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Australian Government  
Department of Defence  
Defence Science and  
Technology Organisation



# Towards a Theory of Joint ISMOR 2015

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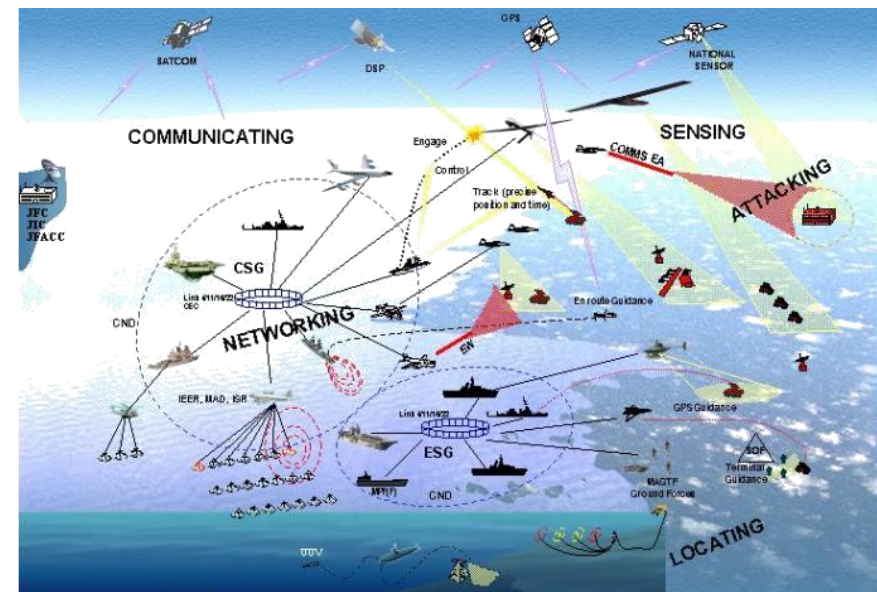
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Science and Technology for Safeguarding Australia

# Presentation Outline

- The drivers for Joint
- An introduction to Joint
- A conceptual model of Joint
- The proposed tenets of Joint
- Some associated guiding principles for designing joint systems



# Why ... ?

- Why is Joint needed?
  - Doctrinal imperative to establish Joint
  - All operations are now inherently Joint
  - The growing complexity of the operational environment
  - Need to minimise waste and maximise effectiveness of all our military resources while maintaining flexibility
  
- Why is *a theory of* Joint needed?
  - Grounding the same concept of Joint in Australian Defence culture and thinking
  - The increased complexity of Joint requires a new level of thinking and design.
  - Guidance for the design and building of joint systems



# What is the problem with *Australian Joint*?

“ ... there is still a gross mismatch between a military strategy (Australia should be able to conduct independent joint military operations – because that is what “going to war” really means) and the ability of Australia through the ADF to actually conduct independent, sophisticated, 21st Century joint operations, either now or into the future.”

Molan, J. 2011. *The problem with Defence (Part 1)*, Asia Pacific Defence Reporter, viewed 10-Feb-2015  
<<http://www.asiapacificdefencereporter.com/articles/184/The-problem-with-Defence-Part-1>>

“The challenge of conducting operations without allied assistance in support of our own defence needs is one that places a premium on the capacity of the Australian Defence Force to be able to operate jointly. On the face of it, I’d argue that our capacity to integrate for joint operations is nowhere near as developed as I understand single-service plans to be. In Israel, the distance between Jericho in the north of the country and Be’er Sheva in the south is about 115 km, going via Jerusalem. That’s a lot closer than the distance between Air Force’s Plan Jericho and Army’s Plan Beersheba.” (Jennings, 2015)

Jennings, P. 2015. *Integration, strategy and the ADF*, viewed 8-Mar-2015  
<<http://www.aspistrategist.org.au/integration-strategy-and-the-adf/>>

# The Basics of Joint

## Definition of Joint

Activities, operations and organisations in which elements of at least two Services participate  
(Australian Defence Glossary)

## Aspirations of Joint

To enhance and augment the effectiveness of the individual Services by connecting personnel, capabilities and systems across the Service boundaries.

