Success In Dive

The AE2 Dive Expedition to examine, gather and record data was a resounding success. Read VPs Report inside.

LORD NELSON’S LINK
Revealing Nelson’s part in the evolution of the submarines

SM2020 MEDIA COVERAGE
The Australian newspaper directly refers to the work by SIA President, Peter Briggs

PERSONALITY PROFILE
RADM Oscar Hughes
AO RAN RTD
The year since the 2006 AGM and Conference has been busy and very successful for SIA. We have attracted enough sponsorship to sustain our activities and have achieved many of our goals.

This article is a précis of the SIA President’s report to the SIA AGM on 3rd Oct. 2007.

**MISSION ACCOMPLISHED**

**SUBMARINE 2020**

The SM 2020 project aims to ensure the Australian government has a solid plan to replace the Collins class submarines before 2025. We have worked cooperatively with Defence and Government principals to achieve the following:

- Ongoing discussions with the Chief of Capability Development Group, Chief of Navy and CEO DMO;
- Conducting a 2006 study on the industrial and political issues surrounding a future submarine project for CCDG. The DSTO and the Kokoda Foundation delivered three supporting studies in the same timeframe.
- Delivering briefings to the Minister for Defence and the Shadow Minister after consultation with Defence.

The Minister for Defence and the Shadow Minister have since announced their support for a future submarine project to be designed and built by ASC in Adelaide. The third major outcome we set ourselves – inclusion in the DCP – looks likely to be achieved in 2008.

We look forward to continuing to work cooperatively with Defence on this project.

**WORLD WAR1 AE 2 WRECK**

As part of our goal to protect, preserve and tell the story of the AE 2, we have established the AE 2 Commemorative Foundation Ltd (ABN 69 362 234 694). This is a charitable trust under SIA control that allows us to conduct the commercial activities associated with this project.

We were then able to raise funds for the Assessment Phase of this project and conduct a successful Maritime Archaeological Assessment in Turkey in September. An extensive report and options paper are now being finalised for our planned joint Turkish/Australian workshop in Istanbul in April 2008. For more about this project, please see the AE2 2007 Dive Expedition report.

**CENTENARY OF SUBMARINES**

Lloyd Blake is managing the following activities for this project to celebrate the 100th anniversary of the Australian submarine arm in 2014:

- Collecting aural histories from Australian World War II RN and RAN submariners;
- Producing ‘learned papers’ for professional journals in Australia.

**SIA MEMBERSHIP**

I am delighted to note that membership has grown by nearly 50% in the past 18 months, with total membership now standing at 191. The committee is very much aware that our activities seem concentrated on the east coast and particularly in Canberra. This is due to the distribution of our members and our activities on the AE2 and SM 2020 projects. Ongoing efforts are being made to engage currently serving submariners and bridge the geographical and generation gaps. These include:

- Recruiting two serving submariners to the SIA Committee;
- Placing articles in The Trade;
- Presentation to the FEG Forum;
- Initiation of an annual award for the best performing seagoing submarine technical officer in concert with sponsorship by MacTaggart Scott.
- Sponsorship of FEG activities as requested.
- Attendance at the FEG Annual Ball.
- Conducting two activities, eg a briefing and a workshop in WA for the WA members annually.

Ongoing effort is necessary to try and bridge this geographical and generational gap.

**INDIVIDUAL CONTRIBUTION**

We owe our success to the efforts of our committee and volunteer project managers. I would particularly like to thank:

- Terry Roach and Ken Greig in the AE 2 project;
- The tireless efforts of Frank Owen as the honorary Treasurer, Webmaster and day-to-day Secretary;
- Newly appointed SIA Executive Manager, David Nicholls.

I welcome our new Committee members and newly appointed SIA Executive Manager, David Nicholls, and am very much looking forward to the challenges of 2008.

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**PROGRESS REPORTS**

**Centenary of Submarines**

by GRAHAM SEAL and LLOYD BLAKE

For the past four years the SIA Project SM 2020 has been considering the requirements for a future underwater warfare capability for Australia. Deliberations have included two international conferences and a number of workshops.

In December 2006 the Institute’s SM 2020 team (Oscar Hughes, Terry Roach, Paul Greenfield, Allan Behm, Frank Owen and Peter Briggs) completed a study for the Chief of Capability Development, Department of Defence, into the strategic setting, capability and roles required of a future underwater warfare capability; the lessons learnt from the Collins project; and the industrial and political aspects arising from the project to acquire this capability.

The paper presented by Peter Briggs at the RAN Seapower Conference 2006 summarises the major findings and conclusions from these various considerations. It remains a team effort. You can view the full text on the SIA website via the following link:

http://www.submarineinstitute.com/members/?i=downloads

Two additional articles are also in progress.

