

Report for Congress

Received through the CRS Web

Iraq: U.S. Military Operations

Updated March 31, 2003

Steve Bowman
Specialist in National Defense
Foreign Affairs, Defense, and Trade Division

Iraq: U.S. Military Operations

Summary

Iraq's chemical, biological, and nuclear weapons programs, together with Iraqi long-range missile development and support for terrorism, are the primary justifications put forward for military action. On March 17, 2003 President Bush issued an ultimatum demanding that Saddam Hussein and his sons depart from Iraq within 48 hours. On March 19, offensive operations began with air strikes against Iraqi leadership positions.

Offensive operations combine an air offensive with advancing elements of four armored, mechanized, airborne, and Marine divisions. It is a smaller force than the 1991 Desert Storm operation, reflecting an assessment that Iraqi armed forces are neither as numerous nor as capable as they were ten years ago, and that U.S. forces are significantly more capable. This size force was generally considered to offer greater certainty than lighter ground force options for a rapid victory against significant Iraqi resistance. As the U.S. ground offensive approaches Baghdad, DOD civilian leadership has come under criticism for not permitting the deployment of sufficient U.S. ground forces to maintain the offensive, protect lines of supply, and secure rear areas where Iraqi resistance continues. U.S. Central Command maintains that offensive operations are "on track", but have begun to acknowledge that Iraqi resistance is stronger than anticipated. The air attacks on Baghdad and Republican Guard units have intensified, as allied ground forces have focused on reconsolidation and securing rear areas. The most significant unknowns remain the intensity of Iraqi resistance within and around Baghdad, and whether chemical or biological weapons (CBW) will be employed. To date, no CBW munitions have been found. Contrary to Administration expectations, the invasion has not generated significant anti-regime activities among the Iraqi population.

Though press reports differ somewhat, and DOD has not released official figures, it appears that over 300,000 U.S. military personnel are in the Persian Gulf region (ashore and afloat) or en route. Ground forces include the 3rd Infantry Division, the 101st Airborne Division, the 7th Cavalry Regiment, and the 1st Marine Expeditionary Force. Three other Army divisions are en route or on alert for deployment. The U.S. Navy has deployed six aircraft carrier battle groups. The Air Force has about 15 air wings in the region, and strategic bombers are operating from the British airbase at Diego Garcia, and airbases in the Middle East, Europe, and the United States. (See CRS Report RL317563, *Iraq: A Summary of U.S. Forces*.) The United Kingdom has deployed an task force of approximately 47,000 troops. Australia has deployed 2,000 troops, and 200 Polish special operations forces are also engaged. Key arrangements for the use of regional military facilities are in place with Kuwait, Bahrain, Qatar, and Oman. Saudi Arabia is permitting use of air command centers and Turkey has granted overflight rights. (See CRS Report RL31799, *Iraq Foreign Stances Toward US Policy*).

The Administration has submitted a \$62.6 billion FY2003 DOD supplemental appropriation request for expenses related to military operations in Iraq.

This report will be updated as events warrant.

Contents

Background	1
Military Planning and Operations	1
Options Considered	2
Current Operations	3
Factors for Consideration	5
Roles and Attitudes of Other Nations	5
Improved U.S. Military Technology	7
Iraqi Military Capabilities	8
Conventional Forces	8
Chemical and Biological Weapons	9
Post-War Requirements	11
Other U.S. Military Resource Requirements	11
Costs	12

Iraq: U.S. Military Operations

Background

Iraq's chemical, biological, and nuclear weapons programs, together with Iraqi long-range missile development, and support for terrorism are the primary justifications put forward by the Bush Administration for military action. Since Iraq originally ended cooperation with U.N. inspectors in 1998, there has been little information on the state of Iraq's weapons of mass destruction (WMD) arsenal; however, Administration officials are convinced that Iraq has reconstituted significant capabilities. Initially, leading Administration officials, most notably Vice-President Cheney, Defense Secretary Rumsfeld, and his Deputy Paul Wolfowitz, stressed that "regime change" or the removal of Saddam Hussein from power. Later in 2002, WMD disarmament was emphasized as the primary objective. Expanding on this theme, President Bush, in his speech before the United Nations on September 12, 2002 specified the following conditions for Iraq to meet to forestall military action against it:

- Immediately and unconditionally forswear, disclose, and remove or destroy all weapons of mass destruction, long-range missiles, and all related material.
- End all support for terrorism and act to suppress it.
- Cease persecution of its civilian population.
- Release or account for all Gulf War missing personnel.
- End all illicit trade outside the oil-for-food program and allow United Nations administration of its funds.¹

On March 17, 2003 President Bush issued an ultimatum demanding that Saddam Hussein and his sons depart from Iraq within 48 hours. On March 19, offensive operations commenced with air strikes against Iraqi leadership positions.

