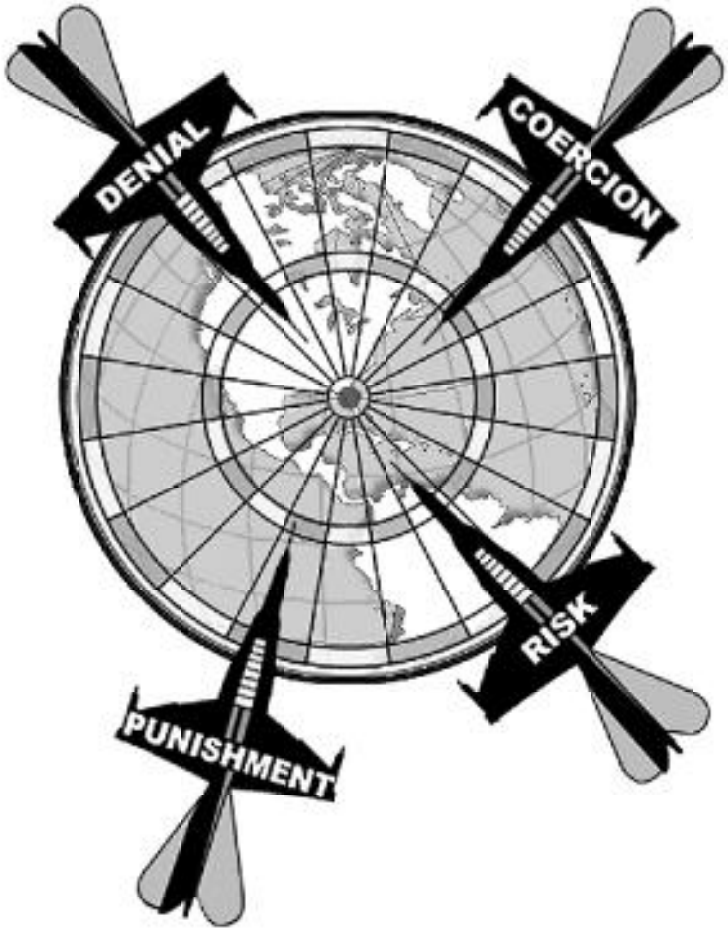

A Unified Field Theory of Coercive Airpower

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Flexibility is the key to victory, and airpower is the key to flexibility.

—Unknown

It depends.

