

THE INFLUENCE OF AIR POWER UPON HISTORY

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(editor)

THE INFLUENCE OF AIR POWER UPON HISTORY

Walter J. Boyne

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This book is dedicated to the airmen and airwomen of all nations.

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Introduction

It was with no little trepidation that I chose to use a title so closely matching that of one of the most important military books of its time, Alfred Thayer Mahan's *Influence of Sea Power upon History, 1660-1783*. As the following pages will reveal, it is not my intent directly to compare Mahan's ideas on sea power with ideas on air power, nor to make obvious every parallel that could be inferred from reading both books.

Instead, the present work is intended to look into the development of air-power philosophy over its history by examining the theory and practice of air power as demonstrated not only in war, but also in politics, diplomacy, technology, and mass culture. To do so necessarily involves recounting the history of air power on a selective basis, choosing as examples historic events that demonstrate the influence of air power—or in some instances, the failure of air power—to influence events.

There is a considerable body of literature on air power, much of which is centered on arguments as to whether air power is or is not *decisive* in warfare. These arguments will be examined on their merit, but the principal thrust of the book is implicit in its title, that is, the *influence* of air power on history. From a surprisingly well organized if comparatively small beginning in the early days when balloons defined air power, this influence has grown from being considerable in World War I to tremendously important in World War II and thereafter. The concept of whether or not air power was or was not decisive in any particular situation will be dealt with as required, but it is important to repeat that the *influence* of air power extends far beyond war or the threat of war. I believe the reader will find that the influence of air power has in many instances been far more

important than any question of its decisiveness in battle, for it has affected the direction of national policies, the growth of industries, and perhaps most important, the rapid advance of technology, even in times of peace.

This is fortunate, for questions about both the influence and the decisiveness of air power were never more important than today, when the world is faced with an entirely new kind of terrorist-driven war-making, with new kinds of enemies, shadowy groups of warped individuals who murder in the guise of religion. These new enemies have converted their weakness in numbers and arms into the terror of an especially depraved concept of “asymmetric warfare” in which the killing of innocents of any nation is substituted for meeting the warriors of an enemy state in battle. Neither air power advocates nor naysayers ever anticipated the sheer perversity of the terrorists’ attacks, from bombing kindergartens to crashing highjacked airliners into buildings to the threat of using weapons of mass destruction in cities around the world.

These challenges will be met in the future, just as other new challenges of conventional or unconventional threats were met in the past. As a single example, the British responded to the totally new threat presented by Zeppelins and bomber aircraft during World War I, which, as we will see, brought terror to the populace and changes in force disposition to the military. Then, one war later, the British used many of the ideas developed in that early response to ward off what time and usage had converted to the conventional German bombing attack during World War II. These ideas included the use of early warning systems, a ground observer corps, audio direction finding (that was replaced by radar direction finding), and a centralized command and control of defensive air power.

Turning for the time being from this ultimate horror, it should be noted that this book also focuses extensively on the influence of personalities on air power, and thus their influence on history. There were marvelously gifted leaders in sea warfare, from before Nelson until after Nimitz, but there have been relatively few evangelists of sea power. The reason, perhaps, was that sea power was so much a given that it took a Mahan to reveal the full measure of its importance. Advocates of air power, in contrast, had to struggle to get their ideas across, often choosing a message so stridently optimistic that their credibility was inevitably lost. There emerged many forceful, articulate, and, it must be said, widely divergent personalities,

attempting both to define and direct air power. This came about in part because practitioners of air power by their very nature are forceful individuals and in part because the technology of air power changed so swiftly over time.

These personalities received widespread notice because there was a powerful factor abetting the influence of air power on history. This was the chronological coincidence of aviation, motion pictures, radio, and the growth in the influence of the press—the media as it is called today. Fictional concepts of air power predated the Wright brothers' first flights in 1903, but more serious expressions on the use of air power began to be heard after Louis Blériot's famous 1909 flight across the English Channel, a flight that told the world England was no longer an island. Over the course of the next half-century, ideas on air power and its use received a wide reception because people in general were vastly more informed about air power than their predecessors had been about sea power.

Indeed, they were often "too well informed" because air power became a tool and a target of intensive propaganda efforts. It was the case after World War I that people of democratic nations were conditioned to believe in the efficacy of the enemy air forces and to depreciate the effectiveness of their own air services. In contrast, people in totalitarian countries were led to believe that their air forces were invincible, while those of potential enemies were inferior. Fortunately, during World War II, both sets of beliefs proved to be incorrect.

