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National Intelligence Estimate

**Combatant Forces in the
Former Yugoslavia** 

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Volume II—Supporting Analysis

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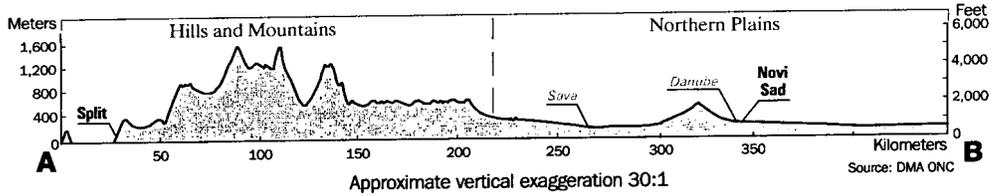
Combatant Forces in the Former Yugoslavia

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July 1993

Figure 1
Military Terrain of Former Yugoslavia



Key Judgments

Motivated by irreconcilable territorial goals and ethnic rivalries, the belligerents in the former Yugoslavia are capable of continuing the fighting for at least another year.

The offensive capabilities of the *Yugoslav*¹ *Armed Forces* are superior to those of its neighbors:

- The capabilities of Yugoslav armored and mechanized forces surpass those of neighboring republics; Belgrade would enjoy air supremacy in renewed fighting.
- Except against Macedonia, limited logistic capabilities would constrain Yugoslav ground force operations beyond border areas.

Despite substantial improvements, Croatian Ground Forces lack heavy weapons and suffer from training and leadership weaknesses; Croatia has virtually no air force:

- The *Croatian Armed Forces* can retake portions of Serb-held territory but cannot completely defeat Serb forces.
- Croatian forces would have difficulty resisting Yugoslav airstrikes or federal attempts to seize additional territory.

The *Bosnian Serb Army (BSA)* can hold virtually all its gains in Bosnia against local forces. It can take all remaining Muslim-held areas, but only at significant military and political costs it prefers not to incur.

Croatian Defense Forces (HVO) can, with the help of the Croatian army, hold current gains and take additional territory from the Bosnian Government

The *Bosnian Army* can neither hold its territory against determined offensives nor permanently retake lost ground; without substantial external support, it will slowly deteriorate.

¹“Yugoslavia” and “Yugoslav” refer to the rump federal state comprising Serbia and Montenegro.



Western Intervention

Western intervention to enforce an agreed peace plan, to create and protect safehavens, or to enforce a partition of Bosnia could require military action to roll back territorial gains and/or disarm combatant forces. These roles would require a large-scale deployment of ground forces.

The BSA would resist a Western intervention to roll back Serb territorial gains or disarm the BSA but would quickly disintegrate; some of its forces would begin sustained guerrilla action against Western forces:

- The BSA would harass but tolerate an intervention that left its forces in place.

The Bosnian Army views Western intervention as its best hope for survival; under some circumstances local Bosnian forces could clash with Western forces, but they would be quickly overwhelmed.

Croatian and HVO forces would avoid confronting Western forces, but local clashes could occur as they exploited outside intervention for local advantage.

In the event of Western military intervention in Bosnia, Belgrade would engage Western forces directly only if they attacked Yugoslav territory or forces.

