**Introduction**

At the end of the nineteenth century and beginning of the twentieth there was an increased attention to the strategic possibilities of naval and air warfare. Naval warfare played an important part in military history and most military histories included descriptions of famous naval battles like Salamis, Lepanto and Trafalgar. Up to that time, military theorists had a tendency to primarily pay attention to and analyze land warfare. Four theorists were critical in bringing attention to the strategic possibilities available in warfare conducted with naval and aircraft, Alfred Mahan, Julian Corbett, Giulio Douhet and William Mitchell. In this paper I will review the ideas set down by these four theorists. We will look at their application to two recent conflicts in an attempt to assess their importance and relevance to continuing military activity in the twenty-first century.

**Alfred Thayer Mahan**

The naval historian Alfred Thayer Mahan was the first theoretician to systematically point out the strategic importance of naval operations to warfare. His important and exhaustive histories of modern naval warfare laid the groundwork for a theory of naval strategy. Through countless examples, from the seventeenth century Anglo-Dutch wars to the American Civil war, Mahan developed and demonstrated the idea that sea power was not an auxiliary or supporting influence, but of primary and strategic importance. He frequently holds England up as the best example of strategic naval power and their success during the Napoleonic wars underlines his basic strategic message. “It was not by attempting great military operations on land, but by controlling the sea, and through the sea the world outside Europe, that… ensured the triumph of their country.”

Like his predecessors and contemporaries, Mahan understood the importance of sea commerce to the economic foundation of nations with overseas territories as well as its importance to transportation and supply of a nation’s military operations on land. However, he does not believe that commerce raiding naval operations provide a strategic advantage or efficient use of naval resources. “The evidence seems to show that even for its own special ends such a mode of war is inconclusive, worrying but not deadly; it might also be said that it causes needless suffering.”

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Instead of the fragmented approach employed in commerce raiding, Mahan argues for a more dominant and strategic role for naval forces. “It is not the taking of individual ships or convoys, be they few or many, that strikes down the money power on the sea which drives the enemy’s flag from it, or allows it to appear only as a fugitive; and which, by controlling the great common, closes the highways by which commerce moves to and from the enemy’s shores. This overbearing power can only be exercised by great navies.” The term he used to describe this was “command of the sea.” His strategic theory was influenced by Clausewitz ideas on land warfare and was to be achieved through three steps. The first was the principle of mass—to build and train the largest naval battle fleet that was practical. The second was the principle of concentration—the use of that fleet so as “to be actually superior at the decisive points of the war. It could never be had by distributing the ships-of-the-line all over the world, exposing them to be beaten in detail while endeavoring to protect all the exposed points of the scattered empire.” The third step was to use this large and concentrated fleet to seek out and defeat the enemy in a single decisive battle. The purpose of this battle was to destroy the enemy fleet so that they were no longer able to effectively interfere with naval operations and commerce, thus achieving “command of the sea.” Mahan’s definitive example of the decisive battle leading to command of the sea was Admiral Nelson’s victory at Trafalgar. “Trafalgar was not only the greatest naval victory but the most momentous victory on land or sea during the entire Revolutionary War. France could no longer threaten England by sea.”

In addition to the strategic importance of the decisive naval battle Mahan advocated several activities that would enhance the strategic capacity of a nation during times of peace. He argued for the development of the ship building industry and increasing the size of a nation’s merchant shipping. He also pointed out the importance of acquiring overseas colonies, naval bases and coaling stations to support both military and commercial maritime operations.

Julian Corbett

Julian Corbett would take the ideas of Alfred Mahan and further develop and extend them. He was also influenced by the strategic land theorists, especially Clausewitz and Jomini. But his perspective on Clausewitz was very different from Mahan’s and this led him to very different conclusions about naval warfare than those advocated by the American historian. While Corbett understood the importance of naval operations he did not believe, unlike Mahan, that naval power was of greater influence than land armies. “Since men live upon the land and not upon the sea, great issues

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3 Ibid. p. 138
4 Ibid. pp. 524-525
7 Ibid. p. 460
between nations at war have always been decided—except in the rarest cases—either by what your army can do against your enemy’s territory and national life or else the fear of what the fleet makes it possible for your army to do.\textsuperscript{8}