—Weapons School unofficial standard answer

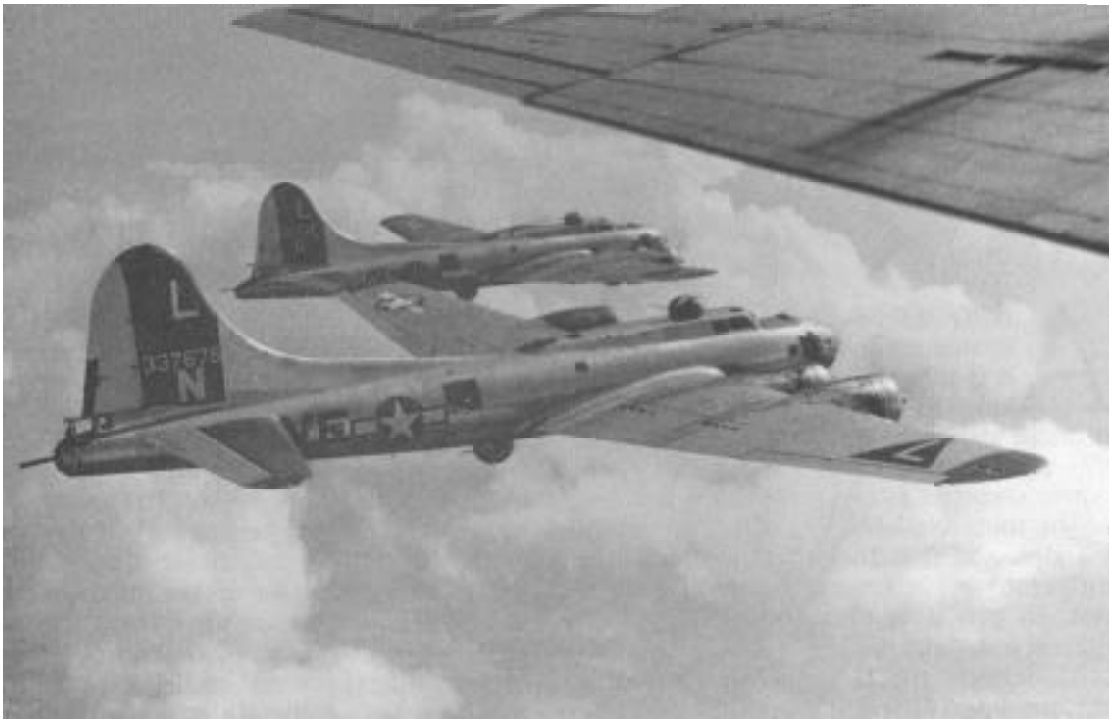
AIRPOWER is neither inherently strategic nor tactical in nature, but it is inherently flexible. This is the key to coercing our enemies through airpower, and failure to recognize this fundamental truth has led many airpower theorists astray. Airpower is but one of the tools available to the military commander, and that tool may be applied in different ways at several different levels of war. To proclaim that a single approach against a certain target set will always succeed, ignores the fact that circumstances surrounding different conflicts can be vastly dissimilar. This article shows the linkages between the various accepted types of coercive strategy and the ways they are more described as points along a single continuum of military options rather than as separate, isolated strategies. The decision as to which portion of that continuum to employ—and at what level of war—can be made only after examining the context within which a *particular* conflict exists.

Terms Defined

To set the stage, I must first give my own definitions of several key terms. Most of these resemble the definitions used by such theorists as Thomas Schelling[1] and Robert Pape,[2] but to avoid confusion, I will give the reader my exact meaning.

Coercion is the use of force either to compel the enemy to cease an action or to deter him from starting one. The alternative to coercion is brute force, which is described as the straightforward destruction of an enemy's capability to resist, leaving him no choice other than unconditional surrender. Coercion requires that the enemy make a conscious decision to quit, prior to complete military defeat, while he still has an option to continue military resistance.[3] Of the two types of coercion, compellence is more difficult to achieve than deterrence, partially due to inertia within the enemy system. This inertia is a key concept in Graham Allison's "organizational process" model, in which institutions have difficulty accepting coerced change to actions they have put in motion.[4]

The *levels of war* are commonly defined as strategic, operational, and tactical. As defined in current joint doctrine,[5] the strategic level is that level at which a nation or coalition determines security objectives and guidance. Operational art, working at the operational level of war, "links the tactical employment of forces to the strategic objectives."[6] Operational art governs the organization, deployment, integration, and conduct of major campaigns and operations. Proper leadership at this level guides the direction and coordination of tactical forces within the theater. Tactical doctrine (tactics) provides detailed guidance to combat units for winning individual engagements. Describing airpower, as used to target the enemy, we can further refine each of the levels of war. At the strategic level lies the determination of what military objective(s) we wish to achieve by targeting the enemy. Decisions at this level of war are concerned with large-scale systemic effects on the enemy



The B-17 was perhaps the definitive strategic bomber, but in World War II it was used many times in the tactical ground-support role.

and are directly influenced by national policy. At the operational level, we decide which targets to attack, from which platforms, and how to coordinate those platforms in order to achieve our military objectives. The operational level bridges the gap between getting "bombs on target" and influencing enemy policy. In current airpower doctrine, the joint force air component commander (JFACC) acts at the operational level through devices such as the air tasking order (ATO). At the bottom is the tactical level, which is concerned with how best to attack each aim point while avoiding enemy threats. Too often we tend to concentrate most of our intelligence at the tactical level, rather than looking for high-level system effects and indicators that the enemy is adjusting his policy in response to our attacks; it is much easier to count bomb craters than to analyze political reactions. Another factor seems to be that strategic-level results take much longer to achieve than tactical-level effects, so time must be included in the decision as to which level to influence directly.

