

AE2 Submarine Expedition — VSAG May Meeting

By Lloyd Borrett www.borrett.id.au

Around 55 people attended the VSAG meeting on Thursday, 17 May 2007 to hear Dr Stuart Cannon and Helena Cannon talk about the AE2 Submarine Expedition they are taking part in. Indeed, with many VSAG members off on a VSAG dive trip to Palau, we were outnumbered by the each of the groups of visitors from The Scuba Doctor, BSAC Melbourne, Monash University Dive Club etc.

Rob Timmers from SEAL Diving Services even made the journey up from Traralgon for the presentation. Later in the meeting we gave Rob the opportunity to tell us something about the diving out his way, which proved to be most enlightening

AE2 Submarine — The Silent ANZAC

The Australian submarine AE2 was the first submarine to penetrate the Dardanelles on ANZAC day in 1915. After damaging and sinking several vessels she was scuttled and came to rest at 72 metres in the Sea of Marmora, Turkey.

In September 2007 this year a team will dive the AE2 to carry out a maritime archaeological assessment of the site on behalf of the Australian government.

Our Presenters — Stuart and Helena Cannon

Dr Stuart Cannon has been diving for almost 30 years. His early interest in wreck diving lead him to study naval architecture at university. He was awarded a Masters degree in Structural Engineering, and a Doctor of Philosophy in Naval Architecture.

Stuart is currently employed as the Head of Surface Ship Structural Management at the Defence Science and Technology Organisation (DSTO) in Melbourne. He is also President of the Australian Division of the Royal Institution of Naval Architects.

Stuart is a National Instructor for BSAC and an Instructor Trainer for SDI and TDI, the highest level of qualification available in those three organisations. His exceptional abilities as an instructor and instructor trainer were recognised when he received an "Outstanding Excellence in Diver Training" award by Technical Diving International in 2000.

Stuart is also a member of the Standards Australia committee addressing scuba diving standards.

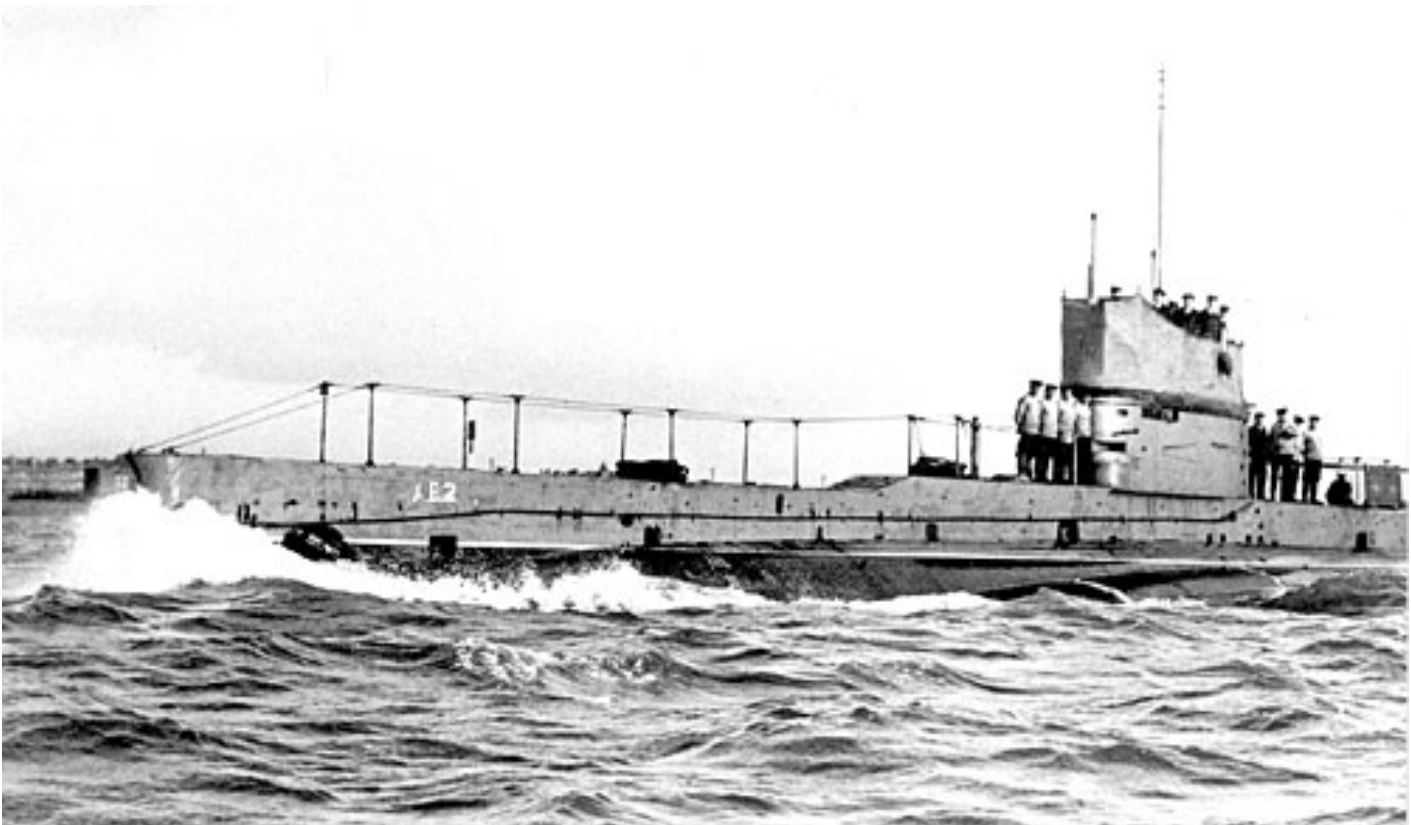
Stuart has logged several thousand dives. Many of these have been completed on closed circuit re-breathers with mixed gases using formal decompression.

