Chapter Two

THE KOSOVO EXPERIENCE

Operation Allied Force illustrates the challenges of finding and defeating elusive maneuver forces with aerospace forces alone in operations at the lower end of the conflict spectrum. In this chapter, we examine all the components and players involved in the operation: the historical background for Kosovo, Yugoslav operations, NATO operations, and the shortcomings of Operation Allied Force, to give as complete a picture as possible of all the variables involved in order to determine the likelihood of such elusive forces operating again and the best ways of defeating them with air power alone.

KOSOVO: UNIQUE OR RECURRING?

Was the NATO air effort in Kosovo unique, and unlikely to happen again? Or are similar operations likely to recur?

Unique Historical Accident?

At first glance, Operation Allied Force may appear to be unique. Humanitarian concerns, rather than national interests, prompted this operation, resulting in stringent rules of engagement (ROE) and low tolerance for friendly casualties. Moreover, it resulted from miscalculation on both sides and took a course that neither side expected.

States usually fight for national interests. Much less often, they fight for humanitarian reasons, such as in Kosovo. The NATO allies initially tried to ignore Kosovo’s problems. They did not want to ad-
dress awkward issues associated with Albanian nationalism, especially the possible disintegration of Macedonia. Compelled to stop crimes against humanity, they reluctantly undertook military operations. Since their motive was to stop suffering, they could not very well inflict suffering; therefore, ROE were stringent. Moreover, lack of national interest implied that commanders should minimize coalition casualties. Humanitarian concerns precipitated this operation, but they remained a relatively weak casus belli.

NATO leaders, initially unwilling to contemplate stronger action, tended to believe that Belgrade would capitulate after a few days. Yugoslav leaders decided to expel ethnic Albanians from Kosovo, apparently unaware that this act would unite the NATO allies and make them determined to prevail. This practice was known as “ethnic cleansing.”¹ The result of these miscalculations was a protracted air effort that neither side wanted nor expected.

**Type Likely to Recur?**

Despite its quirkiness, Operation Allied Force may exemplify a type of operation that is likely to recur. In the near future and under self-imposed constraints, the United States may very well employ air power to coerce a recalcitrant regime, in the pattern of Operation Allied Force.

Humanitarian intervention is not unprecedented. The Spanish-American War, usually considered America’s debut on the international stage, was precipitated in large part by humanitarian concerns—revulsion against the brutal methods of Valeriano Weyler’s counterinsurgency campaign in Cuba²—as much as by the destruction of the USS Maine in Havana harbor.

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¹The term “ethnic cleansing” emerged from the Bosnian war of 1992–1995, apparently coined by Bosnian Serbs. It implied expelling other ethnic groups until only one’s own group remained. Extremely brutal means were employed in these expulsions, including arson, rape, and murder. In extreme cases—e.g., Srebrenica in July 1995—thousands of people were killed and buried in mass graves.

The focus of American security policy on defense against totalitarian Communist regimes during the Cold War has now shifted with the end of the Cold War. Admittedly, there is no consensus on how U.S. power should be used in this new era. However, humanitarian motives have certainly become more prominent. Operations in Somalia, Haiti, Bosnia, and, of course, Kosovo were strongly influenced by humanitarian concerns. The George Bush administration entered Somalia to stop starvation caused by drought and fractional warfare, a clear example of humanitarian intervention. The Clinton administration intervened forcefully in Haiti, which, apart from the political embarrassment of intercepting “boat people,” presented no threat at all to the United States. The Clinton administration was drawn into Bosnia, first in the air and ultimately on the ground, because of its leadership role in Europe—not because U.S. interests were at stake. But the European allies were engaged in Bosnia primarily because they could not passively endure egregious violations of human rights, particularly the Srebrenica debacle and the resulting flows of refugees.

