Tactical Data Links: The Royal Australian Artillery's Experience

TDL Interoperability Summit
National Convention Centre Canberra
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Scope

- History of Tactical Data Link (TDL) use at 16 Regiment Royal Australian Artillery
- ‘Ready Now’ – Current employment
- Recent Advances
- ‘Future Ready’ – Land 19 Phase 7B

History of TDL use

- History:
  - 16 AD to 16 ALR (Air Land Regiment)
  - Lacked a dedicated early warning capability
    - Portable Surveillance Target Acquisition Radar approx. 40km
    - Unsuitable for emerging standoff weapons
  - Partially remedied by Giraffe Agile Multi-Beam Radar (approx. 120km)
  - Access to the Recognised Air Picture beneficial

History of TDL use

- TDL - ADFTA and JICC
  - Army's first (and to date, only) user of TDL
    - (others emerging)
  - Steep learning curve with new agencies
  - STTs on long term trial, not yet accepted in service
    - Support / maintenance implications
  - On loan, not issued
    - Different radios offered – carriage issues (large cases)
    - Requirement to return and reissue each year

Ready Now

- Current Employment
  - RAP generated by EastROC
  - JICC transmits RAP over L16 / strat bearer
  - 16 REGT, RAA receives RAP via STT or JRE
    - STT if line of sight or RAAF aircraft retransmits
    - Detachment (STT) inside Div Joint Fires and Effects Coord Centre (JFECC)
      - Early warning of hostile air attack
      - SA of friendly aircraft movements
      - Communicate with friendly aircraft via msg set
    - Detachment (STT) inside Air Defence Bty Command Post
      - Early warning (hostile) and SA (friendly)
      - Cue G-AMB Radar employment

Recent Advances

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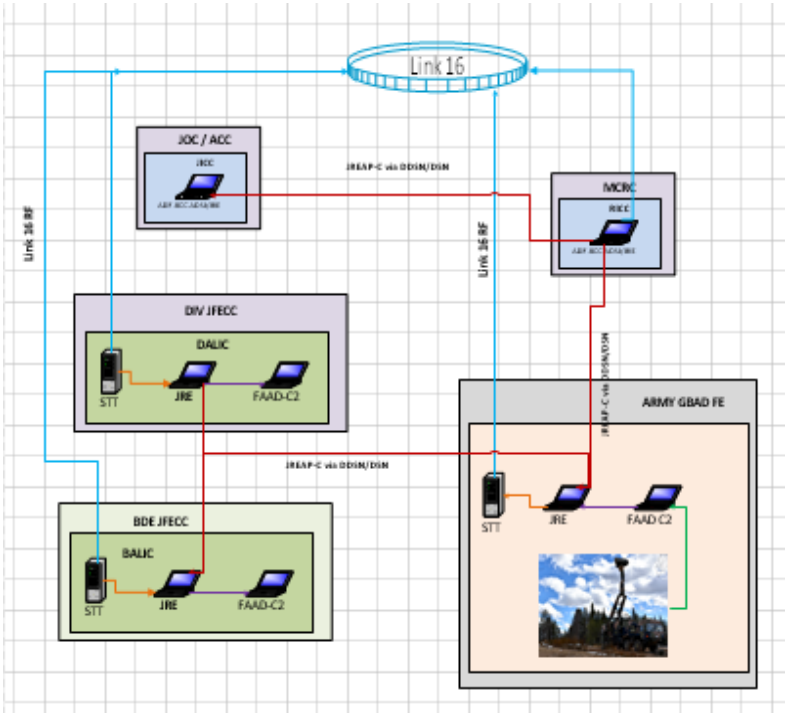
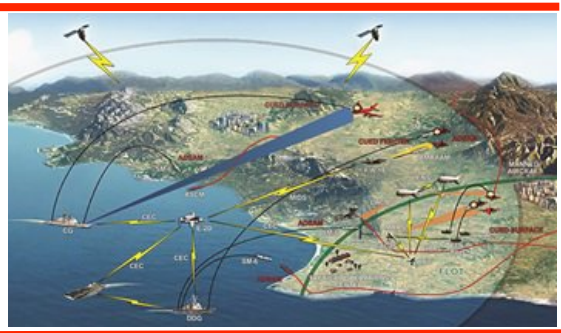
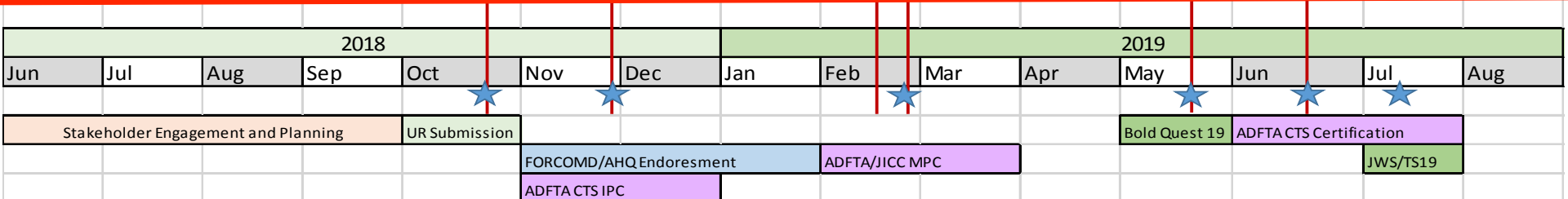
Milestone: On 10 Jul 19, Army achieved formal certification of AMDS C2 system integration into the ADF Multi Tactical Data Link Network (ADF MTN). Following test and evaluation during Exercise Bold Quest 19.1, 16 REGT RAA ICW Australian Defence Force Tactical Data-Link Authority (ADFTA) and Army HQ, conducted formal Conformance To Standards (CTS) certification testing. The testing was for interoperability between Army's Forward Area Air Defence Command and Control System (FAAD-C2) with the Joint Range Extension (JRE) C2 system.