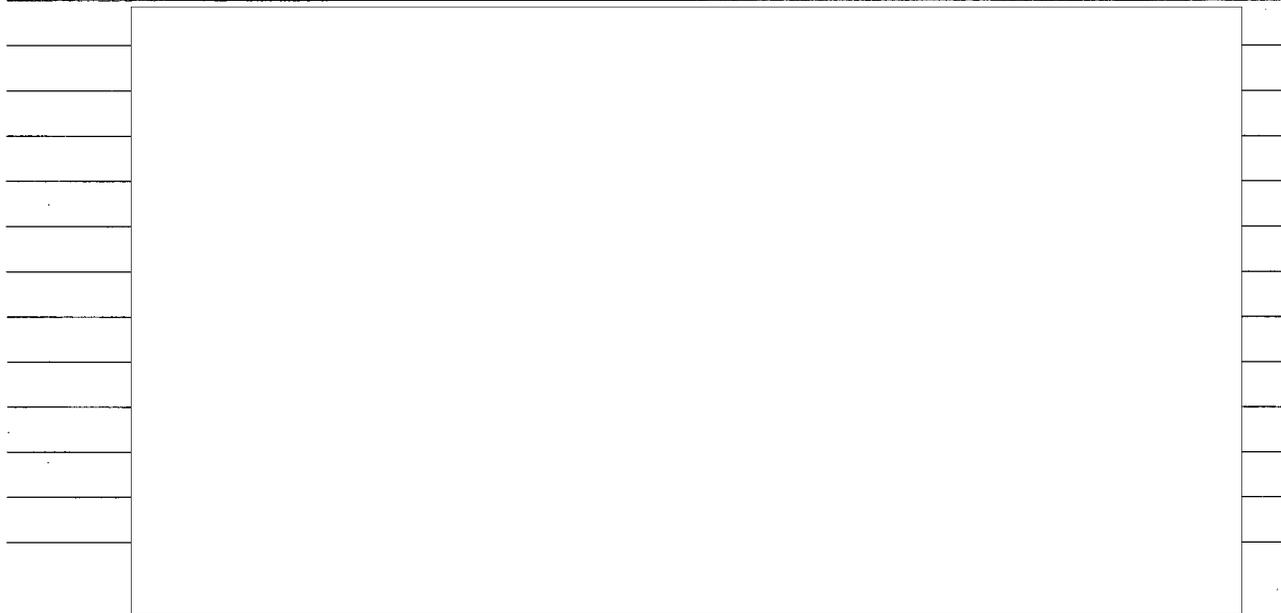


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Supporting Analysis

Introduction

Motivated by irreconcilable territorial goals and ethnic rivalries, the belligerents in the former Yugoslavia can continue fighting for at least a year. The capabilities of their forces, however, vary greatly. Even within individual armies some units may consist of well-trained, professional soldiers, while others are poorly trained militias that depend on reservists and irregulars. Moreover, neither the warring republics nor factional leaders within Bosnia have firm political or operational control over these armed groups.

The Yugoslav Armed Forces: Adapting to New Realities

The Yugoslav military's capabilities are superior to those of the armed forces of any other former Yugoslav republic, as well as its neighbors, in large part because the federal military has more men and equipment and the only effective air force. Dissatisfied with the military's inept performance in 1991-92, senior Yugoslav officers have undertaken reforms intended to improve combat effectiveness. Ethnic splits and the poor performance of reservists demonstrated that reliance on citizen-soldiers was impractical and that Belgrade needed to expand the capabilities of its standing army. Territorial losses and economic constraints made cuts in the military imperative. The reforms have included:

- *Modifying doctrine.* The General Staff no longer looks to the populace as a whole to conduct a long-term partisan war. It has

given the army responsibility for conducting long-term light infantry and unconventional operations against an invading force and has bolstered the ability of the Ground Forces to fulfill these roles.

- *Restructuring forces.* Reflecting the loss of 60 percent of Yugoslavia's territory and population, the three services are reorganizing. Chains of command in each service have been altered. The army has cut manpower and completed the transition to a combined-arms structure to cut costs and boost the ground forces' effectiveness. The ground and air forces have more evenly distributed their most capable weapons. Efforts are also under way to establish air defenses and devise an appropriate role for a smaller navy with a much smaller coastline to protect.
- *Military professionalization.* The armed forces seek to retain experienced troops and increase training to maximize the capability of existing military assets. Senior officers publicly state that a trained force composed of 50 percent regular troops will have the discipline, mobility, and proficiency required to inflict unacceptable losses on an invader.