The prehistory of the Kosovo operation illustrates the influence of humanitarian concerns on policy. In fall 1998, NATO Secretary General Javier Solana suspected that Yugoslavia was deliberately holding its brutal repression just below a level that would trigger NATO action. He quoted a Serb diplomat as saying “a village a day keeps NATO away.” Speaking of massacres during September 1998, National Security Advisor Samuel (“Sandy”) Berger said they exceeded America’s “atrocities threshold.” The gruesome massacre at Racak in January 1999 convinced the Clinton administration that the October Agreement had failed and firmer action was required.

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4Daalder and O’Hanlon, 2000, p. 65.
5On October 13, 1998, U.S. Special Envoy Richard Holbrooke and Yugoslav President Slobodan Milosevic reached broad agreement concerning verification of Yugoslavia’s compliance with United Nations Security Council Resolution 1199. Acting under Chapter VII of the Charter of the United Nations, the Security Council passed Resolution 1199 on September 23, 1998. In this resolution, the Council demanded that all parties cease hostilities in Kosovo and that the two sides enter into a dialogue, without preconditions, that would lead to a negotiated solution of the Kosovo issue. The October Agreement included a ground element and an air element. The ground element would comprise 2,000 unarmed monitors under auspices of the Organization
Operation Allied Force also indicates emergence of air power as the preferred military instrument to compel changes in the policy and character of lawless regimes. Naval power, whether through "gun-boat diplomacy" or by landing the Marines, has traditionally been the preferred instrument and will certainly continue to play a large role. But in a series of crises—Kuwait, Iraq, Bosnia, and, most recently, Kosovo—air power, and predominately land-based air power, has been preferred. Air power offers the inherent advantages of rapid global reach, reassuringly low casualties, extreme flexibility, and great discrimination in its effects.

During World War II, air power could achieve strategic effects only if used massively. But such bombardment is unacceptable today, even in major theater warfare. Indeed, it would be considered disproportionate to any expected military advantage and, therefore, a war crime. Fortunately, the precision, lethality, and survivability of modern U.S. air power enable key targets to be destroyed with almost no unintended damage to city infrastructure and with minimal civilian casualties. Today, U.S. decisionmakers prefer air power because they respect—and may even exaggerate—this ability to discriminate: to drop bridges while killing the fewest possible passers-by, and to destroy selected buildings and even parts of buildings without damaging nearby structures, for example. In Kosovo, air power was even expected to kill the perpetrators of "ethnic cleansing" while sparing its victims—an unattainable level of discrimination under the circumstances.

Targeting Dilemma

If more operations like Kosovo are to be expected, then U.S. air planners might again confront a target dilemma such as occurred during the latter weeks of Operation Allied Force. Not wanting to impoverish and embitter the Serb people, NATO authorities hesitated to approve the attack of additional communications, transportation, and economic targets. The targets they were allowed to attack degenerated into, as Lt Gen Michael C. Short, 16th Air Force Commander, re-
marked, “fire hydrants and stop signs.” NATO authorities strongly preferred that air attack be concentrated on Yugoslav forces in Kosovo, but these forces could hardly be found, let alone hit. Undetected much of the time, when seen the forces were usually indistinguishable from civilians or too intermingled with civilians.

Thus, NATO air forces faced a targeting dilemma: on the one hand, they were not allowed to engage the complete set of fixed targets they believed necessary to force Milosevic’s capitulation; on the other hand, they were not able to detect and destroy the maneuver forces in Kosovo that they were allowed to attack.

YUGOSLAV OPERATIONS

During Operation Allied Force, NATO spokesmen constantly called the opponent “Serbia.” More precisely, the opponent was Yugoslavia (Serbia and Montenegro), but Montenegro was largely exempted from attack owing to its moderate, pro-Western government. Serbs, including those Montenegrans who consider themselves Serbs, view Kosovo as an ancestral heartland, although its pre-conflict inhabitants were overwhelmingly ethnic Albanians.6

