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2017 Goldrick Seminar

Submarines Today and in the Future



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 **Navantia**
Australia

Co-Convened by:

Australian Naval Institute



Rear Admiral James Goldrick (Retired)



Rear Admiral James Goldrick RAN (Retired) commanded HMA Ships Cessnock and Sydney (twice), the Australian Surface Task Group and the multinational maritime interception force in the Persian Gulf in 2002 and Australia's inter-agency Border Protection Command in 2006-2008. Other commands included the Australian Defence Force Academy (ADFA) (twice), and the Australian Defence College (the Australian Defence Force equivalent of UK's Defence Academy).

He is an Adjunct Professor at UNSW Canberra at ADFA and in SDSC at ANU, as well as a Professorial Fellow at ANCORS at the University of Wollongong. He was a visiting fellow at All Souls College, Oxford University in 2015. He is a member of the Defence Honours and Awards Appeals Tribunal and of the Defence Force Remuneration Tribunal. He was a member of the Expert Panel supporting the development of the 2016 Australian Defence White Paper. He was awarded a Doctorate of Letters (honoris causa) by the University of NSW in 2006. His books include: *No Easy Answers: The Development of the Navies of India, Pakistan, Bangladesh and Sri Lanka* and *Before Jutland: The Naval War in Northern European Waters August 1914-February 1915*, and, with Jack McCaffrie, *Navies of South-East Asia: A Comparative Study*. *After Jutland: The Naval War in Northern European Waters June 1916-November 1918* will be published in 2018. *Before Jutland* won the Anderson Medal of the Society for Nautical Research for the best work of naval or maritime history published in 2015.

Program

Time	Topic	Speaker
Session 1: Submarine Operations		
0830	Registration	
0900	Opening and Welcome	Dr Rita Parker Professor John Arnold, <i>Deputy Rector UNSW Canberra</i>
0910	Address by Senator David Fawcett	Introduction by Lieutenant Commander Desmond Woods Senator David Fawcett, <i>Chair of Joint Standing Committee on Foreign Affairs, Defence and Trade</i>
0930	Australia's Future Submarine	Rear Admiral Greg Sammut, <i>Head Future Submarine Program</i>
1010	The Strategic Role of Submarines in the 21st Century	Dr Andrew Davies, <i>Director of ASPI's Defence & Strategy Program</i>
1050	Morning Tea	
1120	The Current Force	Commodore Timothy Brown, <i>Director General Submarines</i>
1200	Swedish Submarine Operations in Littoral Waters — The Strategic Context	Lieutenant Colonel Mika Ihalainen, <i>Swedish Defence Attache Australia and New Zealand</i>
1240	Lunch	
Session 2: Submarine Platform & People		
1330	Future Technologies	Mr Kevin Gaylor, <i>Program Leader, Submarine Science and Technology</i>
1410	Submarine Sovereignty and What it Means for Australia	Mr Brent Clark, <i>CEO Naval Group Australia</i>
1450	Submarines and Industry	Mr Peter Scott, <i>Director, Defence NSW</i>
1520	Open Forum	Commodore Lee Goddard, <i>ANI Vice President</i>
1530	Concluding Remarks	Rear Admiral James Goldrick (Retired)
1600	Afternoon Tea	
1600	Launch of Australian Naval History Podcast Series (Oberon Submarines)	Professor John Arnold, <i>Deputy Rector UNSW Canberra</i>

Professor John Arnold

Deputy Rector UNSW Canberra



John Arnold joined the staff of the University of New South Wales as a Teaching Fellow in the Faculty of Military Studies at the Royal Military College, Duntroon in the Department of Electrical Engineering in 1978. He completed a Doctor of Philosophy (PhD) degree in the area of image and video compression in 1983.

In 1997, he was appointed as Professor of Electrical Engineering and became Head of the School of Electrical Engineering in 1998. Following the major restructure at UNSW Canberra at ADFA in 2003, he became Head of the new School of Information Technology and Electrical Engineering. He was appointed as Deputy Rector in September 2006.

Professor Arnold's research group has been a major player in the development of the international standards by the Moving Picture Experts Group (MPEG). MPEG is responsible for the technical standards behind digital television as well as the MP3 standard used in portable music players.

Professor Arnold's teaching has concentrated on digital systems, communications and video compression in recent years although he has taught over a wide range of topics during his career. He has also presented numerous short courses on digital television technology primarily to technical staff from the television industry.

Rear Admiral Gregory Sammut

Head Future Submarine Program



Rear Admiral (RADM) Gregory John Sammut assumed duties as Head Future Submarine Program in September 2013.