These efforts have had mixed results. In our judgment the Ground Forces represent a more cohesive and unified Serb force whose units are better organized and equipped than in 1991. The Air and Air Defense Forces have reorganized and redistributed their most capable equipment, but their operations

War and Doctrine

Following the 1968 Warsaw Pact invasion of Czechoslovakia, Belgrade formulated an "All Peoples Defense" doctrine rooted in Tito's partisan war against the Germans and Italians during World War II. Federal armored forces would blunt any invasion by a superior military force and buy time for lightly armed Territorial Defense Forces under republic control to mobilize to conduct small-unit operations in Yugoslavia's rugged interior. Key parts of the doctrine included universal military training, mass mobilization, and widely distributed weapons stocks. When civil war erupted in June 1991, the infrastructure for republic armies was already in place.

The wartime experiences of 1991 and 1992 led the Yugoslav General Staff to modify its territorial defense concept. The constitution prohibits surrender; Yugoslavia's deterrent rests on the threat of protracted war. The military, however, has taken responsibility for long-term command and almost certainly looks to mobilized light motorized and infantry brigades to fight the war. The armed services believe that unifying command under the General Staff and employing regulars instead of partisans will better enable Yugoslavia to resist an invasion. The push for military professionalization, the relegation of reserve units to a rear-area security role, and efforts to sharpen combat effectiveness all aim at improving the military's capability of fulfilling its expanded role.

would still be hampered by inadequate numbers of trained and specialized personnel. Belgrade's Air Force is superior to that of any of the other republics but could not hold out against a Western air offensive. The Navy, although deprived of most of its facilities and half of its personnel, has resumed training and increased its readiness, but its offensive capabilities remain limited.

The Yugoslav Ground Forces

Manpower. The Ground Forces have shrunk from approximately 140,000 men to 100,000. According to an untested source, the Ground Forces currently suffer from a shortage of technical specialists—up to 50 percent of some skill categories, such as radar technicians. Politically motivated policies have deprived the Ground Forces of needed professional officers. In late-January 1993, all ethnic Serb officers of the rank of major or below born in Bosnia and Herzegovina or the Krajina were ordered to report to the ethnic Serb forces in their home regions. Furthermore, in early March non-Serb officers were ordered to leave the army by 1 April; this order reportedly was rescinded, but many officers had already left the army. Reducing the size of the Ground Forces somewhat reduces the impact of these cuts, but their arbitrary nature has caused shortages in technical skills and small-unit leadership that will persist for several years.

Equipment. The Yugoslav Ground Forces are not equipped to conduct sustained, effective, mobile warfare by heavy forces against a force with modern equipment. Although satellite photography shows the Ground Forces have more items of major equipment

Yugoslav Armed Forces Command and Control

Belgrade overhauled the command structures of all three armed services in 1992 to strengthen political control and professionalism:

- *About 70 senior Ground Forces officers were dismissed, and the General Staff's role in formulating national security policy was sharply limited; most officers welcomed the end of the overt politicization of the Ground Forces. Operational command extends from the General Staff through the three armies, to the various corps, to maneuver units.*
- *Belgrade streamlined the Navy's command structure. Ten of 13 admirals were dismissed in mid-1992, reducing the span of control and eliminating superfluous posts. The chain of command now runs from the Navy commander to subordinate sector and fleet commanders. Three tactical groups have been created to operate in the area from Kotor Bay to the Strait of Otranto,*

and tactical commanders have substantial authority to conduct small-scale operations.