Background to the NATO Intervention

Until 1997, most Kosovar Albanians passively endured repression by Yugoslav authorities, but then the Kosovo Liberation Army (KLA), a small group funded by the Albanian Diaspora, began to conduct terrorism, including assassinations of Yugoslav officials. To counter this terrorism, Ministry of the Interior police forces (Ministarstvo Unutrasnjih Poslova, or MUP), supported by the Yugoslav Army (Vojске Jugoslavije, or VJ), initiated a counterinsurgency campaign in February 1998. This campaign was out of proportion to the provocation and conducted with extreme brutality against the civilian popu-

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6Apparently during the seventh century, Serbs settled in the area of present-day Bosnia, Montenegro, and Kosovo. Medieval Serbia achieved its greatest extent in the early fourteenth century when its capital was in present-day Macedonia. On June 28, 1389, an Ottoman Turk army defeated a Serb-led force at Kosovo Polje in present-day Kosovo. Slobodan Milosevic launched his post-Communist political career by an inflammatory nationalist speech in Kosovo on June 28, 1989, the 600th anniversary of that defeat.
lation. By early October 1998, the United Nations High Commissioner for Refugees (UNHCR) estimated that nearly 90,000 Kosovar Albanians had become refugees and many more were internally displaced.\(^7\)

Reacting to this humanitarian crisis, the North Atlantic Council (NAC) approved an activation warning for air operations against Yugoslavia on September 24. U.S. envoy Richard Holbrooke conveyed an explicit threat of air strikes to Yugoslav President Slobodan Milosevic during their meetings in October. On October 13, these two men reached agreement that Yugoslavia would not deploy additional forces into Kosovo and that an unarmed Kosovo Verification Mission (KVM) would monitor Yugoslavian compliance with United Nations resolutions.

For a few months, tension eased and some refugees returned to their homes. But the KLA soon expanded its operations within Kosovo, and Yugoslav forces intensified their operations against the KLA, accompanied as before by violence against civilians. On January 15, 1999, Yugoslav forces massacred at least 45 men and boys near the village of Racak. KVM monitors arrived at the site the following day and found corpses strewn through the woods, most dead from head wounds.

In response to the Racak massacre, the NATO allies and the Contact Group,\(^8\) including Russia, persuaded Yugoslavia and representatives of the Kosovar Albanians to meet at Rambouillet in February. Both sides refused to accept the proffered accords, but the United States subsequently persuaded the Albanian negotiators to sign, leaving Yugoslavia the recalcitrant party. On March 24, NATO initiated Operation Allied Force for the purpose of coercing Belgrade into accepting the peace process as outlined during the Rambouillet Conference.

\(^7\) Daalder and O’Hanlon, 2000, Figure 2-1, p. 41.

\(^8\) The Contact Group is made up of major powers that hold regularly scheduled, formal meetings, at the level of ministers or special envoys, to discuss Balkan affairs and develop common policy. The Group has six regular members: France, Germany, Great Britain, Italy, Russia, and the United States.
“Ethnic Cleansing”

When the NATO air operation began, Yugoslav authorities accelerated the deportation of ethnic Albanians from Kosovo. The total of refugees climbed to over 500,000 in mid-April and peaked at almost 800,000 in late May. In addition to refugees, many other Albanians were internally displaced within Kosovo, but their numbers remain uncertain. The Belgrade regime was well on the way to depopulating Kosovo entirely, presumably with the intention of settling Serbs on the land. This sudden and massive “ethnic cleansing” reinforced NATO’s determination as nothing else could, a result Milosevic apparently failed to foresee. Thus, Milosevic’s action helped unify NATO, but in the short term, NATO was embarrassed by its inability to protect the Kosovar Albanians, whose suffering had caused the crisis.

