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Operation Allied Force and the Role of Air Power

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A "W" is a "W." In sports a win is a win. Even a close win is preferable to losing. For instance, if a college football team like Notre Dame beats Slippery Rock 70 to 0, that is exactly the sort of lopsided victory one would expect from such a mismatch. But if Notre Dame beats Slippery Rock by a score of only 7 to 6, about all Fighting Irish fans would be able to say is, "Well, it's a `W' and not an `L.'" That is the kind of victory air power delivered in Operation Allied Force.

Nevertheless, in the wake of the 78-day NATO bombing campaign against Yugoslavia led by the United States, some air power enthusiasts trumpeted their success. There were boasts that this was the first time air power and air power alone had defeated an enemy land army. They pointed to the performance of high-tech weapons like the B-2 bomber and the Joint Direct Attack Munitions (JDAMs) to claim never-before-achieved accuracy in weapons delivery. One US Air Force major general even claimed that 99.6 percent of the 23,000 bombs dropped over Yugoslavia hit their targets.[1] There were those who contended that the bombing achieved its strategic, operational, and tactical objectives because, in the end, Yugoslav strongman Slobodan Milosevic withdrew Serb forces from the province of Kosovo and acceded to the intervention of an international peacekeeping force. Furthermore, not only was all this achieved by air and missile power alone, but not a single allied life was lost in combat.

Among those who rushed to praise the results of Operation Allied Force was British military historian John Keegan, the defense editor of the *London Daily Telegraph*, who, after decrying his previous doubts that air power alone could carry the day, stated flatly, "This was a victory for air power." [2] John A. Tirpak, the senior editor of *Air Force Magazine*, noted, "For the first time in history, the application of air power alone forced the wholesale withdrawal of a military force from a piece of disputed real estate." [3] Some air power enthusiasts seemed intent on using the apparent results of Allied Force to advance parochial service interests. Retired Air Force Major General Charles Link, a stalwart supporter of the Air Force's halt-phase strategy, crowed, "As a result of Kosovo, I'd expect there'd be more careful scrutiny of some heavy systems that hardly ever seem to be taken to war these days and hopefully a little more respect and appreciation for those Air Force capabilities that get there quickly." [4] Although somewhat more circumspect, Air Force Chief of Staff General Michael Ryan implied that if air power had been applied massively from the beginning, and had the operation been conducted more in consonance with established Air Force doctrine, the result would have been even more successful. According to Ryan, "The campaign did not begin the way America normally would apply air power--massively." [5]

Was Operation Allied Force the strategic, operational, and tactical success that many have claimed? And, if successful, what relevance might that have for future operations? Our effort to answer such questions should not be interpreted as an attack on the US Air Force or the allied air forces. It is, rather, an assessment of a misapplication of military force, and since air power was the primary form of force used, it is a critique of "air power alone" as an effective alternative to joint warfare.

While we can marvel over the demonstrated capabilities of B-2s, JDAMs, laser-guided munitions, and Global Positioning System-assisted bombing techniques, looking at Allied Force objectively, it still looks like a win, but a rather ugly one. For starters, we got that "W" by applying a greater portion of the Air Force's total airframes during this operation than we did in the Korean War, during any period in the Vietnam War, or in Desert Storm. It took the air forces of 13 contributing NATO countries to batter Yugoslavia to the point that Milosevic agreed to withdraw his forces from Kosovo and permit the introduction of a UN peacekeeping force, including Russian troops, into the strife-torn province. And, while it is arguable whether air power was the deciding factor in changing Milosevic's mind, the wear and tear on aircraft, the huge expenditure of sophisticated weaponry, and the continued lowering of morale

among service personnel in general and aircrews in particular are more evident. In retrospect, Allied Force more closely resembles the 7 to 6 Notre Dame win over Slippery Rock than it does the 70 to 0 blowout one might have expected. To be sure, it was still a "W," and any "W" is better than an "L."

Nevertheless, when a major college football team barely squeaks by a greatly outmatched opponent, there are adverse consequences. First, there would be a loss of credibility. If before the Slippery Rock game Notre Dame had been highly ranked in the football polls, it would surely tumble in the aftermath of a 7 to 6 victory. Second, more-capable future opponents would watch the Slippery Rock game films to ferret out Notre Dame's exploitable weaknesses. Third, the Fighting Irish themselves could well be demoralized, and their coaching staff would have to spend some time rehashing mistakes and rebuilding confidence for the greater challenges ahead. In any event, this is not the kind of win the Fighting Irish would feature in its recruiting videos.