The direct and deliberate intervention to create more holistic and larger organisational structures that are unlikely to be generated through self-organisation.

To realise a synergistic effect by facilitating collaboration across these Service boundaries.



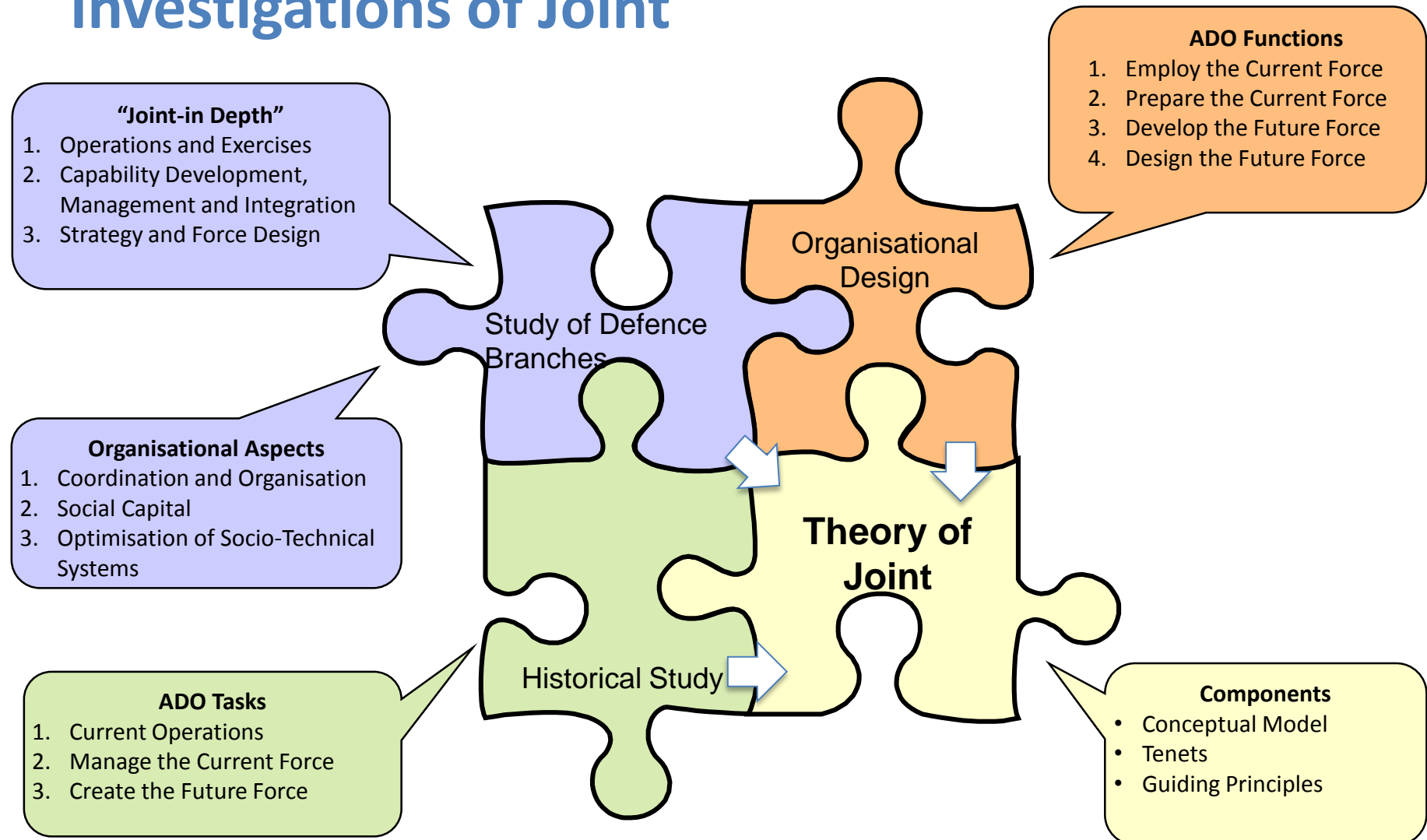
# What is (and isn't) Joint?

