President: Commander Warren Kemp



Last October, the move to our new premises progressed very satisfactorily over a period of several days and was accomplished with great assistance from a number of volunteers from the membership. The furniture, library fittings and the library collection were moved expeditiously, under the guidance and direction of Flight Lieutenant Brian Surtees, who is an invaluable member of our Library Committee, but this was just the start of the relocation. Subsequently, these volunteers have willingly continued their contributions to RUSI Victoria, by greatly assisting with the internal arrangements and organization of our new rooms and we aim to have a first class and professionally organized research facility relating to Defence and National Security.

We have a new addition to the reading area in the form of an elegant glass cabinet which will be used to display temporary exhibitions of interest to members and visitors. The initial display is an interesting collection of books published by members of RUSI Victoria from our foundation in 1890 until the present day, including one by our founder, Major General Alexander Tulloch.

After a quiet Christmas holiday period, I am pleased to congratulate on your behalf our member Major Ian McKeown, OAM, who was recognized for his service to veterans by the award of Medal of the Order of Australia in the Australia Day Honours List.

A conference entitled 'Gender in Defence and Security Leadership' jointly sponsored by the Australian Defence Force and the Royal United Services Institute of Australia was held in Canberra on 12<sup>th</sup> and 13<sup>th</sup> March. The aim of this conference was to promote cultural reforms and gender diversity within the Australian Defence Organisation and the objectives were as follows:

- (a) An examination of how gender diversity builds capability in the defence and security arena;
- (b) An appreciation of the practical application of emerging and innovative thinking in regards to utilising gender diversity to enhance defence and security policy;
- (c) Identification and benchmarking of Australia's efforts in diversity in comparison to international organisations; and
- (d) Exploration of areas where the Australian Defence Organisation can implement tangible improvements and action in regards to gender and diversity.

The conference was addressed by General David Hurley, CDF, and a distinguished panel of local and overseas speakers. It was attended by 200 invited delegates and the proceedings will be posted on the website in due course.

We have had some recent changes on Council. Flight Lieutenant Brian Surtees has resigned after several years of very effective service during which he was instrumental in the re-organization of our library, with the introduction of the Dewey decimal system and consequent cataloguing of our extensive collection. The result is that we now have an outstanding and first class library of books, pamphlets, maps and other publications related entirely to matters of defence and national security that is available for reference and research. We aim to make our collection available not only to members of RUSI Victoria and to all military personnel with an interest in research, but also to tertiary academic institutions so that their staff and students can make use of and benefit from access to our collection. We have one of the best defence libraries in Australia, due in no small part to the skills, industry and dedication of Brian Surtees, and I extend to him my appreciation and sincere thanks on your behalf. The good news is that, although resigning from Council, he wishes to continue with his voluntary work in the library, which is accepted with alacrity!

The Council has appointed Lieutenant Commander Roger Buxton, CD, RCN and Lieutenant Colonel Neville Taylor, RFD to fill the casual vacancies. These two members have given willing and very effective service to the Institute during the recent relocation and subsequently during the period of re-organization. We extend to each of them a warm welcome to Council and best wishes for their further period of service to the Institute.

The February address was given by Dr John Blaxland, who spoke to us last year about the development of Australia's security services. On this occasion his very interesting address covered the history and development of amphibious operations, landing helicopter docks (LHDs) and future engagements in our region. This address was in preparation for the proposed RUSIV visits to Williamstown Shipyard in order to view NUShip Canberra which is the LHD that is under construction at the present time.

I think that 2013 will be a very good year for RUSI Victoria with some changes on Council, an innovative new program, an enhanced library and new premises which I encourage you to visit at your earliest opportunity! In addition, the principal aim of the Institute is to promote discussion in the community about matters of National Security and Defence, so do not keep the Institute to your self, but bring along your friends, relatives and colleagues so that they can also share in the benefits of belonging to this important educational institution.

Yours Aye

Warren

## Exhibition and Book Launch

*Fear God and Honour the King:*

### **HMAS Melbourne 1913-1928**

Military History and Heritage Victoria, in partnership with its official supporter the Royal Historical Society of Victoria, agreed to hold a major exhibition to commemorate the centenary of the arrival of Australia's first cruiser, HMAS *Melbourne*, in Port Phillip Bay on 26 March 1913. Sponsors for the exhibition include the Port Of Melbourne Corporation, Navy Health, the Melbourne Naval Centre and Coee History and Heritage, the curators, which is providing its services pro bono. The exhibition will bring together original relics of the ship from the Australian War Memorial and other institutions such as the Australian National Maritime Museum, the State Libraries of Victoria and South Australia, Museum Victoria, Museum of HMAS Cerberus, Monash University, along with a range of donated materials from crew descendants.