Airpower, to a much greater extent than surface forces, has the capability to attack at any of the three levels of war—this is what I mean by stating that airpower is inherently flexible. We can easily become confused, however, between the level of war at which we are operating and the level the target occupies. For example, we would consider a strike by a flight of four fighters to be a tactical operation since they are operating at our tactical level of war. The same four fighters, however, could be targeted against enemy troops in the field (enemy's tactical level), enemy theater headquarters (enemy's operational level), or enemy industrial facilities (enemy's strategic level). Indeed, the es-

Destruction of Republican Guard units during the Gulf War represents a combined denial/punishment strategy.

sence of the recent USAF integration of Strategic Air Command and Tactical Air Command into a single Air Combat Command was the concept that there are no tactical or strategic delivery platforms—only tactical or strategic targets. The primary discriminator of which level the target occupies is based on the desired *direct* effect of hitting that target. Since all targets are attacked with the ultimate strategic goal of winning the war, it is this first-order direct effect that determines the target's level of war. I have used air-to-ground targeting as an example because it clearly illustrates the process; other aspects of airpower such as air superiority and airlift operations can have their primary impact at various levels as well.

Denial is a form of coercion that relies on reducing or eliminating the enemy's ability to resist. It can stem either from a direct assault on the enemy's fielded forces or from an attack on some critical area that cripples the enemy strategy. Denial targets tend to be located close to the front lines and are normally attacked using close air support or interdiction methods. Deep attack can also be denial, especially when the targets are military in nature, such as command and control (C^2) centers. Denial strategy leads to change in the enemy policy through his physical inability to continue employing that policy.[7]

My definition for *punishment* is a strategy that uses destruction of those things the enemy values most as the mechanism for achieving coercion. This could be pain and suffering inflicted on his civilian population, destruction of production capacity critical to his economic well-being, or anything else that he values highly. Punishment achieves policy change through moral mechanisms; either the enemy government is overthrown by a revolt or coup or the enemy government itself finds that it cannot

Although the designation "fighter" indicates a tactical orientation, the F-117 was primarily used against operational and strategic targets during the Gulf War.

bear the punishment and agrees to change its course of action.[8]

*R*isk strategy is a variation of punishment strategy, differing mainly in the timing and tempo of employment. With a risk approach, a short, measured attack is made on enemy high-value targets, followed by a pause for the enemy to reflect on what continuing the war is likely to cost him. If no policy adjustment is forthcoming, renewed attacks are made that escalate the level of destruction. The primary mechanism at work is not the high level of punishment already received, but fear of what continuing the war will cost the enemy in the future.[9] For a risk strategy to succeed, there must be enough high-value targets left to the enemy for future costs to be coercive. This fact, coupled with the requirement for slow escalation with periodic breaks in the violence, tends to keep risk strategy from reaching the same levels of violence associated with either denial or punishment.

Decapitation strategy is different from the others in that it is defined not by the coercive mechanism, but by the target set we must attack to influence the enemy. This method targets the enemy leadership and C^2 command apparatus and may include direct attack aimed at killing the leadership of an enemy nation.[10] The mechanism may be either denial or punishment in nature.[11] By destroying the enemy C^2 network, we may deny him the ability to control his military units or provide them intelligence, resulting in an easy victory for our fielded forces. Additionally, most leaders place high value on their personal survival, even if capable successors exist. The new dictator, whose predecessor was turned into a smoking hole by a laser-guided bomb, may quickly adjust his personal cost/benefit analysis of continuing

