

Transforming the Royal Australian Air Force by Design

Group Captain Jerome Reid - Director Plan Jericho





Scope

- Plan Jericho WHY The Challenge
- Plan Jericho HOW 5th Gen AF Strategy led transformation framework
- Plan Jericho WHAT An example to end with - What does a sophisticated AF Cyber Physical System look like in 2030?



The Jericho WHY AIR FORCE

Why We Must Transform 29 AUS

Our Air Force is required to prepare for and respond to a rapidly changing strategic environment and increasing uncertainty.

We must leverage our incoming capabilities to maximise advantage and create a force that can look for and exploit innovative ways of staying ahead of our adversaries.

We must partner with Industry and Academia as a critical element of FIC.







The Jericho How AIR FORCE

The 5th Generation Transformation Framework

The Air Force Strategy 2017-2027 outlines five vectors for change so that the Royal Australian Air Force will become a fifth generation Air Force. These vectors underpin the transformation framework.

Joint Warfighting Capability Integrate Air Force's new and existing capabilities to ensure Air Force operates effectively with other Services, Groups and relevant Government agencies; forms a coherent part of the ADF's joint order of battle; and is organisationally prepared for future changes in the delivery of air power.

AF Change Vectors

People Capability

Develop a fifth-generation workforce that can quickly and effectively adapt to rapid technological and operational change and exploit the opportunities presented by Australia's changing workforce demographics.

Communications & Information Systems

Ensure Air Force's current and future communication systems enable integrated operations with the ADF, our allies and partners, and possess resilience and redundancy for operations in degraded and contested environments.

Infrastructure

Upgrade Air Force's fixed and mobile infrastructure to ensure Air Force's bases are hardened, resilient, flexible and readily adaptable to future air power capabilities and requirements.

International Engagement

Adapt Air Force's international engagement program to Defence's broader international engagement policy goals to ensure Air Force's personnel, exercises and exchanges shape and are informed by Defence's international engagement agenda to support Australia's extant military posture.



RAAF – The 5th Generation Air Force

The Royal Australian Air Force will become the world's first 5th Generation Air Force driven by our need to fully exploit the potential of 5th generation technology in increasingly volatile, complex and uncertain environments.

The attributes below describe a 5th Generation Air Force. To become a 5th Generation Air Force, RAAF must develop these attributes across all areas of our organisation including, but not limited to workforce, infrastructure, training and education, logistics, capability management / development, engagement and operations.

A 5th Generation Air Force will quickly and easily adjust and adapt to exploit emerging opportunities and maintain warfighting advantage in dynamic and uncertain environments.

A 5th Generation Air Force maximises effectiveness through deliberate integration of capabilities regardless of platform generation.

Capability development and operations embrace integration-by-design to enable rapid and seamless application of air power as part of a coherent joint force.

5th Generation Air Force people, processes and systems maintain coherence and competitiveness, despite shocks, in order to continue functioning effectively and maintain options to win in complex, contested and congested environments.

A 5th Generation Air Force has both masters of the broad profession of arms and specific technical specialists that maximise contribution to the joint force. It maintains multi-domain decision superiority by fighting for and with information dominance across all areas of the organisation.

A 5th Generation Air Force will leverage our technical networks, organisational partnerships and social relationships to exploit diverse capabilities and perspectives. It collaborates to develop solutions to complex problems that deliver capability advantages.

Becoming the World's first 5th Generation Air Force is a bold ambition and our transformation will require bold leadership. We will know we are being bold when we: innovate beyond the plan, think ahead of current paradigms and build an air force that can contribute to win, whatever the situation.

Resilient



Accelerating the transition to a 5th Generation Air Force

CAF Vision: The Royal Australian Air Force will become the world's first 5th Generation Air Force.