Helena Cannon is an excellent Extended Range instructor with BSAC, as well as an Advanced Trimix re-breather diver. Helena's work as a paramedic sees her involved with risk assessment and incident management.

AE2 Submarine History

Stuart and Helena began their presentation by outlining the history of the AE2 submarine.

HMAS AE2 was the first Allied submarine to penetrate the Dardanelles in 1915 as part of the Gallipoli Campaign, on the very morning the ANZAC soldiers landed at Anzac Cove. After five hectic days "running amok", she finally fell to Turkish gunfire and was scuttled. Her crew was captured and spent the rest of the war as Turkish POWs.



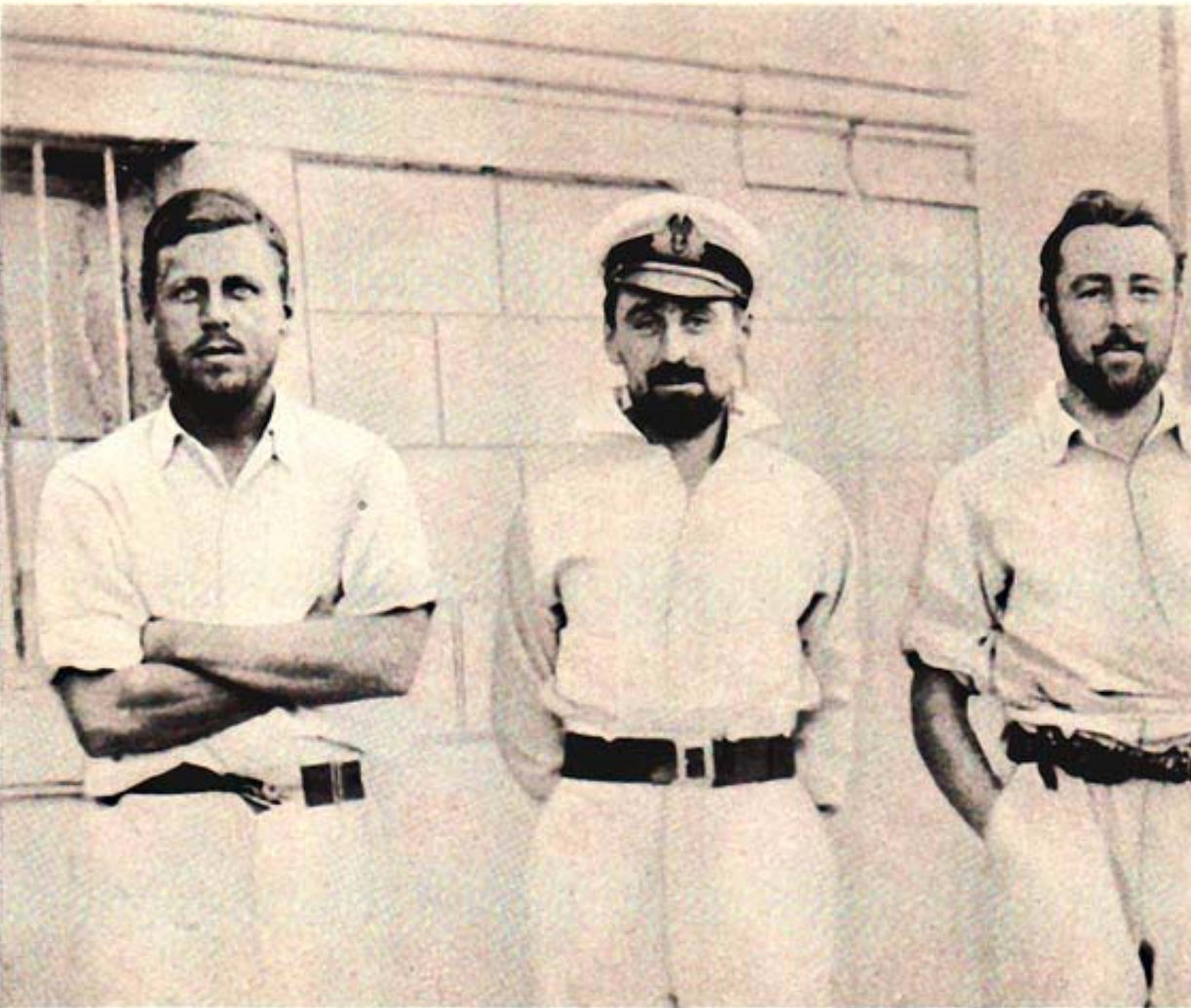
The Royal Australian Navy's new E Class submarine, AE2, arriving at Portsmouth on 17 February 1914 to prepare for the voyage to Australia.

