
SUMMARY

Some of the most limiting constraints on future U.S. military actions in urban environments are not going to be technological or operational; they are going to be legal and political. Recent U.S. and coalition operations in the Balkans and elsewhere have been marked by heated controversy over target selection and have demonstrated the difficulty of balancing the often competing concerns of avoiding collateral damage, minimizing risk of U.S. casualties, and maximizing military effectiveness.

Urban environments pose enormous difficulties for those planning and conducting military operations within the boundaries of international law and self-imposed political constraints. The speed and agility of air power, combined with its ability to deliver firepower precisely and with relatively low risk to U.S. personnel across the spectrum of conflict, often make it the military instrument of choice for policymakers. However, the heightened risk of collateral damage when operating in urban environments partially offsets U.S. technological superiority. The features of urban environments also provide adversaries with expanded opportunities to exploit U.S. adherence to certain norms by using human shields and propagandizing civilian injuries. As a result, the urban combat options available to planners and decisionmakers are generally far narrower than the domain of the feasible.

Continued technological advances in critical areas such as precision guidance and target identification may help alleviate some of the conflicting legal, political, and operational pressures facing planners.

But technological improvements will not be a panacea. Indeed, technological advances may intensify or tighten legal and political constraints on military operations. The United States Air Force (USAF) should be cautious in its expectations about its ability to free U.S. decisionmakers from the complex set of constraints that bind them.

INTERNATIONAL LEGAL CONSTRAINTS

The international law of armed conflict obliges attackers and defenders to take precautions to reduce the risk of collateral damage and civilian injury. In an effort to balance the demands of military necessity with humanitarian concerns, the legal regime requires that attackers discriminate between combatants and noncombatants, and between military assets and civilian property. It further requires that attackers refrain from actions likely to cause civilian damage or injury disproportionate to the expected military gain.

At the same time that it regulates the actions of attackers, the international legal regime prohibits a defender from deliberately increasing risks to its own population—for example, by commingling civilian and military persons or assets in an effort to shield military targets from attack. Some adversaries may breach this restriction, creating dilemmas for U.S. planners seeking to hold down the risk or level of civilian injury that results from military operations.

The risk of collateral civilian damage resulting from air operations is often magnified in urban settings, where military and civilian assets are collocated and sometimes difficult to distinguish. Not only does the urban environment, by connecting and closely packing both military and civilian resources, increase the chances that military attacks will injure civilians or destroy civilian property, but it increases the likelihood that even relatively small destructive impacts can unleash substantial reverberating effects on the urban population. As recent NATO actions over Kosovo attest, these potentials raise a number of international legal concerns for planners, especially as operational decisions come under increasing media scrutiny at home and abroad.

POLITICAL CONSTRAINTS

The duties imposed by the international law of armed conflict are

supplemented by an additional set of constraints on planners: constraints driven by political forces. Public and coalition sensitivity to friendly casualties and collateral damage or civilian injury may reduce operational flexibility more severely than does adherence to international law.

Political constraints derive from the need to maintain minimum levels of support for military operations among three audiences: the domestic public, the international community (most notably major and regional U.S. allies), and the local population in the conflict area. The relative weights of these audiences' opinions on U.S. decisionmaking vary considerably with context and type of operation. When key U.S. interests are at stake, as in the Gulf War, decisionmakers are less likely to adapt operations to placate international dissent; when peripheral interests are at stake, as in the case of the Bosnian conflict, the relative importance of diplomatic backlash naturally rises and decisionmakers will tailor operations accordingly. During full-scale combat operations, the demands of the local populace will typically concern U.S. decisionmakers and planners less than during peacekeeping or humanitarian operations, where perceived impartiality and maintaining consent of factional parties may be critical to success. Even when U.S. vital interests are at issue, these pressures affect strategic decisions about when and whether to conduct military operations at all, as well as operational decisions including choice of forces, weapons, and rules of engagement.

Casualty and Collateral Damage Concerns

Today, most U.S. military operations are planned and conducted with high sensitivity to potential U.S. casualties. Policymakers and planners generally fear that U.S. casualties may erode support for sustained operations, especially if the public views imminent victory as unlikely.

At the same time, U.S. military operations are also planned with concern for minimizing collateral damage, although, as with American casualties, policymakers' and public sensitivity to collateral damage depends on a number of other factors such as the interests at stake. Even when the U.S. public appears willing to tolerate collateral enemy civilian injury, other members of the international community may not, and the risk of either public or international backlash is typically enough to severely constrain U.S. air operations.

Political concerns about U.S. or allied casualties and risks to civilians often pull decisionmakers in opposite directions. Efforts to reduce the vulnerability of U.S. and allied forces without sacrificing military effectiveness may entail greater risks for civilians in the conflict area; efforts to reduce the risk of collateral damage may require placing U.S. and allied forces in greater danger. During NATO's recent Allied Force operations over Kosovo, for instance, the requirement that U.S. ground-attack aircraft stay above 15,000 feet to minimize risks to aircrews from shoulder-fired anti-aircraft weapons helped satisfy political pressures to avoid U.S. casualties, but it probably resulted in higher chances of misidentification of civilian vehicle traffic as the enemy.

