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REPORT TO CONGRESS

KOSOVO/OPERATION ALLIED FORCE AFTER-ACTION REPORT

31 January, 2000

REPORT TO CONGRESS

UNCLASSIFIED

Message From

Secretary of Defense William S. Cohen

Chairman of the Joint Chiefs of Staff Henry H. Shelton

For 78 days, from March to June 1999, the United States and its NATO allies engaged in a major military operation to bring an end to Serbian atrocities in Kosovo. At a turning point in NATO's long and successful history, Operation Allied Force was an overwhelming success. We forced Slobodan Milosevic to withdraw his forces from Kosovo, degraded his ability to wage military operations, and rescued over one million refugees. We accomplished these goals through a cohesive alliance of democratic nations whose military men and women conducted the most effective air operation in history.

From the onset of the operation, the United States and its NATO allies had three primary interests:

Ensuring the stability of Eastern Europe. Serb aggression in Kosovo directly threatened peace throughout the Balkans and thereby the stability of all of southeastern Europe. There was no natural boundary to this violence, which already had moved through Slovenia and Croatia to Bosnia.

Thwarting ethnic cleansing. The Belgrade regime's cruel repression in Kosovo, driving thousands from their homes, created a humanitarian crisis of staggering proportions. Milosevic's campaign, which he dubbed "Operation Horseshoe", would have led to even more homelessness, starvation, and loss of life had his ruthlessness gone unchecked.

Ensuring NATO's credibility. The Federal Republic of Yugoslavia and the Republic of Serbia signed agreements in October 1998 that were to be verified by the Organization for Security and Cooperation in Europe and monitored by NATO. In the period leading up to March 1999, Serbian forces increasingly and flagrantly violated these agreements. Had NATO not responded to Milosevic's defiance and his campaign of ethnic cleansing, its credibility would have been called into question.

The attached report, which is forwarded in response to Congressional requirements, provides considerable detail on both the diplomatic background to the Kosovo conflict and to the military and humanitarian relief operations that followed. The United States military forces that took part in this challenging effort performed superbly. The men and women of our armed forces excelled in undertaking a military operation that delivered a decisive response to Serbian aggression and was characterized by extraordinary professionalism, innovation, and bravery.

The Kosovo conflict confirmed one of NATO's enduring strengths: the independence of each of NATO's member nations defines the institution. The fact that these separate nations sometimes disagreed in the course of the campaign (on some of the tactics, but never on the core aims) is proof of the fundamental democratic spirit that animates NATO, and that spirit will keep the Alliance strong in facing any future challenge to the peace, stability, and freedom of the North Atlantic region.

The campaign over Kosovo was not a traditional military conflict. There was no direct clash of massed military forces in Operation Allied Force. Throughout the conflict, Milosevic was unable to counter effectively NATO's military operations (although the continuous threat to allied pilots posed by large numbers of surface-to-air missiles and anti-aircraft artillery was formidable). Therefore, he chose to fight chiefly through indirect means: use of terror tactics against Kosovar civilians; attempts to exploit the premium the alliance placed on minimizing civilian casualties and collateral damage; creation of enormous refugee flows to trigger a humanitarian crisis; and the conduct of disinformation and propaganda campaigns. Militarily, Milosevic's forces dispersed themselves among civilian populations and exploited the small signature of dispersed light infantry and police forces. They hid many of their better military weapons and kept their surface-to-air missile defenses largely intact through hit-and-run-tactics. NATO's military effort prevailed in spite of these strategems, incurring very few losses in the process.

NATO's success in Operation Allied Force was the result of nineteen nations working together. While the United States provided the preponderance of the military forces employed during the campaign, our NATO allies were crucial partners and contributors throughout the operation. Our European allies aircraft that were committed to the operation were roughly as large a part of their total inventory of aircraft as was the case for the United States, and they flew a very substantial number of strike missions, facing the same dangers as U.S. aircrews. In addition, European nations had substantial ground forces deployed in Albania and Macedonia. European airbases were essential for the effective prosecution of the air operation. European facilities providing communications, intelligence, and logistics support similarly were necessary for the campaign's prosecution. Europeans provided the majority of the humanitarian relief supplies, particularly in adjacent countries such as Albania and the Former Yugoslav Republic of Macedonia, which was critical in limiting the human cost to the many Kosovo refugees. Finally, it is the Europeans who are shouldering the major share of the peacekeeping effort.

The Department of Defense is continuing to study the operations over Kosovo and to refine its future plans and programs in light of the lessons learned in this conflict. Necessarily, analysis of some of the complex operations and reconciliation of multiple sources of information takes time. A series of major internal reviews already has taken place, however, with significant and positive results. The Department has identified the need for specific enhancements in its precision strike, electronic warfare, and intelligence, surveillance and reconnaissance (ISR) capabilities.

Overall, the Department has funded more than $3.5 billion in enhancements to address the lessons learned from the Kosovo operation. Of this amount, over $1.9 billion was provided by the Congress in the FY 2000 supplemental. In addition, the Department devoted considerable attention to the Kosovo lessons learned during the development of the FY01-05 program, with the result that an additional $1.6 billion was added to the program.

Precision Strike. Using the emergency supplemental funds provided by the Congress, the Department's current program incorporates $1.2 billion in fiscal year 2000 to procure additional precision munitions. This includes $431 million to convert 624 additional Tomahawk missiles to the latest land-attack configuration, $306 million to procure approximately 11,000 additional Joint Direct Attack Munition (JDAM) kits, and $178 million to convert 322 additional air-launched cruise missiles to a conventional configuration. Other investments include substantial additional numbers of expanded response standoff land attack missiles (SLAM-ER), high-speed anti-radiation missiles (HARM), Maverick air-to-surface missiles, laser-guided bombs, and general-purpose bombs. In addition to the $1.2 billion provided by the FY00 supplemental, the Department's FY01-05 program includes an additional $234 million for various precision strike investments, including a substantial investment ($158M) for targeting pods.

Electronic Warfare. A number of EA-6B upgrades were funded by $158 million from the FY00 supplemental, along with the procurement of 7,600 additional ALE-50 towed decoys. The FY 01-05 budget and program invests an additional $389 million to accelerate improvements to the EA-6B electronic warfare aircraft, to add another Navy expeditionary squadron (the fifth) to support joint missions and ease the deployment strain on that important element of the force, and for the initiation of a jointly-conducted Analysis of Alternatives to determine what capabilities will be required to replace the EA-6B beginning in about 2010 to 2015.

Intelligence, Surveillance, and Reconnaissance (ISR). The supplemental provided $37 million to replace and enhance UAVs, $111 million for additional EP-3 aircraft and enhancements, and $30 million for other ISR-related investments. These investments reflect, among other lessons, the fact that the operations in Kosovo saw an unprecedented use of unmanned aerial vehicles. Funding is being used to replace Predator UAV losses, to repair Hunter UAVs and maintenance facilities, and to add a laser designator capability to Predator. The FY01-05 budget and program invests an additional $918 million for: a new JSTARS aircraft ($260 million), accelerated acquisition and early deployment of the Global Hawk program ($390 million), and additional EP-3 and other ISR enhancements.

Finally, and separate from the above, the Department's FY01-05 program adds $1.5 billion to address the need for increased investments in the tasking, production, exploitation, and dissemination (TPED) of intelligence assets. Although plans to make these enhancements were well under way prior to the Kosovo conflict, these investments address many of the shortcomings in ISR integration that were identified in the Kosovo lessons learned review.

Additional details on the FY 2001 budget and the FY01-05 program are provided in the FY01 budget submission.

In addition to lessons that are reflected in budget changes, numerous operational and other lessons have been developed. The Department has instituted a course of action to ensure the lessons of this operation are not lost. Specifically, the Joint Staff is reassessing and updating doctrine, training, joint professional military education, war planning and Joint Vision 2010 in light of what was learned from Operation Allied Force. Additionally, the lessons from Kosovo will be integrated into the Joint Forces Command's Joint experimentation process. Finally, the lessons from the operation will be inducted into the Department's appropriate formal processes for tracking, remediation, and dissemination of lessons learned.

Operation Allied Force proved that our military forces are unequaled in skill and capability. Our challenge and our commitment are to ensure that we preserve the same warfighting edge in the future. The President's budget submission will describe in more detail the forces and capabilities needed to accomplish this goal.

We can all take pride in our accomplishments in Operation Allied Force. They were the direct result of the tremendous skill and dedication of our men and women in uniform, the partnership that has been forged between the Administration and Congress, the enduring strengths of our allied relationships, and the unflagging support of the American people. An abiding "lesson learned " from this operation is that sustaining all of these is critical for the future security of the nation.

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INTRODUCTION (U)

(U) This report presents the results of the Department of Defense review of the conduct of Operation Allied Force and associated relief operations as required by Congress. The first and most important lesson learned from Operation Allied Force is that it was extraordinarily successful. Slobodan Milosevic's ethnic cleansing of Kosovo was reversed. Allied Force was the largest combat operation in NATO's history and one that achieved all of its military objectives. It forced Milosevic to withdraw his forces from Kosovo, allowing nearly a million refugees to return home. Of equal note, Allied Force was the most precise military operation ever conducted. No military operation of such size has ever inflicted less damage on unintended targets. And all of this was accomplished without a single combat fatality to NATO forces — an incredible and unprecedented achievement for an operation of this scale. At the end of all our effort, Milosevic and his police and military forces were out of Kosovo, a NATO-led peacekeeping force had deployed there, and the refugees were able to return.

(U) Our success was due in large part to the outstanding performance of our men and women in the air, in the field, and at sea; the high quality of their leadership, training and education; and the unequaled quality of our equipment, material, and technology. Nonetheless, it is important not only to study what went well, but what could have been done better.

Operational Perspective (U)

(U) By their very nature, combat operations are incredibly demanding. In the case of Operation Allied Force, these inherent difficulties were magnified by the complex nature of the operation itself, a ruthless adversary, and less-than-ideal environmental conditions. Combined operations are a difficult task in the best of circumstances; during Allied Force U.S. military forces conducted combined air operations with 13 of our NATO allies. U.S. forces were deployed to over two dozen bases in the European region, while numerous locations in the United States, around the world, and in space provided people or systems that contributed to the operation.

(U) Despite this complexity, we successfully integrated air, land, and sea operations throughout the conflict. Some of our activities — notably, targeting, strike operations, and humanitarian assistance — were conducted from locations around the globe. Within the Kosovo area of operations, NATO carried out combat strikes over the Federal Republic of Yugoslavia and the province of Kosovo using aircraft from 14 of its member states, including the United States. In addition, NATO forces provided defense and logistics support for the alliance forces deployed in Italy, Albania, and the Former Yugoslav Republic of Macedonia; conducted support operations in Bosnia-Herzegovina; and carried out naval operations in the Adriatic Sea. The latter included, at one time, aircraft carriers, submarines, and surface ships from four nations, all operating within the same confined sea space.

(U) Throughout Operation Allied Force, NATO maintained effective and efficient control over an intricately layered airspace in what was perhaps the most complex and challenging environment in which U.S. combat aircraft have ever operated. The scope of this complex air operation included thousands of combat sorties over hostile territory laden with a formidable air defense network that continually engaged allied pilots, military sorties in and out of theater, commercial and private flights, and humanitarian relief flights.

(U) Adverse weather greatly complicated efforts to acquire and identify targets, increased the risk to aircrews, and made it more difficult to restrict damage to only the targets we intended to strike. The rugged mountainous terrain also confounded NATO's ability to find targets and posed hazards of its own. Despite these difficulties, NATO conducted the most precise and lowest collateral damage air operation in history. We were able to do so largely because of our commitment to developing precision munitions, the platforms and systems to deliver them, and vigorously training forces under realistic conditions.

Purpose of the Report (U)

(U) While the Department of Defense is proud of its success in Operation Allied Force, we are also aware that we need to examine our performance with a critical eye and learn from both what went well and what could have been done better. Over the last several months, at the direction of the Secretary of Defense, the Department has undertaken a detailed examination of our performance in the operation. In response to a mid-June request for assessments of our performance during Operation Allied Force,

hundreds of specific after-action assessments were provided by the Unified Commanders, the Services, the Defense Agencies, the Joint Staff, and the Office of the Secretary of Defense. Based on these assessments and other information, we have identified key lessons learned from this experience. We have also determined where the Department needs to take immediate action to improve capabilities and where we can afford to wait for existing plans to come to fruition. This report documents those lessons learned and identifies the remedial actions that are necessary to improve U.S. capabilities even further, or to correct our shortcomings. In addition, these lessons will be added to the database maintained by the Joint Center for Lessons Learned so that they can be followed up throughout the Department of Defense.

Organization of the Report (U)

(U) The main body of this report is divided into 10 chapters that describe the conduct of Operation Allied Force, its associated humanitarian relief operations, and the important lessons learned from those operations. This material is organized starting with the events leading up to the conflict and then proceeds through the major activities involved in planning and executing the operation, e.g., force deployment and basing, force direction, intelligence and targeting support, force protection, target attack, and force sustainment. For each of these activities, the principal lessons learned and the major observations associated with those lessons have been identified. In addition, the observations are summarized in a separate section at the end of the report. Following this are annexes that provide additional detail regarding topics of particular interest.

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EXECUTIVE SUMMARY (U)

(U) For 50 years, NATO has given caution to its foes and comfort to its friends. As a watershed in NATO's long history, Operation Allied Force was an overwhelming success. NATO accomplished its mission and achieved its strategic, operational, and tactical goals in the face of an extremely complex set of challenges. It forced Milosevic to withdraw from Kosovo, degraded his ability to wage military operations, and rescued and allowed resettlement of nearly one million refugees. It put a peacekeeping force with NATO at its core into place, and remains committed to a peaceful, multi-ethnic and democratic Kosovo, enjoying substantial autonomy within the Federal Republic of Yugoslavia. NATO accomplished this by prosecuting the most precise and lowest-collateral-damage air operation ever conducted — with no U.S. or allied combat fatalities in 78 days of around-the-clock operations and over 38,000 combat sorties against very active Yugoslav integrated air defenses.

(U) Despite extensive efforts to resolve the crisis in Kosovo short of military action, NATO was eventually left with no other recourse but to use military force. In reaching that decision, NATO recognized that the use of military force could not immediately stop Serbian attacks on Kosovar civilians. These attacks had been planned in advance and were already in the process of being carried out when Operation Allied Force began. At the outset of the air operation, NATO set specific strategic objectives for its use of force in Kosovo. These objectives were to: (1) demonstrate the seriousness of NATO's opposition to Belgrade's aggression in the Balkans, (2) deter Milosevic from continuing and escalating his attacks on helpless civilians and create conditions to reverse his ethnic cleansing, and (3) damage Serbia's capacity to wage war against Kosovo in the future or spread the war to neighbors by diminishing or degrading its ability to wage military operations. These objectives would be accomplished by attacking strategic targets throughout the Federal Republic of Yugoslavia and fielded forces in Kosovo.

(U) In taking these actions, alliance forces demonstrated unrivaled military prowess by executing the largest combat operation in NATO's history. A number of new systems and capabilities were used for the first time in combat and performed in ways that exceeded our expectations. We were also able to reassure and help neighboring

countries come through the crisis intact, despite Milosevic's intent to destabilize the region. In short, NATO demonstrated both the unwavering political cohesion and the unmatched military capability that will be required to meet the security challenges of the 21st century.

Lessons Learned (U)

(U) In June 1999, the Secretary of Defense initiated actions to collect lessons from Operation Allied Force. This report captures the most critical lessons and identifies areas where more detailed assessments are needed to determine appropriate changes in doctrine, training, organization, and technology. At the same time, it is essential that one does not draw the wrong lessons from this unique conflict. The Department has studied the Kosovo operation with an eye toward identifying concepts that have broad applicability to many different situations. The most important of these lessons or related observations are summarized in the paragraphs that follow; their implications are outlined in more detail in the Summary of Major Observations that follows the main body of the report.

Men and Women in Service (U)

(U) First and foremost, the success of Operation Allied Force was an extraordinary demonstration of the competence, capability, determination, perseverance, and patriotism of the men and women who serve in America's armed forces. Success was made possible by thousands of airmen, Marines, sailors, and soldiers in the active forces as well as in the Guard and Reserve, whose courage and dedication allowed them to overcome the countless challenges they faced throughout this operation. Their accomplishments confirmed that quality people, combined with first-class technology and equipment, is what gives America's armed forces the decisive edge. Our nation can be extremely proud of our Service men and women and the spirit with which they carried out their obligations, not only in waging the air operation but also in carrying out humanitarian efforts during and after the conflict.

NATO Contributions (U)

(U) Another key to success was the cohesion demonstrated by our NATO allies. All 19 NATO members contributed steadfastly to the effort, despite extraordinary domestic pressures in a number of countries. It simply would not have been possible to

carry out even the U.S. part of this operation without the NATO members contributing their airspace, their infrastructure, their military bases, and their airfields — often at the cost of considerable disruption to civilian activities. This alone was a tremendous achievement for the NATO alliance.

(U) Our NATO allies also provided significant military capabilities. Twelve other NATO nations deployed military aircraft to the operation in roughly the same proportion to their overall inventories as did the United States. They also contributed ground forces to help stabilize the countries neighboring Kosovo and to conduct humanitarian relief operations. The NATO command structure allowed the Supreme Allied Commander to employ effectively those assets that the NATO members had committed to the operation. NATO also demonstrated a capability to conduct sustained and effective combined operations on a multinational basis.

Improving Allied Military Capabilities (U)

(U) Although experience in Operation Allied Force confirmed that the United States and our allies have made significant accomplishments working together, it also made clear that improvements are necessary. Our experience demonstrated the urgent need to pursue the Defense Capabilities Initiative, which the Secretary of Defense and the Chairman of the Joint Chiefs of Staff introduced last year to address the shortcomings of NATO. Among the most important of these are deficiencies in command-and-control and information systems, secure communications, precision strike capability, air operations support, and mobility systems. During Allied Force these shortcomings combined to shift a disproportionate burden of responsibility for combat operations to the United States and impeded our ability to operate more effectively with NATO allies. A more detailed assessment of allied military capabilities is contained in the Report on NATO Defense Capabilities Initiative that will be submitted in accordance with Section 1039 of the FY 2000 Defense Authorization Act.

(U) Unless addressed, these disparities will limit NATO's ability to operate as an effective alliance over the long term. Accordingly, the successful implementation of the Defense Capabilities Initiative is a top priority. On an encouraging note, NATO is already concentrating on what needs to be done to improve precision-strike capabilities and strategic lift, and to deploy secure communications that are fully interoperable with U.S. equipment.

Target-Approval Process (U)

(U) During the course of the campaign, NATO developed mechanisms for delegating target approval authority to military commanders. For selected categories of targets — for example, targets in downtown Belgrade, in Montenegro, or targets likely to involve high collateral damage — NATO reserved approval for higher political authorities. NATO leaders used this mechanism to ensure that member nations were fully cognizant of particularly sensitive military operations, and, thereby, to help sustain the unity of the alliance.

Bombing of the Chinese Embassy in Belgrade (U)

(U) The bombing of the Chinese Embassy in Belgrade was entirely unintended. It was the result of a failure in the process of identifying and validating proposed targets. The headquarters of the Yugoslav Federal Directorate of Supply and Procurement (FDSP) was a legitimate military target, but the technique used to locate it was severely flawed. None of the military or intelligence databases used to validate targets contained the correct location of the Chinese Embassy. Nowhere in the target review process was a mistake detected.

(U) Immediate corrective actions have been implemented and organizations primarily responsible for these databases have been tasked to institutionalize long-term corrective measures. Additionally, the Defense Intelligence Agency and the National Imagery and Mapping Agency have established rapid response procedures for critical database updates for "No Strike" targets. The Intelligence Community and other government agencies will explicitly report whenever foreign embassies move or are built.

Relationship with Russia (U)

(U) Operation Allied Force clearly tested Russian relations and, at least for a brief period, complicated our ability to interact with Russian counterparts. In the end, however, Russia worked with the alliance and provided considerable diplomatic assistance in bringing the conflict to an end. Russian leaders eventually agreed with NATO that all the Serb forces should leave Kosovo, that the refugees should return, and that some form of international peacekeeping force should be deployed. Today, NATO-Russian collaboration is contributing directly to the success of the peacekeeping operation in Kosovo as well as that in Bosnia.

Effect on Our Capability To Fight Two Major Theater Wars (U)

(U) Concerns have been raised about how Operation Allied Force affected the Department's ability to carry out the most stressing requirement associated with its defense strategy ? to fight and win two nearly simultaneous major theater wars. Had one such war broken out while the United States was involved in Kosovo, the Department is confident that the challenge could have been met, albeit at a higher level of risk than would have been the case if U.S. forces had not been conducting operations in Kosovo. The Department was cognizant of these risks at the time and made various adjustments in our posture and plans to address those risks. Consistent with U.S. defense strategy, if we had faced the threat of two major theater wars, we would have withdrawn our forces from other activities, including Operation Allied Force, but we are confident that we would have ultimately prevailed.

Ground Operation (U)

(U) In the early stages of NATO's operational planning for the Kosovo crisis, NATO considered a wide range of contingency planning options, including use of both air and ground forces, to achieve the alliance's objectives. In the period leading up to the initiation of the air operation, there was not a consensus in the United States or the alliance to aggressively pursue planning for a ground force option in other than a permissive environment. At that time, we were exhausting all diplomatic initiatives while maintaining the credible threat of NATO air power. Following the failure to reach a settlement with the Serbs at Rambouillet and Paris, U.S. and allied leaders decided that execution of a phased air operation was the best option for achieving our goals.

Absence of Combat Fatalities (U)

(U) Operation Allied Force was conducted without a single allied combat fatality. However, this outcome, as gratifying as it now is, is not what was expected when the operation began. The likelihood of casualties in high-intensity combat operations is very significant. Among the gravest decisions senior civilian and military leaders face is to accomplish fully the military objectives set forth, while maintaining acceptable risk to personnel. In this instance, a combination of skill, technology, training, and tactics enabled U.S. and NATO forces to incur no combat fatalities, despite great risk to our personnel, particularly withering fire from Serb air defenses. This achievement cannot be expected in every future conflict.

Command, Control, Communications, and Computers (U)

(U) The command, control, communications, and computers (C4) systems provided for Operation Allied Force were unprecedented in terms of capacity and variety of services. The available bandwidth was nearly double that used during the Gulf War, an operation with far more forces committed. This achievement was made possible by the communications infrastructure in Europe, both military and civilian, which are among the most robust and flexible available to the United States in any theater of operations. In addition, extraordinary efforts were made to bring additional C4 capabilities into the theater, even though this impacted other U.S. military commitments worldwide.

(U) The widespread use of video teleconferencing and other advanced technologies for command and control and collaborative planning presented numerous limitations and challenges. In order to optimize the application of these systems and accustom operational commanders to their effects, appropriate doctrine, tactics, techniques, and procedures must be developed. In addition, these technologies should be included regularly in future large-scale joint and combined training exercises.

Intelligence, Surveillance, and Reconnaissance (U)

(U) For the United States, Operation Allied Force provided a real-world test of information superiority concepts outlined in Joint Vision 2010. Over the course of Operation Allied Force, U.S. intelligence, surveillance, and reconnaissance capabilities provided unprecedented levels of information to NATO warfighters. The supporting intelligence architecture included a worldwide network of processing centers and high-speed data communications, all operating in direct support of combat operations in Kosovo. Despite NATO's success, it is evident that further integration of worldwide collection of intelligence, surveillance, and reconnaissance systems is needed to provide warfighters with a more coherent picture of the battlespace and more accurate and timely targeting support.

(U) Among the capabilities that require particular attention are unmanned aerial vehicle (UAV) systems, which were used extensively in combat for the first time. UAVs contributed greatly to NATO's success by increasing the information available for strike and other operations. In addition, better sensors along with improved processing and dissemination capabilities are needed to provide a capability to counter any future adversary.

Preferred Munitions (U)

(U) Operation Allied Force involved what was undoubtedly the most precise air and missile combat operation in history. In large part, this was made possible through the successful development and deployment of weapons such as the Tomahawk Land Attack Missile (TLAM) missile and the Joint Direct Attack Munition (JDAM), both of which use Global Positioning System (GPS) information for guidance. The desire to avoid collateral damage and the Balkan region's frequently adverse weather resulted in the use of large numbers of these preferred munitions. As a consequence, we now need to accelerate replenishment of our preferred munition stockpiles — a process that has been helped considerably by the appropriation of funds in the Fiscal Year 1999 Defense Supplemental. In addition, the Department is looking at ways to expand the number of platforms that employ precision munitions, given their effectiveness against fixed targets during Operation Allied Force.

(U) The Department is also examining whether we have the right mix of munitions and if they are stored where we are likely to need them the most. The success of these munitions in Operation Allied Force strongly suggests that they will be employed at very high rates in future conflicts. In addition, while it is clear that our weapons systems were highly accurate and highly effective, it is apparent that we need to improve our capability to conduct precision engagement, especially against mobile targets that are easy to hide. Also, the potential vulnerability of these systems to jamming is a critical issue that must continue to be addressed.

Air Defense Suppression (U)

(U) Key among the factors that made Operation Allied Force difficult for NATO forces was the Serbian integrated air defense system. The command centers, radars, and missile launchers that make up this system were very high priority targets from the beginning of the war. Despite this, the Serbs used their system to launch a large number of surface-to-air missiles and anti-aircraft artillery at allied pilots. In fact, the average aircrew participating in Operation Allied Force experienced a missile-launch rate three times that encountered by the average Coalition aircrew during Desert Storm.

(U) Nonetheless, NATO was able to mitigate the threat. In over 38,000 sorties, only two aircraft were lost to hostile fire — a testament to NATO's skillful conduct of the operation. To achieve this result, however, NATO had to devote considerable resources

to suppressing the enemy's air defenses. Rather than expend sorties attempting to find and attack the large numbers of man-portable missile and anti-aircraft artillery threats, NATO commanders chose to operate most aircraft at altitudes beyond the effective reach of these systems. Electronic warfare and air-defense suppression aircraft (such as the EA-6B and the F-16CJ) supported nearly all strike aircraft on their missions. Our experience in Operation Allied Force thus re-emphasized the importance of having a comprehensive air-defense suppression strategy. Accordingly, the Department will conduct a detailed and thorough study of joint air-defense suppression capabilities in the Airborne Electronic Attack Analysis of Alternatives. In addition, it is clear that all members of the alliance need to develop appropriate air defense suppression capabilities.

Logistics and Deployment (U)

(U) As is the case in every military operation, logistics proved critical in Allied Force. Working with limited infrastructure and the competing demands of combat and humanitarian operations, logisticians made the extremely difficult seem routine. This was helped, in part, by the addition of the C-17 to the strategic airlift fleet. The C-17's high reliability and basing versatility clearly enhanced our ability to deploy forces to, and within, the European theater. Although the overall deployment process was successful, arrival of some forces was delayed owing to changes in operational plans and needed adjustments to standard practices. These problems highlight the need for progress on several initiatives aimed at making time-phased force deployment data more relevant and more usable. Another factor in our success was an improved capability to track supplies and equipment from the warehouse to the warfighter. While much has been done in this area, there is still room for improvement.

I. GEOPOLITICAL CONSIDERATIONS (U)

(U) As a result of the end of the Cold War, NATO has shifted its focus away from deterring and if necessary responding to Soviet and Warsaw Pact aggression toward crisis management operations beyond NATO members' territory. These types of operations cut across the spectrum of military conflict to include such activities as humanitarian assistance and peace enforcement operations. This shift of focus is not without challenges, particularly due to many NATO nations' requirements for more deployable forces in the context of constrained defense budgets.

(U) In addition, the rise of Slobodan Milosevic to power coincided with a pattern of increased instability in the Balkan region. For the former Yugoslavia and the Balkans as a whole, the decade of the 1990s was marked by the rise of nationalism and a series of increasingly violent armed confrontations. Between 1992 and 1995, Milosevic instigated wars in Slovenia, Croatia, and Bosnia. During this period, we witnessed increased involvement in the area by many NATO nations and then eventually NATO itself, a reflection of our concern that failure to take action could lead to widespread regional instability. In the case of the Bosnian conflict, for example, NATO took several important actions. NATO air strikes ultimately contributed to a general cease-fire in Bosnia-Herzegovina and set the stage for the Dayton Peace Accords of November 1995. NATO then sponsored a peacekeeping mission to Bosnia, in support of the Dayton accords, which remains in place today.

A. Prelude to Conflict (U)

1. Background on the Conflict (U)

(U) The potential dangers of the situation in Kosovo had been recognized for more than a decade. In concert with his rise to power in the late 1980s, Milosevic took away Kosovo's autonomy and implemented severely repressive policies that excluded Kosovar Albanians from virtually all positions of responsibility, even though ethnic Albanians made up 90 percent of Kosovo's population. In December 1992, President George Bush warned Milosevic that "the United States will respond in the event of Serb-

incited violence in Kosovo." In 1998, Serbia's discrimination turned into systematic violence against the Kosovar Albanians, precipitating the crisis that compelled the international community and NATO to act on the diplomatic and military fronts. In October 1998, under pressure of impending NATO military action, Milosevic agreed to sharply reduce his forces in Kosovo, refrain from repression, and begin negotiations towards an autonomous regime for the province. The agreements allowed for the deployment into Kosovo of unarmed international observers from the Organization for Security and Cooperation in Europe (OSCE Kosovo Verification Mission) and a NATO air verification mission.

(U) Despite initial Serb compliance with the agreements, the violence in Kosovo quickly resumed. Evidence of a deliberate decision by Milosevic to ethnically cleanse Kosovar Albanians from Kosovo is now clear. Notably, the massacre of 45 ethnic Albanians by Serb forces at Racak on 15 January 1999 served to once again galvanize the international community, and led to a renewed emphasis for all sides to exercise restraint and engage in a negotiating process. Contact Group Ministers, meeting in London on 29 January, called on both sides to end the cycle of violence and to commit themselves to a process of negotiation leading to a political settlement. On 30 January, NATO issued a statement by the North Atlantic Council (NAC) giving full support to the Contact Group Strategy. The NAC further agreed to give NATO Secretary General Solana authority to authorize air strikes against targets on the territory of the Federal Republic of Yugoslavia.

(U) Following prolonged peace settlement talks at Rambouillet and thereafter in Paris, the Kosovar Albanians signed a proposed agreement, in which all citizens of Kosovo would enjoy, without discrimination, equal rights and freedoms. The agreement outlined requirements for a cessation of hostilities and the redeployment, partial withdrawal, and demilitarization of all forces in Kosovo. The agreement also set forth guidelines for civil implementation of a settlement, including democratic self-government, proposed civil structures, police and civil public security, elections, and humanitarian assistance and economic reconstruction. Belgrade, however, refused to agree. The negotiations ultimately failed because of Milosevic's intransigence.

(U) Even while blocking international diplomatic efforts, Milosevic was finalizing a barbaric plan for expelling or forcing the total submission of the Kosovar Albanian community. On 19 March, the day the peace talks were officially suspended in Paris, the OSCE Kosovo Verification Mission — whose operations had been increasingly obstructed by Belgrade authorities — withdrew from Kosovo. Just one day later, Serb

forces launched a major offensive and began driving thousands of ethnic Albanians out of their homes and villages, summarily executing some while displacing many others and setting fire to many houses. Dubbed "Operation Horseshoe," this ethnic-cleansing campaign was comprehensively planned months in advance by Milosevic.

(U) With this as backdrop, on 21 March, the international community initiated one last diplomatic effort. U.S. Ambassador Richard Holbrooke was dispatched to Belgrade to deliver a final warning to Milosevic. On 22 March, in response to Belgrade's continued intransigence and repression, and in view of the evolution of the situation on the ground in Kosovo, the North Atlantic Council authorized Secretary General Solana to decide, subject to further consultations with the allies, on a broader range of air operations, if necessary. Ambassador Holbrooke departed Belgrade on 23 March, having received no concessions of any kind from Milosevic. Secretary General Solana thereupon directed General Wesley Clark, Supreme Allied Commander Europe (SACEUR), to initiate air operations in the Federal Republic of Yugoslavia. On 24 March, the United States and its NATO allies turned from a path of diplomacy backed by the threat of force to a military campaign supported by diplomacy. This military campaign was known as Operation Allied Force. (A more complete description and chronology of events leading up to the start of Operation Allied Force is contained in Annex A.)

2. Interests at Stake (U)

(U) The United States and its NATO allies had three strong interests at stake during the Kosovo crisis.

(U) First, Serb aggression in Kosovo directly threatened peace throughout the Balkans and the stability of southeastern Europe. There was no natural boundary to this violence, which previously had moved from Slovenia to Croatia to Bosnia and then to Kosovo. Continued fighting in Kosovo threatened to: (a) undermine the successful Dayton peace process in Bosnia; (b) re-ignite chaos in Albania; (c) destabilize the Former Yugoslav Republic of Macedonia, with its large Albanian minority; and (d) spill over into other neighboring countries, including Bulgaria and Greece. Instability in this region had the potential to exacerbate rivalries between Greece and Turkey, two NATO allies with significant and often distinct interests in Southern Europe.

(U) Second, Belgrade's repression in Kosovo created a humanitarian crisis of staggering proportions. Dubbed "Operation Horseshoe," this ethnic cleansing campaign

was comprehensively planned months in advance by Milosevic as a brutal means to end the crisis on his terms by expelling and killing ethnic Albanians, overtaxing bordering nations' infrastructures, and fracturing the NATO alliance. NATO and other members of the international community responded to this crisis, preventing starvation and ensuring, ultimately, that the Kosovars could return safely to their homes.

(U) Third, Milosevic's conduct leading up to Operation Allied Force directly challenged the credibility of NATO, an alliance that has formed the bedrock of transatlantic security for 50 years. The Federal Republic of Yugoslavia and the Republic of Serbia signed agreements in October 1998 that were to be verified by the Organization for Security and Cooperation in Europe and monitored by NATO. In the period leading up to March 1999, the Federal Republic of Yugoslavia increasingly and flagrantly violated these agreements. Had NATO not eventually responded to these violations and other acts of the Federal Republic of Yugoslavia, its credibility, as well as the credibility of the United States, would have been called into question.

(U) Balancing NATO's response to the Kosovo conflict with the desire to maintain a positive and cooperative relationship with Russia, which strongly opposed NATO military actions against Yugoslavia, was essential. Given the importance of maintaining a constructive relationship with Moscow, both the United States and NATO had to consider carefully how actions in the Balkans would affect their long-term relationship with Russia. Ultimately, we were able to work constructively with Russia. Moscow's diplomatic assistance helped bring the conflict to an end, and Russia contributes forces to the Kosovo Force (KFOR).

3. Reaffirming the Alliance (U)

(U) The North Atlantic Treaty Organization proved to be flexible, effective, and ultimately successful during a uniquely challenging time in its history. Despite domestic pressures in many NATO nations, an enormous humanitarian crisis, and isolated instances of target misidentification with incidental injury or collateral damage, the nations of the alliance held firm and unified and saw the operation through to a successful conclusion. In short, NATO accomplished its mission and achieved its goals: NATO stopped the killing; forced Milosevic's forces out of Kosovo; made it possible for the refugees to return; put a peacekeeping force with NATO at its core into place; and remains committed to a peaceful, multi-ethnic and democratic Kosovo, enjoying substantial autonomy within the Federal Republic of Yugoslavia, where all people can

live in peace and security and enjoy universal human rights and freedoms on an equal basis.

(U) It was no surprise that conducting a military campaign in the alliance was challenging (discussed in more detail in Chapter II). Nevertheless, Operation Allied Force could not have been conducted without the NATO alliance and without the infrastructure, transit and basing access, host-nation force contributions, and most importantly, political and diplomatic support provided by the allies and other members of the coalition. These immense contributions from our allies and partners — particularly those nations near the theater of conflict such as the Former Yugoslav Republic of Macedonia, Hungary, Bulgaria, Romania, Albania and others — were in large part a dividend of sustained U.S. and NATO engagement with those nations over the last few years. This engagement — including vigorous participation in Partnership for Peace activities — helped to stabilize institutions in these nations so they were better able to withstand the tremendous burden inflicted upon them by the humanitarian crisis and the conduct of the operation itself. The whole alliance owes a particular debt of gratitude to Italy, without whose commitment the operation would have been greatly jeopardized.

(U) Admittedly, gaining consensus among 19 democratic nations is not easy and can only be achieved through discussion and compromise. However, the NATO alliance is also our greatest strength. It is true that there were differences of opinion within the alliance. This is to be expected in an alliance of democracies, and building consensus generally leads to sounder decisions. If NATO as an institution had not responded to this crisis, it would have meant that the world's most powerful alliance was unwilling to act when confronted with serious threats to common interests on its own doorstep.

(U) It is important to remember that the alliance had been addressing this crisis — through diplomatic activities and military planning — for some time before the onset of the military campaign itself. Because NATO had been engaged in trying to resolve this conflict before the operation commenced, because it had conducted planning for the operation itself, because of its member nations' respect for differences of opinion and the need for consensus, and simply because the alliance is the most effective means there is for addressing European security problems — as it demonstrated through perseverance and unwavering solidarity — it was both natural and inevitable that we would work through NATO. Without the direct support of our NATO allies and key coalition partners, the campaign would not have been possible. There are, of course, useful lessons to be learned for NATO decision-making processes during crises and for alliance

capabilities, which we will discuss, but this must not obscure the fact that NATO stood up to the challenge facing it, and succeeded.

B. The Campaign Over Kosovo (U)

1. An Asymmetric Conflict (U)

(U) The campaign over Kosovo was not a traditional military conflict. There was no direct clash of massed military ground forces in Operation Allied Force. Milosevic was unable to challenge superior allied military capabilities directly. His fielded forces were compelled to hide throughout most of the campaign, staying in caves and tunnels and under the cover of forest, village, or weather. He was forced to husband his antiaircraft missile defenses to sustain his challenge to our air campaign. Therefore, he chose to fight chiefly through asymmetric means: terror tactics and repression directed against Kosovar civilians; attempts to exploit the premium the alliance placed on minimizing civilian casualties and collateral damage; creation of enormous refugee flows to create a humanitarian crisis, including in neighboring countries; and the conduct of disinformation and propaganda campaigns.

(U) These tactics created several serious challenges for our forces, all of which we were able to overcome thanks to excellent training, leadership, equipment and motivation. Nevertheless, these challenges underscored the continued need to develop new operational concepts and capabilities to anticipate and counter similar asymmetric challenges in the future. Simply put, adversaries will use unconventional approaches to circumvent or undermine U.S. and allied strengths and exploit vulnerabilities.

(U) Milosevic illustrated very clearly his propensity for pursuing asymmetric approaches. He chose his tactics in the hope of exploiting the NATO nations' legitimate political concerns about target selection, collateral damage, and conducting military operations against enemy forces that are intentionally intermingled with civilian refugees. In the case of refugee flow, the time-scale was so rapid and the numbers so great that it initially overwhelmed the neighboring countries, particularly the Former Yugoslav Republic of Macedonia (FYROM) and Albania. The humanitarian crisis created by Milosevic appeared to be an attempt to end NATO's operation by "cleansing" Kosovo of ethnic Albanians, overtaxing bordering nations' infrastructures, and fracturing alliance cohesion. He failed, despite all these efforts, principally because NATO adapted to the

changing circumstances. One general lesson learned is that similar attempts at asymmetric challenges should be anticipated in future conflicts as well.

2. U.S. and NATO Strategic Objectives (U)

(U) At the outset of Operation Allied Force, NATO set specific strategic objectives for its use of force in Kosovo. These objectives were consistently articulated and refined by NATO's North Atlantic Council as the crisis unfolded, and they later served as the basis for its stated conditions to Milosevic for stopping the bombing. These objectives were to:

- Demonstrate the seriousness of NATO's opposition to Belgrade's aggression in the Balkans
- Deter Milosevic from continuing and escalating his attacks on helpless civilians and create conditions to reverse his ethnic cleansing
- Damage Serbia's capacity to wage war against Kosovo in the future or spread the war to neighbors by diminishing or degrading its ability to conduct military operations.

(U) Although there were expectations on the part of some that this would be a short operation, the United States made clear to its allies that Operation Allied Force could well take weeks or months to succeed and that the operation should be initiated only if all were willing to persevere until success was achieved. Once NATO commenced offensive operations, it became essential for NATO to maintain political consensus and cohesion in order to prevail. Maintaining alliance unity then became an overarching strategic objective in the offensive phase of the crisis.

3. Phases of the Campaign (U)

(U) Military operations were originally planned to be prosecuted in five phases under NATO's operational plan, the development of which began in the summer of 1998. Phase 0 was the deployment of air assets into the European theater. Phase 1 would establish air superiority over Kosovo (creating a no-fly zone south of 44 degrees north latitude) and degrade command and control and the integrated air-defense system over the whole of the Federal Republic of Yugoslavia. Phase 2 would attack military targets in Kosovo and those Yugoslav forces south of 44 degrees north latitude, which were providing reinforcement to Serbian forces in Kosovo. This was to allow targeting of forces not only in Kosovo, but also in the Federal Republic of Yugoslavia south of Belgrade. Phase 3 would expand air operations against a wide range of high-value

military and security force targets throughout the Federal Republic of Yugoslavia. Phase 4 would redeploy forces as required.

(U) A Limited Air Response, relying predominantly on cruise missiles to strike selected targets throughout the Federal Republic of Yugoslavia, was developed as a stand-alone option. As originally planned, it was intended to be a short-notice, limited air response, to a serious, but limited incident in Kosovo, with the aim of preventing a further deterioration of the situation. The Limited Air Response was eventually integrated into Phase 1 of the air campaign. Within a few days of the start of NATO's campaign, alliance aircraft were striking both strategic and tactical targets throughout Serbia, as well as working to suppress and disrupt its integrated air defense system.

4. Status of a Ground Forces Plan (U)

(U) In the early stages of NATO's operational planning for the Kosovo crisis, NATO considered a wide range of contingency planning options, including use of both air and ground forces, to achieve the alliance's objectives. In the period leading up to the initiation of the air campaign, there was not a consensus in the United States or the alliance to aggressively pursue planning for a ground force option in other than a permissive environment. At that time, we were exhausting all diplomatic initiatives while maintaining the credible threat of NATO air power. Following the failure to reach a settlement with the Serbs at Rambouillet and Paris, U.S. and allied leaders decided that execution of a phased air campaign was the best option for achieving our goals.

5. Conditions To End the Operation (U)

(U) At the NATO Summit in Washington on April 23, 1999, alliance leaders decided to further intensify the air campaign by expanding the target set to include military-industrial infrastructure, media responsible for promulgating propaganda, and other strategic targets, and by announcing the deployment of additional aircraft. The alliance also clearly outlined its conditions to end the operation. As proclaimed in the NATO Statement on Kosovo, President Milosevic had to:

- Ensure a verifiable stop to all military action and the immediate end of violence and repression in Kosovo
- Withdraw from Kosovo his military, police, and paramilitary forces
- Agree to the stationing in Kosovo of an international military presence

- Agree to the unconditional and safe return of all refugees and displaced persons, and unhindered access to them by humanitarian aid organizations
- Provide credible assurance of his willingness to work for the establishment of a political framework based on the Rambouillet accords.

The fact that NATO as a whole endorsed these principles in its Summit Statement illustrated anew the cohesion of the alliance. Moreover, the fact that the Group of 8 (G-8) nations subsequently endorsed these conditions added strength to our position, since this now meant that Russia supported these conditions.

6. Role of Diplomacy (U)

(U) During Operation Allied Force, U.S. diplomatic efforts had several objectives. The first was to ensure that NATO remained united and firm in order to prevail in the conflict. To this end, the President, the Secretary of State, the Secretary of Defense, the Chairman of the Joint Chiefs, and other U.S. officials spoke almost daily with their alliance counterparts during the 78-day campaign. Alliance unity and resolve not only remained firm, but strengthened over time.

(U) The second diplomatic objective was to prevent the conflict from widening by helping the countries that were directly affected to cope with the humanitarian crisis. To this end, the Secretary of State and the Secretary of Defense were in regular contact with their counterparts from the region. The United States, its NATO allies, and, in fact, many other countries and non-governmental organizations from around the world contributed prodigious amounts of emergency assistance to help meet the needs of the tides of refugees then pouring out of Kosovo into neighboring countries. (Of course, U.S. and allied militaries also contributed to this effort, as discussed in detail in Chapter VIII.)

(U) The third diplomatic objective was to work constructively with Russia. After a somewhat rocky start, the relationships between the United States and Russia, and between the NATO alliance and Russia, over the issue of Kosovo were maintained effectively over the course of Operation Allied Force. While there continued to be sharp differences with Russia over the conflict itself and the kind of international presence that would be required in Kosovo after the conflict ended, these differences did not preclude agreement on the conditions that Belgrade would have to meet to bring an end to the air campaign — or indeed on the roles for Russian army units in KFOR, the international security force with NATO at its core.