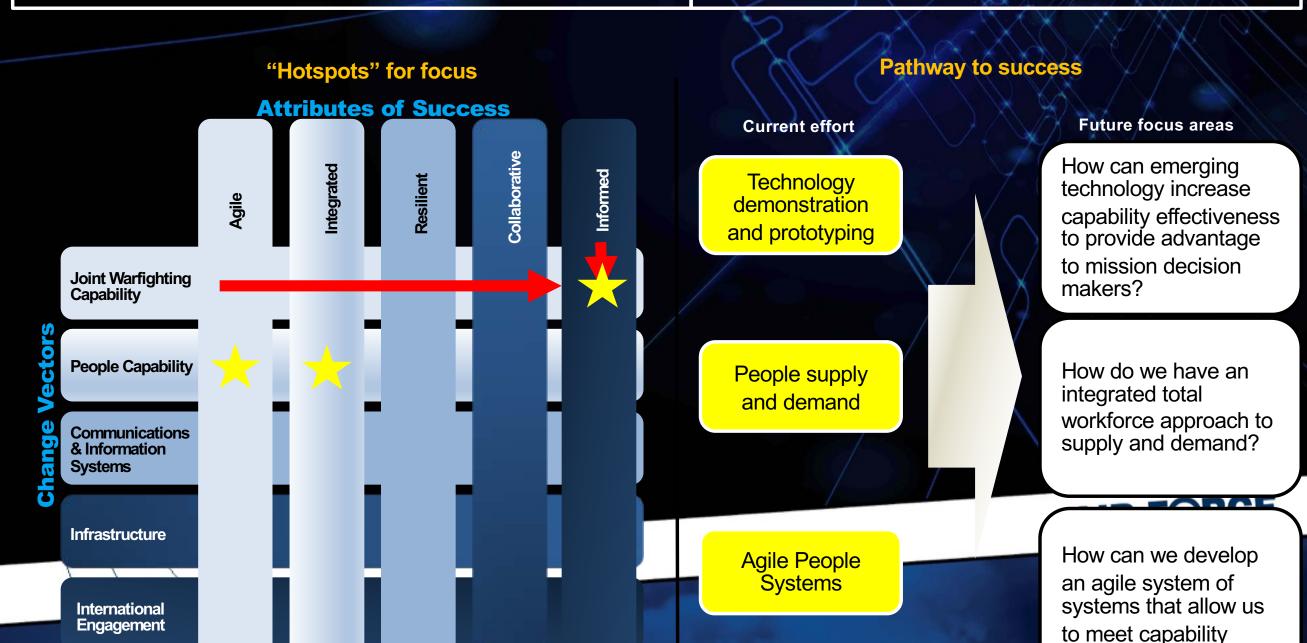
A 5th Generation Air Force will be:

- AGILE Quickly and easily adjust and adapt to exploit emerging opportunities.
- INTEGRATED Maximises effectiveness through deliberate integration of capabilities
- RESILIENT Processes and systems maintain coherence and competitiveness, despite shocks
- INFORMED Masters the broad profession of arms and specific technical specialists that maximise contribution to the joint force
- COLLABORATIVE Leverages our technical networks, organisational partnerships and social relationships to exploit diverse capabilities

The Air Force Strategy 2017-2027 outlines five vectors that underpin the transformation framework.

outcomes?

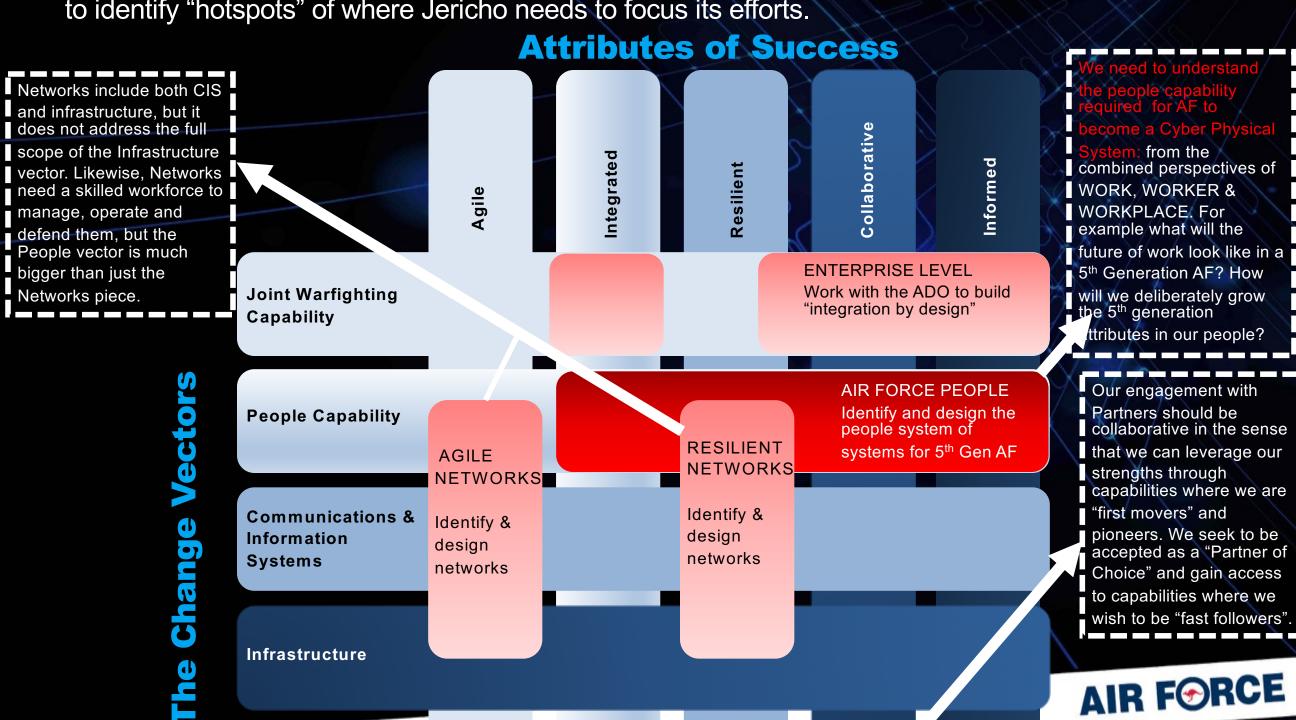
- Joint Warfighting Capability
- People Capability
- Communications and Information Systems
- Infrastructure
- International Engagement



The Jericho WHAT AIR FORCE

The 5th Generation Transformation Framework & Jericho

We can overlay the five vectors for change with the attributes of a 5th Generation Air Force to allow us to identify "hotspots" of where Jericho needs to focus its efforts.