The Exhibition, which takes its name from the scroll donated to the ship by the City of Melbourne, will feature the ships original crest courtesy of the AWM among the many artefacts, and wonderful images from the life of *Melbourne* and the crew who served in her over the years in war and peace. The exhibition will be opened by Captain Michael Harris, RAN, whose great grandparents and grandfather were all rescued from a sinking schooner at the height of a hurricane in 1922 by *Melbourne*. Captain Harris later joined the RAN and commanded *Melbourne* (III). In addition, John Francis, son of the 2<sup>nd</sup> mate on the sinking schooner will also attend the opening – both men owe their very lives to the crew of *Melbourne*. To complete the story, a grandson of one of *Melbourne's* crew who was involved in the dramatic rescue will also be at the opening, along with other crew descendants.

The opening of the exhibition on 26 March will also see the launch of a new history of HMAS *Melbourne* (I) called *'The Forgotten Cruiser'*. Written by Andrew Kilsby and Commander Greg Swinden, RAN, the book will describe the history of *Melbourne* in peace and war and contains dozens of unique and original images never before seen in public as well as list of the entire original commissioning crew of the ship. The authors will make a public presentation on the Melbourne story after the opening.

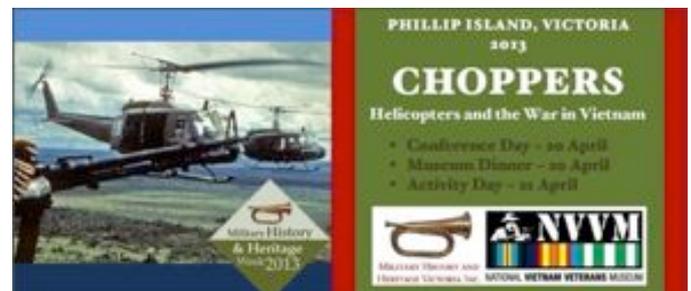
The exhibition will be open to the public between Monday Friday 10 am - 5 pm from 18 February to 1 May, at the RHSV in A'Beckett Street, Melbourne. Entry a gold coin donation and an exhibition souvenir catalogue will be available for purchase. For further details see [www.mhhv.org.au](http://www.mhhv.org.au)

## "Fear God and Honour the King" HMAS Melbourne (I) 1912-1928

- Centenary Exhibition - 18 February to 1 May
- Book Launch and Public Lecture - 26 March
- Navy History Conference - 27 April



On 27 April, to complete the Exhibition offering, a one day conference called *'Sailors, Ships and Imperial Defence: The early Australian naval forces'*, hosted by MHHV and RHSV, and sponsored by BAE Systems, will be held at the RHSV. Key note speaker is Dr David Stevens, Director of Sea Power Centre – Australia who is currently writing the new official history of the RAN. Registrations are now open at [www.mhhv.org.au](http://www.mhhv.org.au)



## HMAS *Melbourne* (1913-1928)

HMAS *Melbourne* was the first cruiser of the 'grand little fleet' that arrived in Australian waters in 1913. Hurriedly completed in response to the possibility of the Balkan War of 1912, *Melbourne* proved to be of stalwart character, sailing hundreds of thousands of nautical miles in all seas and weather. Although considered part of the RN for most practical purposes, and manned by ship's companies that were never 100 percent Australian, those who followed her service were in no doubt that she was an Australian warship. She projected the power of the Australian Government, as part of the British Empire, in peace and war. Warmly welcomed wherever she went in peace, *Melbourne* also showed a first class efficiency at war.



Captained by highly competent officers and efficient crews, *Melbourne* did everything expected of her and more. She played a valuable role in destroying the German radio station at Nauru, and added to the naval presence during the capture of Rabaul in 1914. *Melbourne* was in command of the first AIF fleet to the Middle East when it was threatened by the German raider Emden; and sent HMAS *Sydney* to investigate. Her subsequent war service was often tedious but equally valuable. In waters from South America to Canada she placed pressure on German raiders by her searches for them and blockaded German merchant ships in neutral ports. In the North Sea *Melbourne* patrolled for enemy minelayers and submarines, escorted vital iron ore convoys to and from Norway, or joined sweeps in search of the German battle fleets and raiders, sticking to her tasks in often brutal weather conditions and in a constant state of readiness.

