‘Military transformation is not an end in itself, but it is needed for reasons of both opportunity and necessity.’


The concept of military transformation is closely linked to the ongoing Revolution in Military Affairs (RMA), a process that aims to exploit the dramatic and exponential developments in the field of military technology to create unparalleled advantages over possible adversaries. The concept of transformational change has been one of the foundations for the development of military power for the past three decades. In fact, the ability of military forces to transform themselves rapidly has been the key factor in ensuring that they have been able to achieve the desired end-state in all the conflicts since the end of the Cold War. However, the concept of transformation continues to remain amorphous, and therefore complex.

The transformation concept not only ensures the optimisation of the performance of the forces but is a critical element in preparing the military to meet emerging threats and future challenges. While its criticality to military success is accepted through many analyses, it still remains an undefined concept. This in turn makes measuring its exact contribution to the success of military operations equally vague. Perhaps because of the ambiguous status of transformation, its importance has not been fully appreciated in the broader military strategic thought and tenets. Although not easy to define, a US Department of Defence policy brief from September 2003, Technology, Transformation and New Operational Concepts, defined the concept as:

A process that shapes the changing nature of military competition and cooperation through new combinations of concepts, capabilities, people and organisations that exploit our nation’s advantages and protect against our asymmetrical vulnerabilities to sustain our strategic position, which helps underpin peace and stability in the world.

While all military capabilities have been influenced by RMA, this Pathfinder looks at the impact of transformational change on the development, application and sustainment of air power. It must also be noted that RMA influences and affects different military capabilities in different ways and to different levels, dependent on their reliance on technology for their optimised employment. In this respect, air power has a unique relationship with RMA, since it is completely reliant on technology. To derive the maximum benefit from the on-going process, it is necessary to ensure that the RMA and the transformational change that it brings about is comprehensively accepted and requires the adaptation of all aspects of air power—organisation, force structure, doctrine and capability development.

The 1991 Gulf War was the first example of an ongoing RMA (it could also be considered the RMA, in many ways) and became the fundamental source for the subsequent transformation that took place in all aspects leading to the employment of air power. The reliance on, and uninhibited use of, computer and satellite-enabled networks in combination with Precision-Guided Munitions transformed the application of air power and the strategic effects that it could generate with ease. This transformation granted air power an unprecedented capability to identify, locate, track and neutralise chosen.
targets. Immediately after the 1991 Gulf War, air power capability and its application were fine-tuned, and the next step in the transformational change with respect to warfighting was instituted. The next step was to link the platforms and systems of individual services into a common network in order to maximise and focus the effects the joint force could produce.

The concept of transformational change, especially in respect of air power, provides the wherewithal to adapt the capabilities meant to fight and prevail in a high-tech state-on-state war to be effective in smaller irregular wars, which have different characteristics and trends. Further, transformation, could in certain circumstances, compensate the lack of quantity through the creation of superior quality of competence, capability and efficiency. In other words, air power has been able to replace mass with the creation of focused effects to achieve the same strategic objectives. While air power could be considered to have been the first element to embrace and demonstrate this somewhat radical concept, both land and maritime power practitioners were quick to follow suit. Early in the 21st century, transformational change permitted not only the conduct of effective joint operations, but also provided the military forces to reduce the size of the fighting component while successfully increasing their fighting power and effectiveness.

In the contemporary global security scenario, the more developed nations of the world have been compelled to deploy their military forces to undertake nation-building and stability operations. Only by embracing the concept of transformational change have the military forces been able to move away from their ‘Big-War’ orientation and adapt to the vagaries of asymmetric and other irregular war phenomena. However, this success has come about only because of considerable intellectual and institutional effort at all levels of decision making—starting at the strategic and flowing seamlessly down through the operational into the tactical.

At the strategic level, transformation also has a direct connection to national security. This connection is far more apparent when the nation has a proclivity to employ military forces in the pursuit of national security objectives. In the current international security environment, air power as part of a joint force, could be called upon to undertake a breadth of missions and also to be at the vanguard of military power projection. Considering the low chances of needing to fight a major state-on-state conflict, transformational change will be the foundation on which the successful employment of air power will rest. The demonstrated efficacy of air power in irregular wars in the past two decades is testimony to the concept of transformation. Transformational change is aimed at ensuring that the military force achieves a rapid, high-technology enabled battlefield victory, which is aligned with the strategic objectives as dictated by national security imperatives.

On the one hand, successfully implementing the concept of transformational change is neither an easy task, nor is it within the capability spectrum of all military forces. On the other hand, air power is particularly attuned to accepting transformation, especially since air power as an entity within the spread of military capabilities, shares a close relationship with cutting-edge technology. In the contemporary world, where military forces function as a joint force and the effort is to achieve seamless integration of the three fundamental domain-delineated power projection capabilities, air power has the ability to lead the transformational change required to achieve national objectives. Transformation brings about the conduct of a campaign based on a common battle picture and situational awareness. The goal of seamless integration of a joint force can only be achieved through adopting and adapting transformational change. The concept of transformation, while still a complex and ambiguous process continues to underpin the efforts of military forces to become an integrated entity.

Key Points
- The transformation concept not only ensures the optimisation of the performance of the forces but is a critical element in preparing the military to meet emerging threats and future challenges.
- The concept of transformational change, especially in respect of air power, permits the adaptation of high-technology capabilities to be effective in smaller irregular wars, which have different characteristics and trends.
- Transformational change is aimed at ensuring that the military force achieves rapid, high-technology enabled battlefield victory, which is aligned with the strategic objectives as dictated by national security imperatives.