



THE SIR RICHARD WILLIAMS FOUNDATION

Williams Foundation Seminar

New Approaches to Air-Sea Integration in the Evolving Extended Battlespace

10 August 2016

National Gallery of Australia

The Royal Australian Navy has had the ability to network and share situational awareness amongst the fleet for many years and the P-3s has been the only RAAF platform capable of being part of that network. The RAAF's journey of networking its capability journey started more recently with the Hornet Upgrade Program and has accelerated with the introduction of capabilities like Wedgetail and Vigilante. All of the the RAAF's fleet is now capable of linking into and contributing to an Air Layer of the Joint Battle management system. With the advent of 5th Generation capabilities like the JSF and the new combat systems on the AWD as well as the design and development of the new combat systems for the Australia's future frigates, Offshore Patrol Vessels and Submarines, the ADF has a unique opportunity to influence and design in an unprecedented level of integration into the RAN's and RAAF's new platforms. That unprecedented level of integration should drive new thinking on the integration of air and sea power effects. The seminar is about examining the challenges and possibilities of the combat power in that future integrated force.

Air Force and Navy need to not only remediate existing deficiencies but take advantage of the transformative nature of fifth generation technology. The seminar aims to explore the art of the possible in future Air-Sea operations

Outline of the Seminar

Future Challenges of the Pacific Theatre – USN Approach

- What are the Challenges in the Theatre
- What are the requirements
 - Battlespace Awareness
 - We need to sense, discriminate, understand all emissions
 - Multi-spectral sensors
 - Passive detection, tracking, targeting
 - Real time spectrum awareness
 - Cyber situational awareness
 - Command and Control
 - Robust, resilient circuits, EP, Cyber security
 - Maneouver
 - Emissions management, Spread Spectrum techniques, deception and decoys
 - Manned and Unmanned Teaming
 - Passive and Autonomous Operations

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- Integrated Fires
 - How will we engage in the future?
 - Does the USN Integrated Fires Control make sense for the RAN and RAAF
 - NIFC-CA - Counter-Air
 - NIFC-CS – Counter Surface
 - NIFC-EW – Electronic Warfare
- Evolving the Kill to Chain to the Kill Web
 - What does 5th Gen Air Dominance look like?
 - How do we transition from the current fight to a high tempo warfare
 - How is the 5th Gen Fight different
 - Networks not Platforms
 - Reach not just Range
 - Information is key
 - Training for the expanded Battlespace is the key to success
 - Can 5th Gen accelerate the Observe-Orientate phases in the OODA Loop?
 - Integrated Air and Sea power brings networked, interlocking fields of fire
 - Man-Machine teaming and network enables greater speed of decision

How the US Marines are approaching Air Sea Integration?

- What is the US Marine vision of the future wrt Air Sea integration?
- What are the key capabilities to enable future warfighting concepts?
- What are the lessons for the ADF?

Integration Design Requirements for Navy's Future Systems and Ships

- Outline Plan Pelorus
- How will the AWD, Sea 5000 and Sea 1000 work together with the P-8 Poseidon, Triton, Growler and JSF to achieve the required dominance in the maritime domain?
- Projects and acquisitions must have wide angle lens, looking across the spectrum of Air Sea operations so that all players can remain inside the same information domain throughout the life of type of various platforms.
- How will the organisation deliver on the vision for Air Sea Integration?

Modern Synthetic Training to Enhance Operational Capability.

- Modern fully immersive simulators in many respects can make training easier to execute and deliver higher quality outcomes. They can be an invaluable RTS tool that will enhance operational capability.
- Whether you are in a JSF, Growler, P-8 or Bridge and Ops room in an AWD, future Frigate a, simulation connectivity across front line training units can enhance joint interoperability. They can make training for the advanced warfighter both affordable and available and will always ensure live training is raised to a higher level.
- What are some proposals from Industry on how to do this?