And in peace, whether visiting capital cities and smaller ports in Australian waters, or in New Zealand or among the islands to Australia's north, *Melbourne* showed the flag with aplomb, while training new generations of officers and sailors and providing valuable sea training time in the face of financial uncertainty and defence cuts. *Melbourne's* service was an essential element in maintaining open sea lanes and lines of communication as one of Australia's 'greyhounds of the sea'. She showed her mettle in the dramatic and dangerous rescue of the

crew of *Helen B. Sterling* in January 1922. Even though obsolete by the time she went on exchange with the Mediterranean Fleet in 1926, she showed the RN that *Melbourne* was still a cruiser to be reckoned with, no less competitive and earnest than she had ever been.

Unlike HMAS *Australia*, she was not given a decent burial at sea but a rather more ignominious end in a breakers yard in early 1929. It was an inglorious end to *Melbourne*, of which Australia and especially the City of Melbourne, had once been so proud.



President Warren Kemp thanks Dr John Blaxland for his February address: *On Amphibious Operations, LHD's and Regional Engagement*

### Check Your Bookshelves

Do you have any RUSI Library Books that you have forgotten to return? Let's have them back so that others can read them.

Do you have any of your own books on defence and military related subjects that you would like others to read? Why not donate them to the RUSI Library? They will be gratefully accepted, well cared for, and made accessible for members and scholars. All donations will be acknowledged in the Newsletter.

## New Medals Announced on 19 JULY 2012

### Australian Operational Service Medal (OSM)



[The colours of the OSM Ribbon are L-R: blue, orange and green.]

The OSM has been introduced to replace the Australian Active Service Medal (AASM) and Australian Service Medal for future ADF operations. The OSM will be awarded to ADF members for service on operations recommended and approved as warranting recognition. Each declared operation will be recognised by the standard medal with a unique ribbon for each operation in the same way as the United Nations Medal is awarded. Where appropriate, an accumulated service device will recognise those who render additional prescribed periods of service on a particular operation.

The first service declared for the OSM is the range of border protection operations conducted since 1997.

### Operational Service Badge (OSB)



Before the establishment of the OSM, those who received the AASM were also issued with the

Returned from Active Service Badge (RASB). Because the OSM recognises all declared operational service, an Operational Service Badge (OSB) has been established to be issued on the first award of the OSM.

The OSB has two versions - military and civilian, to be issued with the respective medal types.

The RASB will continue to be issued with the AASM for current warlike operations.

In contrast with the RASB, the OSB may also be issued to the next-of-kin of deceased members to complement the award of the OSM.

### **BOER WAR DAY**

**COMMEMORATION – SUNDAY 26 MAY 2013**

**SHRINE OF REMEMBRANCE – 11.30 AM**

At the dawn of the 20<sup>th</sup> Century and during the very birth of our Nation, Australian soldiers were fighting and dying on the South African veldt in what became a bitter guerrilla war. About 23,000 Australians served and nearly 1,000 paid the supreme sacrifice. Many more suffered lasting disabilities and broken lives.

We must not forget those who served in our third biggest and most costly engagement after the two world wars of the 20<sup>th</sup> Century. National Boer War day is commemorated in all States on the Sunday before 31 May each year – the anniversary of the war's end in 1902.

The Melbourne service at the Shrine, on Sunday 26<sup>th</sup> May 2013, will be attended by civil and military dignitaries, the Victorian Police Pipe Band and the Creswick Light Horse. All descendants of Boer War veterans and other interested people are invited to attend this event which, in 2013, honours the magnificent 'Defence of Elands River' from 4 to 16 August 1900.

**ALL ARE WELCOME**

## Hitler's Stealth Fighter-Bomber

In the final months of World War 2 a jet powered flying wing made its first test flight from a remote airfield deep inside Nazi Germany. Years ahead of its time, the Horten 2-29 had been designed to be a lethal fighter-bomber and more importantly, virtually undetectable to Allied radar.

With its smooth and elegant lines looks like a modern stealth bomber, but this flying wing was actually designed by the Nazis 30 years before the Americans successfully developed radar-invisible technology.

First built and tested in the air in March 1944, the Horten 2-29 was designed with a greater range and speed than any plane previously built and was the first aircraft to use the stealth technology.

From tanks through to the V-2 rocket, it has long been recognised that Germany's technological expertise during the war was years ahead of the Allies. But by 1943, Nazi high command feared that the war was beginning to turn against them, and were desperate to develop new weapons to help turn the tide. Hitler wanted to develop a bomber with the range and capacity to reach the USA.

In 1943, Luftwaffe chief Hermann Goering demanded that designers come up with a bomber that would meet his requirements; one that could carry 1,000kg over 1,000km flying at 1,000km/h.

