Effects-Based Operations (EBO) is a term and a concept that is difficult to define precisely, with a large number of definitions available in the literature on the subject. Perhaps the one that comes closest to being definitive is the one provided by the US Joint Forces Command that states, ‘[EBO is] a process for obtaining a desired strategic outcome or effect on the enemy through the synergistic and cumulative application of the full range of military and non-military capabilities at all levels of conflict.’

Over the past three decades or so, the development of air power concepts of operations has been almost fully based on the need to create the necessary effects that would support the joint EBO. Success in this endeavour has been somewhat diffused, less than optimum and not always assured. This situation indicates that a more in-depth analysis of the factors that influence the application of air power must be undertaken to ensure the correct trajectory for the development of concepts of operations.

The strategic development of air power has long suffered from the disadvantage of a lack of inclination and motivation to carry out detailed analysis of its own progression and evolutionary needs. Sufficient intellectual capital has not been invested in understanding and then creating the path for air power to evolve as an effective envelope force capable of creating the necessary effects to achieve the desired political end-state. For the first century of its existence as a military force element, air power has laboured within this restricted environment, where intellectual capacity for future development has always been constrained. The main reason for this malaise perhaps lies in the nature of air power that attracts people with a proclivity for action more than for intellectual investigation that leads to sustained development of theories and concepts.

The contemporary trend to box air power, its concepts and application into a contextual war against irregular forces, when viewed against the broad spectrum of conflict scenario, is incorrect. In order to realise its full potential and from a developmental point of view, air power must be conceptualised in the context of conventional wars. This is so because success in conventional wars requires the employment of the full spectrum of air power capabilities, before, during and after the conflict. In turn, only the availability of full-spectrum capabilities would permit the contextual tailoring of air power application necessary to cater for emerging circumstances.

Air power thinking and concept development must remain broad-based in order to retain the flexibility necessary to overcome operational and tactical challenges and peculiar battlefield issues. Overcoming operational and tactical challenges is critical to the success of air power application but they only form a small although crucial input into the capability development process. The major influence will have to be a broad assessment of national
security needs to ensure an extended horizon for capability development.

Air Power developmental thinking in the early days was dominated by the ‘strategic school’ of thought that tried to position air power as the element that would win wars rapidly and at lesser cost in treasure and lives. This concept was a direct result of the traumatic carnage experienced in the trenches of World War I. In a somewhat lackadaisical manner, the use of the atom bomb at the end of World War II was viewed as validating the concept of strategic bombing to ‘win wars’. Thereafter, a series of concepts—such as the air-land battle that were developed—reinforced the conventional view of air power as being predominantly a support element for surface operations. This, somewhat unforeseen development, clearly demonstrated the less than optimum understanding and lack of analysis of air power capabilities and their technology-enabled exponential growth. The same lack of incisive analysis was visible when air power absorbed Colonel John Warden’s appreciation of the enemy as a system of systems and adopted EBO as the prevalent concept for the application of air power.

Why has it become increasingly important to analyse new concepts before employing them? Air power today is an instrument of national power that can be applied with precision, proportionality and discrimination to create the desired effect across a broad spectrum of activities—from delivering humanitarian aid to fighting a war of national survival. This spread and depth of air power capabilities make it imperative to analyse the applicability of concepts before they are employed. The reason could be that air forces as institutions did not possess the intellectual depth required to cultivate a culture based on inquisitive analysis at the conceptual level. Problem solving efforts were focused on tactical challenges—as action-oriented people almost always do. Pragmatic questioning of the veracity of a concept that had been proven once in employment was a bridge too far. EBO remains in this basket.

The celebrated success of air power in Operation Desert Storm returned the strategic school to centre stage, making air power enthusiasts reiterate the claim of air power being an independent war-winning force. This claim was further reinforced by the demonstration of air power’s success in the limited engagements in Europe in the 1990s, mostly against non-air power possessing adversaries. No doubt, these air campaigns were brilliant in their execution and achieved conclusive results. However, on the other hand they negated a climate that was conducive to developing an analytical culture within the air power community. They did not anticipate the on-coming irregular wars in which air power would get embroiled, starting with Afghanistan in 2001 and continuing to the present day.

The core concept of EBO is that devastating fire power, delivered with precision on pre-selected targets of strategic importance will create the desired effect. The associated calculations, like its effect on the general population and on post-conflict stabilisation, are glossed over in the selection of priority targets, which were mainly aimed at changing the behaviour pattern of an adversary. The fundamental requirement to influence the belief system, the basis of winning an irregular conflict, does not feature in the operational level EBO concept. EBO, whenever it has been applied, has so far achieved effects that only alter the behaviour pattern, especially of the adversary leadership, which is at best transitory. Strategic paralysis, achieved through the application of overwhelming force, has no place in irregular wars.

A basic blemish in the development of air power theories has been the flawed perception that a proven concept has universal validity. This is the first step towards becoming dogmatic and reality disproves this premise. The prevalent analytical stasis creates a loss of flexibility in air power employment and is the first step towards assured failure. The current impasse, where air power is falling short of expectations in the on-going irregular wars is a case in point. Air power theorists need to act now in order to rejuvenate the analytical approach to air power concept development and application if the current situation is to be avoided in the future.

### Key Points

- **Over the past few decades, the development of air power concepts of operations has been based on the need to create the necessary effects to support the joint EBO.**
- **The core concept of EBO is that devastating fire power, delivered with precision on pre-selected targets of strategic importance will create the desired effect.**
- **The strategic development of air power suffers from the disadvantage of a lack of inclination to carryout detailed analysis of its own future progression.**