RADM Sammut was born in Sydney in 1966. He fulfilled a long-held ambition to join the Royal Australian Navy from high school in 1984. Having completed an honours degree in electrical engineering in 1987, he subsequently conducted seaman officer training before qualifying as a

submariner in 1991 and then obtaining his submarine command qualification in 1996.

RADM Sammut served as a Commanding Officer of the Collins Class Submarine, HMAS Farncomb, and the Anzac class frigates HMAS Ballarat and HMAS Toowoomba. From June to November 2006, he was Commander Task Group 158.1, directly responsible to the Commander of Coalition Forces in the Northern Arabian Gulf. His most recent operational role was as Commander Combined Task Force 150 from October 2010 to April 2011, during which he commanded operations of the maritime counter-terrorism task force of the Combined Maritime Forces in the Middle East Area of Operations.

His shore duties have included Commander Submarine Sea Training, Chief Staff Officer-Operations in Fleet Command, Director Submarine and Specialist Ship Development within Capability Development Group, Chief of Staff to Chief of Navy, and Director General Submarine Capability within Navy Strategic Command.

A graduate of both the Royal Australian Navy Staff College and the Naval Command College in Rhode Island United States, RADM Sammut also holds a Masters Degree in Business Administration.

Mr Kevin Gaylor

Program Leader Submarine Science and Technology



Kevin Gaylor is currently the Program Leader Submarine Science and Technology, and the Project S&T Advisor for SEA1000. In this role, he leads the DST program in support of the current Collins Class Submarine as well SEA1000, the Future Submarine Project. He is also the current DST Relationship Manager with ASC Pty Ltd, who built and maintain the Collins Class Submarine.

In his previous role as Research Leader Undersea Platform Systems, he was responsible for research areas such as submarine power and propulsion, hydrodynamics and manoeuvring. Mr Gaylor has extensive experience in maritime research, developing mathematical models in the area of Mine Warfare (MW) and submarine operations. Prior to his role on submarine S&T, he participated in numerous MW exercises, regularly lectured at the Mine Warfare School at HMAS Waterhen, and represented Australia at a number of international minewarfare forums. He was an original member at the DST laboratory at HMAS Stirling in Western Australia, developing operations analysis models and exercise analysis systems for submarine warfare, as well as participating in first of class sea trials for the Collins Class. He was also the Australian National Leader for TTCP HUM TP-9 Humans Systems Integration for Naval Platforms and the Director Program Office (Maritime).

Mr Gaylor's previous experience within DST has been in the interaction of electromagnetic radiation with materials. He was initially employed to investigate the effect of high power lasers on aerospace materials such as carbon fibre and metal matrix composites, and in thin film optical design for eye protection from high powered lasers. Mr Gaylor also developed experimental systems to investigate the radar absorbing properties of various materials, before commencing research in the area of maritime operations.

Senator David Fawcett

Senator for South Australia and Chair of Joint Standing Committee on Foreign Affairs, Defence and Trade



David is a Senator for South Australia in the Australian Parliament, elected at the Aug 2010 and Jul 2016 Federal Elections. Prior to his role as a Senator, David has been a business owner, an elected Member of the House of Representatives, a professional pilot and a member of the Defence force for over two decades.

In the 45th Parliament, David is a Deputy Government Whip in the Senate and is the Chair of the Joint Standing Committee on Foreign Affairs, Defence and Trade. David is also a member of Committees dealing with: Intelligence & Security; Treaties and Legal & Constitutional Affairs. David also Chairs the Government members Policy Committee for Legal Affairs. David writes and advocates extensively on initiatives that would lead to a more effective and efficient national defence force including a sustainable defence industry capability. He has also been active in working for reform in Australia's aviation policy and approach to aviation safety regulation.

David previously served in the 41st Australian Parliament as the Member for Wakefield (South Australia) from 2004 – 2007. David was Chair of the Government members Policy Committee for Families, Community Services and Indigenous Affairs, as well as a member of five other policy committees supporting the Ministers responsible for Defence, Agriculture, Health and Ageing, Transport, Education and Training. He was also Chair of a Government Task Force monitoring and evaluating a national policy roll-out by the Attorney General's Department.

Prior to Parliament, David served for over 22 years in the Australian Defence Force as an Army officer. His full-time service culminated in an appointment as the Commanding Officer of the Royal Australian Air Force, Aircraft Research and Development Unit (ARDU). He was responsible for the conduct of experimental flight test in support of the RAAF and Army spanning fast jets, heavy aircraft and helicopters. David has tertiary qualifications in science and business administration, is qualified to fly both aeroplanes and helicopters and has served throughout Australia, in neighbouring countries and in the UK as a regimental pilot, senior flying instructor and experimental test pilot.