“Ethnic cleansing” was a deliberate act of state carried out by the VJ and MUP. In a typical operation, the VJ would secure an area while the MUP forced Albanian inhabitants to flee. The VJ would establish checkpoints on the major roads and fire on suspected KLA strongholds with tanks or self-propelled artillery. It would usually stand ready to support the MUP, but might also participate in the “cleansing.” The MUP was usually armed and equipped as light infantry, but sometimes rode in armored personnel carriers (APCs). It would order Albanians to leave their homes within a specified time and sometimes direct their subsequent movement. For example, some Albanians were directed to take trains bound for Macedonia, apparently in an attempt to destabilize that country. After the inhabitants had fled, Yugoslav forces and paramilitaries would often loot their homes. The MUP usually had lists of suspected KLA and their sympathizers. It might arrest such persons or kill them immediately. In some villages, the VJ and MUP detained all male inhabitants and massacred them.

Most “ethnic cleansing” required only modest-sized forces, typically 2–5 tanks or pieces of self-propelled artillery, possibly 5–10 APCs, and the trucks and buses for transporting additional infantry and support. On some occasions, air defense artillery was used for fire sup-

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9 Daalder and O’Hanlon, 2000, Figure 4-1, p. 109.
port against ground targets. The task force might comprise 200 to 400 personnel drawn from VJ and MUP. The VJ forces often came from the brigade operating in the particular area and therefore the associated road marches were only about 20 to 50 kilometers (km). The task force would be most concentrated as it approached the area to be “cleansed” and would conduct the initial fire missions. However, VJ forces would quickly disperse to secure the area of operations, typically operating at squad level. MUP would quickly become intermingled with the Albanian population it was “ethnically cleansing.” VJ and MUP usually employed heavy weapons during these operations. Judging from the Bosnian Serb experience, they could have attained the same results using just light infantry, with only slightly higher risk to themselves.10

Air Defenses

The VJ operated a heterogeneous air defense system, including older Soviet-made missiles, Soviet-made and indigenously produced air defense guns, and more modern Western surveillance radars. The mainstays of their missile defenses were the SA-6 (NATO code name “Gainful”) and the SA-3 (NATO codename “Goa”). They used a wide variety of air defense guns, which included the BOV-3, triple 30mm cannons turret-mounted on a lightly armored, wheeled vehicle; and the M-55, triple 20mm cannons on a wheeled chassis. They also had substantial numbers of man-portable air defense weapons, including the SA-7 (NATO code name “Grail”) and possibly more-modern versions.

Yugoslav (predominately Serb) forces presumably shared the experience acquired by Bosnian Serb forces against NATO air forces during Operation Deny Flight (air denial and close air support, April 1993–December 1995) and Operation Deliberate Force (attacks to enforce “safe areas,” August–September 1995).11 During Operation Deny

10 Interview with personnel at National Ground Intelligence Center, Charlottesville, Virginia, conducted by Bruce Pirnie on October 19, 1999.

11 Indeed, U.S. no-fly zone operations over the Balkans and Iraq have given U.S. adversaries a continuous real-world opportunity to observe standard U.S. operational concepts and tactics. It was widely reported that the Serb air defense commander visited Iraq shortly before Operation Allied Force, and it is likely that the Serbs were briefed on Iraqi lessons learned in almost 10 years of operations against U.S. air forces.
Flight, Bosnian Serb air defenders passed offboard data to their SA-6 systems in attempts to trap NATO aircraft. On one occasion, they downed a U.S. F-16 aircraft flying a routine sortie to enforce the no-fly zone. During Operation Deliberate Force, Serb air defenders escaped destruction from anti-radiation missiles by blinking their radars and engaging with minimal radar guidance, a technique the VJ used again during Operation Allied Force.

Evading Attack by Air Power

Before Operation Allied Force even began, the VJ was already dispersed to conduct counterinsurgency operations against the KLA. Typically, infantry operated in platoons and squads patrolling areas of suspected KLA activity or controlling key terrain, such as border crossings, mountain passes, road junctures, and villages. The largest massing of forces usually occurred at the outset of “ethnic cleansing” and usually involved several companies of light or mechanized infantry supported by a few tanks and artillery pieces. It is not clear whether the VJ dispersed still more widely during NATO air attacks or just hid more effectively.