Military Planning and Operations

The Department of Defense officially released limited official information concerning war planning or preparations against Iraq prior to the onset of offensive operations. There were, however, frequent and significant news leaks which provided a range of details. News reports indicated that the military options that were under discussion varied significantly in their assumptions regarding Iraq military capabilities, the usefulness of Iraqi opposition groups, the attitude of regional governments, and the U.S. military resources that would be required.

¹ President Bush's Address to the U.N. General Assembly, September 12, 2002.

Options Considered

In the wake of the successful operations in Afghanistan against the Taliban, some Administration officials advocated a similar operation, entailing use of special operations forces in cooperation with indigenous Iraqi opposition forces, coupled with an extensive air offensive to destroy Hussein's most reliable Republican Guard units, command & control centers, and WMD capabilities. This approach assumed that the regular Iraqi army would prove unreliable, and could even join opposition forces once it is clear that defeat is imminent. To encourage this, significant emphasis would be placed on an intensive psychological warfare or "psyops" campaign to undermine the morale of Iraqi soldiers and unit commanders, persuading them of the hopelessness of resistance.²

While having the advantage of not requiring large staging areas (though some regional air basing would be required) or months to prepare, this was generally considered the riskiest approach. The weakness of Iraqi opposition military forces and their competing political agendas place their effectiveness in question, and predicting the behavior of regular Iraqi Army units under attack is problematic. This option also did not address the possibility of stiff resistance by Republican Guard units in the environs of Baghdad, nor the troop requirements of a post-conflict occupation.

This "lite" option stood in contrast to the operations plan originally offered by U.S. Central Command. This option, often called the "Franks Plan", after Army Gen. Tommy Franks, the U.S. Central Command (CENTCOM) commander who first briefed it to the President, calls for a large-scale ground force invasion. News reports initially indicated, however, that this "heavy" approach did not receive the support of the DOD civilian leadership or White House advisors. Questions over the reliability of the regional support that would be necessary for staging areas and the length of time required for deployment were the major concerns.³ However, the White House rejection of the "Franks Plan" came prior to the decision to take the Iraq issue to the United Nations Security Council. When it became clear that Security Council deliberations and the re-introduction of U.N. inspectors to Iraq could delay the possibility of military action for several months, it was apparently decided that this interlude would allow time both to negotiate regional cooperation and to deploy more substantial forces to the Persian Gulf region, and military operations today appear to adhere closer to CENTCOM's original recommendations. As the ground force offensive has slowed, however, there is now increasing criticism of DOD's civilian leadership for not permitting the deployment of even more ground forces prior to onset of operations.⁴

² "Timing, Tactics on Iraq War Disputed; Top Bush Officials Criticize Generals' Conventional Views", *Washington Post*, August 1, 2002. p. 1

³ "The Iraq Build-up, II", *National Journal*, October 5, 2002. p. 2866.

⁴ "Rumsfeld's Role as War Strategist Under Scrutiny", *Reuters*, March 30, 2003.

Current Operations

Current offensive operations combine an air offensive and simultaneous ground offensive, in contrast to the 1991 campaign which saw weeks of air attacks to soften Iraqi resistance. U.S. Central Command's operational plan is employing a smaller ground force than the 1991 Desert Storm operation, reflecting an assessment that Iraqi armed forces are neither as numerous nor as capable as they were ten years ago, and that U.S. forces are significantly more capable. This option is greatly dependent upon the continued cooperation of regional nations for substantial staging areas/airbases and has required months to deploy the necessary forces.

Though press reports differ somewhat, it appears that over 300,000 U.S. military personnel are in the Persian Gulf region (ashore and afloat) and more en route. Currently the 3rd Mechanized Infantry Division, the 7th Cavalry Regiment, and the 1st Marine Expeditionary Force form the bulk of the U.S. ground offensive. The 101st Airborne Division (Air Assault) has deployed from Kuwait to advance bases in Iraq. The 4th Mechanized Infantry Division has not arrived in theater. Ships bearing its equipment remained off Turkey for weeks awaiting the outcome of negotiations to permit establishing a northern front attacking from Turkey, and then were diverted to the Persian Gulf when these negotiations fell through. It is anticipated that it will be mid- April before the 4th Infantry will be ready to enter action. The 1st Cavalry Division, 1st Armored Division, and 1st Mechanized Infantry Division have all been alerted for deployment, but reportedly most elements of these divisions still remain at home bases in Europe and the United States. Some elements of the 1st Air Cavalry have already deployed, given that a AH-64 Apache helicopter recently downed displayed 1st Air Cavalry insignia. The U.S. Navy has deployed six of its twelve naval aircraft carrier battle groups. The Air Force now has approximately 15 air wings operating in the region. Strategic bombers are operating from the British airbase at Diego Garcia, and airbases in the Middle East, Europe, and the United States. The United Kingdom has deployed over 47,000 personnel, including a naval task force, an armored task force, a Royal Marine brigade, a parachute brigade, a Special Air Service regiment, and a Special Boat Squadron. The majority of these British forces are engaged in southeastern Iraq, securing the Umm Qasr and Basra region. Australia has deployed approximately 2,000 personnel, including special operations personnel in western Iraq, and one F/A-18 attack aircraft squadron. Poland has 200 special operations troops around Basra. (For more detailed information, see CRS Report RL317563, *Iraq: A Summary of U.S. Forces* and CRS Report RL31799, *Iraq Foreign Stances Toward US. Policy*)