Another factor in the greater influence of air power was that for many nations, particularly those in Europe, air power was endowed with an urgency that differed from the time-honored concepts of sea power. For the most part, the influence of sea power was perceived directly only by the sailors engaged in battle. The effects of the exercise of sea power might be felt later (and even disastrously, as in the case of the blockade of Germany in World War I), but they were rarely immediate, and usually experienced only if shells actually rained down on a coastal city in a raid or in some gunboat diplomatic action. In contrast, air power from the very earliest days presented an immediate, perceivable, and intimidating personal threat to individual citizens in their homes, beginning with the tentative but indiscriminate bombing of Venice as early as 1849. The citizens of London, Paris, and German frontier cities experienced aerial bombardment during World War I. The terrible bombing raids of

World War II gave the term “home front” a new and terrible meaning for much of the world. The continental United States did not face these threats until the advent of the Cold War, and (except for trivial Japanese pinpricks from submarine-borne aircraft and balloon-borne bombs) was spared an actual attack until the September 11, 2001, terrorist assaults on the World Trade Center and the Pentagon. America’s previous freedom from attack heightened the horror of September 11. It, and subsequent acts of terrorism, impinged on the consciousness of the American public in an unprecedented way.

The measurably greater influence of air power on public opinion, as compared to sea power, was in large part the result of the coincidence of new media technologies with the dawn of aviation. The first commercial film projector appeared in England in 1896 at London’s Alhambra Theatre, the start of a burgeoning interest in film as entertainment. This was just four years before the Wright brothers began their aerial experiments, and seven years before their first successful flight on December 17, 1903. By 1909, the two inventions, flight and motion pictures, had coincided at Centocelle, near Rome. There, on April 24, Wilbur Wright carried a Universal newsreel cameraman to make the first motion picture footage ever recorded in flight. There were no such things as “residuals” in those days, a misfortune for the photographer, for the film has been shown thousands of times since, often being represented as the first flight at Kitty Hawk.

For the next several decades, the importance of film to air power—and vice versa—grew rapidly, especially after the introduction of sound newsreels in 1927. The sight and sound of Lindbergh’s Ryan NYP *Spirit of St. Louis* bumping along the ground in its takeoff from Long Island’s Roosevelt Field electrified the world and helped start an explosive expansion in aviation. The newsreel became the medium by which the horrors of aerial warfare would become universally known as it recorded the tragic effect of bombing upon Guernica, Rotterdam, London, Hamburg, Tokyo, and hundreds of other cities.

Nor were newsreels the only place in which air power and film were mixed. Their mutual ties were demonstrated artistically in the same year as Lindbergh’s flight in the first motion picture to win an Oscar, William Wellman’s *Wings*. All over the world, the feature motion picture became a medium for advancing the cause of air power—or warning of its effects. Among these films, the 1935 British

epic *Things to Come*, based on the H. G. Wells novel, warned of the effects of air power and of weapons of mass destruction. In contrast, the 1941 American film *I Wanted Wings*, a rendition of Beirne Lay's book, was one of the most effective recruiting films of all time.

Newspapers were, for most of the century, of primary importance in forming public opinion. The grip of newspapers on the public imagination was enhanced by the aggressive editorializing typified by the Hearst publications and a combination of technical advances such as halftone photographs and typesetting machines. Flying was still a new and dangerous occupation, and almost any flight—and certainly every crash—received full coverage. Newspapers also adopted flying as a statement, with competing publishers using aircraft to transport reporters or to bring back the first photographs of a major event, such as a heavyweight championship fight.

In a relatively brief time, radio equaled then surpassed the importance of newspapers in the expansion of airpower's influence. While the existence of electromagnetic radio waves was first known in 1860, it was not until 1904 that voice transmission was demonstrated. By 1925, however, there were six hundred broadcast stations, and a booming industry in radios. Like the newsreel, radio fastened on each new aviation event with unbridled enthusiasm. By the 1930s, the voices of such stars as Charles Lindbergh or Amelia Earhart were as familiar (and as similar) as their faces. Perhaps the best-remembered single incident combining an aviation subject, newsreel film, and radio occurred on May 6, 1937, when the famed German Zeppelin *Hindenburg* exploded and crashed at Lakehurst, New Jersey, its death throes recorded indelibly in the broadcast words of reporter Herb Morrison. More ominously, Joseph Goebbels used the airwaves with remarkable skill to foster the impression of a mighty German Luftwaffe.

And while television came relatively late in the history of aviation, it has had a greater effect than all the other media combined for it was soon able to present events in real time. The whole world witnessed the arrival of Neil Armstrong on the moon and the return of the *Voyager* from its round-the-world flight. The world was able to watch tragic events as well, such as the bombing in Vietnam, the crash of the Concorde, or the terrorists' attacks on the World Trade Center. Television reinforces the greater power of its color images with the endless repetition of the events being covered. A radio message, once broadcast, was gone forever; a newspaper, once read, was

discarded. But the public's demand for twenty-four hours of news, seven days a week meant that the television screen became a bottomless maw demanding to be continually filled with images. As a result, channels must now relentlessly repeat the material they have gathered, particularly the horror-de-jour. A curious phenomenon of this endless repetition on television is that when people can no longer stand the current rehash, they often turn to documentary channels to review the history of past achievements or past horrors.