His work in the area of night pilotage systems and displays has been internationally recognised and led to David speaking at a number of overseas conference and workshops as well as helping to facilitate the civil aviation use of night vision goggles in Australia while a member of the Government Policy Committee for Transport and Regional Services. After his full-time service, David remained active as an experimental test pilot through part-time Reserve service with the Defence Force.

David is married, has two adult children and lives in Adelaide, South Australia. He has travelled widely and lived in Asia, the UK and in other parts of Australia, and has been active in community life. He has been the patron of a number of sporting bodies, an honorary member of Rotary and a contributing member of professional bodies. He is currently a member of the international Society of Experimental Test Pilots, the Australian Flight Test Society and the Australian Institute of Company Directors.

Strong, healthy family relationships are a priority for David. As his family and work have moved into different phases, the need to maintain a healthy balance has governed to a large extent the degree to which he has been able to pursue his other personal interests. These include sailing, aviation, cooking, Australian history and music. He has been involved in both dinghy and offshore sailing and holds a Royal Yachting Association Coastal Skippers certificate.

Mr Brent Clark

*Chief Executive Officer & Australian Program Director,
Naval Group Australia*



With a career spanning over 20 years in both the Royal Australian Navy (RAN) and defence industry, Brent has held a variety of senior roles from project management to executive management in small, medium and large Defence companies including BAE Systems Australia, Thales Australia, SAAB Systems and Sonartech Atlas.

Prior to being appointed as CEO in March 2016, Brent was the Chief Operating Officer (COO) and Director for Strategy and Communications and Human Resources (HR) at Naval Group Australia. In his role as COO, Brent was responsible for managing Naval Group's relationships with the Department of Defence and State and Federal Government officials. Brent also acted as the spokesperson for the organisation and liaised regularly with Australian trade and daily media and presented on behalf of Naval Group at external conferences and industry briefings.

Prior to joining Naval Group, Brent worked for the largest defence contractor in Australia, BAE Systems, as the Head of Business Development, Strategy and Communications, Maritime. In this role Brent was responsible for the Maritime Business Unit (BU), a BU made up of over 1,500 employees with an annual turnover of AUD\$560M. Brent was responsible for delivering a variety of programs including; AUD\$100M Landing Helicopter Dock (LHD) Training Package; AUD\$270M Anzac Class ASMD Modification; AUD\$100M LHD Initial in-service Support package; AUD\$50M Commercial Oil & Gas work; and AUD\$30M Commercial Ship repair work.

Prior to BAE Systems, Brent was the Vice President, Thales Naval Business Group for Thales Australia. In this role Brent was responsible for the Thales Australia Naval Business Group which had an annual turnover of AUD\$270M and over 900 employees.

Brent has also worked for SAAB Systems and Sonartech Atlas.

Prior to joining the private sector, Brent served in the Royal Australian Navy for 11 years on HMA Submarine Onslow, NUSHIP Farncomb, HMAS Ovens and HMAS Otway.

Brent is a graduate of Queensland University and holds a Masters of Business Administration. Brent has four daughters.

Dr Andrew Davies

Director of ASPI's Defence & Strategy Program



Andrew has been with ASPI since 2006. He has written extensively on ADF capability and force structuring issues, including platform options for air and maritime combat, industry issues, and decision-making in the Department of Defence.

He has an ongoing interest in the future submarine and Joint Strike Fighter projects, and his work on both has made an important contribution to the public understanding of those projects here and abroad.

Before joining ASPI, Andrew was a post-doctoral fellow in physics at Melbourne University and the ANU. He then spent twelve years in the Department of Defence in the areas of capability analysis and intelligence.

Commodore Lee Goddard

ANI Vice President



Commodore Lee Goddard CSC RAN has been fortunate to have experienced many 'careers within a career' during his 30 years of service since joining the Navy through the Australian Defence Force Academy. He was recently seconded into the Department of Prime Minister and Cabinet as a Branch Head (International Division) for two years. Prior to this secondment he was the Commander Surface Force during 2014 to 2016 based in Sydney, where he commanded 18 major warships. Earlier in his career he had two years at sea commanding the upgraded Anzac Class warship HMAS Perth III during 2012 to 2014, and he also commanded warship HMAS Parramatta IV during 2006 to 2008.