Strategic Considerations

In Book One of *On War*, Prussia's incomparable military philosopher Carl von Clausewitz noted, "War is . . . an act of force to compel our enemy to do our will." [6] So far as our "will" was concerned in Operation Allied Force, President Bill Clinton specified three objectives:

- To demonstrate the seriousness of NATO's opposition to aggression and its support for peace.
- To deter the Serbs from attacking helpless Kosovar Albanians and to make them pay a price for their actions if they continued to do so.
- To damage Serbia's capacity to wage war against Kosovo by seriously diminishing its military capabilities. [7]

As to the first objective, whatever was happening in the Yugoslav province of Kosovo, no matter how distasteful, it was no demonstrable threat to the vital interests of the United States as defined by the National Security Strategy, even if it was a threat to peace within the Balkans. The extent to which European security was put at risk by what was happening in Kosovo is questionable. Despite Secretary of State Madeleine Albright's impassioned comparison of Milosevic to Hitler and Stalin, of Serbia to Nazi Germany and the Soviet Union, and of the Serbian ethnic cleansing of the Albanian Kosovars to the Holocaust, nothing Milosevic was doing was "of broad overriding importance to the survival, safety, and vitality of our nation." [8] As bad as Milosevic may be, and as reprehensible as his conduct has been, he is not in the same league with Hitler or Stalin. Furthermore, Belgrade's objectives in Kosovo were to secure a rebellious province and to deal decisively with the Albanian Kosovars. That this involved "ethnic cleansing" is undeniable. But World War II was not fought over Hitler's unconscionable policy toward the Jews. It was fought over Berlin's design on the European balance of power and its intent of establishing German hegemony in Europe and throughout the Eurasian continent. Yugoslavia, in stark contrast, has not committed aggression against any sovereign or independent country. Rather, it was dealing, however abominably, with an internal problem.

Conflict, by its nature, is unpredictable. But the degree to which the situation in Kosovo put Europe at risk was far less than the degree to which Balkan instability threatened Europe in 1914. Tensions in Europe had increased steadily from the end of the Franco-Prussian War in 1871 until the outbreak of World War I. During that time the European powers established opposing alliance systems, competed to establish or expand their colonial holdings, and built up their military forces to the point that any spark could have ignited what had become a tinderbox of tensions. At the turn of the century, old animosities between the various ethnic and religious groups in the Balkans surfaced as the Ottoman Empire crumbled. Competing European interests collided there and did so with the most dramatic results. But in March 1999, Western Europe was united in its own alliance, while Russia, devoid of any military alliance system and in political disarray and economic chaos, posed little threat to European peace. With neither American vital interests nor European security at risk, going to war over Kosovo would have been a hard sell to Americans and Europeans alike, particularly if it might entail much, if any, sacrifice and bloodshed. Thus was the ground option ruled out from the beginning.

Air power and air power alone was to be the instrument of choice for demonstrating European resolve in its opposition to Yugoslav actions in Kosovo. This was reinforced by the assumption that Milosevic would accede to NATO's demands as soon as a few cruise missiles and smart bombs blasted a number of targets in and around Belgrade. On the first Sunday after what came to be called a "phased air operation" began, Secretary Albright stated on the PBS

NewsHour program, "I think this is achievable in a relatively short period of time." [9] But the constrained way in which Allied Force began defied strategic wisdom and made it highly unlikely that air power could achieve the first objective or, for that matter, any of our stated objectives.

A little further into the first chapter of *On War*, Clausewitz wrote, "Kind-hearted people might think there was some ingenious way to disarm or defeat an enemy without too much bloodshed. It is a fallacy." [10] Secretary Albright, National Security Advisor Sandy Berger, Secretary of Defense William Cohen, and the entire national security team, including the Joint Chiefs of Staff, had plenty of evidence to support Clausewitz's strategic dictum. Those who might think Milosevic and his cohorts would be amenable to an attitude adjustment after suffering a little pain had only to look back to the Vietnam War to discover the bankruptcy in that kind of strategic thinking. The Johnson Administration assumed that North Vietnam could be coerced into stopping its aggression in South Vietnam by limited bombing. Johnson, who wanted to focus his attention and that of his Administration on domestic issues, did not want to engage in a land war in Indochina. Air power advocates claimed that with relatively little expenditure of effort and comparatively little risk, they could bring Hanoi to its knees through coercive bombing. Like the Clinton Administration 30 years later, Johnson and his advisers misread their enemy. To achieve their goal of uniting Vietnam under a single political system, Ho Chi Minh and the North Vietnamese people were willing to endure a great deal more suffering than the United States was willing to dish out. Likewise, Milosevic could not give up Kosovo, a place rich with historical significance, to foreign occupation without a fight. The only question was how much fight. [11] In the end, a combination on our part of historical ignorance, cultural myopia, and techno-arrogance underwrote an ill-conceived strategy that used force tentatively rather than decisively. It was, therefore, difficult to impress Belgrade with the seriousness of NATO's opposition to the Serbs' actions in Kosovo.