7. Mandate and Legal Basis (U)

(U) There were a number of factors that provided the legal basis for NATO's action in Kosovo. These include UN Security Council Resolution 1199, which reaffirmed that the deterioration of the situation in Kosovo constituted a threat to peace and security in the Balkan region, invoked the Security Council's authority under Chapter VII of the Charter, and demanded that all parties cease hostilities and maintain a cease-fire in Kosovo. FRY actions constituted a threat to regional security, particularly to the security of Albania and Macedonia and potentially Greece and Turkey. The Former Yugoslavia is a region that has historically been a tinderbox for conflict and in which NATO has assumed special responsibilities during the last decade, with the repeated approval of the Security Council. Also, FRY actions caused heavy outflows of refugees into neighboring countries, endangering the political and economic stability of the region. Finally, the very real threat of a humanitarian catastrophe was an important factor in NATO's action. In Resolution 1199 the Security Council demanded that Serbian forces take immediate steps to improve the humanitarian situation and to avert the impending humanitarian catastrophe, and accordingly directed the FRY to cease its actions. Instead, the FRY placed hundreds of thousands of lives at risk (many in fact lost their lives) by forcing Kosovar Albanians to flee into the countryside and neighboring states, where they suffered from lack of food and shelter. In so doing, FRY military and police forces committed serious and widespread violations of international law, and used excessive and indiscriminate force.

C. Why Did Milosevic Capitulate? (U)

(U) Because many pressures were brought to bear, it can never be certain about exactly what caused Milosevic to accept NATO's conditions to stop the bombing and instruct the Serbian military to sign the Military Technical Agreement with NATO embodying those conditions. Clearly, the mounting damage that resulted from the intensified air campaign against strategic, military-industrial, and national command-and-control targets, as well as the attacks against Milosevic's fielded forces in Kosovo and Serbia's utter inability to cause any notable damage or casualties to NATO forces, had a major impact on Milosevic's decision. Air attacks on military forces in the field forced Serbian forces to remain largely hidden from view, traveling only under limited circumstances. Air attacks on selected infrastructure targets, such as bridges and electric-power systems, degraded the ability of the Yugoslav military to command and control its

forces or to resupply and reconstitute them. Together, these effects created pressure on Milosevic to yield to NATO demands.

U) However, other extremely important factors were also at work in precipitating Milosevic's capitulation. First, the solidarity of the alliance was central in compelling Belgrade to accept NATO's conditions. Because Milosevic could not defeat NATO militarily, his best hope lay in splitting the alliance politically. Thus, it was not enough for NATO simply to concentrate on winning a military victory; at the heart of allied strategy was building and sustaining the unity of the alliance. NATO maintained and strengthened its resolve, especially after the NATO Summit in Washington, DC. It became clear that Milosevic could not undermine NATO's unity and purpose.

(U) Second, the alliance's continuous efforts to engage Russia in diplomacy proved critical to achieving the settlement. While Russia strongly opposed the NATO campaign, it limited its practical support to the Federal Republic of Yugoslavia and was prepared to work with the alliance diplomatically to end the conflict. The Russians agreed that the refugees should return, that Serb forces should leave, and that some form of international security force with NATO at its core needed to be deployed to Kosovo. When Finnish President Martti Ahtisaari and Russian Special Envoy Viktor Chernomyrdin met with Milosevic in Belgrade and spoke with one voice, Milosevic realized that he had become politically isolated and could expect no help from Russia.

(U) Third, the buildup of NATO ground combat power in the region (e.g., Task Force Hawk in Albania, allied peace implementation forces in the FYROM, and visible preparations for the deployment of additional forces), combined with the increasing public discussion of the possibility of and planning for the use of ground forces, undoubtly contributed to Milosevic's calculations that NATO would prevail at all costs.

(U) Fourth, the persistent military efforts of the Kosovar Albanians in the face of significant setbacks — particularly their resurgence in the latter weeks of the campaign — demonstrated to Milosevic that he would not be able to eliminate this threat.

(U) Finally, NATO nations employed other economic and political means — enforcing economic sanctions, tightening travel restrictions, freezing financial holdings — that raised the level of anxiety and discontent within Belgrade's power circles. In addition, the indictment of Milosevic by the international war crimes tribunal certainly helped persuade his most powerful supporters that the international political consensus against Serbia's actions would continue to strengthen rather than weaken.

(U) In sum, all these factors — diplomatic and economic leverage combined with superior military force — played important roles in the settlement of the crisis.

D. Implications for U.S. Defense Strategy (U)

(U) In considering the implications of Operation Allied Force for U.S. defense strategy, two important questions arise: what would be the impact of Operation Allied Force on our ability to execute a single major theater war (MTW), and did the participation of U.S. forces jeopardize our ability to execute the most demanding requirement of the defense strategy, namely the ability to fight and win two nearly simultaneous major theater wars?

(U) If the threat of major theater war had developed in another theater duirng Operation Allied Force, the United States would have taken all actions necessary to prevail. Our first course of action would have been to take additional steps to enhance our deterrent posture in the likely theater of conflict, as was the case during Allied Force. Had deterrence failed, we would have deployed those forces that would be required to halt the initial attack and then build our combat strength to conduct counteroffensive operations.

(U) Without question, a situation in which the United States would have to prosecute two major theater wars nearly simultaneously would be extraordinarily demanding — well beyond that required for Operations Desert Shield and Desert Storm in 1990 and 1991. It would involve our complete commitment as a nation and would entail all elements of our total force. The Department recognizes that, if confronted with two major theater wars, we would need to withdraw U.S. forces from ongoing peacetime activities and smaller-scale contingency operations — including, in this instance, from Operation Allied Force — to prepare them for war. Consistent with our defense strategy, U.S. forces could not have continued the intense campaign in Kosovo and, at the same time, conducted two nearly simultaneous major theater wars.

(U) Ultimately, if the decision was made to disengage from Kosovo in order to mount two major theater wars in defense of vital interests in other theaters, we would have been able to do so, albeit at higher levels of risk than would have been the case if U.S. forces had not been conducting operations in Kosovo. We were cognizant of these risks at the time and made various adjustments in our posture and plans to address those risks. Operation Allied Force heightened awareness to the fact that managing these risks is a highly complicated endeavor that would benefit from a more structured and dynamic

set of tools for assessing our ability to conduct major wars when we respond to contingencies.

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II. ALLIANCE AND COALITION WARFARE (U)

(U) Operation Allied Force taught us much about how we function both as a government and as a member of an alliance when engaged in a major military operation.

A. Interagency Planning (U)

(U) Before and during Operation Allied Force, the National Security Council (NSC) oversaw a series of interagency planning efforts on Kosovo. These planning efforts were directed by the National Security Council's Deputies Committee and monitored by an interagency Kosovo Executive Committee. The first political-military plan on Kosovo, completed in the fall of 1998, focused on using the threat of NATO air strikes to achieve a political-military settlement. After this threat of force convinced Milosevic to garrison most Serb forces in October 1998, interagency planning efforts focused on deploying the Organization for Security and Cooperation in Europe's (OSCE's) Kosovo Verification Mission, facilitating humanitarian assistance, and responding to possible Serbian noncompliance.

(U) As it was executed, the interagency planning process helped to mobilize and coordinate the activities of different agencies, identify issues for consideration by National Security Council Deputies, provide planning support for international organizations (e.g., OSCE and United Nations), and develop benchmarks for measuring progress. This political-military planning played an important role in ensuring that the United States achieved the objectives set forth by the NCA. At the same time, it is now possible to identify an important area for improvement.

(U) Planning focused on air strikes and diplomacy as the primary tools to achieve U.S. and NATO objectives. As it became clear that Milosevic intended to outlast the alliance, more attention was paid to other ways of bringing pressure to bear, including economic sanctions and information operations. While ultimately these instruments were put to use with good effect, more advance planning might have made them more effective at an earlier date. Our experience in Operation Allied Force has shown that Presidential Decision Directive 56 (PDD-56), *Managing Complex Contingency Operations*, had not yet been fully institutionalized throughout the interagency. As a result of this experience,

the interagency has applied the lessons learned to further institutionalizing PDD-56. The routine participation of senior officials in rehearsals, gaming, exercises, and simulations would strengthen awareness of the broad range of available policy tools.

B. NATO's Political-Military Process (U)

(U) Any discussion of the NATO and U.S. decision-making processes must begin with the simple fact that the process worked, and NATO achieved its stated objectives. NATO's success was the direct result of 19 nations working together. While the United States provided the preponderance of the military forces employed during the operation, its NATO allies were crucial partners and contributors throughout. The notion that the United States could have carried out this operation unilaterally is simply not true. NATO allies provided personnel, planes, ships, submarines, logistics, infrastructure, over-flight permission, and political and diplomatic support throughout the operation.

1. Command-and-Control Structure (U)

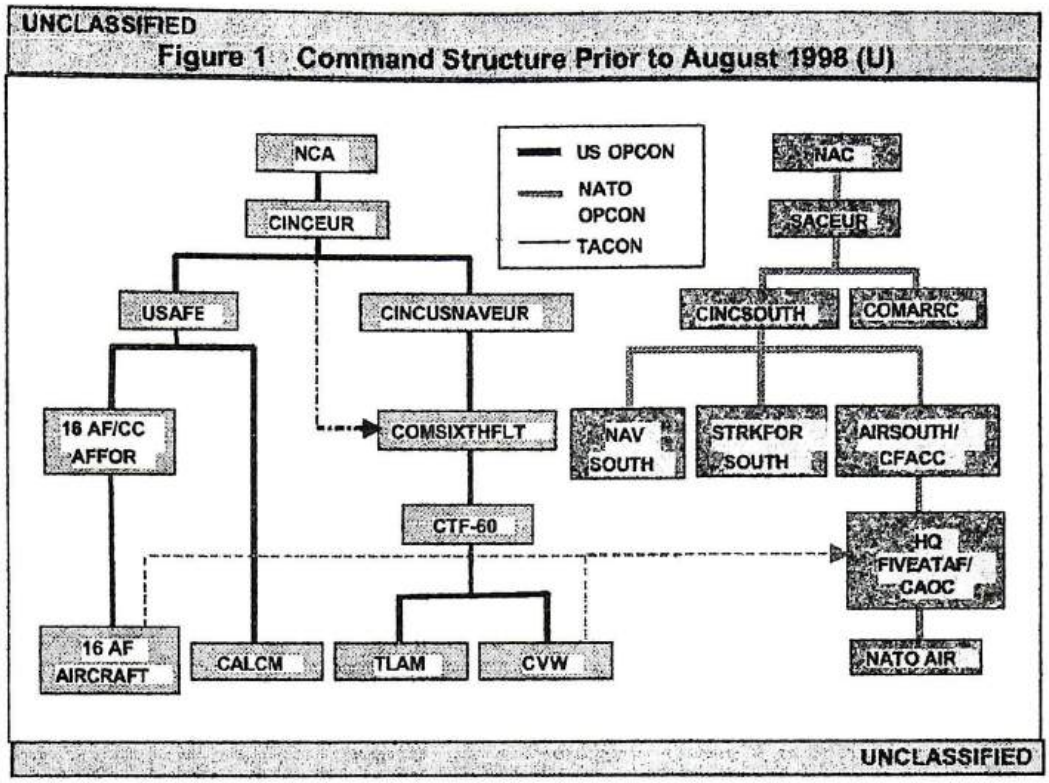
(U) This section describes the U.S. and NATO command structure during Operation Allied Force, beginning with the evolution of the overall command-and-control structure from separate U.S. and NATO chains to an integrated NATO structure. Chapter IV of the report describes the application of this command-and-control structure to the process of directing combat operations.

(U) As the crisis evolved, the North Atlantic Council (NAC) granted Secretary General Javier Solana the authority, subject to close consultation with the NAC, to launch, suspend, or terminate air strikes and to determine their scope, scale, and application essential for the timely and flexible political control of air operations.

(U) Within NATO's military structure, the Secretary General depends on NATO's Military Committee to perform the crucial role of providing necessary strategic military guidance to the military commanders as well as oversight of the conduct of operations. Additionally, NATO's Military Committee and International Military Staff play essential roles in ensuring the timely flow of military advice to the North Atlantic Council and Secretary General, as well as to the military commanders executing the operation. In this way, the Secretary General receives the military advice needed to execute his responsibilities and is assured of the proper oversight and coordination of military activities under his direction.

(U) Figure 1 shows the U.S. and NATO command structures prior to the creation by the United States of Joint Task Force Flexible Anvil and Joint Task Force Sky Anvil in August 1998. This was the typical peacetime arrangement, with independent U.S. and NATO operational structures. The U.S. Commander in Chief, Europe (USCINCEUR), operating under the National Command Authorities (NCA), had operational control (OPCON) of his service components, U.S. Air Forces in Europe (USAFE) and U.S. Naval Forces, Europe (USNAVEUR). (U.S. Army Forces, Europe was not engaged in operations at the time and is not shown.) The Commander, USAFE (COMUSAFE) exercised operational control of both 16th Air Force and the B-52s based in theater along with their conventional air-launched cruise missiles (CALCMs). Commander Sixth Fleet (COMSIXTHFLT), acting as Commander Allied Naval Forces (COMNAVFOR), had operational control of naval assets in theater and directed strike planning and execution for Tomahawk Land Attack Missiles (TLAMs). Commander Task Force 60 (CTF 60), forward deployed and under the operational control of COMSIXTHFLT, was the commander of all naval forces at sea in the Mediterranean. CTF 60, also acting as Battle Force Sixth Fleet, had operational control of the Theodore Roosevelt Battle Group when it arrived in theater on 4 April 1999.

(U) In the NATO command structure, the Supreme Allied Commander, Europe, (SACEUR) reported to the North Atlantic Council (NAC) and had operational control of the NATO regional commanders, including the Commander in Chief, Allied Forces, Southern Europe (CINCSOUTH). The Commander, Allied Command Europe (ACE) Rapid Reaction Corps (COMARRC) was separated from the Commander in Chief, Allied Forces, Southern Europe, and not engaged in operations in the Federal Republic of Yugoslavia. The Commander in Chief, Allied Forces, Southern Europe, headquartered in Naples, Italy, exercised operational control over Allied Naval Forces, Southern Europe (NAVSOUTH), Allied Strike Forces, Southern Europe (STRKFORSOUTH), and Allied Air Forces, Southern Europe (AIRSOUTH). The Commander Allied Air Forces, Southern Europe, was also the Combined Force Air Component Commander (CFACC), and thus controlled the Combined Air Operations Center (CAOC) and all the air forces in the NATO southern region. Under this arrangement, 16th Air Force and carrier wing aircraft remained under operational control of the Commander, Allied Air Force Forces, and the Commander, Sixth Fleet, respectively, but were under tactical control of the CAOC during missions.

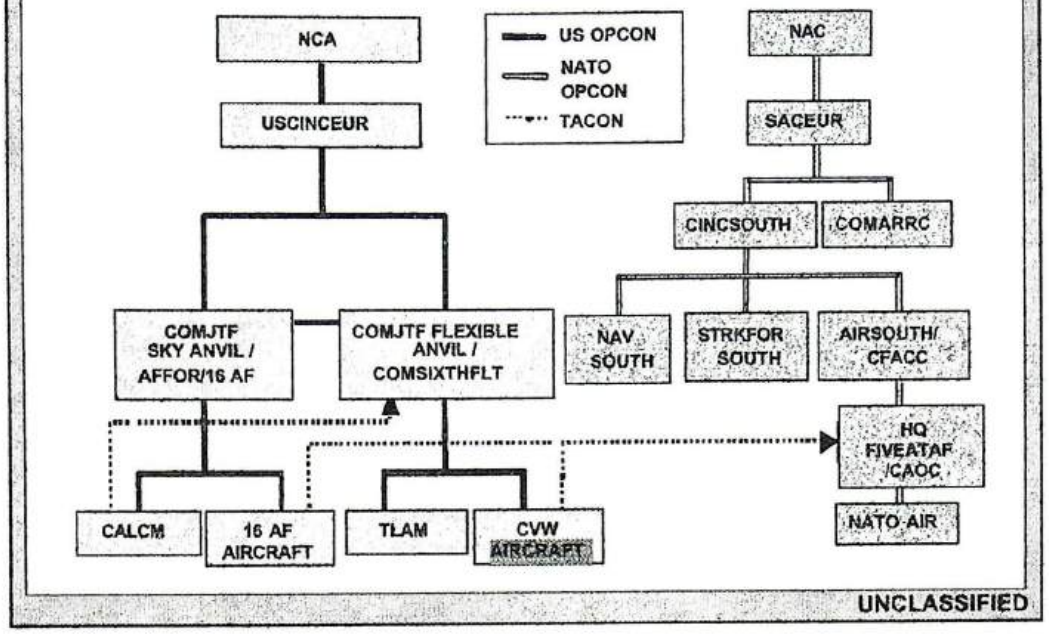


(U) Figure 2 shows the command-and-control structure during the period that Joint Task Force Flexible Anvil and Joint Task Force Sky Anvil were activated, between August and December 1998.

(U) Under the new arrangement, the Commander in Chief, U.S. Air Forces in Europe, and the Commander in Chief, U.S. Naval Forces, Europe, were removed from the chain of operational control, and the Commanders, 16th Air Force and Sixth Fleet became joint task force commanders reporting directly to the U.S. Commander in Chief, Europe. The principal role of Joint Task Force Flexible Anvil was to execute a limited strike option using Tomahawk Land Attack Missiles, and that of Joint Task Force Sky Anvil was to execute a more extensive strike option if a limited strike did not achieve the desired end state. Targets were apportioned by matching target type to optimal weapon characteristics. The U.S. and NATO chains of command were still separated, and no other changes were made to the command and control structure.

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Figure 2 Command Structure, August-December 1998 (U)

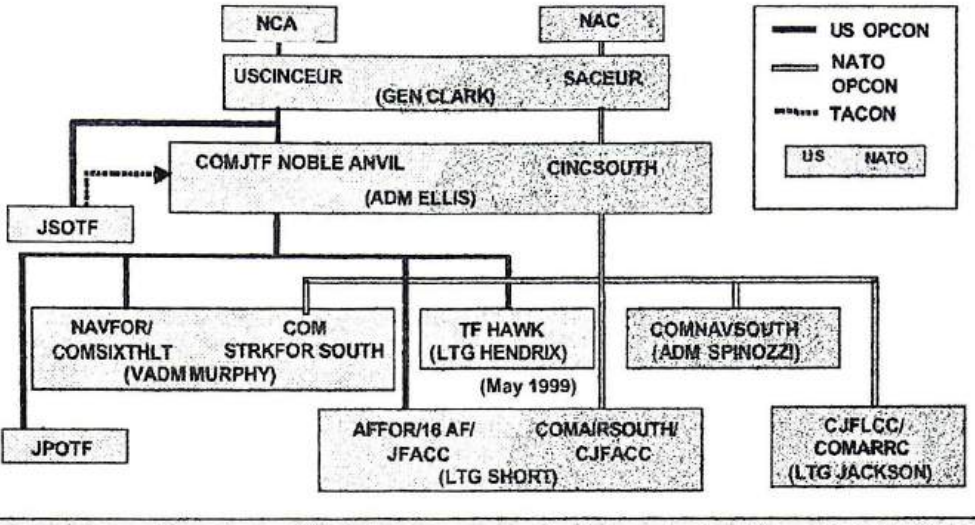


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(U) Figure 3 shows the final command-and-control structure that was used during the period January-July 1999. A new joint task force, Noble Anvil, subsumed Joint Task Force Flexible Anvil and Joint Task Force Sky Anvil, and through an evolutionary process, U.S. and NATO organizations and command-and-control structures became linked.

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Figure 3 Command Structure, January-July 1999 (U)



NOTE: Does not include Joint Task Force Shining Hope

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(U) Joint Task Force Noble Anvil, commanded by Admiral Ellis, established an intermediate command level between the U.S. Commander in Chief, Europe, on the one hand, and the Commander, Sixth Fleet and Allied Air Forces, Southern Europe, on the other. The United States also established a Joint Special Operations Task Force (JSOTF) and a Joint Psychological Operations Task Force (JPOTF). Lieutenant General Short, the Commander, Allied Air Forces, Southern Europe, who was also the Combined Force Air Component Commander, now became the U.S. Joint Force Air Component Commander (JFACC) as well. Similarly, Vice Admiral Murphy, already the Commander, Sixth Fleet, as well as Commander, Allied Strike Forces, Southern Europe, was also the U.S. Joint Force Maritime Component Commander (JFMCC). British Lieutenant General Jackson, the Commander, Allied Command Europe Rapid Reaction Corps, was subordinated to ADM Ellis, Commander, Allied Forces Southern Europe.

(U) As previously discussed, NATO's political-military command structure played an important role in the planning and execution of the operation. NATO's command structure worked well, but parallel U.S. and NATO command-and-control structures complicated operational planning and unity of command. These structures are

well defined, but had not been used previously to plan and conduct sustained combat operations. Despite the overall success of NATO's processes, we will work with our allies to:

- Enhance NATO's contingency planning process for operations outside the NATO area
- Develop an overarching command-and-control policy and agree on procedures for the policy's implementation
- Enhance procedures and conduct exercises strengthening NATO's political-military interfaces.

2. Operational Planning and Targeting Process (U)

(U) Beginning in May 1998, internal NATO planning explored a wide range of military options, including the use of both air and ground forces to achieve NATO objectives. Target planning followed specific guidance provided by SACEUR and the North Atlantic Council, and continued to evolve with the dynamics of the situation in Kosovo.

a. Initial Planning (U)

(U) On September 24, 1998, NATO Defense Ministers, meeting at Villamoura, Portugal, approved issuance of Activation Warnings for two different types of air operations. The first, a five-phased air operation, envisioned an air attack beginning with deployment of air assets and the suppression of enemy air defenses and moving through phases to ultimately eliminate major elements of Yugoslavian military and security force capability. The second option was known as the Limited Air Response and was designed to be a short notice, limited air response to a serious, but limited incident in Kosovo, with the aim of preventing a further deterioration of the situation. The Limited Air Response was eventually integrated into Phase 1 of the air campaign. As early as May 1998, well in advance of the activation warnings, planning staffs at all levels had initiated work to identify the classes, types, and specific characteristics of targets that would need to be attacked to meet the specific goals of these two alternatives.

b. New Options (U)

(U) As the situation in Kosovo evolved, the North Atlantic Council first issued activation requests and then activation orders for both of these air options while backing diplomatic means to resolve the situation. While NATO worked toward a decision on

issuing an activation order, the United States dispatched Ambassador Holbrooke to Belgrade on 5 October 1998 to press for full Federal Republic of Yugoslavia compliance with United Nations Security Council Resolution 1199. Following 7 days of talks, Ambassador Holbrooke reported to NATO that Milosevic was prepared to accept a 2,000-man OSCE ground-verification presence and a NATO air surveillance mission to monitor Yugoslav compliance with the resolution. On 25 October, General Clark and NATO Military Committee Chairman General Naumann reached a comprehensive agreement with the Serbian leaders for specific withdrawals of Yugoslav army and interior forces from Kosovo. Yugoslav compliance with these requirements resulted in a NAC decision to suspend execution of the Limited Air Response and Phased Air Operations on 27 October 1998. However, the NAC did not cancel the activation orders; both would remain in place but would require a positive NAC decision for execution. The two options continued to operate as the basis for target development and update over the next several months.

(U) Despite initial Serb compliance with the agreements, the fragile cease-fire in Kosovo was punctuated by a number of significant incidents in late 1998 and early 1999. The massacre of 45 ethnic Albanians by Serb forces at Racak served to once again galvanize the international community, and led to a renewed emphasis for all sides to exercise restraint and engage in a negotiating process that would lead to a political settlement. Contact Group Ministers met in London on 29 January 1999 to consider the critical situation in Kosovo. The Ministers called on both sides to end the cycle of violence and to commit themselves to a process of negotiation leading to a political settlement. In the proposed agreement, all citizens of Kosovo would enjoy, without discrimination, equal rights and freedoms. The agreement outlined requirements for cessation of hostilities and the redeployment, partial withdrawal, and demilitarization of all forces in Kosovo, and set forth guidelines for civil implementation of a settlement, including democratic self-government, proposed civil structures, police and civil public security, elections, and humanitarian assistance and economic construction. To that end, the Contact Group agreed to summon representatives from the Federal Yugoslav and Serbian governments and representatives of the Kosovar Albanians to Rambouillet, France, by 6 February to begin discussions with the direct involvement of the Contact Group.

(U) On 30 January 1999, NATO issued a statement by the North Atlantic Council, giving full support to the Contact Group strategy. The NAC further agreed to

give NATO Secretary General Solana authority to authorize air strikes against targets within the Federal Republic of Yugoslavia. At that point, however, the primary focus remained on the pending peace settlement talks in Rambouillet. While neither side had signed the agreement after more than 2 weeks of intensive international efforts, it was recognized that enough progress was made to justify reconvening in Paris several weeks later to continue working toward a political solution. Following the second round of negotiations at the Kleber Center in Paris (15–19 March), the Kosovar Albanians signed the proposed agreement. The Serbs, however, continued to obstruct negotiations by reneging on previously agreed sections of the accords, walking out of sessions, and failing to attend scheduled meetings.

(U) As the peace talks broke down, the Supreme Allied Commander Europe directed that a new option separate from previous plans be developed. This option was envisioned to be a 2-day strike, hitting targets throughout the Federal Republic of Yugoslavia in an attempt to convince Milosevic to withdraw his forces and cease hostilities. This option was eventually translated into a list of specific targets. In addition to this option, planners developed two responses to Yugoslav actions that might follow strikes on these targets. The two options ultimately settled on were, first, a potential response to Yugoslav forces' acts of repression against the Kosovar Albanians, and, second, a response to Yugoslav attacks against NATO forces or countries. The limited 2-day strike with its two response options became the basis for new planning activities. During this time, the Secretary of Defense and the Chairman of the Joint Chiefs of Staff repeatedly cautioned allied leaders that the limited duration options would not guarantee success, and that NATO should not initiate these strikes unless the alliance was willing to escalate, if necessary, and persist until victory was secured.

(U) Within a few days of the start of NATO's campaign, alliance aircraft were striking targets throughout Serbia, as well as working to provide freedom of maneuver for friendly air forces by suppressing and disrupting the Yugoslavs' integrated air defense system. At the NATO Summit in Washington on 23 April 1999, alliance leaders decided to further intensify the air operation by expanding the target set to include military-industrial infrastructure, propaganda-related media, and other strategic targets, and announcing the deployment of additional aircraft. This led to the development of additional target classes.

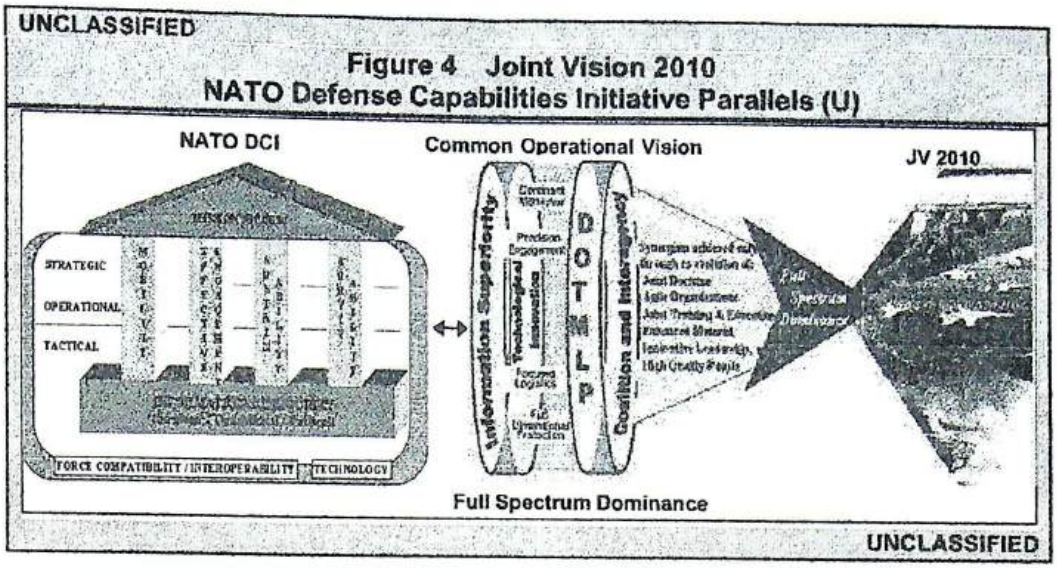
stabilize neighboring countries and to conduct humanitarian relief operations. And it would not have been possible to conduct Operation Allied Force without the use of our allies' military infrastructure, including military bases, airfields, and airspace.

(U) Notwithstanding the allied contributions, and overall success of the campaign, Operation Allied Force highlighted a number of disparities between U.S. capabilities and those of our allies, including precision strike, mobility, and command, control, and communications capabilities. The gaps in capability were real, and they had the effect of impeding our ability to operate at optimal effectiveness with our NATO allies. For example, because few NATO allies could employ precision munitions in sufficient numbers (or at all), the United States conducted the preponderance of the strike sorties during the early stages of the conflict. Problems regarding communication interoperability persisted throughout the campaign. Insufficient air mobility assets among our allies slowed deployment of Kosovo Force ground forces — beyond those already in the theater — once Milosevic agreed to NATO's terms to end the conflict. Disparities in capabilities will seriously affect NATO's ability to operate as an effective alliance over the long term.

(U) If the alliance is to meet future military challenges effectively, it must successfully implement the Defense Capabilities Initiative (DCI). The Defense Capabilities Initiative seeks to enhance allied military capabilities in five key areas: deployability and mobility; sustainability and logistics; effective engagement; survivability of forces and infrastructure; and command, control, and information systems. The United States will continue to promote the Defense Capabilities Initiative and encourage experimentation by NATO's members with new and advanced warfighting concepts. Successful implementation of the Defense Capabilities Initiative must remain one of NATO's top priorities — a lesson strongly reinforced by the Kosovo experience.

(U) Within the alliance, efforts by the United States and its allies to implement the Defense Capabilities Initiative can be facilitated by close coordination through NATO's established structure, namely the Military Committee and High Level Steering Group. Review of alliance interoperability challenges highlighted by Kosovo operations could prove fruitful in addressing improved integration of forces.

(U) Figure 4 illustrates the parallels between Joint Vision 2010 and Defense Capabilities Initiative visions of the military capabilities required to address the future security environment as seen by the United States and NATO.



(U) The term Common Operational Vision shown in the figure is not used by NATO; it is a U.S. construct to evaluate current NATO capabilities and efforts to meet NATO's 21st century challenges. NATO capabilities will have their own unique characteristics, and they will not necessarily mirror those of the United States. However, the more nearly parallel U.S. and NATO processes are for development of future capabilities, the more likely it is that we will achieve the desired level of interoperability.

2. Alliance C4 Policy (U)

(U) The command, control, communications, and computer (C4) support to Operation Allied Force was highly successful. Several important communications capabilities saw their first significant combat application: use of Web-based technologies for coordination and information sharing; video teleconferencing for command, control, and coordination; and e-mail for coordination and tasking. As the United States and NATO fielded these capabilities, some policy differences emerged that highlighted the need for increased emphasis and coordination in the alliance. The Defense Capabilities Initiative and NATO's Strategic Concept provide mechanisms to assist in formalizing C4 policies. Intensive efforts in this vital area of alliance command, control, communications, and computers will contribute to improved interoperability and reduction in the imbalance in capabilities.

(U) In particular, the United States must work with our NATO allies to develop an overarching command-and-control policy and a detailed agreement on procedures for the policy's implementation. Additional policy and agreements, or implementation and enforcement of existing agreements, are essential in the following key areas as part of the development of a comprehensive and overarching NATO C4 policy:

- Collaboration on allocation of limited bandwidth and communications assets to alliance members
- Establishment of network integration training standards for Commander Joint Task Force (CJTF) command, control, communications, and computers
- Management of the electromagnetic spectrum to optimize operations and to avoid mutual interference in support of the Joint Task Force
- Implementation and enforcement of coalition agreements on network security
- Improvements in timely compliance with NATO Standardization Agreements
- Improvements in interoperability by focusing on overarching standards and architectures rather than hardware
- Refinements in the policy and process of releasing information
- Acceleration of Host Nation Agreement processes affecting extensive networks of command, control, communications, and computers for Commanders of Joint Task Forces.

3. Allied Joint Doctrine Issues (U)

(U) Operation Allied Force provided a real-world laboratory for gaining insights into the capabilities envisioned by Joint Vision 2010. Operation Allied Force confirmed the need for the goal of Joint Vision 2010 to develop force capabilities that can handle unexpected circumstances and threats across the full range of military operations. The Allied Force experience demonstrated the need for forces that are able to adapt and transition across diverse operations calling for combat, peace enforcement, peacekeeping, and humanitarian assistance. This experience also provides a potential framework for assessing the approach to projecting future requirements — by focusing on capabilities and the effects they can deliver — across the spectrum of warfare.

a. Allied Joint Doctrine (U)

(U) Operation Allied Force confirmed the importance of Allied Joint Doctrine to improving the interoperability of NATO forces. Consistent allied joint tactics,

techniques, and procedures will improve integration of NATO's sea, air, and land forces involved in activities across the range of military operations. Allied Joint Doctrine should enable future NATO operations to be more effective and to achieve higher operational tempo, and should increase the probability of mission success while reducing the risk to forces.

(U) To enhance our ability to support development of Allied Joint Doctrine, the Department is currently reviewing U.S. procedures for participating in the formulation of Allied Joint Doctrine. We believe NATO also needs to streamline its procedures for doctrine development and approval. Accordingly, the Department will engage NATO in the Military Committee and High Level Steering Committee to facilitate these improvements.

b. Use of Video Teleconferencing (U)

(U) NATO commanders used video teleconferencing for the first time as a major instrument for exercising command and control. Daily commanders' video teleconferences were held to review progress of operations, coordinate future operations, and promulgate intentions. These conferences spanned the chain of command from the Supreme Allied Commander Europe to the Commander Joint Task Force and onward to component commanders. In other words, these commanders' video teleconferences spanned the strategic, operational, and tactical levels of command, thus greatly compressing normal command-and-control processes. As a result, strategic and operational commanders were able to directly influence tactical operations. Joint Vision 2010 anticipates these phenomena — from use of technologies such as video teleconferencing — by observing "...higher echelons will use these technologies to reduce the friction of war and to apply precise centralized control when and where appropriate. Real time information will likely drive parallel, not sequential planning and real time, not prearranged, decision-making. The optimal balance between centralized and decentralized command and control will have to be carefully developed as systems are brought into the inventories."

(U) The ability of high-level commanders to influence tactical operations directly had positive as well as challenging aspects. Among the positive developments was the speed with which commanders and key staff officers could perform essential coordination. One of the challenges remains timely documentation and promulgation of the most essential substance of the proceedings, such as the commander's intentions, to

those key personnel who did not attend the video teleconference. The Department is continuing to review the Kosovo experience in search of improvements that can be made in the use of video teleconferencing as a major tool for exercising command and control. Where appropriate, revisions to doctrine will be incorporated. The compression of time to exercise command and control made possible by video teleconferencing and other technologies is already a topic for Joint experimentation.

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III. FORCE DEPLOYMENT (U)

(U) The United States has dramatically decreased its overseas basing of military forces since the end of the Cold War. Consequently, the success of U.S. military operations around the world often hinges on the combat capability of rotationally deployed forces already in theater and on our ability to rapidly deploy forces to distant conflicts or hot spots. For very small operations, a deployment of forces from within the theater might be adequate. However, larger contingencies such as Operation Allied Force require strategic deployment of military units from the continental United States or from other theaters to augment the forces on hand. In such situations, transportation planners must rapidly develop movement schedules for the deployment of these forces. For Operation Allied Force, planners drew upon forces deployed worldwide, including forces based in the continental United States. Even with an extremely compressed planning timeline for the operation and vast distances to move, the deployment of U.S. forces to Operation Allied Force was, from an overall perspective, successful.

(U) Despite this overall success, however, the deployment of forces to Operation Allied Force was not problem-free. Although the commitment and ingenuity of transportation planners, as well as the dedication of the men and women responsible for actually moving units and their critical equipment and supplies overcame these difficulties, there is room for improvement.

(U) This chapter highlights some of these problems, and the lessons to be drawn from them. Attention to these lessons will allow us to execute future deployments more effectively and with less heroic efforts required on the part of transportation personnel.

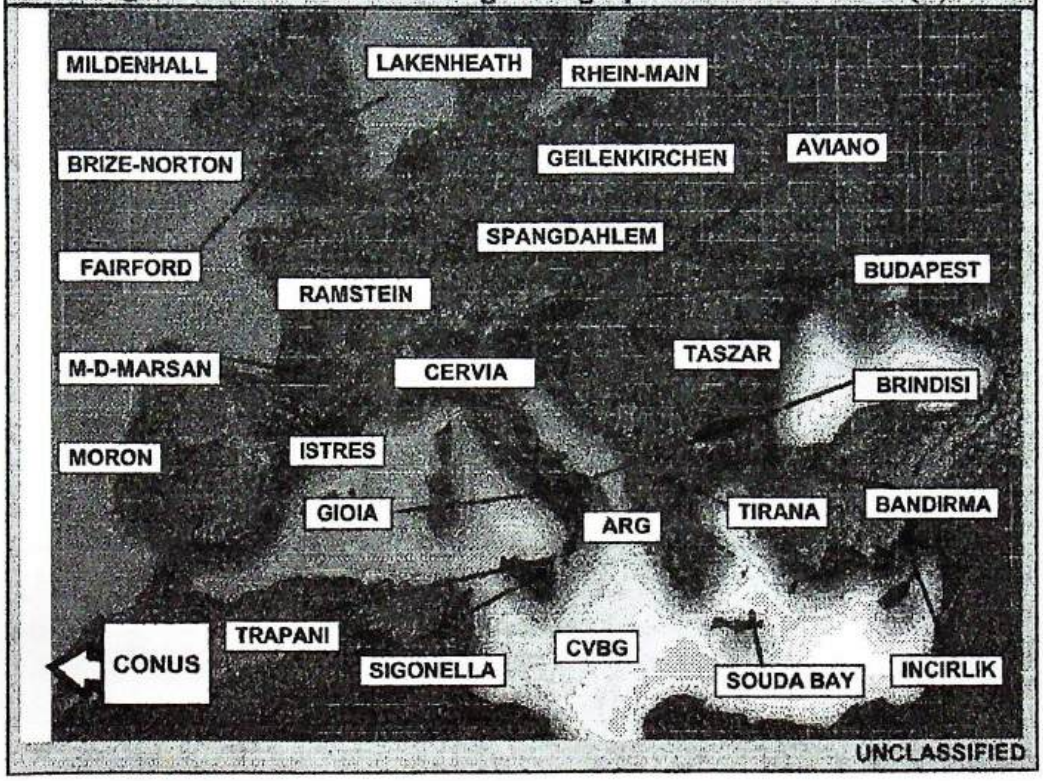
A. Basing and Refueling Considerations (U)

(U) On 24 March 1999, 214 U.S. aircraft and 130 allied aircraft were poised at bases in Europe ready to initiate combat operations against the Federal Republic of Yugoslavia. B-2 aircraft operating from the heartland of the United States augmented these aircraft.

(U) By June 1999, the total number of U.S. aircraft in Europe had grown to 731. These aircraft were based at the locations shown in Figure 5. During that same period, allied contributions more than doubled to over 300 aircraft. In addition, our NATO allies provided virtually all the basing facilities, air traffic coordination, and supporting elements to keep this air armada of over 1,000 aircraft functioning throughout the conflict.

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Figure 5 U.S. Aircraft Basing During Operation Allied Force (U)



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1. Aircraft Basing (U)

(U) Bedding down and employing such a massive force was challenging. Despite Partnership for Peace, NATO, and other organizations, there were issues that, although eventually solved, initially delayed or encumbered operations. Avoiding these problems in future conflicts could be helped by the development of appropriate checklists to ensure international agreements contain critical host nation support for military operations plans and contingency operations. Some suggestions for such a checklist's contents include: designated points of entry and departure, customs, overflight

authorization, use of radio frequencies, air traffic control, blanket diplomatic clearances, basing rights, facility access agreements, coalition contracting procedures, connectivity, force protection, site surveys and update process, site explosive material handling plan, and weapon storage. Implementation of such agreements would facilitate quick access and assist in rapid deployment, as well as rapid employment and immediate sustainment. Each of these areas has unique challenges and some mutually exclusive areas of concern. Rapid employment and immediate sustainment necessitate more extensive efforts with customs and diplomatic clearances than do rapid deployment concepts. Base infrastructure support for rapid deployment is not as extensive as support requirements needed for rapid employment and immediate sustainment.

2. Aerial Refueling Support (U)

(U) A challenging aspect of Operation Allied Force was providing aerial refueling support for transport aircraft delivering forces to the theater and for combat aircraft deploying to the theater and conducting strike operations. Aerial refueling missions were particularly demanding because tankers operated, in many cases, from bases on the periphery of the theater. There were not enough air bases in the area immediately around Kosovo to support all the aircraft committed to Operation Allied Force. Strike aircraft were placed on bases closest to Kosovo, and longer-range tankers were based at locales farther away, often at distances that exceeded those expected for a major theater of war operation. Because of the multiple locations and long distances, planners had to overcome a host of coordination and support issues including providing support for global attack sorties flown from the continental United States by B-2 bombers. Another key factor that increased tanker demand was the need to provide refueling support for at least four combat air patrol stations that were filled continuously, 24 hours per day, from the beginning until the end of the war. Consequently crew ratios for tankers participating in Operation Allied Force were higher than typically planned. Many of the considerations mandating increased crews could be confronted in an intensive air-refueling scenario in the future.

(U) Although U.S. forces succeeded in providing the tanker support needed to sustain the air operation, the Department is reviewing the tanker forces and crew ratios to determine whether existing and planned forces are sufficient to meet the two MTW requirement or other future contingencies. The Department is also investigating our ability to plan in theater, in real time, for the most effective use of our tanker fleet and is reviewing options for improving this key planning capability.

B. Deployment Planning (U)

(U) One of the linchpins of a successful military deployment is detailed planning. In the case of force deployments, this planning takes the form of an accurate description of what units need to be moved, their points of origin, their destinations, their size (e.g., weight, volume, and number of personnel), and when they are required to arrive. This basic information comprises the backbone of the Time-Phased Force and Deployment Data (TPFDD) that drives the allocation of transportation assets to the units that must be moved. As the deployment data is developed, additional information is incorporated (e.g., preferred mode of transportation) to ensure that scarce mobility assets are used in the most efficient fashion.

(U) Given the great level of detail required to coordinate a large deployment, the rapid generation of the deployment data to support a quick reaction operation such as Allied Force is a monumental task. The quite substantial force and deployment data for Operation Allied Force had to be developed in weeks. Further complicating deployment planning is the fact that the TPFDD is a living document that must be continuously modified in response to changes in the operational situation. As the Commander's plans change, so must the deployment data. This inherent aspect of deployment data development was graphically illustrated in the Task Force Hawk deployment when political and operational imperatives required a significant shift in basing from the Former Yugoslav Republic of Macedonia to Albania. A large portion of the deployment data had to be rapidly reworked in response to this change. Of course, the ideal of a stable, pre-planned TPFDD is never achievable. The deployment data and its planning process must be flexible and responsive to the inevitable shifts in the commander's operational priorities.

(U) We have identified two major factors in Operation Allied Force that contributed to avoidable delays in TPFDD development: inadequate planning systems and poor planning discipline.

1. Deployment Data Planning Systems (U)

(U) Automated planning systems are essential for rapid and accurate TPFDD development. Today, many different planning systems contribute to the deployment data. These systems range from unit-level tools up to the often-mentioned Joint Operation Planning and Execution System (JOPES), a high-level system that is the primary driver

for strategic deployments. This hierarchy of lower-level systems feeding data to progressively higher-level systems culminates with the global TPFDD.

(U) Unfortunately, the limited interoperability of today's systems creates friction at all levels of the deployment planning process. Among the specific problems are inconsistent data requirements and electronic data formats that cannot be easily shared between systems. This lack of "user friendliness" slows data development and places an unnecessary premium on the relatively few individuals with the experience to work through an ad hoc end-to-end TPFDD generation process. Unfortunately, the pressure of crisis action planning can significantly strain such an ad hoc system.

(U) To improve TPFDD generation, the Department is reviewing the suite of tools used for TPFDD generation with the goal of providing a more seamless system for planners at every level. Much has already been accomplished in this direction. For example, the Transportation Coordinators' Automated Information for Movement System (TC-AIMS II) now under development, will integrate the functionality of the Services' existing movement planning systems into a single tool. Taking this integration another step, the Department is considering integrating TC-AIMS II with the Joint Forces Resource Generation II (JFRG II) system to further speed unit data into the deployment data.

