



REALISING TRUE NET-CENTRIC CAPABILITY: INTEGRATED READINESS MANAGEMENT

Network Centric Warfare (NCW) is a concept first introduced by US Vice Admiral Arthur Cebrowski and Mr John Garstka in an article in the US Naval Institute Proceedings in 1998, and subsequently described in a book of the same name published by the US DoD Command and Control Research Program. It reflects the US Joint Vision 2010 view of future warfighting as a system of systems and describes the value of increased effectiveness gained through the linking of dispersed forces.

The NCW concept has since been embraced widely by military forces across the world, under varying terms but with a common theme of force multiplication through sharing of situational awareness information and the harmonisation of manoeuvre to achieve unity of effort. The ADF introduced its NCW Roadmap in 2005, which was updated in 2007 to better summarise the initiatives and milestones for information integration of the force. It is now complemented by a supporting roadmap for improvement of Intelligence, Surveillance and Reconnaissance (ISR) capabilities.

In itself, technology integration initiatives can enable an improvement in effectiveness, but such a result is not assured unless other measures align the organisation, processes, training and culture with a net-centric approach. The NCW roadmap highlights the need to improve these aspects through research into the human dimension of NCW.

In the past, our raise, train and sustain arrangements in Air Force have been oriented towards achieving readiness of individual force elements. Regardless of the importance of NCW, professional mastery in such areas of specialisation will remain critical. Our requirements for professional mastery are well understood and have associated competencies and processes by which they can be measured to gauge readiness. The same might not be said in respect of force-level capability.

Our method of assessing force-level preparedness has been based largely upon aggregation of the levels of individual readiness, rather than any measure of how well the elements interoperate. Similarly, the doctrine and Tactics, Techniques and Procedures that address collective interaction are exercised periodically and rarely are effectively measured.

Thus, a conceptual view of the ADF approach to preparing for operations would feature a focus on specialisation during preparation, with the focus shifting to integration during operations. The extent of this shift brings about a corresponding level of risk, which is more prominent in joint and coalition environments. Too great a shift will mean that collectively we do not train as we fight. To quote a recent presentation from a USN Pacific Fleet commander, “the conflict zone is no place to be exchanging business cards”.



The challenge therefore is to ensure an adequate level of force level training whilst not impacting the attainment of professional mastery achieved through training within capability specialisations. Indeed, given the current tempo and demands upon our workforce, it is difficult to contemplate the burden of additional training. Nevertheless, there is merit in introducing an integrated approach to training and readiness management that balances specialised and force-level competencies through the following principles:

- Scenario-driven integration, based upon the likelihood that elements will need to interoperate and the benefits of training between these elements;
- Existence of associated doctrine, procedures and technology to support this interoperability;
- Use of synthetic training to complement live training; and
- Definition and measurement of training objectives to determine readiness and identify areas for improvement.

These four principles for integrated readiness management essentially translate as: establishing the need, enabling integration, training, and measuring readiness. The first two elements are satisfied through the existing preparedness framework and joint warfare doctrine, as well as the developing efforts on irregular warfare. A comparison of the needs for integration with current exercise activities would reveal gaps in our collective training to support integrated readiness.



Synthetic training is often referred to as Distributed Mission Training (DMT) in that it allows force elements from dispersed geographic locations to interoperate. It also allows training to be in the form of live, virtual or constructive capabilities, or a mix thereof. The benefits of using synthetic training to resolve gaps in our collective training are substantial. They include C2 integration, flexibility of employing elements within the force, tailoring exercises to meet collective and individual training objectives, ability to include aspects of the environment not easily replicated in a live environment, greater ease of scheduling training activities across multiple force elements, choice of live, virtual or constructive involvement (depending upon availability and respective training objectives) and the ability to achieve training objectives with resource efficiencies compared to live training alternatives.

Thanks to initiatives such as Joint Combined Training Centre (JCTC), Air Force will increasingly participate in synthetic training at joint and combined levels. This training will range from discrete and focused events (such as a 2v2 between a RAAF Hornet simulator and a USAF F15E simulator), to work-up and mission rehearsals (such as RAAF air battle managers practising working with allied virtual and constructive elements in a synthetic ISAF Battlespace), to virtual exercises (such as the Wedgetail simulator participating in a Virtual Flag exercise).

Another benefit of synthetic training is that it is well suited to integrated readiness management through objective setting and measurement, and after action review. Objectives can be deliberately established for typical scenarios and refined for more specific situations. Measurement against these objectives will identify required remediation and provide a more accurate indication of force readiness. A tool and method of readiness management has been trialled within various parts of the ADF and by JCTC in Exercise Talisman Sabre 07. Indications are that use of such tools in conjunction with integrated training activities will provide an effective bridge between the raise-train-sustain and operational environments.

The planned introduction of integrated training and readiness management will be gradual, having begun with Talisman Sabre 07 and continuing in 2008 with limited training events and use in exercises. This will help maintain and ensure recognition of our professional excellence in training and in operations. It will require understanding across Air Force of the benefits and a commitment to taking advantage of synthetic training and readiness management opportunities. In this way, we will train as we fight and Air Force's overall operational capability, effectiveness and survivability will benefit.

- *NCW creates force multiplication through sharing of situational awareness, information and the harmonisation of manoeuvre.*
- *Professional mastery is a primary requirement to build force effective force level training*
- *Synthetic training has a number of advantages that enhances integrated training*

"Through NCW, the ADF will continue the transition from a joint construct to an integrated force. An integrated, multi-agency response capability will be a key to success in the future strategic environment."

-Joint Operations for the 21st century



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