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What's Left of Douhet?

Essay for course 5602

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Since the advent of the airplane as a military tool, debate has raged with regard to the question of how to best use it to achieve victory. The promise of technology and a fundamental desire to seek an alternative to the bloody and uncertain nature of ground combat have provided a constant impetus to a search for an air power-based theory of victory. Commencing with Douhet's vision of victory through destruction of cities and the breaking of civilian will, theorists through war and peace have wrestled with the question of how to most effectively employ air power. In opposition to Douhet stood a variety of theorists and practitioners arguing alternatively that attacks on enemy economies, military infrastructure, or military forces were more efficacious. The debate continues today. While the apocalyptic vision of Douhet has been substantially abandoned, significant premises remain imbedded in contemporary theory. As a result, modern air power theory remains mired in a single environment construct as both technology and doctrine move inexorably toward joint execution.

Early Air Power Theory

Douhet publishes Command of the Air in 1921 articulating what is commonly accepted as the first comprehensive theory of air power. His vision can be reduced to three propositions. First, that air power is a unique instrument in that it alone can reach into the rear of an opponent. This fundamental change produces both an opportunity and a threat. Douhet notes that 'it is [now] possible to go far behind the fortified lines of defense without first breaking

through them ” But he also fears that “ the strongest Army we can deploy will prove no effective defense against the determined efforts of the enemy to bomb our cities ”¹

The uniqueness of air power leads Douhet quickly to his second point that command of the air is essential and that it must be achieved through offensive action by an independent air force To be defeated in the air is to leave oneself open to destructive attack by the opponent’s air force That force is best destroyed through offensive action He writes, “ I have always maintained that the essential purpose of an Air Force is to conquer the command of the air by first wiping out the enemy’s air forces ”²

Once command of the air is secure, the offensive capabilities of air power may be turned to the task of strategic bombing “To have command of the air means to be in a position to wield an offensive weapon so great it defies the imagination ”³ And to what purpose should that power be put? Douhet notes that bombing of transportation networks could hinder the mobilization of the Army and that bombing of ports will hurt an opponents Navy – but while acknowledging these uses it is not these paths on which air power will achieve victory Douhet’s third point is that use of high explosive, incendiary, and gas bombs on civilian

¹ Douhet, pp 9-10

² Douhet, p 50

³ Douhet, p 23

targets “ quickly breaks down [the enemy’s] material and moral resistance ”⁴

Air power permits one to directly attack an opponent’s population. These attacks will quickly spread terror throughout the population and ultimately destroy an opponent’s will to resist ⁵

The coherence of Douhet’s theory did not lead to universal acceptance. As the military forces of the world entered World War II each had its own conception of how and to what purpose air power should be employed. As a result we see a variety of strategies pursued for air superiority and a variety of bombing strategies. Douhet’s preferred targets – civilians – were certainly targeted as firebombing of cities occurred in both the European and Pacific theaters. But other strategies were pursued as well and at the conclusion of the war the debate on air power was just beginning.

The variety of operational strategies pursued, as well as the debate over which was most effective, is clearly evident in the lectures of Lord Tedder. A commander during World War II, Tedder looks back upon the air war and offers reflections on what can be learned. While making no attempt to offer comprehensive theory, his remarks serve as an example of how practical experience was tempering the theoretical promises of Douhet.

⁴ Douhet, p. 57. For specific discussion of the employment of the combination of explosive, incendiary and gas bombs see p. 20.

⁵ See also p. 126 for additional elaboration by Douhet on the ability of bombing to break an opponent’s will.

With respect to the problem of establishing air superiority, Tedder's experience in World War II offers a much more complex reality than Douhet's theory of an immediate offensive to destroy the enemy air force. Neither the German assault on Britain nor the subsequent efforts of the Allies to destroy the Luftwaffe resembled the swift battle foreseen by Douhet. As Tedder notes, "the fight for air superiority is not a straight forward issue."⁶ Fighters were required for defense, and attacks on German aircraft production failed to produce the desired effect. Even after substantial attacks on aircraft factories in 1944 production increases. Why then were the Germans unable to compete in the air?[?] Tedder quotes Speer: "The answer to that is simple – the Allies destroyed the aircraft as soon as they were made."⁷ Air superiority was not achieved only through offensive operations, nor was it achieved by attacking only aircraft on the ground, nor was it achieved in any single operation. Rather the battle for air superiority in Tedder's view was a continuous struggle involving both fighters and bombers, both offense and defense, both attacks on production and attacks on military capability.