(U) A related shortcoming of deployment planning was the difficulty assessing the impact of Allied Force deployments on major theater war plans. Many assets deployed to Operation Allied Force are simultaneously tasked for the major theater wars. Should a major theater war erupt, this engagement in another contingency would be expected to delay deployment to the larger conflict. From the more general perspective of deployment planning tools, the capability to track the status and location of major theater war forces would be valuable. This would help planners avoid adverse impacts to major theater war plans and allow them to identify any decrements to our senior leadership.

2. TPFDD-Generation Process Discipline (U)

(U) Improving the automated planning systems is only part of the solution to delays in the TPFDD-generation process. Deployment policies, process procedures, and trained personnel are as integral to the JOPES as are the hardware and software described above. Additional emphasis is required to ensure all participants follow the established deployment data development procedures and policies in a disciplined manner. Failure to

follow proper procedures can result in conflicts and other delays as the system tries to incorporate inadequate or incomplete movement requests into the deployment data.

(U) The problem with poor discipline in the execution of established planning procedures was at least partially an outgrowth of the planning system shortcomings described above. With multiple planning systems and their associated procedures in use at any given time, there were few policies and procedures that could be consistently followed across the spectrum of data development activities. Individuals encountering an unfamiliar aspect of the process were forced to improvise solutions. Although this might get a specific job done, other aspects of the deployment could be adversely impacted. The integration of planning systems recommended above will go a long way toward solving this problem by providing a more unified set of procedures and policies across the full range of TPFDD-development activities. By ensuring all participants are able to collaborate in a real-time environment, we can increase the efficiency of strategic lift planning.

(U) Even with improved planning systems in place, a better understanding of the TPFDD-development process is needed at all levels. For example, specific information is required if deployment requests are to be included in the data in a timely manner. Without the necessary data, requests cannot be processed, and the time consuming task of asking for clarification will ensue. During Operation Allied Force, delays resulted from errors as simple as failure to specify the desired delivery locations for deploying units. It was like placing a catalog order without specifying a mailing address.

(U) Since individuals can only follow procedures if they know what the procedures are, deployment-oriented continuation training should be provided from the highest staff levels down to the lowest. As a proponent of the Joint Deployment process, U.S. Joint Forces Command intends to pursue end-to-end solutions, including process, training, and technology, in an effort to identify the best long-term solutions to this aspect of the deployment process.

C. Deployment Execution (U)

(U) As discussed earlier, the deployment of forces to Operation Allied Force from the continental United States and other theaters was a significant undertaking. Because of the nature of the operation, the key aim of the deployment was on moving fixed-wing air assets into the theater. As problems with the deployment data were addressed and resolved, the people and equipment of the transportation system efficiently

executed its tasking. The operation was far from routine, however, and required tireless efforts on the part of those responsible for the unit deployments. Indeed, in many dimensions the air operation achieved major theater war magnitude, and hence required similar levels of deployment activity.

(U) As was the case with TPFDD planning, the deployment execution system did not work perfectly despite its overall success. First, a lack of understanding of the infrastructure available in Southeast Europe contributed to inefficiencies in deployment. In addition, although in-transit visibility — the ability to track the progress of units and supplies while they are en route to their destinations — was generally improved over past experiences, commanders had insufficient knowledge of the status and location of deploying units and supplies. On the positive side, the Air Force's new C-17A Globemaster III inter-theater airlifter performed exceptionally well, and was critical to the deployment's success. The report elaborates on these and several other observations in the sections that follow.

1. Understanding Infrastructure Limitations (U)

(U) In Operation Allied Force, the austere transportation infrastructure — airports, seaports, roads, and railroads — in and around Albania limited deployment options and increased deployment timelines. Poor infrastructure conditions slowed aircraft turn-around times, limited throughput at the ports, and slowed onward movement of forces and humanitarian supplies. Such problems can be mitigated to some extent by an early assessment of infrastructure limitations. This enables a matching of transportation infrastructure capability to operational requirements. As a result, deployment packages can be optimized and required transportation support can be more efficiently allocated.

(U) In preparation for deployment, U.S. Air Forces in Europe (USAFE) conducted extensive beddown planning by surveying, preparing, and publishing new beddown assessments for 27 sites in 11 NATO and Eastern European countries. These assessments were critical and allowed logistics planners from deploying units to reduce the equipment necessary for deployed operations. This, in turn, decreased the requirements for both intra-theater and inter-theater airlift. However, there were still instances where deploying units brought more capability than required, which needlessly increased airlift sorties. It is critical that deployment planners obtain all necessary planning information on potential beddown locations as soon as possible. In addition,

assessment teams should be given better training and more useful tools to gather and distribute information to effected units.

(U) In contrast, ground and sea infrastructure capabilities were not assessed until later in the operation. As a result, planners lacked sufficient information to make informed decisions about the desirability of employing additional assets such as Joint Logistics Over-the-Shore or of relying more heavily on strategic sealift. Similarly, planners could have deployed engineers or mobilized contractors to enhance the transportation infrastructure as necessary. Decisions to deploy these forces need to be made early in the operation to increase transportation throughput capacity. These issues are discussed in detail later in this chapter and in Chapter VIII.

2. In-Transit Visibility (U)

(U) In-transit visibility refers to the ability to track the progress of an item or a unit as it is processed through the transportation system. One can see in-transit visibility at work in the commercial world whenever a person calls a commercial shipper to check on the status of a package. While it's nice to know that your catalog order left the warehouse at midnight, such detailed in-transit visibility can be of much greater benefit to a military commander. In fact, use of commercial parcel airlift services on a wide scale provided commanders with partial in-transit visibility during Operation Allied Force. Additionally, exploiting commercial services helped commanders reduce transit times and husband scarce airlift resources. However, commercial systems do not possess all of the attributes required of a military deployment tracking system. For example, they cannot ensure unit integrity and do not typically track package contents.

(U) Depending on circumstances, a unit's journey from home base to a deployed base in theater can take days to weeks and involve several different modes of transportation. Without in-transit visibility, a commander's ability to adjust a unit's movement in response to changes in the operational situation is severely limited. For example, an F-16 squadron originally destined for Aviano, Italy, might be better placed in Bandirma, Turkey. While diverting the aircraft to their new destination might be straightforward, the system needs to know which C-17s are carrying the squadron's support and maintenance equipment so they can be diverted as well. For Operation Allied Force, this type of capability could have greatly enhanced overall operational flexibility.

(U) In-transit visibility also gives a commander a better idea of when forces will arrive in theater. Especially important is accurate knowledge of when the unit will be ready for employment. Some current tracking systems list a unit as in theater when the first ship or transport aircraft arrives. In reality, it might be several more days before the entire unit has arrived. By solving problems such as these, in-transit visibility gives a commander a much clearer picture of the status of the deployment.

(U) Asset visibility continues to mature within the military transportation system. However, there is still room for significant improvement. A major impediment to achieving in-transit visibility is the inability to capture data accurately at the source. Without this data, the best of systems would remain functionally useless. Even if the necessary data were available, there is currently a lack of adequate feeder systems and the associated communications support needed to collect and fuse the data into a coherent picture on the Global Transportation Network (GTN). At a higher level, there remains a lack of theater in-transit visibility doctrine and supporting policies. This necessitates ad hoc planning in critical times, and results at best in fragmented theater in-transit visibility.

(U) To help overcome these problems, the Department is continuing to place emphasis on improving end-to-end asset visibility. The Unified Commanders will continue to develop internal in-transit visibility plans that leverage the technical in-transit visibility capabilities that are developed and deployed by the Services and other agencies. As the in-transit visibility functional lead, the U.S. Transportation Command will evaluate the need for additional joint doctrine and procedures to link strategic and theater in-transit visibility into an integrated process. Furthermore, the current Joint Staff study on Information Technology for Deployment, Force Tracking, and Sustainment will consider technical solutions to the problem of multi-point collection of in-transit visibility data.

3. C-17 Performance (U)

(U) One of the great success stories of Operation Allied Force was the performance of the Air Force's C-17A Globemaster III airlifter. The C-17 is the newest member of the strategic airlift fleet. Current plans call for procurement of more than 120 C-17s for the Air Force Air Mobility Command. Some of the basic characteristics of the C-17 are shown in Figure 6.

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Figure 6 C-17 Globemaster III (U)



Performance Characteristics
Average Payload: 45 tons Block Speed: 420 Knots
Minimum Runway (Landing): 3000 ft

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(U) The performance of the C-17 in Operation Allied Force demonstrated the great utility of the demanding requirements originally established for that aircraft. The C-17 flew half of the strategic airlift missions required by the operation. Because of its small-field capability, the C-17 made the concept of direct delivery (strategic movement from port of embarkation to airfield closest to final destination) a reality. It was no longer necessary to transfer cargo from an inter-theater airlifter to an intra-theater airlifter for the final leg of deployment. In addition to being able to use small airfields, the C-17's average ground time was significantly less than the published planning factor times. Rapid turnaround such as this is critical at airfields that can only accommodate small numbers of aircraft on the ground, and is testimony to the design of the aircraft as well as the efforts of aerial port personnel supporting the off-load operations.

4. Joint Logistics Over-the-Shore Capability (U)

(U) The movement of heavy ground forces by sea would have been necessary if a ground combat option had been used in Operation Allied Force. Unfortunately, sea port facilities in Albania, one of the potential points of entry, are rudimentary at best. Because of this, operations known as logistics over-the-shore (LOTS) would have been necessary if ground forces had been deployed by sea.

(U) Logistics over-the-shore is the process of discharging cargo from vessels offshore, transporting it to the shore or a pier, and marshalling it for movement inland. These operations range in scope from bare beach operations to operations supplementing

fixed-port facilities. Joint Logistics Over-the-Shore (JLOTS) operations occur when both Army and Navy LOTS elements conduct operations together under a Joint Force Commander. The scope of JLOTS operations extends from acceptance of ships for offload through the arrival of equipment and cargo at inland staging areas.

(U) Executing JLOTS requires a great deal of large specialized equipment. The Navy's Cargo Offload and Discharge System or the Army's Modular Causeway System form the primary structures spanning the distance from the sealift ship to the shore. Landing craft and warping tugs are also used to assemble causeways and move other equipment. Prior to assembly, unloading the causeway systems requires heavy lift capability such as Navy amphibious construction battalions or Army floating craft companies. Additional systems may be needed to provide logistics support across a broader range of major theater wars and smaller-scale contingencies.

5. Use of Sealift (U)

(U) The Department of Defense has standing plans for moving forces to major theater wars. As we have seen, however, it did not have such plans for Operation Allied Force. The rapidly evolving requirements of Allied Force strained our ability to quickly develop plans for deploying our forces that utilized our lift assets efficiently. We relied heavily on strategic airlift to deploy forces to the theater, while the sealift component of the strategic mobility triad lay essentially idle. This was due to the understandable desire of the commanders in the field to have needed equipment and personnel transported as quickly as possible; air transport was not, however, mandatory in all cases. The impact on operations was that it overburdened limited strategic airlift assets and was costly. The proper use of all means of strategic lift, supported by earlier assessment of ground and sea infrastructure, might result in faster force closure in future deployments.

(U) Since Desert Storm, the Department has spent over $6 billion to augment the capability to move U.S. forces in a contingency. We have purchased 19 large, medium-speed, roll-on/roll-off ships (LMSRs); 10 have been delivered. When delivery is completed, these ships will add 5 million square feet to the total strategic sealift capacity. Additionally, 14 roll-on/roll-off ships were added to the Ready Reserve Force, increasing its capacity by an additional 2.2 million square feet. Additionally, the readiness level of the Ready Reserve Force has been increased to ensure its reliability, readiness, and speed when needed.

(U) When possible, increased use of sealift assets should be considered in future conflicts and contingencies. The improvements that the Department is making to its automated capabilities for real-time transportation planning will enable better use of these improved sealift assets to support the rapidly evolving needs of a contingency such as Operation Allied Force.

D. Task Force Hawk Deployment (U)

(U) The primary lessons learned from the Task Force Hawk experience fall under the areas of command relationships and training, and are discussed in other chapters. This section briefly describes some of the deployment problems encountered by Task Force Hawk.

1. Deployment Planning (U)

(U) Task Force Hawk was originally directed to deploy to Macedonia and to use the existing facilities and local experience provided by U.S. Army units based at Camp Able Sentry. The expectation that this infrastructure would be available drove the early deployment planning. Unfortunately, based on availability of space, the Macedonian government determined they could not allow helicopters to be based there and the deployment had to be shifted to Albania, where the government had agreed to accept them. The change in deployment site to Albania necessitated the deployment of additional force protection assets and infrastructure support. Consequently, the material required to deploy this force grew by a factor of three.

(U) Exacerbating the dramatic increase in the lift requirement was the fact that Task Force Hawk was in competition with the humanitarian Joint Task Force Shining Hope for scarce airbase resources in Tirana, Albania. The airport remained a bottleneck despite heroic efforts by Air Force Red Horse Engineers to expand its capacity.

2. Deployment Execution (U)

(U) Given the changes in the scope and specifics of Task Force Hawk's deployment, a different means of moving the task force might have been chosen. It is a misimpression that the Task Force Hawk deployment merely involved 24 Apache helicopters. In fact, Task Force Hawk was an Army Aviation Brigade Combat Team. This unit included a corps aviation brigade headquarters, a corps artillery brigade headquarters with a Multiple-Launch Rocket System (MLRS) battalion, an attack

helicopter regiment (Apache), a ground maneuver brigade combat team, a corps support group, a signal battalion, a headquarters troop battalion, a military police detachment, a psychological operations detachment, and a special operations command-and-control element. Had time permitted, it might have been advantageous to ferry Task Force Hawk from Italy to Albania by ship. Indeed, much of the logistics support was moved by ship.

(U) One aspect of the Task Force Hawk deployment was a particular success. To accommodate the demands of the Task Force Hawk deployment, the U.S. Transportation Command, for the first time, gave a theater tactical control of a significant number of strategic airlift aircraft for a specific deployment. Tactically, the C-17s were controlled out of U.S. Air Force's Air Mobility Operations Control Center (AMOCC) in Ramstein, Germany. The command-and-control relationship between the AMOCC and Air Mobility Command's Tanker Airlift Control Center was smooth, and operations in support of Operation Allied Force and humanitarian assistance were not adversely impacted. Given this success, the Department plans to examine the structure and concepts of operation employed at the AMOCC to determine if they are applicable to other theaters. As Operation Allied Force demonstrates, temporarily assigning strategic airlift aircraft to theater control may be of great utility to commanders faced with sudden, large intra-theater airlift requirements. Theater CINCs should consider creating appropriate organizations and updating operational plans to facilitate similar arrangements.

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IV. FORCE DIRECTION (U)

(U) In Chapter II, we discussed the evolution of the overall command-and-control structure from separate chains of command and control to an integrated NATO structure. This chapter describes how that structure was used to direct the NATO forces deployed in the operation. The specific organization of the Combined Air Operations Center, which directed most of the combat operations, is described first. Next, the command, control, communications, and computer systems that supported the operation are assessed, with a focus on some of the challenges that were encountered. Lastly, some problems of information interoperability, primarily between U.S. and NATO forces, are discussed.

A. Combined Air Operations Center (U)

(U) The Combined Air Operations Center (CAOC) was the nerve center that connected pilots and airborne controllers and directed air operations. It had been in place at 5th Allied Tactical Air Force in Vicenza, Italy, since the Bosnia operations, and grew from a hodgepodge of unique systems to an integrated operation. For Operation Allied Force, its staff swelled from 400 personnel to more than 1,300. Because the number of aircraft available in theater was large relative to the number of approved targets, the CAOC was able to schedule assets some time in advance. However, the target approval process often resulted in targets being assigned on the same day that they were to be attacked, thereby compressing the mission planning time available to aircrews. A variety of intelligence, surveillance, and reconnaissance sources were downlinked into the CAOC where operators analyzed information, integrated the target lists, and provided strike approval. Airborne elements of the theater air control system (AETACS) such as the airborne battlefield command-and-control center (ABCCC), airborne warning and control system (AWACS), and the joint surveillance and targeting radar system (JSTARS) provided inputs and enabled strike aircraft to flex from pre-planned targets to time critical targets (TCTs). This entire process reinforced the dictum that centralized control and decentralized execution of air and space forces are critical to force effectiveness. A more detailed discussion of operational-level targeting procedures employed at the CAOC is provided in Chapter V.

(U) The Army units assigned to Task Force Hawk were organized and equipped to form part of a larger land force under the assumption that certain additional command-and-control and support elements would be present as part of this larger force. After Task Force Hawk arrived, a Deep Operations Coordination Cell and an Air Coordination Element were added. This finally provided elements that had been missing in developing the ground intelligence preparation of the battlefield and nominating targets to the air tasking order. An important lesson was learned from this experience: extraordinary methods are needed to focus collection and analysis efforts on enemy ground forces in operations where ground forces are not integrated from the beginning, and a ground commander is not present.

(U) Future conflicts will continue to require appropriate command-and-control centers to effectively execute and manage the joint force commander's strategy and execution plans. To be most effective, such centers cannot be set up from scratch. The development of established expeditionary air operations centers with supporting resources and manpower will allow the military to create CAOCs that can be tailored to the crisis at hand and deployed quickly. This faster deployment will help shrink the strategic decision loop while the greater cohesion and training of an expeditionary CAOC will enable it to tighten the operational decision loop. Such units will be able to develop and standardize tactics, techniques and procedures and be more effective as a highly value-added weapon system.

B. Command, Control, Communications, and Computers (U)

1. Overview (U)

(U) The command, control, communications, and computers (C4) systems provided for Operation Allied Force were unprecedented in terms of capacity and variety of services. For U.S. elements in fixed locations, wideband interconnection was the rule, provided by a combination of military and commercial systems. The available bandwidth was nearly double that used during the Gulf War, an operation with far more forces committed. One reason this was possible is that the communications infrastructure in Europe, both military and civilian, is among the most robust and flexible available to the United States in any theater of operations. Additional C4 capabilities were brought into the theater, even though this impacted other U.S. military commitments worldwide.

(U) The widespread use of video teleconferencing and other advanced technologies for command and control and collaborative planning presented numerous limitations and challenges. Video teleconferencing allowed for horizontal and vertical sharing of information and enhanced situational awareness, permitting senior leaders throughout the command chain an unprecedented visibility into, and the real-time ability to exert influence over, many aspects of Operation Allied Force. It was very apparent that there is still a need for written documentation and dissemination of decisions, however. As already expressed in Joint Vision 2010: "Accelerated operational tempo and greater integration requirements will likely create a more stressful, faster moving decision environment. Real-time information will likely drive parallel, not sequential, planning and real-time, not prearranged, decision making." In order to optimize their application and accustom operational commanders to their effect on operations, such systems should be included regularly in future large-scale joint and combined training exercises. Likewise, doctrine, tactics, techniques, and procedures must be developed to adapt the optimum combinations of technologies to corresponding warfighting scenarios.

(U) Despite the unprecedented communications bandwidth and services provided during Operation Allied Force, a number of shortfalls soon became apparent. These are discussed in the following subsections.

2. C4 Infrastructure (U)

(U) Although the existing communications infrastructure was relatively robust, it had to be quickly expanded to meet U.S. and NATO needs. This was accomplished through the addition of Standardized Tactical Entry Points (military satellite gateways), by the reprioritization of military satellite communications, by leasing commercial satellite and fiber-optic systems, and by reapportioning the Joint Broadcast System and Bosnia Command-and-Control Augmentation Assets.

3. NATO C4 Agreements (U)

(U) Although successful in some areas, NATO C4 capability was limited by the lack of C4 agreements and the need for more stringent enforcement and implementation of existing agreements. Problem areas included (1) sharing of bandwidth and C4 assets, (2) C4 network integration training standards at the combined and joint task force level, (3) spectrum management within combined and joint task forces, (4) network security, (5) lack of timely compliance with NATO standardization

agreements (STANAGs), and (6) releasability of information. In addition, the C4 host nation agreement process needs to be expedited, and the focus of the agreements should be on standards and architectures rather than specific hardware.

4. Joint Network and Information Management (U)

(U) Expanding information demands at all levels highlighted two challenges: (1) proper management of joint networks that distribute information, and (2) proper dissemination of information (i.e., getting the right information to the right place at the right time). Increasing information requirements led to network congestion and information overload. There were no real-time automated joint network monitoring or management tools at the joint task force level, resulting in little visibility and inefficient use of critical C4 assets. Collocated systems did not use communications channels efficiently.

(U) Management tools to dynamically allocate bandwidth on demand would have allowed much better functioning of joint networks. The lack of joint network and information management tools also severely handicapped intelligence research and analysis reporting. Numerous graphically intense briefing presentations, reports, imagery products, and e-mail threatened to overload systems throughout the theater. People had difficulty identifying and locating real-time sensitive data. The overwhelming amount of information also caused severe problems with network file servers, slowing the acquisition of needed information.

(U) A joint network management system is clearly needed. The Joint Defense Information Infrastructure Control System-Deployed has been approved as an interim network management solution and should be deployed with the joint task force. Current initiatives to develop automated tools, processes, and procedures for information dissemination management should be vigorously pursued. Joint network and information management tools will promote greater access to information, lessen the time for data retrieval, and reduce information fatigue. These tools need to be used during exercises to test systems and train personnel.

5. Maintenance and Training in New Technologies (U)

(U) Several noticeable shortfalls in training on modern C4 equipment were also evident during Operation Allied Force. In the case of the handheld PRC-112B survival radio, which both the Air Force and Navy have purchased limited numbers for their

aircrews, problems arose because most of the Air Force radios were in storage in Europe and not routinely used by aircrews.

(U) Training deficiencies in the use of new technologies also contributed to security vulnerabilities. Operation Allied Force was the first major combat operation to use Web technology on a grand scale. Unfortunately, some important network details were not adequately protected. In addition, not all computer hardware and software security features had been enabled.

C. Information Interoperability (U)

(U) Information interoperability was sometimes a major problem. This was true during both U.S. joint operations and combined NATO operations. Interoperability concerns were noted in how information is disseminated (the supporting C4 infrastructure) and how to disseminate it securely (releasability of various levels of classification). Dissemination networking and procedures were ad hoc, and it was never possible to present a common operational picture to joint and allied commanders.

1. Interoperability Between U.S. and NATO Data Networks (U)

(U) Interoperability between U.S. and NATO data networks was complicated because a single, integrated data network to support dissemination of coalition information was never established. Existing data networks were not adequate to support the flow of tactical, operational, and theater-level data among key nodes of the NATO information grid. The problem was further compounded by a lack of interoperability between U.S. and NATO databases and by the use of different security classifications to protect information.

2. Joint Tactical Data Connectivity and Control (U)

(U) The inability to pass high fidelity digital data was a shortfall in every phase of Operation Allied Force. Successful strikes against time-sensitive targets require a rapid exchange of precision target data and continuous precision updates from sensor-to-shooter until the target is destroyed. However, during Operation Allied Force strike reaction times were often slow, and diminished our ability to engage time-sensitive targets throughout the conflict. Data sometimes could not be transmitted to the required location at all. A joint data network was established within the theater, but it was composed of disparate tactical digital systems with multiple transmission systems and

message formats. Information had to be passed through "stovepipe" systems with liaison personnel fulfilling the functions that should be done through automated interfaces. This ad hoc system increased the operations tempo, workload, and potential for error at the joint task force headquarters.

(U) A joint, secure, tactical data link capability such as Link 16 is needed across all strike platforms to allow real-time data exchange and precision target processing between sensor and shooter, and to establish a robust common tactical picture. The Single Integrated Air Picture is planned to represent the air track portion of the common tactical picture and should improve battle management if it evolves successfully. The Joint Requirements Oversight Council has supported the designation of a lead organization to be responsible for Single Integrated Air Picture systems engineering, focusing on the joint data network/Link-16 component. Per the Joint Requirements Oversight Council's request, U.S. Joint Forces Command will recommend the lead organization by January 2000.

(U) Because of the ad-hoc framework, the first organization in theater was left to set up the joint data network and to solve the most immediate problems. Given the complexity of the operation, the lack of joint and multinational doctrine, and the number of different tactical networks, no one was able to successfully integrate all these systems and maintain an overarching tactical network. As Operation Allied Force became more complicated, it was obvious that a Joint Interface Control Officer (JICO) element was needed. The JICO is the only activity that is trained to integrate tactical data systems at a joint level, but CINCs are not authorized this organization within their headquarters. Consequently, the JICO school at U.S. Army Forces Command dispatched its joint training team to support the operation. The JICO school has now been reestablished at Joint Forces Command, but it will need to be strongly supported with automated tools and the right people. The joint requirements process, working through the Joint Requirements Board (JRB), will be used to formally establish authorized Joint Interface Control Officer positions on each CINC's staff.

3. Information Releasability (U)

(U) In addition to dissemination problems on the data networks discussed above, U.S. sensitivity to releasing certain types of information greatly inhibited combined planning and operations in some areas. Battle damage assessment products generated by the Joint Task Force Noble Anvil J2 were classified at a level that limited their use by

allied forces. The same kinds of concerns precluded any integration of deception planning between U.S. and NATO information operations planners. Much of the U.S. information in question should be classified at the SECRET collateral level releasable to the coalition operation so that it can be effectively used by both U.S. and coalition warfighters. To the extent possible, imagery and signals intelligence data should classified "SECRET/NOFORN Releasable to NATO," and sources and methods should be protected "by exception," rather than the other way around.

4. Needed Improvements (U)

(U) To address interoperability deficiencies in the near term, combatant CINCs need joint and coalition warfare concepts of operations that identify interoperability shortfalls and define contingency plans. For the long term, the Department is pursuing an end-to-end joint operational architecture as directed in Defense Planning Guidance 98-3 in order to provide a roadmap for U.S. acquisition strategies. This joint operational architecture will also aid our allies and coalition partners in their acquisitions, organization, and training to ensure compatibility with U.S. forces. Accordingly, the Department will develop a joint operational architecture with appropriate functional lines to facilitate and interface with the analogous structure in NATO and other coalition partners. We will clearly articulate system requirements for information systems interoperability and network architectures. Once these requirements are laid out, and materiel solutions identified, we can proceed with decisions on funding our efforts. Additionally we need to implement, where operationally viable, commercially accepted standards and specifications in ways that enhance interoperability between our NATO and coalition partners. By employing a common, high-level system engineering approach to solve interoperability challenges and ensuring that the end result supports the established Joint Operational Architecture, we believe we will accomplish a high degree of interoperability as part of Joint Vision 2010.

(U) In summary, we see that interoperability will be the cornerstone for future alliance participation. With the pace of U.S. modernization, it becomes imperative to ease the modernization burden on our allies to the maximum extent possible. The United States must carefully review its policy regarding licensing requirements for our allies and ensure, where appropriate, these requirements are eliminated and do not unnecessarily allied modernization.

V. INTELLIGENCE AND TARGETING SUPPORT (U)

(U) Intelligence and targeting support played critical roles during Operation Allied Force. These assets provided intelligence regarding the disposition of Serbian military forces and the locations of defense infrastructure, and performed surveillance and reconnaissance over the battlefield. An extensive array of intelligence, surveillance, and reconnaissance (ISR) resources were deployed to the European theater or otherwise tasked to support the NATO forces. These systems were effectively integrated into all aspects of the operation. The principal accomplishments and lessons learned regarding their employment in Kosovo are reported in this chapter.

A. Intelligence Systems and Architectures (U)

(U) The intelligence systems architecture available worldwide to support Operation Allied Force was both extensive and robust. Several specific aspects of the intelligence architecture warrant discussion both in terms of unique accomplishments and needed improvements.

1. Collection Management Capability (U)

(U) In general, a well-managed, multi-source intelligence collection system is necessary to support all military operations. In Operation Allied Force, two specific operational requirements made effective and robust collection management a high priority: (1) the need to create a comprehensive picture of the battlespace, and (2) the need to simultaneously detect and track elusive mobile targets. Because this system did not provide all of the support desired, the Department is reviewing the need for improvements in our capabilities, employment, and collection-management processes to ensure that we can handle future contingencies. In particular, we are focusing on achieving time-sensitive operational objectives using an integrated multi-mode collection systems-of-systems approach.

2. Joint Worldwide Intelligence Communications System (JWICS) (U)

(U) JWICS was an essential force multiplier and was invaluable in the success of the federated intelligence process. In particular, the video teleconferencing capability of JWICS provided reliable, secure video communications with excellent clarity.

3. Federated Target Development and Battle Damage Assessment (U)

(U) A federated intelligence process was instituted to facilitate burden-sharing among intelligence processing centers worldwide. This approach reduced deployment costs while maximizing the use of existing finite resources. The federation process was highly successful and depended on information sharing and agreements among participants. It would not have been possible, however, without applied technology, innovation, and pre-planning of exercises. Also, while technology and innovation were the primary contributors to success, the shifting of resources impacted the planning and support for other theaters.

4. Needed Improvements (U)

(U) For the most part, intelligence systems and architecture shortfalls that surfaced in Operation Allied Force had been recognized prior to the crisis and remedies had been programmed. However, the Department needs to further develop and refine tactics, techniques, and procedures for federated intelligence efforts and to reassess and size long-haul communications needs accordingly. Planning for intelligence communications needs must include deployable systems and technicians. Additionally, the Department needs a clear policy and implementation plan to explain when and how coalition partners can be connected to U.S. networks and, when and how data can be shared with those partners.

B. Command-and-Control, Intelligence, Surveillance, and Reconnaissance Assets (U)

(U) A wide variety of intelligence, surveillance, and reconnaissance (ISR) systems installed on both manned and unmanned airborne platforms were critical to Operation Allied Force. Because ISR assets typically are few in number but operationally in great demand, they are referred to as "low density/high demand" (LD/HD) assets as mandated by the Joint Chiefs of Staff Global Military Force Policy

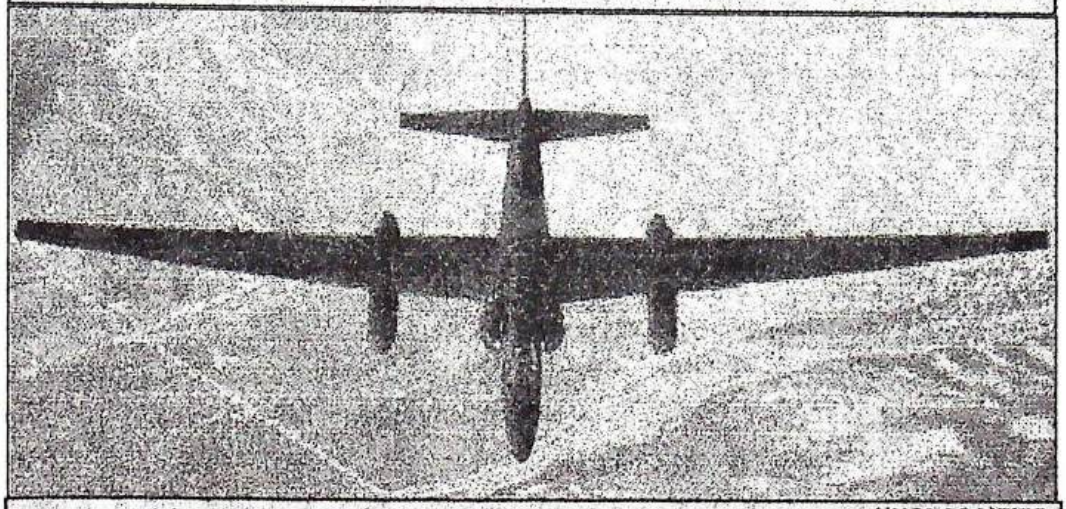
(GMFP). Lessons learned and issues associated with the deployment and employment of ISR assets are discussed below.

1. ISR Asset Availability (U)

(U) Intelligence, surveillance, and reconnaissance assets such as the U-2, Iron Clad, RC-135 Rivet Joint, and special-mission aircraft were in extremely high demand during the Kosovo operations. The U-2 (pictured in Figure 7) is a single-pilot, multi-role collection platform that can take photographic or radar images, as well as monitor enemy communications and locate the sources of electronic signals. The RC-135 can also monitor enemy communications and signals. Maritime patrol aircraft also provided a number of important capabilities to support commanders' ISR needs.

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Figure 7 U-2 Intelligence, Surveillance and Reconnaissance Platform (U)



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(U) These platforms are especially critical since they also support multiple intelligence collection activities in other areas around the world. The limited availability of these critical ISR assets will require careful force management in the future.

2. ISR Asset Employment (U)

(U) A number of innovative ISR system employment concepts and tactics were successfully developed and implemented during Operation Allied Force. These concepts, the most important of which are discussed below, should be viewed as lessons learned for

future operations. (The use of unmanned aerial vehicles is addressed separately in section 3 below.)

a. JSTARS (U)

(U) The Joint Surveillance and Targeting Attack Radar System (JSTARS) is an airborne command-and-control system designed to detect, track — and to some degree, classify — moving targets. During Operation Allied Force, new concepts were developed for employing JSTARS in a variety of ISR missions and for fusing the data that it provides with that collected by other ISR platforms. Concepts of operations for using JSTARS will continue to evolve.

b. "Reachback" to CONUS (U)

(U) Operation Allied Force saw the first extensive use of sensor platforms deploying forward while their data reduction and analysis components remained at the home base. This "reachback" technique was also used as part of the federated intelligence process to perform timely battle damage assessment as discussed earlier, thus reducing the number of scarce imagery analysts required in theater.

c. Advanced Tactical Aerial Reconnaissance System (U)

(U) The Advanced Tactical Aerial Reconnaissance System (ATARS) was employed aboard USMC F/A-18D aircraft in the latter stages of Operation Allied Force. Although operational evaluation of ATARS is still ongoing, the system was cleared for use in theater. In several weeks of strike operations, ATARS produced numerous digital, multi-spectral images using primarily synthetic aperture radar (SAR) and medium-altitude electro-optical (MAEO) imagery to augment the imagery and information available to commanders from other ISR systems. These images were used for targeting, battle damage assessments, and tactical reconnaissance while maintaining the aircraft's complete weapons capability.

d. Needed Improvements (U)

(U) The overall quality and level of intelligence support provided during Operation Allied Force was far superior to that provided during the Gulf War. Because the Serbs frequently dispersed their air defenses and fielded forces from one location to another, it was difficult for NATO to find, fix, and destroy them.

1) Dynamic Targeting (U)

(U) The Department needs to meet the difficult challenge of rapidly targeting enemy forces and systems that can move and hide frequently. In addition, the Department also need to place emphasis on rapidly collecting and disseminating no-strike target information to avoid collateral damage.

2) Foliage and Weather Penetrating Sensors (U)

(U) Detecting and tracking mobile targets on the ground in poor weather can be extremely difficult. Further, we should expect that future adversaries will use concealment and deception to hide their forces. Thus, the Department needs to develop and acquire sensors for use in all weather and in foliage-covered terrain.

3) Geolocation Accuracy and Timeliness (U)

(U) The Department needs to improve our ISR sensors and streamline the targeting process to be able to employ precision munitions against fixed and mobile targets and to re-target those weapons dynamically.

4) Numbers of ISR Assets (U)

(U) Based upon the shortfalls in targeting capability evident during Operation Allied Force, and the stresses placed on U.S. ISR assets, initiatives are underway to optimize coordination between theater and national assets.

3. Use of Unmanned Aerial Vehicles (U)

(U) Unmanned aerial vehicles (UAVs) operated as remote-controlled ISR platforms. These systems were used at unprecedented levels during Operation Allied Force and played an important role in our overall success. UAVs enabled commanders to see the situation on the ground without putting aircrews at risk and provided continuous coverage of important areas. Three tactical UAV systems were employed — the Air Force Predator (see Figure 8), the Army Hunter, and the Navy Pioneer. As discussed below, specific UAV missions included general surveillance and reconnaissance, real-time targeting, and cueing of other ISR systems.

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Figure 8 Predator Unmanned Aerial Vehicle (U)



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a. UAV Employment Concepts (U)

(U) During Operation Allied Force, unmanned aerial vehicles were used extensively for surveillance and reconnaissance in much the same way they had been used earlier in Bosnia. In addition to using UAVs in these traditional roles, we developed innovative employment tactics whereby UAVs helped locate and target Serbian military forces in Kosovo. By providing target-location data back to the Combined Air Operations Center, the UAVs helped cueing fighter attacks against Serbian forces in the field. When employed in this way, UAVs were being used as a component of the forward-air-control system.

(U) UAVs were also used to perform near-real-time battle damage assessment to allow timely re-strike and to cross-cue other ISR assets. The Navy used UAVs extensively to conduct surveillance of surface ships and coastal areas, where they successfully identified Yugoslav naval vessels, surveyed potential landing areas for the U.S. Marines, and targeted coastal defense radar sites. Despite problems, the successful application of UAVs in Kosovo clearly demonstrates their potential to become a highly flexible and effective ISR asset on the future battlefield.

b. Needed Improvements (U)

(U) Although UAVs were used effectively during Operation Allied Force, a number of technical improvements are still needed to attain the full promise of these systems. In addition, the Department needs to improve the tactics, techniques, and

procedures that guide UAV employment to better integrate their operations into overall campaign plans.

C. Target Production Process (U)

(U) The target coordination and approval process for Operation Allied Force was discussed in some detail in Chapter II in the context of the NATO political-military command structure. We now focus on the target production process at the operational level and discuss targeting procedures within the Combined Air Operations Center and the targeting support provided by C2ISR assets.

(U) The capabilities available at the CAOC enabled C2ISR assets to successfully tighten timelines that had been problematic in the past. Real-time threat information provided by airborne signals-intelligence sensors were relayed to appropriate theater command-and-control assets, and, in some cases, even directly to strike aircraft entering airspace over the Federal Republic of Yugoslavia. U-2 imagery was exploited using the reachback capabilities described earlier. Navy F-14 aircraft equipped with the Tactical Air Reconnaissance Pod System (TARPS) were also used effectively to identify targets during the conflict. Navy maritime patrol aircraft also made significant contributions to the ISR collection effort. The processing times achieved with these assets were well within the required timelines for the air tasking order, and in several cases allowed the CAOC to reassign aircraft to new targets rapidly (called "flex targeting").

(U) Space assets also provided important capabilities. Improved weather forecasting capabilities, enabled by space-based sensors, made the application of aerospace power more effective throughout Operation Allied Force.

(U) In addition, increased capability was provided both by enhancements to the CAOC itself, as well as by the application of specific reachback and distributed operations capabilities. These capabilities provided a major increase in capability and should be refined and standardized to ensure effective reachback in future conflicts. As much as possible, these capabilities should attempt to ensure 24-hours-a-day, 7-days-a-week operations.

(U) In normal joint task force operations, a representative of the land component commander (usually the commander of the battlefield coordination element) sits on the Joint Targeting Coordination Board (JTCB). As such, he acts as the land component commander's advocate for targets to be executed within the joint or combined air tasking

order. During Operation Allied Force, no land component commander was designated, and the Battlefield Coordination Element trained and synchronized with the CAOC early in the conflict, but not with Task Force Hawk. Once the Battlefield Coordination Element and Deep Operations Coordination Cell were deployed with Task Force Hawk, coordination of Task Force Hawk into the larger operation improved greatly.

D. Precision Intelligence (U)

(U) Precision engagement consists of the following sequence of events: (1) accurate target location and identification; (2) responsive command and control of strike forces; (3) achievement of desired engagement effects on the target; (4) assessment of the level of success of the engagement; and (5) reengagement of the target with precision when desired. In order to achieve precision engagement, precision intelligence is required. During Operation Allied Force, our precision-intelligence capability played a significant role in the employment of precision munitions to systematically degrade important Serbian military targets.

(U) A number of systems currently in research and development would have been useful had they been available. In fact, if nothing else, Operation Allied Force emphasized that the Department needs to continue on the modernization path it has pursued with the help of Congress since Desert Storm. We need to field those systems that improve precision and timeliness with which we detect, identify, track, and assess potential targets, regardless of constraints imposed by adverse weather, nighttime, concealment and deception techniques, or rapid movement. Ongoing programs such as, Future Imagery Architecture, Global Hawk, Predator radar, and synergistic sensor pairing, offer an improved sensor mix. Likewise, those areas that contribute to precision intelligence, dynamic collection management, common battlespace awareness, and interoperable intelligence systems and architectures when fielded will all contribute to more effectiveness in conflicts such as this one.

(U) In addition, improved policies, procedures, and tools are needed to further enhance the quality and responsiveness of precision intelligence support for military operations. Areas that warrant particular emphasis based on experiences in Operation Allied Force are as follows:

- Preparation for crises and the transition-to-crisis by the Intelligence community
- Development of collection strategies that deconflict national policy and theater operational requirements when necessary

- Development of a mix of improved sensors with day and night, adverse weather capability to identify and track mobile targets with required timeliness and geo-location accuracy in the presence of sophisticated camouflage, concealment, and deception techniques
- Inclusion of UAV sensor data and cockpit video into the tasking, processing, exploitation, and dissemination processes
- Consideration of operational targeting needs when developing ISR system requirements
- Development of streamlined ways to exchange intelligence information exchange (to include Web-based collaborative tools) between the intelligence communities and supported forces of the United States and its coalition partners
- Continued development of capabilities to disseminate sensor data directly to in-theater tactical forces.

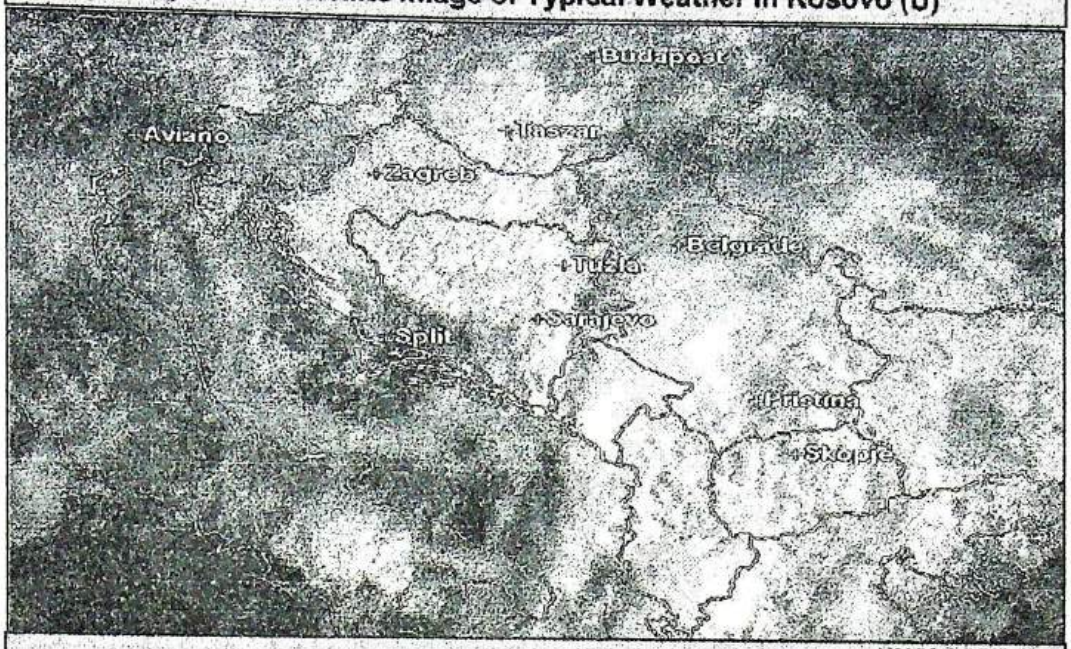
E. Effects of Weather, Camouflage, Concealment, and Deception (U)

1. Effects of Weather on ISR (U)

(U) Air operations during Allied Force were hampered by bad weather a significant portion of the time — a circumstance that greatly aided the Serbs. Adverse weather affected target acquisition and identification, increased risk to aircrews, and complicated collateral damage concerns. Cloud cover was greater than 50 percent more than 70 percent of the time. Weather conditions allowed unimpeded air strikes on only 24 of 78 days. Weather not only affected the target area, but also the airfields and tanker patterns. The satellite picture shown in Figure 9 illustrates the extensive cloud cover that was often present in much of the theater. The key weather-related observation from Operation Allied Force is that we need all-weather search capabilities for target detection and tracking.

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Figure 9 Satellite Image of Typical Weather in Kosovo (U)



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2. Effects of Camouflage, Concealment, and Deception (U)

(U) Serbian forces in Kosovo employed camouflage, concealment, and deception tactics extensively. While reliance on camouflage and concealment protected much of the Serbian force, it also precluded conventional maneuver operations and limited their fighting effectiveness. Air defenses also moved and hid a significant amount of time — a tactic that increased their survivability, but greatly reduced their ability to hit NATO aircraft.