The AE2 was commanded by Irishman Lieutenant-Commander Henry Stoker. For his

t in the AE2, Stoker was awarded the DSO (Distinguished Service Order) on his r
n to Great Britain from Turkish captivity after World War I. He left the Royal Na
20 and followed a successful career on the British stage. In 1925 his account of th
n campaign was published in the book “Straws in the Wind”. Stoker was recalled to du
ing World War II but went back to the stage at war’s end. Stuart and Helena were
e to show us brief clips of Stoker in two films.

ere is a wealth of information available on the web about HMAS AE2. A particul
ful and well-researched one is produced for the Australian Department of Veteran
airs, see <http://www.anzacsite.gov.au/5environment/submarines/ae2.html>.

other site gives the official history of AE2 at <http://www.navy.gov.au/spc/history/ae2.html>.

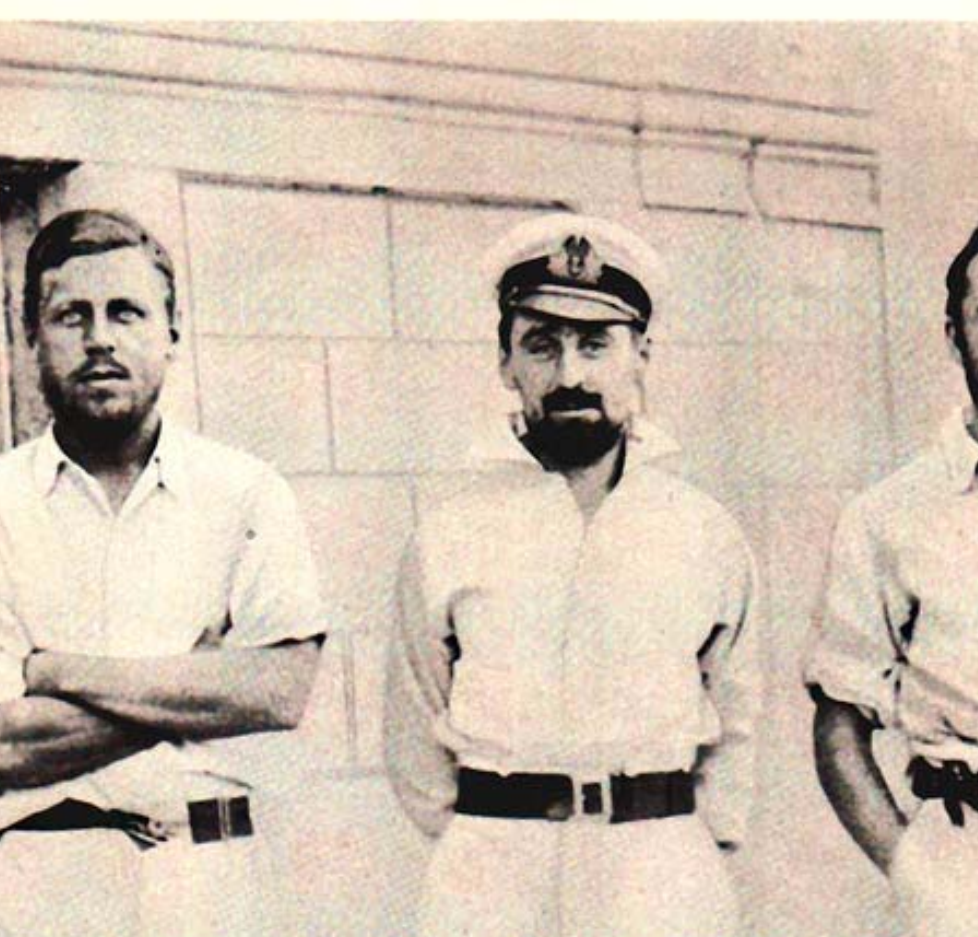


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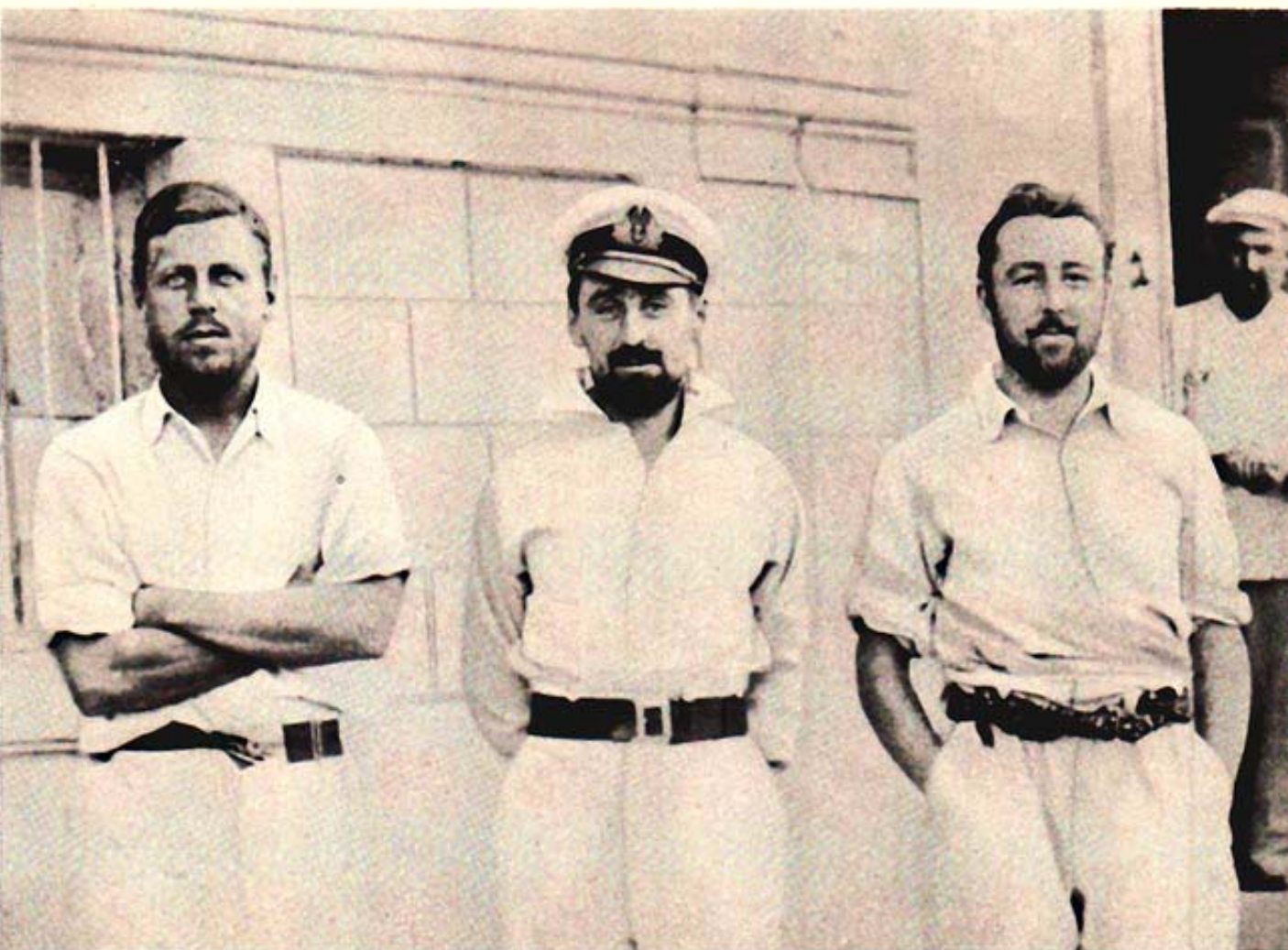
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OFFICERS OF AE₂ IN CAPTIVITY.