A piece on the J-boats has been completed, leaving the way clear for further research in Australia and the UK for the remaining articles. A list of willing World War 2 submariners has been established and arrangements made to begin oral history interviews.

**Research Funding**

A large part of Australia’s submarine history originated in the UK. Enthusiastic research support has been offered by the Submarine Museum in Gosport Hampshire UK, the Imperial War Museum London and other UK locations. A decision on federal funding for travel and research costs is expected early this year. If funding is approved, Dr G Seal & Lloyd Blake will visit the UK in Sept 2008. Monographs and a variety of historical items from the early days of RAN submarines will provide the main research resource in the UK. Later work on the Centenary project will focus on RAN Submarine personnel, the RAN Oberon class, SWUP and development of the Collins Class.

**Cocktail Party 28 November 2007**

In support of the Centenary of Submarines project, Peter Briggs held a Cocktail Party for 80 guests at the South of Perth Yacht Club, Applecross, WA, for Pacific Reach Conference delegates. Peter delivered a short brief on the goals of the project to local, interstate and international guests. Representatives of overseas navies were asked to note the year of the centenary and expect an invitation for a submarine port visit at the Fremantle Submarine Regatta February 2014.

**Support from the Western Australia Maritime Museum, Fremantle**

In 2007, Lloyd Blake and Peter Horobin held a meeting with the Western Australia Maritime Museum, Fremantle. The museum authorities are very supportive of the RAN Submarines 100 Years History Project and have offered the Museum as a venue for free fundraising events to support the project. They also indicated possible support for other aspects of the Centenary of Submarine project which emerge as the project unfolds. (This is in addition to their ongoing care and maintenance of the SM Ovens, which receives up to 60,000 visitors a year.)

**Geographical Focus for the 2014 Centenary Year.**

The focus will be HMAS Stirling and the Port of Fremantle. The support already committed by the Maritime Museum, in conjunction with the City of Fremantle Port Authority and Fremantle Chamber of Commerce, bodes well for a spectacular and successful recognition of the centenary of Australian submarine history.

**Published Work**

Two major articles were completed in 2007 by SIA author Dr G Seal AM. The articles were accepted by the International Journal of Naval History UK, the Australian Naval History Society, the US Submarine League and US Submarine veterans Inc. Distribution continues in Australia and abroad.

**Future Submarine - Can We Afford It?**

by Peter Briggs

I greatly appreciated the opportunity to present my paper on future underwater warfare capability at the RAN Seapower Conference in Sydney in January. Judging from questions and follow up discussions with several of the visiting Navy VIPs, the topic was timely and well received.

One of the questions that resonated with me concerned implications for the force structure of the Navy. The strategic setting the SIA envisages, and the additional roles and effects to be delivered by the future submarine capability point towards an increase in the size of the RAN’s submarine force. The questioner’s concern was that this would only be achieved at the expense of the surface fleet. At the time I only partially addressed this question. So I’d like to set out my reasons for disagreeing with the proposition.

Firstly, the Defence White Paper process is the legitimate process for agreeing the top level capability and the military effects to be achieved by the future submarine force. If that process results in more submarines than is affordable, the government will have to make a decision that balances this and the national interest. They should do so in the full knowledge of what is required – we should not prejudge the Government’s decision in the analysis phase.

Secondly, the implication that there will be more funds and an easier argument for the replacement of surface ships if the Navy advocates a replacement mindset and settles for six or fewer submarines is misplaced. An unwillingness on our part to conduct the analysis and accept less than the required number of submarines gives no guarantee of future surface ship numbers. In fact, the argument for acquiring future surface ships would be compromised and weakened by such an approach. Both capabilities will have to be argued on their own merits against the strategic setting. This setting is essentially strongly supportive of a maritime strategy and is therefore a very positive one for the future Navy.
Our persistent lobbying for a replacement submarine capability for the Collins class was rewarded by a comprehensive set of media reports on the matter just after Christmas. A summary of these reports was published in ‘The Australian’ newspaper on December 29th 2007. In opening this summary, the author directly referred to the work by SIA President, Peter Briggs. The article opened as follows:

An unusual defence brief landed on the desk of Labor’s Joel Fitzgibbon last July, when he was the Opposition spokesman for defence. It was written not by Australian Defence Force chiefs but by the Submarine Institute of Australia, a body comprising some of the country’s most decorated former submarine commanders.

The brief was on the future of the submarine fleet and it did not mince words. It began: “To retain an effective undersea warfare capability, planning needs to begin NOW on a future submarine.”

A naval arms race in the region was gathering pace and Australia could not afford to be left behind, the submariners warned. “Significant investment is under way by regional nations to acquire or improve their submarine capability,” they wrote.