Clinton's second objective, and the one most critical from a human standpoint, was to deter Milosevic from attacking the Albanian Kosovars and to make him pay a price for doing so. Ethnic cleansing accelerated as soon as the bombing started. Serb security forces, including the Yugoslav army and the Ministry of Interior forces, may have murdered as many as 100,000 Kosovars in the period between 24 March and 6 June, when Milosevic agreed to withdraw those forces. More than a million people were driven from their homes into refugee camps in Albania and Macedonia. Far from achieving a decisive victory, the duration of the bombing and its limited effectiveness allowed Serbia to broker a deal whereby Russia, a traditional ally, joined the occupation forces under the auspices of the United Nations. By June, when for whatever reasons Milosevic decided to sign the accords, he had already decimated the Albanian population of Kosovo and, probably much more to the point, created a political climate inside Serbia that made it possible for him to broker a deal with NATO.

Arguably, the bombing facilitated the attainment of Serb strategic objectives. First, bombs falling back home in Serbia made it easier to inspire Yugoslav soldiers and Serb thugs to continue committing the kind of atrocities associated with ethnic cleansing. More than one surviving Albanian Kosovar reported that the Serbs answered their pleas for mercy by telling their victims to "take it up with Bill Clinton." Second, while Milosevic might have hoped to outlast NATO's cohesion, he could not have hoped to defeat a concerted attack by the Alliance, especially if it initiated a ground campaign, or survive a war of attrition given the resources of the 13 nations contributing to the operation. But NATO ruled out a ground attack into Kosovo and chose to use air power alone, primarily as a coercive instrument.

Politically, Milosevic could not allow the foreign occupation of Kosovo without putting up a fight. At some point, after it was clear that taking a continued battering would be futile, he could--and did--sign an agreement, claiming that the survival of the nation was at stake. In the end, although Yugoslavia sustained a good deal of damage to its industrial and communications infrastructure, which will continue to exact a toll on its already weak economy for some time to come, Milosevic and his regime survived. With regard to President Clinton's third objective--deflating Serb military capabilities--Milosevic's forces, particularly the land forces that are the bedrock of his military strength, remain intact. NATO's operational and tactical defeat, i.e., its failure to seriously diminish the capacity of Yugoslavia's land forces, thus produced a telling strategic reverse.

Tactical and Operational Considerations

In the Vietnam War movie *Apocalypse Now*, actor Robert Duvall plays an Army lieutenant colonel who, with air strikes pounding the jungle in the background, exudes, "I love the smell of napalm in the morning, that gasoline smell

welling up: it smells like victory." Hitting targets and causing destruction, however it may smell, does not always result in victory. In the case of Operation Allied Force, NATO planes hit their targets with greater precision than ever before in the history of aerial warfare simply because they used a higher percentage of precision-guided munitions than in any previous operation. Of the 23,000-plus bombs and missiles expended, 35 percent were smart weapons. Conventional bombs were dropped with more accuracy than ever before because the on-board bombing computers are more capable. But the notion that each bomb surgically hit every target is inaccurate. "Hitting a target" can mean that a fighter-bomber got most of its ordnance within the confines of a large complex, like an oil refinery or a factory. Accuracy is, of course, a key ingredient in attaining the goal of any aerial campaign, but what targets are bombed and when they are struck are more important.

The targeting process in Operation Allied Force was incoherent and inept. The bombing started with a few missiles and precision-guided munitions slamming into targets associated with Yugoslavia's integrated air defense system, including command and control facilities, airfields, radars, and surface-to-air missile sites. NATO also targeted the headquarters and barracks of Yugoslav forces in Serbia.

Attacking Yugoslavia's air defense system and its air force had much more to do with adhering to US Air Force doctrinal tenets than it did with addressing the realities of the situation inside Kosovo. For instance, throughout the operation, NATO and US Department of Defense officials made much ado about the decimation of the Yugoslav air force, especially their small inventory of 17 to 19 MiG-29 fighters blasted out of the air or rendered inoperable on the ground. While securing air superiority is the number one priority when modern air forces like that of the United States go to war, in this case the Yugoslav air force was irrelevant to the war at hand. So was the emphasis placed on gaining air superiority.