International

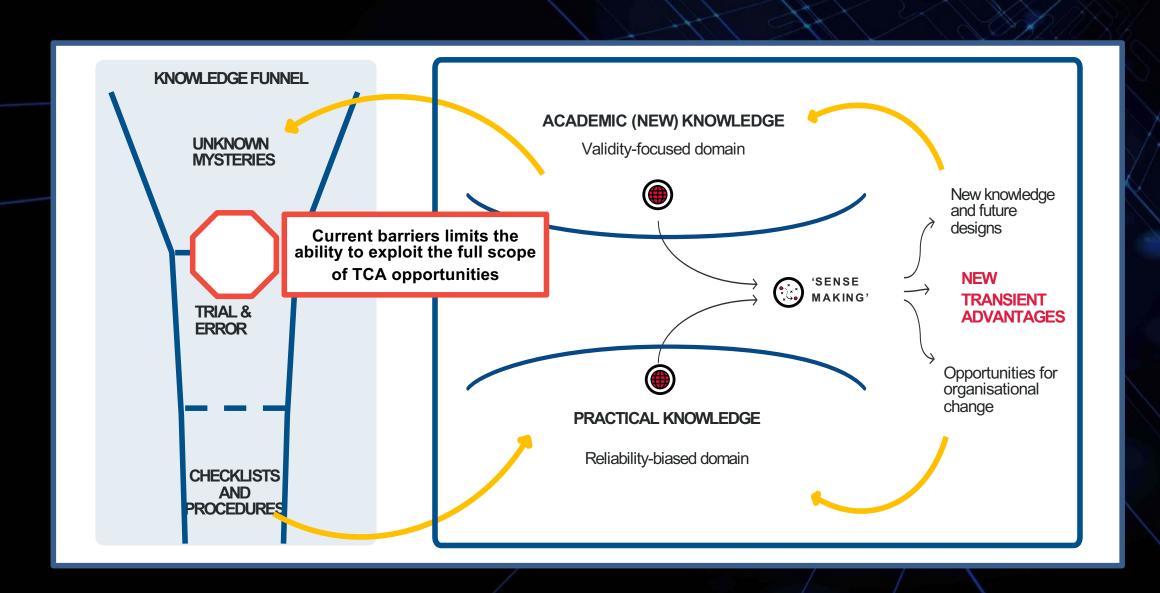
Engagement

Be the

Choice

Partner of

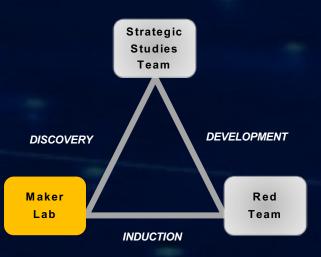
Sense-making – its what we do





Jericho Labs

A physical space for Defence, Academia, Australian industry and individuals to share problems, and incubate ideas and technology



The Jericho Maker Lab will interact as one pillar in the Jericho 2.0 model

Flexible

An open plan space that supports activities ranging from teaming and intellectual study to prototyping, manufacturing and hardware trials.

Open

Funded by Air Force and open to the public, industry and other ADF members.

Networked

Jericho staff will network Maker Lab users to appropriate Defence organisations that may have equities in the conceptual and technology solutions incubating in the lab.

Considerations



- Jericho to operate (through CFO-AF) funding lines
- Strong reporting and performance measurement techniques will be critical to sustained funding.



- Space will begin as an UNCLAS/FOUO rated space.
- Transition to higher classifications will not be catered for in first year



 Requires location that maximizes foot traffic, situated near to a manufacturing and industry lab.

What will a sophisticated Air Force Cyber Physical System look like?

Build new approaches to capacity building

Jericho Maker Lab

Embracing complexity by prototyping for

understanding

Invest in hard conversations

Strive for accountability

Make our own (ethical/moral) future

Work

Sophisticated work based on deep cognitive learning from 'pattern of life analysis' optimised to reduce cognitive workload & increase capacity



Worker

Habitual human machine relationships based on trust, connectivity & explainable automated reasoning



Workplace

Assimilates CPS into all facets & facilitates state of the art interface for local and remote collaboration with mixed realities



RAAF 2030 Vision

Air Force is the world's first 5th Generation military cyber physical system