“Modern western European technologies are being fielded in many of these capabilities. Both India and China are also acquiring European and Russian submarine technology of considerable sophistication. The emergence of regional powers armed with nuclear-powered submarines, and submarines with a strategic strike capability, are likely,” the report said.

“In short, more countries will seek to practice underwater denial.”

The writer then went on to quote extensively from the SIA brief written by Peter Briggs. He also included strong supporting comments from Kim Beasley, Ross Babbage (Chairman of the Kokoda Foundation) and Neil James (Executive Director of the Australian Defence Association). Opposition Leader, Dr Brendan Nelson confirmed bi-partisan political support and is on record as being strongly supportive of early planning for developing the replacement submarine capability.

The article emphasised the fast-changing nature of the maritime balance of power in the region, particularly in the number of nations seeking either to establish a submarine force or to significantly expand an existing force.

Quoting Briggs, the journalist stressed the practical sense of building the new class at the existing ASC facility in Adelaide: continuing to evolve relevant Collins class systems to a point where they could be integrated into the design of a new class might be a strong factor in mitigating design risk.

The full article appeared in the Weekend Australian of 29th December 2007
The AE2 Dive Expedition to examine, gather and record data of the World War 1 submarine was a resounding success. The dive, from 7-19 September 2007, was performed by an exploration team of 21 off the coast of Turkey. The data they collected will enable us to recommend practical options for the submarine’s future preservation.

Two unique achievements stand out which shed light on the mystery of the AE2’s remarkably good state of preservation.

Taking advantage of particularly calm weather and good underwater visibility one team of AE2 divers descended early on the morning of Tuesday 10 September and rigged the drop camera – a specialized video camera adapted for the purpose through SIA funding – above the conning tower hatch before commencing a two hour ascent – with eight decompression stops – back to the surface.

Images were immediately relayed back to the control display manned by the DSTO scientists who developed the camera and its controls. A second team of divers then descended into the depths for the next 35 minute shift.

Avoiding ‘Bunts’, the conger eel who had earned his nickname by taking up residence in the upper conning tower hatch, the team threaded the camera past the ladders and lower hatch into the centre of AE2’s control room.

The water was clear and pristine, with little silt or growth evident on the multitude of gauges and equipments. The narrow field of view took us 92 years back in time to the AE2’s final operational posture.

“We’re in!” – the jubilation on the diving support ship was clear in the hasty reports relayed back to our onshore headquarters by UHF radio. Once the DSTO scientists worked their magic on the footage, we had some amazing shots and a unique insight into the heart of the AE2.

The second breakthrough came from onsite analysis of samples of the corrosion and organic matter on the hull of the submarine and the silt surrounding her. These have revealed the secret of AE2’s relatively good condition.

It appears that the wreck has been submerged in silt on four occasions during its 92 years on the bottom. The fin has stayed above the silt line, keeping the interior free from silt. The low oxygen environment of the silt which coated the rest of the hull protected the wreck from serious corrosion.

Diving at a depth of 73 metres is a serious business and not without risks. An incident on the afternoon of Wednesday 12 September resulted in the near drowning of one of the divers. Shortly after two divers began their descent to the submarine it became apparent that one was having difficulties with her equipment. The second diver provided support and air from his emergency supply. Two surface support divers then entered the water and the casualty was brought to the ladder. The unconscious diver’s gear was removed and dropped to the seabed before she was hoisted onboard.

The embarked medical staff immediately began resuscitation and succeeded in reviving and stabilising the casualty. The meticulously pre-planned medical emergency procedures proved highly effective. The Turkish Navy quickly coordinated the attendance of a high speed Coastguard cutter, a Turkish Navy helicopter and a waiting ambulance to convey the casualty to hospital.

Happily, she recovered well and was discharged from hospital on Monday 17. She rejoined the team prior to their departure on Wednesday 19 September.

On Wednesday the team packed up and bade farewell to their many new friends in the little fishing village of Karabiga where the Expedition was based for ten days. The joint Turkish and Australian expedition was made possible by the Commonwealth Government and Australian industry sponsors.

In 2002, the author of the biography “Nelson’s Purse” was given access to the letters of Alexander Davison, close confidant and primary agent in commercial matters of Vice-Admiral Horatio Nelson – the British admiral made famous in the Napoleonic Wars. These documents, lost to history for 200 years, shed new light on Nelson’s life and relationships. They have also revealed a little-known part played by Nelson in the evolution of the submarine.

The first practical submarine is considered to be the Nautilus, designed between 1793 and 1797 by maverick American inventor Robert Fulton.