The invasion of Iraq was expected to begin with a 72-96 hour air offensive to paralyze the Iraqi command structure, and demoralize Iraqi resistance across the military-civilian spectrum. Intelligence reports indicating the possibility of striking Saddam Hussein and his immediate circle led to an acceleration of the operations plan, and an almost simultaneously onset of air and ground offensive operations. CENTCOM air commanders have stressed that significant efforts will continue to be made to minimize civilian casualties and damage to Iraqi physical infrastructure.

In the twelve days of the offensive, some U.S. ground force elements have reached well within 100 miles of Baghdad, and secured three bridgeheads over the Euphrates river. They pursued a strategy of rapid advance, by-passing urban centers

when possible, pausing only when encountering Iraqi resistance. CENTCOM spokesmen have characterized Iraqi resistance as sporadic and uncohesive. Oilfields and port facilities in southern Iraq have been secured, as have two air bases in western Iraq. Though a few oil wells were set afire, there has been no widespread environmental sabotage. Allied forces have not encountered the mass surrenders characteristic of the 1991 campaign, however DOD reports that over 3,500 Iraqis have been taken prisoner, and believes that many more have simply deserted their positions. Iraqi paramilitary forces, particularly the Saddam Fedayeem, have engaged in guerrilla-style attacks from urban centers in the rear areas, but have reportedly not inflicted significant damage. Nevertheless, greater attention than anticipated is having to be paid to protecting extended supply lines, and securing these urban centers, particularly around an-Nasiriyah and and Najaf, and in the British sector around Umm Qasr and Basra. The anticipated support for the invasion from the Shiia population in southern Iraq has not developed.

Though CENTCOM commanders continue to express confidence in the adequacy of their force structure in theater, the Iraqi attacks in rear areas and the length of the supply lines to forward units have led some to suggest that insufficient ground forces are in place to continue the offensive while securing rear areas and ensuring uninterrupted logistical support. These critics fault DOD civilian leadership for overestimating the effectiveness of a precision air offensive and curtailing the deployment of more ground troops, suggesting that an ideological commitment to smaller ground forces and greater reliance on high-tech weaponry has dominated military planning.⁵

Without permission to use Turkish territory, CENTCOM was unable to carry out an early ground offensive in Northern Iraq. Special operations forces are operating with Kurdish irregulars near Kirkuk, and the U.S. 173rd Airborne Brigade has deployed to the area. Although it is possible that Afghanistan-style operations using special forces and Kurdish troops could be mounted against the oil-rich Kirkuk region, CENTCOM and Pentagon spokesmen have been noticeably reticent about current or planned operations in the north. So far allied operations in the north appear to be a holding action, while reinforcements are awaited. Complicating the situation in the north, has been the Turkish desire to possibly augment the 8,000+ troops it has had stationed in Kurdish-held territory in order to block possible Kurdish refugees and influence the accommodations made to the Kurds in a post-conflict Iraq. Turkish military spokesmen have indicated that no additional Turkish forces will move into Iraq at this time.

As U.S. ground forces are now focused on securing rear areas, re-supplying, and consolidating units around Baghdad, the air offensive has intensified on Baghdad and Republican Guard positions. It appears also that the target list in and around Baghdad has been expanded, though efforts continue to limit civilian casualties and damage to the critical infrastructure of the country. The primary focus of the air campaign has been on command/communication installations, leadership facilities, and air defenses. Though suffering degradation, some Baghdad air defenses remain and Iraqi command and control systems retain some capability.

⁵ "Questions Raised About Invasion Force", *Washington Post*, March 25, 2003. p. 17

Two attacks on Iraqi domestic television broadcast centers have resulted in only temporary outages.