Where Mahan draws upon Clausewitz for his principle of mass, concentration and decisive battle, Corbett was influenced by Clausewitz’ ideas on friction, limited war and especially the fact that war is an extension of and subservient to political considerations. From the idea of friction, Corbett understood that war was not a chess game of matching navies fought in an abstract space—there are many additional considerations such as weather or morale that can effect an outcome. Absolute war is rarely fought and limited war is the more typical practice. It is therefore rare that one would want to risk their entire fleet in a decisive engagement in pursuit of limited objectives. Most importantly, naval operations must support the political objectives of a nation that may or may not require decisive mass fleet operations. “Naval strategy is but that part of it which determines the movements of the fleet when maritime strategy has determined what part the fleet must play in relation to the action of the land forces; for it scarcely needs saying that it is almost impossible that a war can be decided by naval action alone.”\textsuperscript{9} A more nuanced approach supporting a variety of objectives is needed for a successful naval strategy. “To assume that one method of conduction war will suit all kinds of war is to fall a victim to abstract theory, and not to be a prophet of reality, as the narrowest disciples of the Napoleonic school are inclined to see themselves.”\textsuperscript{10}

In creating plans for naval operations one must first work from an understanding of the political objectives. “The first desideratum of a war plan is that the means adopted must conflict as little as possible with the political conditions from which the war springs.”\textsuperscript{11} In addition to understanding the political objectives one must understand the disposition of the forces. The strategy for a large and dominant naval force will be different from an inferior fleet. “A plan of war which has the destruction of trade for its primary object implies in the party using it an inferiority at sea. Had he superiority, his object would be to convert that superiority to a working command by battle or blockade.”\textsuperscript{12}

Corbett’s starting point in developing naval strategy draws upon Mahan notion of command of the sea but includes more than the massive and decisive confrontation of naval forces. “The object of naval warfare must always be directly or indirectly either to secure the command of the sea or to prevent the enemy from securing it.”\textsuperscript{13} For a larger force, it is appropriate to pursue dominance and command of the sea. A smaller force on the other hand may need to opt for a strategy that merely denies command of the sea a superior force. Corbett’s understanding of command of the sea is wider and more varied than what is outlined in Mahan. “For the purpose, then, of framing a plan of war or

\textsuperscript{9} Ibid. pp. 170-1
\textsuperscript{10} Ibid. p. 180
\textsuperscript{11} Ibid. p. 179
\textsuperscript{12} Ibid. pp. 250-1
\textsuperscript{13} Ibid. p. 230
campaign, it must be taken that command may exist in various states or degrees, each of which has its special possibilities and limitations. It may be general or local, and it may be permanent or temporary.\textsuperscript{14} One does not necessarily need a universal command of the sea, but often local or temporary control will be sufficient to achieve one’s objectives. He also emphasizes that even a well-established general command of the sea will never be completely permanent, it could be undermined in specific local areas or diminish over time.

“A correct use of defense will sometimes enable an inferior force to gain its end against a superior one, so are there instances in which the correct use of the limited form of war has enabled a weak military Power to attain success against a much stronger one.”\textsuperscript{15} To prevent a superior force from achieving command of the sea, Corbett proposes the idea of a fleet in being as the cornerstone of a naval defensive strategy. “At sea the main conception is avoiding decisive action by strategical or tactical activity, so as to keep our fleet in being till the situation develops in our favour. In the golden age of our navy the keynote of naval defence was mobility, not rest. The idea was to dispute the control by harassing operations, to exercise control at any place or at any moment as we saw a chance, and to prevent the enemy from exercising control in spite of his superiority by continually occupying his attention.\textsuperscript{16} This is not a static defense of reinforced fortifications used in defensive land warfare. A fleet in being is a guerilla force acting on the principle that “the essence of defence is mobility and an untiring aggressive spirit rather than rest and resistance.”\textsuperscript{17}

\textbf{Giulio Douhet}

Douhet was strongly influenced by Mahan, especially his notion of the command of the sea. Douhet used an analogy to make an argument for command of the air and to demonstrate the pervasive influence that an independent air force could have over military operation both on land and sea. Coastlines are defended from naval attacks, not by dispersing ships and guns along their whole extent, but by conquering the command of the seas; that is, by preventing the enemy from navigating. The surface of the earth is the coastline of the air. The conditions pertaining to both elements, the air and the sea, are analogous; so that the surface of the earth, both solid and liquid, should be defended from aerial attack, not by scattering guns and planes over its whole extent, but by preventing the enemy from flying. In other words, by “conquering the command of the air.”\textsuperscript{18} He believed command of the air, achieved by an independent air force, would be far more effective than land and naval operations and could eventually render them obsolete. “An Independent Air Force which conquers the