This confluence of very diverse technologies—mass newspaper coverage, film, radio, and television—provided individual advocates of air power with the mechanisms needed to reach out to the general public, and they seized them early on. The new media bestowed a degree of prominence and influence upon these aviation proponents that was unavailable to their counterparts in the early days of naval and other military developments. While there were of course many famous military heroes throughout history who received widespread fame, the work of the comparatively few military philosophers was appreciated almost exclusively by professionals. They had little or no effect upon public opinion, and this may be said to be true of Mahan himself. As influential as he was in the services and even the governments of many nations, and despite the fact that his writings did appear in contemporary magazines and newspapers, he was not widely read or appreciated by the general public. In marked contrast, many of the most influential practitioners of air power had powerful personalities that resonated in the media, none more so than the United States' famous brigadier general William ("Billy") Mitchell, of whom much more will be discussed later.

Mahan's book dealt with a relatively short 123-year period of naval warfare, one that was not characterized by great change in technology or tactics. The ships, as complex and difficult to handle as they were, remained wooden and wind-driven over the period, equipped with muzzle-loading cannons of much the same range and fire-power. The tactics used by the Dutch fleet against the French and English at the battle of Southwold Bay on June 7, 1672, were not substantially different from those used by the Spanish against the English almost 125 years later at the Battle of St. Vincent—they were just better executed.

In the less than a hundred years of heavier-than-air warfare, however, technology and tactics have changed continuously and drastically, generating a constant flow of new equipment used in new ways.

The rapid advance of technology has made it difficult for the philosophers of air power to keep up with the practitioners.

Nowhere has this phenomenon been more evident than in the campaign against terrorists in Afghanistan. Western air power practitioners were confronted with a perverse demonstration of asymmetric warfare. Small bands of terrorists, hiding in unmarked caves in the Afghan wilderness, were still able to conduct their own offensive operations through sleeper surrogates in the Western homelands.

The direct response exercised in so many past conflicts was suddenly no longer applicable, for there were no substantial enemy concentrations to target. Air power leaders had to devise new tactics on the spot, without the advantage of a philosopher's foresight and with the logistician's nightmare: war conducted without proper bases. New responses had to be developed, and air power had to be applied in new ways, including the incongruous execution of compassionate missions simultaneously with a systematic air assault.

No such incongruity had ever occurred in sea warfare, even though sea power antedates air power by many centuries. Despite this difference, this book will cover a longer period of time than Mahan's choice of 1660 to 1783. For editorial purposes, the beginning of air power in 1783, the last year that Mahan covers, is covered in an appendix. That was the year that gave the balloon to the world, and while there is a general awareness that balloons were used in battle as early as 1792, few people realize how well organized and how effective the early balloon services were. In a similar way, the use of balloons in the American Civil War is well known, but the extent of that use, and the systematic way in which it was developed, is often overlooked.

Before examining the history and effect of balloons and other subsequent instruments of air power, it is necessary to define air power, and its modern equivalent "aerospace" power. First of all, air power must be understood to be different from (although a part of) the concepts of air superiority and air supremacy. Air superiority means the ability to deny the enemy the use of its own air space, while allowing the "friendly" force the ability to use that space to accomplish its tasks. If air superiority is absolute, and extends over all of the enemy's territory at all times, it can be redefined as "air supremacy." This is the sought-after condition, for with it the military operations of other vital land and sea forces can proceed without impediment from the air.

In contrast, air power is the ability to conduct military, commercial, or humanitarian operations at a chosen place, but not necessarily at all places nor at all times. This distinction recognizes that while two nations' air forces may be vastly different in power, the less powerful nation may still be able to conduct meaningful air operations at certain times and places and thus still possess air power, even if to a limited degree. This was demonstrated on several occasions during World War II, as when Jimmy Doolittle was able to deliver a surprise raid on Tokyo in 1942, or when the battered German Luftwaffe was able to conduct a strong (if futile) attack on January 1, 1945, against Allied airfields in Holland, Belgium, and France. (There were many parallels to this situation in sea power, as in the War of 1812, when the presence of the modest United States Navy was perceived as a tremendous threat because of its proximity to Britain's New World markets.) As a result, the end goal in most modern conflict is the complete eradication of enemy air power and the establishment of air supremacy, permitting the free use of air power, as in the Persian Gulf War, the Balkans, and Afghanistan.

Air power might be termed "aerospace power" when (as is most often the case currently) it is exercised in or through space by means of intercontinental ballistic missiles, or via the medium of space assets, such as navigation, communication, meteorological, or intelligence satellites. In this book, the term air power is intended to mean both air and aerospace power.

Both air power and aerospace power are made up of military and civil components. The military and uniformed components of the aerospace power of the United States, for example, include the United States Air Force, and the aircraft and missile-operating components of the Army, Navy, Marine Corps, and Coast Guard. The civil components include all of the elements of the entire nation, including its leadership, industry, natural resources, and general population.

Modern air power is so replete with the most advanced technology that the average citizen is amazed at the degree of expertise and achievement associated with it. Yet this has been a fundamental condition of air power all through history, from balloons to the remarkable use of air power in the very first days of World War I.

THE INFLUENCE OF AIR POWER UPON HISTORY