In 1797, Fulton offered to create a submarine for Napoleon Bonaparte to use against the British Royal Navy. He built the first Nautilus at a boatyard in Rouen out of copper sheathing over iron ribs. Propulsion was a hand-cranked screw propeller. The craft’s hollow keel acted as the ballast tank, and the ship resembled a modern research sub in shape, with a fan-shaped collapsible sail. Air was provided by a waterproof leather snorkel tube, and an “infernal” — a weapon that Fulton attached to the top of the dome — was to drive a spike into the enemy’s wooden hull, then release a mine on a line through the hole. The sub would then speed away to a safe distance and detonate the mine through the long line.

The Nautilus was successfully tested in the river Seine in July 1800. Fulton took the craft to the quiet salt water of the harbour at Le Havre to test endurance with a lit candle. He found the flame did not affect the air capacity of the snorkel. He compared the speed of two men cranking with two men rowing on the surface. Nautilus covered the 120-metre course two minutes faster. Over the course of a year Fulton changed the screw propeller to one with four vanes like a windmill, added a cobber globe containing 200 cubic feet of air, inserted a small glass window, and took the revised Nautilus to the then-remarkable depth of 25 feet. He stayed down with three crewmen and three candles burning for one hour without incident. Speed trials recorded the Nautilus at two knots on the surface, and the first trial of the infernal blew a 40-foot sloop to splinters.

The French overseeing committee was enthusiastic and recommended the production of two brass subs with a crew of eight and enough air for eight hours of submersion. In September, Napoleon himself asked to see the Nautilus. Unfortunately, Fulton had had the prototype dismantled at the end of testing as she had leaked badly. Despite the many reliable witnesses to the success of the tests, Napoleon declared Fulton a swindler and charlatan.

The British Prime Minister then made his move. He decided to keep control over this potential weapon by luring Fulton to England (where he had applied before) with the promise of ready cash. This is where Nelson’s friend Davison stepped in. In 1804, Davison was given the confidential task by the British Government to assist Fulton. Fulton’s plans were assessed in London by a top secret committee chaired by Sir Joseph Banks. The committee was sceptical about the viability of Fulton’s submarine, but were persuaded that his “infernals” had military merit. They agreed to fund the development of the infernals under conditions of the utmost secrecy at Portsmouth dockyard.

On 4th October 1804 the first infernals were tested in a raid on Boulogne, watched in person by the First Lord of the Admiralty (Melville). All were treated to a spectacular fireworks display as most of the infernals detonated — but they destroyed only one small French boat, sent out to investigate the strange contraptions drifting towards the town.

Davison supplied all the materials but was not able to attend. He wrote to Nelson on the eve of the attack:

“Had I not been here (in London) I would have now been afloat to have taken a share in the execution, my head for near three months has been much occupied with this Grand Object. The whole of the machinery has been provided for under my orders.”

The experiments continued under Melville’s support but failed again in December 1804. The British victory at Trafalgar meant that Fulton’s work no longer posed a danger, so he was ignored. Greatly offended, he left for America in October 1806. He left his papers at the American consul in London, and never worked on the Nautilus again, turning his attention instead to the invention of the steamboat.

The papers, which went unpublished until 1920, show that the British Nautilus was planned as a 35 foot long, 10 foot beam craft for a crew of six, with the capability to remain at sea for 20 days.

The hull would resemble a sea-going sloop with conventional-looking sails and masts that could be lowered for submersion. The two-bladed hand-cranked propeller folded out of the water when surfaced to reduce drag. When submerged, air came through two streamlined ventilation pipes.

The new Nautilus was never constructed, and nearly a hundred years were to pass before the Admiralty’s interest in submarines was revealed.

The importance of the relationship between the SIA and Defence Industry cannot be too strongly emphasised. It is a relationship in which the non-commercial and apolitical role of the Institute can act as a catalyst in identifying and coalescing the strategic requirements of government with the capabilities of industry.

The power of strong and focussed lobbying by the SIA, at senior ministerial and military levels (together with briefings to the press) has already demonstrated its effectiveness. National level media recently gave front page coverage to Ministerial comment on the importance of submarines as part of Australia’s Force Structure and the harsh penalties of not starting planning for the next class of submarine now. Defence industry, at all levels, must be involved in this planning process. There are huge potential benefits of developing and improving COLLINS class platform, sensor and combat related systems throughout the operational life of the class, to a point where, where appropriate, those evolved developments can be integrated into the design of a new class of submarine. The potential resource savings and risk reduction of such a strategy are enormous.

Progressive networking offers significant benefits to industry, Defence and the SIA. Liaison, debate and dialogue between the Tier One companies, SMEs, DSTO, DMO, Maritime development and the operational ‘coal-face’ of the Submarine FEG can all be facilitated by the SIA. However, the effort and resources required to successful execute these roles are not trivial. The financial support of industry, through sponsorship and other commercial activities are critical if the SIA is to succeed in fostering the most effective submarine solution to the strategic requirements of the government. The encouragement and development of innovative S & T developments, together with industrial skills at the highest levels will be critical to attaining and sustaining a capability edge in future submarine technology.