Significant Action: This certification allows the Local Air Picture generated by the Giraffe Agile Multi-Beam (G-AMB) radar to be transmitted via Link 16 Radio Frequency or JRE to Joint C2 nodes such as Air Operations Centre, Joint Task Force Headquarters (such as JTF 667 on Exercise Talisman Sabre) and RAAF Control and Reporting units for correlation into the Common Tactical Picture. This certification demonstrates the commitment from Army and RAAF to ensuring 16 REGT, RAA is 'Ready Now'. This capability enhancement will also provide skills and experience to ensure the Army is 'Future Ready' for the arrival of the Enhanced NASAMS Troop, scheduled to achieve Initial Operating Capability in 2023.







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‘Future Ready’ – Project Land 19 Phase 7B Enhanced NASAMS

25 March 2019 - Government Announces Enhanced NASAMS

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Australian Government
Department of Defence

Department of Defence Ministers

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New air defence capability

25 March 2019

Joint Media Release

- **Minister for Defence, the Hon Christopher Pyne, MP**
- **Minister for Defence Industry, Senator the Hon Linda Reynolds CSC**
- **Premier of SOuth Australia, the Hon Steven Marshall MP**

The Morrison Government today announced it will improve the protection of Australian troops through the purchase of a new short range air defence capability using Australian designed and built radars and vehicles.

Minister for Defence, the Hon Christopher Pyne MP, and Minister for Defence Industry, Senator the Hon Linda Reynolds CSC, said the Government is committed to providing the Australian Defence Force with the best capability to protect Australia's national interests.

"This new air defence capability combines world leading Australian radar technology with a highly effective air defence system that will contribute to the protection of our service men and women from modern airborne threats," Minister Pyne said.

Enhanced NASAMS

The challenge of transformational capabilities:

- 5th Generation Sensors:
  - Integrated Air and Missile Defence Command and Control
  - 3 x Missile Range (Mk 2 launcher provides potential to take larger weapons)
  - 3 x Surveillance Radar Range
- More than an upgrade – this capability represents a path to Integrated Joint Fires