Two pilot brothers in their thirties, Reimar and Walter Horten, suggested a flying wing design they had been working on for years. In theory the flying wing was a very efficient aircraft design which minimised drag. It is one of the reasons that it could reach very high speeds in dive and glide and had such an incredibly long range. The aircraft's sculpted surfaces and jet intakes were years ahead of their time. The Horten brothers were convinced that with its drag and lack of wind resistance such a plane would meet Goering's requirements.

The 142-foot wingspan bomber design was submitted for approval in 1944 and construction began on a prototype in Gottingen in Germany. The centre pod was made from a welded steel tube, and was designed to be powered by a BMW 003 engine. Thanks to the use of wood and carbon, jet engines integrated into the fuselage and its blended surfaces, the plane would be rendered almost invisible to radar detectors.

The most important innovation was Reimar Horten's idea to coat it in a mix of charcoal dust and wood glue. Absorbing the electromagnetic radar waves would be the same method eventually used by the US in its first stealth aircraft in the early 1980s. The F-117A Nighthawk was covered in radar absorbent paint with a high graphite content, which has a similar chemical make-up to charcoal.

Luckily for Britain the Horten flying wing fighter-bomber never got much further than the blueprint stage. Hitler's

engineers only made three prototypes, tested by being dragged behind a glider, and were not able to build them on an industrial scale before the Allied forces invaded Germany.

After the war, the Americans captured the prototype Ho 2-29s along with the blueprints and used some of their technological advances to aid their own designs. But experts always doubted claims that the Horten could actually function as a stealth aircraft.

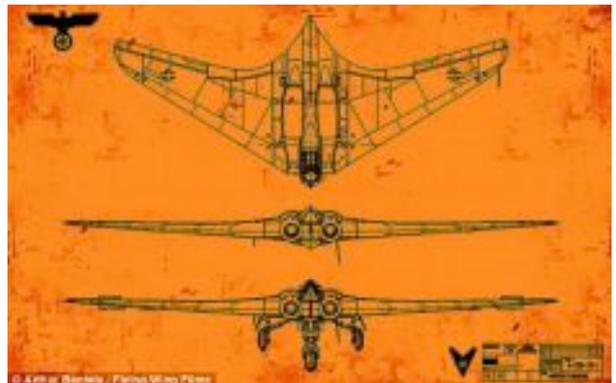
Recently, an engineering team using the blueprints and the only remaining prototype craft has reconstructed the Horten Ho 2-29. The full-scale replica of the Ho 2-29 bomber was made with materials available in the 1940s. It took them 2,500 man-hours and US\$250,000 to construct, and although their replica couldn't fly, it was radar-tested by placing it on a 50 foot high articulating pole and exposed to electromagnetic waves.

The team demonstrated that although the aircraft was not completely invisible to the type of radar used in the war, it would have been stealthy enough and fast enough to ensure that it could reach London before Spitfires could be scrambled to intercept it.

The stealth plane design was years ahead of its time. It was faster and more efficient than any other plane of the period and its stealth powers did work against radar. Experts are now convinced that given a little bit more time, the mass deployment of this aircraft could have potentially changed the course of the war.

After the war, Reimar Horten immigrated to Argentina where he continued designing and building gliders and one twin-engined flying wing transport, which was unsuccessful commercially. Walter Horten remained in Germany after the war and became an officer in the post-war German Air Force Luftwaffe. Reimar died on his ranch in Argentina in 1994, while Walter died in Germany in 1998.

### Marcus Fielding



**The Blueprints for the Horten Ho 2-29**

## Vale - Brigadier Ian George Charles Gilmore OBE, OAM (1925-2013)



We mourn the passing of one of our members. Ian was born on Tuesday 30 June 1925 in the [Mid North Coast](#) region town of Wingham, more than 200 miles north of Sydney, New South Wales. His father, a Great War veteran, and his mother were schoolteachers. He joined the NSW Volunteer Defence Corps after completing his matriculation at Newcastle Boys' High School. At the age of 18 he followed in his father's example and enlisted for the AIF in Paddington, Sydney, in December 1943.

Within months Ian was discharged from the AIF to attend the Royal Military College, Duntroon. During 1944 to 1946, he played in the Rugby team where he formed a life-long friendship with fellow RMC Classmate (and later RUSIV President) John Stevenson (Major General Stevenson AO CBE 1925 – 2008). After graduation Ian was posted to the Royal Australian Engineers as part of the British Commonwealth Occupation Force in Japan.

In 1951, after returning to Australia, Ian and seven others rowed more than 1125 miles in a re-enactment of Charles Sturt's exploration of the Murrumbidgee and Murray Rivers as part of that year's Golden Jubilee of Federation celebration. From March to November 1952, he was posted to 28 Commonwealth Field Engineer Regiment in Korea where he received a Mention in Despatches for "outstanding services and devotion to duty as Intelligence Officer at Regimental Headquarters". He was also singled out for his work with minefields and booby-traps.

