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What Is Airpower?

By Alexander P. de Seversky

"Most everyone is for airpower these days, yet the term means different things to different people." So said the editors of AIR FORCE Magazine in introducing a piece by Alexander de Seversky, the airpower theorist. His title—"What Is Airpower"—made things seem simple. Even de Seversky, however, had to take a few swings at it. In July 1954, he wrote a version for the American People's Encyclopedia. The version in the August 1955 issue of AIR FORCE added two long notes. De Seversky wrote three more notes before, having completed his work, he rested. (All five additional notes are included at the end of this article.)

Airpower is the ability of a nation to assert its will via the air medium. The military instrument by which a nation applies its airpower is an air force. In time of peace, the existence of an air force of proper size and capabilities—what is termed an air force in being—can be used by a country to implement its national policy.

In time of hostilities, the primary use of airpower is for the establishment of command in the air, the condition in which one side retains its freedom of air navigation and has the ability to deny that freedom to the enemy. Freedom of air navigation when maintained by one side through successful, sustained combat is known as air superiority.

Because the aim of war is to impose the will of one side upon the other, the enemy must be disarmed; his industrial power to make war and the stockpiles of his armed forces must be neutralized. For that reason, the offensive air force must carry the threat of a lethal dose of destruction.

Though the main objective of war is to disarm the adversary, it must be assumed from the outset that the belligerents' industrial vitals and other sinews of war will be properly shielded by a defensive air force and that access to the decisive targets will be challenged. It is for this reason, as well as to deprive the enemy of his retaliatory capacity, that the primary mission of the air force must be the elimination of the opposing air forces, through (1) the destruction of its operational facilities and equipment on the ground and (2) combat in the air. This is termed air battle.

In the past, when the range of aircraft was limited, it was possible to maintain local command of the air. Global command of the air could be achieved only after the establishment of a worldwide complex of air bases so located, that in terms of a given practical range of aircraft, their air peripheries would interlock to form an uninterrupted air canopy over the theaters of operation. This arrangement was not unlike the system maintained in the nineteenth century for sea power, which, for the exercise of its global functions, required the establishment of bastions of naval strength on foreign soil throughout the world.

There are emerging among the major powers, however, aircraft, that for all practical purposes possess global range. They can rise directly from their respective home bases, strike at any target in the northern hemisphere, and return nonstop. At the current rate of advance in aeronautical science, it is only a matter of a short time before aircraft of a truly global range (25,000 miles) will be a reality. In the meantime, global range is being achieved through the perfection of in-flight refueling.

Because of this global range, airpower can be applied directly from the continental base of its industrial origin without intermediary bases and the international complications attendant upon their establishment and maintenance on foreign soil. In that respect, airpower represents, diplomatically, an instrument of national policy that is superior to its predecessor of the last century, sea power, the worldwide deployment of which was often branded as imperialistic and aggressive. With the development of the global range of aircraft and the advent of nuclear weapons, local control of the air anywhere on the face of the earth, except over the continental base of airpower containing the source of its industrial origin, can no longer be maintained. Thus, intermediary bases have become not only unnecessary but actually untenable. It follows that the base of air operation should be so located that any attack against it will involve for the attacker the risk of engaging the entire air might of the nation. (This proposition, incidentally, defines the airpower of the British Isles. Although an insular nation, Britain possesses a vast industrial complex and a large, technologically skilled population. She is a source of airpower of global significance that is capable of accepting a challenge to her air sovereignty.)

It follows, also, that because local control of the air cannot be maintained, airpower can no longer be applied on a sustained basis against a continent from intermediary bases located on its periphery, whether those bases are fixed on land or are floating, as aircraft carriers. If, for example, a floating base ventures beyond the protective canopy of a friendly continental air force, it becomes untenable. It stands to reason that, like an intermediary base, a floating base can never contain enough airpower to challenge or ward off the entire air force of a hostile continent. Further, with the development of nuclear weapons of a size conveyable by small, supersonic aircraft, the floating base, like any other intermediary base, becomes extremely vulnerable and once destroyed, has no powers of recuperation.

From the above assumptions, it becomes clear that command of the air means a global command, exercised directly from the continent of its industrial origin. Either one controls the entire air ocean clear around the globe or one controls nothing.

In defining airpower, military experts have invariably paraphrased the historic definition of sea power, maintaining that airpower includes a nation's air force, the military aviation of its other services, its civil aviation and civil air transportation system, its aircraft industry, and the aeronautical skills of its population. In other words, they have held that airpower comprises that entire portion of the national effort that expresses itself in aircraft, their crews, and their operation facilities.

In the strict military sense of differentiating the respective strategic roles of the land, sea, and air forces, such a definition of airpower can be challenged. The reason the sea power formula is not applicable to airpower is that the movement of ships is naturally confined to their medium, the water, and cannot directly participate in, or compete in

parallel with, overland movement. It is logical, therefore, that the national effort that culminates in ships, their crews, and their operational facilities constitutes strictly sea power. On the other hand, it has never been claimed, for example, that Army ordnance facilities and skills, although applicable to the production of naval guns, constituted sea power—the reason being that those facilities were irrevocably committed to the maintenance of the Army.

