Joint Command and Control
JC2

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Scope

• Overview of the Joint C2 Capability
• Integrated C2
• Deployed ICT
• Joint Data Network
• Questions
Integrated C2
Systems/tools/applications to enable the synchronisation of Joint effects

Deployed ICT
Wide Area Networks to enable Joint information exchange

Joint Data Networks
Networks and Data Links to enable Joint data exchange

Joint Communications
Trunking and Switching to enable Joint data networks and deployed ICT

Domain-Specific C4
- Joint Fires
- Joint ISR
- Medical Support
- Humanitarian Assistance
- Joint Manoeuvre
- Force Protection
- Civil-Military Cooperation
- Logistics

User Interface, Applications, Services & Data

Network and Communications
Overview: Critical Nodes

- Land centric deployed Joint Task Force HQ
- Air centric Deployed Task HQ
- Amphibious Task Force HQ
- E-7A
- AWD
Overview: Capability Approach

• Engage with Industry early and often
  – Watch this space for C2 WG
• Prototype
• Be prepared to fail, but fail early
• Two year horizon to a 10 year aiming point
• Evolutionary Capability Development
  – Agile + evolutionary acquisition + evolutionary sustainment
MilCIS 2017

Integrated C2 – JP9111

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JP9111–Joint Command Support Environment

• Extant JCSE capability delivered through eight discrete phases of JP2030 between 1994 – 2016

• Acquisition under JP2030 phases was slow, inflexible, and unable to keep pace with the quickly evolving C2 planning, execution and decision making requirements

• Current phasing does not enable quick evolution of capability to respond to C2 challenges

• Several overlapping projects
  – JP2221—Multi National Information Sharing
  – ICT2246—Command and Control
  – JP9340—Integrated Broadcast System (IBS)
  – ICT1544—Enterprise Information Management (EIM)
  – JP2096-1—ISR Integration
Program Approach

• Gate 0 approval 08 Jun 17
  – Addressing lessons from previous phases
  – Amalgamate three phases into a JCSE Sub-Program
  – Will deliver tranches with iterative approvals sought in two to three year blocks
  – Each tranche will have high fidelity executable plans
  – Sustainment is centralised with CM

• Gate 1: Q1 FY18/19
  - Analysis and definition period
  - Consolidation opportunities of other Joint C2 projects
  - Establish sustainment regime
  - Prioritisation of first tranche of capability

• Gate 2(s):
  - First Tranche of capability Gate 2 in FY19/20
  - Rolling approaches to Government every two to three years
Focal areas

• Joint C2 Evolutionary Architecture
  – C4ISR Design compliance/review; Joint C2 Operational Design Pattern development
  – DST Group prototyping and development opportunities (Industry DevOps)
  – EIM-D

• Joint C2 Applications suite
  – Environmental Scan; C2 Roadmap
  – Coalition Mission Threads: Battlespace Management as the core dimension, using the other dimensions an area of integration or interoperability.
  – Mission Systems; Mission Planning Applications; Domain Specific SA tools/apps

• COP / CTP
  - ADF Guidance and Direction
  - Integration of Battle Management Systems for all domains

• C2 Chat
  – Synchronise delivery of chat to the ADF with CIOG
Deployed ICT – JP2221

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JP2221 – Multi-National Information Sharing

• Tranche 1:
  – Deployable FVEY MPE solution connected to the strategic DSN to enable high level information exchange;

• Tranche 2 (MNIS Sub-Program):
  – Transition to an enduring MPE sustainment model
  – Develop and sustain the ICT fixed infrastructure to support enhanced MNIS information exchange services
  – Enhance the five-eyes PEGASUS information exchange services and transition to an enduring PEGASUS sustainment model
  – Develop enduring n-eyes gateways to enable information exchange between the DSN and a tailorable n-eyes MPE
  – Establish an MNIS support system and network integration capability
Tranche 1 will deliver:

A deployable FVEY AUS MPE connected to the strategic Defence Secret Environment. This comprises of:

i. Tactical Interface Infrastructure (136 Sig Sqn)
ii. A Deployable Joint Force Headquarters Network
iii. A Combat Brigade Network
iv. An Amphibious Network; and
v. A Common Services Hub (forward deployed with HQ)
The AUS MPE gateway, facilitated through the USG Gateway, is to support information exchange connectivity to the DSN and e-mail connectivity to SECRET REL FVEY community. The services on the AS MPE, in priority order are:

- e-mail,
- chat,
- Common Operating Picture,
- collaboration (to be hosted on the CS HUB),
- voice,
- VTC, and
- web browsing.
MTN Sub-Program

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JP2089 Ph2A
Initial Capability

• ANZAC Frigates
  – Upgrade the ships fitting Link 16, JREAP and VMF to enhance the current Link 11 capability

• Initial Common Support Infrastructure
  – Mult-TDL Management System for ADF
  – Systems located at high usage training areas
  – Four deployable systems for exercises and operations
Program Approach

- JP2089-2A
  ANZAC Upgrade
  Initial Support Infrastructure

- JP2089-3A
  Common Support Infrastructure

- JP2089-4
  Link 11 replacement
  (Beyond Line-of-Sight Capability)

- JP9347
  New Tactical Data Information Exchange Capability

- Deliver elements of a system
- Coordination and integration challenges
- Unable to adapt to new priorities

- Delivers a system
- Agile response to emerging threats
- Leverage coalition opportunities
MTN Sub-Program - Schedule

4 Jul 17 – NSC Approval

Q4 2018 Next IC

Document development (OCD/FPS/PES/IPMP/ILSC/SB)

Risk Reduction Activities (Link 22/Crypto Mod/HF congestion)

DST activities (Tactical Information Study)

Additional Workforce support (JICC interim, JCG, CASG-SPO)

Q1 2019 Next NSC*

More detailed schedule in OPP

* Return to Government every 2yrs
Key Challenges

• Workforce
  – Sufficiently skilled personnel to support Sub-Program both Uniformed and Defence Civilian
  – Limited talent pool in local industry

• Technical
  – Technology to support remote, unmanned systems
  – Multi TDL system development
  – Platform integration
The Integrated Broadcast Service (IBS) is a US owned, allied (Five-Eyes) AUS/CAN/NZ/UK/US capability designed to provide, enhanced battle space situational awareness. IBS achieves this through secure data exchange via the DSN (and variants) and a UHF MILSATCOM broadcast of Maritime, Air and Land Near Real Time information.

JP2065 Ph1 has established an initial ADF IBS infrastructure and also installed IBS capability across a range of ADF platforms and fixed sites. IBS capability has also been provided to platforms such as Growler and E7 through separate DCP projects.

IIP project JP 9340 (ex - JP 2065 Ph2), plans to upgrade the Phase 1 infrastructure to a windows based environment, extend both the network and broadcast capability to DDG and LHD, address logistics and training, and increase the support of Joint IBS Data Management Unit (JIDMU) to 24/7 (on-call)

IIP project JP 9341 (ex – JP 2065 Ph3) is planned to introduce new radio technologies to the capability circa 2025
Joint Data Network Concept