With respect to strategic bombing, Tedder (while not directly addressing Douhet) sees the attacks on will a failure, but argues that attacks on economic infrastructure had substantial impact. It is not at all apparent to him that discomforts to German civilians led to a shortened war. But bombing of the transportation network and petroleum supplies did have direct impact on the

⁶ Tedder, p 34

⁷ Tedder, p 50

German military⁸ Given a choice between a target which might impact will or one which decrease military capability, Tedder's experience leads him to the military target

Air power in World War II did not achieve the independent impact of Douhet's vision, but neither did the war clearly settle the theoretical and doctrinal debate in favor of an alternative construct Throughout the various conflicts of the remainder of the 20th century air power theory remained a conflicting body of ideas fueled by the promise of technology

Air Power Theory Today

By the 1980s both technology and experience with air power permitted the articulation of theory grounded in more than hope and speculation John Warden's work represented a prominent approach that saw significant aspects executed in the Gulf War In the aftermath of the Gulf War, alternative analyses emerged -- prominent among these is the work of Robert Pape Both exhibit continuity with and evolution from Douhet's original theory

While not claiming to be a complete theory of war, Warden's propositions do represent significant premises of air power theory and represent both continuity and evolution from Douhet Arguing by assertion and using a grab bag of historical examples to buttress his argument, Warden retains Douhet's

⁸ See Tedder's argument pp 118-119

fundamental premises. Air power is uniquely capable of direct attacks on the enemy's center(s) of gravity, air is an offensive weapon, and command of the air is an essential precursor to victory.⁹ Given the attainment of complete air superiority, a condition where one's own forces and bases are invulnerable to air attack and the enemy's are vulnerable, Warden argues that air power will be the decisive force. "Case II [friendly invulnerability/enemy vulnerability] provides the opportunity for decisive action – action so decisive that the war can be theoretically won from the air."¹⁰

But Warden parts ways with Douhet on the question of what to do with air power once command of the air is achieved. While considering a variety of uses for air under varying conditions, Warden appears to see two specific paths to victory. First, he opines that "command is the true center of gravity."¹¹ In both the battle for air superiority and subsequent operations, Warden sees air power in the era of precision weapons as capable of destroying an enemy's ability to command and control. Absent this capability he will have no means to resist and eventually must capitulate.

Alternatively Warden sees "distant" air interdiction as capable of achieving victory given that friendly forces have time to execute this strategy. Distant air interdiction consists of the destruction of the sources of men and material for the

⁹ Warden, pp 13-16

¹⁰ Warden, p 39

¹¹ Warden, p 53

war.¹² He sees air forces as capable of destroying a country's capacity for war-making and theorizes that absent that capacity they will be forced to surrender. Distant interdiction, he states, " has the capability of producing the most decisive outcomes but it also has attached the greatest time lags " ¹³

Warden's assertions stand in dramatic contrast to the subsequent historical and theoretical work of Robert Pape. Relying on first the systematic articulation of a deductive theory and then rigorous analysis across multiple historical cases, Pape concludes that neither a "decapitation" nor a "punishment" strategy has much prospect of success.