At this point, the success of the air offensive in breaking the will and ability of the Iraqi forces to resist will determine whether coalition forces will have to subject Baghdad to a lengthy siege or initiate urban operations into the city. This will be a critical juncture, because both options present the probability of increased civilian casualties and a greater political backlash within Iraq and internationally.

There are press reports that intelligence sources indicate that release authority for the use of chemical and biological weapons has been issued to regional subordinate commanders.⁶ The most significant unknowns remain the extent and intensity of Iraqi resistance around and within Baghdad, and whether chemical or biological weapons will be employed.

Factors for Consideration

Roles and Attitudes of Other Nations⁷

On March 18, the State Department released a list of thirty nations whom it characterizes as having “agreed to be part of the coalition for the immediate disarmament of Iraq”. The list includes those contributing combat units (noted above), those offering basing or overflight rights, and those who simply “want to be publically associated with efforts to disarm Iraq” – Afghanistan, Albania, Australia, Azerbaijan, Bulgaria, Colombia, Czech Republic, Denmark, El Salvador, Eritrea, Estonia, Ethiopia, Georgia, Hungary, Italy, Japan (post conflict), Korea, Latvia, Lithuania, Macedonia, Netherlands, Nicaragua, Philippines, Poland, Romania, Slovakia, Spain, Turkey, United Kingdom, and Uzbekistan. In addition to the countries listed, the State Department stated that there are 15 countries who have requested their support of military operations not be made public.⁸ On December 20, Administration officials referred to 35 nations as members of the coalition, without specifying nations.

The fluctuating international political environment regarding cooperation with U.S. offensive operations against Iraq confronted military planners with complex challenges. It has been suggested that some nations’ public opposition to military action against Iraq does not reflect the nature of “private” diplomatic conversations which indicate a greater willingness to support U.S. policy. If true, this could result in unacknowledged or covert assistance, or perhaps overt cooperation after a U.S. victory appears assured.

⁶ “Lightening Strikes, Then March to Baghdad”, *Washington Times*, March 18, 2003.

⁷ See also, CRS Report RL31799, *Iraq Foreign Stances Toward US. Policy*

⁸ Department of State, “Excerpt: Boucher Announces Coalition for Immediate Disarmament of Iraq”, *Washington File*, March 18, 2003.

Saudi Arabia, a previous opponent of military action, is permitting use of the U.S. air command center located on its territory, and the use of other air force facilities for non-strike aircraft (e.g., aerial tankers, search and rescue). Saudi cooperation will provide a very significant boon to military commanders, though there may be some concern over what role in military decision-making the Saudi government may wish to play now that offensive operations are underway.⁹

Concerned that U.S. facilities in Saudi Arabia would not be available for full operations against Iraq, the United States established defense agreements, and expanded or upgraded airbase and logistics facilities in Bahrain, Kuwait, Oman, Qatar, and the United Arab Emirates – countries whose support of U.S. policy in the region is judged the most reliable.¹⁰ Each of these countries permitted use of airbases to support U.S. military operations in Afghanistan, while Saudi Arabia allowed only the use of the air operations command center on its territory. Given the range of facilities and prepositioned U.S. equipment in these countries, their continued cooperation will be crucial to the military offensive against Iraq. The extent of cooperation from these nations was thought to probably greatly depend upon the results of U.N. arms inspections and the further approval of the U.N. Security Council. However, with the onset of conflict, there appears to be no diminution of support for U.S. operations.

The United States and Bahrain have a defense cooperation agreement regarding prepositioning war materiel. The U.S. Navy 5th Fleet headquarters is in Bahrain, and the Air Force currently has use of Bahrain's Shaikh airbase. Since the Gulf War, the United States has maintained a troop presence in Kuwait and it is serving as the main staging area for coalition ground forces. The U.S. Air Force has use of two Kuwaiti airfields – Ali al Salem and Ali al-Jabiru. In Oman, through a cooperative agreement, the Air Force has access to four airbases – al-Musnanah, Masirah, Seeb, and Thumrait – which it has been upgrading to handle a full range of air operations. Qatar has developed a very close cooperative defense relationship with the United States, permitting the prepositioning of enough equipment for three U.S. Army brigades and the construction of an operations command center at al-Udaid airbase comparable to that located at Prince Sultan airbase in Saudi Arabia. This facility has been extensively used to support operations in Afghanistan, and Central Command Headquarters deployed there in mid-September, 2002. In the United Arab Emirates, the U.S. Navy has access to port facilities and the Air Force is using the al-Dhafra airbase.¹¹

The attitude of the Turkish government towards U.S. military action against Iraq was a very important consideration for U.S. military planners. The Turkish parliament's rejection of a proposal allowing U.S. ground troops to operate from Turkey delivered a setback to CENTCOM planners, though CENTCOM spokesmen

⁹ "Saudi Arabia Said to Have Assured U.S. on Use of Bases", *New York Times*, December 29, 2002. p. 1

¹⁰ For further information, see CRS Report RL31533, *Persian Gulf: Issues for U.S. Policy, 2003*.