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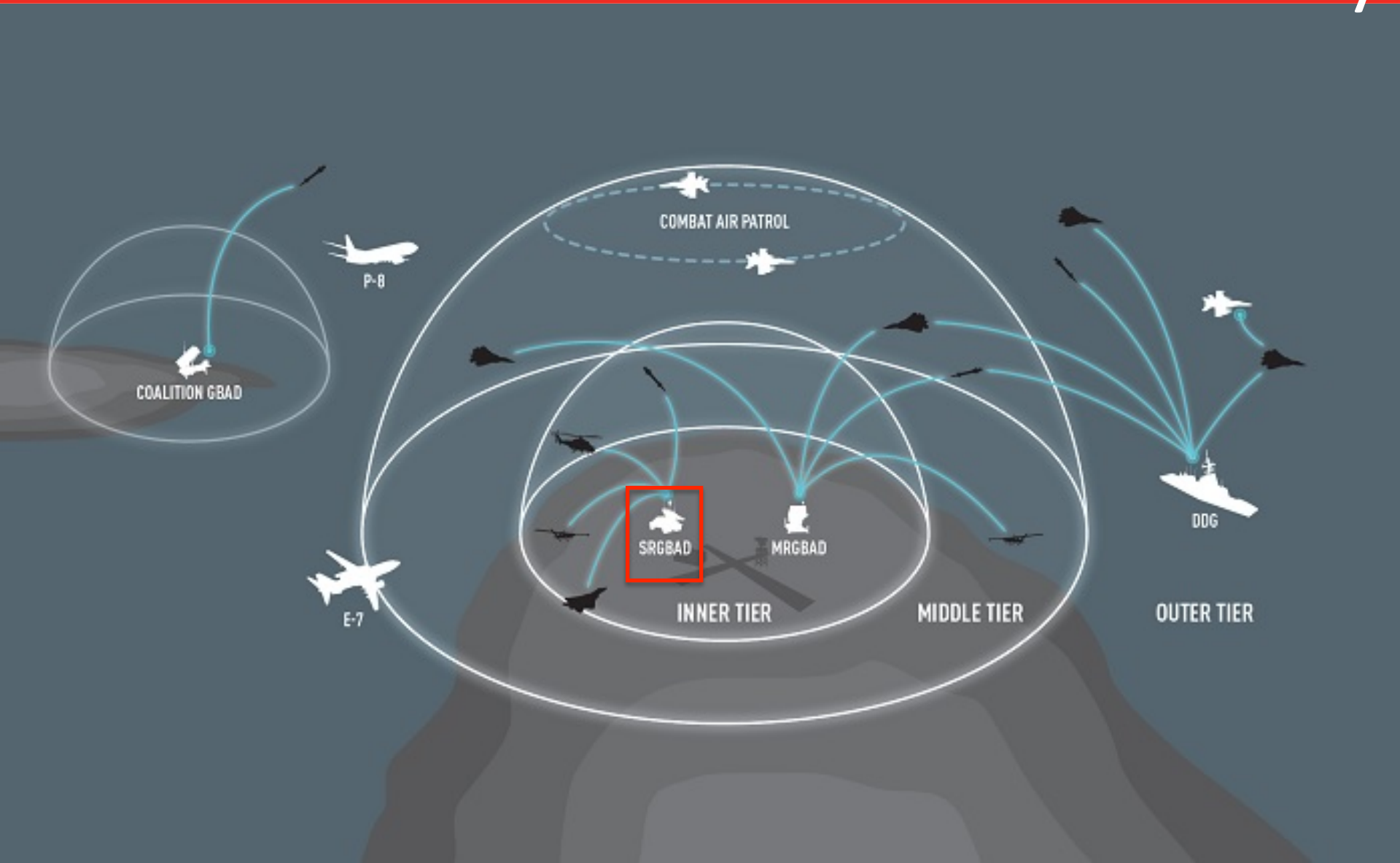
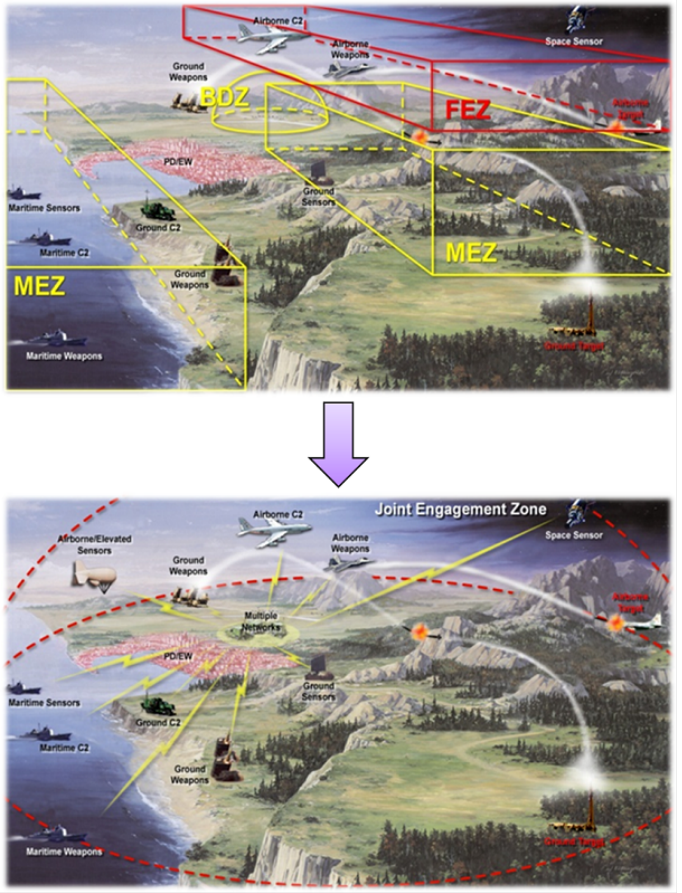
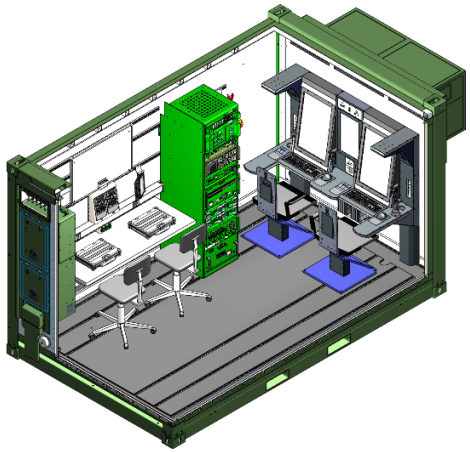
The IAMD Journey



Future IAMD TDL

- TDL is critical to effective IAMD C2
- 16 REGT RAA supporting:
  - Picture Contribution
  - Picture Management (limited)
  - AD Command and Control
- eNASAMS ADC is the heart of the system
  - Link 16 and JREAP Capabilities
  - Connected to MIDS-JTRS for RF L16
  - JREAP-C PRI BLOS via MTN Architecture
- Future IAMD Concepts
  - IFC / CEN





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Are there any questions?