Unlike sea craft, the aircraft is an extremely versatile vehicle, which not only participates in and competes with all methods of transportation on land and sea, but with the development of hovering machines and such as helicopters, extends its application to other forms of motion, serving in effect as gigantic elevators, escalators, and hoists. As in the foregoing example of Army ordnance facilities in relation to sea power, it can be argued that aircraft designed for and committed to surface forces do not constitute airpower. It is quite possible for a nation to have an amorphous mass of aircraft, even in prodigious numbers, and still have no airpower.

To put it another way, it is utterly immaterial whether an airplane rises from land or from water or from a catapult. What determines its definition as a land, sea, or air weapon is what it is designed to do after it becomes airborne. If designed to assist and increase the efficiency of land and sea forces in attaining their objectives, it is not an instrument of airpower. Only when an aircraft is designed to assist and increase the efficiency of the air force in its task of establishing command of the air is it an instrument of airpower.

A strategic force can be defined as a military force capable of assuming the command of its own medium by its own combat resources. Until the advent of the airplane, the Army and Navy were valid expressions of the nation's ultimate military power on land and sea, respectively. With the development of aircraft, however, that ceases to hold true. No longer the masters of their own mediums, in which airpower can at will decisively interfere with their functions; those forces have lost their strategic significance. Conversely, the surface forces cannot on their own initiative interfere decisively with the functions of the air force. Consequently, the air force is the only strategic force, because it is the only force that can attain command of its own medium by its own combat resources. Thus, the air force has become the primary instrument of the nation's military strength.

Because in a major conflict surface forces can no longer successfully fulfill their missions unless the air above them is controlled by a friendly air force, command of the air becomes the crux of war and an end in itself. (This principle, of course, is not applicable in the case of limited, localized conflicts, the conduct of which is often governed by political considerations in defiance of military logic. Thus, in Korea, the United Nations' air forces were confined to the support of the ground forces and were prohibited from attacking the enemy's air bases or the industrial sources and stockpiles of his military strength.) Only when undisputed command of the air has been established can these other military services carry out their mission of an exploitation, on the surface, of a climactic decision won in the air. Until then, their efforts must be directed toward supporting and assisting the air force in its primary task.

In order to acquire maximum airpower, a nation must adhere to these principles of military art: singleness of purpose, unity of command, and concentration and economy of force. This means that the entire airpower potential of a country must be unified, under a single air command, into a single force—an air force in being that can go anywhere and do the necessary.

Therefore, it can be stated that airpower may be considered the supreme expression of military power and rests upon the entire human and material resources of the nation.

ADDITIONAL NOTES

(1) The term "defensive air force" embraces defensive aircraft and their ground operational facilities, together with the nation's entire detection and warning complex and ground to-air missile and vehicle systems.

(2) An important fact to be kept in mind is that the advent of nuclear weapons does not change the nature of airpower. With atomic warheads becoming common to all military forces, the supremacy of the Air Force as an instrument of war lies not in the nature of the explosive it employs, but in its superior and global combat mobility through the air medium, as contrasted with the inferior and geographically limited combat mobility of land and sea forces in their respective mediums.

The acquisition of aircraft by land and sea forces for logistic purposes does not alter that axiom. The acquisition of aircraft by those forces for air combat is tantamount to creating separate, competitive air forces, an act which defies the basic military principles of economy of force and unity of command, with resultant overall weakening of the airpower of the nation.

(3) Like sea power, which formerly controlled the water medium, i.e., the surface of the sea and the depth below, thereby exerting a decisive influence on insular land masses, airpower controls the air medium and the space above, and thereby exerts a decisive influence on the entire surface of our planet. Since there is no definite demarcation between the earth's atmosphere and the outer space beyond, and since air/space vehicles no longer necessarily depend on the earth's atmosphere for propulsion and sustenance, airpower and space power can be considered synonymous. Consequently, the postulates presented hereinabove to defense airpower remain in equal force when applied to the term "space power."

(4) Since airpower is likewise space power, long-range unmanned air vehicles, ballistic missiles, and space vehicles and satellites are all equally logical weapons of airpower, to be wielded by and air force. This conclusion is further supported by the fact that, even at the present state of the aero-thermo-dynamic art, there appears to be no eventual limit to the speed, range, or altitude of manned air/space vehicles, which may even exceed the performance of some unmanned air/space vehicles, including ballistic missiles.

(5) The detection, interception, and destruction of all such vehicles, either at their point of origin or anywhere along their trajectory, through appropriate countermeasures of collision or other means, constitute a legitimate phase of air battle

and are the mission of the Air Force, irrespective of whether the geographical location of the action is over land or over sea.

This being so, the basic military principles of economy of force and unity of command apply to all employment of any air/space vehicle. Thus, again, the inescapable conclusion is that the air ocean with its outer space extension is one and indivisible and must be controlled by a single, homogeneous force—under a single command—at the apex of the military establishment.

Although, for the time being, land and sea forces may justify the use of air/space vehicles for point defense of their respective forces while joined in battle with their opposing counterparts, such use is highly transitory. As has been shown hereinabove, the ascendancy of airpower was marked by a corresponding decline in the strategic significance of land and sea forces. The further expansion of airpower's influence, through supersonic mobility and limitless ranges and altitude, will impose further combat limitations on surface forces by denying them, in toto, the exercise of strategic mobility in their respective mediums. Their employment consequently as a military force in an international conflict can no longer be profitable until the supreme question is resolved as to which side has the sustained power to use air/space vehicles and the capacity to deny that use to the opponent.