In April of 1954 Captain Gilmore married Alison Cayley of Werribee, Victoria, at St. John's, Toorak. His military career continued with instructional postings to the Officer Cadet School, Portsea and the School of Military

Engineering. In the period between the Korean and Vietnam wars he also attended the Royal Military College of Science in the UK as well as a course at Fort Leavenworth, Kansas followed by an appointment in Washington DC. Returning home, Ian attended Staff College at Fort Queenscliff where he was noted by his fellow students for his sporting pursuits on the Golf course as well as for his refereeing of Rugby matches. In 1960 he was promoted to Major and posted to Sydney. The following year Ian was inducted into Sydney Legacy. He remained involved with various branches of Legacy for the rest of his life.

He was appointed to command the Australian Logistic Support Group at Vung Tau Vietnam after which he was awarded a further Mention in Despatches. During that posting he planned the construction and subsequent launch of the Harold Holt Memorial Swimming Pool and the ANZAC Chapel in Vung Tau. For his services in Vietnam Lieutenant Colonel Gilmore was appointed as an Officer (Military) of the Most Excellent Order of the British Empire in 1968. Between 1973 and 1975, he was Colonel, Deputy Commander and Chief of Staff ANZUK Force in Singapore.

After promotion to Brigadier he was posted to the Puckapunyal Military Area as Commandant. He was then posted to Queenscliff as Commandant of the Army Staff College, Fort Queenscliff from May 1975 to May 1978. After his retirement in 1978 he became Director, Australian Counter Disaster College, Mount Macedon, 1978-1987, the precursor to the Emergency Management Australia Institute.

During the 1980's Brigadier Gilmore took on many other roles including Chairman, Kyneton Group of Bendigo Legacy, 1981-1982, Honorary Colonel, Australian Cadet Corps, Victoria, 1981-1985, Patron, Old Sappers Association from 1987, Chairman, Braemar College, Woodend, 1988-1994 and Colonel Commandant, Corps of the Royal Australian Engineers, 1989-1992. His additional appointments include Vice-Chairman, Mount Macedon Memorial Cross Trustees, 1994-2000, Chairman, Field Marshal Sir Thomas Blamey Memorial Fund since 1995, National Chairman, Society of Military Engineering, 1995-1998. President, Victorian Branch of the Most Excellent Order of the British Empire Association, 1996-1999, National Chairman, Legacy Coordinating Council, 1997-1999, Foundation Director, Royal Australian Engineers Foundation from 1999. He was awarded the OAM in the General Division in June 2007 for service to the community, particularly through a range of ex-service, engineering and military bodies.

Ian was an enthusiastic and well-informed member of RUSIV until he moved to Queensland. He passed away on 1 January 2013. He is survived by his wife, Alison, eldest son Rowan, a doctor of Science; daughter Karen, an IT engineer and younger son Peter, a major-general, eight grand-children and two great grandchildren.

## The Resurgence of the Airship

### The Flight of Zeppelin L.59

In November 1917, the German naval airship L.59 departed from Jamboli, Bulgaria, on a mission to German East Africa (now Tanzania) carrying 50 tons of urgently needed supplies—weapons, ammunition, food and medicine—for the colony's military garrison. Because it would be impossible to resupply the airship with hydrogen gas at its destination, the journey was intended to be one-way only. Events in East Africa caused the voyage to be aborted on 23 November, while the L.59 was 200 kms due west of Khartoum, Sudan. The airship arrived back at base two days later, having covered 6800 kms in 95 hours—a record not surpassed for many years.

The airship or lighter-than-air vehicle (LAV) was used for intelligence, surveillance and reconnaissance (ISR) purposes as far back as 1794 in France's campaign against Austria. In the early 1900s they were used as long-range bombers and cargo carriers, and even undertook trials for use as aircraft carriers. However, technical issues with materials and a number of unfortunate accidents gradually diminished interest in the LAV and relegated them to mere curiosities by the middle of the 20th Century.

In recent times, there has been increasing interest in airships from military forces wanting long endurance ISR platforms and potential large transport capabilities at relatively low cost. Primarily, the need for persistent ISR platforms that can remain airborne for weeks or even months has been identified by military forces as a critical part of response options in irregular conflict.

The basic characteristics of LAVs make them ideally suited for this purpose. The United States military is currently exploring the feasibility of fielding airships in Afghanistan to conduct ISR missions.

There are three fundamental characteristics of airship, which are viewed as crucial advantages in the modern battlespace.

