References:
B. FVEY FOE 2040 (FOUO)
C. ADDP 4.0 - Defence Logistics
D. Future Logistic Operating Environment 2035

Introduction
1. Reference A is the endorsed Forward Work Plan for Joint Concepts, to be led by Force Exploration Branch (FEB). Reference B outlines the demands of the Future Operating Environment (FOE) and identified that the provision of logistics in that context required examination and the development of a Joint Concept to guide the force design process.

Title
2. The title of this concept is: Australian Defence Force – Concept for Future Logistics 2040 (ADF-CFL 2040).

Lead author
3. The lead author for this concept is MAJ Ian North – SO2 Joint Concepts – Land, FEB. It will be developed in close partnership with the Directorate of Joint Logistics Futures, Joint Logistics Command (JLC).

Aim
4. The aim of the ADF-CFL 2040 is to describe how the Defence Logistics Enterprise (DefLogEnt) and the wider Logistics Domain¹ will enable the Future Force, through the provision of ‘hardened, resilient, adaptive and assured logistics’² in the FOE.

¹ As per para 1.6 of ref C: “The term Defence Logistics Enterprise (DefLogEnt) is diverse and complex comprising an array of Defence organisations (including the Services, Joint Operations Command and Enabling Groups) that contribute in different ways across a multitude of functions aimed at supporting Defence capability. The DefLogEnt is nested within the wider, external to Defence, Logistics Domain responsible for the provision of logistics support to Defence capability.” Further detail can be found in paras 1.7-1.9 of ref C. However, as logistics is not a domain equivalent to air, land, sea, space and cyber, subsequent uses will refer to it as the Logistics System.
² Para 3.26 of ref B
5. The ADF-CFL 2040 will be used to coordinate Capability Managers’ (CMs) consideration of DefLogEnt functions into existing programs, with a focus on linking policy to capability employment. Force Design Division, JLC and CMs will utilise this concept in conjunction with the DCAP to identify gaps and opportunities specific to the DefLogEnt.  

6. Additionally, the concept will be utilised for experimentation, PME and ongoing FVEY concept development. 

**Military problem**

7. Vide ref B: “Coalition forces should anticipate interference with [logistic networks] through cyber, electromagnetic, and other kinetic and non-kinetic attacks”. Therefore, the DefLogEnt and the Logistics System will need to develop so that they can continue to provide enabling support to the Future Force.

8. The ADF-CFL 2040 is to address the military problem of:

   *Australia’s relative geographical isolation and reliance on air and sea lines of communication, rates of technological change, procurement lead times, complex supply networks and competition for scarce / critical resources will continue to present challenges for the ADF’s DefLogEnt. These issues will likely increase noting the growing reliance on international components of the Logistics System.*

   *The continuing evolution of manufacturing, distribution and maintenance activities will likely be the catalyst for changes to the ADF’s current capabilities. However, these changes also present opportunities for the Future Force to work with coalition and industry partners to develop “hardened, resilient, adaptive and assured logistics” to enable support to ADF operations across the competition to conflict continuum.*

   *How does the ADF deliver logistics effects to create advantage across the competition to conflict continuum in the FOE, and how can the ADF work with coalition and industry partners to counter threats to the DefLogEnt?*

9. The author is to consider (but is not limited to):

   a. The strategic context of the Logistics System and the DefLogEnt.

   b. Definitions specific to logistics. This component should be aware of the proposed changes to ref C and note any instances of conflicting usage.

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3 Of note, para 1.5a of ref C lists medical and health service support as an aspect of logistics; however, in order to keep the scope of the document manageable, the ADF-CFL 2040 will not look at this component of logistics. The exception to this is that non-clinical aspects of casualty evacuation and the distribution of Class VIII supplies (medical stores) will be covered in relevant sections.

