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ASYMMETRIC AERIAL THREATS PART I: UNDERSTANDING THE CONCEPT

'A destroyer, even the brave might fear. She inspires horror in the harbour and open sea and goes into the waves flanked by arrogance, haughtiness and fake might. To her doom she progresses slowly, clothed in huge illusion, for awaiting her is a dingy, bobbing in the waves.'

Osama Bin Laden,
Speaking about the USS Cole incident.

The attack by a combination of drones and cruise missiles on 14 September 2019 on Saudi Arabian oil production facilities brought into focus the increasing danger posed to high value targets by asymmetric aerial threats at the sub-conventional level. These attacks resulted in a five per cent reduction in global oil supplies and an increase of nearly 20 per cent in oil prices across the world. The attack was a graphic demonstration of the capacity of elements of air power to be employed in an asymmetric manner to cause disproportionate damage and disruption at the strategic level. At the operational level it demonstrated the ability of the drones—uninhabited aerial vehicles (UAVs)—to 'fly under the radar' and defy some of the most sophisticated air defence systems of the world to accomplish mission objectives with a high degree of assurance of success.

The aftermath of a drone attack on an Aramco factory in Abqaiq, Saudi Arabia.
Image Credit: Reuters

Resorting to asymmetry in conflict is not a new concept and has been practised since the beginning of organised warfare. A militarily weak side relies on asymmetry to balance the unequal power equation with a conventional foe who has a preponderance of power. In recent years such entities are reaching out to cheap aerial capabilities to achieve greater asymmetry. It is certain that asymmetric aerial threats are bound to proliferate with the easy availability of small and expendable UAVs, popularly called in the media 'drones'. The employment of these UAVs for a variety of purposes, especially in a suicidal mode, will become major threats to nations within and at the fringes of on-going insurgencies as well as irregular and civil wars.

Ivan Arreguin-Toft reviewed all irregular wars that were fought between the years 1800 and 2003 and published the results in a book titled *How the Weak Win Wars: A Theory of Asymmetric Conflict*, in December 2005. The analysis brought out some very interesting statistics. In all the conflicts reviewed, it was found that the stronger conventional forces won in 71.5 per cent of the conflicts, while the other 28.5 per cent was won by the so-called weak adversaries. This translates to the irregular forces having a one in four chance of emerging as the victor in the irregular war that they were fighting. The author went on to analyse further and demonstrated that when an irregular force resorted to the employment of optimised asymmetry, the chances of their success increased dramatically.

When these statistics were further sub-divided and analysed more critically, some improbable numbers came to the fore. It was seen that from the year 1800 to 1850 the stronger, conventional forces won the irregular war 88.2 per cent of the time. It was also seen that during this period the weaker adversaries were not adept at employing asymmetric means and used similar concepts of operations and tactics to the conventional forces. Obviously under these circumstances the preponderance of military power resident in conventional forces prevailed, rather easily.

The analysis of more contemporary conflicts, fought between the years 1950 and 2003 is more revealing. During this

period the winning percentage of the stronger conventional forces dropped to a mere 48.8 per cent. In common words, this meant that the weaker irregular force employing asymmetric means and methodologies was more likely to win the conflict against a more powerful conventional force. While the current spread of irregular forces may not be aware of this statistic, their on-going activities indicate that they are aware of the trend. Further, asymmetry achieved through concepts such as the employment of improvised explosive devices and suicide-bombers have been effectively countered in the past decade or so. The new *modus operandi* for irregular forces is aerial asymmetry created by the employment of expendable UAVs on suicide missions. A notable feature of this evolution is that the irregular forces are now stepping into a sphere of warfighting that has so far remained the exclusive purview of conventional forces. Arguably, air power has been the asymmetric advantage of conventional forces, which gets neutralised when the 'weaker' irregular adversary also leverages the characteristics of air power for their advantage.

Asymmetry is not a new concept and is unavoidable in conflict. It also is a matter of perception from the viewpoint of the analysing entity. For example, a conventional force would always consider sub-conventional operations as asymmetric, whereas an irregular force would consider such operations as standard and mainstream.

Asymmetry in the application of air power could be very broadly clubbed under three separate elements—asymmetry of technology, asymmetry of battlespace and asymmetry of concepts of operations. Asymmetry of technology is intimately connected to the asymmetry of force, i.e. of numbers and capability. An existing asymmetric advantage in technology can be deftly leveraged to neutralise numerically superior forces. Employing the asymmetry of the battlespace is a sophisticated concept and may not be possible for all irregular forces. Success in creating asymmetry in battlespaces requires the irregular forces to be able to retain the initiative as to the domain in which they want to operate and also the level—strategic, operational or tactical—in which they want to function. Asymmetry in the concepts of operations is more applicable to the employment of air power. The use of aircraft itself as a weapon system, like during the 11 September attacks on the twin towers in New York, is a classic example of such asymmetry.

Another asymmetric concept is the use of small and cheap UAVs to carryout indiscriminate and punitive aerial suicide-attacks on the general population that would gradually erode the 'will to fight', even if the targets are not

UA Flight 175 flies toward the South Tower of the World Trade Center while the North Tower burns

of any value to the adversary. The practical difficulties in preventing such attacks and uncertainty regarding the next attack will invariably undermine morale.

Asymmetric aerial threats created by the use of expendable UAVs have opened a new threat paradigm. When this concept is combined with the emerging concept of 'swarming', high value targets—even deep inside a country with sufficient strategic depth—become vulnerable. With the maturing of this concept, air power is entering a new area of activity and becoming the power-element of choice to wage asymmetric war against a conventionally more powerful and entrenched adversary. At the operational level, the asymmetric employment of UAVs have ensured that they cannot anymore be considered an adjunct to mainstream air power systems—their tactical missions certainly create strategic outcomes.

Key Points

- *Elements of air power have the capacity to be employed in an asymmetric manner to cause disproportionate damage and disruption at the strategic level.*
- *At the operational level UAVs have demonstrated the ability to 'fly under the radar' and defy some of the most sophisticated air defence systems of the world to accomplish mission objectives with a high degree of assurance of success.*
- *Asymmetric aerial threats created by the use of expendable UAVs have opened a new threat paradigm.*

Air Power Development Centre
F3-GF, PO Box 7932, Department of Defence
CANBERRA BC ACT 2610
Ph: 02 6128 7041 Fax: 02 6128 7053
Email: airpower@defence.gov.au
Web: www.airforce.gov.au/airpower