Targeting policies and rules of engagement are the most visible mechanisms through which legal and political constraints manifest themselves during operations. A key planning challenge is to select from among the politically and legally acceptable options while still achieving satisfactory levels of military effectiveness. As higher levels of military effectiveness are demanded while legal and political parameters remain stringent, the aperture of practicable options closes.

Events taking place during the course of operations may dramatically alter the strictness of rules of engagement and targeting policies, and planners must not only anticipate political shocks likely to give rise to increased strictness but also plan to prevent those that might undermine military and strategic effectiveness. Sometimes, such as prior to the Linebacker operations in Vietnam and following initial phases of Allied Force operations over Kosovo, political constraints are lifted to *expand* targeting options and operational flexibility. In many instances, however, rules of engagement constrict during a campaign or operation, as they did following the Al Firdos bunker bombing during Operation Desert Storm and, briefly, following several tragic incidents of mistaken target identification in Kosovo. The potential for sudden constrictions is of particular concern to planners because they cannot always predict how political currents may shift in response to contingencies.

Coalition Operations and Military Operations Other Than War

The United States often conducts military operations as part of a multinational coalition. Coalition-building adds legitimacy at home and abroad to military operations, and coalition partners sometimes contribute valuable military assets (including ground troops) or provide basing or overflight privileges. One price of coalition support, however, is generally an added layer of constraints on uses of military force.

A related set of issues—and an additional set of constraints—arises in the context of military operations other than war (MOOTW). These operations are typically conducted under the auspices of international organizations or ad hoc coalitions, and the particular demands of peacekeeping, securing relief aid, and other tasks may demand tight limitations on the use of force. As the Somalia case demonstrated so vividly, any escalatory steps by intervening forces can swiftly erode both local and coalition support. In humanitarian or peace operations, more so than in warfighting, even the smallest tactical moves may have grave strategic effects.

ADVERSARY EXPLOITATION OF ASYMMETRICAL CONSTRAINTS

U.S. forces generally operate under much tighter legal and political constraints than do their adversaries. Adversaries, knowing this, will likely take steps to exploit the asymmetry. Just as U.S. planners design strategies around adversaries' perceived "centers of gravity," those adversaries can be expected to do likewise and target what they see as the United States' center of gravity: its "political will." Adversaries often try to prey on apparent U.S. sensitivities to casualties and collateral damage, and the potential of these effects to erode public or allied support for sustained operations.

Opportunities for exploiting constraints on U.S. operations expand in the urban environment. Knowing that U.S. planners and operators are obliged to verify their target objectives, adversaries can disperse dual-use sites, camouflage military assets, and otherwise hinder U.S. information-gathering. Knowing that U.S. planners and operators will avoid incidental civilian losses, adversaries can commingle military and civilian assets and persons ("human-shield"

tactics). And knowing that U.S. planners and operators will avoid attacks likely to cause excessive civilian damage, adversaries can manipulate the media following attacks to portray exaggerated destruction.

The problems of conducting urban air operations under tight legal and political constraints are particularly acute when confronted with irregular enemy forces. Adherence to the principles of target discrimination becomes much harder when there are few, if any, physical markings to distinguish combatants from noncombatants.

TECHNOLOGY AND MITIGATING THE EFFECTS OF CONSTRAINTS

Much attention, both inside and outside the USAF, has centered on technological solutions to the dilemmas confronting planners, because some technologies offer promise for mitigating the *effects* of legal and political constraints on air operations. Key to many of the issues discussed in this report is the problem of collateral damage, which itself is largely a product of three factors: (1) information about exactly where a military target is, (2) the ability to aim at and hit a desired point, and (3) the ability to regulate the quantum of destruction a hit inflicts. Technological advances in several key areas can help address each of these factors. Key areas include

- Precision guidance and targeting
- Information collection and processing
- Nonlethal weapons
- Information/electronic warfare.

Technological advances, by reducing the probability and extent of collateral damage, can be liberating for planners: together with new operational concepts, they can help reduce the risk and extent of collateral damage, and other risks that legally and politically constrain air planners and operators. The unique capabilities of U.S. air forces, enhanced by continued technological advances in key areas, will give the USAF a key role in future urban operations across the spectrum of conflict.

However, technological development alone is insufficient to eliminate tradeoffs between military effectiveness and politico-legal

demands. Competing pressures to simultaneously minimize U.S. force vulnerability and civilian injury will likely grow along with, *and in some part because of*, enhanced technological capabilities, and adversaries' means and methods of exploiting those pressures will evolve as well. Not only will legal and political constraints influence future air operations, but future air operations will in turn influence those constraints.