The importance of Integrated Air and Missile Defence in a A2AD environment

- The IAMD mission as a key enabler for Australian Joint Force Operations.
- The importance of IAMD enablers (C2, Comm, ISR and supporting architecture/infrastructure) at the seams of ADF jointness
- The importance of Australian IAMD development that is highly compatible and interoperable with security partners.
- The need for a Joint IAMD CONOPS in the context of future multi-domain joint/integrated operations and definition of appropriate C2, Comm and ISR requirements
- Top level considerations for Australia to be a smart buyer of defense capabilities required for IAMD

Evolving Surveillance and Reconnaissance Group's Role in supporting Navy in the Extended Battlespace

- How will SRG reshape its approach as the Navy capabilities are added to the fleet?
- How might Wedgetail, Vigilant, JORN, and Space be evolved to increase their capability in Maritime operations?
- Discuss the synergies between the P-8, Triton and the KC-30 and how the integration of these platforms will increase Navy's ability to project Seapower
- What is SRG's vision for the future

Shaping the RAN and RAAF for Seamless Integration

- Although the ADF does have an integrated DIIP does it need more design thinking on how on the capabilities will work together
- What is the next step so that we can get across the stove piped nature of our future projects
- How will we move from our centralised C2 to one comprised of interconnected and interoperable legacy and 5th Gen C2 with distributed control and communication options?
- How would a Joint CONOPS contribute to Air Sea Integration?
- What is a possible roadmap to achieve Air Sea Integration?

Industry's role in Air Sea Integration

- Outline to be advised

The Queen Elizabeth Carrier and the integration of land and Sea based Air

- The RAF and RN are reinventing their approach to Carrier Airpower.
- The two services are not constrained by their immediate past and are rethinking their legacy approaches to shape the ways they are working as a more effective embarked force
- What lessons can the RAAF and RAN draw from the UK approach?

Future Development of the LHD

- How will the AWD, Sea 5000 and Sea 1000 work together with the P-8 Poseidon, Triton, Growler and JSF to achieve the required dominance in the maritime domain?

The speakers in the attached program are subject to confirmation



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Program – DRAFT

Time	Topic	Name	Organisation
0830-0900	Registration		
0900-0905	Welcoming Remarks	AIRMSHL (Retd) Errol McCormack AO	Sir Richard Williams Foundation
0905-0910	Introduction to Seminar	AIRMSHL (Retd) Geoff Brown AO	Sir Richard Williams Foundation
0910-0950	Future Challenges of the Pacific Theatre – USN Approach	RADM Michael Manazir Director N98	United States Navy
0950-1015	How the US Marines are approaching Air Sea Integration	Lt Gen Jon Davis, Deputy Commandant for Aviation - invited	United States Marine Corp
1015-1030	Break–Morning Tea		
1030-1100	Plan Pelorus, Integration Design Requirements of Navy's future Ships& Combat Systems	VADM Tim Barrett AO, CSC, RAN, Chief of Navy	Royal Australian Navy
1100-1125	Modern Synthetic Training to enhance Air Sea Integration	RADM (Rtd) James Rapp RN	CAE
1125-1200	Integrated Air and Missile defence in an A2AD environment	MITRE TBA	MITRE
1200-1300	Break–Lunch		
1300-1325	Evolving SRGs role in supporting Navy in the extended battlespace	AIRCDRE Craig Heap CSC	Royal Australian Air Force
1325-1350	Shaping the RAAF and RAN for Seamless Integration	AVM (Retd) John Blackburn AO	Sir Richard Williams Foundation
1350-1415	Industry' Role in Air Sea Integration	TBA	Raytheon
1415-1440	The Queen Elizabeth Carrier and the integration of Land and Sea based Air	Air Officer Commanding, No 1 Group and RADM Keith Blount OBE RN	Royal Air Force / Royal Navy
1440-1500	Break–Afternoon Tea		
1500-1525	Future Development Requirements of the LHD	RAN Rep RADM Stu Mayer, CSC and Bar, RAN Commander Australian Fleet	Royal Australian Navy
1525-1600	Panel Session	CAF, CN, ADM Manazir RAF/RN	Sir Richard Williams Foundation
1600-1610	Formal Close	AIRMSHL (Retd) Errol McCormack AO	Sir Richard Williams Foundation

Draft program current as of 11 May 2016

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