(U) Throughout Operation Allied Force, the Serbian forces conducted an extensive strategic, tactical, and operational-level denial and deception campaign against NATO forces. The objectives of this campaign were to degrade the effectiveness of NATO air strikes, ensure survival of Serb forces, discredit the NATO bombing campaign, retain key foreign support by hiding and discrediting evidence of atrocities, and exert pressure on NATO determination and resolve. However, the Serbs were largely unsuccessful in preventing the destruction of their fixed-wing aircraft; key fixed installations such as bridges, television and radio stations, petroleum and oil facilities; and some underground command and control bunkers. However, as NATO forces

increasingly learned how to deal with Serbian deception tactics, the impact on allied operations became much more limited.

(U) The Serbs employed a wide variety of tactics to deceive NATO forces. For example, most barracks were emptied prior to hostilities and troops and equipment were dispersed and hidden throughout the countryside. The Serbs also used natural cover such as woods, tunnels and caves, civilian homes and barns, and schools, factories, monasteries, and other large buildings to hide their personnel and weapons. Most movement of Serbian combat forces occurred during the night, or under the cover of bad weather. In addition, the Serbs used small convoys and decoys and dispersed their forces among civilian traffic. The Serbs used camouflage extensively to hide both tactical targets, such as military vehicles, and fixed facilities, such as bridges. In addition, the Serbs used decoys, like those shown in Figures 10 and 11, to create a variety of false targets.

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Figure 10 Serbian Artillery Decoy (U)



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Figure 11 Serbian Surface-to-Air Missile Launcher Decoy (U)



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b. Needed Improvements (U)

(U) Overall, NATO's recognition of the broad scale of Serbian denial and deception activities somewhat limited their success. However, because future adversaries are likely to study Serbian denial and deception tactics and could present more advanced threats to future operations, the Department is working on a variety of techniques to further improve our capability to counter an adversary's use of camouflage, concealment, and deception.

VI. FORCE PROTECTION (U)

(U) From a force protection perspective, Operation Allied Force was the most successful major military action in modern history. Despite a determined enemy, NATO defense forces quickly fought and won control of the air, ensuring that its forces enjoyed complete safety and freedom to maneuver outside the borders of the Federal Republic of Yugoslavia. The Serbs were unable to mount any successful air-to-ground or air-to-sea strikes, and recorded no incidences of space denial or space attack against allied space assets. More importantly, the allies completed the operation without the loss of a single aircrew even though the Serbs launched hundreds of surface-to-air missiles against NATO aircraft. Throughout the conflict, NATO enjoyed freedom from attack and freedom to attack.

(U) Suppression of enemy air defenses was more problematic due to enemy tactics, the complex terrain, and current technological limitations of our systems. The Serbs put major elements of their integrated air defenses into hiding, making it harder for NATO aircraft to attack them as well as making it more difficult for the Serb defenders to employ them. By applying suppression of enemy air defense assets to protect strike operations, Serb air defenses were rendered almost ineffective. However, the requirement to package suppression assets with strike platforms complicated attack operations. Finally, in some cases, poor operations security procedures and the lack of interoperable communications systems compromised on-going missions.

A. Countering Yugoslavia's Integrated Air Defense System (U)

(U) While the threat posed by Serbia's offensive air capability was eliminated in the first few days of the conflict, reducing Serbian defensive capabilities did not proceed as quickly. Even before the campaign began, the Serbs began dispersing major elements of their integrated air defense system and then adeptly employed them throughout the conflict. While NATO plans called for the systematic degradation and destruction of these integrated air defenses, this proved problematic due to the tactics the Serbs adopted. The Serbs chose to conserve their air defenses, while attempting to down NATO aircraft as targets of opportunity. Full effectiveness of an air defense suppression operation in

future conflicts will depend on how the enemy chooses to employ its systems as well as on the capability of allied forces to attack across all aspects of the enemy's integrated air defense system.

1. Yugoslavia's Integrated Air Defense System (U)

(U) One way to measure the severity of the Yugoslav air defense system that NATO encountered during Operation Allied Force is to compare it with the Iraqi air defenses that the Allied Coalition confronted during the 1991 Persian Gulf War. During Allied Force, NATO aircraft flew approximately one-third the number of combat sorties (21,000) that were flown by coalition aircraft during Operation Desert Storm (69,000). However, the number of radar-guided surface-to-air missiles launched by the Serbs during Allied Force was almost the same as the number launched by the Iraqis during Desert Storm. As a consequence, the average aircrew participating in Operation Allied Force experienced a missile-launch rate three times that encountered by the average coalition aircrew during Desert Storm. Despite the larger number of radar-guided surface-to-air missiles fired at NATO aircraft flying over Serbia and Kosovo, the Yugoslavs achieved a much lower success rate than did the Iraqis. Based on the ratio of combat losses to sorties, NATO aircrews participating in Operation Allied Force were six times less likely to be shot down than were coalition aircrews engaged in Operation Desert Storm. Overall, although Yugoslavia's integrated air defense system was very active against NATO aircraft during Operation Allied Force, NATO employment tactics rendered that system largely ineffective.

(U) NATO forces rapidly achieved air supremacy in the theater by destroying Serb interceptor aircraft in the air and on the ground and by destroying or damaging their airbases. Rather than expend sorties prosecuting the large quantities of anti-aircraft artillery and man-portable missile threats, NATO commanders chose to operate their aircraft at altitudes above the effective reach of these systems. However, reducing the Serb defensive radar-guided surface-to-air missile systems that are effective against aircraft flying at higher altitudes proved more difficult than anticipated as a result of the tactics employed by the Serbs. By conserving their systems and attempting to down NATO aircraft as targets of opportunity, they gave up many of the advantages of a connected and continuously operating system in order to achieve tactical surprise in a few instances.

(U) Within Kosovo, individual longer-range systems emerged to fire at our aircraft in an unpredictable fashion. Shorter-range Serbian antiaircraft artillery and man-portable air defense systems were plentiful, complicating NATO's efforts to defeat them. Rather than shift the weight of effort aimed against these systems, NATO commanders chose to operate at altitudes beyond which most Serbian anti-aircraft systems could be employed effectively. The tradeoff of flying at higher altitudes to mitigate risk made weather conditions such as cloud layers and visibility more of a factor in daily execution. Additional factors complicating these critical tasks were collateral damage considerations and the absence of any land-component forward air controllers to assist in locating enemy forces. Engagement altitudes for both airborne forward air controllers and striking assets were lowered as Operation Allied Force progressed. However, mobile anti-aircraft guns and man-portable missiles posed a viable threat throughout the conflict.

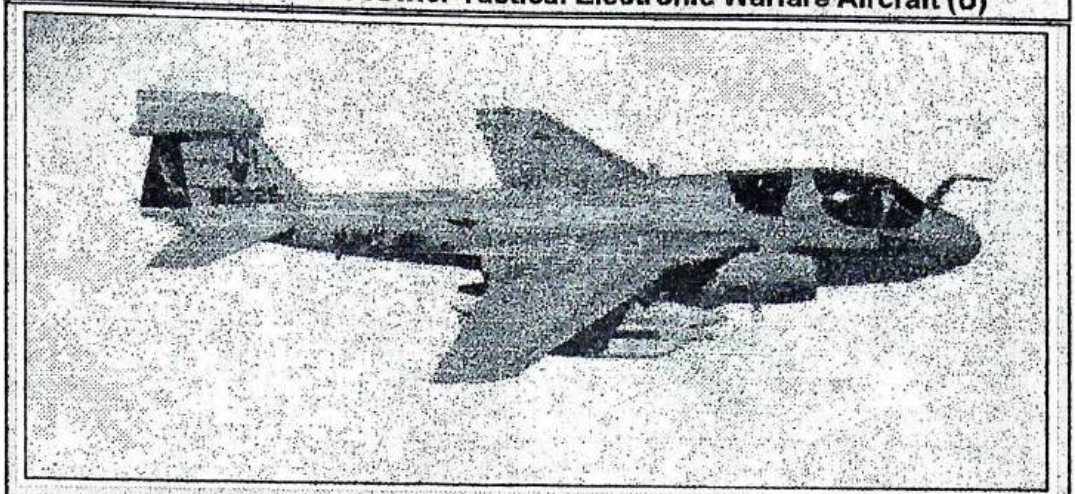
2. NATO Air Defense Suppression Efforts (U)

(U) Several support assets were used to protect NATO strike aircraft during Operation Allied Force. These included air superiority aircraft supported by airborne warning and control (AWACS) to protect NATO strike aircraft from attacks by Serbian interceptors. These aircraft orbits also defended against air attacks by Serbian aircraft into neighboring countries friendly to the alliance effort. In addition, EA-6B and EC-130H electronic warfare aircraft and F-16CJ air-defense-suppression aircraft were used to protect NATO aircraft from attack by Serbian air defenses. Throughout the campaign, air defense and suppression aircraft flew thousands of sorties to ensure the safety of the strike assets.

(U) EA-6B aircraft were absolutely important to the air operation. The EA-6B is the only U.S. electronic-attack aircraft able to use electronic jamming to suppress enemy air defenses (see Figure 12). Consequently, EA-6Bs are in high demand and are one of the Low Density/High Demand assets established in the Global Military Force Policy. At the same time that EA-6Bs were assigned to support Operation Allied Force, other EA-6Bs were providing support for Operations Southern Watch and Northern Watch over Iraq. To aid in the recovery of these important assets, an EA-6B reconstitution plan has been adopted in accordance with Global Military Force Policy. Our intent is to maximize EA-6B utility and effectiveness while returning these units to personnel and operating tempo guidelines.

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Figure 12 EA-6B Prowler Tactical Electronic Warfare Aircraft (U)



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(U) While the initial plans developed by NATO for the suppression of enemy air defense had to evolve in response to Serbian actions, the results emphasize the importance holding the key nodes of the enemy's air defense system at risk and effectively employing those assets that are available. NATO used a combination of active support jamming and launch of High-Speed Anti-Radiation Missiles (HARMs) from a variety of aircraft to provide air-defense-suppression support for strike aircraft. In addition, NATO aggressively employed a variety of precision-guided munitions and bombs to destroy elements of the Yugoslav air defense system.

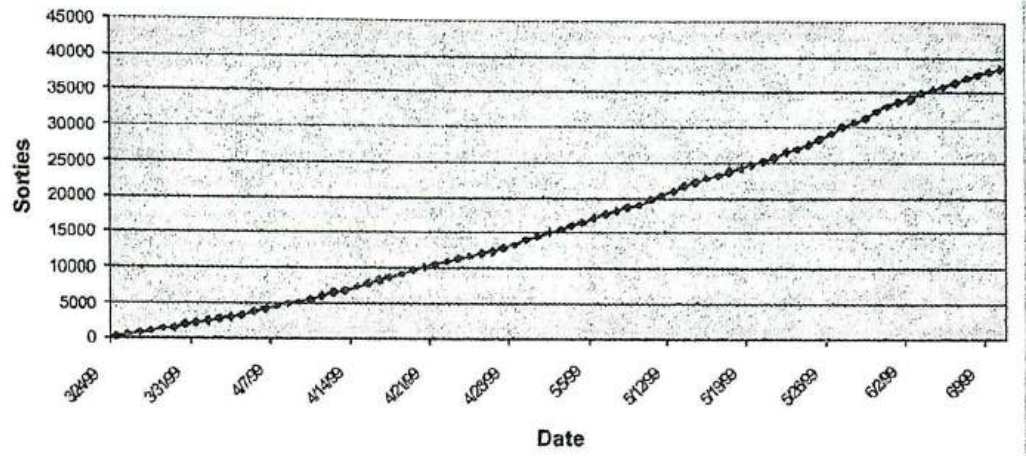
(U) Even though NATO forces had difficulty targeting the Serb defensive systems, the Serbs had minimal success downing NATO aircraft. Indeed, the allied air operation was sustained and, in fact, expanded greatly despite the presence of the remaining Serbian air-defense systems. NATO succeeded because we maintained pressure on their defenses, forcing the Serbs to keep their systems hidden under most circumstances and to use defensive tactics that limited their systems' effectiveness. We increased the tempo of operations in our air-defense suppression forces to provide the maximum protection to our forces. NATO also adapted its concepts of operation to sustain an increasing pace of strike operations without compromising our concern for minimizing casualties and collateral damage.

(U) Throughout the conflict, NATO provided effective air protection for over 38,000 sorties, almost a third of which were strike and air defense suppression sorties

operating directly in Yugoslav airspace. Figure 13 provides a cumulative total of these sorties by day.

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Figure 13 Cumulative Sorties for Operation Allied Force (U)

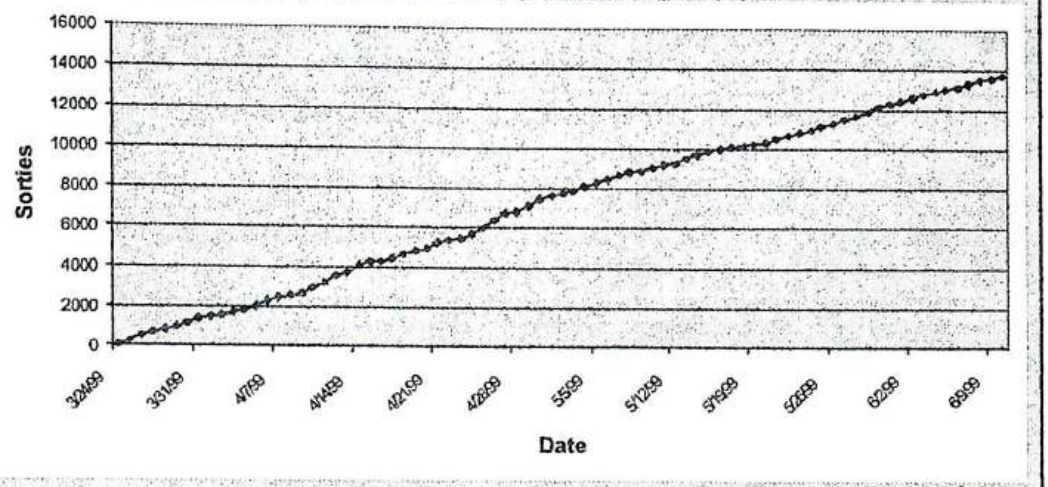


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(U) The number of sorties flown per day varied from just over 200 day at the beginning of Operation Allied Force to over 1,000 per day by the end of the conflict. The focus of this effort was the destruction of Yugoslav military capabilities. The cumulative totals of strike and air defense suppression missions are shown in Figure 14.

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Figure 14 Cumulative Strike and Air Defense Suppression Sorties (U) Flown in Operation Allied Force (U)

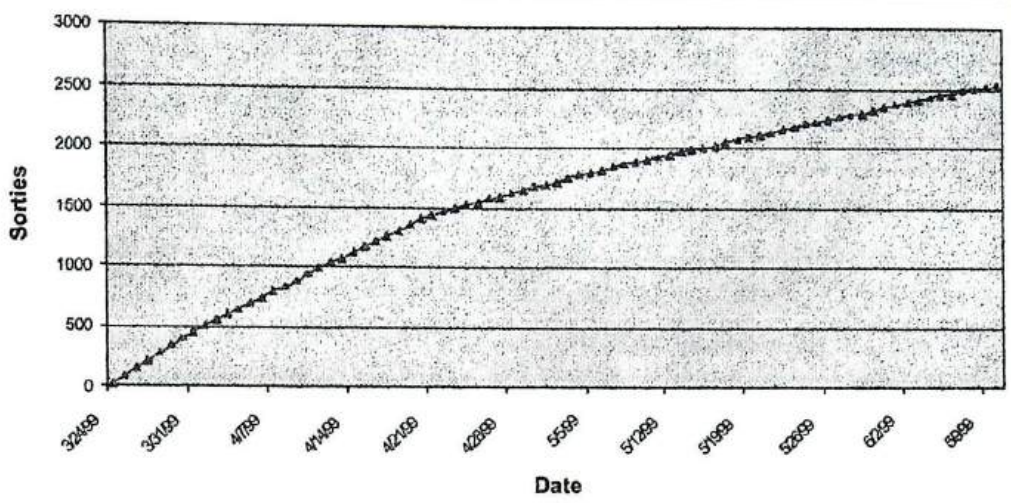


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(U) Over the course of the conflict, air superiority fighters provided almost continuous combat air patrols, ensuring no Serbian interceptor aircraft could respond to allied attacks or take offensive action against allied bases or personnel. U.S. pilots shot down 5 of the 6 Serbian fighters that were destroyed in air combat operations; strike missions accounted for roughly 100 Serbian aircraft that were destroyed on the ground. As indicated in Figure 15, the total number of combat air patrol and other air defense sorties approached 3,600 by the end of the war. The lack of an airborne threat to NATO forces provided a significant advantage to allied freedom of operation throughout the conflict.

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Figure 15 Cumulative Air Defense Sorties Flown in Operation Allied Force (U)



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3. Lessons Learned (U)

(U) While NATO prevailed in delivering a punishing air offensive with virtually no loss to its forces, we must acknowledge some concerns for the future. Although among the most capable that the United States has faced in combat, the Yugoslav air defense systems do not represent the state of the art. Much more capable systems are currently available for sale in the international arms market. In the years ahead, the United States can expect to face adversaries armed with these state-of-the-art systems, and the Department of Defense needs to prepare for that possibility now.

(U) In particular, the Department needs to provide continuous, real-time, precision location of passive and active enemy systems to better enable U.S. forces to focus their efforts and achieve effective suppression and destruction of enemy weapon systems, allowing greater access over the target area for extended periods of time. Successful development of real-time sensor-to-shooter technology along with further enhancement of our offensive and defensive night vision systems would also improve effectiveness.

(U) Operation Allied Force also served to re-emphasize the importance of a comprehensive air-defense suppression capability that is able to locate key defensive

systems in real time and make use of limited assets in order to destroy them. While the combination of anti-radiation missiles and electronic attack did an effective job in suppressing enemy defenses in this case, our experience in Operation Allied Force indicated that how the enemy employs its air-defense systems will become increasingly important in the future. The effectiveness of U.S. air defense suppression efforts in future conflicts will depend on our ability to prosecute an unhindered, full-spectrum attack against an enemy's integrated air defense system.

(U) As a result of Operation Allied Force, the Department will conduct a comprehensive study of joint capabilities to suppress enemy air defenses specifically to identify trade-offs in de facto versus destructive suppression. This study will examine improvements in destructive air defense suppression capabilities that will permit precision location of enemy systems even in a limited emissions environment as well as to identify systems and procedures allowing for time responsive attack against mobile or relocatable systems. Without such enhancements in capability and improvements in technology, the only other option is to increase that portion of the force structure capable of electronic combat operations to ensure continuous protection of all strike assets in future conflicts.

B. Personnel Recovery (U)

(U) The nature of the intense air operation over Serbia and Kosovo, coupled with the threat to NATO aircraft posed by Yugoslavia's integrated air defense system, necessitated a comprehensive personnel recovery plan. The Combined Search and Rescue Center (CSRC) located in the Combined Air Operations Center (CAOC) at Vicenza, Italy, was well manned with experienced recovery planners. More importantly, the Joint Force Air Component Commander (JFACC) made Combat Search and Rescue (CSAR) operations his number one priority in the event of a downed NATO aircraft and insisted on full integration of search-and-rescue planning into all air operations and throughout the CAOC staff.

1. Training of Combat Search-and-Rescue Task Forces (U)

(U) The Combined Search and Rescue Center built its recovery plan around a traditional CSAR Task Force employment architecture, and integrated national- and theater-intelligence collection assets to support a rapid response. CSAR Task Forces are composed of numerous components that must train as a totally integrated team to be

effective. Training shortcomings were evident during Operation Allied Force, where the lack of procedural familiarity among task force members created significant coordination problems during the two operations conducted to recover downed U.S. pilots. Fortunately, the professionalism, high level of training of the individual components, and superior equipment of the CSAR Task Force overcame, in these two instances, the challenges of not having trained together as an entire entity.

2. Legal Status of Isolated Personnel (U)

(U) The legal status of isolated personnel should be determined through close consultation with legal counsel. Before the onset of hostilities, the National Command Authorities, in coordination with the Joint Staff, the OSD General Counsel, and other authorities as appropriate (e.g., NATO, the United Nations), must establish the legal status of U.S. personnel participating in operations, and convey that decision to the combatant commander. The Personnel Recovery Response Cell (PRRC) within the office of the Under Secretary of Defense for Policy [USD(P)] is well suited to provide expeditious, coordinated policy options such as recommendations on legal status of isolated personnel to the Secretary of Defense.

3. Repatriation of Isolated Personnel (U)

(U) On 31 March 1999, Serbian forces captured three American soldiers. When it was reported that President Milosevic might release the three captured Americans repatriation preparations intensified. Doctrinally, the combatant commanders are responsible for the returnees' initial processing in theater, but overall, repatriation is a Service responsibility.

4. Lessons Learned (U)

(U) While the rescue operations of our two pilots were ultimately successful, both incurred significant challenges. Personnel recovery operations are among the most complex and dangerous missions that our forces undertake. Accordingly, the combatant commands must include personnel recovery training in joint exercises as often as possible, and this training must include the full range of recovery operations. During combat search-and-rescue exercises, the combatant commands should regularly incorporate all the normal components of combat search-and-rescue task forces (CSARTF), especially the command-and-control elements, so that they can learn to work together before called upon to do so under combat conditions. This training should not

be limited to bilateral training just prior to, or during, a contingency operation, but should be end-to-end, including all CSARTF assets in all major joint and combined training exercises.

(U) In this regard, the Department must clarify the importance of personnel recovery in modern warfare, especially in operations other than war. Judging its priority in relation to the myriad other competing training interests will enable commanders of both conventional and special operations forces to determine the extent to which personnel recovery training consumes limited training time and resources. The Department must also improve access by the combatant commands to current conventional Combat Air Force elements during contingency operations and during training. Migrating assets from the reserve component to the active forces, or streamlining and expediting the process used to recall reserve component forces to active duty when CINC requirements dictate would improve the access.

(U) Finally, the combatant commands should designate in contingency plans a primary combat search-and-rescue force for each component and joint task force. Identifying those forces in advance will enable them to train together and make unnecessary the use of ad hoc organizations for this important mission.

(U) Repatriation of recovered personnel is a complicated process that involves numerous agencies. It must be an integral part of all contingency planning prior to and during operations. It is imperative that the well being and legal rights of the individual returnee be the overriding factors when planning and executing repatriation operations.

C. Operations and Communications Security (U)

(U) During Operation Allied Force, shortcomings were evident in both operations security (OPSEC) and communications security (COMSEC); and there is some evidence that these were exploited by the Serbs. Poor operations and communications security procedures reduced the effectiveness of NATO air strikes and increased the risk to NATO forces.

1. U.S. and Allied Secure Voice Systems (U)

(U) Some of the operations security concerns were caused by disparities in the communications security equipment available to U.S. forces and their NATO allies. The major differences were in the numbers and types of secure telephones at the various

headquarters and secure radios aboard aircraft. To avoid such problems in the future, the Department needs to develop a strategy to ensure future secure voice interoperability with our allies and coalition partners that uses or is interoperable with our new secure telephone technology called Secure Terminal Equipment (STE). For now, the regional commanders and the Services will review their distribution and allocation plans for existing secure telephones to ensure that they are available to communicate with allies and coalition partners.

2. Allied Communications Security Equipment (U)

(U) Some allied aircraft were not equipped with either the cryptograph devices or keying material needed to conduct secure communications with other elements of the force. As a result, airborne command-and-control aircraft and other allied aircraft had to pass information in the clear, severely compromising operations security. This situation can only be corrected by ensuring all allied forces have the kinds of technologies, equipment, communications, planning, and training that will make them fully secure and interoperable.

3. Security Procedures (U)

(U) In addition to the shortage of compatible, secure communications, NATO vulnerabilities were also linked to the use of predictable operating patterns and poor understanding of operations security. The Serbs capitalized on these shortcomings, in conjunction with a variety of other techniques, to help ensure the survival of deployed Serb forces.

(U) Other security problems were caused by multiple security levels, which at times acted as a barrier in disseminating operational intelligence to warfighters. A review commissioned immediately after the conflict found that "the electronic flow of NATO data through US systems precluded effective US exploitation of ... NATO databases." To resolve this problem, the review recommended that intelligence and other information be classified at the lowest reasonable level to enable its being used most effectively by warfighters and coalition partners.

4. Lessons Learned (U)

(U) In future operations, NATO must vary the operating patterns that it employs so as to degrade the accuracy with which any future adversary can predict routes and

timing associated with an air operation. Security procedure awareness training at all levels and locations, particularly at sites with augmentees, is essential.

(U) Computer-network details useful to hackers must be made more restricted. System administrators must train effectively and enable available security features in hardware and software.

(U) NATO will continue to be among the highest-value targets for intelligence organizations of our potential adversaries. There should be no misunderstanding that our effort to achieve and maintain information superiority will also invite resourceful enemy attacks on our information systems.

D. Protecting Task Force Hawk (U)

(U) The decision to employ or not to employ the combat firepower of Task Force Hawk required constant evaluation by senior leadership and was heavily influenced by several factors, especially the ability to provide credible force protection to employing elements of the force.

1. Threats to the Task Force (U)

(U) The threat to Task Force Hawk's helicopters from Serbian anti-aircraft artillery and shoulder-fired air defense weapons posed significant risks. Task Force Hawk's capability to detect and track ground targets in Kosovo was constrained — both by the enemy's employment of defensive tactics (Serbian ground forces were widely dispersed, well camouflaged, and employed decoys) and by the lack of friendly ground forces into Kosovo. Although Task Force Hawk achieved some visibility over the battlespace in Kosovo from overflights by manned and unmanned reconnaissance systems, the Task Force's lack of ground forces and low-altitude forward air control capability increased the level of difficulty they would have experienced had they been required to locate and track mobile, well concealed Serbian ground forces in hostile territory.

(U) Current attack helicopter training primarily involves division and corps level operations. In some scenarios, a land component commander uses his attack aviation assets to shape the battle and provide fire support to the advancing friendly ground forces. In these situations, the land commander is able to employ organic surface-to-

surface missiles to suppress enemy air defenses as the attack helicopters reach deep into enemy territory.

(U) The attack helicopters and other land component assets were integrated with tactical aircraft assets through the air tasking order. Coordinating rotary-wing aircraft operations into the Air Tasking Order proved problematic because this is not a traditional mission defined in Army doctrine nor is it exercised on a regular basis in joint training. As a result, the Services had to work through numerous complexities associated with the evolution of new missions and employment concepts in the middle of a major conflict. Integrating Army helicopters, radars, artillery, and other assets through the Air Tasking Order requires significant refinement. In short, the tactics, techniques, or procedures required for this mission had not yet been developed when Operation Allied Force took place.

(U) Supporting Task Force Hawk with combat search-and-rescue assets also posed integration challenges. Differences in doctrine, training, and employment concepts led to difficulties that were often only resolved after several mission rehearsals.

2. Lessons Learned (U)

(U) While the Apaches engaged in rigorous mission rehearsals in preparation for combat, the conflict terminated without their being commited to combat operations. As Operation Allied Force progressed and the effectiveness of the ongoing campaign became evident, it was decided not to add Task Force Hawk's firepower to the ongoing air operation. Task Force Hawk's Army Tactical Missile Systems (ATACMS), deployed with Task Force Hawk to engage deep targets and suppress enemy air defenses, were never used due to collateral damage concerns. Ultimately, while Task Force Hawk represented a threat to Milosevic's ground forces and was likely a factor in his decision to capitulate, attack elements of Task Force Hawk were not used.

(U) Additional training and integration issues arose as Task Force Hawk was incorporated into support of the operations. In the future, the concept of Joint Deep Operations in which Army tactical missiles and attack helicopters are employed as part of a supporting operation must be reinforced in joint training. Integration of Army tactical missile employment into Joint and Combined operations also requires more emphasis on the development and practice of standard tactics, techniques, and procedures.

(U) Finally, some improvements are needed if armed helicopters are to be employed effectively in future conflicts that involve constraints similar to those in effect

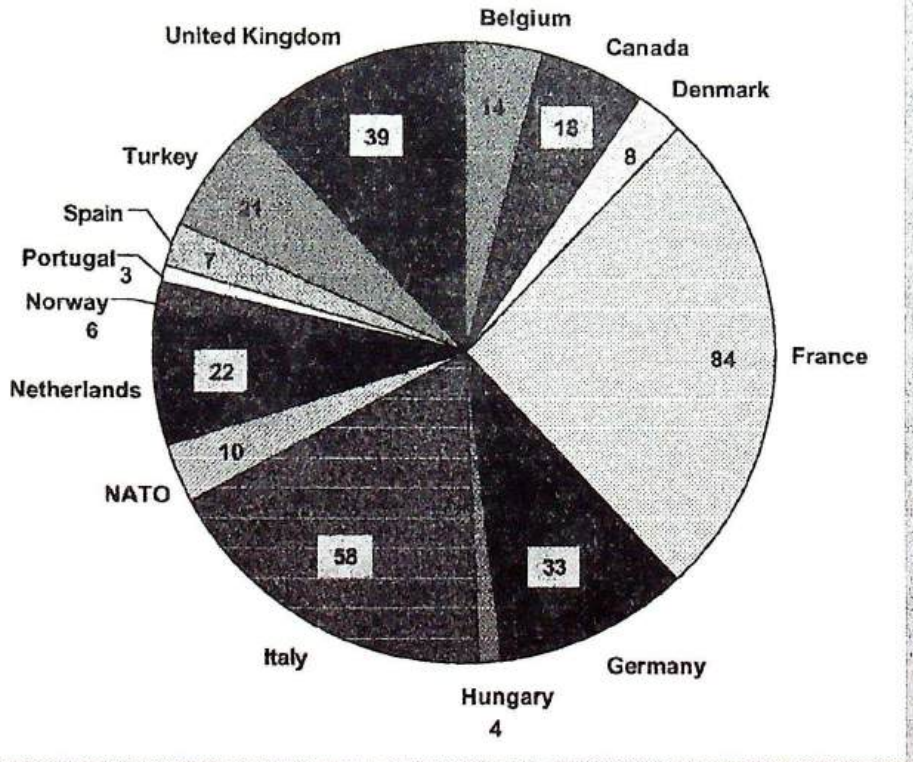
during Operation Allied Force. Technological innovations, such as using unmanned aerial vehicles or other airborne platforms to spot and designate targets for attack helicopters, along with attendant equipment upgrades, would be of particular value.

VII. STRIKE OPERATIONS (U)

(U) Operation Allied Force was a comprehensive coalition effort. Although the United States contributed the majority of the assets, 14 of the 19 nations contributed forces to the operation. In total, our NATO allies provided 327 manned and unmanned aircraft and flew over 15,000 sorties (about 39 percent of the total.). Figure 16 shows the breakout of non-U.S. allied aircraft participating in the conflict. The allies also provided the host nation support for basing and overflight access that was critical for all aircraft participating in Operation Allied Force.

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Figure 16. Non-U.S. Aircraft Participating in Operation Allied Force (U)



Includes manned and unmanned aircraft

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(U) Operationally, Allied Force was a military success. NATO generated 78 days of continuous, around-the-clock operations, flew 38,000 sorties with only 2 aircraft failing to return to base, and suffered no combat fatalities. Strike operations achieved effective targeting and weapon effects with relatively low collateral damage.

(U) There are two notable aspects of the strike operations. First, there was a heavy use of standoff and Global Positioning System (GPS)-guided munitions to attack targets throughout the Federal Republic of Yugoslavia. .Second, the operation was marked by the introduction of new weapons and systems, including B-2s equipped with Joint Direct Attack Munitions (JDAM), and new applications for the Standoff Land Attack Missiles (SLAM). Despite the heavy use of preferred munitions and newer technology weapon systems, legacy weapon systems played a significant role in successful strike operations.

(U) Although strike operations were predominately conducted by land-based aircraft, Navy carrier-based aircraft, Marine shore-based and sea-based strike aircraft, and cruise-missile equipped ships and submarines played a significant role. Airlift and refueling forces fulfilled their critical roles superbly. The tanker fleet overcame extended sortie duration and high usage rates to provide timely support of deploying and employing units and strike packages throughout the conflict.

(U) Adverse weather and rugged undeveloped terrain characterized the operating environment of Allied Force. This environment had a corresponding impact on the conduct of operations, including target selection and the pairings of weapons and delivery systems. In addition, the environment challenged the capabilities of collection systems in theater and at a national level.

(U) The majority of direct attack weapons employed during Operation Allied Force were laser-guided bombs. In addition, long-range, stand-off munitions such as the Tomahawk Land Attack Missile (TLAM) and the Conventional Air Launched Cruise Missile (CALCM) were employed extensively, especially during the initial stages of the operation and in periods of adverse weather. Strike packages received consistent support from air defense suppression platforms, including Navy and Marine Corps EA-6B radar jammers, HARM-equipped F/A-18s, and Air Force F-16C/J air-defense suppression aircraft. Onboard self-protection systems proved their value and once again demonstrated that suppressing hostile air defenses requires a comprehensive multi-platform, multi-system effort.

(U) Battle damage assessment and the evaluation of the effectiveness of allied attacks against the various targets in Serbia proper and Kosovo remained at the forefront of NATO and U.S. efforts and concerns. The ongoing assessments and analysis clearly show that while there were instances where collateral damage occurred, it was minimized by use of precise and accurate weapons. In addition, while wartime battle damage assessment did not always provide complete information, wartime assessments of damage to fixed targets in Kosovo were generally accurate. Allied strikes against fixed targets including bridges, airfields, tunnels, bunkers, petroleum and fuel facilities, and other above ground structures were highly successful and inflicted very limited collateral damage. However, Serbia's mobile Army and Interior forces presented a targeting and damage assessment challenge.

A. Strike Effectiveness (U)

(U) Air attack operations were designed to accomplish specific objectives. In turn, targets were selected with the goal of attaining these objectives in a phased operation, consistent with NATO's policies for conducting the operation (see Chapter I). NATO adapted its military operations and target sets as the operation proceeded, based upon an improved understanding of what the best approach should be. Thus, the classes and locations of targets changed as the campaign proceeded. An appraisal of the effectiveness of attack operations needs to be made in the context of evolving campaign goals as well as in terms of the performance of the specific weapon types used.

(U) NATO's air attacks clearly had an impact on military operations in the Federal Republic of Yugoslavia. Air attacks on military forces in the field forced Serbian forces to remain largely hidden from view, traveling only under limited circumstances. Air attacks on selected infrastructure targets, such as bridges and electric power systems, degraded the ability of the Yugoslav military to command and control its forces and to resupply and reconstitute them. Together, these effects created pressure on Milosevic to yield to NATO demands.

(U) Analyses of the results of NATO attacks were conducted as the campaign proceeded, based on the fullest available information. The Mission Analysis Tracking and Tabulation System (MATTS) was used to construct a primary target database as Operation Allied Force unfolded. The MATTS database began with the mission designations provided by the air tasking order; these designations were then correlated to mission reports filed by returning aircrews. The mission report data were loaded into the

database to reflect weapons released and the Desired Mean Point of Impact (DMPI) for each weapon. Analysts used imagery and other sources to review the desired impact points to assess the damage done by each strike sortie. Time sequencing between strike sorties and reconnaissance of an impact point were critical. Typically, individual installations have multiple desired impact points — for example, a factory installation may have several buildings that must be struck individually, or an airfield may have multiple aircraft shelters, storage locations, and other targets within the complex. If reconnaissance resources could not be scheduled to review a particular installation until 2 or 3 days after air strikes had occurred, it was extremely difficult to determine properly the weapons and aircraft responsible for specific damage. In such cases, NATO was unable to confirm damage associated with a particular aircraft and weapons mix and therefore characterized the damage in the MATTS database as unconfirmed. After the conflict ended, NATO sent a team into Kosovo to assess the effects of air attacks. This assessment examined both fixed and mobile targets. The U.S. European Command has already made public an initial presentation of findings from this review. The results from the wartime analyses and the postwar assessment provide the basis for this study of lessons learned.

(U) Further study is now underway within the Department to integrate the findings of all available data and to develop insights from this information on a variety of important topics. How good was our understanding of attack effectiveness as combat proceeded? What surveillance and reconnaissance systems proved most accurate and timely in delivering information critical to these assessments? What lessons can we draw from postwar examination of targets and target areas to modify or improve our battle damage assessment process? How should the inevitable uncertainty in the information be handled? For example, targets were often attacked by multiple systems, making an assessment of any single system's effectiveness against those targets nearly impossible. Further, judging the degree of impairment inflicted on a damaged, but not destroyed, target probably will always remain a source of uncertainty. New technologies, such as video imagery from munitions in the terminal attack phase or intrusive sensors at important pre-selected sites, will improve our capability to assess weapon performance. On the other hand, munitions such as JDAM that do not incorporate a real-time imagery loop and will be used in much greater numbers in the future will complicate the damage-assessment process. Consequently, a substantial degree of uncertainty will continue to exist in any future war.

1. Fixed Targets (U)

(U) Following the end of Operation Allied Force, NATO released an initial assessment of their attack effectiveness against a number of targets. These targets destroyed or significantly damaged include:

- Eleven railroad bridges
- Thirty-four highway bridges
- Twenty-nine percent of all Serbian ammunition storage
- Fifty-seven percent of petroleum reserves
- All Yugoslav oil refineries
- Fourteen command posts
- Over one hundred aircraft
- Ten military airfields.

(U) After the bombing campaign had ended, an assessment team visited a representative sample of such fixed targets as tunnels, bridges, bunkers, petroleum facilities, and above ground facilities. At each site the team evaluated and recorded target characteristics, physical and functional target damage, weapon impact locations and effectiveness, and evidence of collateral damage. Based on these observations, the team assessed strike effectiveness against fixed targets:

a. Tunnels (U)

(U) The assessment team examined damage to four tunnels in Kosovo that had been attacked by NATO aircraft: an underground aircraft storage and servicing facility, a military staging area, and two railroad tunnels. The team found that, in general, air attacks were very successful in closing tunnel adits (entrances). In addition, because of softer-than-estimated geological conditions, damage to tunnels was sometimes more significant than expected.

b. Bunkers (U)

(U) For the most part, the bunkers encountered in Kosovo were constructed with reinforced concrete walls and ceilings. All had blast doors and some of the bunkers were hardened against nuclear, biological, and chemical (NBC) attacks, with independent manually operated electrical generators as well as an air filtration system. At every bunker site visited, the team found that NATO attacks were successful.

c. Bridges (U)

(U) NATO targeted bridges to hinder or stop enemy movement of troops and logistics along the major lines of communications. The air strikes effectively destroyed the targeted bridges and battle damage assessment of such strikes was reasonably accurate.

d. Above-Ground Structures (U)

(U) Yugoslav Ministry of Interior Forces and Regular Army units had extensive garrisons and headquarters structures in nearly every major city in Kosovo. NATO airstrikes reduced a majority of these facilities to rubble. Once NATO airstrikes forced them from their traditional sites, the Interior Forces and Yugoslav Army fled to, and staged out of, several ad hoc garrisons, often at established industrial sites. Overall, NATO's effort against the majority of above-ground, garrison structures and depots that were targeted and attacked was a complete success. NATO strikes severely damaged these structures with minimal collateral damage. No evidence of reconstitution was found.

(U) As part of its look at above-ground structures, the team examined nine command, control, and communications facilities in Kosovo. These were part of the Serb communications network needed for command and control of Yugoslav Army and Interior Forces military system. In general, these targets fell into two categories: military specific targets (e.g., radio relay sites and air defense control and reporting posts) and dual-use facilities such as telephone systems and television and radio broadcast facilities. The military specific targets all had reinforced concrete bunkers to protect the mission critical equipment. The Serbs had removed electronic equipment from the sites and emptied the bunkers prior to the assessment team's arrival. The team could not determine when the Serbs removed the equipment. However, because they discovered little or no equipment in the destroyed above-ground support buildings, the team surmised the sites were not operational at the time of the attacks. It appeared that the inspected dual-use facilities (civilian and military) were operational at the time of attack causing the destruction of most of the equipment along with the destruction of the buildings.

e. Collateral Damage (U)

(U) Throughout the air operation against the Serbs, NATO made every effort to minimize collateral damage. Of the 38 sites visited after the war, only one had sustained any significant collateral damage from NATO weapons falling on areas other than their intended target. At the other 37 sites, collateral damage was limited to broken windows, blown off roof tiles, and detached ceiling tiles.

2. Mobile Targets (U)

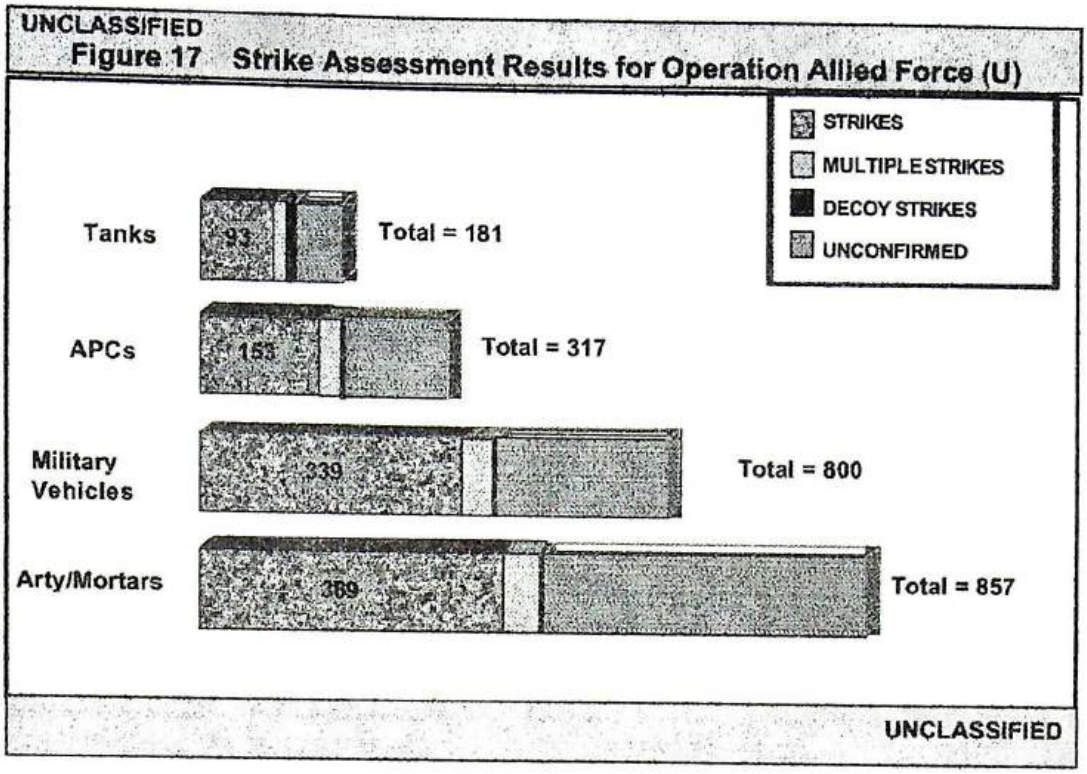
(U) To assess the number of mobile targets struck during operations in the Kosovo, a team conducted a comprehensive day-by-day, mission-report-by-mission report reconstruction of the operation to determine the actual number of mobile targets struck with high confidence. This assessment covered all 78 days of Operation Allied Force, focused exclusively on mobile targets, and covered only strikes in the area of Kosovo and the Presevo Valley. The assessment team was comprised of 67 personnel from all Services and intelligence agencies, and included air and air defense analysts, ground analysts, Balkans analysts, imagery analysts, signal intelligence analysts, collection managers, targeteers, battle damage assessment analysts, and systems operators. The team gathered data and other pertinent information related to the following essential elements of information:

- Indications of destruction or damage of tanks, armored personnel carriers, artillery, mortars, and military vehicles
- Indications of the use of camouflage, concealment, and deception campaign by the Yugoslav military
- Indications that some NATO strikes missed specific targets (tanks, armored personnel carriers, artillery, mortars, and military vehicles)
- Indications of evidence that Yugoslav military forces cleaned the battlefield
- Indications that the Kosovo Liberation Army destroyed or damaged tanks, armored personnel carriers, artillery, mortars, and military vehicles
- Indications that some NATO missions struck the same targets on multiple occasions.

(U) Assessments of these indications were made using cockpit video from actual strikes, image intelligence, measurements and signatures intelligence, signals intelligence, human intelligence, interviews with forward air controllers and on-scene witnesses, and through on-site observations by the team. Figure 17 shows the results of

the assessment. The assessment provides no data on what proportion of total mobile targets were hit or the level of damage inflicted on the targets that were struck. Instead, the number of target hits were collected. Thus, the first segment of each bar represents the final number of strikes that were determined to have achieved successful hits against mobile targets as confirmed by the assessment team. The last segment on each bar represents those mission reports that provided sufficient evidence of a hit based on the methodology to support a successful strike assessment. Thus, the targets in this category represent possible hits that cannot be confirmed. The team also determined that a small number of targets had been hit and reported by more than one strike mission (49 probable across all target classes and shown in the second segment) and that a more limited number of decoy targets had been attacked (25 across all target classes and shown in the third segment).