The main response to NATO air attacks was to hide, especially during clear weather and daylight. The VJ stopped organizing convoys and instead moved a few vehicles at a time during periods of reduced visibility. They concealed large items of equipment by using camouflage, driving under trees, or parking under shelters such as farm buildings. If the KLA had presented a greater threat, the VJ would not have been able to hide so effectively and still develop enough combat power. But the KLA did not present any threat, including its operations around Mount Pastrik, that required the VJ to mass its forces.

Yugoslav forces presented small numbers of mock-ups of equipment items such as SA-6 systems. Some of the decoys were extremely

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crude, yet still drew attacks from NATO aircraft operating at medium altitudes. However, NATO’s greater problem was a dearth of real targets, not a superfluity of decoys. Yugoslav forces also tried to save bridges from destruction by simulating more damage than had actually occurred and by constructing a mock bridge at a safe distance from a real one.

Perhaps the most effective technique was to intermingle with Kosovar Albanians. Intermingling inevitably accompanied “ethnic cleansing” without need for any special measures. It also occurred naturally when Yugoslav forces had to move on roads already clogged with Kosovar Albanians who had been driven from their homes. In addition, Yugoslav forces may have deliberately intermingled with civilians or parked military vehicles near civilian buildings so that they could not be attacked without causing collateral damage.

**NATO OPERATIONS**

The air effort over Kosovo Province, in contrast to the more effective effort over Serbia itself, was frustrating for airmen. Often, they had to return without identifying any targets. And when they were able to release ordnance, the results were highly uncertain. In some respects, the air effort over Kosovo resembled the Great SCUD Hunt during Operation Desert Storm: an operation of limited military effectiveness but of great political importance. In both cases, the fundamental benefit was to ensure alliance cohesion, even if enemy operations were only slightly affected.

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14During a visit to the Threat Museum at Nellis AFB, Nevada, our study team was shown an SA-9 decoy from Kosovo. It was roughly one-third scale and made out of old milk cartons taped together and stretched over a light metal frame. The milk cartons were turned inside so that their metallic liners would be exposed and presumably reflect radar signals. Light metal tubes mimicked the missile launcher. The whole affair was painted green. We were told that the decoy did have a radar reflection and that visually the decoy looked quite real from the air. After the conflict ended, a NATO team in a low-flying helicopter could not tell it was a decoy at a few hundred feet in altitude.
Political Constraints

Severe constraints were placed on Operation Allied Force, arising from NATO’s political goals and also the internal politics of its members. NATO initiated air attacks in the mistaken belief that Yugoslavia would capitulate quickly and resume negotiations along lines set during the Rambouillet Conference. The alliance members did not intend to conduct a full strategic bombing campaign against all of Yugoslavia; they exempted Montenegro in view of the moderate, cautiously pro-Western policies of its government. When Yugoslavia did not capitulate as expected, the alliance members authorized increasingly severe attacks. However, they did not authorize a full campaign, which would have devastated Serbia’s already moribund economy, causing extensive civilian suffering and long-lasting political effects. Their aim was to change the leader’s mind, yet inflict the least possible damage on the people he ruled—not an easy trick. Even in light of the outcome, it is doubtful whether NATO was willing to inflict more punishment than Yugoslavia could endure, had Milosevic chosen to persevere.

Western publics generally continued to support NATO’s effort, although their enthusiasm declined as Operation Allied Force continued. There were, however, significant differences in political support among the governments. The British government led by Prime Minister Tony Blair was strongly determined; indeed, London was more willing than Washington to use land forces if the air effort did not succeed. The Italian government maintained consistent support despite tension among competing factions and some skepticism in the public. Germany’s left-center coalition was in the most difficult position. Several of its key leaders, including Chancellor Gerhard Schroeder and Foreign Minister Joschka Fischer, began their political careers as student dissidents and led parties with significant left wings. Fischer’s own Green Party had formerly opposed Germany’s very membership in NATO and was sharply divided over the moral issue of using force, even when the opponent was committing crimes against humanity. As a result, the German government resisted an invasion of Kosovo with land forces, even when the air effort appeared inconclusive.
Rules of Engagement

The United States complies with the law of armed conflict, that “body of norms regulating the conduct of states and combatants in armed hostilities . . . [drawn] . . . from both treaties (conventions and agreements among states) and custom.”15 As a matter of policy, the United States acknowledges that indiscriminate attacks are unlawful and that damage to civilian targets should be proportionate to the expected military advantage. Rules of engagement normally reflect these broad principles, but during Operation Allied Force they were even more stringent.

