MULTI-DOMAIN INTEGRATION

'Success will require the idea [of multi-domain integration] to become embedded in the day to day culture of the organisation, it must become naturally and intrinsically pervasive across the entire force—from the strategic to the tactical levels.'

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The development of a more sophisticated model for the employment of a military force clearly indicates two fresh realities. First, it has been accepted that there has been an erosion of the holistic power projection capabilities of the force in the contemporary operating environment. Second, it is also true that in order to be successful, modern military forces must retain the in-built ability to continuously adapt and respond faster than potential adversaries to emerging challenges. A military force must be able to fight and win today's campaigns while developing the capabilities and a coherent model for their employment necessary to win future conflicts. This is strategic agility. Essentially strategic agility is the ability to synchronise these two time-divided horizons in order to create a force that can truly become an element of national power.

Even though military forces have been traditionally structured in the three physical domains—land, maritime and air—technological advances have brought in space as yet another physical domain and cyber and the electro-magnetic spectrum as two non-physical domains. The human domain, which can be further divided into the physical and the cognitive, add a further dimension to the complexity faced by military forces. The effectiveness of a military force is dependent on its technological advancement and the capability to operationalise innovative concepts and ideas. Multi-domain integration is one such idea.

Before attempting to define multi-domain integration, it is necessary to place this idea itself in its right place. It is

an idea that creates a model for the employment of military forces rather than generating a blue-print for a force design initiative. In turn, the joint employment of a military force is a direct function of single-domain professional mastery resident in individual Services. Historically, the initial move towards creating joint forces and subsequently to achieving seamless jointness between the three Services could be seen as precursors to multi-domain integration. Therefore, the idea by itself is a progression of the past. The difference is in the nuanced manner in which the idea is conceived to spread across all levels of war, and like all evolving ideas it is difficult to define in precise terms.

Multi-domain integration can be defined as an idea that creates the ability to integrate the individual and collective capabilities resident in each domain-centric Service into a flexible and reconfigurable whole in such a way as to ensure that the end-capability is greater than the sum of the individual parts in the mix; with the guarantee that the force design is tailorable to context. The focus here is on the ability to create a flexible design necessary to reconfigure the force. In contrast to a joint force, multi-domain integration creates the flexibility necessary to rapidly reconfigure the existing force to design a force fit-for purpose in a contextual manner.

Military forces that are relatively small numerically, like the Australian Defence Force, also face security challenges that are broadening, making it imperative for the military forces to find more innovative ways to fight and win wars of necessity. Even in military forces that are relatively small,

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the effective adoption of technological force multipliers will be able to lift them to the realm of being a middle-power force. These military forces have to maintain an 'edge' over potential adversaries in order to be an effective deterrent, and when required, to be a credible coercive force. As technology becomes readily available to most military forces, the numerically challenged forces have to be continually innovative in order to maintain the 'edge'—in terms of technology, concept development, training, education, and agility both tactical and strategic—that is vital to its success. The idea of multi-domain integration fits into this sphere of activity by providing an overarching strategic umbrella for the development of concepts at the strategic, operational and tactical levels.

At the conceptual level the idea of multi-domain integration is the one that creates a model that can be adapted to suit the requirements of a particular military force. The critical characteristic of this model is flexibility. Sufficient in-built flexibility within the model also caters directly to the need for the military force to be strategically agile. This model has to be developed at the highest strategic level of the force. When the idea of multi-domain integration is superimposed on the three levels of war—strategic, operational and tactical—through the model that has been created, the relationship between the idea and the realities of war become clear.

The starting point for multi-domain integration to take place if for the force to have a clear understanding of joint operations and the ability to conduct them effectively. If this has not yet been achieved within a force it will find it difficult to embrace the idea of multi-domain integration. Multi-domain integration could be seen as the final step towards achieving seamlessness in the military forces. So what is seamlessness in a military force? It is necessary to understand this concept in order to come to grips with the higher level concept of multi-domain integration. Although joint operations are conceived and commanded at the strategic level, its execution is focused at the operational level, as the name implies. Seamlessness in a military context does not mean that the force is devoid of seams that exist between domain-centric forces, it only means that an external observer or adversary will not be able to distinguish or see the seams that exist.

Only after a military force becomes seamless, not only by its own reckoning but also in the eyes of the adversary, can it start the process of multi-domain integration. In order to integrate, a domain-centric Service, must be designed to fit perfectly with the others, it must also establish common protocols regarding the exchange of information across the domains and, perhaps most importantly, know its place within the whole entity. The Services must start to manage their domains through a process of automatic and continuous interaction with each other that transcends the physical distinctions of their individual domains. The successful creation of such a military force is difficult because of the large number of variables involved, especially in the two non-physical domains.

Creating and maintaining a military force that has achieved true multi-domain integration will require almost continuous integration of combat capabilities of the domain-centric Services in a contextual manner. The fundamental requirements for a military force to create a model that is designed to achieve multi-domain integration can be listed as: being able to function seamlessly as a joint force at the tactical and operational levels; having the ability to create a strategic force-structure grid that is designed-for-purpose; the ability to devolve as well as accept operational and tactical innovation from and into the strategic grid; adequacy of the resilience inherent in domain-centric Services, arrived at through professional mastery of the domain; and the ability of the networks to withstand external and perhaps, more importantly, internal buffeting. Multi-domain integration is a vision of a bright future, although transforming this vision into reality will involve a long and arduous journey. The success of multi-domain integration will depend on whether or not the vision can be transformed to reality, an arduous task since the idea goes beyond being a mere vision for the future. Achieving such an integration is the only way a military force can prepare itself to meet the challenges that have yet to be foreseen in what remains of this century.

Key Points

- *The effectiveness of a military force is dependent on its technological advancement and the capability to operationalise innovative concepts and ideas.*

- *Multi-domain integration creates the flexibility necessary to rapidly reconfigure the existing force to design a force fit-for purpose in a contextual manner.*

- *In order to achieve true multi-dimensional integration, the Services must manage their domains through a process of automatic and continuous interaction with each other that transcends the physical distinctions of the domains.*