(U) As is apparent from the figure, roughly 60 percent of the target-hit claims made during Operation Allied Force could be confirmed by the assessment team. However, the on-site visits did not occur until more than a month after the conflict had ended, allowing time for the Serbs to remove damaged vehicles from the battlefield.



B. Preferred Munitions (U)

(U) The latest generation of air-delivered munitions was employed in substantial numbers for the first time during Operation Allied Force. Throughout the conflict, weapons fired at fixed sites hit intended targets producing the intended results, with limited collateral damage to civilians. In particular, the success achieved in delivering the new Joint Direct Attack Munition from altitudes above cloud cover demonstrated the wisdom of decisions made following the 1991 Gulf War. During that conflict, coalition forces had little choice but to allow the enemy a sanctuary from attack when target areas were obscured by adverse weather. In Kosovo, NATO forces operated under conditions in which there was at least 50 percent cloud cover more than 70 percent of the time, and yet were able to continue the operation.

(U) As expected, attacks on mobile targets proved more problematic than attacks against fixed targets. The Serbs hid many of their mobile ground force systems, making them difficult to locate and attack. NATO's desire to limit collateral damage also constrained us in some circumstances from attacking possible ground force targets. On the other hand, by forcing the Yugoslavs to hide their ground maneuver forces and not

operate them as units in the open, we limited their combat effectiveness, therefore achieving the desired effect.

(U) In some cases, only small inventories of the latest U.S. preferred munitions were available for operations. Several of these systems, such as JDAM and the Joint Standoff Weapon (JSOW), are in the early phases of production with plans for increasing these inventories over the next several years as a result of programs already funded by the Congress. Our success in using these systems in Kosovo validates these production plans. In addition to weapons used and proven during Operation Allied Force, other weapons under development will be available for employment later, including improved versions of the Tomahawk Land Attack Missile and the new Joint Air-to-Surface Standoff Missile (JASSM). The Department has reviewed munition production and development programs carefully in constructing our annual defense program to ensure that munitions acquisition proceeds at an appropriate pace and scope in light of experience in Kosovo. DoD has also requested, and Congress has approved, use of $1.4 billion in FY 1999 supplemental funds to replenish stocks of the preferred munitions expended during Operation Allied Force.

1. Precision Engagement (U)

(U) During Operation Allied Force, NATO forces conducted over 23,300 strike missions against an array of targets. These strikes were directed at roughly 7,600 target aimpoints associated with a variety of fixed targets as well as at just over 3,400 flex targets. The weapons employed against these targets represent a full spectrum of capability, from unguided 500-pound bombs to sophisticated long-range cruise missiles. As shown in Table 1, the significant discriminators among these weapons are their standoff range and guidance. Standoff allows the platform and aircrew to remain outside the threat area, thereby minimizing aircraft attrition. There are three categories of guidance: unguided, man-in-the-loop guidance, and Global Positioning System (GPS) guidance. Unguided weapons require the aircrew to deliver the weapon on a ballistic trajectory to the target. For man-in-the-loop guidance, there are several options, all involving specific aircrew input during the employment of the weapon. Crewmembers may identify the target via a seeker, steer the weapon during flight, point a laser at the target, or alter the aimpoint just prior to impact in order to maximize the weapon's effect on its target. Typically, man-in the loop systems require line of sight from the sensor to the target, and are degraded by adverse weather conditions. Global Positioning System

guidance uses satellite input to track to specific target coordinates, which makes the weapon capable of all-weather employment.

(U) Precision engagement was a cornerstone of Operation Allied Force. Over the 57 days of actual airstrikes, emphasis was placed on munitions that increased the probability of kill against a given target or that significantly improved survivability of weapon platforms or crew. For comparison, during Operation Desert Storm only 10 percent of U.S. strike aircraft were capable of delivering these types of weapons; this increased to 90 percent for Operation Allied Force. The remainder of this section focuses on those preferred weapons.

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Table 1 Characteristics of Weapons Used in Operation Allied Force (U)

Range	Guidance	Weapon Name/ Nomenclature	Specific Characteristics
Long	GPS (near-precision)	Tomahawk (TLAM)	Ship and sub-launched Unitary and submunition warheads Powered
Long	GPS (near-precision)	CALCM (AGM-86C)	Air-launched from B-52 Unitary warhead Powered
Standoff (>15 miles)	INS/GPS (near-precision)	SLAM (AGM-84E)	Air-launched from P-3 Powered INS and GPS midcourse guidance
Standoff (>15 miles)	Man-in-the loop Terminal (precise)	AGM-130	Air-launched from F-15E Unitary warhead Powered INS and GPS midcourse guidance
Standoff (>15 miles)	GPS (near-precision)	JSOW (AGM-154)	Air-launched from F/A-18 CEB submunition dispenser Unpowered
Standoff (>15 miles)	Man-in-the loop Terminal (precise)	HAVE NAP (AGM-142)	Air-launched from B-52 Blast fragmentation or penetrator warhead Powered Inertial midcourse guidance
Direct Attack	GPS (near-precision)	JDAM (GBU –31)	Air-launched from B-2 Low cost ($18K) tail kit, Blast fragmentation or Penetrator warhead
Direct Attack	GPS (near-precision)	GBU-37	Air-launched from B-2 Very hard-target penetrator with GPS tail kit
Direct Attack	Man-in-the loop (precise)	Maverick (AGM-65)	Shaped charge or unitary warhead
Direct Attack	Man-in-the loop Laser Guided Bombs (precise)	GBU-10 GBU-12 GBU-16 GBU-24 GBU-27 GBU-28	Blast fragmentation Blast fragmentation Blast fragmentation Blast fragmentation Penetrator Very hard-target penetrator
Direct Attack	Unguided, ballistic	MK-82 MK-83 MK-84 BLU-109 CBU-87 Rockeye (CBU-99)	Blast fragmentation Blast fragmentation Blast fragmentation Penetrator Combined Effects Bomblet submunition dispenser Submunition dispenser

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(U) Our experience in Operation Allied Force also demonstrated the importance of Combined Effects Munitions (CEM). These munitions are soda-can-sized bomblet submunitions, designated BLU-97 or cluster bombs, that are dispensed in large numbers (approximately 150-200 bomblets per weapon) to attack "soft" area targets. These submunitions are dispensed by several different weapon airframes — the TLAM-D from long range, the JSOW from medium-standoff range, and the CBU-87 tactical munitions dispenser for direct attack. CEM is an effective weapon against such targets as air defense radars, armor, artillery, and personnel. However, because the bomblets are dispensed over a relatively large area and a small percentage of them typically fail to detonate, there is an unexploded-ordnance hazard associated with this weapon. These submunitions are not mines, are acceptable under the laws of armed conflict, and are not timed to go off as anti-personnel devices. However, if the submunitions are disturbed or disassembled, they may explode, thus, the need for early and aggressive unexploded-ordnance clearing efforts. Combined effects munitions remain an appropriate and militarily effective weapon when properly targeted and employed. However, the risk of collateral damage, as with any weapon, must be considered when employing these weapons.

CLUSTER MUNITIONS

(U) The requirement to maintain a mix of weapon capabilities and platforms was highlighted by Operation Allied Force. In the final stages of the campaign when the weather had improved and the air defense system had been degraded, the availability of a complete mix of weapons maximized the flexibility of strike options against the remaining priority targets. Because pilots could now employ direct attack weapons at less risk, less costly legacy weapons were, in many cases, as effective (and sometimes more) as more costly preferred weapons against such targets as fielded forces, large military storage complexes, and airfields.

(U) Although we cannot predict every scenario that will require the employment of military force in the future, our flexibility and adaptability in providing precision engagement in Kosovo was certainly noteworthy. A balanced application of direct attack, standoff, and GPS-guided munitions will be the backbone of future air operations. Among the important tactical challenges encountered during Operation Allied Force were countering mobile surface-to-air missiles, employing all-weather precision and standoff weapons, and real-time targeting. To ensure that U.S. forces are adept at handling such challenges in any future campaign, they must be incorporated not only in individual unit training, but also more importantly, in joint training.

2. Weapons-of-Choice (U)

(U) Cruise missiles were used extensively in the first few days of Operation Allied Force and during periods of adverse weather. These weapons were selected to match NATO's campaign strategy. In particular, the desire to limit the exposure of manned aircraft in the threat area, as well as the need to minimize collateral damage, made cruise missile employment a logical choice.

(U) As the conflict continued, a larger cross-section of the weapons inventory was employed, including standoff, GPS-guided, laser-guided, and unguided bombs. GPS-guided systems were critical to the success of the campaign given the weather and the requirement for minimal collateral damage.

(U) Sea-launched and air-launched cruise missiles (TLAM and CALCM), JDAM, and JSOW provided the capability to penetrate enemy air defenses and attack a wide spectrum of targets throughout the battlespace. Attacking day or night in any weather, GPS-guided weapons placed all target sets at risk, denying the enemy sanctuaries created by weather or the use of heavily concentrated defenses. In the paragraphs that follow, we characterize these weapons and describe their employment during the campaign.

a. JDAM (U)

(U) The Joint Direct Attack Munition is designated GBU-31, a 2,000-pound class munition guided by an $18,000 tail kit. (The GBU-37, which is similar to JDAM, includes a 5,000-lb class warhead and is also guided by a GPS tail kit.) During Operation Allied Force, the JDAM, which is still in low-rate production was employed at nearly the same rate that it is being manufactured. The B-2 was the only operational aircraft used to deliver JDAMs; the combination of its all-weather precision capability and the B-2's ability to penetrate lethal defenses put high-value fixed targets at risk. Several additional aircraft are pending JDAM operational status in conformance with the JDAM acquisition plan.

(U) To deliver JDAMs, the B-2s had to fly from Whiteman Air Force Base, Missouri, requiring multiple air-refueling hook-ups per mission. Using rotary launchers in their internal weapons bays, each B-2 was able to carry and deliver up to 16 JDAMs. A selectable fuse on each JDAM was set before the munition was loaded, and allowed for a variety of time delays — before or after impact — for the weapon's explosion..

b. Tomahawk (U)

(U) The Tomahawk Land Attack Missile (TLAM) is a conventionally armed, long range, land attack cruise missile that can be launched from surface ships or submarines. All TLAMs expended during Operation Allied Force were the Block III configuration. Tomahawk missiles utilize a solid propellant rocket motor to accelerate the missile through the initial boost phase of flight until the turbofan engine takes over for the cruise and terminal phases.

(U) Two versions of TLAM were used in this operation. The TLAM-C has a conventional unitary warhead, while the TLAM-D carries conventional submunitions. TLAMs were continuously present in the theater, and could be used to execute timely attack. This gave the joint force commander the ability to utilize the principles of surprise, initiative, and massed firepower on key enemy targets. Six ships and three submarines from two U.S. Navy battle groups and one UK submarine launched 218 missiles in preplanned and quick-reaction strikes. Target types ranged from traditional headquarter buildings and other infrastructure targets to relocatable targets such as aircraft and surface-to-air missile launchers. Tomahawk was often a weapon of choice for targets with the potential for high collateral damage, and was used to attack numerous targets in Belgrade.

c. CALCM (U)

(U) The Conventional Air Launched Cruise Missile (CALCM), designated AGM–86C, is a guided, air-to-ground missile armed with a conventional blast fragmentation warhead. The missile has been designed specifically to provide accurate attacks against long range, strategic "soft" targets. During Operation Allied Force, CALCMs were delivered by B-52s operating from forward bases in England.

d. JSOW (U)

(U) The Joint Standoff Weapon (JSOW), designated AGM-154, is a 1,000-pound class air-to-ground weapon. It is unpowered, but has a kinematically efficient airframe that provides standoff outside point defenses. The "A" variant, which is the only configuration currently operational, dispenses combined effects bomblets against area soft targets such as air defense radars, armor, artillery, and personnel. During Operation Allied Force, JSOWs were employed from Navy F/A-18 aircraft.

e. AGM-130 (U)

(U) The AGM-130 is an air-to-ground, rocket-motor-powered missile with a television (TV) or infrared (IR)-guidance system. The AGM-130 was designed for stand off outside point defense attack missions using the remote control capability provided by a data link system. Under control of a crewmember, the missile flies toward the pre-selected target through midcourse, transition, and terminal phases. Through the data-link system, the crewmember can acquire the target or target area, issue steering commands as necessary, and lockon or manually track the target to impact. The AGM-130 also contains an inertial navigation system that can be updated with location data obtained from the Global Positioning System to point the seeker and navigate to the target without operator input if required. However, with a crewmember monitoring the video display, man-in–the-loop control can be provided at any time. During Operation Allied Force, AGM-130s were employed from Air Force F-15E aircraft.

f. SLAM (U)

(U) Another success story from Operation Allied Force was the development of techniques for employing Standoff Land Attack Missile (SLAM) from Navy aircraft. SLAM provided the Joint Task Force and the Joint Force Air Component Commander with new flexibility to strike mobile targets on short notice.

g. HAVE NAP (U)

(U) The AGM-142 HAVE NAP is a self-powered munition with inertial midcourse guidance and an 800-pound fragmentation or penetrator warhead that is launched from the B-52. Only two HAVE NAP munitions were launched during Operation Allied Force.

3. Weapon Expenditures and Other Insights (U)

a. Weapon Expenditures (U)

(U) Because of the character of Allied Force operations, heavy reliance on preferred munitions throughout the conflict resulted in a high expenditure rate. These rates reduced weapon stockpiles, especially for cruise missiles — the inventories of which had already been reduced by Operation Desert Fox, which was executed just months before Operation Allied Force began — and JDAM, a weapon that is still in low-rate production.

b. Acquisition-Related Actions (U)

(U) There were several acquisition-related actions taken during and shortly after Operation Allied Force to improve our military readiness.

1) Emergency Supplemental Appropriations Request for Weapons.

(U) Before Operation Allied Force began, there was concern about our cruise missile inventory due to the high expenditure rate during Operation Desert Fox. The TLAM and CALCM cruise missile replenishment was considered necessary since developmental missiles, slated to supplement and eventually replacement these fielded cruise missiles, were several years from production. After Operation Allied Force began and cruise missile use continued at a steady pace, it became even more apparent that replenishment was essential. Other precision guided weapons were also used more than anticipated and usage of several weapons that are in the early phases of production (most notably JDAM) caused inventory shortages.

(U) The decision to include funding for weapons in the Emergency Supplemental Appropriations Request was made early in Operation Allied Force. Some specific weapon systems were requested by name for Congressional consideration. Since weapon use for the remainder of the operation could not be forecast adequately, the Department also requested a contingency fund to provide flexibility in funding weapons that might be depleted.

(U) Congress approved the Emergency Supplemental Appropriations Request, and the funds were distributed to replenish the weapons that had been most significantly impacted by the military operations.

2) Accelerating Weapon Deliveries

(U) As a near-term solution during the operation, the Department investigated the possibility of accelerating weapons with active production lines. JDAM was one of the programs that could be accelerated, and the Department worked with the contractor to speed delivery. In addition to early deliveries of the JDAMs already ordered, a follow-on contract was expeditiously awarded to acquire the next production lot.

(U) As part of normal business practices to reduce excess capacity and reduce production costs, some prime contractors were already consolidating and physically relocating weapon system production lines. These geographical moves had been planned well in advance, but proved untimely nonetheless.

3) Industrial Resource Allocations.

(U) While exploring the possibilities of accelerating production and the execution of the emergency supplemental appropriations, concerns arose regarding competition for common components. Since some weapons have common components or suppliers, it was expected that the acceleration could pose allocation problems with the supplier's existing contractual commitments. A task force was established to help guide reallocation of industrial resources where necessary by prioritizing weapon systems. In these cases, the Department asked the Department of Commerce to intervene and provide legal direction to the suppliers, ensuring priority to key DoD programs. The task force relied on the Joint Requirement Oversight Council as the decision authority to establish priorities among weapon systems competing for common components. While only a few Commerce directives were ultimately issued, the task force proved beneficial and would have been even more valuable had the conflict continued for a longer period of time.

b. Fuse Settings (U)

(U) Preliminary and follow-up ground battle damage assessments show that fuse setting can be a critical factor in the amount of damage inflicted. Effective real-time targeting may require that aircraft have the capability to change weapon fuse settings while airborne. This would allow the aircrew to maximize target destruction while adjusting for specific collateral damage restrictions.

c. Attacking Time Sensitive Targets (U)

(U) A long-standing military requirement, again validated during Operation Allied Force, is the need to provide rapid targeting and re-targeting of aircraft and preferred munitions against known and emerging targets. A rapid targeting system that included reachback, distributed operations, and real-time collection, intelligence, surveillance, and reconnaissance assets was successful in shortening timelines from sensor to shooter. Real-time threat information detected by various systems was relayed to the Combined Air Operations Center, passed directly to strike assets, and exploited at national intelligence centers.

4. Observations (U)

(U) The lessons learned in the area of precision engagement lead to the following observations:

- Continue Service initiatives to replenish inventories of preferred munitions. Continue to assess development of weapons that fill gaps and shortfalls in current capabilities and their subsequent certification on launch platforms.
- Assess methods to determine wartime planning factors affecting expenditure rates.
- Assess future weapon inventories to achieve the right balance of capabilities for future requirements.
- Continue to assess technologies that will ensure flexibility and enable all-weather precision strikes, including on-board and off-board accurate targeting capability against fixed and mobile targets, that can be executed within minutes of target assignment.
- Incorporate real-time targeting training in individual unit training; perform joint training exercises and practice the use of national, theater, and tactical collection assets in support of reduced timeline employment tactics.
- Continue to pursue technologies that will process, exploit, and disseminate target information in a timely manner to support precision engagement; review Intelligence Community procedures and capability to enhance the level of detail and quality of intelligence to support theater-wide GPS-targeting requirements, especially in real-time or near-real time.

C. Other Important Aspects of Strike Operations (U)

1. Global Force Integration (U)

(U) Operation Allied Force exercised our military as a global force; forces were not only deployed from locations around the globe to support the theater, but forces were also employed from the continental United States and other distant bases to provide support in order to accomplish assigned tasks via reachback. Attack planning for cruise missiles, B-2 missions originating in the United States, and space operations highlight the widely dispersed nature and global capabilities of the U.S. military. Multiple federated agencies throughout Europe and the continental United States provided direct support to the Joint Force Commander in the execution of the operation. The full spectrum of maritime operations, to include sustained forward presence, extensive participation in the

air operation, air and sea support operations, protection of the allied western flank, and putting Marines ashore, was significant to the success of the campaign.

(U) As noted previously, the ability to perform all-weather precision strike was limited during Operation Allied Force. However, the B-2 bomber combined with the Joint Direct Attack Munition became an effective counter to these limitations. Over the course of Operation Allied Force, 45 B-2 sorties delivered 656 JDAMs on critical targets in the Federal Republic of Yugoslavia.

(U) Extensive tanker support was needed to refuel B-2s flying global attack sorties. As indicated previously, each plane had to be refueled multiple times during its sortie. While such capability is essential for rapid employment in any scenario, forward basing would substantially reduce tanker requirements, reduce sortie length (simplifying everything from mission preparation to crew fatigue), and allow these assets to be utilized at a greater rate. Forward basing remains the optimum employment scheme for all our long-range platforms. Accordingly, the Air Force is examing ways to enhance its forward bomber-base infrastructure enhancement.

(U) Another global force initiative was the employment of the B-1B bomber from bases in the United Kingdom. The B-1B's Block-D modification performed flawlessly during Operation Allied Force.

(U) Cruise missile employment also benefited from global capabilities, with mission planning being done in the United States and then forwarded to launch platforms in theater. In fact, Allied Force saw the successful realization of TLAM as a tactical weapon. New capabilities were also implement for air-delivered cruise missiles. The Department is now investigating ways to expand these capabilities further.

(U) The complexities associated with an emerging global force that will employ with distributed operations and federated systems support via reachback must be captured in our training scenarios. As we learned in Operation Allied Force, even with a theater focus, using the global force is the best way to achieve the desired result. Given the probability that the United States will continue to be involved in small scale contingencies, with precision requirements and high knowledge demands that may again exceed the capacity of in-place theater forces, the Department needs to plan now to utilize the advantages offered by our global force capabilities. Because the United States might face a myriad of unpredictable scenarios, the Department needs to develop new levels of adaptability and flexibility in the interoperability and integration of this force.

This suggests that we develop a global focus in our organization and training. We must continue to improve doctrine and training, and to organize and equip our forces to meet the demands of global engagement. Key to the success of future operations will be the concept of a joint operational architecture that clearly defines the relationships between elements of the global force in a contingency or major theater war. Given an appropriate joint operational architecture, the Department can then develop the technical architectures to support warfighter needs, prioritize our resources and training requirements against the spectrum of global threats, and describe the organizations necessary to support our National Military Strategy. The Joint Staff is in the process of evolving such a joint operational architecture based on the tenants of Joint Vision 2010.

2. Effects of Weather on Attack Operations (U)

(U) Throughout the campaign, air operations and strike execution were impacted by the requirement for favorable weather in up to four geographically dispersed locations. These were (1) the target area, (2) the base from which the strike aircraft were operating, (3) the base used by any aircraft supporting the strike, and (4) the orbit location for the refueling tankers. This requirement complicated strike execution by allowing brief, localized periods of inclement weather to adversely affect overall operations. For example, on several occasions, morning fog at Aviano prevented strike-support aircraft from launching, which then caused missions to be cancelled even though strike aircraft from other bases were already airborne. On other occasions, thunderstorms or reduced visibility in the tanker pattern caused strike waves to be cancelled. Numerous other examples exist, making it clear why the capability to forecast weather conditions, which was greatly enhanced by space and weather forecasting tools in this conflict, is so valuable. Even if aircraft were able to get airborne, refueled, and matched up with supporting defensive and control aircraft, there was still no guarantee that the weather in the strike area would cooperate. As mentioned earlier, conditions in Kosovo were such that there was at least 50 percent cloud cover more than 70 percent of the time, hampering our ability to employ laser-guided munitions and putting a premium on other preferred weapons.

3. Information Operations Synchronization (U)

(U) Successfully conducting operations to disrupt or confuse an enemy's ability to collect, process, and disseminate information is increasingly important in this information age of warfare. The importance of such capabilities was recognized fully

during Operation Allied Force, but the conduct of integrated information operations was hampered by the lack of advance planning and necessary strategic guidance to define key objectives. The Department will address this problem by developing the needed plans and testing them in exercises.

VIII. LOGISTICS AND FORCE SUSTAINMENT (U)

(U) No matter the size of the operation, critical supplies ("beans and bullets") must be delivered to our fighting forces when and where needed. The importance of tracking the movement of these items was discussed earlier in the in-transit visibility section of this report. The need to move daily supplies also highlights the requirement for a sustainment-planning tool to enable better allocation of theater transportation resources. The magnitude of the forces deployed to Operation Allied Force and the limited availability of logistics infrastructure presented particular challenges to the logistics units and personnel tasked with sustainment operations. In this chapter we discuss the major sustainment issues that can provide valuable lessons for the next conflict.

A. Prepositioning Preferred Ammunition (U)

(U) As was discussed in Chapter VII, accurate guided munitions are preferred for operations like Allied Force because they are more effective from altitudes beyond the reach of many ground-based air defense systems and because they can kill their targets with fewer sorties and minimal collateral damage. These preferred munitions, however, only exist in limited numbers. They are typically more expensive than unguided or "dumb" iron bombs, and require greater care in storage. Given the preference for guided munitions coupled with their relative scarcity, a review of the policies surrounding their allocation is warranted.

(U) Currently, the allocation of limited preferred munitions stocks is oriented to support the strategy outlined in the Defense Planning Guidance. Most important is the distribution of prepositioned munitions that a theater commander can rapidly draw upon. Prepositioned munitions are stored on the ground or on ships located near the supported theater. However, because munitions stockpiles must be divided among several overseas theaters, theater inventories of preferred munitions tend to lag requirements. In the event of a contingency like Operation Allied Force, these inventories can become strained very quickly. During Allied Force, rapid resupply from the United States was required early in the operation.

(U) Airlift of preferred munitions from the United States adds a significant burden to an airlift fleet already tasked with deploying units. In light of the high demand for preferred munitions, the Department plans to reexamine the allocation of preferred munitions to the different theaters. This assessment will try to reconcile the demands of smaller-scale contingencies with the operational plans for major theater wars in an effort to minimize the overall risk to our military posture as a whole. In a similar vein, the Department will examine the mix of preferred to non-preferred munitions in prepositioned stocks.

B. Mobility Readiness Spares Packages (U)

(U) Present day U.S. Air Force Mobility Readiness Spares Package (MRSP) levels reflect the projected demands for a scenario involving two nearly simultaneous major theater wars and rely heavily on the availability of deployed aircraft that can be cannibalized for spare parts to offset MRSP shortfalls. Cannibalization is the primary source of many parts not carried in present fighter MRSPs. When these MRSPs are used to support a partial squadron deployment (split-based operations), stay behind (home station) aircraft must be cannibalized to fill spares shortfalls of the deployed element, since there are not enough aircraft deployed to meet spares (cannibalization) requirements. The lower than planned aircraft loss rates and higher aircraft availability rates experienced in OAF exacerbated this problem by increasing the demand for spares while further limiting the availability of cannibalization aircraft.

(U) Our experience in Operation Allied Force provided indication that current Air Force Mobility Readiness Spares Packages may be insufficient to achieve aircraft availability targets under the Air Force's Air Expeditionary Force (AEF) concept. For AEF commitments, the Air Force may not deploy entire squadrons, creating split-based operating conditions not unlike those experienced during Allied Force.

C. Engineering Assets (U)

(U) The relatively limited infrastructure available in Albania made engineering assets essential to Operation Allied Force. For example, Air Force Red Horse engineers made critical improvements to the airfield at Tirana, Albania, while both Air Force and Army engineers made major improvements to the Albanian highway system to enable movement of equipment and supplies. Engineering units can employ large pieces of equipment (e.g., bulldozers) and great quantities of construction materials. As a result,

these units are not easy to move. Their equipment and materials are not efficiently transportable by air, and use of sealift is slow. Accordingly, the following lessons learned are deemed important.

1. Lack of Forward-Deployed Engineering Assets (U)

(U) Had ground forces been deployed into Kosovo, the requirements for engineering support would have been substantial. Engineers would have had to make necessary improvements to airfields, seaports, and the road and rail network so that the transportation network could adequately support the movement of refugees as well as the ground-combat forces involved in offensive operations. These demands may have exceeded the capability of in-theater engineering assets. Moving engineering units form the United States to fulfill this requirement would have adversely affected the CINC's concept of operations owing to the strategic lift required to move these engineering units. The large volume of airlift required for equipment-heavy engineer units makes airlift impractical and uneconomical. Sealift, on the other hand, is very slow; its use would have delayed the arrival of engineer assets in theater, thereby postponing the completion of needed improvements in the region's transportation network and slowing the movement of forces into Kosovo. After the Military Technical Agreement was signed, EUCOM was able to substantially reduce its requirement for CONUS-based engineers. However, even these smaller forces had to deploy by sealift so as not to impact higher priority elements of the Kosovo Force which were being moved by airlift.

(U) To identify possible remedies for this problem, a working group of CINC and Service engineers is conducting a detailed investigation of options for establishing different mixes of forward-deployed engineer assets. Among other issues, this group is assessing worldwide requirements for forward-deployed, strategically located engineering assets to ensure that theater commanders have sufficient engineering support for rapid response contingencies in their theaters.

2. Air-Transportable Engineer Response Capability (U)

(U) The shortage of an initial level of engineer response capability that is air transportable may lead to ineffective engineering support in some circumstances. Even though most engineer units are deployable by air or sea, they are so heavy that there is insufficient engineer capability that can be quickly brought to a crisis situation given the competing demands for strategic lift assets. In support of the initial phase of contingency

operations in Kosovo, Air Force Red Horse teams and a Navy Seabee Air Detachment (both are air deployable and much lighter than other engineering units) provided engineering capability in Albania. These units made road and airfield repairs to help support the overwhelming flood of refugees leaving Kosovo. Both of these units are air deployable and light compared with other engineering units, yet they provide a substantial level of engineer capability.

(U) The aforementioned working group of CINC and Service engineers is also assessing the capabilities of Service engineer units so that appropriate engineering capabilities can be provided quickly in time of crisis. In particular, we plan to examine the requirements for air-deployable engineering assets to determine if it is possible to tailor engineer units that can be more expediently deployed by air.

3. Requirements for Expeditionary Operational and Support Facilities (U)

(U) Depending on the type and size of unit being deployed into an expeditionary theater, temporary facilities may be required for base camps, electrical power, water supply, vehicle and equipment maintenance and storage, administrative space, and command-and-control centers. Engineers are responsible for preparing suitable sites for all of these facilities as well as providing important force-protection support. In many cases, units have very specific requirements that impose unique demands on engineering units. As a result, engineers are called upon to accommodate the storage of ammunition and petroleum products, as well as improve ports, airfields, road networks, railroads, waterways, and pipelines. The current automated planning system used by engineers to sort through the myriad of issues attendant to a major deployment is designated the Joint Engineer Planning and Execution System (JEPES). It became evident during Operation Allied Force that this tool cannot adequately support facility requirements planning for deploying forces in a fast-moving crisis situation. Moreover, no other automated system is available that enables engineer planners to rapidly identify facility requirements and to effectively assess and execute required engineer support in acquiring the needed facilities for deploying forces. Consequently, JEPES will have to be modernized or replaced.

D. Humanitarian Assistance (U)

(U) Operation Sustain Hope prevented mass starvation and homelessness among the estimated 850,000 Kosovars who fled to Albania and Macedonia after Serbian forces stepped up their "ethnic cleansing" campaign in Kosovo. More than 500 airlift sorties

were flown to deliver nearly 3,100 tons of bulk food, humanitarian daily rations, tents and other shelters, bedding, medical supplies, and a variety of support equipment and vehicles. In all, the United States contributed approximately 18 percent of the humanitarian assistance end-items provided by the international community. Roughly 10 percent of the 90,000 Kosovo refugees who were evacuated from Macedonia to third countries were accepted into the United States. At the same time, the U.S. Air Force Contract Augmentation Program (AFCAP) contractor constructed three refugee camps in Albania under the supervision of Prime Beef teams and with support from Air Force Red Horse engineers. Each of the camps could support up to 20,000 refugees. This humanitarian assistance was successful in saving tens of thousands of lives, and in preventing Serbian terror from undermining the NATO campaign.

(U) Although Operation Sustain Hope did not support military operations directly, we have placed it in this chapter because it was a sustainment operation conducted largely by military forces. The lessons learned from Operation Sustain Hope are valuable should our military be called upon for similar missions in the future.

1. Simultaneous Combat and Humanitarian Operations (U)

(U) A unique set of circumstances shaped Operation Sustain Hope from the very beginning. Of particular importance was the need to conduct combat operations at the same time as humanitarian operations. This introduced conflicts and complexities not present in purely humanitarian scenarios such as Support Hope (Somalia,1994) or Strong Support (Hurricane Mitch, 1998). This was felt most acutely in Albania, where combat and humanitarian operations were collocated at Rinas Airport. The airport, austere by Western standards, was the main base of operations for both Operation Sustain Hope and Task Force Hawk. The demands of these two activities resulted in an inevitable competition for landing spaces, ground transportation, and other support assets. In addition, assets not associated with the airport itself were in demand by both operations. These included heavy lift aircraft, special communications and intelligence assets, and even military linguists.

(U) In some cases, the competition for resources led to a perception on the part of non-governmental relief organizations that insufficient attention was given to the humanitarian operation. In this case, however, the two very different Task Forces (Shining Hope and Hawk) worked through their conflicting priorities and effectively accomplished their missions.

2. Coordination of Relief Efforts (U)

(U) Coordination of humanitarian operations was generally good among NATO allies (and Partnership for Peace members). However, coordination between U.S. Government agencies was somewhat rough at the beginning of the operation. As a result of this initially shaky coordination, things that could have improved the humanitarian operation were sometimes overlooked. For example, DoD humanitarian assessments and those carried out by the U.S. Agency for International Development (often with representatives from the Department of State) should be combined or at least more closely coordinated. Coordinated assessments are particularly important because they provide input to many critical logistics issues such as road conditions and existence of suitable housing for refugees. Effective assessments are critical because of their impact on the allocation of humanitarian relief supplies.

(U) As the operation progressed, coordination improved. In Albania, the establishment of an Emergency Management Group helped effectively harness the resources of international organizations, non-governmental organizations, and donor countries, while preserving overall host nation sovereignty. A NATO cell was established at the Emergency Management Group to coordinate military resources effectively. For its part, the DoD established a Civil Military Operations Center at Rinas Airport in Albania. This Center worked effectively with the United Nations High Commissioner for Refugees and with non-governmental organizations. To foster such superb humanitarian assistance relationships and logistics interactions for future operations, we are examining use of activities such as liaison officer exchanges or conducting humanitarian assistance exercises.

3. Assessment of Humanitarian Needs (U)

(U) The effective assessment of humanitarian needs is a critical element of any relief effort. By evaluating road conditions and establishing the existence of suitable housing for refugees, such assessments help determine the priority of engineering projects and the need to build refugee camps. During the Kosovo operation, the CINC designated the JTF commander, who in turn designated the deployed Marine Air Ground Task Force (MAGTF) to act as a Humanitarian Assessment Team and provide an assessment of the humanitarian conditions in Albania and Macedonia. As a result, the team had little familiarity with embassy personnel, the CINC staff, or the Disaster Assistance Response Team (DART) that had been provided by the interagency process.

Moreover, the U.S. ambassador in Albania did not have a good understanding of the assessment team's role. The consequent lack of coordination and cooperation resulted in the departure of the assessment team before it had completed its mission. A humanitarian assessment team provided by the CINC staff, rather than a deployed unit, would have had better ties with embassy staffs and would have been more familiar with theater conditions. To avoid such problems in the future, in-theater personnel who are familiar with the area and the embassy staffs in neighboring nations should be used to conduct humanitarian assessments. These assessment teams should also develop effective liaison with other inter-agency humanitarian efforts such as Disaster Assistance Response Teams.

4. Establishing Refugee Camps (U)

(U) A lack of standard procedures for establishing refugee camps either within or outside the continental United States caused some confusion and prevented full unity of effort among the various U.S. Government agencies involved. The interagency participants did not anticipate an executive policy directing development of refugee camps and processing centers in the United States. After discussion of several; alternatives, it was determined that refugees would be brought to the United States, and the U.S. Department of Health and Human Services (HHS) would act as the overall lead agent for support within the continental United States. Overseas, because the presence of thousands of refugees fleeing Kosovo could have hindered ongoing NATO military operations and presented a target for cross-border operations by Serb forces, the U.S. concept for easing the refugee crisis was to have the Department of Defense undertake refugee relief efforts, including the establishment of refugee camps in the region.

(U) The interagency employed ad hoc solutions when executive policy dictated a need for refugee camps and processing centers to accommodate up to 20,000 refugees for resettlement within the continental United States. To meet this objective, the U.S. Government needed to establish a processing center to receive, temporarily house, and process Kosovars for temporary refuge and possible resettlement. The National Security Council looked to the Department of Defense for recommendations on locations, and it looked to the Department of State's Bureau of Population, Refugees and Migration for the procedures to establish this entity. As indicated above, the U.S. Department of Health and Human Services was the overall lead agency for this effort. HHS funded and administered the processing center; the Departments of State, Defense, and Justice provided support services and personnel; and the Department of Defense provided the

facility, although Health and Human Services funded upgrades and contracting services. Pursuant to relevant legal authorities, DoD's incremental support costs were funded by HHS. Within the Department of Defense, the Director of Military Support (DOMS) was selected to act as lead agent, utilizing Fort Dix, New Jersey, as the location for the center.

(U) The Director of Military Support had extensive experience dealing with relevant interagency groups, but this operation was more complex than the loan of equipment or the temporary assignment of personnel. Providing support for the Kosovar refugees involved detailed coordination in the areas of immigration law, refugee policy, ethnic and cultural sensitivity, and, above all, public diplomacy. Some policy decisions regarding the Fort Dix center were made at the highest level of the executive branch, while housing and care of the refugees was left to the military in conjunction with Health and Human Services. The total number of refugees intended to be housed and processed at the Fort Dix center was never truly established. The original plan was to use that facility for only a minor share of the 20,000 refugees that the United States had agreed to accommodate. However, the population target for the Fort Dix center changed over time, and forced planners to react accordingly.

(U) In the event that refugee camps within the continental United States are required in the future, the U.S. Government should establish appropriate standard operating procedures to guide their development. These procedures should be constructed so as to preclude interagency ad hoc decisions as the situation develops. The Department of Defense should work with the Department of Health and Human Services and the Department of State's Bureau of Population, Refugees and Migration and the National Security Council to accomplish this task.

IX. PERSONNEL AND TRAINING (U)

(U) The overall levels of readiness and training of U.S. forces deployed during Operation Allied Force, both active and reserve components, were superb. The ability to plan, conduct, and sustain complex integrated operations of this kind demonstrated both a very high level of professional skill and the availability of material resources that were adequate for the task at hand. Losses due to accidents were few; indeed, they were even below levels typically anticipated in peacetime operations. The capability of U.S. forces to achieve this degree of success is reassuring, but must be tempered by an understanding of the indirect costs in terms of reduced readiness in U.S.-based forces and the post-conflict "reconstitution" expenses necessary to restore the deployed forces to a satisfactory steady-state operational tempo. Further, as discussed elsewhere, certain key force elements were deployed to this conflict as a very high proportion of their total inventory. Recognizing the challenges presented by the Kosovo operation, the Department is reviewing its planning for both peacetime and wartime readiness.

(U) Previous sections of this report have discussed how our troops quickly solved the problems associated with the limited transportation infrastructure in Albania; how our engineers and other support personnel quickly constructed refugee facilities and distributed supplies, thereby providing critically needed shelter and preventing starvation; and how our pilots and their commanders quickly developed and implemented tactics and techniques to successfully attack Milosevic's elusive forces in Kosovo. These and their many other accomplishments make it clear that our people made Operation Allied Force a success. They were well trained, disciplined, and creative. Their ability to overcome the many challenges they faced through initiative and innovation is unrivaled among the world's military forces.

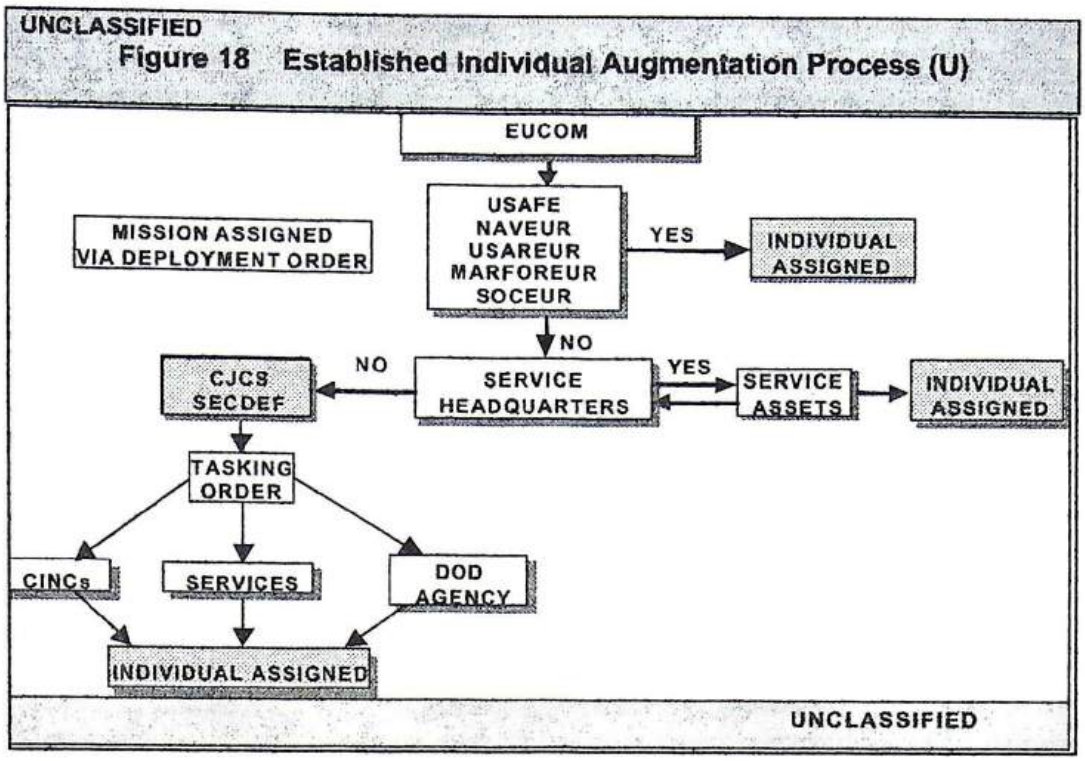
(U) The paramount lesson learned from Operation Allied Force is that the well being of our people must remain our first priority. Other important lessons arising from the unique challenges of mobilizing people in support of this operation are discussed below.

A. Personnel Shortfalls and the Individual Augmentation Process (U)

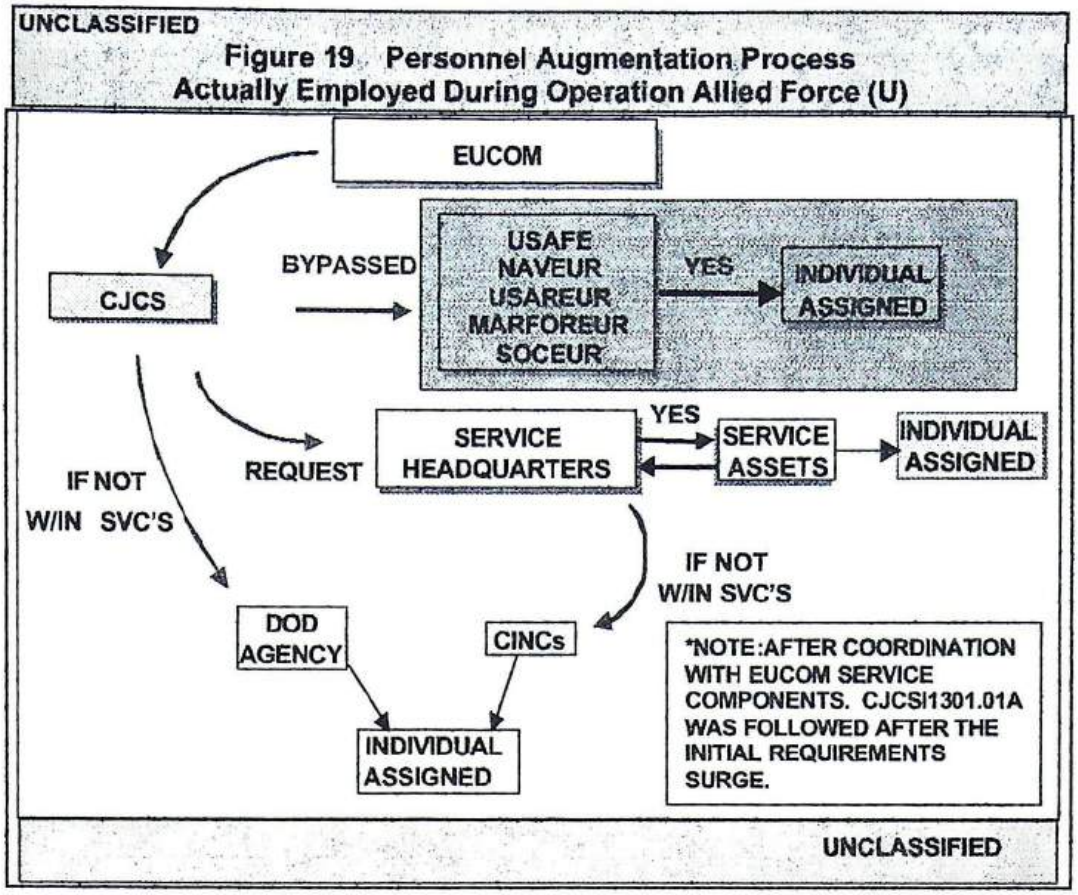
(U) At the onset of Operation Allied Force, the number of military personnel required by U.S. European Command and Joint Task Forces Noble Anvil and Shining Hope exceeded the numbers of trained personnel on hand. This shortfall was further complicated because augmentation personnel were not immediately available from other sources. In many cases, the various joint and combined staffs operating in the theater were competing for personnel with the same skills. Further, the inability of the supported command to specify the type and qualification requirements of augmentees slowed down the process and sometimes placed the wrong person in a needed position. Operation Allied Force provided a crucial test for the process of accomplishing Individual Augmentation.