Although originally designed as a global strategic bomber, the B-52 has been used in close air support of ground forces with excellent results.

the war. This allows decapitation to work through a risk mechanism as well, since the new leader is likely deterred by fear of future cost to his own life. It should be noted here that many nations adhere to a policy of not targeting specific individual leaders; this was the stated policy of the United States during the Gulf War.[12]

Problems with Single-Focus Strategies

With these definitions in mind, let us examine some of the difficulties associated with trying to keep the various theoretical strategies separated. The typical distinction between denial and punishment is that the first is counterforce while the second is countervalue. This separation fails if we attack an enemy who highly values his fielded forces. One can argue that in the Gulf War, Saddam's Republican Guard mattered more to him than the safety and comfort of his own civilians, given the repressive nature of his regime and the key role the Republican Guard played (and still plays, unfortunately) in that repression. In this context, it appears that targeting the Republican Guard represented both denial and punishment, since with one blow we would have denied Saddam the use of his best fighting forces and destroyed one of his most valued possessions.[13]

Separating risk and punishment strategies can also be difficult, if not impossible. When one looks at the mechanisms at work, it seems that each strategy employs portions

of the other, and the difference is really just a matter of degree. Since the main operational difference is timing and tempo, who is to say that all enemy nations will see the same strategy as gradual or quick? Punishment strategy emphasizes damage already caused, but there must be some threat of damage to come, or there would be no coercive value. If an enemy took a terrible beating but knew that tomorrow would bring no further attacks or suffering, he would not be likely to give in. Likewise, risk strategy relies on damage and suffering already caused to show the enemy what the future will hold if he doesn't adjust his actions. Both strategies, therefore, rely on the combination of damage already caused and the threat of future damage if they are to have any effect. The questions of past versus future and tempo of operations are really just shades of gray.

Greater problems in keeping the various strategies separated arise when the levels of war are viewed as a synergistic whole. Well-known airpower theorists such as Giulio Douhet,[14] Alexander de Seversky,[15] Pape, and John Warden all propose a single strategy that appears to work in a similar fashion at all levels of war. But is that really the case? For example, can we not employ a decapitation strategy at the tactical level and achieve the indirect effect of denial at the operational level? Classic punishment theorists such as Douhet focused exclusively on the use of punishment at the strategic level, ignoring the oftentimes more effective use of punishment at the tactical level by attacking enemy fielded forces.

Modern examples exist as well. Results from the Gulf War show strong evidence that many Iraqi troops defected or were made ineffective by coalition bombing.[16] This had the indirect effect of denial at the operational level, since those forces which had been "punished" at the tactical level were no longer capable of fighting for Saddam. Likewise, denial at the tactical level may lead to risk effects at higher levels, as seems to have been the case in Bosnia after Operation Deliberate Force. By incapacitating their heavy forces through a denial campaign, we placed the Bosnian Serbs in what appears to have been a situation of unacceptable risk from the combined Croat/Muslim ground offensive, and they agreed to respect the remaining safe havens and attend a settlement conference.[17]

The bottom line is that we cannot focus on a single type of strategy and hope to employ it alone to achieve our goals. We must examine each of the levels of war for the desired outcome and look at how the indirect effects cascade through the system. All of the various mechanisms for coercion may come into play, and the resulting opportunities will be missed if not foreseen.

The Unified Approach

Instead of trying to distinguish separate strategies, with all of the difficulty associated with that task, I propose that coercive airpower is best employed through a single all-encompassing strategy that I term the *unified approach*. This recognizes that various factors will affect the decision as to which targets to attack, and at what level of intensity and duration, while the direct and indirect results will often be obtained through several mechanisms. The inherently flexible nature of airpower allows for this, and does not demand that we set our favorite target set down on stone tablets for the ages. Carl von Clausewitz rightly saw critical analysis as the fundamental key to military success, and the ability to identify correctly the enemy's center of gravity in no way implies that all enemies, in all wars, must have the *same* center of gravity. It is just as ludicrous to suggest that airpower can always be successful by bombing civilians, leadership, or fielded forces (or any other "pet" target set). The following matrix displays the various classical strategies and the location where "single focus" theorists maintain that the proper application of airpower lies. Some theorists predict success by employment at more than one level of war:

	Denial	Decapitation	Punishment	Risk
Strategic		*Warden*	*Douhet, de Seversky*	*Schelling*
Operational Level	*Pape*	*Warden*		
Tactical Level	*Pape*			

A unified approach would be to step back and take in the *entire* matrix first and then focus on where a particular conflict's best application of airpower lies.

I believe that the unified approach fits well with the theories of airpower espoused by Sir John Slessor[18] and William Sherman,[19] two air theorists who have not received the same level of exposure as Douhet, Warden, or Pape. They both took a more balanced view of the use of airpower to coerce an enemy, allowing for tactical or strategic applications against different targets as needed. This view also embraces the idea of joint operations and does not attempt to place airpower on the pedestal of single-handedly winning all future wars. Instead of focusing on a single block in the strategy/levels of war matrix, these theorists advocated viewing the entire picture and shifting from block to block as conditions dictated.

Flexible employment in the Gulf War fostered new and effective tactics, such as the F-111/laser-guided bomb combination against enemy armor.

Analytical Framework versus Preordained Strategy

The key to proper use of coercive airpower lies not in an isolated, world-beating strategy, but in the analytical framework used to decide which mechanism(s) to employ. Airpower commanders and planners must examine each case for those areas the enemy values most, the location of his physical weak points, political constraints that will affect employment, types of expected feedback, the amount of time the strategy has before results must be seen, and a host of other factors that directly affect the decision. Due to the inherent limitations of military intelligence, a realistic approach must be used that does not require all of these questions to be fully answered. Clausewitz wrote about the differences between "real war" and "war on paper," and these differences apply to airpower today.[20] To expect to know exactly how any enemy will react to, say, having his C^2 lines cut is unwise; to base an entire strategy on always having that knowledge would be arrogant in the extreme.

Too often we tend to concentrate most of our intelligence at the tactical level, rather than looking for high-level system effects and indicators that the enemy is adjusting his policy in response to our attacks; it is much easier to count bomb craters than to analyze political reactions.

All of the mechanisms of coercive airpower—denial, decapitation, punishment, and risk—must be taken into account. Instead of calling these separate strategies, however, the unified strategy lists these as different methods at work within the same overlying strategy. Given the "fog of planning," it may indeed be best to plan for several parallel effects in the hope that one or two will actually work as expected. This was true of the final airpower plan in the Gulf War, which used both decapitation—through destruction of key command, control, communicaton, computers, and intelligence (C^4I) nodes— and denial by directly targeting the forward Iraqi units.[21] People are still debating which method worked (or whether they both worked); either way, we won the war in large part due to coercive airpower.

Nuclear weapons have a demonstrated destructive potential that no nation can ignore; therefore, risk strategy has worked well for deterrence at the nuclear level. When nations commit to protracted conventional war, however, risk from airpower tends to not be greater than the risks already exposed by going to war in the first place. Vietnam was a prime example, in that the North was committed to victory at a higher cost than we were willing to inflict.[22] For a risk mechanism to work, the damage risked must be greater (usually far greater) than what the enemy is willing to accept.

Denial mechanisms tend to be more effective when the enemy forces are stressed in as many ways as possible. Attacking the enemy's petroleum, oil, and lubricants (POL) storage and supply lines might have little effect if he is in a static defense, but it will have much greater impact if the enemy is advancing or retreating rapidly and using up his POL stocks. Bombing supplies of food and water for enemy troops can be devastating in hostile climates such as desert or arctic areas, but if the enemy can easily live off the land he occupies, a different target set will probably be better.

