

PATHFINDER

AIR POWER DEVELOPMENT CENTRE BULLETIN



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BATTLESPACE SUPERIORITY TODAY

The advent of air power brought a completely different perspective to the concept of battlespace superiority. The basic two-dimensional model that had prevailed for centuries was irrevocably changed by the employment of aircraft in military operations. Obtaining battlespace superiority has always been a complex matter. Although the use of the third dimension brought another element into the equation, it also helped to alleviate some of the problems that commanders faced in the quest for battlespace superiority.

Technology has been an enabler on the battlefield. Innovative uses of technology have brought about improvements in all of the three elements that combine to create battlespace superiority—ISR, C2 and engagement. Therefore it is not surprising that in contemporary terms battle space superiority is almost a direct function of technological sophistication of a force.

It is now possible to gather intelligence, carry out surveillance or reconnaissance of an area of interest continuously for 24 hours a day and seven days a week for as long as necessary. This can be achieved not only by space-borne assets, which may not be accessible or affordable for a number of nations, but also by high altitude long endurance unmanned aerial vehicles. What is more, it is also possible to make the information available to the users by disseminating it in almost real-time.

Similarly, improvements in the command and control infrastructure now enable the commander to 'see' the tactical picture as it emerges and if necessary intervene. Technology has made C2 links, the lifeline of any operation, robust and redundant. This has increased the speed of decision-making, which is of cardinal importance in the battlefield. By its characteristics of rapid entry into theatre, speed of response and precision, air power engagement capabilities are now considered the preferred option in a majority of cases. Once again technology has provided air power with precision engagement options that were unavailable just a decade ago.

The outcome of the improvements that technology has brought in ISR capabilities, C2 and engagement has been the emergence of Time-Sensitive Targeting (TST) as the optimum tool in the quest for battlespace superiority.

TST is the classic combination of the three basic elements, and when applied in the appropriate manner can deny the adversary even the slightest of chances to contest battlespace superiority. TST, when used against leadership targets, creates a disproportionately high effect that can under certain circumstances even lead to a complete collapse of the adversary.

Conventional warfare could produce situations wherein the quest for battlespace superiority is a straight forward operation, based on the optimum employment of available assets. TST is the ultimate combination of military force projection capabilities and is difficult to execute effectively. In theory, it is possible to obtain battlespace superiority by the intelligent combination of adequate ISR, cohesive C2 and precision engagement capability. However, in practice, the difficulties in conducting TST as part of a larger campaign are numerous.



An early example of TST: in July 1944 a RAAF wireless unit heard a Japanese pilot tell his base on Selaru Island that he was about to land, information relayed to three Beaufighters in the vicinity which were able to destroy the enemy aircraft on the ground soon afterwards.

The first obstacle is the necessity to obtain engagement clearance from the appropriate level, which will more often than not be at the political. In a majority of cases, the time required for this would negate the advantages of TST. This situation could be ameliorated by delegating greater autonomy to senior military commanders. The major difficulty in carrying out TST towards creating battlespace superiority is the large amount

of resources required to make it effective. ISR of the calibre and quantum that would make TST a worthwhile operation is extremely expensive to obtain. The need for all ISR effort to be integrated and secure further exacerbates this problem. Highly redundant and reliable command and control networks are necessary to ensure that the operations are conducted within the ambit of the larger campaign. Engagement assets, that are available 'on call' at short notice are also resource draining. The developments taking place in Unmanned Combat Aerial Vehicles will at a future date make engagement a more cost effective option, but currently it is prohibitive in its resource intensity. Therefore, obtaining unlimited battlespace superiority even with sophisticated technology is not currently within the grasp of a majority of military forces.



"Negating battlefield superiority: aftermath of a roadside bomb in Iraq."

Further, having acclaimed technology as the foundation to achieving the required level of battlespace superiority, it is also necessary to understand that technology alone may not always produce the effects needed to reach the sought after end state.

If current trends provide any indication, conventional wars are unlikely to be fought in the future. This is partially brought about by adversaries who understand the technological superiority of major powers and do not contest battlespace superiority. Instead they resort to concepts of operations that change the very nature of the battlespace to the extent that technology by itself may no longer be an advantage in dominating it or gaining superiority. This kind of warfare could be termed

asymmetric, guerrilla, insurgent etc. In this situation the threats are diverse and unpredictable without adhering to traditional *modus operandi*. These tactics are aimed at denying a major force the advantages that it has by dominating the battlespace. Effectively the adversaries assure themselves a 'level playing field'.

This situation does not detract from the need to have adequate battlespace superiority to win battles and wars. However, the distinct delineation that existed between the end of conflict and the beginning of peace has been markedly blurred in the recent past. The conduct of an overall 'conflict' has undergone a distinctive change by encompassing 'restoring the peace' as yet another phase of the larger conflict. In such a condition, the criticality of battlespace superiority in winning the 'conflict' reduces somewhat dramatically.

The human dimension of threats and their repercussions will always have to be factored in the planning of any conflict. Today, technologically advanced forces have no assured way to ensure that omnipresent ISR, secure C2 and precision engagement capabilities translate to battlespace superiority. Battlespace superiority is necessary to win battles, campaigns and wars. But with the dynamic changes taking place not only in the conduct but also the concept of warfare, it remains an elusive goal.

- *Technological advances enables battlespace superiority*
- *Time-sensitive targeting critical*
- *Concept of battlespace changing to neutralise technological advantage*
- *Human dimension of warfare always a factor*

Warfare has become innovative rather than traditional.

– Arther Ferrill
The Origins of War (1985), p.162.



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