1. Individual Augmentation Process (U)

(U) The Individual Augmentation process is designed to assign individuals, rather than entire military units, on a temporary duty (TDY) or temporary additional duty (TAD) basis. The procedures to be used to accomplish these assignments are described in detail in Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 1301.01A: *Policy and Procedures To Assign Individuals To Meet Combatant Command Mission Related Temporary Duty Assignments* and illustrated schematically in Figure 18. Because each potential source of augmentation personnel will need to query its subordinate commands before responding, the process is not designed for rapid response.



(U) Due to the need for rapid action during the initial surge, the European Command did not follow the established procedures in requesting the augmentation personnel needed for the CINC's headquarters staff. The Joint Staff then contacted the appropriate Service personnel chiefs and defense agencies to expedite augmentation. This process was not error free, however, and at times resulted in delays and created dual taskings to the Services. The policies and procedures identified in *Chairman of the Joint Chiefs of Staff Instruction 1301.01A* were followed after this initial surge. (The personnel augmentation process actually used during the early phase of Operation Allied Force is illustrated in Figure 19.)



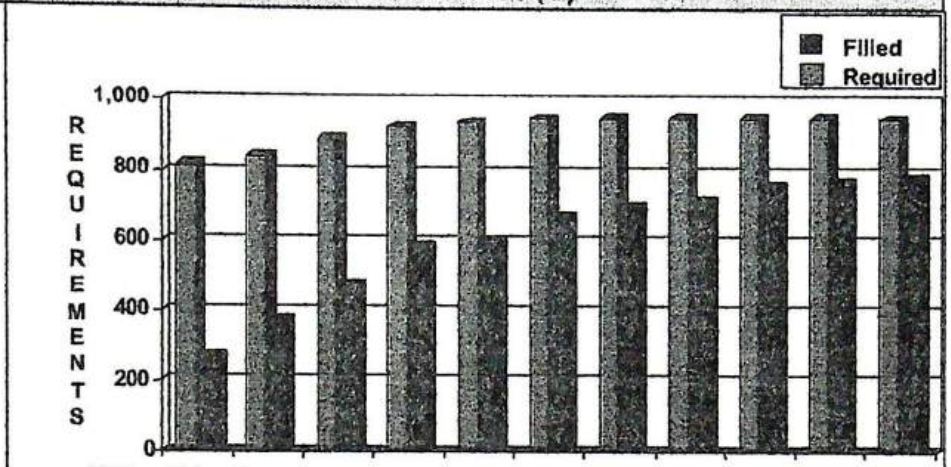
(U) To achieve the manning levels required to support operations in Kosovo, nearly 1,000 individual augmentees were requested. Of these, the European Command accounted for 439 (45 percent), Joint Task Force Noble Anvil for 326 (34 percent), and Joint Task Force Shining Hope for 202 (21 percent). As shown in Figure 20, the affected commands identified the need for nearly all of these personnel at the outset of Operation Allied Force. This surge in demand, coupled with the need for immediate reporting dates in theater and often stringent personnel qualifications [e.g., the need for Top Secret/Sensitive Compartmented Information (TS/SCI) security clearances, or specific foreign language skills], severely stressed CINC and Service force personnel providers.

(U) Although the CINCs and Services made every effort to provide the augmentation personnel sought for Operation Allied Force, not every request could be satisfied. Of particular concern were the 193 vacant personnel billets that had been determined to require an augmentee on an "immediate" basis. Personnel to be moved

into immediate-fill positions were to be identified in only 3 days, a time period that proved too short in many instances. Despite these problems, the personnel process ultimately achieved a fill rate of roughly 82 percent by the end of the campaign (again, see Figure 20.)

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Figure 20 Demand for Personnel Augmentees During Operation Allied Force (U)



TIME	17-Apr	22-Apr	30-Apr	6-May	11-May	18-May	25-May	1-Jun	8-Jun	15-Jun	25-Jun
Required	815	838	888	925	935	946	949	950	950	948	947
Filled	276	373	475	587	603	667	700	711	757	769	776
Percent Filled	34%	45%	53%	63%	64%	71%	74%	75%	80%	81%	82%

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2. Impact on Active Units (U)

(U) As has been seen, the need to flesh out key staff positions in the units assigned to Operation Allied Force imposed a sudden and unanticipated requirement for roughly 1,000 additional personnel (a number comparable in size to a Reinforced Battalion). Moreover, the required skill areas for many of these personnel fell in such critical areas as intelligence, imagery analysis, and communications. (The difficulties incurred in meeting these needs are discussed in more detail in Section B below.) Because the numbers of such personnel are already limited, many of these positions had to be filled by drawing personnel from other active units. Use of this so-called "rip to fill" mode meant that the active unit providing the augmentee was left without its required complement of skilled personnel.

3. Role of Reserve Forces (U)

(U) The Reserve component provides a well-established and ready source of personnel augmentation for staff functions through the Individual Mobilization Augmentee (IMA) program. The utility of this program is evident in that roughly 5,600 Reserve component personnel were mobilized. Of these, nearly 4,000 served in the European theater, accounting for 40 percent of KC-135 tanker aircraft crews and 25 percent of the A-10 attack aircraft crews in theater, and roughly 10 percent of the total number of U.S. military personnel deployed there. While most of the Reserve personnel were committed following the Presidential Selected Reserve Call-up, thousands of Reservists and National Guardsmen voluntarily supported Operation Allied Force. Fifteen of the 19 Air National Guard tanker units that supported Allied Force, for example, had volunteered and deployed aircraft and personnel before the Call-up was announced.

4. Role of Contractors (U)

(U) Contractor support was used or considered for use for a wide array of Operation Allied Force activities. In general, the practice of using civilian contractors worked well, although some difficulties were encountered. Examples of contractor support to Operation Allied Force include:

- Operational support for the Joint Worldwide Intelligence Communications System's Mobile Integrated Communications System (JMICS) and other C4ISR activities
- Linguists, especially Serbo-Croatian and Albanian linguists, for intelligence, special operations, and translation functions
- Transportation of fuel from barges on the Adriatic to locations inland
- Transportation support such as civilian airlift and sealift
- Construction of three refugee camps for displaced Kosovars.

(U) In situations where contractor support is the norm (e.g., some maintenance), the practice was effective. However, in many instances, contractor support was a last resort when organic capabilities were unexpectedly proven to be inadequate. In those cases, the process of hiring contractor support and as well as integrating the contractors into the operation presented some problems. In general, the Department needs to better anticipate instances where contractor support might be required, and have plans in place for rapid implementation. These plans should include mechanisms for quickly

establishing the contractual relationship as well as a thorough definition of what is expected of the contractor and what support the contractor can expect from the military (e.g., force protection).

5. Observations (U)

(U) The primary lessons learned from this experience are that (1) the demand for augmentation personnel should be anticipated in future crises and (2) a process designed to accommodate requests for small numbers of augmentees is not suited to providing large numbers of high demand, uniquely qualified personnel in a fast-moving, large-scale contingency. Accordingly, the Department will undertake the following actions:

- In the near term, the CINCs will develop and disseminate to the Services detailed personnel augmentation plans to support Joint Task Force contingency operations. These plans should identify the personnel billets that will need to be filled during a crisis as well as the component or Service that should be tasked to provide those personnel
- Over the long term, the Joint Staff and Services will examine ways to improve the process used to provide personnel augmentation during times of crisis. Needed actions include identifying the specific responsibilities to be assigned to the CINCs, the Joint Staff, and the Services; setting realistic reporting dates; and establishing a timely reclama process to resolve the inevitable conflicts that will arise when crisis needs are at odds with other Service or agency priorities.

(U) The Department recognizes that major contingencies require ready access to personnel assigned to the Reserve Component. Because a significant fraction of the military's total pool of uniquely skilled personnel resides in the Reserves, it is imperative that Presidential Selected Reserve Call-up be considered early-on, and that a mechanism to identify, fund, and obtain volunteers in the 2-3 weeks leading up to the contingency be developed. These actions would preclude undue stress on other Active Component units, especially those in other theaters.

B. Intelligence Personnel (U)

(U) As indicated above, among the many personnel augmentees called upon during Operation Allied Force were those skilled in such areas as intelligence and imagery analysis, targeting, and Serbo-Croatian linguists. Such skilled people represent the common denominator that ensured the operation's successful outcome across the full range of intelligence support missions. Although intelligence personnel were stressed for

an extended period, they rose to the occasion with enthusiasm, creativity, and flexibility. Important lessons learned regarding the utilization of this important resource are identified here, along with recommended actions to ensure its availability in future crisis situations.

1. Personnel Augmentation (U)

(U) While certain critical skills were in short supply — most notably experienced targeteers, Albanian and Serbian linguists, and multi-discipline collection managers — the collective resources of the Intelligence Community were effectively leveraged and applied to the mission. The Services, Defense Intelligence Agency (DIA), the Central Intelligence Agency (CIA), the National Imagery and Mapping Agency (NIMA), and the National Security Agency (NSA) shifted substantial numbers of resources from other missions to provide dedicated, sustained, and broad support to the crisis in Kosovo.

(U) Augmentation from outside the European Theater was essential because the European Command is not staffed to provide intelligence support to a sustained large-scale contingency. Augmentation was drawn from other Commands, the Services, National Agencies, and the Reserve Forces. The support provided by reserve and contractor personnel proved invaluable, although the skill mix among available augmentees was not always a perfect match with Theater needs. These shortfalls highlight some minor deficiencies in resource allocation and training. As discussed earlier, drawing personnel from active commands caused some degradation in the mission capability and readiness of the donor organizations. Such an approach would invariably cause problems were it used to support an extended operation or if a crisis emerged in a donor command's area of responsibility. Further investment in key skill areas is essential.

2. Role of Other Commands and Agencies (U)

(U) Use of other commands and agencies to provide support to the European Command was a clear success. This includes actions taken by supporting units based in the United States (reach back), actions accomplished entirely by units assigned to other theaters (federation), and actions accomplished by such units working together with European Command units (collaboration). However, it remains to be seen whether institutionalizing the successes realized by federation, collaboration, and reach back will

ultimately reduce the need for physical augmentation in the theater where the crisis or conflict is occurring. What is apparent is that these approaches clearly offer promise.

3. Observations (U)

(U) Augmentation planning is a necessary component of crisis intelligence operations. Given this fact, the Intelligence Community needs to develop a rapid reaction capability that enables the various intelligence agencies to better anticipate requirements, prepare their workforces, and streamline procedures for individual or organizational augmentation. Moreover, the Department can hedge against possible future need for specific low density/high demand skills by better anticipating requirements and building them into the Reserve Forces. Investments must be geared toward developing a rapid reaction capability, comprised of both active and reserve personnel.

(U) Linguist shortfalls are the subject of several ongoing studies. Currently, the Assistant Secretary of Defense (C3I) is developing a strategy, policies, plans, and resource programs to meet the Department's language requirements. The shortfall in linguists is also being reviewed by the Joint Staff, with help from Service language program offices. In a complementary initiative, the National Security Agency has convened a task force to look at all aspects of the linguist issue to ensure that the United States is better prepared to deal efficiently with the full range of potential crisis scenarios. Among the topics of major interest are the development of an overall linguist requirements strategy and the use of contracted services.

(U) The Joint Reserve Intelligence Centers (JRICs) are one example of a new capability that allows Reserve component members of the Intelligence Community to surge and focus resources without deploying to the mission location. Virtual augmentation through online collaboration, federated burdensharing, and reach back have already proved their potential. The Department needs to accelerate similar developments to improve accessibility to the entire pool of intelligence professionals.

C. Training (U)

(U) Operation Allied Force provided invaluable insights into the readiness of our military forces; their capability to execute a small-scale contingency within a coalition structure; and the likely impact of the operations, given current structure and resources, on the Department's ability to execute the National Military Strategy. Not surprisingly, nearly every issue addressed within this report has direct or indirect training readiness

implications. One of the most significant readiness lessons learned, and one which has been repeatedly revealed in the analyses conducted post-Operation Allied Force, is the criticality of and need for Service, joint, and coalition interoperability training.

1. Service Doctrine and Training (U)

(U) Operation Allied Force presented a unique operational and strategic environment for our forces. In some cases, however, Service doctrine and training had not fully prepared us for the missions and conditions that were encountered. As discussed earlier in this report, Apache pilots assigned to Task Force Hawk were not fully prepared, upon their arrival in theater, to fly the full spectrum of combat missions required to support the Joint Force Air Component Commander, and in the existing conditions of poor weather, mountainous terrain, and unmapped flight obstacles to be found in the region. Though professional, motivated, and highly skilled, these pilots required extensive training with night vision goggles. Similarly, Navy pilots had not been fully trained for the mission of providing close-air-support type missions (i.e., locating targets, while minimizing collateral damage) under the unique operational conditions of Allied Force.

2. Interoperability and Joint Training (U)

(U) Operation Allied Force also validated the need for joint, integrated training among the Services to enhance their ability to execute both joint and coalition air operations such as those encountered in Kosovo. Working as a joint team, the capabilities of each Service's aircraft and supporting systems can complement each other to enhance both force survivability and combat effectiveness, and permit the full exploitation of capabilities in contingencies, as well as in major theater wars. The importance of integrated training was also evident in the need for interoperability between the deep-strike assets assigned to Task Force Hawk (Apache attack helicopters and multiple-launch rocket systems) and other deep-strike assets such as fixed-wing aircraft and their command-and-control network. Operation Allied Force underscores the criticality of joint doctrine, interoperability training, and supporting Service doctrine, tactics, techniques, and procedures. Greater emphasis must be placed on interoperability training among our own forces, with those of our allies, other nations, and partners; as well as on interagency training within our Government.

D. Force Health Protection (U)

(U) Force Health Protection (FHP) efforts played a pivotal role in the success of Operation Allied Force. The United States was simultaneously committed to a contingency operation and a large-scale humanitarian relief operation, with medical personnel heavily engaged in both. What may not be readily apparent is the evolving doctrine of Force Health Protection, which is increasing the role of medical surveillance and preventive medicine in the conduct of contingency operations. Military medical care has evolved steadily from reliance solely upon the treatment of casualties to a more balanced approach that adds the principles of casualty prevention and a healthy and fit force. These principles have become a force multiplier to DoD's success in providing health support for its personnel. Three aspects of health protection merit further attention.

1. Health Assessment Screening (U)

(U) Pre-deployment and post-deployment health assessment screening compliance was inconsistently implemented. Some units deploying to the Kosovo area of responsibility did not complete medical assessments as directed in the USEUCOM Deployment Order (DEPORD) and as required by DoD Directive 6490/2; DoD Instruction 6490.3; Assistant Secretary of Defense (Health Affairs) Memorandum *Policy for Pre and Post Deployment Health Assessments* (dated 6 October 1998); and Joint Staff Memorandum (JCS MCM 251-98, dated 4 December 1998) *Deployment Health Surveillance.* Pre-deployment surveys provide extremely valuable medical information about the health of deploying forces and enable medical personnel to identify disease trends far earlier than if no surveys were taken. Post-deployment surveys provide crucial retrospective information to identify Service members who may be at risk of developing illnesses months or years after returning to their home stations. Commanders assigned to theater CINCs, Joint Task Forces, and the Services must ensure that medical screenings are completed.

2. Access to Healthcare (U)

(U) Deployment of military health care teams in support of Operation Allied Force resulted in reduced accessibility to healthcare benefits for military personnel and dependents who remained at the home bases of deployed units. TRICARE contracts did not fully fill all the gaps caused by deploying providers. As a result, beneficiaries had

difficulties getting all of the health care benefits that TRICARE is supposed to provide. Deployment of healthcare resources in support of contingency operations creates unprogrammed and expensive TRICARE requirements that can place an extreme hardship on medical treatment facilities and beneficiaries. Consequently, the Services must plan for rapid augmentation or backfill of military healthcare personnel to these facilities as soon as feasible. In addition, a TRICARE contract contingency plan that provides for additional contract support is needed.

3. Deployed Health Services Support (U)

(U) Operation Allied Force underscored the disconnect between the current structure of Service medical units that are based on a two-major-theater-war strategy and the reality of medical mission requirements in multiple, smaller-scale contingencies. Many of the Service medical units currently in use are sized for a major theater war and are cumbersome when used for smaller-scale contingency deployments. Moreover, these units are not well suited for rapid deployment. Army and Navy hospital assets, for example, are large and heavy, and thus require use of substantial lift assets when they must be deployed. Their lack of modularity simply does not permit rapid operational support in smaller-scale contingencies. The Air Force's Expeditionary Medical Support (EMEDS) and Air Force Theater Hospital (AFTH) are modularized, able to rapidly deploy to provide forward stabilization, and provide tailored force packages to meet the requirements of theater commanders across the full spectrum of military and humanitarian operations.

X. IMPACT ON OTHER OPERATIONS (U)

(U) Given the size of the military force that was deployed to carry out Operation Allied Force, the potential for adverse impacts on other U.S. commitments around the world seems clear. The causes and implications of the most important impacts that were observed are explored here.

A. Allied Force Impact On Major Theater War Operation Plans (U)

(U) As noted previously, if the threat of major theater war had developed in another theater during Operation Allied Force, the United States would have taken all actions necessary to prevail. In order to provide the full array of combat capabilities necessary to meet our MTW objectives, we would have likely reduced the tempo of U.S. operations over Kosovo to make certain specialized air assets ? particularly RC-135 aircraft and aerial refueling platforms ? available for higher priority missions. The Department has always recognized that, if confronted with two major theater wars, we would need to withdraw U.S. forces from ongoing peacetime activities and smaller-scale contingency operations as quickly as possible ? including, in this instance, from Operation Allied Force ? to prepare them for war. Consistent with our defense strategy, U.S. forces could not have continued the intense campaign in Kosovo and, at the same time, conducted two major theater wars.

(U) Accordingly, the Department continuously assessed the impact of these operations on our ability to defend effectively in other theaters. As discussed previously, the Department initiated a number of actions to mitigate the risk in other theaters by enhancing our deterrent posture in those theaters. Ultimately, should we have faced the challenge of withdrawing U.S. forces to mount two major wars in defense of our vital interests elsewhere, we are confident that we would have been able to do so, albeit at higher levels of risk. We were cognizant of these risks at the time and made various adjustments in our posture and plans to address them. At the same time, we recognize that managing these risks is a highly complicated endeavor that would benefit from a more structured and dynamic set of tools for assessing our ability to conduct major wars when we respond to contingencies.

(U) As previously discussed, Operation Allied Force represented an MTW's level of effort for some key air assets, particularly the so-called Low Density/High Demand (LD/HD) assets, as well as selected tactical aircraft, airlift aircraft, and refueling tankers. The high demand for these aircraft was met by deploying aircraft from the forces assigned to the Commanders in Chief of theaters outside Europe. To mitigate the risk to the affected commands, equivalent type aircraft stationed in the continental United States were placed on alert and issued orders to be prepared to deploy on short notice

(U) Risk analysis is important in judging force readiness where commitments are made to support important and necessary operations but do not involve our vital interests. Some smaller-scale contingencies may be in this category. Probable future commitments make it important to enhance the Department's process for providing timely assessment of the impact of smaller-scale contingencies on the ability to execute the overall defense strategy. The complexities of assessing risk and taking operational measures to reduce risk during Operation Allied Force provided insights as to refinements in our process that can be made. For example, some improvements can be gained by ensuring that theater CINCs and the Services fully utilize the deployment-order coordination process for risk analysis. When coordinating deployment orders, CINCs can assess the impact of orders to deploy forces from their command to other theaters (i.e., to "swing" forces from one theater to another) on their ability to execute the defense strategy and, when possible, identify measures that can reduce risk. Another possible improvement is the Readiness Assessment System (RAS) currently in development by the Defense Information Systems Agency (DISA). This system holds promise to provide a user-friendly, Web-based tool that allows users to view time-phased force and deployment data that supports an operational plan. The Readiness Assessment System can assist theater CINCs, the Joint Staff, and the Services in performing risk analysis. The Department will continuously strive to refine our process for timely assessment of risk.

B. Joint Staff and Joint Force Issues (U)

(U) In April 1999, NATO took advantage of its 50th Anniversary Summit in Washington, DC to discuss the Balkan crisis and to issue a new strategic concept. This concept reaffirmed NATO's commitment to collective defense, but also stated that "to enhance the security and stability of the Euro-Atlantic area," NATO will "stand ready, case by case and by consensus...to contribute to effective conflict prevention and to engage actively in crisis management, including crisis response operations." In this

context, Operation Allied Force was a textbook example of the type of challenge that NATO envisioned as it developed this new strategic concept.

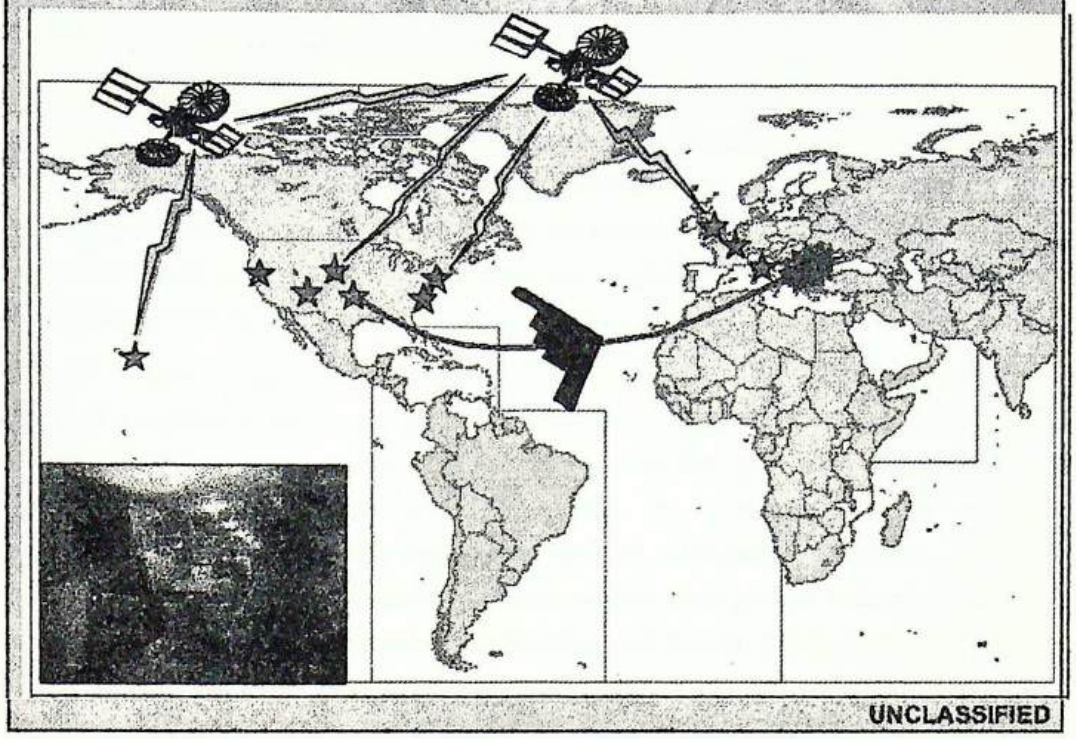
(U) The new strategic concept reflects the realistic view that the U.S. role in future NATO operations is likely to fall somewhere between full-scale combat operations in defense of the alliance and peace support activities. To conduct such operations, which fall outside the normally planned Article-V mutual-defense requirements of the North Atlantic Treaty, existing U.S. military capabilities in Europe will need appropriate augmentation. The vehicle used for providing forces is the Joint Strategic Capabilities Plan (JSCP), which apportions military forces to the various regional commanders for planning purposes. Future editions of this plan will need to consider and apportion appropriate forces for the Commander in Chief of the U.S. European Command to use to support planning for these NATO crisis management and crisis-response operations. To enhance the deliberate planning available to support the most likely NATO scenarios, the Joint Strategic Capabilities Plan will be reviewed for adequacy and updated as required.

C. Global Force Integration (U)

(U) Our ability to reach-back and use capabilities in the continental United States to perform functions formerly accomplished only in the theater of military operations is one of the highlights of Operation Allied Force. Such capability improves responsiveness to urgent requirements in a conflict and reduces the amount of equipment and the number of personnel that must be transported to the theater. In short, the capability to integrate our force globally yields significant improvements in our ability to respond to crises, particularly during their initial stages. Figure 21 depicts the concept of global force integration.

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Figure 21 Global Force Integration Concept (U)



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(U) Extensive growth in communications capacity enabled an unprecedented degree of reliance on U.S.-based forces to provide direct support for in-theater tasks. Targets in Kosovo and the Federal Republic of Yugoslavia were developed through the concerted effort of numerous agencies in the United States cooperating closely with commands in Europe. Planning and integration of cruise missile attacks by bombers operating from the continental United States and the United Kingdom and by ships and submarines operating in the Mediterranean were closely coordinated by commanders and planners who were widely separated geographically. Bomb damage assessments of strikes made against targets in theater were conducted by agencies and commands located in the United States in close support with efforts by commands in the European theater. This system of using geographically dispersed activities to perform and integrate bomb damage assessment (BDA) became known as federated BDA. Expert personnel located in the United States and Europe performed detailed planning of information operations.

Kosovo operations continued a trend of increasing global integration of U.S. forces and commands to support operations in a distant theater.

(U) The European Theater's unprecedented reliance on organizations and personnel in the United States and elsewhere was enabled by advances in information technology. High-capacity communications made possible the exchange of large amounts of data such as high-resolution imagery and secure video teleconferencing. In addition, extensive growth and availability in defense data and communications networks enabled unprecedented coordination by staff members in European commands and supporting commands outside Europe by secure e-mail. Secure high-capacity networks using Web-based technology permitted personnel engaged in theater to access up-to-date information posted for their use on military Web sites around the world.

(U) Space support was instrumental to our success. Satellite communications provided a significant portion of the communications capacity and were a major enabler of the global integration of our forces. Global Positioning System (GPS) satellites provided highly accurate navigation necessary for synchronization of complex operations, conduct of precision strikes, and input to GPS-guided weapons. Increased use of recently available GPS-guided weapons signals even greater reliance on satellite navigation. Weather satellites provided detailed and timely information necessary to exploit locally favorable environmental conditions for strikes. Reliance on space continues to grow in our military operations. Space operations during Allied Force illustrate our dependence on widely dispersed global capabilities that were effectively integrated.

(U) Integration of global forces during Kosovo operations provides insight to the design of future exercises and training required for increasing our proficiency in the complex actions necessary for integrating a global force. While our focus is on theater operations, the Department must exercise the global capabilities required in support of theater operations. Additionally, the Department must recognize the need to deploy forces in a myriad of unpredictable scenarios requiring new levels of adaptability and flexibility in global interoperability and integration.

(U) As discussed in detail in Chapter IV, our experience in integrating worldwide capabilities during Operation Allied Force highlights the importance of the joint operational architecture concept. This architecture would define the relationships between forces and commands involved in complex operations. A joint operational architecture would also serve as the basis for developing technical architectures to

support warfighters' needs, and for prioritizing resources and training requirements. These technical architectures would be defined for the spectrum of global threats and would identify any organizational changes required to support the National Military Strategy.

XI. SUMMARY OF MAJOR OBSERVATIONS (U)

A. Alliance and Coalition Warfare (U)

(U) Although Operation Allied Force was successful, our experience revealed the need for improvements both in the way we function as a government and in the way that NATO functions as an alliance.

1. Interagency Planning (U)

(U) ***Expand Scope of Policy Actions Considered during Planning.*** The interagency planning process could be improved by expanding the scope of policy tools considered. As it was executed, the interagency planning process (1) helped to mobilize and coordinate the activities of different agencies, (2) identify issues for consideration by National Security Council Deputies, (3) provide planning support for international organizations (e.g., OSCE and United Nations), and (4) develop benchmarks for measuring progress. This political-military planning played an important role in ensuring that the United States achieved the objectives set forth by the President. At the same time, it is now possible to identify an important area for improvement. Planning focused on air strikes and diplomacy as the primary tools to achieve U.S. and NATO objectives. As it became clear that Milosevic intended to outlast the alliance, more attention was paid to other ways of bringing pressure to bear, including economic sanctions. While ultimately these instruments were put to use with good effect, more advance planning might have made them more effective at an earlier date. In addition, our experience in Operation Allied Force has shown that Presidential Decision Directive 56 (PDD-56), *Managing Complex Contingency Operations*, had not yet been fully institutionalized throughout the interagency planning process. To remedy this shortcoming, the U.S. Government agencies involved in interagency planning have applied the lessons learned to further institutionalize PDD-56. The routine participation of senior officials in rehearsals, gaming, exercises, and simulations will further strengthen awareness of the broad range of available policy tools.

2. Political-Military Process (U)

(U) ***Improve NATO Political-Military Process.*** As previously discussed, NATO's political-military command structure played an important role in the planning and execution of the operation. NATO's command structure worked well, but parallel U.S. and NATO command and control structures complicated operational planning and unity of command. These structures are well defined, but had not been used previously to plan and conduct sustained combat operations. Despite the overall success of NATO's processes, the Department will work with our allies to:

- Enhance NATO's contingency planning process for operations outside the NATO area
- Develop an overarching command-and-control policy and agree on procedures for the policy's implementation
- Enhance procedures and conduct exercises strengthening NATO's political-military interfaces.

3. NATO Capabilities (U)

(U) ***Encourage NATO Defense Capabilities Initiative.*** If NATO is to meet future military challenges effectively, it must successfully implement the Defense Capabilities Initiative. Accordingly, the United States will continue to promote the Defense Capabilities Initiative and encourage experimentation by NATO's members with new and advanced warfighting concepts.

(U) ***Develop Alliance C4 Policy.*** The United States must work with our NATO allies to develop an overarching command-and-control policy and an agreement on procedures for the policy's implementation. To accomplish this, we will develop additional policy and agreements, or ensure more effective implementation and enforcement of existing agreements, in the following key areas:

- Collaboration on allocation of limited bandwidth and communications assets to alliance members
- Establishment of network integration training standards for Joint Task Force command, control, communications, and computers
- Management of the electromagnetic spectrum to optimize operations and to avoid mutual interference in support of Joint Task Forces
- Implementation and enforcement of coalition agreements on network security
- Improvements in timely compliance with NATO Standardization Agreements

- Improvements in interoperability by focusing on overarching standards and architectures rather than hardware
- Refinements in the policy and process of releasing information
- Acceleration of Host Nation Agreement processes affecting extensive networks of command, control, communications, and computers for Commanders of Joint Task Forces.

(U) ***Accelerate Development of Allied Joint Doctrine.*** Because the development of Allied Joint Doctrine has been slower than desired, the Department is currently reviewing U.S. procedures for participating in the development process. We believe NATO also needs to streamline its procedures for doctrine development and approval. Accordingly, the Department will engage NATO's Military Committee and High Level Steering Committee to facilitate these improvements.

B. Force Deployment (U)

(U) The deployment of U.S. forces to Operation Allied Force was, from an overall perspective, highly successful, especially given the compressed planning timeline and the great distances that forces were moved.

1. Deployment Checklist (U)

(U) ***Develop Deployment Checklist.*** To build on this success in future conflicts, the Department is developing an appropriate checklist for use by U.S. negotiators to ensure our international agreements contain critical host nation support for military operations plans and contingency operations. Items that will be considered for inclusion in these checklists are: designated points of entry and departure, customs, overflight authorization, use of radio frequencies, air traffic control, blanket diplomatic clearances, basing rights, facility access agreements, coalition contracting procedures, connectivity, force protection, site surveys and update process, site explosive material handling plan, and weapon storage. Implementation of such international agreements will facilitate quicker access and assist in realizing the Joint Vision 2010 goals of rapid deployment, as well as rapid employment and immediate sustainment.

2. Aerial Refueling Forces (U)

(U) ***Review Aerial Refueling Capabilities.*** The Department is reviewing its aerial refueling forces and crew levels to determine whether they are sufficient to meet

future needs in major theater wars or other contingencies. The Department is also reviewing options for improving our capability to plan in theater, in real time, for the most effective use of our aerial refueling fleet.

3. Deployment Planning Tools and Procedures (U)

(U) ***Improve Deployment Planning Capabilities.*** The Department is reviewing the suite of tools used to generate time-phased force and deployment data with the goal of providing a more seamless system for planners at every level. However, improving the automated planning systems is only part of the solution to eliminating delays in the process used to generate Time-Phased Force and Deployment Data (TPFDD) for an operation, especially one that is unplanned. To ensure that existing deployment-planning tools are used effectively, the Department will also provide more deployment-oriented continuation training from the highest staff levels down to the lowest. The Department also continues to pursue long-term, end-to-end solutions for this aspect of deployment planning.

4. In-Transit Visibility (U)

(U) ***Improve In-Transit Visibility.*** The Department will continue to develop internal in-transit visibility plans that leverage the technical in-transit visibility capabilities that are being developed and deployed by the Services and other agencies. The Department is also evaluating the need for additional joint doctrine and procedures to link strategic and theater in-transit visibility into an integrated process so as to provide commanders with a much clearer picture of the status of deploying units, equipment, and supplies.

5. Role of Airlift (U)

(U) ***Continue To Support C-17 Program.*** The Department will provide continued strong support for the C-17 program. The performance of the Air Force's C-17A airlifters was one of the great success stories of Operation Allied Force. The planes flew half of the strategic airlift missions required during the operation. Their capability to land on small airfields and to accommodate rapid offloading of cargo were particularly important.

(U) ***Examine Utility of Placing Strategic Airlift under Theater Control.*** The Department is also examining the structure and concepts of operation employed at the Air

Mobility Operations Control Center to determine if they are applicable to other theaters. To accommodate the deployment demands associated with Task Force Hawk, the U.S. Transportation Command, for the first time, gave a theater tactical control of a significant number of strategic airlift aircraft for a specific deployment. An established mechanism for temporarily placing strategic airlift aircraft under theater control may be of great help in major theater wars if commanders are faced with sudden, large intratheater lift requirements.

6. Joint Logistics Over-the-Shore Capability (U)

(U) ***Review Joint Logistics Over-the-Shore Capabilities.*** The Department will review its requirements for Joint Logistics Over-the-Shore (JLOTS) systems and similar logistics enablers. Although our JLOTS capability was not needed in Operation Allied Force, the Department must ensure that we have adequate capability to provide logistics support across a broad range of major theater wars and smaller scale contingencies.

C. Force Direction (U)

(U) Command, control, and communications systems and facilities provide essential force direction capability. While the command, control, and communications capabilities available during Operation Allied Force enabled effective application of U.S. and NATO forces, some shortcomings were apparent. These are discussed below.

1. Air Operations Center (U)

(U) ***Develop Expeditionary Air Operations Centers.*** Operation Allied Force highlighted the need for the Department to develop expeditionary air operations centers and equip them with supporting resources and manpower to enable U.S. forces to create combined air operations centers that can be tailored to the crisis at hand and deployed quickly. Future conflicts will continue to require appropriate command-and-control centers to effectively execute and manage the joint force commander's strategy and execution plans. If such centers are to be effective, they cannot be set up from scratch.

2. Joint Tactical Data Connectivity and Control (U)

(U) ***Establish Joint Interface Control Officers on CINC Staffs.*** The Department is staffing a joint requirement for the Joint Interface Control Officer (JICO) organization to fill authorized positions on CINC headquarters staffs. The JICO is the only activity

that is trained to integrate tactical data systems at a joint level. At present, however, theater CINCs are currently not authorized to include elements of this organization within their headquarters. Consequently, during Allied Force, the JICO school at U.S. Army Forces Command dispatched its cadre of trainers to Europe to support the operation. The JICO school has now been reestablished at Joint Forces Command, where it will need strong support, including the development of automated tools and the right people.

(U) ***Provide Secure Joint Tactical Data Link.*** The Department must develop a joint, secure, tactical data-link capability across all strike platforms to allow real-time data exchange and precision-target processing between sensors and shooters, and to establish a robust common-tactical picture.

3. Joint Operational Architecture (U)

(U) ***Develop Joint Operational Architecture.*** To address interoperability deficiencies in the near term, the Department needs to develop a concept of operations for joint and coalition warfare that identifies interoperability shortfalls and defines contingency plans. For the long term, the Department must consider construction of an end-to-end joint operational architecture that provides a roadmap for U.S. and NATO acquisition strategies.

D. Intelligence and Targeting Support (U)

(U) The overall quality and level of intelligence, surveillance, and reconnaissance (ISR) support provided during Operation Allied Force was far superior to that provided during the Gulf War. Moreover, many of the intelligence system and architecture shortfalls that surfaced during Allied Force had been recognized prior to the crisis and remedies had been programmed. Others, however, became evident for the first time.

1. Intelligence Support (U)

(U) ***Improve Federated Intelligence Capability.*** The Department will continue to develop and refine tactics, techniques, and procedures to guide our federated intelligence efforts. The Department will also reassess the communications systems needed to support our increased reliance on federation, taking into account the needs for deployable systems and technicians. In addition, the Department must develop a clear policy and implementation plan to explain when and how coalition partners can be connected to U.S. networks and when and how data can be shared with those partners.

2. Intelligence, Surveillance, and Reconnaissance Systems (U)

(U) ***Enhance the Employment of ISR Assets.*** The Department will identify innovative and affordable ways to enhance the employment of low-density/high-demand ISR assets. In particular, the Department will identify ways to adjust the deployments of ISR platforms dynamically so as to provide adequate support for emergent theater-level requirements while maintaining required levels of surveillance and intelligence awareness in other areas of the world.

(U) ***Improve ISR Sensors and Communications Capability.*** The Department must also develop better sensors and communications to improve our capability to target an adversary's mobile-fielded forces. We also need to emphasize rapid collection and dissemination of no-strike target information to avoid collateral damage.

3. Unmanned Aerial Vehicles (U)

(U) ***Improve Capability To Use Unmanned Aerial Vehicles.*** To enhance U.S. capability to use unmanned aerial vehicles (UAVs), the Department is investigating specific technical and training improvements. In addition, the Department will improve the tactics, techniques, and procedures that guide UAV operations so as to better integrate these systems in overall campaign plans.

4. Precision Intelligence (U)

(U) ***Improve Precision Intelligence Capability.*** To improve U.S. capability to provide precision intelligence, the Department will focus on specific technical enhancements.

5. Countering Camouflage, Concealment, and Deception Tactics (U)

(U) ***Improve Capability To Counter an Adversary's Use of Camouflage, Concealment, and Deception.*** The Department must devise better means to counter the use of camouflage, concealment, and deception tactics by potential adversaries. Greater emphasis needs to be placed on the development of advanced sensors and improved training.

E. Force Protection (U)

(U) From a force protection perspective, Operation Allied Force was among the most successful major military actions in modern history. Despite a determined enemy,

NATO defense forces quickly fought and won control of the air, ensuring that its forces enjoyed complete safety and freedom to maneuver outside the borders of the Federal Republic of Yugoslavia.

1. Suppression of Enemy Air Defenses (U)

(U) ***Prepare for State-of-the-Art Air Defense Threats.*** While NATO prevailed in delivering an overwhelming air offensive with virtually no loss to its forces, we must acknowledge some concerns for the future. Although the Yugoslav air defense systems were among the most capable that U.S. forces have ever faced in combat, those defenses do not represent the state of the art. Much more capable air defense systems are currently available for sale in the international arms market. The Department needs to prepare for the possibility that, in the years ahead, the United States may face an adversary armed with state-of-the-art air defense systems.

(U) ***Enhance Capability To Locate and Attack Air Defense Threats.*** The Department is investigating ways to improve our capability to attack hostile radar and missile systems.

(U) ***Develop a Comprehensive Air Defense Suppression Capability.*** Our experiences in Operation Allied Force re-emphasized the importance of having a comprehensive air defense suppression capability. Accordingly, the Department is conducting a detailed and thorough study of our joint air-defense suppression capabilities.

2. Personnel Recovery (U)

(U) ***Designate and Train Combat Search and Rescue Forces.*** Because personnel recovery operations are among the most complex and dangerous missions undertaken by our forces, the combatant commands must include appropriate personnel recovery training in joint exercises. Moreover, this training must include the full spectrum of recovery operations. In addition, the combatant commands should designate in contingency and operation plans a primary combat search-and-rescue force for each component and joint task force and should then ensure that these forces train appropriately.

3. Communications and Operations Security (U)

(U) ***Provide Secure Telephone Capability.*** Over the near term, regional commanders and the Services will review their distribution and allocation plans for

secure telephones to ensure that sufficient numbers are available to enable U.S. forces to communicate with allies and coalition partners. Over the long term, the Department has developed a strategy for achieving secure interoperability with our allies and coalition partners that relies on the new Secure Terminal Equipment.

(U) ***Facilitate Distribution of Intelligence Products to Warfighters and Allies.*** The Department will explore ways to permit intelligence and other information to be classified at the lowest possible classification level in order to ensure its availability to warfighters and coalition partners, while still protecting intelligence sources and methods.

(U) ***Maintain Operational Security.*** To further enhance operational security, the Department will ensure that all personnel (especially augmentees) receive appropriate training in security procedure awareness.

(U) ***Protect Computer Networks.*** To ensure that DoD computers are protected from deliberate attack, the Department will appropriately restrict access to sensitive information that could be useful to either a wartime adversary or computer hackers. We will also ensure that system administrators emphasize computer security during training and that they implement all available hardware and software security features.

(U) ***Counter Hostile Intelligence Collection Efforts.*** Because the United States and NATO are among the highest-value targets of many foreign intelligence organizations, U.S. counterintelligence agencies must provide adequate capability to detect, identify, deter, and neutralize hostile intelligence collection efforts.

4. Joint Deep Operations (U)

(U) ***Develop Joint Concepts for Employing Army Attack Helicopters and Tactical Missiles.*** The Department will develop Joint Deep Operations concepts to guide the employment of Army attack helicopters and tactical missiles in support of overall operations. The concepts will include procedures for including Army assets on the Air Tasking Order, when appropriate. In addition, the Department will continue to evolve standard tactics, techniques, and procedures for integrating Army Tactical Missiles into Joint and Combined operations. We will then reinforce these concepts and procedures through appropriate joint training exercises. Finally, the Department will explore technological innovations (e.g., using unmanned aerial vehicles or other airborne platforms to find and designate targets for attack helicopters) and attendant equipment upgrades that will improve our ability to integrate air operations.

F. Target Attack (U)

(U) Operation Allied Force was notable for its heavy reliance on standoff and precision-guided munitions to attack targets and by the successful introduction of new strike platforms and weapons. In the main, however, the campaign was primarily and successfully prosecuted by systems and platforms that have long been in the inventory.

1. Precision Engagement (U)

(U) ***Enhance Precision Engagement Capability.*** To improve U.S. capability to conduct precision engagement, the Department will continue to assess technologies that will ensure flexibility and enable all-weather precision strikes. In addition, the Department will continue to pursue technologies that will process, exploit, and disseminate target information in a timely manner to support precision engagement.

2. Preferred Munitions (U)

(U) ***Enhance Capability To Use Preferred Munitions.*** The latest generation of air-delivered munitions was employed in substantial numbers for the first time during Operation Allied Force. Throughout the conflict these weapons were highly successful in hitting their intended targets and in producing the intended results, while limiting collateral damage to civilians. To further enhance U.S. capability to use these weapons effectively, the Department will:

- Continue Service initiatives to replenish inventories of preferred munitions.
- Continue to assess development of weapons that fill gaps and shortfalls in current capabilities and pursue their subsequent certification on launch platforms.
- Assess methods to determine wartime planning factors affecting expenditure rates.
- Assess future weapon inventories to achieve the proper balance of capabilities for future requirements.

3. Information Operations (U)

(U) ***Improve Information Operations Planning.*** The Department will ensure that information operations planning is initiated early and synchronized with other operational plans.

G. Logistics and Force Sustainment (U)

(U) The magnitude of the forces employed to Operation Allied Force and the limited availability of logistics infrastructure presented particular challenges to the logistics units and personnel tasked with sustainment operations. The implications of the most important of those challenges are summarized below.

1. Preferred Munitions (U)

(U) ***Reexamine Allocation of Preferred Munitions.*** In light of the high demand for preferred munitions during Operation Allied Force, the Department will reexamine the allocation of preferred munitions to the different theaters. This assessment will reconcile the demands of smaller-scale contingencies with other operational plans so as to minimize the risk to our overall military posture.

(U) ***Reexamine Prepositioned Munitions Mix.*** In a similar vein, the Department will reexamine the mix of preferred and non-preferred munitions in its prepositioned munition stockpiles.

2. Engineer Assets (U)

(U) ***Provide Timely Engineering Capability.*** To ensure that theater CINCs have sufficient engineer support for rapid response contingencies in their theaters, the Department will investigate options for establishing different mixes of forward-deployed engineer assets. The Department will also examine its requirement for air-deployable engineer assets.