He was selected to attend the US Naval War College in Newport RI in 2009 and subsequently remained as an International Fellow, teaching within the Department of Strategy and Policy at the Masters level. On his return to Australia in early 2011 he assumed the position of Director Military Strategic Commitments at the Australian Defence Headquarters, working within the strategic level of Defence and across Government. He was awarded a Master of Arts (International Relations) in 1996 and has contributed to a range of professional and academic journals focused on international affairs and security issues.

Commodore Alan Brown

Director General Submarines



Commodore Tim Brown was born and raised in Brisbane and completed a Bachelor's degree in Mechanical Engineering at the Queensland University of Technology. During his university studies he joined the Royal Australian Navy (RAN) and in 1990, commenced his initial officer training at HMAS Creswell specialising in Marine Engineering.

In January 1991 Tim joined the Australian Submarine Squadron and was awarded his submarine qualification or 'Dolphins' on HMAS Orion the following March. He served as Assistant Marine Engineer onboard until December 1992, then joined HMAS Otway in January 1993 as the Marine Engineer Officer (MEO) where he served until the submarine decommissioned in April 1994.

Aspiring to his own submarine command, Tim qualified as a dual streamed warfare/engineer officer and remained at sea serving as Navigator, Warfare Officer then Executive Officer, before receiving his Submarine Command Recommendation. In June 1999, Tim successfully passed the Royal Netherlands Navy Submarine Command Course (Perisher) and returned to Australia to complete the RAN Staff Course. He commanded the Collins Class Submarine, HMAS Sheean, from April 2001 – November 2002.

Following his command, Tim served as the Fleet Submarine Operations Officer—responsible for all submarine operations, plans, communications and intelligence support, then as the Head of Submarine Warfare and Training. In April 2006, Tim was selected to command the ANZAC Class Frigate, HMAS Arunta. He took up his new command on 12 June 2007 and later that year Arunta deployed on operations in the Persian Gulf as part of Operation CATALYST.

In 2008, Tim was promoted to Captain and posted to Defence Headquarters in Canberra where he served in the roles of Director of the Future Submarine Capability, Director Force Structure Review, Director Force Structure Development, Director General Navy Communications and Coordination, and as then as Chief of Staff to the Chief of Navy. He was promoted to Commodore in 2016 and was appointed as the Director General Submarines.

Tim is a graduate of the Australian Institute of Company Directors and the Australian National University National Security College. In 2011, he completed a Masters Arts (Strategic Studies) at the Centre for Defence and Strategic Studies (Australian Defence College).

Lieutenant Colonel Mika Ihalainen

Swedish Armed Forces



Mika Ihalainen became an officer and was promoted as 2nd Lieutenant after graduating from the Swedish Naval Academy in 1988.

He served as Platoon and Company Commander at the 4th Amphibious Regiment in Göteborg. Thereafter, he deployed as Deputy Company Commander with the 10th Mechanised Brigade to Kosovo (KFOR 1999 – 2000) as the first Swedish unit entering

the theatre. After the deployment he attended the Staff Course at the Swedish National Defence College in 2000 – 2001.

Promoted Major after completing the Staff Course he deployed to East Timor as UN Military Observer for twelve months and after an assignment as a teacher at the Amphibious Warfare Centre he was deployed a second time to Kosovo. This as MA to the DCOM for Multinational Brigade Centre (KFOR 2004).

After attending the National Defence College Advanced Course in 2004 – 2006 and US Naval Command and Staff College in 2006-2007 he was deployed to Kosovo for the third time as Chief Of Staff for Multi National Task Force Centre HQ in Kosovo (KFOR 2008).

In 2008 he was transferred to the Naval Warfare Centre as the Head of Maritime Operations and Tactics followed by serving as a Battalion Commander at the Joint Logistic Regiment. In 2012 he was deployed to Kabul in Afghanistan as Team Leader within CJ35 Future Operations at ISAF JOINT COMMAND.

After the ISAF deployment he was posted at the Swedish Joint Head Quarters CJ5 Plans responsible for the Swedish ISAF transition, redeployment of personnel and equipment and base closures/transfers in theatre.

Between 2014 – 2016 he was posted as DACOS CJ5 Plans at EU NAVFOR OHQ for Operation ATALANTA (Counter Piracy Operations) based at Northwood Headquarters in UK before returning to the Swedish Joint Head Quarters CJ5 Plans.

His present assignment is as Swedish Defence Attaché for Australia and New Zealand based in Canberra Australia.

Mika Ihalainen was born on the 18th September 1965 in Imatra. He and his wife Susanne lives in Göteborg.