First, their propulsion requirements are modest in comparison to all other airborne platforms. An airship requires independent propulsion only to overcome the initial inertia during take-off, to facilitate staying on station during a mission, and to assist in landing by overcoming the platform's inherent buoyancy.

Second, LAVs can stay aloft expending very minimal fuel for long periods of time, and also reach extremely high altitudes. In combination, this offers the potential for these vehicles to operate for extended periods as virtual satellites conducting ISR and being effective communication hubs.

Third, the inherent buoyancy of the platform completely alters the basic power-lift equation of aerodynamics in an airborne vehicle. This allows an airship to lift a given payload to a prescribed altitude in a far more cost-effective manner in comparison to a conventional heavier-than-air aerial vehicle. Further, natural buoyancy also permits LAVs to overcome the limitations of endurance that restrict normal fuel consuming aerial vehicles, thereby increasing persistence.

This is a distinct advantage in conflict situations requiring very long-term surveillance of the battlespace.

Developments are also taking place that could further increase the endurance and persistence of airships. The design of airships provides them with large surface areas. These surface areas enable the accommodation of photo-electric cells in sufficient quantity to produce electrical power from sunlight at very high altitudes. This could make the airship almost self-sufficient in meeting its power requirements for station keeping as well as for the functioning of its operational payload.



**Airship Norge, the first aircraft to reach the North Pole**

Early airships developed a reputation for being dangerous fire hazards because of the use of volatile hydrogen to achieve the necessary buoyancy to stay airborne. This had made the survivability of an airship in the battlespace questionable. Modern LAVs use inert helium that almost completely rules out the fire hazard. In fact, trials have shown that they are able to absorb considerable ground fire and yet remain airborne for long periods, making them relatively invulnerable to battle damage. This is predicated not only on helium being an inert gas, but also because it is held at extremely low pressures in the envelope making any leakage and deflation a slow process. Airship trials have repeatedly proven that it is able to absorb damage and fly out of harm's way even as the gas gradually leaks out, reducing its buoyancy.

A modern LAV has another survivability feature that is important in the modern battlespace. Despite having a large visual signature, LAVs are surprisingly stealthy. Their all composite and advanced fabric hulls and control surfaces are almost invisible to radar and the control cabins have a reduced radar cross section through the use of shaping techniques.

Low radar, acoustic and infra-red signatures make airships very survivable even in battle spaces where there is a high density of enemy search and track capabilities.

Although LAVs have advantages when employed in some dedicated roles, they also have certain inherent limitations that could diminish their operational effectiveness. Of necessity, LAVs are large in size. While an advantage in terms of survivability and performance at high operating altitudes, it becomes a liability when they are on or close to the ground. They become vulnerable to weather effects and are also prominent targets for concentrated surface or counter air attacks.

Even though external propulsion requirements are minimal, certain technical challenges and issues regarding the engines have still not been fully mitigated. The engines of an airship have to be able to operate at unusually high altitudes for extended periods of time. Further, they also have to be able to run efficiently for long periods of low power operations—typical of optimum LAV employment. Conventional engines face challenges in ensuring adequacy of lubrication over extended operations. Electrical motors are increasingly viewed as becoming vital features of airship propulsion.

An older application of airships, the Tethered Aerostat Radar System (TARS), has been in operation with the United States Air Force for more than two decades. The data available from these operations provide an indication of the potential of LAVs. The operating cost of TARS in comparison to the same surveillance being provided by a US Customs P-3 airborne early warning and control aircraft has been estimated as less than 10 per cent (approximately US\$300 as against US\$3,500 per hour of operation). Further, this does not take into account the disparity in acquisition costs—around US\$22 million for an aerostat based system and US\$37 million for a P-3 in the 1992 timeframe.



**Tethered Aerostat for ISR**

In 2011, the United States Army planned to evaluate the Lockheed High-Altitude Long-Endurance Demonstrator (HALE-D) which promised to be the first high-altitude airship that would fill the role of a virtual satellite. This LAV was designed to lift a 23 kg payload to 60 000 feet and stay on station for at least 15 days. Unfortunately HALE-D crashed on its first flight after reaching only 32,000 feet. Following cost-overruns and US defence budget cut-backs, the program has been suspended,

along with competing Army LAV programs and the Blue Devil 2 LAV program sponsored by the USAF.

While it is still early days in the operational deployment of free moving LAVs, it is not difficult to envisage the advantages that will come with the maturation of these concepts and supporting designs. In the long duration irregular conflicts that seem to be the contemporary norm, ISR is critical to success. The LAVs will be able to provide a cost-effective and affordable solution to the challenge of providing actionable intelligence derived through their capacity for persistent surveillance.