Ultimately, NATO conducted Operation Allied Force because its conscience was outraged by Yugoslavia’s (essentially Serbia’s) brutal repression of Kosovar Albanians. Before early 1998, the NATO powers had been reluctant to interfere in an internal Yugoslav affair and had shown little inclination to help Kosovar Albanians or even to address the problem of Kosovo. They became involved only when the repression, especially depopulation of entire villages and episodic massacre of the male inhabitants, became impossible to ignore. Throughout the conflict, NATO’s first goal was to end this violence and repression. In April, the NATO powers issued their Statement on Kosovo,16 beginning as follows:

The crisis in Kosovo represents a fundamental challenge to the values for which NATO has stood since its foundation: democracy, human rights and the rule of law. It is the culmination of a deliberate policy of oppression, ethnic cleansing and violence pursued by the Belgrade regime under the direction of President Milosevic. We will not allow this campaign of terror to succeed. NATO is determined to prevail.

These values, especially concern for human rights and the rule of law, implied very low tolerance for collateral damage in Kosovo. NATO would have violated its own principles and appeared hypocritical had its actions inflicted great suffering on the very people it in-

15Waxman, 2000, p. 5.
tended to protect. This statement also delineates the enemy—“the Belgrade regime under direction of President Milosevic”—and the goal—“We are intensifying NATO’s military actions to increase the pressure on Belgrade.” NATO did not consider itself to be at war with Yugoslavia or even Serbia, much less the Serb people. It followed that NATO had low tolerance for collateral damage in Serbia as well.

In accordance with these principles, ROE in Kosovo were very stringent. Engagement was prohibited when civilians or cultural artifacts would be at risk. Civilian-pattern trucks and buses were excluded as targets because their contents could not be ascertained. NATO aircraft had to visually confirm targets before releasing ordnance. When, for example, Army AN/TPQ-37 radars identified firing locations of Yugoslav artillery, NATO aircraft had to positively identify this equipment before attacking it. They were not permitted to simply release against the suspected firing positions. As a result, aircraft allocated to flexible targets (excepting bombers) had only about an even chance of releasing ordnance. Many had to return with ordnance still under wing or, in the case of some carrier-based aircraft, jettison ordnance at sea.

**Effect of Yugoslav Air Defenses**

The Yugoslav air defense could not protect the country from NATO air attacks, but it still did place limits on NATO’s air operations. NATO lost only two aircraft (one F-117 and one F-16; but both pilots were rescued) to air defense missiles. This was far fewer than initially feared, but the continuing threat compelled NATO to devote substantial assets to the suppression of enemy air defense (SEAD) mis-

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17NATO, 1999, Paragraph 5.
18The AN/TPQ-37 Firefinder is a mobile, phased-array radar used to locate enemy artillery. The radar detects enemy artillery rounds when fired, tracks them to establish a trajectory, then uses a ballistic model to backtrack to the likely firing location. Gun barrels and artillery-shell surface imperfections, and varying winds aloft prevent the trajectories from being perfectly ballistic. Consequently, the Firefinder cannot determine with absolute precision the location of the firing artillery. However, it is sufficiently accurate for lethal counterbattery fire to be placed on the roughly football field–sized area in which it determines the enemy artillery to be. For more details, see the Federation of American Scientists Web site at http://www.fas.org/man/dod-101/sys/land/an-tpq-37.htm.
sion. Indeed, Operation Allied Force revealed a shortage of EA-6 Prowler aircraft, needed to jam enemy air defenses.