At the operational level, Allied Force resembled the Rolling Thunder bombing campaign of the Vietnam War more than it did the employment of air power in subsequent campaigns like Linebacker I, Linebacker II, or Desert Storm. As was the case in Rolling Thunder, the bombing increased in intensity and the target list expanded over time. Also as was the case in Vietnam, the targeting process was hampered by political considerations that resulted in limitations being placed on both the scope and the intensity of the bombing. While political considerations almost always constrain war and will continue to do so, airmen still had plenty of historical evidence testifying that the manner in which Allied Force was being conducted was bound to make it less than effective. They knew that one of the primary lessons from Linebacker I, Linebacker II, and Desert Storm, campaigns in which precision-guided munitions had played key roles, was that although precision is important there is tremendous shock value to be attained by bombing widely and intensely from the beginning. NATO failed to do that in Allied Force. One cannot think that was entirely the fault of air power leaders.

In the first phase of Allied Force, as the bombing sputtered along, the ethnic cleansing, which had started in October 1998 and intensified in January, accelerated throughout Kosovo. With NATO concentrating on targets in and around Belgrade, the Yugoslav forces inside Kosovo were relatively free to go about their unsavory work unencumbered by fear of attack. And even if the NATO aircraft had been allowed to bomb below the self-imposed 15,000-foot minimum, it is difficult to target small groups of men armed with automatic rifles. To accomplish that mission most effectively requires the commitment of ground forces.

After the initial attacks failed to compel Milosevic to yield, instead of shifting the focus of air operations to the Yugoslav forces rampaging throughout Kosovo, NATO escalated its coercive attacks on Yugoslavia's economic infrastructure. The aim of these attacks was to coerce four distinct entities into accepting NATO's demands: Slobodan Milosevic, his key political supporters, the Yugoslav army, and the Serbian people. To end the war without Milosevic's concurrence, his political supporters, the army, and the people would have to come to a consensus that it was more in their interests to accede to NATO demands than it was to continue to resist.

During the coercive phase of the operation, NATO bombed Yugoslavia's industries, oil refineries, electrical power grids, bridges across the Danube and other major waterways, Ministry of Defense installations, and the business interests and economic assets of Milosevic, his family, and the Serbian leadership. These targets were designed to make the war painful and costly. Indeed, the bombing wrecked Yugoslavia's oil refineries, demolished its Yugo factory, and destroyed or damaged other factories that produced light attack aircraft, military vehicles, and helicopters.

Three weeks into the bombing, 103 targets had been hit.[12]

Since Yugoslavia's economy is primarily agricultural, the effect of this phase of the bombing was minimal. While the loss of oil refineries, for instance, constituted an economic setback for Yugoslavia, the capabilities of the Yugoslav military and paramilitary forces in Kosovo were not affected. Attacks on oil refineries and storage facilities have the greatest operational effect when a ground war is looming. Attacking these targets has very little military effect on troops who walk or ride in light vehicles to move from village to village as they carry out the bloody work of ethnic cleansing. Furthermore, as long as Yugoslavia could import petroleum, either through Montenegro or elsewhere, attacks on its oil production and storage facilities made little sense. Meanwhile, at the front, the Serbs were achieving their objectives.

In Kosovo, bands of Serb soldiers and paramilitary troops drew on fuel supplies at hand. With no significant ground opposition and a NATO land force intervention ruled out, they parked their tanks and heavy vehicles, using concealment and decoys to excellent effect. They simply continued their operations on a different level than the Revolution in Military Affairs (RMA) air war going on some 15,000 feet overhead. In this phase of the operation, at the end of the third week of the bombing, some 33 army and police targets had been hit. Thirteen of those were in Kosovo, while 20 were elsewhere in Yugoslavia. Of the 13 targets struck in Kosovo, NATO claimed to have destroyed two and damaged three. Presumably these would have included police stations and barracks, which were most likely unoccupied at the time.[13]

During the first three weeks, the air war was not particularly intense. One Air Force official quipped, "This is not Instant Thunder [the original code name for the air component of Desert Storm]; it's more like Constant Drizzle." [14] Of the 9,300 sorties flown by the end of the third week in April, about a month into the operation, only 2,750 were strike sorties. At this point, NATO was averaging only about 150 sorties a day compared to the 1,600 per day average in Desert Storm.[15] Furthermore, through 15 April, 90 percent of the weapons used were from the high end of the RMA, and by the beginning of May the Air Force stocks of JDAMs and cruise missiles were running low.[16] The attacks were failing to achieve their stated objectives. Meanwhile, ethnic cleansing, the cessation of which was the primary reason for going to war, had accelerated dramatically and was continuing with virtually no effective opposition by NATO air power. Not only had the RMA attack failed to achieve its objectives, but at this point Belgrade was holding its own against the best that the United States and NATO could throw at it.