\textsuperscript{14} Ibid. p. 236
\textsuperscript{15} Ibid. p. 216
\textsuperscript{16} Ibid. p. 248
\textsuperscript{17} Ibid.
command of the air and keeps up enough strength to crush the resistance of the enemy will be able to achieve victory regardless of what happens on the surface.”\textsuperscript{19}

To achieve command of the air one must start long before the outbreak of hostilities. A nation needs to begin years in advance by building and testing planes. They must develop the technology for improved explosives, incendiaries and poison gas to be used in an opening air attack.\textsuperscript{20} He argues that fact the very essence of air power, offensive in nature. “Conquering the command of the air implies positive action—that is, offensive and not defensive action, the very action best suited to air power.”\textsuperscript{21} “Aerial warfare must be exactly this and nothing else, because the characteristics of the air arm are eminently offensive and completely unsuited for the defensive. The fact is this: with the air arm it is easy to strike but not to parry.”\textsuperscript{22} For Douhet, there is no need or use for air defense, it is impractical and counter productive. “Destroying an enemy’s airplanes by seeking them out in the air is, while not entirely useless, the least effective method. A much better way is to destroy his airports, supply bases, and centers of production.”\textsuperscript{23} Targeting is the main conceptual problem in air strategy. A commander of an independent air force will need to pick appropriate targets aimed at accomplishing two conditions. The first and most essential condition is to pick targets that will achieve command of the air. These targets would include air bases, anti-aircraft defenses and industrial infrastructure used to support enemy air power such as production facilities and fuel storage. The second integral condition is to exploit command of the air by picking targets that will “crush the material and moral resistance of the enemy.”\textsuperscript{24} In all, Douhet advocates five classes of targets: industry, transportation, communications, government, and the “will of the people.”

The will of the people is not a clearly defined target, but for Douhet it is of primary importance. “The effect of such aerial offensives upon morale may well have more influence upon the conduct of the war than their material effects.”\textsuperscript{25} He believed that a strategically applied combination of explosives, incendiaries and poison gas would lead to a disintegration of the morale of a population. “A complete breakdown of the social structure cannot but take place in a country subjected to this kind of merciless pounding from the air. The time would soon come when, to put an end to the horror and suffering, the people themselves, driven by the instinct of self-preservation, would rise up and demand an end to the war—this before their army and navy had time to mobilize at all!”\textsuperscript{26} As a result all future wars would be quick and short due to the ferocity and terror brought on by constant and unopposed bombing. “The intense, violent, naked, immediate action, the impossibility of gaining time and creating new forces, the rapidity and efficacy of aerial actions—all lead to the conclusion that the

\textsuperscript{19} Ibid. p. 348
\textsuperscript{20} Ibid. pp. 279-80
\textsuperscript{21} Ibid. p. 293
\textsuperscript{22} Ibid. p. 355
\textsuperscript{23} Ibid. p. 307
\textsuperscript{24} Ibid. p. 348
\textsuperscript{25} Ibid. p. 322
\textsuperscript{26} Ibid. p. 323
aerial conflict will come to a quick decision… The aerial war will be short; one of the two sides will rapidly gain a preponderance which will mean the command of the air, a command which, once gained, will be permanent.” Douhet has clearly overestimated the effect of air strikes against a population. While he does provide figures for the tonnage of bombs needed to destroy a target, these figures have proven to be extremely optimistic. He also underestimated the possibilities of air defense and most of the ability of a population to not only withstand intense bombing, but even to become more committed to resistance. While he overestimates the effects and conclusiveness of air campaigns, his ideas have still been highly influential. He was able to make a strong case for using aircraft as a decisive strategic weapon beyond their tactical use in surveillance and close combat support and many modern conflicts have employed the basic outlines of his strategy with some degree of success.

**William Mitchell**

William Mitchell was impressed and influenced by Duohet’s book, especially his concept of command of the air. Mitchell, a strong advocate for all aspects of air power developed and expanded the list of potential uses and applications. He firmly believed air power was essential for all aspects of national defense and “has to be employed as a major instrument of war, no matter whether a land force or a sea force is acting the surface of the earth.” He championed the need to create an Air Force that would function independently, not as an auxiliary to the Navy or Marine Corps. His argument claimed that only an Air Force can function independent of other armed forces and that those other armed forces would soon become dependent upon the use of air power. “Neither armies nor navies can exist unless the air is controlled over them. Air forces, on the other hand, are the only independent fighting units of the day, because neither armies nor navies can ascend and fight twenty thousand feet above the earth’s surface.”