Decapitation mechanisms work best against highly centralized and tightly coordinated units (such as the United States Air Force). An enemy that practices liberal use of *Auftragstaktik*[23] will be much less affected, since his doctrine allows for units to be out of contact for long periods and permits junior commanders to exercise their

ini- tiative to keep fighting toward the objective. Loosely coordinated forces are often less effective, however, and forcing the enemy to adopt such a posture through threat of decapitation may have its own benefits. Proper intelligence on enemy doctrine is obviously critical.

Jointness

History seems to show that airpower can have its greatest coercive effect when employed in conjunction with other forces. The unified approach lends itself to joint operations, since all one has to do is expand the mechanism scale to include the impact of land and sea operations on the enemy at the various levels of war. Notably, as the "current fashion" of airpower strategy has gone from punishment through nuclear risk and AirLand Battle, we have yet to see airpower win a decisive victory without some help from surface forces. Perhaps the best answer is reached by reversing the question: When (since 1914) have surface forces ever won a decisive victory without airpower? The answer is "almost never" (the North Vietnamese victory in 1975 is a possible case). I believe the final message is that the proper coercive use of airpower rests with the greater question of the proper coercive use of military power in general. Although airpower gives us new avenues of approach and ways to avoid most of the enemy surface forces en route to a target, the question of what we are trying to get the enemy to do (or stop doing) remains the same. Effective coercion strategy required examination of the contextual variables during the Peloponnesian War just as much as in the Gulf War—and in every conflict in between.

Notes

1. Thomas C. Schelling, *Arms and Influence* (New Haven, Conn.: Yale Uni ver sity Press, 1966).
2. Rob ert A. Pape Jr., *Bomb ing to Win: Air Power and Co er cion in War* (Ith aca, N.Y.: Cor nell Uni ver sity Press, 1996).
3. Schell ing, 4–5.
4. Graham T. Allison, *Essence of Decision* (Boston: Little, Brown, 1971), 67.
5. Joint Pub 3-0, *Doctrine for Joint Operations*, 1 February 1995, II-1 through II-3.
6. Ibid., II-2.
7. Pape, 15–19.
8. Ibid., 13–18.
9. Schell ing, 166–68.
10. Col John A. War den III, USAF, Re tired, has been the leading mod ern ad vo cate of de capi ta tion as an air power strat egy, although there have been past strategists who also proposed decapitation as a war-winning approach. See "The Enemy as a System," *Airpower Jour nal* 9, no. 1 (Spring 1995): 40–55.
11. Pape, 79–86.
12. Richard P. Hallion, *Storm over Iraq: Air Power and the Gulf War* (Washington, D.C.: Smithsonian Institution Press, 1992), 150.
13. Ibid., 125.
14. Giu lio Douhet, *The Com mand of the Air*, trans. Dino Ferrari (1942; new imprint, Washington, D.C.: Office of Air Force History, 1983), 55–61. *The Com mand of the Air* was originally pub lished in It aly as first and sec ond edi tions in 1921 and 1927.
15. Alexander P. de Seversky, *Victory through Airpower* (New York: Si mon and Schus ter, 1942), 330–34.
16. Ste phen T. Hos mer, *Psychological Effects of U.S. Air Operations in Four Wars: 1941–1991* (Santa Monica, Calif.: RAND, 1996), 152.
17. Maj Gen Hal M. Hornburg interviewed by Dr. Wayne Thompson and Maj Tim Reagan, Vicenza, Italy, 16 October 1995.
18. J. C. Sles sor, *Air Power and Armies* (London: Oxford Uni ver sity Press, 1936), 1–10.
19. William C. Sherman, *Air Warfare* (New York: Ronald Press Com pany, 1926), 3–37.
20. Carl Von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, N.J.: Princeton University Press, 1984), 119.
21. Hal lion, 150.
22. Pape, 209.
23. This con cept is simi lar to (and the ba sis for) our con cept of "com man der's in tent."