To date, the SIA has received magnificent support through sponsorship from industry but we have a long road to tread and we shall face ongoing persistent questioning of our strategic arguments and operational rationale for the Future Submarine. We seek the continued support from those companies who are already sponsors and strong consideration from those who have yet to commit. With your help, the SIA can continue garner support throughout the public and private sectors to strengthen government commitment and subsequent early approval for a new class of submarine.
Despite the significant hurdles, and the manpower and retention issues with which we have been dealing, the submarine community has dug extraordinarily deep and achieved remarkable things in 2007.

The wharf has been clear of all running boats at ASWEX, Submarine Command Course with USS BUFFALO and Exercise Lungfish. Individually, the boats have either been committed to maintenance or upgrades, or have been achieving great things. SHEEAN and DECHAINEUX have both remained in Full Cycle Docking whilst HMS WALLER has rejoined the fleet with her new combat system, weapons and other upgrades; FARNCOMB has completed an demanding series of NE and SE Asian deployments with great results and will return from an enhanced Mid Cycle Docking in mid 2008; RANKIN has undertaken a very successful East Coast deployment and has recently completed Operational Workup; and, COLLINS has successfully recommissioned, completed a great deal of maintenance, and is once again a proud member of the sea-going Squadron.

Her team in particular along with Squadron Staff, TA-SM and supporters such as ASC and FSU all need to be proud of their extraordinary achievements under very demanding circumstances. As we go to print, the RAN is hosting the largest Submarine rescue exercise ever held in the Pacific, PACIFIC REACH 2007. This international forum, of ships, submarines, rescue vessels, medical staff and many others in the field will help us share all our ideas and ensure we have interoperability in the vital aspect of submarine escape and rescue. All up it has been a very busy year!

All of this still needs our people and this remains my highest priority behind safety and capability. That said, recognising, building and fostering the Submarine Community has been one of my themes for 2007 and we have seen a raft of social and service events designed for that specific focus. I would like to thank the new Warrant Officers Advisory Group (WOAG) for their inspiration and actions. This group has been integral in developing our sense of pride and community by providing a very robust communication mechanism both up and down the chain of command. It has been largely through their enthusiasm and doggedness that the Submarine Community has been gradually taking shape once more.

• The 2007 Submarine Squadron Ball was a distinct highlight this year.

“It was great to see the organising committee go to such lengths to make sure those who couldn’t make it were still remembered on the night...”

...between pizza nights for duty watches, family BBQ’s to be hosted by the FEG HQ and movie passes raining down like confetti, efforts were taken to make sure no one was forgotten. On the night itself, the inspirational speech from our Guest of Honour, Rear Admiral Joe Walsh USN, COMSUBPAC was very well received, and it was a privilege for me to host him after all the help and friendship he and his team has provided. Thanks must go to our major sponsors ASC (Platinum) RAYTHEON (Platinum), THALES (Platinum), L3-NAUTRONIX (Gold) and PMB (Silver) for making the evening the resounding success it was.

• We’ve also revamped the COLLINS FORUM into a productive event designed to share information and ideas and improve awareness throughout the class of the various efforts that are being applied. I was very pleased with the way the Forum ran this year considering the new approach, and I hope to see it become an institution in our annual calendar. The future Submarine is appearing in our vocabulary, thinking and planning. Whilst some years ahead, we all must contribute to this project and our future force.

• 2007 saw our representatives travelling to a number of international events including the German SUBCON 2007, SUBTECH in Maryland USA, our tri-partite talks with the RN and USN and visits to Hawaii, the UK, and the home of US submarines at Groton, Connecticut. I was fortunate enough to be invited on a tour of USS Virginia which I must say is a very impressive platform. It was very pleasing to see such a familiar combat system on such an advanced submarine. Following my visit to the US Submarine School and Learning Centre to share ideas I can say that Head of Submarine Warfare Training (CMRD Lawton), Staff Officer Acoustic Warfare Analysis (CPO Engi) Training Authority Submarines (LCDR Taylor) and the Combat SPO have some work ahead as we move forward with our allies – a revamp of sonar and combat system training is in the pipeline.

• I also had the very great privilege of attending the official opening of the AE2 Dive Expedition in Turkey not far from the site of AE2. The SIA team did a fantastic job and the web site and photos will no doubt be of great interest in the coming years as we move forward to our Centenary of the Australian Submarine Force in 2014 and also the 2015 ANZAC day.