Many of his arguments for air power were based upon Duohet although he often adopted a very pragmatic style. His rational for increased use of air power was often based upon efficiency in the use of manpower and financial resources. “The missions of armies and navies are very greatly changed from what they were. ‘No longer will the tedious and expensive process of wearing down the enemy’s land forces by continuous attacks be resorted to… The saving of lives, man power and expenditures will be tremendous to the winning side.”

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27 Ibid. pp. 396-8
29 Ibid. pp. 477-83
30 Ibid. p. 427
31 Ibid. p. 427
military and the public. He again, did not hesitate to reinforce these arguments with an emphasis on cost and efficiency. Where he truly excelled was in expanding upon the ideas Duohet. Aviation was applicable not only for it’s offensive capacity but also he clearly demonstrated its importance to all aspects of a National Defense policy. Mitchell described four phases of National Defense and illustrated the importance of air power to them. The first was “the maintenance of domestic tranquility in the country itself.” This could be secured with “an army on the ground to insure tranquility and an air force in the air to prevent hostile air raids.” His second phase is the protection of coastal areas and frontiers, again using a combination of land army, navy and air forces to patrol and fight off any hostile invaders. He outlines a complete system of Air Defense that includes a series of listening posts, search lights, anti-aircraft guns and pursuit aircraft. The third phase is to maintain control of sea communications. This was accomplished through a combination of aircraft, when located within their radius of operation, and submarines in all areas beyond that radius. He believed that surface craft had only a secondary role in this task. The fourth phase is the prosecution of offensive war. Like Douhet, he saw air power as having an initial and important role, but also realized that air power alone was not sufficient to complete the job and looked to combined operations that include air, submarine, naval and land forces and bases to accomplish their ends. Still, he strongly agreed with Duohet that “Only when complete dominion of the air has been established can a war of invasion across the seas be prosecuted under present conditions.” And that the key function of air power in supporting these combined operations was to “strike immediately at the enemy’s manufacturing and food centers, railways, bridges, canals and harbors.”

The Indo-Pakistan War 1965

The Indo-Pakistan War of 1965, also known as the Second Kashmir War, was fought during five weeks in August and September of 1965. The conflict was between India and Pakistan over the disputed region of Kashmir. The major naval action of the war was Pakistan’s Operation Dwarka. In the first week of the war a Pakistani naval flotilla carried out a bombardment of the radar station in the coastal town of Dwarka. The bombardment was unsuccessful and met with no response from India. The engagement was small and had no strategic consequences, however India sent a fleet from Bombay to patrol the area around Dwarka later in the war. Pakistan also claims to have besieged the Indian aircraft carrier INS Vikrant in the port at Bombay with their submarine PNS Ghazi. India

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32 Ibid. p. 476
33 Ibid. pp. 481-3
34 Ibid. p. 480
35 Ibid. p. 505
36 Ibid. p. 480
37 Ibid. p. 481
38 Ibid. p. 427
claims they had no intention of starting a naval war with Pakistan and that the INS Vikrant was in dry
dock for repairs throughout the entire war.  
While Pakistan attempted a few small naval operations during the war, they were of little or no
value and had no effect on the outcome of the war. This certainly does not support Mahan’s theory
that command of the sea would be of decisive strategic importance. Of course the conflict a regional
conflict within the sub-continent and Mahan’s ideas were formulated for nations that aspired to global
dominance or empire. They were not made to describe the continental powers of Europe and so are
probably not applicable to regional conflicts elsewhere in the world. Corbett’s ideas about the
multiple uses of naval power and how they may or may not be of significant strategic consequence
depending on the goals, politics and geography of the conflict seem far more applicable in this case.

The use of air power was far more significant in the Indo-Pakistan war of 1965. The Indian Air
Force was able to slow the initial Pakistan army invasion on 1 September. The Pakistan Air Force
conducted successful raids on Indian airfields at Pathankot, Halwara, Peshawar and Kohat. IAF raids
at Sargodha, Kalidunda and Badin achieved some success against airfields, aircraft, radar and missile
launch centers as well as against the Pakistan army. Persistent air-to-air, and to a lesser extent,
surface-to-air combat brought regular losses of unconfirmed numbers of aircraft throughout the war
on both sides. The IAF had greater numbers of aircraft while the PAF had fewer numbers of superior
aircraft. While Pakistan was able to achieve some degree of air superiority, neither side was able to
achieve command of the air during the war.