¹¹ "Current U.S. Order of Battle", Global Security.Org [http://www.globalsecurity.org/military/ops/iraq_orbat_030120.htm]

have downplayed the impact of the Turkish decision upon their prospects for a successful operation.¹² Turkey has granted only overflight rights, and will not permit basing or offensive operations from its soil. As noted, the 4th Mechanized Infantry Division, originally intended to attack from Turkey, is now being diverted to Kuwait as follow-on support for ground units in the south of Iraq. There have been press reports, however, that Turkey has facilitated U.S. upgrading of airfields located inside northern Iraq. Aside from permitting air operations from Incirlik and other bases, Turkish cooperation would also have provided an easier approach for a northern front for U.S. ground operations. Now, it appears, that U.S. airborne and air assault troops coming from Kuwait may be assigned this mission. Though very difficult, mountainous terrain presents challenges in this area, if the United States intends to coopt the indigenous Kurdish opposition forces as part of its attack strategy, a significant troop presence in northern Iraq is crucial.

Improved U.S. Military Technology

Significant technological advancements, particularly in precision-guided munitions, have led DOD spokesmen to emphasize that the air campaign against Iraq will be considerably more efficient and more militarily devastating than Operation Desert Storm. In 1991 only ten percent of the aerial munitions used were precision-guided. That ratio could well be the inverse in the air campaign today. This would allow a greater number of targets to be destroyed far more rapidly, using fewer aircraft and with less chance of collateral damage. The greater availability of precision-guided munitions (PGMs) bodes well for attacks against stationary targets, and moving targets in open terrain. There have been some questions raised about the level of PGM inventories after the Afghanistan campaign, but DOD has insisted they remain adequate for operations against Iraq.¹³ Major improvements have also been achieved in the ability of the intelligence community to communicate targeting information directly to combat platforms (e.g. attack aircraft, missile launchers) in almost real time. Military operations in an urban environment would, however, limit the effectiveness of air power and armor units. Rules of target engagement and avoidance of “friendly fire” casualties remain prime concerns.

U.S. military planners have paid particular attention to the problem of Iraqi missiles. In 1991, the allied coalition was unable to locate and destroy any SCUD mobile launchers, and U.S. intelligence believes that Iraq still possesses at least 24 missiles, some possibly armed with chemical or biological warheads. Using new equipment, such as the Tactical Airborne Warning System (TAWS) and the PAC-3 air defense missiles, DOD has greatly reduced the time from missile launch detection to intercept, improving the chance of both destroying the launched missile and the missile launcher. Improvements in satellite reconnaissance, communications, and unmanned aerial vehicles now available to ground commanders are also seen as major advances over Desert Storm capabilities. The PAC-3 air defense system has so far worked well in Kuwait in intercepting the few Iraqi missiles which threatened populated areas, though it has also downed a British fighter aircraft in a “friendly

¹² “General Dismisses Rebuff by Turkey”, *Washington Post*, March 4, 2003, p. 1

¹³ “The Tools Of War Expecting a rerun of Gulf War I? Think again, thanks to high tech and smart bombs”, *Time*, October 21, 2002.

fire” incident. Though initial reports indicated some of the Iraqi missiles were the prohibited SCUDs, this identification was later retracted.

Iraqi Military Capabilities

Conventional Forces. There is little disagreement that Iraqi armed forces are significantly degraded from their condition during the Persian Gulf War in 1991. Manpower stands at roughly 50% or less of its 1991 level or about 350,000-400,000. Unclassified estimates put equipment levels at about 2,000-2,600 tanks, 3,700 armored vehicles, and 300 combat aircraft.¹⁴ A number of factors are believed to hamper Iraqi military effectiveness. A decade of arms embargo has resulted in much equipment now being obsolete or inoperable. Many of Iraq’s regular army divisions are undermanned and all comprise mostly conscripts. Large unit and combined arms training is lacking, and combat experienced non-commissioned officers and commanders are relatively few. Logistical support is not robust, and is vulnerable to air interdiction.