Over the next three weeks, the air operation picked up considerably as more aircraft arrived, particularly from the United States. According to a NATO briefing, by 12 May some 19,000 sorties had been flown, 6,333 of which were strike sorties. Attacks on Serbian forces in Kosovo also increased in proportion to attacks on air defense, command and control targets, and oil production facilities, which had pretty much been battered into rubble earlier in the campaign. The average number of sorties rose from 150 per day to 450-to-500 per day after mid-April and began focusing on Serb forces that NATO claimed were "isolated" in Kosovo. In this third phase of the operation (the phases are by no means distinct as to targets struck and re-struck due to the incoherent nature of the operation), the plan was to systematically destroy the Yugoslav forces in Kosovo.[17]

By 19 May, after 56 days of bombing, NATO claimed to have destroyed 31 percent of all Serb heavy forces in Kosovo, including 11 battalion or brigade command posts; 312 tanks, heavy artillery pieces, and armored vehicles; and 244 other pieces of military equipment. Further reports stated that air strikes had destroyed 75 percent of the fixed surface-to-air missile (SAM) sites in Yugoslavia and 12 percent of its mobile SAMs.[18] But Milosevic was not budging, and the flow of refugees streaming out of Kosovo, where the real war was taking place, continued.

At this point it seems the NATO air war had successfully attacked a number of targets but that destroying these targets made little difference. Also, the claims being made for the effectiveness of NATO air power, focused as they were on the precision with which targets were being hit rather than the effect that the bombing was having on achieving our strategic objectives, led to inflated expectations. To be sure, inflated expectations were fed with inflated assessments of our tactical and operational successes.

After three more weeks of bombing, at the end of Allied Force, official Department of Defense reports regarding bomb damage were extremely sanguine. Consider, for example, the following claims. All of Yugoslavia's petroleum refining

capability was destroyed. NATO air strikes had destroyed 65 percent of Serbia's ammunition production capacity and half of its explosives production capabilities. Forty percent of Serb armored vehicle production and repair capacity was destroyed or damaged. Lines of communications had been significantly disrupted, with 70 percent of the Danube highway bridges and half the railroad bridges dropped, effectively rendering the river impassable for commercial navigation. These reports further claimed that virtually all of the MiG-29s in the Yugoslav air force were destroyed or out of service, along with more than a third of the rest of Yugoslavia's combat aircraft. NATO reported that the bombing inside Kosovo had accounted for the destruction of 110 tanks and self-propelled artillery vehicles, 210 armored personnel carriers, and some 449 mortars and towed artillery pieces.

However, Anthony Cordesman, a respected defense analyst with Washington's prestigious Center for Strategic and International Studies, noted in an exhaustive early study of Operation Allied Force, "These claims . . . had all the gaps and uncertainties of previous claims. They were vague, poorly defined, and were not tied to any clear method of damage assessment. NATO did not provide supporting data on the number of sorties, missiles, and munitions used." [19] In the aftermath of Operation Allied Force, as the allied intervention forces moved into Kosovo, a controversy erupted over just how much damage the NATO bombing had inflicted. For instance, a *US News and World Report* article stated that there was evidence of only 26 destroyed tanks and self-propelled artillery vehicles. Instead of 210 destroyed armored personnel carriers, only 12 actually were counted. And, rather than the 449 mortars and towed artillery pieces originally tallied as having been killed by air, only eight were in evidence. [20] NATO's military leadership rebutted that contention, saying that a NATO postmortem had concluded that at least half the 1,955 target hits reported by NATO pilots could be confirmed and that among the damaged or destroyed targets in Kosovo there were 93 tanks, 153 armored personnel carriers, 339 military vehicles, and 389 artillery pieces and mortars. [21]

Perhaps the disparity has something to do with the criteria used to determine whether or not a target has been destroyed or damaged. When something is destroyed it is incapable of functioning. But "damaged" can mean anything from nearly destroyed to merely scratched. One thing we do know was that the Yugoslav troops leaving Kosovo did not appear to be hauling any wrecked vehicles. That means that if the air strikes were as effective as has been contended, the evidence should be available in Kosovo.

The controversy over bomb damage assessments is reminiscent of the Air Force's Commando Hunt Reports from the air war against the Ho Chi Minh Trail in Laos during the latter stages of the Vietnam War. These also chronicled an unbroken string of air power victories based on the number of trucks supposedly destroyed or damaged and the fuel dumps, truck parks, and vehicle repair facilities struck. In Operation Commando Hunt V, conducted between October 1970 and March 1971, for instance, the Air Force claimed a whopping 16,266 trucks destroyed and 4,700 damaged within a six-month period. When the Central Intelligence Agency countered that North Vietnam was not supposed to possess more than 10,000 trucks in all of North Vietnam and Laos combined, the Air Force was forced to reassess the criteria used to decide whether or not a truck was destroyed or damaged. There was never a satisfactory final analysis, and the Air Force still claimed to have destroyed 11,000 trucks and damaged 8,000 in Commando Hunt V. We do know, however, that North Vietnam was not constrained in its ground operations in South Vietnam by a want for supplies during a time in which they were completing their transition from guerrilla warfare to full-scale conventional operations. [22]

In Allied Force, as in Commando Hunt, air power advocates seemed to think that hitting targets and causing destruction are synonymous with victory. The enduring truth is that tactical and operational success does not always translate into strategic victory. Victory can be claimed only when the acts of force employed have compelled the enemy to do our will.

