Air power today is a critical element in the successful conduct of maritime operations. In fact, truly ‘blue water’ capability cannot be claimed without air power—either deck-launched or shore-based. Historically, the employment of air power in the maritime domain is as old as its application on land. The first time a ‘bomb’ was dropped from an aircraft was during the Italo-Turkish War in 1911 and in the same year an aircraft was deployed from USS Pennsylvania, a cruiser of the US Navy. Around the same time, the Royal Navy also launched aircraft from a few of its existing ships.

Even prior to World War I there was an appreciation that aircraft could provide commanders at sea with information regarding the enemy beyond the horizon of the surface fleet. However, these aircraft were limited in their range and were only of marginal utility. A shipborne aircraft carried out the first successful torpedo attack against a German ship in 1915, while it was in harbour. During World War I, the focus was on maritime reconnaissance and anti-submarine warfare conducted by shore-based aircraft, which demanded that answers be found to the challenges of long-range navigation at sea, air-to-ground/ship communications and ensuring the accuracy of the weapons dropped.

Rapid development in aviation capabilities—in its doctrine, concepts, technology and operational application—exemplified the inter-war years. In the maritime domain, the possible impact of air power and the threat they could pose to maritime trade, the central artery for national prosperity, was well-recognised. The fundamental need to protect the sea lines of communications, especially against enemy submarines, established the anti-submarine role of air power in maritime operations. The other role to emerge, conceptually, was the need to be able to project air power into the adversary heartland from both land and sea-based assets. Flowing from this was the requirement to achieve control of the air over the operating area of the sea—the answer was found in the development of aircraft carriers. Carrier-based aircraft could launch strike missions, dominate the operating area and wage war against the adversary’s combat assets, both ashore and afloat. Further, they also have the added advantage of not having to obtain host country agreement to contribute to land-based operations. A classic example of carrier-borne aircraft providing strike capabilities in support of a land campaign can be seen in the early stages of Operation Enduring Freedom in Afghanistan.

Even before the start of World War II, air power had become an essential element of maritime forces. Naval aviation developed along two distinct lines, which are still prevalent even today. The first was shipborne aircraft that function as an integral part of a naval task group, which carry out the roles of air defence of the fleet, strikes against maritime targets, both surface and sub-surface, and reconnaissance. The second stream was shore-based
maritime aircraft with long range and endurance employed for large area surveillance and reconnaissance and carrying out strikes against surface ships and submarines. By the early stages of World War II, the navy had moved considerably on the path to becoming a ‘sea-air’ service. The major navies of the world had switched to the aircraft carrier as their capital ships. This move was the harbinger of the demise of the battleship that had so far been considered critical to winning maritime battles.

It was during World War II that naval aviation came into its own. Its critical influence and decisive impact on the outcome of campaigns were felt in all theatres of the War. Surface ships and submarines of both the allies and the axis powers came under attack from both shore-based maritime aircraft as well as carrier-borne fighters. Perhaps more important but a less mentioned role of maritime aviation was the critical part it played in protecting merchant shipping and seaborne trade, which was vital for sustaining the war effort. History demonstrates that maritime aviation made a crucial contribution to ensuring that the sea lines of communications were kept open.

The Japanese Navy’s attack on Pearl Harbor on 7 December 1941 could be considered the definitive coming of age of naval aviation as a distinctive element in military power projection capabilities. The Japanese carrier-borne aircraft flew a distance of nearly 300 miles and carried out a massed torpedo attack that sank or severely damaged seven of the eight US Navy battleships berthed in the harbour in an exuberant demonstration of the prowess of carrier-borne aviation. A few months later, in mid-1942, the Battles of the Coral Sea and Midway Islands were the first sea battles where aircraft carriers employed their embarked aircraft to achieve the desired effects without the surface forces having to come within gun range distance. The aircraft had replaced the gun as the primary offensive weapon in sea battles. Although the term ‘revolution in military affairs’ (RMA) was coined at a much later date, the offensive use of aircraft to win battles when the competing surface ships were not even in sight of each other could be considered the RMA of the time. From 1942 onwards, any maritime surface force operating without embarked air assets would be considered deficient in its offensive capabilities.

The primacy of air power at sea was recognised by the end of World War II. Therefore, all major navies planned to develop/acquire their own naval air arm and nearly a dozen navies came to possess and marginally operate aircraft carriers in the few decades following World War II. In the second half of the 20th century, aircraft carriers and their embarked air power assets were used as quick reaction capabilities to contain or respond to emerging political and/or military crises in global hotspots. The list is almost endless—Korea (1950), Lebanon (1958), Taiwan (1958 and 1996), Kuwait (1961), Cuba (1962), Vietnam (1964), Libya (1981), Falklands (1982) and the multiple crises in the Middle-East over the past four decades.

The recognition of the efficacy of carrier-borne air power to respond to various contingencies and the fact that aircraft carriers were considered cost-effective as well as instantly mission-ready made the US develop nuclear-powered aircraft carriers. In turn, these carriers greatly expanded the operational envelope of seaborne air power and its ‘staying power’. Similarly, many technological innovations such as catapult launch and arrested landing, angled deck and ski jump greatly improved the efficiency of maritime air operations. The introduction of other sophisticated technologies—electronic warfare systems, improved intelligence, surveillance and reconnaissance capabilities, enhanced command and control systems and sonar and sonobuoys for anti-submarine operations—have enhanced the effectiveness of maritime air power, whether shore-based or seaborne. The aircraft carriers themselves have become floating air bases capable of launching the same quantum of offensive air power as that of a small air force.

Control of the air over the area of operations at sea has become a prerequisite for victory in maritime operations. The aircraft carrier, with its speed, mobility and flexibility to operate large numbers of aircraft for sustained periods, provides the necessary control of the air for other naval forces to conduct their operations without undue interference from adversary air and even maritime forces. This is the fundamental advantage that air power provides to maritime operations.

Key Points

- A maritime task force within range of an adversary’s air power requires to be provided with air cover and friendly control of the air.
- A ‘blue water’ fleet may not be assured protection from enemy air action by shore-based aircraft because they could lack the range to do so effectively.
- Air power is a critical element in the projection of power through maritime operations.