|                  | What is Joint?  | What is <u>not</u> Joint?                           |
|------------------|---|---|
| Organisationally | Bi- and Tri-Service<br>Australian Defence Force<br>Australian Defence Org | Single Services<br>Whole-of-Government<br>Coalition |
| Conceptually     | Activities / Operations<br>Organisations / Systems                        | Environment<br>Effects                              |

Some of the conceptual differences are highlighted in the following:

*Various **effects** are produced in one or more **environments** by a **joint organisation** performing a **joint activity**.*

# Investigations of Joint



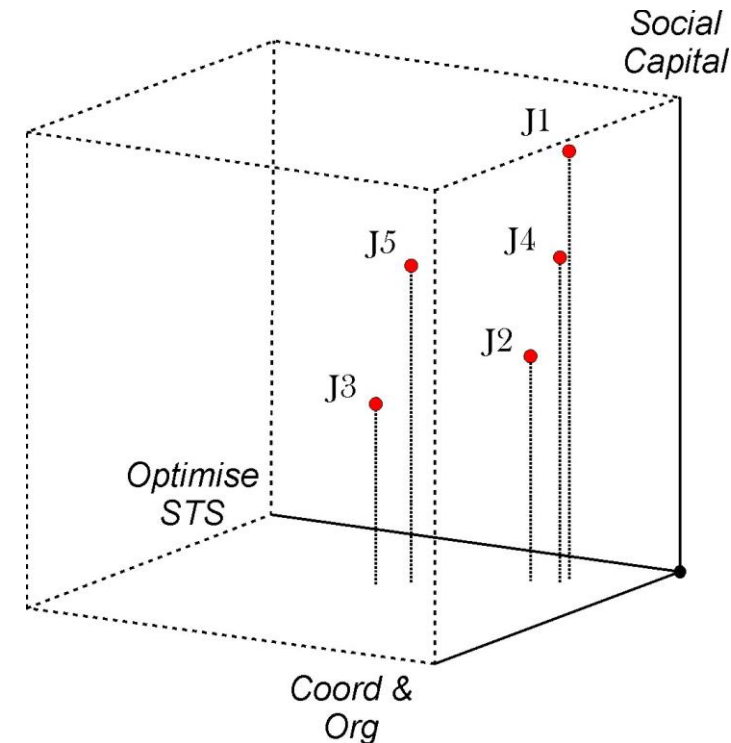
# Visualising 'Jointness'

- Study collected survey data to investigate the degree of 'Jointness' of branches within the ADF.
- Three dimensions of Joint identified;
  - Coordination and Organisation (*Structure*)
  - Social Capital (*Capital*)
  - Optimisation of Socio-Technical Systems (*Capabilities*)
- These dimensions used to visualize a 3D Joint Space to inform capability development



# The Joint 'Space'

- Location of a branch indicates;
  - Degree of 'Jointness'
  - 'Distance' from desired location
  - Potential focus for change
- Survey results indicate;
  - Some branches better aligned to joint
  - Services take different approaches to joint
  - Can identify 'misplaced' branches
  - Five clusters with different Joint roles



# Distilling the core concepts of Joint (1)

- The three investigations all identified fundamental functions/tasks that the organisation has to perform/achieve:
  - the ***Functional Dimension***
  - Expresses the **major tasks** of the Australian Defence Organisation:
    - **Conduct of Operations**
    - **Management of the Current Force**
    - **Delivery of the Future Force**
  - These are roughly equivalent to the goals or strategic “ends”
  - These are physically connected through time starting with design and development of the force through to preparation and employment of the force.

## Distilling the core concepts of Joint (2)

- The ethnographic study also surfaced major internal aspects of the organisation:
  - the *Organisational Dimension*
  - Provides a lens through which to view the different interconnected **perspectives of Joint**:
    - Joint Capital
    - Joint Structure
    - Joint Capabilities
  - These are roughly equivalent to the tools or strategic “means”
  - These characterise fundamental elements of a joint enterprise that need to be addressed in order to provide a foundation for coherent organisational action.