The Serbs Had a Lot to Do With It

After the American Civil War, someone is supposed to have asked former Confederate General George Pickett why the South lost the war. He replied that the Yankees had a lot to do with it. In this case, the Yugoslav military and security forces proved quite effective in countering the air campaign to accomplish their objectives. Rather than constituting a road map for the use of air power as the instrument of choice in future wars, Allied Force might serve better as a case study in asymmetric warfare. For all its sound and fury, the vaunted technological superiority of American and NATO air and missile power could not prevent Yugoslavia's vastly outclassed and outnumbered Cold

War-legacy military forces from wreaking havoc and terror among the Albanian Kosovar population of Kosovo. Certainly, among those air power advocates who would agree that air power did not win this war, many would argue that air power could have won the war if they had been allowed to pick the targets and if air power had been applied massively from the outset. Maybe so, but history does not bear out this contention; so, as yet, the decisiveness of air power as the sole instrument in warfare remains unknown and theoretical.

What we do know is that Serbia exploited NATO's strategic, operational, and tactical mistakes. The biggest strategic blunder NATO made was to rule out a ground invasion force. This meant that the Serbs could rely on sidearms and light weapons to achieve the ethnic cleansing in Kosovo. They did not have to mass their forces, and until the Kosovo Liberation Army attacked them at the end of the war, forcing them into the open, they were relatively invulnerable to air power. By the time NATO got around to hitting their barracks, police stations, and command and control facilities inside Kosovo, most Serb troops had moved to other sites and established their communication nets elsewhere. The forced expatriation of a million Albanian Kosovars provided lots of empty homes, barns, and other structures for the Serbs to occupy and use.

The Serbs also took advantage of NATO's self-imposed altitude restriction of 15,000 feet, where aircraft and crews were safe from small-arms fire, most anti-aircraft guns, and hand-held surface-to-air missiles. Although NATO aircraft were vulnerable to SA-2s, SA-3s, and SA-6s at 15,000 feet, their capabilities for suppressing these elements of the enemy's air defense system were truly impressive. However, the proportionately large number of missions flown to suppress enemy air defenses, including the vast electronic warfare array needed to accompany strikes by stealth aircraft like the F-117A and B-2, provide one reason the ratio of support to strike sorties was so disappointingly high.

The Serbs adopted a form of air deniability used so effectively by the North Vietnamese three decades ago. But, unlike the North Vietnamese, the Serbs did not aggressively confront the NATO air attack. To do so would have put their air defense system in jeopardy, and in all probability it would have been seriously degraded if not virtually destroyed. Rather, they employed a kind of "rope-a-dope" defense, riding out NATO attacks and using their weapons sparingly and only when they had a reasonable chance of success. This strategy succeeded because it kept NATO aircraft above 15,000 feet, where they were far less effective than they might have been at a lower altitude against most targets and virtually ineffective against the targets that really mattered, those associated with the ongoing ground operations in Kosovo. While the Serbs did not shoot down many aircraft, the downing of one F-117A and the damage of a second stealth fighter proved to be a significant coup, one that should give the United States pause in its fascination with stealth as the key to aerial warfare in the future. The Serb defense accomplished what a good defense should by forcing the attacker to so alter the nature of his attack as to significantly degrade its effectiveness.

The weather also worked to the advantage of the Serbs. Laser-guided weapons were no more usable through the cloud cover over Yugoslavia in 1999 than they had been over Indochina 30 years before. But unlike in Vietnam, in this war attacking aircraft were not allowed to go beneath the clouds to search for and strike targets if that meant flying at an altitude where they might be more vulnerable to anti-aircraft fire and hand-held missiles. In the future, unmanned aerial vehicles that can operate at lower altitudes, below the clouds, to spot and designate targets should erase some of the limitations that weather has thus far imposed on air power. But in this operation, the enemy owned the bad weather days. Any future enemy is likely to note that fact, and to exploit predictable seasonal weather patterns to its advantage.

