THE IMPACT OF AIR POWER

'We are now passing into a new age in which the material medium of human intercourse is going to be neither the Steppe nor the Ocean, but the Air; and in an air age mankind may succeed in shaking its wings free from their fledgling bondage to the freakish configuration of the surface—solid or liquid—of the globe.'

Arnold J. Toynbee, *Civilisation on Trial*, 1948

The advent of air power provided a new medium for intercourse between nations in conducting trade, communications, diplomacy and warfare. Therefore, the term air power is not restricted to solely military application. In simple terms, air power is the total ability of a nation to fly. In the span of a mere century, air power has shrunk the traditional concepts of time, distance, speed and direction into relatively meaningless dimensions. The reach and rapid reaction capability, in combination with the extreme destructive power of air-launched weapons, has made air power a dominant element in the art of warfare and national security. It is not surprising that the capability to exploit the third dimension, the medium of air, and deny its use to an adversary has become one of the underpinning requirements in securing a nation.

Air power was born in war, with air forces coming of age by 1918, at the end of World War I. There was phenomenal growth of commercial air transportation between the two great wars. During World War II, all arguments regarding whether or not air power was an instrument of national power were settled emphatically. By the end of World War II, the debate on the utility of air power revolved around the extent to which it was influential in determining the security and welfare of a nation. It was understood that air power, as an instrument of national power, had arrived. Air power had demonstrated its dominance in war and in the ensuing peace, it created a new appreciation of the time-distance relationship.

The influence of air power on all human activities was achieved in the span of a few decades and therefore was difficult to be fully comprehended. The first impact was that the advantage provided by natural geographic features as a means of defence was once and for all neutralised. The distance between nations, previously a consideration in military planning, took on a different meaning in the newly established time-distance reality. In other words, a nation can neither be impervious to attacks in the case of war, nor can it create assured security in-depth against an adversary with credible air capabilities.

In the second half of the 20th century, the increasing importance of air power, not only in the conflicts of the time but also in the field of commerce, made it a critical element in political considerations. From a military perspective, air power finally provided a satisfactory solution to the age-old challenge of meeting the principles of mobility and concentration of force in the conduct of war. Similarly, air power, in its more benign application, has made it possible to provide humanitarian aid during natural or man-made disasters, starting with the famous Berlin airlift in the immediate aftermath of World War II. It has also promoted peaceful commerce and exchange between people on a global scale including creating a vast industry of international travel, not possible just a few decades before.

The second impact of air power is more subtle and therefore, difficult to appreciate in a cursory manner. Since air power can only be countered by air power
can target the very nerve centre of a society, the necessity to maintain a ‘standing force’ has become an imperative in national security. The inability of a modern nation-state to prevent war in an assured manner is a key vulnerability introduced by the advent of air power, leading to the creation of deterrent forces. The so-called ‘arms race’ has been the result. Today, professional air forces of great capability have been created and are maintained at heightened readiness as a contributory element to the overall deterrent stance of a nation. The influence of the threat of air attacks on political thought and development of security strategies, even during times of relative peace, has been extraordinary. The exploitation of air power through its ability to control, and contest control, of the third dimension has created a lasting effect on the concept of national security.

The result has been that the political relationships between nation-states have been drastically altered. It is clear that not possessing sufficient air power capabilities will leave a nation at a severe disadvantage in the event of war. Since geographical barriers or position do not provide depth in defence, eternal vigilance is required to ensure national security. In terms of air power, this comes at a high price.

The third impact has been that although less spectacular than the military impact of air power, commercial aviation, along with information technology, has been a prime mover in what has been called ‘globalisation’ of the world. Aircraft have always been a means of transportation, though the nature of their military employment has at times clouded this fundamental fact. Barriers to travel and the movement of goods have now become purely man-made legal restrictions in terms of the right of entry, customs and the like. Like their military bomber counterparts, commercial aircraft challenge the sanctity of the long-term legal precept of ‘national sovereignty’ itself. While sovereign airspace has been legally defined, the wherewithal to defend it comprehensively is possessed by only a few nations and therefore, for all practical purposes, international airspace is a pervasive element of the global commons.

The three impacts reiterate the fact that air power is indivisible—military air force and civil aviation are two sides of the same coin that contribute directly to national power. However, there are a number of factors that directly influence the development of national air power. The first, and perhaps the most important, is the availability of economic resources to acquire the necessary capabilities that form the foundation for air power development. The contemporary sophistication of aeronautical technology is such that very few nations can afford holistic manufacturing industries for the construction of air power systems. In turn, this means that the air power capabilities of a middle-power nation become intrinsically attached to its political affiliation with the more powerful nations of the world. In a cyclic manner, it can be seen that air power impacts the politics and strategic security of a nation and that politics influences the ability of a nation to acquire, maintain and efficiently operate air power systems.

Air power, however, is not merely about resources and political alliances. It also requires a complex technological ability resident within the nation to optimise its employment, in peace and war. In turn, a national ability to have sufficient technological depth has to be created through a concerted education program that promotes a technology orientation across the student spectrum.

Air power today is one of the most dynamic elements of national power—capable of furthering peace, stability and progress or dramatically threatening the general security of a region.

Key Points

• The advent of air power neutralised the advantage provided by natural geographic features as a means of defence for a nation.
• Since air power can only be countered by air power, it became necessary to maintain a ‘standing force’ to ensure national security.
• Commercial aviation along with information technology has been a prime mover in what has been called ‘globalisation’ of the world.