Mr Peter Scott

Director, Defence NSW

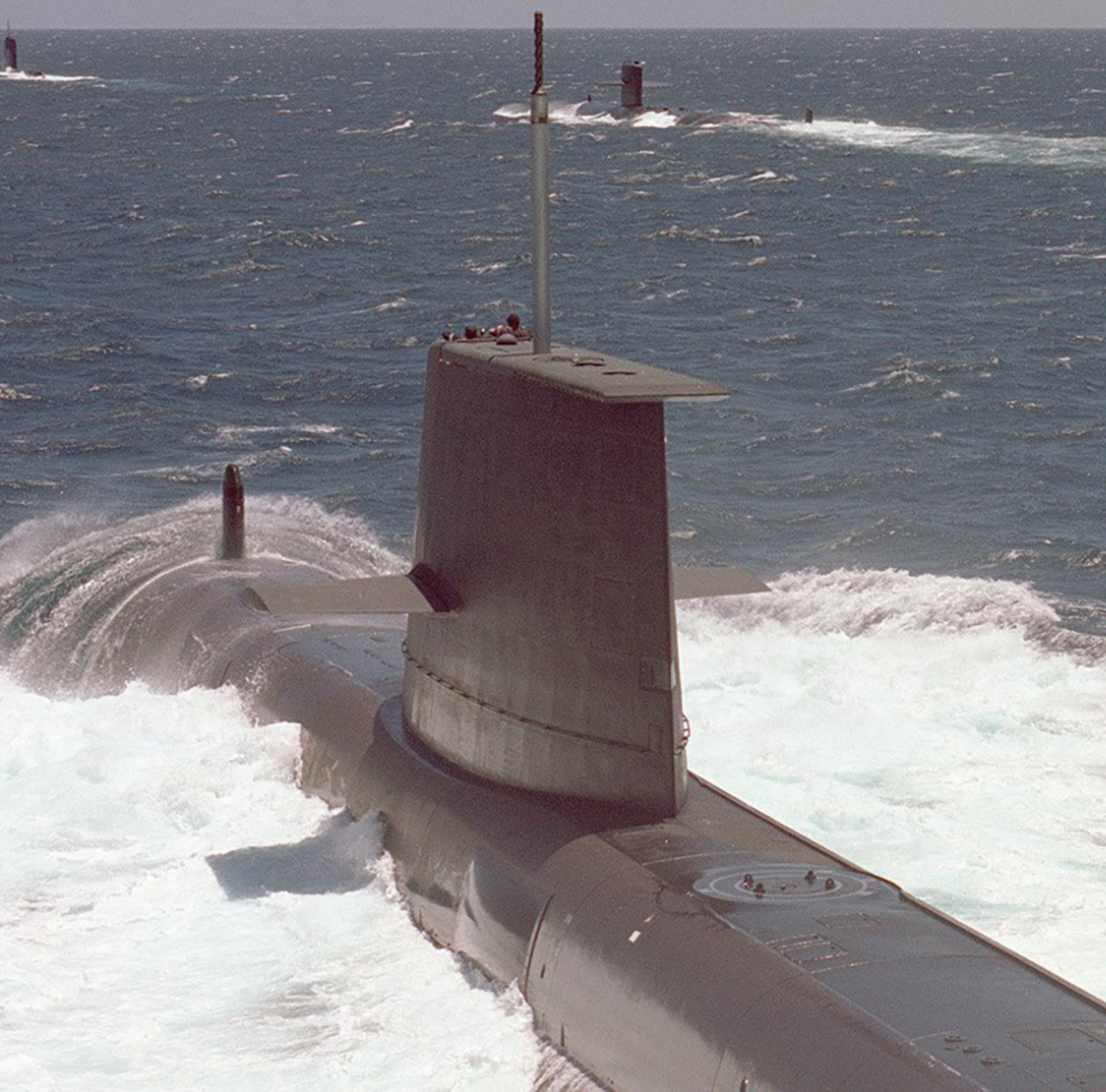


Commodore Scott recently retired from full time naval service after a distinguished career of more than 34 years with multiple command appointments at sea and ashore. His operational service included numerous Special Operations with the Submarine Arm as well as active service in Iraq, the Persian Gulf and Afghanistan.

As Director General Submarines from 2013, Commodore Scott led Navy's efforts in the highly successful Submarine Enterprise over a period of unprecedented expansion and exceptional performance in acquisition, sustainment and operations.

He is a graduate of the Royal Australian Naval College, the Queensland University of Technology, the National Security College, and the University of New South Wales, where he holds a bachelor degree and a Masters in Strategy and Management.

Commodore Scott is now the inaugural Director, Defence NSW with the NSW Government and provides reserve service as an executive coach to members of Navy's Senior Leadership Group.



CONTACT US

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