Saddam Hussein’s fear of internal coups has served to make regime security a paramount concern, which could have a detrimental effect on Iraq’s military effectiveness. The best equipped and most reliable troops, the Republican Guard, are kept near Baghdad for regime protection. The officer corps is subject to intense scrutiny for loyalty and subject to unpredictable purges. The distribution of weaponry and supplies is curtailed among regular army units to forestall attempts to overthrow the regime. There also exist tensions, to some extent purposely encouraged, between regular and Republican Guard units, which could hamper coordination.¹⁵

These considerations notwithstanding, the Iraqi military still presents some significant challenges for U.S. military planners. It cannot be assumed that a ground campaign would be simply a replay of 1991's Operation Desert Storm. After that experience when Iraqi units deployed in the open desert were subjected to devastating air attacks, Iraq’s military leadership appears to be turning to an urban strategy to reduce the effectiveness of U.S. airpower. By choosing to defend primarily urban centers, Iraq could force the United States to commit troops to urban combat – one of the most difficult types to conduct – and simultaneously constrain U.S. Air Force targeting because of concerns over collateral damage and casualties. The Iraqi government has shown no hesitation to locate military facilities in civilian areas to exploit this concern. Republican Guard units in the environs of Baghdad, as part of their regime protection mission, have trained for urban combat, and could provide significant resistance mingled with Baghdad’s population of 4 million. There have

¹⁴ For a detailed examinations, see Cordesman, Anthony. *Iraq’s Military Capabilities in 2002*, Center for Strategic and International Studies, September 2002.; and *The Military Balance 2002-2003*. International Institute of Strategic Studies, October 2002.

¹⁵ See also, CRS Report RL31339, U.S. Efforts to Change the Regime.

been reports of underground tunnel systems in urban centers specifically designed to facilitate urban defense.¹⁶

As operations have played out, Iraqi ground forces have generally remained in fortified positions around and within urban centers, and have emphasized guerilla-style attacks to harass and delay the U.S. advance. Iraqi units that have attempted to maneuver in the open have been successfully attacked by allied air forces

Chemical and Biological Weapons. Iraq is believed to have possibly retained chemical and biological stockpiles from before the Persian Gulf War, and may have continued covert CBW development and/or production since. Some CBW facilities that were destroyed during the Persian Gulf War reportedly have been rebuilt. Iraq is known to have produced blister agents (“mustard gas”) and both persistent and non-persistent nerve agents (VX and Sarin). Biological agents produced include anthrax, aflatoxin, and the toxin agents botulinum and ricin. Though unconfirmed, it is possible that Iraq may also possess the smallpox virus cultured from natural outbreaks of the disease in Iraq prior to its world-wide eradication in the early 1970s. Iraq is known to have developed a variety of means to disseminate CBW, including bombs, artillery shells, missile warheads, mines, and aerial sprayers for both manned and unmanned aircraft. There have been some questions about the effectiveness of these delivery systems, but they remain unanswered.¹⁷

Though Iraq did not use CBW in the Persian Gulf War, many believe that Saddam Hussein’s restraint in this regard will be not repeated. This view is based on the assumption that, given that the U.S. objective would now be the destruction of his regime rather than the more limited objectives in the Persian Gulf War, Hussein would have “nothing to lose” by their employment. The actual use of these weapons will rest ultimately, however, upon the military commanders who control them, and U.S. planners are focusing on ways to persuade these officers that using CBW would be suicidal.

To date, CENTCOM reports that no use of chemical or biological weapons has been detected, and no CBW munitions have been discovered, though some stored CW defensive equipment has been discovered. Given that operational planning called for suspected CBW sites to be among the first objectives to be seized or neutralized, the apparent failure to find any of these weapons, though certainly heartening to combat commanders, has led to questions about the Administration’s assertions of Iraq’s CBW capabilities. Secretary Rumsfeld has noted, however, that intelligence reports indicate a greater probability of encountering these weapons as allied forces move closer to Baghdad.¹⁸ CENTCOM spokesmen have suggested that

¹⁶ “Iraqi Strategy Centers on Cities”, *Los Angeles Times*, August 8, 2002. p. 1

¹⁷ *Iraq’s Weapons of Mass Destruction: A Net Assessment*. Center for International and Strategic Studies. September 2002.

Iraq’s Weapons of Mass Destruction Programs. Central Intelligence Agency. October 2002.