- *Belgrade trimmed senior officer ranks and shortened command lines in the Air and Air Defense Forces. The General Staff controls both forces through a headquarters in Belgrade that commands air force, air defense, and logistic support corps. Reduced air defense capabilities have probably led Belgrade to accord local commanders substantial freedom of action.*

Belgrade appears to use the former Yugoslavia's nationwide command and control system for communicating with Serb forces in Bosnia and Herzegovina and Croatia. Belgrade has invested heavily in redundant, secure communications, a capability that only a sustained Western attack could degrade.

than they can use, the bulk of these weapons—T-54/55 tanks, M-60 armored personnel carriers, and most of the artillery—embody technology from the 1950s and 1960s. The Yugoslavs are retiring many of their oldest systems, such as World War II-era T-34 tanks and A-19 artillery, although some of this equipment would be put back in service in an emergency. Belgrade's forces can field limited numbers of T-72 and M-84 tanks, M-80 and BOV armored vehicles, as well as modern multiple rocket launchers and artillery pieces, but

they lack such complementary systems as modern antitank missiles, targeting radars, and fire-control systems necessary for effectively coping with attacks by Western forces.

Training. Training is mediocre by Western standards. Attache reporting indicates that some units, either elites or those with conscientious commanders, are well trained. Until late 1992, however, field exercises lacked realism and equipment inspections were superficial. Since then the army reportedly has

Figure 2
Yugoslav Armed Forces Headquarters, Corps, and
Areas of Responsibility in Serbia and Montenegro



Table 1
Estimated Yugoslav Ground Forces
Manpower and Major Equipment
Holdings^a

| | 1991 | 1993 | Percent Change |
|--|---------|-------------|----------------|
| Total manpower | 140,000 | 100,000 | -29 |
| Tanks (M-84, T-72, T-54/55, T-34) | 2,000 | 1,300-1,800 | -10 to -35 |
| Armored vehicles (BRDM, BTR 50/60, M-60, M-80, M-980, TAB-72) | 1,400 | 700-1,000 | -29 to -50 |
| Artillery (155-mm gun M-2, M-64; 152-mm gun D-20, M-84, ML-20, M-1943; 130-mm field gun M-46; 128-mm multiple rocket launcher; 122-mm howitzer D-30, M-1938, A-19, 2S1; 105-mm howitzer M-1, M-56) | 3,600 | 1,200-2,000 | -44 to -67 |

^a Because of additional work by the Interagency Order-of-Battle Working Group since the publication of Volume I, some figures in the tables in Volume II may differ marginally from those given in Volume I.

This table is ~~Secret~~ [redacted]

been making a concerted effort to improve training standards and the realism of its field exercises. Recent imagery shows an increase in exercise frequency. For the most part, the Yugoslavs have not emphasized high standards or uniformity of training for enlisted personnel, and it will take another six months to a year for the army to complete its retraining program. Moreover, because the Yugoslav Ground Forces are not known to exercise above the battalion level or to conduct more than minimal combined-arms training, their ability to carry out complex or large-unit tactical maneuvers would be very limited. [redacted]

Logistics. Yugoslav Ground Forces logistics are fairly well organized, but they have suffered from the country's breakup. Army

corps operate as a logistic base, and units down to the company level acquire, store, and distribute supplies; a network of depots provides maintenance services. Ammunition—stored in numerous facilities above and below ground—appears to be in ample supply, but many factories that supplied parts and services are no longer under Belgrade's control. Yugoslavia's prewar position as a major arms producer, its continuing oil imports, reporting on munitions retrieved from the republics in 1991, and the Ground Forces' currently low operational requirements suggest that it has adequate stockpiles of weapons, munitions, and fuel for several months of combat. [redacted]

Ground Forces' logistics are not designed to support highly mobile operations. Recent logistic experience—in Slavonia in 1991 and in Bosnia in 1992—has been in support of slow-moving infantry campaigns or static sieges. These campaigns have been fought along major highway networks. Fragmentary reports from operations in 1991 and 1992 indicate that frontline units track their supply levels, order replenishments, and arrange deliveries. While the Yugoslav Ground Forces have sufficient transportation assets to support its internal security mission, large-scale, mobile operations would require the requisition of civilian vehicles. Because the army has not practiced large-scale, mobile operations, the General Staff probably has little idea of the fuel, ammunition, and spare parts requirements or the difficulty of keeping up with rapidly moving forces. [redacted]