• Congratulations to all new submariners qualified during 2007, ESP candidates and prospective submariners and especially LCDR James Harrap on passing Perisher. A special mention of our six USN sonar sailors undertaking exchange with our force I’m sure that wearing two sets of dolphins will be a challenge for the USN staff – but I suspect there are worse problems to have. I am positive the skills shared with Sonar, ADCAP and combat system will benefit us both and we aim to send you home with an accent that will make your mates jealous!

• Finally – let us all focus on the positives and new initiatives underway. I remain confident of a good outcome from the DFRT when they sit following the reformation of parliament.

Unheard we work, unseen we win.
The Biennial Conference promises to be an event of great interest to anyone involved in submarines. The conference will provide information on submarine matters of the future, present and past.

The Defence Minister, the Hon Joel Fitzgibbon will open the conference. An impressive array of international and Australian speakers will address the top level... capability. The SM FEG and AE2 Project Team will also provide briefings on their activities and future plans.

Capacity is limited so SIA members should register NOW! Visit the Conference 2008 page at www.submarineinstitute.com to register and learn more about the conference.

Treasurer’s Topics

The SIA continues its growth rate

Since the last newsletter was published, the membership of the SIA has grown to 220 (over 30% a year) and we expect to expand our ranks even further at our Biennial Conference in November. If you want to be able to take advantage of the heavily subsidised rates for SIA members, you’ll need to be up to date with your subscriptions. At present, 35 members are ‘unfinancial’ and you can check and, if necessary, renew your subscription online at http://www.submarineinstitute.com/members. Use your email address to login and, if you’ve forgotten your password, click on the link and have it sent to your email address. Your membership is an important part of the very successful lobbying achieved by the Institute over the past few years, so stay a part of it! $55 is only just over $1 a week - so keep in touch.

Sponsorship

While we are very grateful to our sponsors for their support, it’s not a closed shop! The benefits of sponsorship are many:

- increased exposure by association with what has been described as the most influential lobby group in Defence circles;
- reduced administration costs if you subsidise your employees’ subscriptions;
- Links and visibility of your logo on the SIA website and at Conferences.

If your company is not already a sponsor and you’d like more information, visit the website or call the Treasurer (02 6162 4340). Sponsorship opportunities at the 2008 Conference are being developed and will be published soon. Watch the website for details.

Annual General Meeting

The AGM is to be held in the Shine Dome, ANU, Canberra from 16:30 until 17:30 on Friday 7th November 2008. All positions are declared vacant under our constitution so if you would like to be part of the committee you could most certainly join. For the record the committee is made up of: President; Secretary; Treasurer; Vice President (VP) AE2; VP Business Development; VP WA Membership; and at least three Committee Members, at least one of which should be a serving submariner. Members will be asked to vote at the AGM on any proposed amendments to our constitution.

Gallipoli Submarine is a one-hour documentary that reveals the gripping story of one of Australia’s first submarines and, almost a century later, a major maritime archaeological survey to determine what can be done to preserve her.

The mission of the AE2 - to penetrate the heavily defended Dardanelles on the eve of the Gallipoli landings of WW1 - has been described as one of ‘the finest feats in submarine history’. Gallipoli Submarine uses dramatized re-enactment, sophisticated computer animation and historical archive to tell the story of the AE2’s remarkable final mission.

Weaving between past and present, the documentary also provides viewers with the inside story of an ambitious underwater expedition to examine the wreck of the AE2, more than 70 metres below the Sea of Marmara, to determine her condition and possible scenarios for future preservation.

Directed by Steve Westh, the film is a co-production between Perth-based Electric Pictures, one of Australia’s most respected independent documentary production houses, and UK-based Mallinson Sadler Productions. Together, the two companies were granted exclusive access to the archaeological expedition mounted by the AE2 Commemorative Foundation – an expedition in 2007, that brought together some of the world’s most experienced technical divers, top marine archaeologists and high ranking former submariners from the Submarine Institute of Australia.

Gallipoli Submarine will be broadcast nationally on ABC1 at 8:30pm on Thursday 24 April 2008.

The Making of ‘Gallipoli Submarine’

Re-living The Saga of AE2 by Electric Pictures

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## WEDNESDAY 5 NOVEMBER 2008

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<th>Time</th>
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<tr>
<td>1800 – 2000</td>
<td>Conference Cocktail Party: Boat House by the Lake, Grevillea Park, Menindee Drive, Barton</td>
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## THURSDAY 6 NOVEMBER 2008

### SESSION 1: THE STRATEGIC MARITIME ENVIRONMENT 2025

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>0930 – 0950</td>
<td>Setting the scene in the Indo/Asia/Pacific Region</td>
</tr>
<tr>
<td>0950 – 1010</td>
<td>US Perspective on Strategic Issues facing the US/Australian Alliance 2025 – 2050</td>
</tr>
<tr>
<td>1010 – 1030</td>
<td>Questions and Answers: RADM Peter Clarke RAN Rtd and Speakers from Session 1</td>
</tr>
<tr>
<td>1030 – 1055</td>
<td>Coffee</td>
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</tbody>
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### SESSION 2: AUSTRALIA’S UNDERWATER WARFARE CAPABILITY

