



WHAT IS ISR? THE NEED FOR AN AIR FORCE ISR PLAN

Pathfinder 117 (August 2009) discussed the doctrinal aspects of intelligence, surveillance and reconnaissance (ISR) to clarify key aspects of the term. A key observation in it was the need to understand ISR as an integrating function, coordinating a system with many components. Indeed, several conclusions from that *Pathfinder* have specific implications for the RAAF in developing an ISR capability. Technology is showing the potential for a networked, seamless defence force, supported by a real-time pervasive ISR, able to prosecute any target anywhere in the battlespace.

However, the reality is that such a capability is still well into the future for the ADF. Importantly, if this aspirational capability is to be realised then a robust ISR development plan is required. The RAAF appreciates that air power will be a major contributor to the ADF's ISR capability, and is already acquiring key components that will deliver the intended capability. The systemic and integrated nature of ISR means that an Air Force ISR plan must synchronise its initiatives with the Defence ISR Roadmap to create a coherent and integrated capability.

ISR is the core underpinning activity that enables information superiority, thus determining and creating the desired effects in the joint campaign. Former Chief of Air Force, Air Marshal Geoff Shepherd, referred to this critical nexus when he described ISR as one of the three core air power capabilities that Air Force provides to the joint fight. More recently, the 2009 Defence White Paper identified ISR as one of the capability priorities for creating information superiority. Air Force will be a major contributor in realising this.

While it includes terms such as sensors, assets, processing, exploitation and dissemination systems, the critical word in the ADF approved ISR definition is 'integrate.' It infers the need to understand ISR in terms of a networked system of systems, that functions across all domains and command levels, interfacing with diverse sub-systems comprising sensors, platforms, humans, and weapons. The Defence ISR Roadmap notes the nature of this system of systems in using the term *Defence ISR* to 'describe a system of interconnected ISR elements that



Although a premier air superiority and strike aircraft, the Joint Strike Fighter will also be an important node in the Air Force's contribution to the Defence ISR capability—an aspect that only a coherent Air Force ISR plan can synchronise.

will seamlessly combine with the command and engagement systems to ensure that information can be readily exchanged in support of shared situational awareness, collaborative planning and cooperative action.'

The complexity of the ISR system demands that Air Force develop a plan that synchronises and coordinates its ISR capability development, in order to create an integrated, layered and coherent capability aligned and operating within the Defence ISR system.

The battlespace is becoming dominated by multi-role air platforms with a multitude of sensors, information requirements and networks. The deployment of these platforms has major implications for those trying to enhance ISR capability, as the most important part of that capability is not the platforms themselves, but rather their enablers such as people and supporting networks. The key challenge will be the integration of such a diverse range of components into an effective ISR system of systems. Only successful integration will realise a Defence ISR capability that consolidates and deconflicts multiple traditional and non-traditional ISR feeds to create a coherent, uncluttered common operating picture.

The RAAF is currently acquiring significant ISR platforms, such as multi-mission UAV and AEW&C aircraft, and it is expected that all future acquisitions will also contribute to the joint ISR capability. The current trend is towards multi-role platforms whose primary roles may not be ISR but will contribute to the integrated and networked Defence ISR system and thus, will be non-traditional ISR platforms. For example, the Joint Strike Fighter will be a significant air superiority and strike asset and will also be a network enabled ISR node that will collect, process and disseminate ISR data. There is also a need to develop a wide range of joint enabler projects that will enhance the future Air Force ISR capability when appropriately integrated.

While the management of these future platforms will principally be a Force Element Group (FEG) responsibility, the ISR capabilities they will deliver will be a broader Air Force responsibility. This has implications for the traditional Air Force FEG level capability management approach. Foremost, will be the need to develop a collective approach to ISR capability development unified under an Air Force ISR plan. ISR will be an Air Force wide enterprise and accordingly, requires capability management across the FEGs rather than within a single FEG. While Surveillance and Response Group clearly has a major role in ISR, so too have Aerospace Operational Support Group and Air Combat Group. A key part of an Air Force ISR plan will be coordinating the command and control and capability management responsibilities for the RAAF's ISR assets and enablers. Indeed, of all RAAF's major capabilities, ISR, along with C2, are the two that cannot be readily managed within a single FEG. While the Air Operations Centre will be the mechanism that coordinates and synchronises airborne ISR activities for the joint campaign, a coordinated Air Force approach, harmonised with joint ISR initiatives, will ensure its seamless integration into the Defence ISR capability.

The best way to realise this level of holistic Air Force ISR capability management is to develop an Air Force ISR plan identifying its desired ISR capability and addressing its integration into the Defence ISR system. The ISR plan must provide strong strategic

guidance implemented through coordinated specific capability direction. The critical elements of this plan will not be the platforms themselves, but the process to integrate the concepts of operations, mechanisms, supporting networks and human elements into a robust and effective ISR capability. The Air Force ISR plan therefore needs to be managed as an Air Force wide issue at the strategic level.

The USAF has made some significant steps in developing a coherent approach to enhancing ISR for the future by addressing areas of organisation, personnel and capability management including the establishment of an ISR Agency (previously the Air Intelligence Agency) and developing an ISR strategy. There is value in the RAAF exploring similar initiatives.

ISR is one of the critical enablers of air power within the joint campaign. The RAAF has a key role to play in the delivery of ISR, and is acquiring a wide and significant ISR focused inventory. To realise the potential of Air Force ISR as a key joint enabler, there is a need for the RAAF to develop and implement a coherent strategic ISR plan aligned and integrated with the Defence ISR Roadmap.

- *ISR is an enabler for Information Superiority that underpins the successful conduct of all ADF operations.*
- *Air Force will provide a major ISR contribution to the Defence ISR capability.*
- *The Air Force ISR capability must be developed in a coordinated manner that ensures it is synchronised with ADF capability development.*

'The whole art of war consists in getting at what is on the other side of the hill, or, in other words, in learning what we do not know from what we do.'

Arthur Wellesley,
First Duke of Wellington



Air Power Development Centre
Level 3, 205 Anketell Street
TUGGERANONG ACT 2900

Ph: 02 6266 1355 Fax: 02 6266 1041
Email: airpower@defence.gov.au
Web: www.raaf.gov.au/airpower