¹⁸ DOD Press Conference, March 25, 2003.

more extensive searches for these weapons will take place after offensive operations have stabilized.¹⁹

Given that Iraqi employment of CB weapons remains an open question, U.S. forces must be prepared to operate in a CB contaminated environment. Though perhaps better prepared than any other military to deal with CB warfare, U.S. forces have not actually encountered the use of CB weapons since World War I. U.S. commanders have to ensure that there are adequate supplies of protective and decontamination equipment for an invasion force, and are again be confronted with the possibly problematic issue of vaccinations and prophylactic pharmaceuticals that has led to the “Gulf War illnesses” controversy. Indicative of this latter problem, even though production of anthrax vaccine has been restored, DOD has still not reinstated its service-wide vaccination policy. This concern may be compounded with the smallpox vaccine. In October 2002, the General Accounting Office reiterated its concerns over “serious problems” in the adequacy of the armed forces CBW training, availability of specialist personnel, and defensive equipment inventories.²⁰ With regard to GAO’s concerns over CBW suit defects, DOD spokesmen have noted that troops deployed to the Persian Gulf have all been issued the newly-designed Joint Service Lightweight Integrated Suit Technology (JSLIT), which does not have the manufacturing defects detected in some of the older Battle Dress Overgarment.²¹

One of the unique qualities of CB weapons is that the employment of even a small number or amount can have an effect significantly out of proportion to the casualties actually inflicted. Trace amounts will force military units to “suit up” and can severely degrade their performance. Logistics facilities (e.g. ports), often staffed by unprotected civilians, could be shut down by relatively small amounts of persistent nerve agent because the workforce refuses to return. Civilian ships chartered for military transport are particularly vulnerable to threats of chemical or biological attacks and, as occurred in the Persian Gulf War, civilian crews may refuse to enter the war zone. In short, the psychological effects of these weapons could prove just as disruptive as their physical effects.

The Bush Administration’s announced policy of possible nuclear retaliation if WMD are used against U.S. forces may serve as a deterrent, as more veiled references to nuclear force were felt to forestall their use in 1991.²² On the other hand, the U.S. emphasis upon ousting Hussein could induce a “nothing to lose” attitude conducive to using CB weapons.

¹⁹ CENTCOM Press Briefing , March 25, 2002

²⁰ General Accounting Office. *Chemical and Biological Defense: Observations on DOD's Risk Assessment of Defense Capabilities* GAO-03-137T, October 1, 2002

²¹ “U.S. Troops’ Chemical Suits Do Not Leak, Army Insists”, *Washington Post*, March 4, 2003. Department of Defense Press Briefing, March 3, 2003.

²² *National Strategy to Combat Weapons of Mass Destruction*, December 2002. p. 5 [http://www.whitehouse.gov/news/releases/2002/12/WMDStrategy.pdf]

Post-War Requirements

In testimony before the House Armed Services Committee on September 18, 2002 Defense Secretary Rumsfeld declined to speculate upon what might be the military requirements for the United States in post-war Iraq, assuming Saddam Hussein's ouster. On February 25, testifying before the Senate Armed Services Committee, Army Chief of Staff. General Eric Shinseki expressed the opinion that up to "several hundred thousand" troops could be required to maintain an occupation of Iraq. This estimate was almost immediately dismissed by DOD's civilian leadership.²³ This controversy reflects the great difficulty in predicting what the political and military situation would be in a post-war Iraq, and how long a U.S. military presence would be required before an acceptable and stable Iraqi government could be established. The reaction of the Iraq population is the key element, and will depend upon a variety of factors, such as the nature and extent of war damage and casualties, the demands of ethnic and religious minorities, and the speed with which a credible government can be established. Though a short-term post-war occupation may be a possibility, given that so far the Iraqi population has not demonstrated an acceptance of coalition forces, it is possible that a continued deployment of substantial military ground force will be necessary for several years. For comparison, in the relatively benign environment and considerably smaller areas of Bosnia and Kosovo, NATO currently maintains a deployment of about 60,000 troops. It is possible, however, that some nations unwilling to participate in military action against Iraq may be willing to contribute to a post-war stabilization force, thus alleviating some of the burden on U.S. forces. Given the current international political climate regarding U.S. military operations against Iraq, it is difficult to estimate the possible extent of such assistance.

Other U.S. Military Resource Requirements

Aside from the deployments in the Balkans where the United States has about 12,000 troops, operations continue in Afghanistan where U.S. troops number about 7,000. DOD has not released information on the current deployment situation for U.S. Air Force units: however many air assets could possibly respond to operational requirements for either Iraq or Afghanistan from their current bases, if aerial re-fueling is possible. While the Department of Defense can meet the overall manpower requirements of an Iraqi invasion, an issue of particular concern is whether sufficient "low density-high demand" assets are available. These include assets such as aerial re-fueling tankers, the EA-6B aircraft used to engage air defense radars, the AWACS and JSTARS reconnaissance/air control aircraft, unmanned aerial vehicles, Combat-Air-Search and rescue (CSAR), and all special operations forces (SOF). Demands on special operations forces have been particularly high over the last year. Most notably in Afghanistan, but there have also been training/advisory missions in the Philippines, Georgia (Gruzia), and Yemen as part of a world-wide antiterrorism campaign, in addition to anti-drug operations in Columbia. And, Secretary Rumsfeld indicated that he intends to increase further the SOF commitment to the war on