## Distilling the core concepts of Joint (3)

- If the previous two dimensions characterise the **functional “ends”** and the **organisational “means”**, these need to be connected by dynamic processes (the **“ways”**):
  - the **Transformational Dimension**
  - Concerned with the **dynamic aligning and weaving of relevant aspects of the other two dimensions** that ensures the coherent management and delivery of the Joint Force
  - Collectively, this is known as the **Joint Approach**, captured in the following statement:

*Joint Operations are conducted by the Joint Force generated by Joint Transformational activities performed by Joint Organisations built from Joint Structures, Capabilities and Capital.*

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# A Conceptual Model of Joint

Delivery of the  
Future Force

Management  
of the Current  
Force

Conduct of  
Operations

## DIMENSIONS

Transformational

Organisational

Functional

“Ways”

“Means”

“Ends”

Joint Capital

Joint Capabilities

Joint Structure

Joint  
Approach

Joint  
Force



# Identifying Tenets of Joint

- The proposed tenets of Joint have been derived and synthesised from the following elements:
  - Definitional and doctrinal foundation of Joint in military operations
  - The three dimensions of Joint: functional, transformational and organisational
  - The three organisational perspectives of Joint that underpin joint design: structure, culture and capabilities.

# Proposed Tenets of Joint

1. Joint is **the goal of facilitating connections and collaboration across Service boundaries** in order to realise a synergistic effect.
2. Joint **draws its legitimacy through the essential need to act jointly on ADF operations** and thus is inherently linked to operations.
3. Joint is **realised by a transformation process** that coordinates and/or integrates organisational aspects and aligns functional outcomes to deliver the desired operational effects.
4. Joint is **instantiated as specific organisational structures** which are necessary to deliver the transformation required to achieve the desired operational effects.
5. Joint **relies on alignment between Defence's enterprise culture and the strong Service cultures** in order to construct effective joint organisations.
6. Joint **requires specific capabilities which enhance, enable and/or connect other capabilities** in order to construct effective joint systems.

# Guiding Principles for Joint Systems design

1. When a systemic inter-Service interaction is identified, consider implementing a Joint Approach. A Joint Approach is a specific attempt to deliver or improve the performance of the employed Joint Force. [Tenet 1]
2. When designing a Joint Approach, ensure there is a link to the employment of the Joint Force on operations. [Tenet 2]
3. Ensure the organisational aspects (structure, capital and capability) are coherently woven to deliver the key functional aspects in an aligned fashion. [Tenet 3]
4. Structure: Instantiate specific and appropriate joint organisational structures in order to deliver the required Joint Approach. [Tenet 4]
5. Capital: Build the joint organisational capital that is necessary to support the Joint Approach. [Tenet 5]
6. Capability: Design and field joint capabilities which are necessary to support the Joint Approach. [Tenet 6]



# Why do we think this is important?

- Joint, by definition, is about linkages.
- However, the focus has often been on the linkages between physical systems.
- While this remains important, investigations highlight the other important connections between people, capabilities and objectives.
- The conceptual model presented here provides **a simple and systematic framework with which to analyse, understand and design more coherent and complete joint systems.**
- Developing a more coherent vision for Joint should enable better understanding and operation of the ADF in the more expansive and complex JIIM (Joint Interagency Intergovernmental Multinational) domain.

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# Questions?



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# Take-aways

- Joint is about **organisation and activities** (not effects or environments)
- A conceptual model of Joint has been constructed based upon **three dimensions**:

| Functional “Ends”  | Organisational “Means”                                 |
|--|--|
| Conduct of Operations<br>Mgt of the Current Force<br>Delivery of the Future Force  | Joint Capital<br>Joint Structure<br>Joint Capabilities |
| <b>Transformational “Ways”</b><br>Joint Operations are conducted by the Joint Force generated by Joint Transformational activities performed by Joint Organisations built from Joint Structures, Capabilities and Capital. |  |

- There are **six proposed tenets of Joint** and **associated guiding principles** for the design of joint systems