



Australian Government

Department of Defence

Defence Science and
Technology Organisation

Models For Technology R&D Cooperation

**NDIA Science & Engineering Technology Conference
2014**

Dr David Gamble

Defence Science & Technology Organisation

Australia

DISTRIBUTION UNLIMITED

DSTO

Defence Science & Technology Organisation – since 1907



DISTRIBUTION UNLIMITED

DSTO



Current R&D Cooperation Models



- ➔ **The Technical Cooperation Program (TTCP)**
- ➔ **Exchange of Scientists and Engineers (SEEP/ESEP)**
 - Cooperation on Maritime RDT&E and Prototyping
 - Australia & US Mutual Weapons Development
 - Forces Capability Modernization
 - Air & Space Capability
 - Australia - US Cooperative & Collaborative RDT&E
 - Test and Evaluation Program Cooperation
 - Exchange of Administrative and Professional Personnel
 - Ballistic Missile Defence
 - Navstar Global Positioning System
 - Special Forces Equipment Capability
 - Combating Terrorism Research and Development
 - Future Design, DT&E of Soldier Combat System

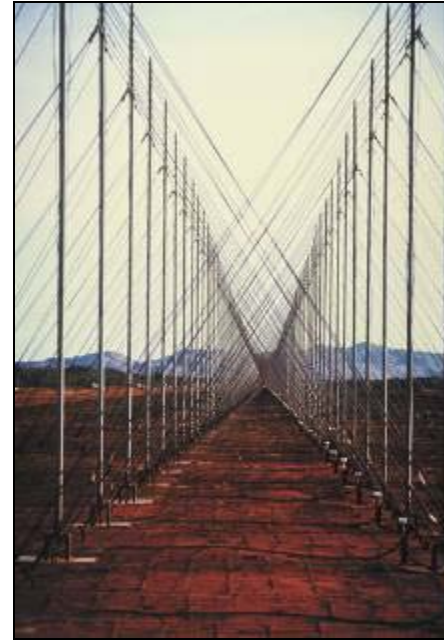




Current Technology R&D Cooperation



- Acquisition Programs
- Advanced Radars and EW
- Coalition Warfare Program
- Autonomy
- Cyber Security
- Advanced Materials
- Integrated ISR
- Hypersonics
- Chemical and Biological Defence
- Submarine Hydrodynamics



DISTRIBUTION UNLIMITED

DSTO

Australia into the 21st Century

- ANZUS Alliance
- ‘Australia in the Asian Century’ White Paper 2012
- Australia committed to “A stable, secure & prosperous Asia-Pacific”
- Cooperative regional security arrangements
- Defence Policy essentially apolitical
- Defence 1.6% of GDP today. Tomorrow?
- New Defence White Paper 2015



“Australia in the Asian Century”



National Security Strategy 2013



Force Posture Review 2012



Defence Capability Plan 2012



Defence White Paper 2015



Australian Strategic Drivers for R&D Cooperation

- ➔ Interoperability with United States & Coalition forces
- ➔ Pace of technology innovation
- ➔ Unaffordable cost of military systems
 - The 5th commons – Cyberspace
 - State vs. non-state conflict – counter-terrorism
 - Energy, food & water security, climate change
 - US rebalance to Indo-Pacific
 - Zero community tolerance for collateral casualties
 - Australian territorial waters and maritime approaches are vast
 - The Asian Century...
 - ADF requires interoperability, situation awareness, affordability
- **We are too slow, too expensive, too inflexible**



The Future for R&D Cooperation

- ➔ Mutual Reliance & Burden Sharing
 - Increase and deepen cooperation
 - Streamline cooperation frameworks – ITAR, MOUs...
 - Build trusted, fluid, international partnerships - Industry, Government, Academia
 - Open 'marketplace' between like-minded nations