Before the operation began, General Michael G. Short had decided that aircraft under his control would avoid low-altitude air defense by staying at least 15,000 feet above ground level (AGL). Short reasoned that it was better to minimize friendly losses by staying moderately high than to get closer to the target or under the weather by flying low. Later, he relaxed this standard for airborne Forward Air Controllers while trying to identify targets and for strike aircraft during their final approaches to the targets.19

Mid- to higher-altitude defenses prevented more-vulnerable aircraft, such as the Joint STARS, AC-130s, and attack helicopters from overflying Kosovo or Serbia. At mid-altitudes, fighter aircraft often had to take evasive action to avoid radar-guided surface-to-air missiles (SAMs).

SHORTCOMINGS DURING OPERATION ALLIED FORCE

Operation Allied Force was a coercive air operation that accomplished NATO’s principal goals: It compelled Yugoslavia to withdraw its forces from Kosovo and to allow introduction of NATO forces supporting a UN peace operation, pending a solution of the Kosovo issue. It did not prevent or even seriously impede “ethnic cleansing,” but it did allow Kosovar Albanians to eventually return to their homes. Moreover, it accomplished these goals without any combat casualties, a remarkable outcome. However, Operation Allied Force revealed shortcomings in planning and preparation, reconnaissance, battle damage assessment, and control of air-ground engagements.

Imbalance of Goals and Means

At the outset, there was an embarrassing imbalance between NATO’s political goals and the military means being applied. President Clinton announced three objectives, including “to deter President

19Michael C. Short (Lt Gen, USAF), testimony before the Senate Committee on Armed Services, Washington, D.C., October 21, 1999; Michael Short, USAF interview, Studies and Analysis Directorate, U.S. Air Forces in Europe, Ramstein AFB, Germany, n.d.
Milosevic from continuing and escalating his attacks on helpless civilians by imposing a price for those attacks."  

NATO Secretary General Solana said: "We must stop the violence and bring an end to the humanitarian catastrophe now taking place in Kosovo."  

But air power alone could not stop Yugoslav forces from perpetrating crimes in Kosovo, as senior Air Force leaders realized. General Short preferred to minimize efforts against fielded forces in Kosovo because he expected poor results: "We couldn’t stop the killing in Kosovo from the air. We were not going to be efficient or effective."  

General John P. Jumper, U.S. Air Forces in Europe (USAFE) Commander, commented: "No airman ever promised that airpower would stop the genocide that was already on-going when we were allowed to start this campaign."  

The Air Force subsequently concluded: "There were few who believed that such tactically constrained air attacks on a dispersed infantry force could alone halt the atrocities or reverse the refugee flow."

### Inadequate Planning

Even though the Kosovo crisis developed slowly and gave ample warning, NATO neither planned nor prepared adequately for Operation Allied Force. For political reasons, NATO planned and prepared for a short air operation against a small target set (Limited Air Response), apparently based on the optimistic assumption that Belgrade would capitulate quickly. NATO’s plan for a larger effort (Phased Air Campaign) was conceptual. USAFE planned and exercised a larger United States-only effort (Nimble Lion) that eventually fed into Operation Allied Force, but this planning was not presented to the North Atlantic Council. There was no plan to conduct land operations if Belgrade refused to capitulate. Indeed, both to ensure


**21** Dr. Javier Solana, NATO Secretary General, Press Release, Brussels, Belgium, March 24, 1999.


NATO’s cohesion and to propitiate congressional opinion, the Clinton administration announced publicly that opposed land operations were not under consideration.

As a result, NATO started Operation Allied Force with only 214 combat aircraft and just 50 approved targets. The United States had only 112 land-based combat aircraft available and no aircraft carrier within range. When Belgrade refused to capitulate, the United States went to the opposite extreme and began a large-scale deployment (Papa Bear) that would have been in excess of need. To some extent, these shortcomings may be attributed to NATO’s sensitivities, but the United States also failed to make full use of its own resources early on.