Another key to neutralizing the effects of an air-power-only strategy is to move quickly to accomplish your objective before the full weight of air power can be applied to your land forces. This is exactly what the Serbs did, not only by accelerating their ethnic cleansing from the first day of the attack, but also by moving their forces into forested, hilly, ravine-strewn terrain where they would be less vulnerable to air power when and if the brunt of the attack materialized. The Serbs hid sufficient forces and used decoys effectively enough so that when the Kosovo Liberation Army attack began in the last week of the war, they had plenty of armor and artillery to mass against it. The Serbs were, of course, then quite vulnerable to air power, although recent analyses indicate that the vast majority of their forces emerged relatively unscathed. An important lesson here is that it took land forces to flush the Serbs out into the open where they could be attacked more effectively from the air, illustrating once again that a joint force, in this case an air-land team, is generally a superior instrument of war.

The Serbs probably realized that if NATO land forces entered the war, Serb tanks and artillery would be outclassed as

hopelessly as their MiGs were in the air war. As soon as they massed their forces, the Serbs would be vulnerable to attacks by the US Army's Multiple Launch Rocket System (MLRS) and Apache helicopters working in conjunction with armor and mechanized forces. At that point, American and NATO air and land power would be so devastatingly effective that fuel consumption would be the least worry for Serb armor and mechanized units because surviving long enough to need a second tank of gas would be problematic. The Serbs seemed to have understood that they could not possibly endure a NATO ground attack. They caved in when it became apparent that one might be in the offing, and they might well have done so sooner had they not been assured that this was the last thing NATO would do.[23]

Conclusions

Clausewitz wrote that war has a grammar but not a common logic. What that means is that every war is unique because political goals differ with each conflict. Sometimes those goals, and the willingness of peoples and nations to suffer for those goals, are not amenable to the same logic. Operation Allied Force presented such a case. In the end, the spectacular claims of air power enthusiasts cannot erase the cold, hard facts. Air power did not stop the ethnic cleansing in Kosovo. The bombing did not force Slobodan Milosevic to sign the accords as originally specified by NATO. Air power neither decimated nor defeated the Yugoslav army in the field. In fact, the air strikes did very little to damage Serb forces in Kosovo. Moreover, Milosevic, like Saddam Hussein in Iraq, remains in power, reconsolidating his regime and showing every likelihood of surviving to do us further mischief in the future.

What does this tell us about the relevance of air power in future operations? Are the dubious accomplishments of air power in Operation Allied Force any reason to denigrate its utility in wars to come? Not necessarily. Air power still has the unique capability of being able to strike quickly over long distances. In some operations, or at least in some phases of future operations, air power will and should be the primary and supported instrument. But this was not one of those cases, and to build a future US defense establishment based on claims of what may or may not have been the effects of air power in Operation Allied Force could be disastrous for the future of America's national security. While gradual escalation with the employment of precision-guided munitions might appeal to those who continue to think that wars, even wars with limited objectives, can be won with limited force, the final outcome in Kosovo argues against that.[24]

Both Clausewitz and Sun Tzu tell us that bad strategies lead to bad outcomes. Neither does a good cause assure a good ending. In short, the side that devises the strategy that is most appropriate to the war at hand will be the side that wins. Technology, heroism, and the effusion of blood cannot redeem bad strategies.

Strategy is the use of engagements for the object of war.[25] If avoiding casualties is the keystone in the strategic arch, that arch will crumble, because war without casualties is an oxymoron. War is and always will be about people fighting people, whether individually, in massed formations or guerrilla bands, in tanks, in planes, or on ships. Bloodless war is a pipe dream, and the war with Yugoslavia was far from bloodless. Just because NATO forces did not shed their own blood in combat does not mean blood did not flow. Blood flowed profusely, and most of it was innocent blood. Milosevic understood our aversion to casualties and took full advantage of the ill-conceived strategy that we devised, with air power at its focal point, to cater to that aversion. Air power alone could not succeed, and it did not succeed in accomplishing the objectives specified by President Clinton on 24 March 1999.

The notion that air power can make war bloodless--or even nearly so--is not only wrong, it is fraught with danger for the future. If potential enemies believe that the fear of suffering casualties constitutes a vulnerable center of gravity for the United States, they will exploit that vulnerability. They will devise strategies that inflict maximum casualties on us and on our allies. No credible foreign policy can be used to build a lasting international security system as long as the United States seeks to impose its will on other nations but is unwilling to shed the blood of its own people. If our objectives in Kosovo were not worth the life of a single American soldier or aviator, why were they worth the lives of so many Albanian Kosovars, indeed so many Serbs? Professional soldiers know that what makes soldiers unique is their intimate relationship with human life--and with human death. In the *Star Wars* movies, it is the Evil Empire that obliterates its enemies while acting from the safety of the Death Star. That is not a model to be emulated. A nation that is all too willing to kill in support of its interests and ideals but not willing to suffer may be feared, but it also will be held in contempt by adversaries and friends alike.[26]

The lessons-learned industry for Operation Allied Force has only begun its work, and we must be careful not to draw firm conclusions too hastily. Air power, despite the valid reservations concerning its performance in Yugoslavia and the high cost to low benefit ratio resulting from its employment there, still has a key role to play in the future of US national security. As we churn over the results of Allied Force, let us hope that the services will try to think about ways to respond to these kinds of operations in the future and to respond to them as a team. Currently, many air power enthusiasts, defense analysts, policymakers, and politicians have been seduced by the promise of bloodless, low-cost victory through precision strike. The sooner they discard this discredited notion, the sooner they will discover the means for waging war that are truly effective and decisive. To be most effective, the forces we commit to combat must be balanced and flexible, thus capable of meeting whatever challenges may arise.

