



EDITOR'S NOTE

A major transformation in the effectiveness of air power was witnessed during the First Gulf War in the early 1990s, a transformation that came to be known as the Revolution in Military Affairs (RMA). RMA manifested itself in varied military capabilities but the major beneficiary of RMA was air power. RMA came into public reckoning less than 25 years ago but since then, the advancements have been rapid, far more meaningful, and have cast into shade the euphoria of the early 1990s. Whereas RMA facilitated more effective prosecution of war, more recent advancements could well have altered the means of waging war, and, may be, even the very nature of war.

In the intervening years, major advances have been made in stealth, precision guidance, navigation, weapons, accuracy of weapon delivery, speed, reach, airborne radars, defensive systems, etc. Such advancements improved the effectiveness of air power but still represent only a heightened capability to perform the same tasks that much better. Far more important are the progress in space capability providing better net-centricity and situational awareness, and the maturing of Information Warfare (IW). Indeed, space and the cyber world have added two additional dimensions in warfare. Do these represent the real Revolution in Military Affairs?

Increasing use of space assets is at the heart of enhanced air power capability. Civilian use of space is also on the increase. Today, space is a \$300 billion industry and growing rapidly. Competition is also increasing and it will be foolhardy to assume that we can ensure peaceful use of space for all time. Militarily, our dependence on space is so great that maintaining one's own capability and degrading that of the adversary can yield war-winning benefits. Greater militarisation of space and the inevitable weaponisation of space is a foregone conclusion. Such activities will alter the way we prosecute wars and we must prepare for what the future holds. Will the first shots in a future war be fired in space?

The potency of cyber attacks is increasingly on display with significant results – the Stuxnet and Flash attacks are but examples. This form of war – and

it must rank as a war – is at a comparatively nascent stage. A large majority of nations is actively engaged in improving resilience from cyber attacks. The obvious corollary is that many countries are also improving their offensive capability in this field. Our reliance on computers, allied with communications in all walks of life, is so great that cyber attacks are bound to impact our commercial and military interests in a decidedly significant manner. What is worse is that such attacks have the great advantage of deniability. A point to ponder over is that even if the source can be ascertained, under what circumstances can a cyber attack be termed an act of war? Again, what do we need to do to deter such attacks and how do we signal our readiness to use offensive means at our disposal if we are targeted by a cyber attack? We must find answers. Most importantly, as cyber attacks could be used to undermine our command and control system, it is more than likely that a cyber attack will herald the start of a war. Thus, a future war could start not by hitting a target on the ground, at sea or in the air but in space and/or cyber sphere.

Two other issues merit attention. They are the phenomenal increase in the number and type of unmanned systems and the widely prevalent threat of terrorism. Unmanned systems, in their immense variety, comprise not merely another form of aircraft but have immeasurably improved air power capabilities and made possible tasks and missions that could not be undertaken earlier. The progress being made in this field is exciting and its impact on future wars can only become more significant. Similarly, the threat of terrorism is on the rise and combatting it has led to the inclusion of newer systems and methodologies.

One can only wonder what the future holds and what humanity will think of next to cause loss, death, and destruction. Undeniably, the spectrum of conflict has widened and different phases in the spectrum of war could occur simultaneously. Many newer tasks have been included in the military lexicon but the list remains incomplete. Readiness and preparedness is the name of the game and, in this respect, air power can, and must, take the lead.

Happy reading.