*This article was published as the Air Power Development Centre Bulletin, 'Pathfinder' Issue 149, February 2011. It has been slightly modified and updated.*

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## **And now the Heavier than Air Competitor:**



**Boeing Phantom Eye Drone**

Competition to Airships for the High Altitude Long Endurance (HALE) role comes from specially designed Unmanned Aerial Vehicles (UAVs). Pictured on its first flight last year is the Boeing 'Phantom Eye'. This UAV has 150 foot wingspan and is powered by two hydrogen fuelled four cylinder piston engines. The rotund fuselage is almost completely filled by two spherical hydrogen tanks. It is designed to fly at 65,000 feet and has an endurance of four days. Boeing has plans for a production model with a wing span of 250 feet and an endurance of 10 days. Unlike the High Altitude Airships the Phantom Eye program is independently funded by Boeing and not the US military.

Phantom Eye's second flight was carried out successfully At Edwards Air Force Base on 25 February.

**Mike Rawlinson**

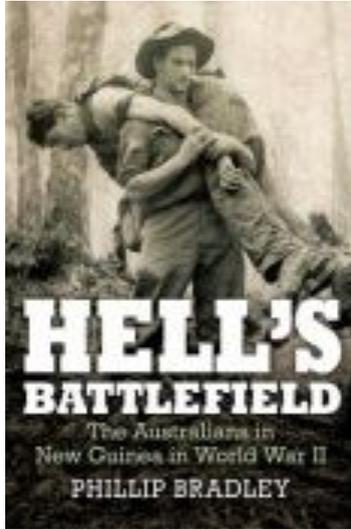
who were in transit escaping from Java.

## Book Review

Phillip Bradley

### **HELL'S BATTLEFIELD The Australians in New Guinea in World War II,**

Allen & Unwin, Sydney, 2012 ISBN 978 1 74237 270 9.



*HELL'S BATTLEFIELD* is a very readable and informative account of the battles which were fought in Papua/New Guinea, New Britain, New Ireland and Bougainville in the period 4 January 1942 to 13 September 1945. It tells how Australian and American forces stopped the advance of the Imperial Japanese Army and Navy and regained the territory lost in that region. The author, described as one of the finest chroniclers of the Australian Army's role in the New Guinea campaign, wrote in the Introduction that the aim of the book was to fill in that outline of dates, places, and operations telling the story of Australia's war in New Guinea from the perspective of some of the men who fought it. A chronicle is defined as a detailed and continuous register of events in order of time (Shorter Oxford English Dictionary). As a record of these times, *HELL'S BATTLEFIELD* is a chronicle *par excellence*. In contrast to the work of international military historians such as Simon Ball, Corelli Barnett, Antony Beevor, David Butler, Martin Gilbert, Max Hastings, David Horner, Michael Korda, Andrew Roberts, Stephen Roskill, Simon Schama, Hugh Sebag-Montefiore or Duncan Youel, *HELL'S BATTLEFIELD* is a unique Australian chronicle with a distinctly Australian flavour.

One question which immediately comes to mind is, what sort of audience or readership is the author looking for? Does he want historians in the future to use it as a reference? Does he want school students to read it so that they have some understanding of the New Guinea campaign? Or is this book written only for those who were there, so they can reminisce and discuss the events of those momentous years? This reviewer was recently in NW Australia. He learnt first-hand of the events in Broome, 3 March 1942, when eight Japanese Zeros in 20 minutes killed at least 44 Dutch nationals

This fact is little known and appreciated today, reinforcing the argument that there is a case for recording events such as those described in *HELL'S BATTLEFIELD* before the present generation forgets what happened. (It would be interesting to know whether students leaving school in 2013 are familiar with any of the facts relating to the New Guinea campaign and/or the air raid on Broome).

*HELL'S BATTLEFIELD* tells the story of day to day events in the New Guinea campaign. It describes the appalling conditions which the young men of the militia and the AIF endured in their campaign in Papua/New Guinea and surrounding islands. It addresses some of the controversies and arguments relating to senior officers. The book is of special interest to this reviewer who was personally acquainted with one of those referred to in the text, and he knew of many others by their reputations. He was in the first group of National Service trainees at the time of the Korean War when all the officers and NCOs had been through World War II. The platoon commander had been awarded the MM for service in New Guinea, the platoon sergeant the VC for action against the French in Syria (now that was a real surprise) and the Corporal had been in the siege of Tobruk. The controversial treatment and innuendo circulating about Brigadier Arnold Potts and other senior officers were still hot topics of discussion in the 1950s, and so in one way or another, the events described in this book are of more than a passing interest. So what is this book about? It tells how Imperial Japanese forces moved swiftly from their bases in what was then Malaya and the Netherlands East Indies and proceeded to occupy New Guinea and the surrounding islands with the ultimate aim of invading Australia and New Zealand. Much of this story has been told and retold on numerous occasions, but not in the same graphic detail as here about the conditions in which the men fought.