3. Humanitarian Assistance (U)

(U) ***Ensure Adequate Coordination of Humanitarian Assistance Operations.*** To ensure that future humanitarian assistance operations are conducted as effectively and efficiently as possible, the Department will explore such activities as exchanging liaison officers and conducting humanitarian assistance training exercises. When conducting humanitarian assessments at the outset of a crisis, the Department will closely coordinate, or perhaps even combine, its activities with those of other U.S. Government agencies involved.

H. Personnel and Training (U)

(U) Our people made Operation Allied Force a success. They were well trained, disciplined, and creative. The paramount lesson learned from this operation is that the well being of our people must remain our first priority. Other important aspects of mobilizing people in support of the operation are summarized here.

1. Personnel Augmentation (U)

(U) ***Develop Personnel Augmentation Plans.*** In the near term, the theater CINCs will develop and disseminate to the Services detailed personnel augmentation plans to support Joint Task Force contingency operations. We expect these plans to identify the personnel billets that will need to be filled during a crisis as well as the component or Service that should be tasked to provide those personnel.

(U) ***Improve Personnel Augmentation Process.*** Over the long term, the Joint Staff and Services will work to improve the process used to provide personnel augmentation during times of crisis. Actions include identifying the specific responsibilities to be assigned to the theater CINCs, the Joint Staff, and the Services; setting realistic reporting dates; and establishing a timely reclama process to resolve the inevitable conflicts that will arise when crisis needs are at odds with other Service or agency priorities.

2. Reserve Component (U)

(U) ***Ensure Access to Reserve Component Personnel.*** Because a significant fraction of the military's total pool of uniquely skilled personnel resides in the Reserves, a Presidential Selected Reserve Call-up should be considered early on in future contingencies to preclude undue stress on other Active Component units, especially those in other theaters.

3. Intelligence Personnel (U)

(U) ***Develop Rapid Reaction Intelligence Support Capability.*** The Intelligence Community will develop a rapid-reaction capability that enables the various intelligence agencies to better anticipate requirements, prepare their work forces, and streamline procedures for individual or organizational augmentation.

4. Training (U)

(U) ***Emphasize Joint Interoperability Training.*** The Department will place greater emphasis on interoperability training among our own forces, with those of our allies, other nations and partners, as well as on interagency training within our Government. When the Services work as a joint team, each Service's capabilities and systems can complement those of the other Services to enhance both force survivability and combat effectiveness, and permit the full exploitation of their operational capabilities.

I. Impact on other Operations (U)

(U) Given the size of the military force deployed for Operation Allied Force, the potential for adverse impacts on other U.S. commitments around the world seems clear. The implications of the most important of these are summarized here.

1. Major Theater War Operation Plans (U)

(U) ***Ensure Use of Deployment Order Coordination Process.*** The Department will ensure that our theater commanders in chief and the Services fully utilize the deployment-order coordination process when conducting risk analysis. Over the long term, the Readiness Assessment System should assist the CINCs, Joint Staff, and Services in performing risk analysis. We expect this system to provide a user-friendly, Web-based tool that allows users to view time-phased force and deployment data that supports operational plans.

(U) ***Improve Conflict Assessment Tools.*** In addition, the Department will pursue a more structured and dynamic set of tools to assess our ability to conduct major wars while at the same time responding to contingencies. The desired tools should also enable the Department to gauge the risks that contingency operations pose to our ability to execute the overall defense strategy.

2. Joint Staff and Joint Force Issues (U)

(U) ***Apportion Forces To Support NATO's New Strategic Concept.*** The Department will ensure that future editions of the Joint Strategic Capabilities Plan (JSCP) consider and apportion appropriate forces to the U.S. European Command for use in supporting NATO crisis management and crisis-response operations.

(U) ***Add a Dynamic Assessment Capability to the Joint Monthly Readiness Review.*** The Department will expand the Joint Monthly Readiness Review to enable rapid, internal, and dynamic assessment of force-deployment options and to capture their impacts on competing requirements.

3. Global Force Integration (U)

(U) ***Emphasize Global Focus when Organizing and Training Forces.*** The Department will continue to develop a global focus in U.S. military organization and training. Accordingly, we will improve both doctrine and training as well as our capability to organize and equip our forces to meet the demands of global engagement. When designing future exercises and training, the Department will include the global capabilities that are required to support theater operations. While our forces must necessarily focus on their respective theaters, we need to increase their proficiency in the complex actions necessary for integrating a global force. Additionally, we will encourage new levels of adaptability and flexibility in global interoperability and integration so that our forces are better prepared for unpredictable scenarios.

(U) ***Include Global Engagement in Emerging Joint Operational Architecture.*** The Department also intends to incorporate global engagement tenets in our emerging Joint Operational Architecture. Our experience in integrating worldwide capabilities highlights the importance of a Joint Operational Architecture that defines the relationships between the forces and commands involved in complex operations. This architecture will also serve as the basis for developing technical architectures to support warfighters' needs and prioritize resources and training requirements. Eventually, we expect to develop similar architectures for the spectrum of global threats as well as to identify and describe the organizational changes necessary to support the National Military Strategy.

GLOSSARY

A/C	Aircraft
AAA	Antiaircraft Artillery
AAR	After-Action Report
ABCCC	Airborne Battlefield Command and Control Center
ACC	Airspace Control Center
ACE	Allied Command Europe
ACOM	United States Atlantic Command
ACS	Auxiliary Crane Ship
ACTD	Advanced Concept Technology Demonstration
ADA	Air Defense Artillery
ADM	Admiral
ADVON	Advanced Echelon
AEF	Air Expeditionary Force
AETACS	Airborne Elements of the Theater Air Control System
AEW	Airborne Early Warning
AF	Air Force
AF/CC	Air Force Commander
AFCAP	Armed Forces Contract Augmentation Program
AFFOR	Air Forces Force
AFTH	Air Force Theater Hospital
AGM	Air-to-Ground Missile
AH	Attack Helicopter
AIRSOUTH	Allied Air Forces, Southern Europe
AIS	Air Intelligence Squadron
AIT	Advanced Interceptor Technology
AJD	Allied Joint Doctrine
AMC	U.S. Air Force Air Mobility Command
AMOCC	Air Mobility Operations Control Center
AOR	Area of Responsibility
APOD	Aerial Port of Debarkation

APOE	Aerial Port of Embarkation
APS	Afloat Prepositioned Ship
ARG	Amphibious Ready Group
Arty	Artillery
ASIT	Adaptable Surface Interface Terminal
ASOC	Air Support Operations Center
ATACMS	Army Tactical Missile System
ATARS	Advanced Tactical Air Reconnaissance System
ATM	Air Target Material
ATO	Air Tasking Order
AVN	Aviation
AWACS	Airborne Warning and Control System
B/H	Bosnia and Herzegovina
BC2A	Bosnia Command-and-Control Augmentation
BCD	Battlefield Coordination Detachment
BCE	Battlefield Coordination Element
BDA	Battle Damage Assessment
BMDO	Ballistic Missile Defense Organization
C2	Command and Control
C2ISR	Command and Control, Intelligence, Surveillance, and Reconnaissance
C3	Command, Control, and Communications
C4	Command, Control, Communications, and Computers
C4I	Command, Control, Communications, Computers, and Intelligence
C4ISR	Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance
CALCM	Conventional Air-Launched Cruise Missile
CAOC	Combined Air Operations Center
CAP	Combat Air Patrol
CAS	Close Air Support
CBU	Cluster Bomb Unit
CCD	Cover, Concealment, and Deception
CD	Collateral Damage
CDE	Concept Development and Experimentation

CENTCOM	United States Central Command
CFACC	Combined Forces Air Component Commander
CFLCC	Combined Forces Land Component Commander
CG	Guided Missile Cruiser
CIA	Central Intelligence Agency
CINC	Commander in Chief
CINCSOUTH	Commander in Chief, Allied Forces Southern Europe
CINCUSAFE	Commander in Chief, United States Air Forces in Europe
CINCUSNAVEUR	Commander in Chief, United States Naval Forces, Europe
CJCS	Chairman Joint Chiefs of Staff
CJCSI	Chairman Joint Chiefs of Staff Instruction
CJTF	Commander Joint Task Force
CMSA	Cruise Missile Support Activity
CNA	Computer Network Attack
COMARRC	Commander, Allied Command Europe, Rapid Reaction Corps
COMJTF	Commander, Joint Task Force
COMNAVFOR	Commander, Allied Naval Forces
COMNAVSOUTH	Commander, Allied Naval Forces, Southern Europe
COMSEC	Communications Security
COMSIXTHFLT	Commander, U.S. Sixth Fleet
COMSTRKFORSOUTH	Commander, Allied Strike Force, Southern Europe
CONOPLAN	Concept of Operation Plan
CONOPS	Concept of Operations
CONUS	Continental United States
COP	Common Operating Picture
COV	Common Operational Vision
CRC	Control and Reporting Center
CS	Constant Source
CSAR	Combat Search and Rescue
CSE	Combat Support Equipment
CSRC	Combined Search and Rescue Center
CTF	Combined Task Force
CVBG	Carrier Battle Group
CVN	Nuclear Aircraft Carrier
CVW	Carrier Air Wing

DART	Disaster Assistance Response Team
DC	Disk Controller
DCI	Defense Capabilities Initiative
DCINC	Deputy Commander in Chief
DCSPERS	Deputy Chief of Staff for Personnel
DDG	Guided Missile Destroyer
DEPORD	Deployment Order
DIA	Defense Intelligence Agency
DII	Defense Information Infrastructure
DIRMOBFOR	Director of Mobility Forces
DISA	Defense Information Systems Agency
DISN	Defense Information Systems Network
DMPI	Desired Mean Point of Impact
DOCC	Deep Operations Coordination Cell
DoD	Department of Defense
DOMS	Director of Military Support
DOS	Department of State
DOTMLP	Doctrine, Organization, Training, Materiel, Leadership, and Personnel
DPG	Defense Planning Guidance
DRSN	Defense Red Switch Network
DSCS	Defense Satellite Communications System
DSMAC	Digital Scene Matching Area Correlation
DSN	Defense Switched Network
DSO	Direct Support Objective
DSP	Defense Support Program
ECCM	Electronic Counter-Counter Measures
EMCON	Emissions Control
EMEDS	Expeditionary Medical Support
EO	Electro-Optical
ESDI	European Self-Defense Initiative
EU	European Union
EUCOM	U.S. European Command
EW	Electronic Warfare
EXCOM	Executive Committee

EXORD	Execution Order
FAAD	Forward Area Air Defense
FAC	Forward Air Controller
FAC(A)	Forward Air Controller (Airborne)
FAST	Forward Area Support Team
FFG	Guided Missile Frigate
FHP	Force Health Protection
Flex	Flexibly Retargeted Aircraft Sorties
FLIR	Forward Looking Infrared
FLT	Fleet
FORSCOM	United States Army Forces Command
FR	France
FROG	Russian-built Surface-to-Surface Missile
FRY	Federal Republic of Yugoslavia
FYROM	Former Yugoslav Republic of Macedonia
G-8	Group of 8
GATS	GPS-aided Targeting System
GBS	Global Broadcast System
GBU	Guided Bomb Unit
GCCS	Global Command and Control System
GCI	Ground Control Intercept
GE	Germany
GEN	General
GFI	Global Force Integration
GIG	Global Information Grid
GMFP	Global Military Force Policy
GP	General Purpose
GPS	Global Positioning System
GSORTS	Global Command and Control System Status of Resources and Training System
GTN	Global Transportation Network
HA	Humanitarian Assistance
HARM	High-Speed Anti-Radiation Missile

HHS	U.S. Department of Health and Human Services
HLPS	Heavy Lift Preposition Ship
HLSG	High Level Steering Group
HQ	Headquarters
HUMINT	Human Intelligence
IA	Interagency; Individual Augmentation
IADS	Integrated Air Defense System
IAW	In Accordance With
IC	Intelligence Community
ICTY	International Criminal Tribunal for Yugoslavia
IDP	Internally Displaced Persons
IEF	Initial Entry Force
IFOR	Implementation Force
IMA	Individual Mobilization Augmentee
Indus	Industrial Facilities
INFOSEC	Information Security
IO	Information Operations
IP	Internet Protocol
IPB	Intelligence Preparation of the Battlespace
IR	Infrared
ISO	In Support Of
ISR	Intelligence, Surveillance, and Reconnaissance
IT	Italy
ITV	In-transit Visibility
IWG	Interagency Working Group
J2T	Joint Staff Targeting Section
JAC	Joint Analysis Center
JASSM	Joint Air-to-Surface Standoff Missile
JBS	Joint Broadcast System
JCS	Joint Chiefs of Staff
JDAM	Joint Direct Attack Munition
JDIICS-D	Joint Defense Information Infrastructure Control System - Deployed
JDN	Joint Digital Network

JEPES	Joint Engineer Planning and Execution System
JFACC	Joint Force Air Component Commander
JFC	United States Joint Forces Command
JFGR II	Joint Forces Resource Generator
JFMCC	Joint Force Maritime Component Commander
JICO	Joint Interface Control Officer
JIPTL	Joint Integrated Prioritized Target List
JIVA	Joint Intelligence Virtual Architecture
JLOTS	Joint Logistics Over-the-Shore
JMRR	Joint Monthly Readiness Review
JOA	Joint Operational Architecture
JOPES	Joint Operation Planning and Execution System
JPOTF	Joint Psychological Operations Task Force
JRB	Joint Resources Board
JRIC	Joint Reserve Intelligence Center
JROC	Joint Requirements Oversight Council
JS	Joint Staff
JSCP	Joint Strategic Capabilities Plan
JSEAD	Joint Suppression of Enemy Air Defense
JSOTF	Joint Special Operations Task Force
JSOW	Joint Standoff Weapon
JSTARS	Joint Surveillance Target Attack Radar System
JTCB	Joint Targeting Coordination Board
JTF	Joint Task Force
JTIDS	Joint Tactical Information Distribution System
JTTP	Joint Tactics, Techniques, and Procedures
JV2010	Joint Vision 2010
JWCA	Joint Warfighting Capability Assessment
JWICS	Joint Worldwide Intelligence Communications System
KFOR	Kosovo Force
KLA	Kosovo Liberation Army
LCC	Launch Control Center
LD/HD	Low Density/High Demand
Ldr	Leadership Targets

LGB	Laser-Guided Bomb
LHD	General Purpose Amphibious Assault Ship
LMSR	Large Medium-Speed Roll-on/Roll-off Ship
LOAC	Laws of Armed Conflict
LOC	Line of Communication
LOG	Logistics
LOTS	Logistics-Over-The-Shore
LPD	Amphibious Transport Dock
LSD	Landing Ship Dock
LTG	Lieutenant General
LT INF	Light Infantry
MAGTF	Marine Air-Ground Task Force
MANPADS	Man-Portable Air Defense System
MAOC	Modular Air Operations Center
MARFOREUR	United States Marine Forces, Europe
MASINT	Measurements and Signatures Intelligence
MAST	Multi-Agency Support Team
MATTS	Mission Analysis Tracking and Tabulation System
MBPS	Megabytes per Second
MC	Military Community
MC&G	Mapping, Charting, and Geodesy
MCE	Modular Control Equipment
METL	Mission-Essential Task List
MEU	Marine Expeditionary Unit
MILREP	Military Representative
MILSATCOM	Military Satellite Communication
MLRS	Multiple-Launch Rocket System
MLS	Multilevel Security
MOE	Measures of Effectiveness
MOG	Maximum on Ground
MPC	Military Personnel Center
MRC	Major Regional Contingency
MSRP	Mobility Readiness Spares Package
MSTS	Multi-Source Tactical System
MTW	Major Theater War

MUP	Yugoslav Interior Forces (i.e., Special Police)
NAC	North Atlantic Council
NATO	North Atlantic Treaty Organization
NAVEUR	United States Naval Forces, Europe
NAVSOUTH	Allied Naval Forces, Southern Europe
NBC	Nuclear, Biological, and Chemical
NCA	National Command Authorities
NCC	National Coordinating Center
NFZ	No-Fly Zone
NIMA	National Imagery and Mapping Agency
NIPRNET	Unclassified but Sensitive Internet Protocol Router Network
NSA	National Security Agency
NSC	National Security Council
NSS	National Security Strategy
OAF	Operation Allied Force
OOTW	Operations Other Than War
OPCON	Operational Control
OPLAN	Operations Plan
Ops	Operations
OPSEC	Operations Security
OPTEMPO	Operating Tempo
OSCE	Organization for Security and Cooperation in Europe
OSD	Office of the Secretary of Defense
PACOM	Pacific Command
PAO	Phased Air Operation
PC	Personal Computer
PCG	Peacekeeping Core Group
PDD	Presidential Decision Directive
PE	Peacetime Establishment
PERSTEMPO	Personnel Tempo
PGM	Precision Guided Munition
PK	Peacekeeping
POL	Petroleum, Oil, and Lubricants

POL-MIL	Political-Military
POM	Program Objective Memorandum
POTUS	President of the United States
POW	Prisoner of War
PRC	Presidential Reserve Call-up
PRRC	Personnel Recovery Response Cell
PSYOPS	Psychological Operations
PTDO	Prepare to Deploy Orders
PTT	Postal, Telephone, and Telegraph
QL	Quick Look
RADREL	Radio Relay
RAS	Readiness Assessment System
RC	Reserve Component
Recce	Reconnaissance
RO	Response Option
ROE	Rules of Engagement
RSOI	Reconnaissance, Staging, Onward Movement, and Integration
RTS	Rapid Targeting System
SACEUR	Supreme Allied Commander, Europe
SAM	Surface-to-Air Missile
SAR	Synthetic Aperture Radar
SATCOM	Satellite Communication
SEAD	Suppression of Enemy Air Defense
SECDEF	Secretary of Defense
SFOR	Stabilization Force
SHF	Super-High Frequency
SIAP	Single Integrated Air Picture
SIGINT	Signals Intelligence
SIPRNET	Secret Internet Protocol Router Network
SLAM	Standoff Land Attack Missile
SNFL	Standing Naval Force, Atlantic
SNFM	Standing Naval Force, Mediterranean
SOCEUR	United States Special Operations Command, Europe

SOCOM	Special Operations Command
SOUTHCOM	United States Southern Command
SPACECOM	Space Command
SSC	Smaller-Scale Contingency
SSN	Nuclear Attack Submarine
STANAG	Standardization Agreement
STE	Secure Terminal Equipment
STEP	Standardized Tactical Entry Point
STRATCOM	United States Strategic Command
STRKFORSOUTH	Allied Strike Forces, Southern Europe
STU	Secure Telephone Unit
SVC	Service
SVTC	Secure Video Teleconferencing
SYG	Secretary General (United Nations)
TACAIR	Tactical Air
TACON	Tactical Control
TAD	Temporary Active Duty
TADIL	Tactical Digital Information Link
TAOM	Tactical Air Operations Module
TARPS	Tactical Air Reconnaissance Pod System
TBD	To Be Determined
TC-AIMS II	Transportation Commanders' Automated Information for Movement System
TCT	Time Critical Target
TDY	Temporary Duty
TERCOM	Terrain Contour Mapping
TF	Task Force
THAAD	Theater High-Altitude Area Defense
TLAM	Tomahawk Land-Attack Missile
TPED	Tasking, Processing, Exploitation, and Dissemination
TPFDD	Time-Phased Force and Deployment Data
TRANSCOM	U.S. Transportation Command
TS/SCI	Top Secret/Sensitive Compartmented Information
TTP	Tactics, Techniques, and Procedures
TV	Television

UAV	Unmanned Aerial Vehicle
UHF	Ultra-high Frequency
UK	United Kingdom
UNHCR	United Nations High Commissioner for Refugees
UNPROFOR	United Nations Protection Force
UNSC	United Nations Security Council
USA	United States Army
USACOM	United States Atlantic Command
USAF	United States Air Force
USAFE	United States Air Forces in Europe
USAREUR	United States Army, Europe
USCG	United States Coast Guard
USCINCEUR	United States Commander in Chief, Europe
USD(P)	Under Secretary of Defense Policy
USG	United States Government
USJFCOM	United States Joint Forces Command
USIA	United States Information Agency
USIGS	United States Imagery and Geospatial Information Service
USMC	United States Marine Corps
USN	United States Navy
VIP	Very Important Person
VJ	Yugoslav Army
VTC	Video Teleconferencing
WMD	Weapons of Mass Destruction
wx	Weather

ANNEX - CHRONOLOGY OF INTERNATIONAL INVOLVEMENT IN KOSOVO (U)

1998 (U)

March (U)

(U) The situation in Kosovo began to deteriorate sharply in early March 1998 when Federal Republic of Yugoslavia (FRY) security forces launched a series of strikes to crackdown on the growing Kosovar insurgent movement known as the Kosovo Liberation Army (KLA). During the crackdown FRY Interior Ministry security units (MUP Special Police) used excessive force, destroying homes and villages and terrorizing the civilian population.

31 March. (U) The United Nations adopted Security Council Resolution 1160, condemning the excessive use of force by Serbian security forces against civilians in Kosovo, and also established an embargo of arms and material against the FRY.

May (U)

May. (U) Ambassador Holbrooke arranged the first meeting between FRY President Milosevic and Dr. Rugova, the leader of the shadow government in Kosovo. Milosevic and Rugova met once in May to lay the groundwork for peace talks. Although Milosevic did appoint a negotiating team that participated in preliminary talks in Pristina, the dialogue process quickly broke down following a deliberate Serb offensive in Decani where several dozen Kosovar Albanians were killed. Also in May, NATO Foreign Ministers approved a series of steps aimed at deterring conflict spillover and promoting regional stability. These included PfP exercises in Albania and the FYROM, a NATO ship visit to Albania, and NATO preparations to assist NGOs in response to major refugee flows out of Kosovo.

June (U)

12 June. (U) In London, the Contact Group (CG) issued a statement calling for: (1) a cease-fire; (2) effective international monitoring in Kosovo; (3) access for UNHCR and NGOs along with refugee return; and (4) serious dialogue between Belgrade and the Kosovo Albanians with international mediation.

16 June. (U) President Milosevic, in talks with Russian President Yeltsin, agreed to grant access to diplomatic observers – the Kosovo Diplomatic Observer Mission (KDOM). In late June, Ambassador Holbrooke continued his diplomatic efforts, meeting again with Milosevic in Belgrade and with KLA commanders in the Kosovo village of Junik.

July (U)

(U) The KDOM was established, and quickly became an invaluable tool for the international community in assessing events on the ground.

September (U)

2 September. (U): During a Clinton-Yeltsin summit meeting, Secretary of State Albright and Russian Foreign Minister Ivanov issued a joint statement on Kosovo calling on Belgrade to end the offensive and for the Kosovar Albanians to engage with Belgrade in negotiations.

5-7 September. (U): John Shattuck, Assistant Secretary of State for Democracy, Human Rights, and Labor, and former Senator Bob Dole visited Kosovo to see firsthand the conditions there. They continued on to Belgrade, delivering a stern warning to Milosevic about his treatment of prisoners and refugees in Kosovo.

23 September. (U): The United Nations Security Council (with China abstaining) passed Resolution 1199 which called for, among other things, a cease fire, the withdrawal of all FRY security forces, access for NGOs and humanitarian organizations, and the return home of refugees and the internally displaced.

24 September. (U): NATO Defense Ministers, meeting at Villamoura, Portugal, approved issuance of Activation Warnings (ACTWARN) for two different types of air operations, known as the Phased Air Campaign and the Limited Air Response.

28 September. (U): Milosevic declared victory over the Kosovo insurgency and announced the end of the FRY offensive. However, intelligence reporting indicated continued fighting in several areas and no significant changes to FRY security force deployments.

October (U)

1 October. (U) The NAC issued an Activation Request (ACTREQ) for both air options.

5 October. (U) UN Secretary General Koffi Annan released a highly critical UNSC report on FRY compliance with the provisions of UNSCR 1199. In the wake of this report, the US pushed NATO to issue Activation Orders (ACTORD) for both air options.

5 October. (U) While NATO worked toward an ACTORD decision, the US dispatched Ambassador Holbrooke to Belgrade to press for FRY full compliance with UNSCR 1199. Holbrooke spent the next seven days in talks with both Milosevic and the Kosovar Albanians.

12 October. (U) Ambassador Holbrooke reported to NATO that Milosevic was prepared to accept a 2,000 man OSCE ground verification presence and a NATO air surveillance mission to monitor FRY compliance with UNSCR 1199.

13 October. (U) A unilateral statement issued by Serb President Milutinovic included a number of key principles that could form the framework of a peace settlement, including substantial autonomy, elections, and a local Kosovar police force. The statement included proposed dates for: (1) the achievement of an agreement which will comprise the basic elements of a political solution in Kosovo – 2 November; and (2) general agreements on the rules and procedures of elections – 9 November (in reality, neither date was achieved). In order to demonstrate NATO resolve and hedge against Milosevic backsliding, the NAC proceeded with its ACTORD decisions. However, it instructed SACEUR not to execute the Limited Air Option for 96 hours and authorized the execution of only the deployment phase of the Phased Air Campaign. NATO then communicated to Milosevic that it expected him to use the 96 hour "pause" to demonstrate concretely his commitment to complying with UNSCR 1199. As part of this commitment, Milosevic subsequently signed a Terms of Reference for a ground verification force with NATO Secretary General Solana. Additionally, FRY Army Chief Perisic and SACEUR signed a separate agreement allowing NATO aerial surveillance missions over Kosovo.

16 October. (U): Prior to the expiration of the first 96-hour window, the NAC judged that enough progress had been made to justify an extension of the "pause" on the Limited Air Option until 27 October.

16 October. (U): A signed agreement between OSCE CIO Geremek and Yugoslav Foreign Minister Jovanovic paved the way for the creation of the OSCE Kosovo Verification Mission, or KVM.

23 October. (U): The NAC directed General Clark and NATO Military Committee Chairman General Naumann to travel to Belgrade to impress upon Milosevic the seriousness of the 27 October deadline.

24 October. (U): The OSCE Mission was endorsed by the UN Security Council (UNSCR 1203)

25 October. (U): The OSCE KVM was established under OSCE Permanent Council decision No. 263. The primary mission of the KVM was to ensure FRY compliance with UN Security Council Resolutions 1160 and 1199.

25 October. (U) Clark and Naumann reached a comprehensive agreement for specific VJ and MUP withdrawals with the FRY leadership.

27 October. (U) FRY compliance with these requirements resulted in a NAC decision to suspend execution of the Limited Air Option and Phased Air Operation. However, the NAC did not cancel the ACTORDs. Both would remain in place but would require a positive NAC decision for execution.

December (U)

23 December. (U) The Yugoslav Army (VJ) and internal special police (MUP) undertook military action near Podujevo, in northern Kosovo, along the main road linking the provincial capital Pristina to Belgrade. The U.S. condemned this action.

1999 (U)

January. (U):

(U) In early January, three Serb police were killed as a result of KLA ambush attacks on police patrols in the vicinity of Stimlje, prompting a significant build-up of Serb security forces in the area.

15 January. (U) The KVM reported a serious deterioration of the situation in the area. KVM patrols witnessed VJ tanks and armored vehicles firing directly into houses near Malopoljce and Petrova, and noted houses burning in Racak. KVM units were initially denied direct access to these areas (late in the afternoon on 15 January, a KVM patrol did get to the village of Racak – they noted one dead Albanian civilian and five injured civilians, and received unconfirmed reports of other deaths).

16 January. (U) Returning to Racak, the KVM confirmed that Serb security forces had killed 45 Albanian civilians. The initial facts as verified by KVM included evidence of arbitrary detentions, extra-judicial killings, and the mutilation of unarmed civilians by the security forces of the FRY. FRY authorities took exception to direct comments made by KVM HOM Ambassador Walker, and declared him "persona non-grata" (PNG), ordering him to leave the country within 48 hours (an additional 24 hours was subsequently added to this order). In the face of intense international criticism for this action, Milosevic froze the PNG status of Ambassador Walker (allowing him to remain in Kosovo/Serbia), but did not lift it entirely.

28 January. (U) NATO Secretary General Solana issued a statement indicating that NATO fully supported the early conclusion of a political settlement under the mediation of the Contact Group. The settlement would provide an enhanced status for Kosovo, preserve the territorial integrity of the FRY, and protect the rights of all ethnic groups. The statement called for FRY authorities to immediately bring the Yugoslav Army and the Special Police force levels, posture and actions into strict compliance with their commitments to NATO on 25 October 1998 and end the excessive and disproportionate use of force in accordance with these commitments.

29 January. (U) Contact Group Ministers met in London to consider the critical situation in Kosovo. The Ministers called on both sides to end the cycle of violence and to commit themselves to a process of negotiation leading to a political settlement. To that end, the Contact Group agreed to summon representatives from the Federal Yugoslav and

Serbian Governments, and representatives of the Kosovo Albanians to Rambouillet, France, by 6 February, to begin discussions with the direct involvement of the Contact Group.

30 January. (U) NATO issued a Statement by the North Atlantic Council (NAC), giving full support to the Contact Group strategy. The NAC further agreed to give NATO Secretary General Solana authority to authorize air strikes against targets on FRY territory. At that point, the primary focus remained on the peace settlement talks in Rambouillet. Even as negotiations in Rambouillet were ongoing, intelligence reports clearly showed a significant buildup of FRY forces in Kosovo.

February (U)

6 February. (U) Talks at Rambouillet began.

23 February. (U) Contact Group Ministers met in Rambouillet at the end of more than two weeks of intensive international efforts to reach a signed Interim Political Agreement (IPA). While neither side had signed the agreement, it was recognized that a political framework was now in place, and the groundwork had been laid for finalizing the implementation Chapters of the Agreement, including the modalities of the invited civilian and military presence in Kosovo. It was essential that the agreement on the interim accord be completed and signed as a whole, thus, the parties committed themselves to attend a conference, covering all aspects of implementation, in France on 15 March.

March (U)

8 March. (U) Former Senator Dole, unable to get a visa from FRY to travel to Kosovo, went to Macedonia instead to meet with the Kosovar Albanian delegation in an effort to persuade them to sign the agreement.

10 March. (U): Ambassador Holbrooke, at the request of Secretary Albright, met with FRY leadership in Belgrade. His trip supported the on-going negotiating efforts of the U.S. envoy for Kosovo, Ambassador Chris Hill, and his Contact Group colleagues Ambassadors Boris Mayorsky and Wolfgang Petritsch. Ambassador Holbrooke conveyed to the authorities in Belgrade the necessity for full compliance with all of their commitments to the international community, and for maximum restraint in the period leading up to the March 15 conference in France.

19 March. (U) Following the second round of negotiations at the Kleber Center in Paris, 15 – 19 March, the Kosovar Albanians signed the proposed agreement. Negotiations were suspended, and the Belgrade delegation left Paris without signing the agreement, denouncing the western ultimatum as a violation of international law and the UN charter. At the same time, almost one-third of the FRY's total armed forces had massed in and around Kosovo, in preparation for an obvious offensive.

19 March. (U) The OSCE Kosovo Verification Mission withdrew from Kosovo

20 March. (U) Serb forces launched a major offensive, driving thousands of ethnic Albanians out of their homes and villages, summarily executing some while displacing many others, and setting fire to many houses.

21 March. (U) Ambassador Holbrooke was dispatched to Belgrade to deliver a "final warning" to Milosevic.

22 March. (U): In response to Belgrade's continued intransigence and repression, and in view of the evolution of the situation on the ground in Kosovo, the NAC authorized Secretary General Solana to decide, subject to further consultations, on a broader range of air operations if necessary.

23 March. (U) Ambassador Holbrooke departed Belgrade, having received no concessions of any kind from Milosevic. Subsequently, Secretary General Solana directed General Wesley Clark, Supreme Allied Commander Europe (SACEUR) to initiate air operations in the Federal Republic of Yugoslavia.

24 March. (U) Operation ALLIED FORCE commenced.

25 March. (U) The Yugoslav government broke off diplomatic relations with the United States, France, Germany, and the United Kingdom.

30 March. (U) Russian Prime Minister Primakov, Foreign Minister Ivanov, and Defense Minister Sergeyev held talks with President Milosevic in Belgrade.

April (U)

1 April. (U) Serbian forces capture three U.S. soldiers in the Former Yugoslav Republic of Macedonia.

3 April. (U) NATO missiles struck central Belgrade for the first time and destroyed the Yugoslav and Serbian interior ministries.

6 April. (U) The Federal Republic of Yugoslavia declared a unilateral cease-fire to commence at 1200 EDT and last until 1800 EDT 11 April. Belgrade claimed that all FRY army and police actions in Kosovo would end and that the government was ready to negotiate with Rugova. NATO rejected the offer, with French President Chirac calling the proposed cease-fire indefensible without a political agreement and security package.

6-10 April. (U) The NAC approved the Concept of Operations and the Operations Plan for Allied Harbor, the NATO humanitarian effort in Albania.

10 April. (U) In discussion with the Organization for Security and Cooperation in Europe (OSCE), Russian Foreign Minister Ivanov said that a NATO-led Kosovo implementation force was "unrealistic" and called for greater UN involvement.

14 April. (U) Germany unveiled a plan for a 24-hour halt to the airstrikes to give the FRY a chance to start pulling out of Kosovo. Russian President Yeltsin named former Prime Minister Chernomyrdin as FRY peace envoy.

16 April. (U) The NAC approved the Activation Order for Operation Allied Harbor.

20 April. (U) U.S. Representative James Saxton met with FRY Foreign Minister Jovanovic in Belgrade.

21 April. (U) It was reported that all EU countries agreed to back a proposed plan to stop oil product deliveries by or through member states to the FRY. NATO missiles in Belgrade hit the headquarters of Milosevic's Serbian Socialist Party and his private residence, both believed to have capability for command and control of VJ/MUP forces.

22 April. (U) At the NATO Summit, Alliance nations reaffirmed the conditions that would bring an end to the air campaign. They also announced an intensification of the air campaign.

23 April. (U) NATO attacked the Serbian state television building in central Belgrade a facility used for propaganda purposes. The FRY agreed to accept an international military presence in Kosovo after Chernomyrdin-Milosevic talks in Belgrade.

30 April. (U) The Reverend Jesse Jackson arrived in Belgrade and met with the U.S. servicemen that had been held captive by Serb forces for the past month. Russian envoy Chernomyrdin reported "progress" after 6 hours of talks with Milosevic in Belgrade.

c. Target Coordination Process (U)

(U) The specific objectives promulgated by the CINC were well coordinated at the political and military levels in NATO and followed the strategic guidance passed from U.S. National Command Authorities and the NAC. NATO's objectives were to:

- Enable unhindered NATO air operations
- Isolate Serb military and security forces in Kosovo
- Degrade combat capability of Serb military and security forces in Kosovo
- Compel Yugoslav leaders to withdraw their forces from Kosovo and cease hostilities
- Reduce Yugoslav capability to conduct and sustain offensive operations.

(U) During the course of the campaign, NATO developed mechanisms for delegating target approval authority to military commanders. For selected categories of targets — for example, targets in downtown Belgrade, in Montenegro, or targets likely to involve high collateral damage — NATO reserved approval for higher political authorities. NATO leaders used this mechanism to ensure that member nations were fully cognizant of particularly sensitive military operations, and, thereby, to help sustain the unity of the alliance.

(U) Legal reviews of selected targets were conducted at successive echelons of the chain of command. Targets nominated for approval by SACEUR received legal reviews in the field. Targets nominated that met the criteria requiring NCA approval received detailed legal scrutiny by the Legal Counsel to the Chairman of the Joint Chiefs of Staff and by the DOD General Counsel. Legal reviews involved evaluation of certain targets as valid military targets as governed by applicable principles of the laws and customs of armed conflict.

C. Force Capabilities (U)

1. U.S.-Allied Force Capabilities Imbalance and the Defense Capabilities Initiative (U)

(U) NATO partners contributed significantly to the military capabilities employed in Operation Allied Force. Broadly speaking, other members of the alliance contributed about the same share of their available aircraft for prosecuting the campaign as did the United States. Alliance members also contributed ground forces that helped to

May (U)

1 May. (U) President Clinton extended U.S. sanctions to ban oil sales and freeze Belgrade's assets in the U.S.. Following an agreement with NATO and FRY authorities on modalities, the ICRC announced plans to return to Kosovo. Reverend Jackson secured the release of the captured servicemen following a 3-hour meeting with Milosevic.

6 May. (U) At the Group of Eight meeting in Bonn, the West and Russia announced agreement over the basic strategy to resolve the conflict.

7 May. (U) NATO planes accidentally hit the Chinese Embassy in Belgrade, killing 3 and wounding 20.

8 May. (U) The UNSC convened in an emergency session to debate the bombing of the Chinese Embassy. China implicitly accused the U.S. and NATO of a deliberate attack while the Alliance apologized for a "terrible mistake." Thousands demonstrated in front of U.S. diplomatic posts in China. Russian Foreign Minister Ivanov canceled his trip to London in the wake of the attack.

9 May. (U) President Clinton wrote to Chinese President Jiang Zemin to offer regrets for the bombing, while Chinese demonstrations continued.

10 May. (U) Chinese demonstrations continued for a third day. China suspended contacts with the U.S. regarding arms control and human rights. Serbs announced a partial withdrawal from Kosovo. The FRY accused NATO of genocide and demanded that the World Court order an immediate end to NATO air strikes.

11 May. (U) Russian envoy Chernomyrdin met with President Jiang Zemin in Beijing and labeled the Chinese embassy bombing an act of aggression. China hinted that it might hold up Western attempts to achieve a peace deal at the UN unless the bombing stops. NATO disputed FRY claims of a troop withdrawal from Kosovo, countering that FRY military and police had actually stepped up their actions against the KLA.

16 May. (U) Italian Prime Minister D'Alema proposed a NATO cease-fire on condition that Russia and China support a UNSC resolution imposing the G-8 terms on Milosevic.

17 May. (U) The EU announced that Finnish President Martti Ahtisaari would serve as the EU's new senior Kosovo envoy. The Greeks called for a temporary cease-fire "to give diplomacy a chance."

23 May. (U) NATO began a bombing campaign of the Yugoslav electricity grid, creating a major disruption of power, creating a major disruption of power affecting many military related activities and water supplies.

27 May. (U) Milosevic and four other Serbian leaders were indicted by the UN War Crimes Tribunal (ICTY) for crimes against humanity.

June (U)

1 June. (U) The FRY told Germany that it had accepted Group of Eight principles for peace and demanded an end to NATO bombing.

3 June. (U) The FRY accepted terms brought to Belgrade by EU envoy Ahtisaari and Russian envoy Chernomyrdin.

6 June. (U) NATO Secretary-General Javier Solana announced it would be difficult to help rebuild Yugoslavia while Milosevic remained in power.

7 June. (U) NATO and Yugoslav commanders failed to agree to terms of pullout from Kosovo and suspended talks. NATO intensified the bombing campaign. G 8 Foreign Ministers in Bonn attempted to finalize a draft UN resolution. The FRY insisted that a UN Security Council resolution must be in place before any foreign troops could enter Kosovo.

8 June. (U) The West and Russia reached a landmark agreement on a draft UN resolution at G8 talks in Cologne. NATO called on Milosevic to resume military talks on troop withdrawal at once. Talks between senior NATO and FRY officers on a Serb pullout from Kosovo resumed in Macedonia and continued into the night.

9 June. (U) Military talks continued with senior NATO and FRY officers. Late in the day, a Military Technical Agreement was signed between the two parties.

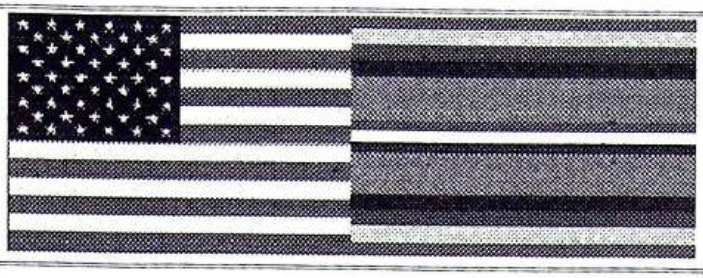
10 June. (U): After receiving definite evidence that Serb forces were withdrawing from northern Kosovo, Secretary General Solana called for a suspension of NATO airstrikes. The UN Security Council adopted Resolution 1244 on Kosovo. In Cologne, G8 ministers drafted a plan to anchor the Balkans to Western Europe and rebuild Kosovo.

13 June. (U) UNHCR relief missions began.

20 June. (U) In accordance with the 9 June Military Technical Agreement, Serb forces completely withdrew from Kosovo, leading NATO Secretary General Solana to officially end NATO's bombing campaign in the Federal Republic of Yugoslavia.

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FAS Military Analysis Network



OPERATION ALLIED FORCE

Operation Allied Force
Operation Noble Anvil



The Kosovo crisis began in early 1998 when large-scale fighting broke out, resulting in the displacement of some 300,000 people. A ceasefire was agreed in October 1998 which enabled refugees to find shelter, averting an impending humanitarian crisis over the winter. A Verification Mission was deployed under the auspices of the Organisation for Security and Cooperation in Europe (OSCE). However, violence continued and the situation worsened significantly in January 1999. A peace conference, held in Paris, broke up on 19 March with the refusal of the Yugoslav delegation to accept a peaceful settlement.

Operation Allied Force was a NATO contingency response aiming at ensuring full compliance with UN Security Council Resolution 1199 (Sept. 23rd 1998). Operation Noble Anvil was the American component of this NATO action to promote regional stability, cooperation and security, in support of the international community. At 1900 hours GMT on 24 March 1999, NATO forces began air operations over the Federal Republic of Yugoslavia. These air strikes against Serbian military targets in the Former Yugoslavia sought to:

1. Ensure a verifiable stop to all military action and the immediate ending of violence and repression in Kosovo;
2. Withdrawal from Kosovo of Serbian military, police and para-military forces;
3. Agreement to the stationing in Kosovo of an international military presence;
4. Agreement to the unconditional and safe return of all refugees and displaced persons, and unhindered access to them by humanitarian aid organisations; and
5. Provide credible assurance of Serbian willingness to work on the basis of the Rambouillet Accords in the establishment of a political framework agreement for Kosovo in conformity with international law and the Charter of the United Nations.

NATO was prepared to suspend its air strikes once Belgrade unequivocally accepted the above mentioned conditions and demonstrably began to withdraw its forces from Kosovo according to a precise and rapid timetable. This would follow the passage of a United Nations Security Council resolution requiring the withdrawal of Serb forces and the demilitarisation of Kosovo and encompassing the deployment of an international military force to safeguard the swift return of all refugees and displaced persons as well as the establishment of an international provisional administration of Kosovo.

The multinational force was tasked by NATO to bring a swift end to hostilities committed by the Federal Republic of Yugoslavia against ethnic Albanians in the southern province of Kosovo. The military objective of Operation Allied Force was to degrade and damage the military and security structure that Yugoslav President President Milosevic has used to depopulate and destroy the Albanian majority in Kosovo. The Supreme Allied Commander Europe (SACEUR) delegated authority for the implementation of Operation Allied Force to the Commander in Chief of Allied Forces Southern Europe (CINCSOUTH), whose headquarters is in Naples, Italy. CINCSOUTH delegated control of the operation to the Commander, Allied Air Forces Southern Europe (COMAIRSOUTH), also based in Naples. Operational conduct of day-to-day missions was delegated to the Commander 5th Allied Tactical Air Force, at Vicenza, Italy.



The Yugoslavs apparently thought that they could wipe out the Kosovar Liberation Army in five to seven days as part of Operation Horseshoe. They thought thought once they did that, they could negotiate an arrangement for peace. The Serbian leadership apparently also assumed that NATO would never launch airstrikesm, and that once the airstrikes were launched they would be pinpricks lasting a few days. And they assumed that NATO would not remain unified long enough to carry out significant air attacks, which would quickly end due to political divisions within NATO.





Operation plan OPLAN 10601 "Allied Force" covered altogether five phases, which went from the transfer over a possible application outside of and within the air space of the Federal Republic of Yugoslavia up to redeployment. The Application instruction (ACTORD) was effective from 13 October 1998, with simultaneous approval and preparatory exercises. The decision by NATO of 27 October 1998 was to maintain the ACTORD with execution dependent on further a NATO council decision. Constrained by the directive that collateral damage was to be avoided as far as possible, the concept of operations envisoned targeting based on a phasewise gradual, situation-adjusted application of NATO air forces, depending upon political and military developments. Operation Allied Force implemented, when ordered by the North Atlantic Council, phased operations which differ according to the attack targets and their geographical location.

Phase Zero - During Phase 0, released on 20 January 1999 as political signal, air forces of NATO were shifted for the accommodation of practice flight operation to their operational airfields.
Phase One -- Conduct limited air operations, such as air strikes against designated militarily significant targets. Phase 1 began on 24 March 1999 with attacks on the integrated air-defense system (e.g. weapon systems, radar facilities, control devices, airfield/aircraft) in the entire Federal Republic of Yugoslavia.
Phase Two -- Since the authorization of this phase on 27 March 1999 attacks extended to the security forces infrastructure military in Kosovo and reinforcement forces (e.g. headquarters, telecommunication installations, material and ammunition depot, systems for production and storage of fuel, barracks). The authorization of this phase took place with the unanimous resolution of the NATO allies.