4 Para 3.26 of ref B

5 Para 1.1-1.2 of ref D

6 Para 3.26 of ref B
c. How the ADF Future Force can exploit the evolution of manufacturing, distribution and maintenance (including enabling by artificial intelligence, machine learning, big data analytics and autonomy) to gain an advantage over an adversary.

d. How the ADF Future Force can work with coalition and industry partners to enhance the delivery of support to ADF, coalition and other prescribed Whole of Government (WoG) dependencies.

e. How the ADF Future Force can counter threats and interference to the logistics control, information and physical networks (including A2AD systems, cyber and electromagnetic attack).

f. How the DefLogEnt can increase resilience and assurance through use of complementary and new technologies (including energy / fuel sources).

10. The ADF-CFL 2040 should reference the key excerpts from ref B as follows:

a. (U) 3.25. Projected disruptive technologies will enable adversaries to identify and exploit weaknesses in coalition support and sustainment systems, including national support bases.

b. (U) 3.26 Coalition forces should anticipate interference with logistical chains [sic] through cyber, electromagnetic, and other kinetic and non-kinetic attacks. To support operations, militaries must develop hardened, resilient, adaptive and assured logistics from end to end. Similarly, future adversaries with a global or large regional presence may possess logistic vulnerabilities that coalition activities can exploit.

Timeline

11. The indicative timeline is as follows:

a. 17 Feb 20: Drafting workshop one for SMEs.

b. NLT 31 Mar 20: Drafting workshop two for SMEs and stakeholders.

c. NLT 01 May 20: Finalisation workshop for SMEs and stakeholders.

d. NLT 25 May 20: Draft v0.2 complete for engagement.

e. NLT 22 Jun 20: Draft v0.3 complete for experimentation.


g. Aug 20: Presentation to ETRG.

h. 07 Oct 20: Presentation to JWC.

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7 As defined by paras 4.12-4.15 of ref C
Stakeholder engagement

12. As the lead for the coordinated ADF-CFL 2040 effort, FEB is to consult across the ADO. It is also expected that FEB will consult widely outside of the ADO, with a specific focus on engaging industry, academia, think-tanks and international partners.

13. Collaboration with FVEY partners is highly encouraged during the development of this concept.

Security classification

14. The ADF-CFL 2040 is to be UNCLASSIFIED to permit broad collaboration. Annexes of a higher classification may be produced as necessary.

Related publications

15. The following publications (whilst not exhaustive) will provide the key reference material for the development of the ADF-CFL 2040:

a. The Joint Concepts Framework
b. Joint Concepts Framework Handbook (Draft)
c. Five-Eyes Future Operating Environment 2040
d. ADF Future Operating Environment 2035
e. Future Logistics Concept 2035.

Style

16. The ADF-CFL 2040 is to be written as per the guidelines established within the Joint Concepts Framework Handbook (Draft).

Structure

17. The structure of the ADF-CFL 2040 is to indicatively look as follows:

a. Front matter: Title page, objective file reference, coordination and endorsement dates, amendment record, JFA signature block, contact details for lead author, table of contents.
b. Section 1: Strategic context of the Logistics System and the DefLogEnt.
c. Section 2: Defining and explaining the military problem.
d. Section 3: Logistic opportunities – this section will be broken into two components:
i. How the ADF Future Force can exploit technological evolution (in fields such as manufacturing, distribution and maintenance) to gain advantage over adversaries.

ii. How the ADF Future Force can assure and utilise captured, recovered or seized resources and materiel.

e. Section 4: Coalition and industry support – How the ADF Future Force can work with partners to enhance the provision of logistic support internally, and to prescribed coalition and WoG dependencies.

f. Section 5: Hardened, Resilient, Adaptive and Assured – How the ADF Future Force can counter threats to the supply network architecture that governs the logistics control, information and physical networks.

g. Section 6: Implementation – DCAP recommendations, FIC analysis, PME and ongoing concept development.

h. End matter: Glossary / abbreviations, references, consultations.

Conclusion

18. The ADF-CFL 2040 will involve a large stakeholder audience, both in and outside the ADO, and will be subject to thorough experimentation which will enable the concept to provide recommendations through the DCAP. Ultimately, the ADF-CFL 2040 provides CMs with an aspirational framework for the provision of logistic support to new and enduring ADF capabilities across the competition to conflict continuum.