NOTES

1. Major General Charles Wald, Department of Defense Briefing, 2 June 1999. Transcript in Anthony H. Cordesman, *The Lessons and Non-Lessons of the Air and Missile War in Kosovo* (Washington: Center for Strategic and International Studies, 8 July 1999), draft copy, p. 30. This is an especially notable achievement given that five missiles and bombs missed Yugoslavia altogether to land in neighboring Bulgaria, one hitting downtown Sofia.
2. John Keegan, "So the Bomber Got Through After All," *London Daily Telegraph*, 4 June 1999, p. 28.
3. John A. Tirpak, "Lessons Learned and Re-learned," *Air Force Magazine*, August 1999, p. 23.
4. Major General (USAF, Ret.) Charles D. Link, quoted from *The Washington Post*, 2 June 1999, in "Verbatim," *Air Force Magazine*, August 1999, p. 66.
5. Michael E. Ryan, "Air Power is Working in Kosovo," *The Washington Post*, 4 June 1999, p. 35.
6. Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, N.J.: Princeton Univ. Press, 1989), p. 76.
7. President Bill Clinton, 24 March 1999 Statement of Objectives, quoted in "Verbatim," *Air Force Magazine*, August 1999, p. 106.
8. Madeleine Albright quoted from *The Washington Post*, 6 June 1999, in "Verbatim," *Air Force Magazine*, August 1999, p. 64. See also *A National Security Strategy for a New Century* (Washington: The White House, October 1998), p. 5.
9. Madeleine Albright quoted in John F. Harris, "Reassuring Rhetoric, Reality in Conflict," *The Washington Post*, 8 April 1999, p. 21.
10. Clausewitz, p. 76.
11. William Johnsen, "United States Policy Options for Kosovo: Unraveling the Gordian Knot," *The Brown Journal of World Affairs*, 6 (Winter/Spring 1999), 221.
12. Cordesman, p. 45.
13. Ibid. See also *Jane's Defence Weekly*, "'Allied Force' Applied to Serbia," 31 March 1999, p. 3.
14. Unnamed Air Force official quoted in John Morrocco, "Weather and Weapons Dearth Slow NATO Strikes," *Aviation Week and Space Technology*, 5 April 1999, p. 26.
15. Cordesman, p. 45.
16. Ibid., p. 46.

17. David A. Fulgham, "Isolated Serb Army Faces Aerial Barrage," *Aviation Week and Space Technology*, 12 April 1999, p. 26.
18. Cordesman, p. 62.
19. *Ibid.*, pp. 62-63.
20. Richard J. Newman, "The Bombs that Failed in Kosovo," *U.S. News and World Report*, 20 September 1999, p. 29.
21. William Drozdiak, "Kosovo Successes Confirmed, NATO Chief Says," *The Washington Post*, 17 September 1999, p. 22.
22. Earl H. Tilford, Jr., "Bombing Our Way Back Home: The Commando Hunt and Menu Campaigns of 1969-1973," in *Looking Back on the Vietnam War: A 1990s Perspective on the Decisions, Combat, and Legacies*, ed. William Head and Lawrence E. Grinter (Westport, Conn.: Greenwood Press, 1992), p. 133.
23. See Dana Priest, "A Decisive Battle that Never Was," *The Washington Post*, 19 September 1999, p. 1; and "Milosevic Had Intelligence He Would Face Ground Attack," *The Washington Times*, 1 September 1999, p. 7.
24. General Joseph Ralston, Vice Chairman of the Joint Chiefs of Staff, stated in mid-September 1999 that the political reality is that the military will have to undertake gradual escalation in future wars. While this approach fits well with the notion that violence can be applied in degrees to coerce behavior, history argues otherwise. See "Ralston Sees Potential for More Wars of Gradual Escalation," *Inside the Pentagon*, 16 September 1999, Early Bird electronic transmission.
25. Clausewitz, p. 128.
26. For an excellent articulation of this argument, see Michael Evans, "Dark Victory," *U.S. Naval Institute Proceedings*, September 1999, pp. 33-37.

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