There are a number of sections in *HELL'S BATTLEFIELD* which are worth noting and highlighting. One relates to references to Burton Graham and war photographer Damien Parer (see pp. 30, 59, 204, 211, 370) who was subsequently killed by a Japanese sniper on 17 September 1944 while photographing US marines landing on Pelieu Island. Graham had written a book during the New Guinea campaign illustrating how the US Fifth Air Force and the RAAF had annihilated a Japanese invasion fleet in the Bismarck Sea in March 1943. Burton's book contains official war photographs taken by Parer which relate directly to the story in *HELL'S BATTLEFIELD*. Another noteworthy section is where the author (p. 179) analyses the then current war situation as he saw it. While the detailed day-to-day narrative is certainly of interest, the author could have been more analytic and drawn more conclusions from his observations. A third section relates to Lieutenant Masamichi Kitamoto (p. 279) who was then part of the Japanese force in Lae, and who had been a member of the Japanese athletic team in the 1932 Olympic Games in Los Angeles.

*continued page 12*

*Hell's Battlefield, continued from page 11*

There are a number of other sections where the author could have been more forthcoming, for example, on the role of General MacArthur and the parts played by Prime Minister Curtin and General Blamey when changes were being considered to senior Australian army appointments. MacArthur, long described as the most publicity seeking US general in World War II, with the possible exception of General Mark Clark, is referred to obliquely as the protector or patron of General Blamey, 'General Thomas Blamey, Commander-in-Chief of the Australian Army and Commander of Allied land forces under MacArthur's aegis' (p. 31). Sometimes the author takes a surprisingly censorious approach. He writes: about an underprepared Australian force and a complacent Allied command (p. xviii); that the main problem here was not the quality of the intelligence but the failure of MacArthur and Blamey to draw the right conclusions from it and respond appropriately (p. 50); that over 1250 Australians and 900 Americans died to give General MacArthur his victory (p. 179); that Lt. General Ned Herring had shown a poor appreciation of the use of an independent company with respect to its strategic capability (p. 277); the comment that the war's a phoney MacArthur-made one (p. 212); with American relief imminent it seems likely that both Moten and Conroy were trying to upstage the Americans-more of the same attitude that had cost so many Australian lives on the Papuan beachheads (p. 257). And so on.

The editors of publishers Allen & Unwin have not done justice to the text. In a work as significant as *HELL'S BATTLEFIELD* it behoves the editors to check that quotations are accurate, that obvious grammatical errors are removed; and that a critical eye has been run over the manuscript before being sent to print. A careful editor would have eliminated such errors which would be likely to be picked up by academic readers. Editorial oversights aside, *HELL'S BATTLEFIELD* is an important chronicle about the events that took place in New Guinea between 1942-1945. Few people know much about this campaign, and for that reason alone, it deserves to be read and discussed in recognition of the sacrifices made by the men of the AIF and the militia.

**Michael W. Small**

#### Reference

Graham, B., *NONE SHALL SURVIVE The Graphic Story of the Annihilation of the Japanese Armada in the Bismarck Sea Battle by the US Fifth Air Force and the RAAF, The War Against Japan, 1943*, 2<sup>nd</sup> ed., F.H. Johnston Publishing Company, Sydney, 1946.

## Library Notes

The Library continues to benefit from donations which, in many cases, fill gaps in our coverage. We mention again the generous donations from Colonel Marcus Fielding. There have also been new donations from a number of members.

The estate of Commander Geoffrey Evans, OBE, VRD, RANR has donated many books on Naval matters

David Richardson has donated several interesting books including , histories of the Owen Gun, a history of the SS Sonder Kommando Dirlwanger and a book entitled "Desperate Measures – The Last-Ditch Weapons of The Nazi Volkssturm".

Brigadier Geoff Christopherson has donated "The War for all the Oceans" – a comprehensive and interesting title covering Nelson at the Nile to Napoleon at Waterloo.

Major General Mike O'Brien has donated some important books and documents, covering the period from 1812 to the Vietnam War.

The collection now approaches 14,000 items and is almost completely catalogued and shelved in our new premises.

The project to make the collection visible on the internet through the kind offices of RUSI (NSW) moves forward but some technical issues remain to be solved.

**Brian Surtees**

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