Morale. Yugoslav Ground Forces morale currently is poor. Some unit desertion rates reportedly reached 40 percent during the 1991 war. Officer morale is fragile. While most junior and midlevel officers appear

Yugoslav Defense Industries

Yugoslavia's breakup splintered the defense industry, which had deliberately been scattered among the different republics of the former Yugoslavia. Component supply networks have been thoroughly disrupted by the war. Production has been sharply curtailed, particularly for large systems such as tanks, armored personnel carriers (APCs), and aircraft. Ammunition and small-arms plants continue to operate, but resumption of large-scale manufacture of arms and munitions remains unlikely until hostilities end.

Approximately half of prewar defense production, including combat aircraft, light armored vehicles, and heavy artillery was in Bosnia and Herzegovina. Serb efforts to transfer key assets from Bosnia to Serbia achieved limited success. Most remaining facilities are in areas now controlled by Croatian Defense Forces or Bosnian Army troops. In Bosnia and Herzegovina, Croats

and government forces have produced limited quantities of small arms and ammunition, but supply problems have severely limited the scope of manufacturing activity.

Defense production elsewhere in the former Yugoslavia has plummeted. Slovenian manufacture of APCs, tank parts, and electronics has been undermined by the conversion of trade to a hard currency basis and the collapse of Yugoslav tank production. Croatia modified some civilian production sites to turn out infantry weapons and rudimentary APCs, but Zagreb remains almost totally dependent on imported arms. Military production in Serbia and Montenegro, chiefly small-caliber weapons, ammunition, and some components for larger systems, continues although supply problems limit output.

confident and anxious to demonstrate professional competence, the reduction of army strength, uncertain career prospects, and, for those evacuated from Slovenia, Croatia, and Bosnia, the loss of homes have damaged morale. Staff officers assigned to Belgrade reportedly try to avoid field assignments to protect personal privileges; others allegedly supplement their incomes through bribes and kickbacks. To some degree, these problems have been countered by creation of a totally Serb army.

In the event of Western intervention, these problems would also be countered by the unifying effects of a foreign attack and the need to defend the homeland. Press reports indicate the army is trying to improve morale by stressing Serb military tradition, patriotism, and threats to Serbia; by improving living conditions; and by improving military capabilities. However, these efforts are likely to have only limited short-term impact, and, barring outside attack, morale will improve significantly

only after cuts in the Ground Forces' size are completed and senior officers adhere to high standards of professionalism. []

Leadership. Although the Yugoslav federal constitution asserts civilian control of the military, the armed forces remain an independent center of power. Currently, the senior leaders of the Yugoslav Armed Forces are loyal and generally capable. Strongly nationalistic and loyal to Serbian President Slobodan Milosevic's government, Chief of Staff Zivota Panic is a career soldier who has reportedly worked to increase the army's professionalism and avoid involvement in politics. Training for junior and midlevel officers is probably still mediocre, however, and local commanders almost certainly await instructions rather than take the initiative. The near-complete Serbianization of the army, the dismissal of about 70 senior officers in May 1992, and the continuing retirement of over-age officers and NCOs in favor of younger, nationalistic Serbs have further solidified the army leadership's loyalty to the regime and made the army more cohesive. []

The Yugoslav Navy

Manpower and Equipment. Despite significant personnel and logistic problems, the Yugoslav Navy poses a moderate mine, anti-ship missile, and submarine threat to surface forces operating within 50 nautical miles of the Montenegrin coast. Its overall warfare capabilities—especially in antisubmarine warfare—are limited. It cannot defend Yugoslavia's coast against its most likely (Western) opponent, and it is now highly vulnerable to attack within its remaining facilities. []