Duohet claimed that all future was would be short and violent. The Indo-Pakistan war of 1965
lasted a mere five weeks and had between six and seven thousand casualties. Duohet’s prediction that
conquest of the air and strategic bombing of critical infrastructure and civilian population centers
were not the cause of the brutality or brevity of the conflict. The majority of the casualties were
military personnel injured in ground fighting and the conflict was brought to a rapid conclusion
largely due to outside international pressure and diplomacy. Mitchell’s description is a more apt
description of the air war in Kashmir. While air power was used in an offensive capacity, air-to-air
dogfights were a common occurrence. Air-to-ground attacks were significant, but ground-to-air
attacks were also successful. The more complex and varied approach Mitchell describes in *Winged
Defense* is by far a better representation of the complexity of air combat in the Kashmir conflict.

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42 Ibid. p. 238
The Falklands War 1982

The British were able to achieve some degree of command of the sea in the first week of hostilities. After the Argentine ships General Belgrano was sunk and Alferoz Sobrel damaged, Admiral Anaya ordered all Argentine warships back to port on May 3, only one week into the conflict.\(^{43}\)

The British made two attempts to destroy the air base at Port Stanley, which would have forced Argentine aircraft to operate from airbases on the mainland, more than 300 miles away. These attempts failed for the most part although one well-placed bomb created a crater along the airstrip that would prohibit the landing of some of the faster Argentine aircraft.

Argentina had a powerful advantage in air strength outnumbering the British aircraft by a ratio of four to one. While they were not able to fully achieve command of the air, they did use their superiority to some advantage regularly attacking and harassing British naval operations in the theater.\(^{44}\) However Argentina failed to understand the precarious supply situation in the Falklands. Had they attacked and destroyed the British supply ships Atlantic Causeway, Atlantic Conveyor and Elk, the British, with an 8,000-mile supply line, would have been unable to complete the campaign. Instead the AAF concentrated on attacking British warships with only minor tactical success. In addition this air superiority was unable prevent or significantly hinder the invasion or the subsequent surrender of the Argentine armed forces on the islands.\(^{45}\)

Conclusion

What can we learn from these two case studies? While these two conflicts took place within twenty years of each other in the middle of the Cold War era there are many differences. They took place on almost opposite sides of the world, one just north of the tropics, the other just north of Antarctica. One conflict was between somewhat balanced forces from neighboring states, states that until recently had been a single colonial possession of the British Empire. The other conflict was between two nations in different hemispheres—a Latin American military junta, a regional power, but considerably over-matched against a European power with a fading global empire and an 8,000-mile supply line to the battlefield.

One thing that seems clear from looking at just these two examples is that most combat situations are unique. It is difficult, and probably unadvisable, to create generalizations that would apply to both situations. Of our four theorists Corbett and Mitchell seems to have the most inclusive theories that are open to a wider range of considerations and approaches. They both sense the need for a variety of solutions, often ones that work in combination with others.

But what is most important about these four naval and air theorists is not the details of their strategic plans. Situations and technologies change and will create the need for new theories. What is


\(^{44}\) Ibid. pp. 41-48
important about these naval and air theorists is how they creatively looked beyond the established military conventions of their day. Mahan is notable not for the details of how win a war through decisive naval confrontation and command of the sea, but because he saw the possibility of creating strong strategic advantage using naval resources at the time when most military theorists were only thinking about land warfare. Corbett is important not because he proved Mahan wrong, but because he saw beyond Mahan’s application of Clausewitz to naval warfare and suggested new and innovative methods for achieving naval and strategic advantage. Douhet’s may not have foreseen how well a population could withstand strategic civilian bombing or how accurate and effective anti-aircraft measures could be. However, his real value is in seeing the use of aircraft beyond it’s tactical use in surveillance and close combat support and it’s possibilities as a decisive strategic weapon. Mitchell had the advantage being most recent and as a result his ideas of integrated forces and the defensive capability of aircraft may seem the most applicable in our survey. As technology continues to change and the nature of war evolves, Mitchell will also seem more and more out of place but we will see that his real value was not in what he said, but how he was able to see beyond the established military conventions of his day and inspire us to continue to do the same.

45 Ibid. p. 88
Bibliography