Lieutenant Henry Stoker and two other officers of the AE2 in captivity in Turkey between 1915 and 1918. [Photograph from Henry Stoker, Straws in the Wind, London, 1925]

Using the original construction plans, Stuart's colleagues at the DSTO have created a 3D computer model of the AE2 and AE1 submarines. Thus they can now simulate how she would look in the water, plus a walk-through of the submarine. Examples of these images were shown during the presentation.



Computer model of AE2 firing bow torpedo courtesy of DSTO.

Finding the AE2

In October 1998 an Australian team went to Turkey to inspect and identify a shipwreck believed to be the missing submarine AE2. Mr Kolay, Director of the Rahmi M. Koç Museum in Istanbul, had discovered the wreck site after searching for the elusive remains since 1995.

Encumbered by up to 50 kilograms of mixed gas tanks and other equipment, the divers descended into the completely dark depths below. The only illumination was by torch light and the demanding depth of 73 metres meant that only ten minutes could be spent on the bottom. The divers had a slow 80 minute ascent to the safety of the surface.

Landing near the conning tower, the divers had been able to confirm that the wreck

was indeed the Australian submarine. The conning tower hatch by which the crew made their escape was still ajar. It is hoped that in the expedition in September 2007, this hatch can be opened wider and a ROV will be able to enter the hull of the AE2.



AE2's bow draped in fishing nets. Courtesy of Dr Mark Spencer.

The full story of her discovery in 1998 can be found online at http://www.heritage.nsw.gov.au/heritagensw/dec98/10_art.htm.

2007 Project AE2

The Submarine Institute of Australia (SIA), see <http://www.submarineinstitute.com/?doc=41>, has received government funding, to be matched by private sponsors, to mount an expedition in September 2007.

The SIA aims to ensure the protection, preservation and promotion of AE2, to contribute to an informed debate on her future and ensure that AE2's contribution to the Gallipoli campaign is duly recognised by telling the story of her brave crew.

The SIA, supported by the Defence Science and Technology Organisation and spon-

sors, is preparing to conduct a survey of the submarine in the northern autumn of 2007 using divers and a Remotely Operated Vehicle (ROV) to ascertain its material state, enabling recommendations to be made to the Turkish and Australian Governments on the way ahead, targeted at the centenary of the landings in 2015.

A documentary film crew is following the story and the AE2 expedition team as it prepares.

Rehearsal Training

In February 2007, a Mission Rehearsal training exercise was conducted in the deep waters off the Victorian coast. Operating from the Queenscliff Dive Centre, the 13 divers and 2 film crew had the chance to dive with technical equipment on a scuttled J class submarine in deep water.

As well as doing a detailed survey of the site and its surroundings, the team will also be measuring the hull thickness at various key points, taking samples and measurements to determine the condition of the hull and how it is reacting to its environment. During the training exercise all of the procedures involved were practiced and valuable lessons learnt.

At Queenscliff, the team also spent time discussing details of the mission with the scientists, marine archaeologists and engineers who will be making recommendations as to whether the AE2 is intact enough to attempt to raise her to the surface, or if she should be left in her silent resting place.

The 2007 Expedition

The logistics of getting the team to Turkey and undertaking the programme of work are mind blowing and expensive. (Money still needs to be raised and sponsors found.) The expedition is being mounted with all of the precision and planning of a complex military exercise. Highly detailed dive plans have been prepared specifying who is supposed to be doing what and when. Plus contingency plans are in place for what to do when any target activity goes overtime or encounters problems.

Helena and Stuart will both be divers on the expedition. All of the “Dopes on Ropes” (the term the expedition members use to refer to the divers) will be diving using rebreathers. As an additional safety measure, they will also be using full face masks fitted with a communications system so as to enable diver to diver and diver

to surface communications.

Stuart and Helena provided many examples of the types of activities they will be undertaking and the challenges they will be facing. For example, it is believed there may still be a torpedo inside the submarine. However, knowing where it is, and how it might react to the activities they would like to undertake requires detailed studies and risk assessments to be undertaken and plans adapted accordingly.

With the level of planning and training being undertaken, plus the scope of what they are trying to achieve, this expedition team is certainly on the cutting edge of technical team diving. The personal commitment being shown by all of the team members is exceptional.

A Special Night

I would like to especially thank Stuart and Helena Cannon for their excellent presentation. I know from the feedback received that I'm not alone in thinking this was simply the most informative, entertaining and enlightening diving related presentation we have seen. We look forward to having Stuart and Helena come back again sometime after the expedition in September 2007, and we wish the expedition every success.

We also look forward to seeing many of our visitors on the night joining VSAG and/