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>1100 – 1120</td>
<td>CN’s perspective on Submarines in Australia’s Maritime Defence of 2025 – VADM Russ Crane – Chief of Navy (Invited)</td>
</tr>
<tr>
<td>1120 – 1140</td>
<td>Submarines’ Role in a Coalition Maritime Strategy for the Asia-Pacific, Indian Ocean Region</td>
</tr>
<tr>
<td>1140 – 1200</td>
<td>Role of Submarines in Australia’s Defence</td>
</tr>
<tr>
<td>1200 – 1220</td>
<td>‘State of the Union’ Address</td>
</tr>
<tr>
<td>1220 – 1240</td>
<td>Current Operations</td>
</tr>
<tr>
<td>1240 – 1300</td>
<td>Questions and Answers: RADM Peter Clarke RAN Rtd and Speakers from Session 2</td>
</tr>
<tr>
<td>1300 – 1355</td>
<td>Lunch</td>
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### SESSION 3: ACQUIRING THE CAPABILITY

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>1400 – 1420</td>
<td>Selecting a Capability Acquisition Strategy</td>
</tr>
<tr>
<td>1420 – 1440</td>
<td>Implementing a Capability Acquisition Strategy</td>
</tr>
<tr>
<td>1440 – 1500</td>
<td>An Industry Perspective on Acquiring the Capability</td>
</tr>
<tr>
<td>1500 – 1520</td>
<td>Questions and Answers: RADM Peter Clarke RAN Rtd and Speakers from Session 3</td>
</tr>
<tr>
<td>1520 – 1545</td>
<td>Afternoon Tea</td>
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Sponsored by:
### SESSION 4: AE2 UPDATE

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>1550 – 1620</td>
<td>Submarine HMAS AE2 and the Project to Recognise its Role in the Gallipoli Campaign. Update on Istanbul Workshop. CDRE Terry Roach RAN Rtd et al</td>
</tr>
<tr>
<td>1900 – 1930</td>
<td>Pre-Dinner Drinks: The Great Hall, University House – ANU</td>
</tr>
<tr>
<td>1930 – 2230</td>
<td>SIA Annual Dinner: The Great Hall, University House – ANU Dinner Speaker: Hon Greg Combet, AM – Parliamentary Secretary for Defence Procurement (Invited)</td>
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### FRIDAY 7 NOVEMBER 2008

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>0830 – 0855</td>
<td>Single Day Registration &amp; Coffee: The Shine Dome, Canberra</td>
</tr>
<tr>
<td>0855 – 0900</td>
<td>Scene Setting: RADM Peter Clarke RAN Rtd</td>
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### SESSION 5: THE FUTURE CLIMATE

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>0920 – 0940</td>
<td>Resourcing a Submarine Building Industry Speaker: Mr John Jeremy – Royal Institution of Naval Architects</td>
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<tr>
<td>0940 – 1000</td>
<td>Managing the Public Perception Speaker: Mr Ian McPhedran – Canberra Bureau Chief and Defence Writer, News Limited</td>
</tr>
<tr>
<td>1000 – 1020</td>
<td>Questions and Answers: RADM Peter Clarke RAN Rtd and Speakers from Session 5</td>
</tr>
<tr>
<td>1020 – 1040</td>
<td>Morning Coffee</td>
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### SESSION 6: SUBMARINE TECHNOLOGY

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>1045 – 1110</td>
<td>The application of capability technology demonstrators in a future submarine program – DSTO Speaker:</td>
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<tr>
<td>1110 – 1135</td>
<td>Modelling the Future Submarine – L3-MAPPS Speaker: Rangesh Katuri (Invited)</td>
</tr>
<tr>
<td>1135 – 1200</td>
<td>Future Combat Systems – TBA Speaker:</td>
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<tr>
<td>1200 – 1225</td>
<td>Submarine design considerations – TBA Speaker:</td>
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<tr>
<td>1225 – 1250</td>
<td>Main Storage Batteries – TBA Speaker: Lunch Sponsored by:</td>
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<tr>
<td>1250 – 1325</td>
<td>Lunch Sponsored by:</td>
</tr>
<tr>
<td>1330 – 1355</td>
<td>Air Independent Propulsion – TBA Speaker:</td>
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<tr>
<td>1355 – 1420</td>
<td>Offboard Sensors – TBA Speaker:</td>
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<tr>
<td>1420 – 1445</td>
<td>Network-Centric ASW - Demonstration – L-3 Nautonix/Acacia Research Speaker: Dr Ted Huber?</td>
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<tr>
<td>1445 – 1505</td>
<td>Afternoon Coffee Sponsored by:</td>
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<tr>
<td>1505 – 1545</td>
<td>Open Forum, Questions and Answers: RADM Peter Clarke RAN Rtd and Speakers from Session 6</td>
</tr>
<tr>
<td>1545 – 1555</td>
<td>Concluding Remarks Guest speaker: The Hon Senator Nick Minchin, Shadow Minister for Defence</td>
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<tr>
<td>1555 – 1600</td>
<td>Closing Remarks SIA President, RADM Peter Briggs RAN Rtd</td>
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### ANNUAL GENERAL MEETING