- Phase Three - The focus of this phase, which was not authorized, was the expansion of the air operations against a broad range of particularly important targets of military importance north of the 44th parallel in the entire Federal Republic of Yugoslavia. [24 Apr. 1999 NATO Press Conference] By a month into the air campaign it became apparent to NATO that a constrained, phased approach was not effective. At the insistence of US leaders, NATO widened the air campaign to produce the strategic effects in Serbia proper. At the April NATO Summit SACEUR was given the flexibility to strike at additional targets, within the existing authority of phase 1 and phase 2 of the operation that were necessary to keep the pressure up, both on the tactical side in Kosovo and on the strategic side elsewhere in Yugoslavia.
- Phase Four -- *[support of stabilization operations?]*
- Phase Five -- *[redeployment operations?]*

The Phase One "Limited Air Response" provided a fast available, temporally limited and supported with small strength feasible air operations against military targets in the Federal Republic of Yugoslavia - exclusive to the use of precision standoff weapons. Additional operations outside of the Federal Republic of Yugoslavia were provided for observation and for the air defense of the air space of NATO nations and Bosnia-Herzegovina as well as to the protection of SFOR. The selection of target categories with the target of the minimization of collateral damage with at the same time high political and military significance. Operation execution was required within 48 hours after decision of the NATO advice possible. This Operations Concept was approved on 21 August 1998, with application instruction ACTORD from 13 October 1998; the decision NATO advice of 27 Octover 1998 for maintenance ACTORD with execution dependent on further NATO council decision.

The early goal of Phase One of the campaign was to attempt to force Yugoslavia to the bargaining table. Some countries in NATO argued that it might be possible to do that with a few days or a week of attacks, without demolishing the whole country. Some of the NATO partners were initially prepared to wage only a phased air operation to show NATO's resolve in the hope of achieving an early settlement. The campaign did not begin the way that America normally would apply air power -- massively, striking at strategic centers of gravity that support Milosevic and his oppressive regime. The phased concept of operations of Operation Allied Force did not apply principles of military operations such as surprise and the use of overwhelming force, and this cost time, effort and potentially additional casualties, the net result being that the campaign was undoubtedly prolonged. NATO did not succeed in this initial attempt to coerce Milosevic through airstrikes to accept its demands, nor did it succeed in preventing the FRY ursuing a campaign of ethnic separation.

Initial air operations started at an altitude that was estimated to be appropriate for the air defense threat that was expected, which allowed attacks against fixed targets with guided munitions in Kosovo and around Belgrade. Flying at or above 15,000 feet, attack aircraft were flying only at night and were instructed not to make multiple passes or other maneuvers that would entail unnecessary risks. NATO gained air superiority over Kosovo and the rest of Yugoslavia by degrading Milosevic's integrated air defence system. After allied planes mistakenly bombed two refugee convoys on the same day near the Kosovo town of Djakovica, new tactics were implemented with pilots flying lower to identify targets better. The net result was increased risk to allied pilots. Three NATO fighter-bombers were hit by ground fire in early May, and an American F-16 crashed with engine failure over Serbia as a result of Yugoslav anti-aircraft fire.

As Yugoslavia demonstrated that it was completely unmoved and intransigent, the pressure and the tempo of the attacks grew, with the decision at the NATO Summit here on 23 April 1999 to expand the campaign. As the campaign continued, the target list expanded into so-called sustainment targets -- petroleum, lines of communication, electrical grids, and command and control targets.

Air operations did not attack some strategic targets because of anxiety among NATO's 19 governments that further accidental civilian casualties could erode public support for the operation. On 07 May 1999 NATO bombed the Chinese Embassy in Belgrade. The planned target was the Federal Directorate for Supply and Procurement in Belgrade but the wrong building was attacked. Following NATO's mistaken bombing of the Chinese embassy, the alliance stopped hitting targets in the city for nearly two weeks while NATO authorities sought to ensure that another such mistake would not occur.

By mid-May NATO pilots had grown increasingly familiar with Kosovo's terrain and with the tactics of the Serbian Armed Forces on the ground. Pilots increasingly knew where Serbian forces were concentrated, which explained the change in the tactics of Serbian forces. They were operating in smaller and smaller units to make them harder to detect from the air. The downside for the Serbian forces is that this made them increasingly vulnerable to KLA ambushes, and it also made Serb forces less mobile to the benefit of those Kosovars still living within Kosovo.

esponsive or "Flex" targets were targets in the fielded forces, and normally not targets that would be a static target like a bridge or a petroleum area or building. Such targets move around, and would be located by various means, such as a pilot report or JSTARS. NATO had aircraft in the area that can respond rapidly to attack such "Flex" targets. Quick response options for targets that may pop up via different means included aircraft holding on a tanker outside the area waiting for a target to occur, aircraft on the ground waiting on alert, or aircraft diverted from another engagement zone to a target of opportunity.

During the first two months of air operations the majority of days the weather was unfavorable or marginal. Persistent low cloud cover over Kosovo and the rest of Yugoslavia forced the cancellation of many planned strikes. NATO had the capability to operate through solid cloud cover, however for a variety of reasons there were restrictions on operations in bad weather. The single biggest reason was the commitment to ensuring strikes against only military and military-related targets. Flying below the clouds is more dangerous from a technical standpoint, putting NATO air crews down into the range of tactical surface to air missiles, anti-aircraft artillery and small arms fire. It also highlights aircraft against the clouds, making them easier to see and target from the ground. Kosovo is a very mountainous area, and with the peaks of mountains frequently enveloped by the clouds, air crews were careful about avoiding terrain. The weather also provided some cover for the Serbian military to continue their attacks, and they took advantage of these times to conduct ground and air operations.

At the beginning of the operation, the weather was so poor that NATO could operate against fielded forces only about 15% of the time. Since those early days NATO adapted its tactics to take maximum advantage of its comprehensive array of intelligence gathering capabilities. By early May NATO was able to collect and distribute information efficiently so that air crews were able to react quickly to targets of opportunity. NATO also adjusted flying patterns to ensure a continuous presence of combat air power that is able to operate in the directed attacks against Serbian ground forces. NATO had planes circling, awaiting the call to strike from other aircraft flying forward air control spotter missions.

The fundamental factor in the conclusion of ALLIED FORCE was NATO's unity and resolve. NATO acted in a way that was tough, progressively tougher throughout the campaign. It failed to be deflected from its goals. This lesson was very clear to Milosevic, who had hoped he could outwait NATO. Secondly, both the precision and the persistence of the air campaign were fundamental factors in convincing Milosevic that it was time to end the fight. The air campaign, which started slowly but gathered momentum as it went on, became systematically damaging to his entire military infrastructure, not just the forces in the field in Kosovo, but throughout the entire country. The pounding his forces took during the last week had to have a huge impact on his determination to continue the fight. It had a big impact on the morale of the forces. Desertions were increasing, and there were increasing reports of lack of food, lack of fuel, lack of equipment, lack of will, lack of morale, and increasing dismay with the leadership not only of the forces but of the country, and an increasing feeling that they just saw no way out. And they realized, because of NATO's persistence, the situation was just going to get steadily worse.

On 3 June, President Slobodan Milosevic finally accepted peace terms presented by EU envoy President Martti Ahtisaari and Russian envoy Viktor Chernomyrdin. With the authorisation of the United Nations on 10 June 1999, NATO forces deployed into Kosovo.

Chronology of Events

- **March 24** -- NATO launches air campaign, with the goal of crippling the Serbian war machine in Kosovo and enforcing compliance with the international peace plan drawn up at Rambouillet, France.
- **March 26** -- The first of a massive tide of refugees arrive in Albania.
- **March 27** -- A US F-117 Nighthawk Stealth fighter is lost near Belgrade but the pilot is recovered.
- **March 31** -- Three US soldiers are snatched by Serb forces after an incident on the Macedonian border.
- **April 1** -- Moderate Kosovar leader Ibrahim Rugova is shown on Serb television talking with Yugoslav President Slobodan Milosevic.
- **April 13** -- Yugoslav forces mount a cross-border attack on a village in northern Albania.
- **April 14** -- Yugoslavia claims that rockets fired by allied jets killed 75 people in two separate refugee columns. NATO later admits accidentally hitting a civilian vehicle.
- **April 20** -- Russian President Boris Yeltsin says Moscow "cannot break with leading world powers" over Kosovo.
- **April 21** -- Two NATO missiles smash into the headquarters of Yugoslavia's ruling Socialist Party.
- **April 23** -- NATO bombs the headquarters of Serbian state television. NATO leaders in Washington rebuff as inadequate an offer by Milosevic to accept an "international presence" in Kosovo.
- **April 28** -- Yugoslav Deputy Prime Minister Vuk Draskovic is dismissed after he accuses the country's rulers of "lying to the people."
- **May 1** -- Forty-seven bus passengers are killed when NATO bombs a bridge in Kosovo.
- **May 2** -- Three captured US soldiers are released into the custody of US civil rights leader Jesse Jackson.
- **May 5** -- NATO suffers its first losses when the two-man crew of a US Apache attack helicopter die in a crash in Albania. Rugova is released by the Yugoslav authorities and flies to Rome.
- **May 6** -- Foreign ministers from the Group of Eight (G8) agree on a framework for a peace plan which calls for the return of all refugees and the deployment of an international "security" force in Kosovo.
- **May 8** -- The Chinese embassy in Belgrade is hit by NATO missiles which kill three people. NATO describes the bombing as a "tragic mistake" caused by "faulty information."
- **May 10** -- Yugoslavia begins proceedings before the UN International Court of Justice in the Hague, accusing NATO of genocide. Belgrade says it has begun pulling troops out of Kosovo.
- **May 13** -- NATO dismisses as insignificant a reported pullout by 250 Yugoslav troops.
- **May 14** -- At least 79 people are killed and 58 wounded when NATO missiles hit Korisa, a village in southern Kosovo.
- **May 19** -- Milosevic and Russia's Balkans envoy Viktor Chernomyrdin back a settlement of the Kosovo conflict within the framework of the United Nations.
- **May 21** -- Russia says mediation efforts with the West are deadlocked. A NATO bomb kills 10 inmates in a Pristina jail.
- **May 22** -- A UN humanitarian mission visits Kosovo, as NATO admits bombing a position held by the KLA.
- **May 23** -- Fighting flares on border between Serb forces and Albanian police. President Bill Clinton says he no longer rules out "other military options".

- **May 26** – NATO agrees to boost the number of troops in a future Kosovo peacekeeping mission from 28,000 to 45,000.
- **May 27** – Milosevic and four other top officials are indicted for war crimes by the International Criminal Tribunal in The Hague.
- **May 29** – Yugoslavia says it has accepted the Group of Eight principles for a peace deal in Kosovo.
- **May 30** – NATO says it wants a clear, personal statement from Milosevic that he accepts alliance conditions before it will halt air raids. A German soldier dies when a tank crashes off a bridge in Albania.
- **May 31** – At least 20 people are killed at a sanatorium at Surdulica, southern Serbia. NATO denies that its missles are responsible.
- **June 1** – Belgrade says in a letter to Bonn that it "has accepted the G8 principles." European, US and Russian envoys meet in Bonn to hammer out a common policy for a peace mission to Belgrade.
- **June 2** – The International Court of Justice rejects Yugoslavia's petition to order an end to NATO airstrikes. EU and Russian envoys travel to Belgrade for talks with Milosevic and hand him a peace plan worked out in Bonn with US Deputy Secretary of State Strobe Talbott.
- **June 3** – Talks in Belgrade resume for a second session. A Russian spokesman in Moscow says Yugoslavia viewed the peace plan as a "realistic" way out of the Kosovo crisis.
- **June 9** – NATO and Yugoslav military authorities sign an agreement on the withdrawal of Yugoslav security forces from Kosovo.
- **June 10** – NATO suspends air strikes.

Collateral Damage Incidents

NATO has repeatedly denied that it deliberately attacks non-military buildings and insists that all possible precautions are taken to avoid civilian casualties. Serb officials put the death toll from the following incidents, most of which but not all NATO acknowledges as errors, at more than 460. Overall, they say, some 2,000 civilians have been killed since the start of the air campaign on March 24.

- **April 5** – A 550-pound NATO bomb aimed at Yugoslav army barracks in Aleksinac in southern Serbia misses its target and lands in a residential area. Serbs put death toll at 17.
- **April 9** – NATO hits homes near a telephone exchange in the Kosovo capital, Pristina. NATO said civilian casualties were possible but neither side provided a death toll.
- **April 12** – A NATO pilot fires two missiles into a train crossing a bridge at Grdelicka Klisura in southern Serbia, killing 55 people, according to Belgrade. NATO insists the bridge, a key supply line for Yugoslav forces in Kosovo, was the target and that the pilot saw the train too late.
- **April 14** – NATO bombs refugee convoys in the Djakovica region of south-east Kosovo, leaving 75 dead, according to Belgrade. NATO, without confirming the civilian toll, said it was targeting military vehicles but admitted hitting two convoys.
- **April 28** – NATO, aiming for an army barracks in the Serb village of Surdulica (250 kms/150 miles south of Belgrade), bombs a residential area, leaving at least 20 civilians dead.
- **May 1** – NATO bombs a bridge at Luzane near Pristina, killing 47 people aboard a bus which was travelling along it. NATO, without confirming the figure, admitted the following day having targetted the bridge without the intention of causing civilian casualties.
- **May 7** – A NATO air raid hits central Nis in southeast Serbia, leaving at least 15 dead and 70 injured. NATO said its planes were aiming for a landing strip and a radio transmitter but that a cluster bomb had missed its mark.
- **May 8** – NATO mistakenly attacks the Chinese embassy in Belgrade, killing three journalists. The United States and NATO said the intended target was a Yugoslav building with military use, but US maps used in the planning of the operation were old and marked the embassy at a previous address.
- **May 13** – NATO bombs the village of Korisa, leaving 87 civilians dead according to the Serbs. The allies claim that the civilians were being used as "human shields" and that Korisa was a legitimate military target.
- **May 20** – A Belgrade hospital is hit by a missile at around 1 -- 00 a.m., killing three patients. NATO attributes the accident to a missile which went astray during an attack on a nearby military barracks.
- **May 21** – NATO bombs Istok prison in north-west Kosovo. Alliance officials insist the prison was being used as an assembly point for Serb forces in the province. Serbs say at least 100 inmates and a prison officer were killed.
- **May 22** – NATO admits bombing by mistake positions of the Kosovo Liberation Army at Kosare, near the border with Albania. Sources close to the KLA say seven guerillas were killed and 15 injured.
- **May 30** – NATO bombs a highway bridge at Varvarin in a daytime raid in central Serbia. The Serbs claim 11 people died while attempting to cross the bridge in their cars. NATO has not confirmed whether there were cars on the bridge and insists the bridge was a legitimate military garget.
- **May 31** – Missiles strike a sanatorium at Surdulica, southern Serbia, killing at least 20 people, according to the Serb authorities. NATO says it successfully attacked a military barracks in the town but refuses to confirm, or categorically deny, hitting the hospital.
- **May 31** – A NATO bomb aimed at a military compound strikes a four-storey apartment block in the town of Novi Pazar. NATO confirms one of its bombs went astray and landed in a residential area. Serb authorities report 23 dead.
- **1 June** – A NATO bomb landed in a residential neighbourhood in the Serbian town of Novi Pazar.

Basic Documents

- **RAMBOUILLET ACCORDS TEXT - Interim Agreement for Peace and Self-Government in Kosovo (February 23, 1999)**
- **Statement on Kosovo Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Washington, DC 23 April 1999**
- **TEXT: G-8 FOREIGN MINISTERS PROPOSE SOLUTION FOR KOSOVO USIA 06 May 1999**

Sources and Methods

- **Intelligence Collection Systems**
- **Cloud Cover - Current Conditions**
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- Press Conference on the Kosovo Strike Assessment by General Wesley K. Clark, Supreme Allied Commander, Europe and Brigadier General John Corley, Chief, Kosovo Mission Effectiveness Assessment Team
- Maps and Aerial Views of post- and pre-strikes used during the Press Conference by General Wesley K. Clark 16 Sept. 1999
- **KOSOVO: An Account of the Crisis** - By Lord Robertson of Port Ellen, Secretary of State for Defence - 07 October 1999
- **JOINT STATEMENT ON THE KOSOVO AFTER ACTION REVIEW presented by Secretary of Defense William S. Cohen and Gen. Henry H. Shelton, Chairman of the Joint Chiefs of Staff, before the Senate Armed Services Committee, October 14, 1999**
- **"After Kosovo: Implications for U.S. Strategy and Coalition Warfare"** 1999 Topical Symposium, National Defense University, November 16-17, 1999, Fort McNair, Washington D.C.
- **DEFENSE DEPARTMENT REPORTS ON OPERATION ALLIED FORCE February 7, 2000 -- A new Department of Defense report released today provides more detailed information on NATO's 78-day air campaign, Operation Allied Force, to end Serbian atrocities in Kosovo.**

- Press Conference by NATO Secretary General, Javier Solana and General Wesley K. Clark, SACEUR 1st April 1999
- Almost All U.S. Airstrikes Involve 'Smart' Bombs PAUL RICHTER, Los Angeles Times Tuesday, April 13, 1999
- NATO HQ Press Conference Speech of Brigadier General Daniel P. Leaf 19 April 1999
- NATO HQ Transcript of Press Conference given by General Klaus Naumann, Chairman of the Military Committee 4 May 1999
- PSYOPs Leaflets dropped by NATO airplanes above Kosovo and Serbia 07 May 1999
- Operation " horseshoe " (Potkova)

- Clinton Kosovo Intervention Appears Imminent Bombing, or Ground Troops -- or Both US Senate Republican Policy Committee February 22, 1999 -- The Clinton Administration appears to be on the verge of military intervention in Kosovo. Depending on the outcome of the talks currently underway in France, the intervention -- the result of a course set by the Administration several months ago -- might involve NATO airstrikes against Serbia and/or a NATO ground force to police a settlement.
- Senate to Vote Today on Preventing Funding of Military Operations for Kosovo US Senate Republican Policy Committee March 23, 1999 -- Once again, the Clinton Administration appears to be on the verge of military intervention on behalf of Kosovo, in the form of airstrikes against Yugoslavia (now comprised of two republics, Serbia and Montenegro), which could begin at any time.

- KOSOVO: RUSSIA'S RESPONSE (OB66) Mark A Smith & Henry Plater-Zyberk *Conflict Studies Research Centre, Sandhurst UK* April 1999
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Conflict Studies Research Centre

NATO Intervention in Kosovo Questions Without Answers in Macedonia

Dr TRW Waters

Nov 1999

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Background and Introduction

On 24 March 1999, for the first time in the fifty years of the alliance's history, and without a specific United Nations mandate to do so, NATO forces launched an armed attack on a sovereign state, the Federal Republic of Yugoslavia (FRY). Following the string of broken agreements with the international community that accompanied the months of savagely escalating repression against Kosovar Albanians, NATO's unilateral intervention in the Balkans sought to force a halt to the deliberate, domestic and brutal policy of ethnic cleansing, to the methodical, internal campaign of "ethno-terror" (including mass murder and organised rape), that the Serbian regime in Belgrade pursued under the direction of President Slobodan Miloševi?. More specifically, NATO's Operation Allied Force, which launched a systematic air campaign (that was progressive and intensified considerably during its 78 day course) to disrupt and degrade Serbian military potential, had five clear, and non-negotiable, objectives: the verifiable cessation of all military actions, violence and repression in Kosovo; the withdrawal from Kosovo of Serbian military, police and paramilitary forces; the deployment in Kosovo of a (NATO-led) international military presence; the unconditional and safe return of all refugees and displaced persons with unimpeded access for humanitarian aid; a political framework for Kosovo based on the Rambouillet accords.

As is clear from the April 1999 Washington Summit Statement on Kosovo, these non-negotiable objectives were predicated on (at least) two key convictions and were affirmed with (at least) one major end in view. The key convictions are: (1) that the Kosovo crisis represents a fundamental challenge to NATO's shared values of democracy, human rights and the rule of law; (2) that the (then) continuing Serbian repression of Kosovars (and other FRY minorities) was aggravating an already massive humanitarian catastrophe, which, in turn, was seriously destabilising the surrounding region. NATO's major end in view was, and remains, "to make stability in Southeast Europe a priority of our transatlantic agenda". To that end, NATO governments will cooperate to support the nations of Southeast Europe in forging a "better future for their region – one based upon democracy, justice, economic integration, and security cooperation".

Mixed motives, then, as we see, underlay the NATO intervention: for values and interests merge; there exists a subtle blend of strategic rationale and moral purpose. The reversal of the indefensible policy of ethnic cleansing together with the provision of urgently needed humanitarian assistance in accordance with a compelling moral imperative is inextricably linked to the pressing security concerns of preventing the destabilisation of the region and enhancing security in the Balkans. This fusion of security interests and moral values is a key notion that runs throughout this paper.

The Balkans, as has been observed, is an area that produces more history than can be consumed locally. This observation is but a variant of the view, commonly held in the west, that the region is forever doomed to endemic instability and ongoing strife, indeed, worse, that the Balkans spawn a congenital barbarity that actually precludes peaceful coexistence. "This writer knows of no evidence that the ability of the Balkan peoples to interact

peaceably with one another is any greater now than it was ... eighty years ago", is, for example, the verdict of George Kennan in his "Introduction. The Balkan Crises: 1913 and 1993", in The Other Balkans Wars, the 1993 reissue of the 1913 Carnegie Endowment report on the Balkans. Also writing in 1993, Robert Kaplan records that "as always in the Balkans, bare survival provides precious little room for moral choices". The continuing horrors of the wars in former Yugoslavia – renewed ethnic cleansing, the perpetration of massacres in UN "safe havens", the spectre of another Bosnia in Kosovo – constitute ample grounds, so it is said, for holding such a decidedly gloomy view of the Balkan past and present and, indeed, of the region's future prospects.

There is, however, a second, more cheerful assessment of recent and contemporary developments in Southeast Europe that countenances hopes for a brighter Balkan future. Such a view emphasises the positive developments of the post Cold War transition within the wider Balkan region: the slow but sustained spread of democracy and the rule of law, the gradual introduction of the market with increasing prosperity for many, the steady evolution of a vibrant civil society. All of this is seen as part of a dynamic process of political and economic reconstruction, both within individual states and at the bilateral and multilateral levels. None of these beneficial trends were present in the Balkans of the past. It is within this novel framework, according to this view, that the Balkan countries will be able to call a halt to their internecine disputes given that their principal present aspiration is to seek a more secure future through integration into Euro-Atlantic structures.

So much by way of background and introduction. This paper will address two separate sets of issues. The first set are questions associated with the NATO intervention. They include moral questions (eg the obligation to prevent unnecessary suffering), political questions (eg the political wisdom of the decision to resort to military action and, with that decision once taken, questions of alliance credibility and cohesion), and legal questions (eg respect for the rule of (international) law); many such issues are typically debated under the rubric of the just war. The second set of questions concerns the prospects for stability in the Balkans. Our discussion focuses, for the most part, on the cluster of disputes that continue to sustain the so-called Macedonian question which as yet remains unanswered, with particular reference to developments in Bulgarian-Macedonian interstate relations.

The two sets of issues, though separate, are clearly interlinked. We have already drawn attention to the merging of security interests with moral values. Indeed, there are some, not least former UK Defence Secretary George Robertson in a recent talk at the Royal United Services Institute, who hail the alliance's military action over Kosovo as a "defining moment in European history". NATO intervention has made the world, and the Balkans in particular, "a better and a safer place". The hope, of course, is that this is indeed the case, that the Balkans are now coming firmly on track for a more secure future. The fear, however, is that the Balkan past remains an insuperable barrier to such a happy prospect and that winning the Balkan peace will be an even more demanding task than achieving the Serb surrender.

Intervention: Back to Basics

The twentieth century is the bloodiest of them all. It is estimated that one hundred and twenty million people have been killed in the interstate and intrastate wars of the last 100 years, which is more than all those killed in previous centuries put together. Moreover, of the 120,000,000 dead, more perished as a result of intrastate conflict, ie were killed by their own state (± 70 million), than fell during the course of interstate wars (± 50 million). It is his own state (consider Stalin, Hitler, Pinochet, for example) that, counter-intuitively, perhaps, represents at least as great a threat, if not indeed a greater one, to the security of the citizen and his human rights, than the depredations of a foreign power.

This fact accounts, in part at least, for the post-war development in international human rights law, whereby human rights instruments have multiplied both at the universal level (eg International Covenants on Civil and Political Rights, and on Economic, Social and Cultural Rights, 1966), and at the regional level (eg European Convention on Human Rights and Fundamental Freedoms, 1950), thus imparting further substance to the Universal Declaration of Human Rights, 1948. More recently, the post Cold War shift from interstate to intrastate conflict has prompted an emerging consensus, that gross human rights violations can sometimes justify encroachment on state sovereignty – a further highly significant development with respect to the "internationalisation" of human rights issues. Indeed, at the European level, all members of the Organisation for Security and Cooperation in Europe (OSCE) have accepted that "the commitments undertaken in the field of the human dimension ... are matters of direct and legitimate concern to all participating States and do not belong exclusively to the internal affairs of the State concerned" (Helsinki Summit Declaration, 1992).

Intervention: Law and Order in International Society

Judgements about the justice or injustice of particular wars, or acts of aggression, are rooted in, though not wholly determined by, a legalistic paradigm that presupposes significant parallels between the international and the civil order. Civil society is made up of private individuals, international society of sovereign states. According to this so-called "domestic analogy", acts of aggression, or war, against a sovereign state are, so to speak, the international equivalents of, say, the mugging or the murder of an individual citizen; similarly, the political sovereignty and territorial integrity of the state at the international level equate to the individual liberty and integrity of the person domestically. There are international analogues, moreover, for such notions as rights, duties, crime and punishment, law enforcement, self-defence and many others that we are familiar with in domestic jurisdictions.

The legalistic paradigm for international society which informs and significantly constrains our moral judgements on war can be summed up, for our purposes, as follows. There exists an international society of sovereign states which is subject to international law. This law establishes the rights of its subjects, in particular, their rights of territorial integrity and political sovereignty. The application of force by one state against the political sovereignty or territorial integrity of another constitutes aggression and is a crime in international law. Aggression justifies a war of self-defence by the victim and a war of law enforcement by other states. Nothing but aggression can justify war.

This paradigm plainly captures many of the intuitive moral judgements we make about war: it certifies as just, for example, the war the allies fought against Nazi aggression and condemns as unjust the waging of war for "reasons of state" in the style of traditional Realpolitik. The legislative paradigm also clearly endorses the principle that states should never intervene by using armed force in the domestic affairs of other states.

According to Michael Walzer, the domestic analogy and the legalistic paradigm possess considerable explanatory power as an account of our value

judgements on war. But such an account is by no means a complete characterisation of the morality of war. For the legalistic paradigm is more restrictive than the moral judgements which – after due reflection, much soul searching, and in all conscience – we actually make. For example, the cries of the "something must be done!" brigade (about the horrors of Bosnia, Rwanda and Kosovo) reflect the moral convictions, derived in part from readily understandable feelings of outrage and revulsion, of a significantly large number of ordinary men and women. The legalistic paradigm, it seems, stands in need of revision, especially, perhaps, with regard to the issue of humanitarian intervention.

Intervention: The Moral Imperative

The citizens of a state are members of a single political community, entitled collectively to determine their internal affairs. The doctrine of sovereignty defines the liberty of states as their independence from foreign control or coercion. Plainly, not every independent, self-determining state is free with regard to the organisation of its internal institutional arrangements (many, probably most, are not). But the affirmation and acknowledgement of state sovereignty stakes out an area, both metaphorically and literally, within which the citizens of the polity can at least strive to establish free institutions, and may indeed sometimes succeed in doing so. We cherish such an area of state sovereignty and the endeavours that take place within it much as we protect the integrity of the individual and personal endeavour, by reference to rights that cannot be violated, to space that cannot be invaded – as with individuals, so, too, with sovereign states again.

But some instances of foreign intervention for humanitarian reasons, it seems, as we saw earlier, may sometimes be justified on moral grounds. Of course, any form of intervention always needs to be justified and incurs an especially weighty burden of proof in the event that the intervention is made with armed force. Intervention, including sometimes armed intervention, is morally justified in circumstances such as the following. If the violation of human rights within a state is so massive and so savage that we are led to doubt the very existence of a political community to which the notion of self-determination might apply, then that state will forfeit its sovereign rights and a prima facie case for humanitarian intervention will obtain. For those who initiate the mass murder or enslavement of political opponents, national minorities, or religious sects lose their right to participate in the processes of domestic self-determination. Governments and armies that engage in genocide are criminal governments and armies for they are guilty under the Nuremberg code of "crimes against humanity". Humanitarian intervention on moral grounds at the international level resembles law enforcement or policing in domestic society. But if the humanitarian intervention is made on moral grounds alone, without the authorisation of the society of nations, then the law is unilaterally enforced and the police are self-appointed. There exists, that is to say, the possibility that, under the cover of humanitarianism, powerful states will seek to coerce and dominate their neighbours. Of course, such a possibility, or risk, is ever present. Ever present, too, is the moral obligation binding on us all to prevent the infliction of suffering. There are desperate circumstances (Bosnia, Rwanda, Kosovo and the like) for which there is no help at all, or rescue, unless help, or rescue, is introduced from outside.

Humanitarian intervention, it seems, is justified as a response to acts that "shock the moral conscience of mankind". Of the 1971 Indian humanitarian intervention in East Pakistan as a response to the Pakistani slaughter and oppression in Bengal an international lawyer writes: "It is idle to argue in such cases that the duty of the neighbouring people is to look on quietly". A state can be invaded and war justly waged to rescue peoples whose survival is at stake. In such a case, as Walzer neatly puts it, "we permit or, after the fact, we praise or don't condemn those violations of the formal rules of sovereignty, because they uphold the values of individual life and communal liberty of which sovereignty itself is merely an expression".

Intervention: The Legality of NATO's Military Actions in Kosovo

As an alliance of democratic nations whose political system is based on the rule of law, NATO is committed to the purposes and principles of the Charter of the United Nations. Created in the aftermath of the Second World War, the UN was designed to outlaw the unilateral use of force and provide an institutional framework for the collective maintenance of peace and security. The five permanent members of the United Nations Security Council (UNSC) - US, UK, Russia, China, France – enjoy a right of veto which enables any one of them to render illegal under international law any armed intervention, no matter what the motives, by withholding UNSC authorisation. Thus, except in cases of self-defence, the international legality of the use of force is determined by the UNSC (usually in the form of a resolution specifically authorising the use of force), where the five veto-wielding members have the final word. Given the alliance's profound commitment to the rule of law domestically, and to the UN Charter, the issue of the legality of the NATO intervention in Kosovo is fundamental.

Russian Foreign Minister Igor Ivanov condemned the NATO air strikes as "a crude violation of the UN Charter" and "an act of open aggression against a sovereign state of the UN", while China assailed them as "unacceptable". Answering a journalist's question during a Press Conference, the hawkish US Secretary of State, Madeleine Albright, said that she did not think that she had to answer international legal questions in detail. The US and the UK were the most assertive proponents of military action. "The alliance may, in exceptional circumstances, act without a specific mandate from the UN Security Council", according to Washington's brand of newly found proactivism. In London, the legal justification flowed from the moral imperative since, in the words of George Robertson, "international law provided a robust framework for taking action to prevent a humanitarian catastrophe when no other alternative was available". In Bonn, the then German Foreign Minister Klaus Kinkel found that a military threat was in the "sense and logic" of UN Resolutions 1160 and 1199, though he conceded that this did not constitute direct legal ground. According to French President Jacques Chirac, "any military action must be requested and decided by the Security Council", though he also pointed out that "in this particular case we have a resolution which does open the way to the possibility of military action".

All attempts to find a legal justification for NATO's use of force call upon Resolution 1199 which the UNSC adopted on 23 September 1998, following the eviction from their homes by the Serbs of more than 250,000 Albanian Kosovars, some 80,000 of whom sought refuge in neighbouring countries. The Resolution called for the cessation of acts of violence against civilians and the withdrawal of Yugoslav security units used for civilian repression; the safe return of refugees and displaced persons; the free and unimpeded access of humanitarian relief organisations to persons in need. The Resolution was based on Chapter VII of the UN Charter and stated that the deterioration of the situation in Kosovo constitutes a threat to peace and security in the region. The fact that Yugoslav forces were in blatant violation of the Resolution's requirements, and that the Resolution was based on Chapter VII, provided sufficient legal grounds, so it was sometimes argued, for the alliance's intervention. But such an argument equates Chapter VII and the use of force, while Chapter VII provides for many other options which fall short of the use of force (eg various forms of embargo); moreover, the Security Council had not called specifically for the use of force as a solution. It seems clear that – to put the very best gloss on it – NATO's use of force was a significant departure from classic international legality and that, in their different ways, NATO nations were at a loss (and, significantly, were perceived to be at a loss) to justify the Kosovo intervention in terms of international law.

At worst, NATO's unilateral use of military force has jeopardised, and indeed perhaps subverted, the international order based on the UN Charter which entrusts the Security Council with the responsibility to monitor and guarantee international peace and security. The spirit of cooperation that prevailed in the Security Council in the years immediately following the demise of communism, it is argued, has now degenerated into animosity and disagreement as a result of NATO's failure to respect the UN Charter. The bombing of Belgrade has confirmed the belief – already strongly held in communist and nationalist circles in Russia and other countries of the former Soviet Union – that the alliance is an aggressive, indeed, criminal organisation whose expansionist policy has the aim of keeping Russia down. Yel'tsin called NATO barbarous. Moscow regarded NATO's insistence on making war on a brother, Slav country against Russia's expressed wishes as yet another slight, following a string of earlier disagreements over policy on Iraq and NATO enlargement. It is probable that Russia (and China) will use their veto to block future UN-mandated actions. "Most disturbingly", as Chesterman and Byers suggest, "the system created in 1945 to preserve peace and security has been seriously compromised at a time when many countries – not just Iraq – are acquiring weapons of mass destruction that threaten us all". What is to be done?

Intervention: Plugging Gaps in International Law

The first thing to notice is that while cases like Kosovo evoke passionate reactions within the realm of moral choice, they are not unambiguously and adequately provided for by the law; they reach down to the very bedrock of our common morality, but (international) legal provision for them simply runs out. It must be acknowledged, then, that international law has a number of serious gaps with regard to matters of humanitarian intervention. Basically, these gaps need to be plugged. As Catherine Guicherd eloquently proposes: "Instead of looking for convoluted and unconvincing justifications on the one hand, or issuing blatant condemnation on the other, advocates and adversaries of the NATO operations should focus on consolidating embryonic practices into a clear and strong body of law to allow intervention on humanitarian grounds". Embryonic practices embraces those occasions when the Security Council, supported by international opinion, has allowed UN member states to undertake military intervention to rescue the victims of domestic conflicts (eg, the US-led Operation Restore Hope in Somalia, 1992; the French-led Opération Turquoise in Rwanda, 1994; the Italian-led Operation Alba in Albania, 1997). Such practices are "embryonic" because the recognition that human rights do not belong exclusively to the domestic affairs of states, and that human rights violations can sometimes justify encroachment on state sovereignty is relatively recent. There exist tensions between the principles of state sovereignty and the protection of human rights. Recent practice with respect to humanitarian intervention, however, has increasingly given primacy to human rights over state sovereignty in cases when the two principles conflict. There is no reason why this tendency should not evolve further with time, why the embryonic practice of humanitarian intervention, that is to say, should not be codified into law. Precedent has an important place in international law as in domestic law; international law evolves as practices become acceptable to the majority of states in the international community. Too rigid an adherence to the present legal rulebook could make the best the enemy of the good.

The right of victims to receive assistance (in cases like Kosovo) is now considered part of customary international law and, during the 1990s, this right has been confirmed by numerous resolutions of the Security Council. There exists a certain "hypocrisy" in international law, however, as a French lawyer terms it, for despite the recognised right of victims to assistance, it is not possible to derive a right of states to bring this assistance by all means, including military force. Clearly (as was emphasised above), any attempt to legitimise humanitarian military intervention undertaken by a "coalition of the willing", ie by states acting independently (outside Security Council resolutions), would have to meet very strict conditions. The most important is that the Security Council should retain its primacy in the maintenance of international peace and security. However, reform both of the composition and the rules governing the Security Council – a structure that reflects the world of 1945 and not the world of 2000 – is surely not beyond the wit of man, as well as being long overdue. Increasing the representation of Africa, Asia and Latin America on the Security Council, and replacing the right of veto by a system of qualified majority voting in order to protect international law and, above all, victims entitled to assistance in cases like Kosovo from the vagaries of the relationships among its members, especially the five veto-wielding permanent ones, might not be a bad start. There will be other Kosovos. Perhaps, as Catherine Guicherd suggests, "alliance members should lead a drive to adjust international law by developing clear rules for humanitarian intervention". If such a project were, with time, to be successful, then instead of being the cause of a critical breakdown in NATO-Russia relations, the next Kosovo could, and should, provide an opportunity for joint effective action.

Intervention: NATO's Mixed Motives – A Salutary Blend of Strategic Rationale and Moral Purpose?

In the security environment of a hundred or so years ago the Balkans may well not have been worth the bones of a single Pomeranian Grenadier. But today things are different, and the NATO intervention strongly suggests that Bismarck was wrong. However, clear cases of humanitarian intervention alone are very rare, if indeed they exist at all; typically, the humanitarian motive will be but one among many. As Michael Walzer wryly observes, "states don't send their soldiers into other states ... only in order to save lives. The lives of foreigners don't weigh that heavily in the scales of domestic decision-making". However, in our age of increasing global interdependence, both in economic affairs and in the realm of politics and security, it is becoming ever more difficult for nations to stand aside from large-scale violations of human rights within other countries, if they want still to stay secure. When ethnic cleansing in the Balkans unleashes massive flows of refugees which seriously destabilise neighbouring countries, not to speak of adding to the problems associated with migrants, refugees and asylum-seekers in somewhat more distant countries in the west, then it is reasonable to describe it as a threat to international peace and security.

Mixed motives – in the form of a benign merger of strategic rationale with moral purpose – is a theme which runs through justifications for the NATO intervention, in which the promotion of alliance/national security interests, it is urged, coincided with the affirmation of positive moral values. Tony Blair, for example, has spoken of "a new doctrine of international community". By this he means "the explicit recognition that today more than ever before, we are mutually dependent, that national interest is to a significant extent governed by international collaboration". The notion of community, ie the belief that partnership and cooperation are essential to advance self-interest, has recently come into its own in domestic politics, and now it needs to finds its echo in the international arena. The principles of international community also apply to international security. "Now our actions are guided by a more subtle blend of mutual self-interest and moral purpose in defending the values we cherish. ... Values and interests merge." The spread of our values of liberty, the rule of law, human rights and an open society is "in our national interests" and "makes us safer".

In Blair's view, the most pressing foreign policy problem is to identify the circumstances in which it is necessary to intervene militarily in other people's conflicts. While it is impossible to right every wrong in the contemporary world, moral considerations feature prominently in the five major conditions the Prime Minister identifies which – though by no means absolute tests – nonetheless effectively constitute the "Blair Doctrine for British Military Intervention". (1) Are we sure of our case? War is an imperfect instrument for relieving/righting humanitarian distress, but military force is

sometimes the only means of dealing effectively with evil and ruthless dictators like Slobodan Miloševi?. (2) Have we exhausted all diplomatic options? Peace must always be given every chance, as was the case with Kosovo, when months of painstaking diplomatic effort ultimately ended in failure. (3) Are there military options which, given the realities of the situation, can sensibly and prudently be undertaken? (4) Are we prepared for the long term? Having made a commitment, it is not permissible to quit as soon as the battle is over; better to stay with moderate numbers of troops than return for repeat performances with large numbers. (5) Are national interests involved? It is, of course, significant that the ethnic cleansing in Kosovo was taking place in such a combustible part of Europe.

Intervention on moral grounds in order to achieve greater stability and thus enhance collective security in accordance with national interests was a principal theme of a speech made by UN Secretary General Kofi Annan in June 1998. "A great deal is at stake in Kosovo today – for the people of Kosovo themselves; for the overall stability of the Balkans; and for the credibility and legitimacy of all our words and deeds in pursuit of collective security. ... all our hopes for a peaceful future for the Balkans will be cruelly mocked if we allow Kosovo to become another killing-field. ... State frontiers should no longer be seen as watertight protection for war criminals or mass murderers. The fact that a conflict is "internal" does not give the parties any right to disregard the most basic rules of human conduct. Besides, most "internal" conflicts do not stay internal for very long. They soon "spill over" into neighbouring countries." It is a great pity that this kind of thinking did not lead to the Kosovo problem being addressed at the Dayton, Ohio peace talks in 1995. Had it been, "the Forgotten of Dayton" (as the Albanians considered themselves) might not have realised that passive resistance had failed as a strategy and the Kosovo Liberation Army might never have become a mass movement.

Did the NATO intervention effectively prevent such a "spillover" into neighbouring countries of the "internal" conflict in Kosovo? And what of stability in the Balkans as a whole? And of the wider collective security endeavour? Three general points are surely very clear. (1) Had NATO not become engaged in Kosovo, but simply passed by on the other side, there is little doubt but that the world would have changed for the worse and would have become a more dangerous place. NATO's stand on Kosovo offers prospects for fruitful developments in international law, for greater protection of human rights, and sends a strong and much needed signal that, in the Euro-Atlantic area at least, alliance adherence to shared values will not tolerate crimes against humanity. (2) Had NATO suffered a palpable defeat, its legitimacy, credibility and prestige as a collective security organisation would have been seriously undermined, and western influence on the conduct of international affairs would have been severely diminished. (3) Had NATO not prevailed, the destabilisation of Yugoslavia's immediate neighbours (perhaps eventually leading to a more general Balkan war) would have been assured.

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Background and Introduction

On 24 March 1999, for the first time in the fifty years of the alliance's history, and without a specific United Nations mandate to do so, NATO forces launched an armed attack on a sovereign state, the Federal Republic of Yugoslavia (FRY). Following the string of broken agreements with the international community that accompanied the months of savagely escalating repression against Kosovar Albanians, NATO's unilateral intervention in the Balkans sought to force a halt to the deliberate, domestic and brutal policy of ethnic cleansing, to the methodical, internal campaign of "ethno-terror" (including mass murder and organised rape), that the Serbian regime in Belgrade pursued under the direction of President Slobodan Miloševi?. More specifically, NATO's Operation Allied Force, which launched a systematic air campaign (that was progressive and intensified considerably during its 78 day course) to disrupt and degrade Serbian military potential, had five clear, and non-negotiable, objectives: the verifiable cessation of all military actions, violence and repression in Kosovo; the withdrawal from Kosovo of Serbian military, police and paramilitary forces; the deployment in Kosovo of a (NATO-led) international military presence; the unconditional and safe return of all refugees and displaced persons with unimpeded access for humanitarian aid; a political framework for Kosovo based on the Rambouillet accords.

As is clear from the April 1999 Washington Summit Statement on Kosovo, these non-negotiable objectives were predicated on (at least) two key convictions and were affirmed with (at least) one major end in view. The key convictions are: (1) that the Kosovo crisis represents a fundamental challenge to NATO's shared values of democracy, human rights and the rule of law; (2) that the (then) continuing Serbian repression of Kosovars (and other FRY minorities) was aggravating an already massive humanitarian catastrophe, which, in turn, was seriously destabilising the surrounding region. NATO's major end in view was, and remains, "to make stability in Southeast Europe a priority of our transatlantic agenda". To that end, NATO governments will cooperate to support the nations of Southeast Europe in forging a "better future for their region – one based upon democracy, justice, economic integration, and security cooperation".

Mixed motives, then, as we see, underlay the NATO intervention: for values and interests merge; there exists a subtle blend of strategic rationale and moral purpose. The reversal of the indefensible policy of ethnic cleansing together with the provision of urgently needed humanitarian assistance in accordance with a compelling moral imperative is inextricably linked to the pressing security concerns of preventing the destabilisation of the region and enhancing security in the Balkans. This fusion of security interests and moral values is a key notion that runs throughout this paper.

The Balkans, as has been observed, is an area that produces more history than can be consumed locally. This observation is but a variant of the view, commonly held in the west, that the region is forever doomed to endemic instability and ongoing strife, indeed, worse, that the Balkans spawn a congenital barbarity that actually precludes peaceful coexistence. "This writer knows of no evidence that the ability of the Balkan peoples to interact