²³ Secretary Rumsfeld, Defense Press Briefing, February 28, 2003.

terrorism.²⁴ It is in this context, that some have suggested that the invasion of Iraq is detracting from the resources available to continue efforts to pursue the world-wide war on terrorism, which they view as currently a greater threat to U.S. security than Iraq.²⁵

North Korea's decision in December 2002 to resume its nuclear weapons program has raised tensions in that region, and brought attention to the question whether the United States would and/or could take military action there, in addition to a campaign in Iraq. Secretary Rumsfeld has asserted that U.S. military resources are sufficient to fight in two theaters simultaneously, though some observers have strongly disagreed, citing shortages of strategic air/sealift and active duty personnel.²⁶ At a minimum, the situation on the Korean Peninsula may mean that Pacific Command forces that may have otherwise deployed to the Persian Gulf will have to remain in the Pacific region. Meanwhile, the Bush Administration has stressed it is seeking a diplomatic rather than military resolution to the North Korean situation.

Costs²⁷

Predicting the cost of military operations is a task that DOD did not undertake prior to the peace-keeping deployments to the Balkans, and it remains a highly conjectural exercise. Methodologies tend to be relatively crude and based upon historical experience, i.e. "the last war". Though initially Secretary Rumsfeld expressed his opinion that "it is unknowable what a war or conflict like that would cost", in early 2003 he estimated a cost of under \$50 billion. Other DOD officials anticipated an \$80-85 billion cost, assuming a 6-month follow-on occupation.²⁸

On March 25, 2003 The Administration submitted a \$74.7 billion FY2003 supplemental appropriations request, of which \$62.6 billion is for Department of Defense expenses related to the war in Iraq through September 2003. Specifically, this request includes funds for preparatory costs incurred, costs associated with military operations, replenishing munitions, and funds to support other nations. The Administration stated that this supplemental request "is built on the key assumption that U.S. military action in Iraq will be swift and decisive."²⁹

²⁴ See CRS Report RS21048, *U.S. Special Operations Forces (SOF): Background and Issues for Congress*.

²⁵ Fulgham, David. "War Preparations Reveal Problems", *Aviation Week and Space Technology*, December 9, 2002. p. 29

²⁶ Scarborough, Rowan. "U.S. Ability to Fight Two Wars Doubted", *Washington Times*, December 25, 2002. p. 1.

²⁷ For greater detail on cost estimates, see CRS Report RL31715, *Iraq War: Background Issues and Overview*. Updated periodically.

²⁸ "War Could Cost More Than \$40 billion", *Knight-Ridder Wire Service*, September 18, 2002; "Iraq War Costs Could Soar, Pentagon Says", *Los Angeles Times*, February 26, 2003.

²⁹ Office of Management and Budget, Press Release No. 2003-6, March 25, 2002.

Michael O'Hanlon of the Brookings Institution, has pegged a 250,000-strong invasion at between \$40-\$50 billion with a follow-up occupation costing \$10-\$20 billion a year. Former White House economic advisor Lawrence Lindsay has estimated the high limit on the cost to be 1-2% of GNP, or about \$100-\$200 billion. Mitch Daniels, Director of the Office of Management and Budget subsequently discounted this estimate as "very, very high", and has stated that the costs would be between \$50-\$60 billion, though no specific supporting figures were provided for the estimate.³⁰ In its most recent cost estimate, the Congressional Budget Office put deployment costs at about \$14 billion, with combat operations costing \$10 billion for the first month and \$8 billion a month thereafter. CBO cited the cost of returning combat forces to home bases at \$9 billion, and the costs of continued occupation of Iraq to run between \$1-4 billion.³¹

The American Academy of Arts and Sciences has published a much more wide-ranging report which covers the possibility of an extended occupation, in addition to potential long-term economic consequences and concludes that potential costs could range from \$99 billion to \$1.2 trillion.³² For comparison, the cost to the United States of the Persian Gulf War in 1990-91 was approximately \$60 billion, and almost all of this cost was offset by international financial contributions.

³⁰ Bumiller, Elisabeth. "Budget Director Lowers Estimate of Cost of War", *New York Times*, December 31, 2002. p. 1

³¹ Congressional Budget Office. *An Analysis of the President's Budgetary Proposals for Fiscal Year 2004: An Interim Report*. March 2003

³² *War with Iraq: Costs, Consequences, and Alternatives*. American Academy of Arts and Sciences. Dec. 2002. [http://www.amacad.org/publications/monographs/Iraq_Press.pdf]