**Inadequate Reconnaissance**

Ironically, collection against fielded forces yielded both too much and too little data. Cloud cover, camouflage, and dispersion of forces resulted in few good targets being detected; yet, so much raw data was received that intelligence analysts were overtaxed. Achieving correlation of data, let alone fusion, still requires interpretation by humans—a laborious and time-consuming process. It takes time to correlate inputs from disparate sources, such as electronic intelligence, electro-optical imaging, and radar. But with each passing minute, the data become increasingly obsolete.

NATO used a full range of sensors, including satellites, manned aircraft, and unmanned aerial vehicles (UAVs), each with its own capabilities and limitations. Satellites, although invulnerable, were often frustrated in the visual spectrum by poor weather. Manned aircraft generally operated above or outside the range of Yugoslav air defense systems, which limited the effectiveness of some sensors, as well as the ability of aircrews to detect Serbian military targets. UAVs operated at lower altitudes, but still above cloud cover, and were at risk from low-altitude air defenses. None of the sensors could reliably penetrate foliage, an enormous handicap, especially once the leaves reappeared in Kosovo’s heavily wooded terrain in spring 1999.

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Slow Response to Reconnaissance Data

During Operation Allied Force, it simply took too long to detect, identify, and attack a target. The terrain, foliage, and tactics of the enemy hid most targets from airborne and spaceborne sensors. When targets were detected, strict ROE required visual confirmation by an airborne FAC. Finally, the FAC would have to verbally guide a strike aircraft onto the target. The strike aircraft was required to describe the target to the FAC before an attack was authorized.

This process proved slow and cumbersome, taking up to several hours in some cases. The enemy usually had disappeared well before the process was completed.

Unsatisfactory Battle Damage Assessment

Battle damage assessment (BDA) against fielded forces has long presented great difficulties and produced controversial results. The difficulties begin with mission reports from pilots carrying out strikes. From the pilot’s or weapon system operator’s perspective, a strike mission is successful when he releases ordnance against an identified target, the weapon appears to hit within the lethal radius of the warhead, and detonation occurs. But the pilot usually cannot observe damage: The explosion, dust, and smoke prevent a clear view of the target. Therefore, assessment based on mission reports can exaggerate the amount of damage.

Reconnaissance is the next difficulty. During combat operations, attention is understandably focused on acquiring new targets, not on assessing damage against old targets. Few reconnaissance assets can be dynamically tasked to acquire BDA, and some of these assets may yield little new information. For example, flying at mid-altitude, the airborne FAC could often add little to the mission report, other than to confirm that an engagement had occurred.

Few Kills of Yugoslav Forces

Immediately after Operation Allied Force, the Department of Defense assessed that Yugoslav forces in Kosovo had suffered severe
losses in heavy equipment. A few months later, the Supreme Allied Commander Europe (SACEUR) presented results of an analysis that appeared to support this assessment. About a year after the operation ended, *Newsweek* published an article that accused military authorities of duplicity. The authors noted that few hulks had been found in Kosovo and alleged that military authorities had deliberately inflated battle damage assessment. The Air Force’s report on Operation Allied Force offered no assessment of losses to Yugoslav forces. Instead, it emphasized the great difficulty of attacking fielded forces under the conditions that had prevailed in Kosovo. Only Yugoslav authorities know the full extent of damage, but their forces presumably suffered few catastrophic losses other than the hulks left in Kosovo when they departed.

It would have been surprising if air power had been effective against fielded forces in Kosovo, considering the severe difficulties in finding them. Yugoslav forces were almost unchallenged on the ground, and therefore free to disperse and hide. Rough and varied terrain offered them plenty of concealment. Heavy cloud cover impeded surveillance and reconnaissance for long periods. The ROE required pilots to visually confirm that vehicles were unambiguously military and well clear of civilians. NATO forces had to minimize their own losses by staying at medium altitude.

Even in such a difficult situation, the USAF could improve its performance against fielded forces. The next chapter offers operational concepts to help achieve this improvement.

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