Attacks on command and control (a decapitation strategy as termed by Pape) have little prospect for success for three reasons. First, it is hard to disrupt strategic command and control. Strategic direction is not a task that requires either continuous or high volume communication. As a result, attacks on communications networks have typically been either repaired or circumvented in sufficient time to retain strategic direction. Second, it is exceptionally hard to target individual leaders with air power. The issue is not precision, rather the problem is accurate intelligence. Neither Noriega nor Hussein were effectively targeted for air strikes during the respective conflicts with their countries. Finally, bombing does not assist in the political mobilization required for the overthrow and replacement of a hostile government. Thus Pape concludes that in spite of

¹² Warden, p. 94

¹³ Warden, p. 95

the increased precision available to aerial weapons, little has been gained in our ability to decapitate the enemy ¹⁴

Similarly, a strategy of what Warden calls “distant” interdiction and what Pape calls “punishment” has no historical evidence of achieving success. Pape states his views succinctly: “strategic bombing doesn’t matter.”¹⁵ Attacks on the economic infrastructure of an opponent are irrelevant if it is a developing country or is supported from beyond its borders (as in the case of Vietnam). Alternatively, attacks on modern economies fail because civilian capacity is easily diverted to military use and, absent the complete devastation threatened by a nuclear attack, civilian will has proved relatively invulnerable to punishment. In Pape’s view there is no evidence to support Warden’s contention that an air campaign directed against the economic infrastructure, even over an extended period of time, would independently achieve victory.

Pape concludes that what does matter is theater air employed to destroy military capability. Air power today remains in Pape’s view the most useful tool for coercing opponents.¹⁶ Attainment of air superiority permits a campaign to destroy enemy military capability. The destruction of that capability denies the enemy the means to resist and ultimately leads to his accession to our demands.

¹⁴ Pape, p. 316 summarizes reasons to doubt prospective effectiveness of decapitation. See Chapter 7, pp. 211-253 for his case study of Iraq 1991 where he develops the argument that a decapitation strategy was pursued and was ineffective.

¹⁵ Pape, pp. 316-326.

What's Left of Douhet?

Pape and Warden do not represent definitive air power theory or doctrine, but they are useful for assessing what's left of Douhet in contemporary debates. Pape clearly travels the greatest distance from the origins of air power theory, but even in positing a fundamentally different mechanism for the attainment of victory, Pape retains a core assumption from Douhet. Air power is uniquely capable of destroying targets in the enemy rear. That assumption is increasingly suspect in today's strategic environment.

Modern technology has increasingly made the environment from which a weapon is launched irrelevant to the weapon's effect. Destruction of enemy military capability well behind forward lines is certainly a capability possessed by precision weapons delivered from a variety of aerial platforms. But it is also a capability possessed by weapons launched from ground or sea. The changes in the ability to detect targets combined with the increasing range and precision of a variety of weapons systems is steadily merging the traditionally separate air, land and sea domains of warfare. In an era where the ability to destroy a given target most probably is available from multiple platforms, a theory derived from the fundamental assumption of unique capability of aerial platforms has an antique quality.

¹⁶ Pape, p. 39

The debate over decapitation as a strategy represented by the opposing positions of Warden and Pape also appears to be a case of asking the wrong question. Our most recent attempt to attack leadership appears to have been a sea-launched attack on terrorists. The rise of computer-based information and command systems has led to many debates as to vulnerability of these systems to attacks by electronic means. The issue is no longer "can air power destroy enemy command and control" but rather "what should be destroyed in order to achieve what effect on enemy command and control?"

What remains of Douhet in contemporary debates is the underlying assumption that air power is uniquely capable of destroying certain categories of targets. What follows from that proposition is a sterile debate of the following form: given a hammer -- which nail shall we hit? The question we should be asking is much more complex: given several tools that can perform similar tasks (destruction of a particular set of targets) -- how do we employ these tools sequentially or simultaneously to achieve a particular outcome? The promise of technology envisioned by Douhet and giving motivation to his theory has long since been achieved and surpassed. Contemporary theory should move on as well.

Selected Bibliography

Douhet, Giulio, The Command of the Air, trans Dino Ferrari New York NY
Coward-McCann Inc , 1942, reprint Washington DC Office of Air Force
History, 1983

Tedder, Lord Arthur, Air Power in War London Hodder and Stoughton, 1948,
reprint Westport CT Greenwood Press, 1975, reprint Washington DC
NWC student issue

Pape, Robert A , Bombing to Win Air Power and Coercion in War Ithaca NY
Cornell University Press, 1996

Warden, John A III, The Air Campaign Planning for Combat Washington, DC
National Defense University Press, 1988