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>1615 – 1715</td>
<td>Submarine Institute of Australia Annual General Meeting RADM Peter Briggs RAN Rtd – President SIA (SIA members only)</td>
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</table>
Each year, leading up to the centenary of Australian submarines in February 2014, a series of Australian submarine history articles and biographies will be researched, published and distributed throughout Australia and overseas. Lloyd (Joe) Blake, who is heading this project on behalf of the SIA, is seeking expressions of interest from would-be researchers/authors. We can negotiate modest expenses and stipend payments and authors will receive all credentials and recognition for published work (although distribution of the documents will be controlled by SIA).

Some examples of the articles required include:
> The Dardanelles Submarine Campaign
> Submarine AE1
> Oberon Class S W U P
> Australians in Submarines WWI and WWII

Interested authors should contact Lloyd Blake.
t. (08) 9444 4912  m.  0439 943 230  lloydblake@iinet.net.au

RADM Oscar Hughes
AO RAN RTD. SIA EXECUTIVE COMMITTEE MEMBER

SIA Personality Profile CENTENARY of Submarines

Highlights of an aero-dynamic turned hydro-dynamic engineer’s career

> The opportunity to join the RAN College in 1951 and later attend Melbourne University to gain a degree in electrical engineering. At the time thermionic valves were all the rage. The mind-boggling advancements in electronics during the past fifty years have completely changed the way we live.

> The opportunity to serve in the Fleet Air Arm in a variety of postings. Highlights included numerous deck landings, catapult launches, the occasional ‘bolter’ in Sea Venoms aboard the HMAS Melbourne and the experience of flying under Sydney Harbour bridge in Wessex Mk 31A helicopters.

> The good luck in 1968 of being posted to HMAS Vampire as WEEO just prior to a major ASW exercise in the Coral Sea. The Vampire was not known for its ASW prowess (being a gun ship) much to the frustration of the CO, ASW specialist Captain Neil Boase. The bad news – we withdrew from the exercise for 24 hours to overhaul the Type 174B sonar. The good news – after rejoining the exercise, HMAS Vampire scored the only unalerted detection of a submarine (Oberon) during the two-week exercise period. I was promoted to Commander a few months later!

> Less memorable, but important in terms of lessons learnt, was my period as Project Director of the Aircraft Carrier replacement program during the Falklands ‘war’ in 1982. The importance of submarines was well illustrated when HMS Conqueror sank the Argentine light cruiser ARA General Belgrano.

> The fortune of being posted Director General New Submarines in early 1984 and later as Project Director. While my experience of submarines was clearly limited, I held the view that they were really aircraft operating at negative altitude!

> The opportunity to spend three years in a senior management role with IBM’s Sydney 2000 Olympic project team and to have played a part in the success of the Games.

> Finally, the privilege of being a member of the SIA and having the opportunity to contribute as a greybeard to the development of the next generation of submarines (SM2020) – whilst also having the time to pursue my passion for bridge, golf and fishing.

Submarine Institute of Australia
(incorporated under the Associations Incorporation Act 1991)

APPLICATION FOR MEMBERSHIP OF THE INSTITUTE
(or join online at http://www.submarineinstitute.com)

APPLICANT

SIGNATURE OF APPLICANT

hereby apply to become a member of the Submarine Institute of Australia Inc.
In the event of my admission as a member, I agree to be bound by the rules of the Institute for the time being in force.

 DATE

SIGNATURE OF NOMINATOR

SIGNATURE OF PROPOSER

SIGNATURE OF SECONDER

I, a member of the institute, nominate/second the applicant, who is personally known to me, for membership of the institute.

 Forward completed form to: Hon. Treasurer, Submarine Institute of Australia Inc, PO Box 5018, Lynelham ACT 2602
 OR fax to +61 2 6162 4541.
 Make cheque for $5 payable to “Submarine Institute of Australia Inc.”
 OR transfer funds electronically to: BSB: 082969, ACC #: 47427 7642 annotated with “Name” and send email to treasurer@submarineinstitute.com