Table 2
Estimated Yugoslav Navy Manpower and Major Equipment Holdings^a

| | 1991 | 1993 | Percent Change |
|---|--------|-------|----------------|
| Total manpower | 16,000 | 7,500 | -53 |
| Frigates (equipped with SS-N-2C Styx antiship missiles, SA-N-4 SAMs, 76-mm guns) | 4 | 4 | 0 |
| Missile boats (five equipped with SS-N-2C, remainder with SS-N-2A/B, 57-mm guns, SA-7 SAMs) | 15 | 13-14 | -7 to -13 |
| Torpedo boats (SA-7 SAMs) | 14 | 10-11 | -21 to -28 |
| Submarines | 5 | 5 | 0 |

^a Because of additional work by the Interagency Order-of-Battle Working Group since the publication of Volume I, some figures in the tables in Volume II may differ marginally from those given in Volume I.

This table is ~~Secret~~ []

Navy personnel strength—at some 7,500 men—is about one-half its prewar total, and conscripts now make up 75 percent of a force that was more than 60 percent regular. Liaison services report critical personnel shortages, particularly of operators for sophisticated electronic gear and weapons. Primary navy assets include five coastal submarines (with two to three operational), five minisubmarines, 17 to 18 missile-capable ships or craft (including four frigates), about a dozen other patrol craft, coastal artillery, mobile antiship cruise missiles, and a large naval mine inventory. []

Yugoslavia has lost over 90 percent of its coastline, including virtually all of its shipbuilding facilities, and the Chief of the Navy

has announced plans to scrap or sell much of the fleet. Senior officers plan to build new coastal facilities and to modernize antiship missiles. However, there is no evidence that any of this is happening. No further ship acquisition or construction is expected in the near future, and the Yugoslav Navy probably will decline due to a lack of maintenance capability.

Training and Logistics. Although inactive for the first nine months of 1992, the Navy has since resumed training and limited patrols. The relocation of virtually the entire fleet at two bases in Boka Kotorska (Bay of Kotor)—neither of which has adequate support facilities—created serious logistic problems during 1992, leaving many combatants nonoperational. In its recent exercises, the Navy has been able to sortie most of its ships simultaneously. Beginning in April 1993, the Yugoslav Navy began short deployments of small surface action groups to Bar port facility, 30 nautical miles south of Kotor Bay. These deployments reflect a decision to disperse forces outside Kotor Bay—reducing vulnerability to a surprise attack—while building up Bar as a limited logistic base.

Morale and Leadership. The Navy was hardest hit by the breakup of the country. Croats dominated the naval officer corps, and most deserted at the outset of the war. Deprived of its senior leaders, the Navy almost certainly suffers from shortages of experienced junior officers and NCOs. A much reduced role for the Navy and limited promotion prospects have further undermined morale.

The Yugoslav Air and Air Defense Forces Equipment and Logistics. Almost all of the former Yugoslav Air and Air Defense Forces

Table 3
Estimated Yugoslav Air and Air Defense Forces Manpower and Major Equipment Holdings

| | 1991 | 1993 | Percent Change |
|---|--------|--------|----------------|
| Total manpower | 34,000 | 20,000 | -41 |
| Fixed-wing aircraft | | | |
| MiG-29 A, B | 12 | 12 | 0 |
| MiG-21 A, B, D, F, J, L, N | 153 | 111 | -27 |
| Galeb-Jastreb | 168 | 167 | 1 |
| Orao | 105 | 45 | -57 |
| Super Galeb | 55 | 53 | -4 |
| Helicopters | | | |
| Mi-8 Hip C | 75 | 55-61 | -18 to -27 |
| Gazelle | 132 | 76 | -42 |
| Surface-to-air missile launchers^a | | | |
| SA-2 | | 30 | |
| SA-3 | | 68 | |
| SA-6 | | 120 | |

^a Figures for surface-to-air missile launchers for 1991 are not available. Another 84 SA-9 launchers and four SA-13 launchers are under the control of the Yugoslav Ground Forces, as well as an undetermined number of shoulder-fired SAMs—including SA-7s, SA-14s, and possibly SA-16s.

This table is ~~Secret~~

equipment is under the control of Belgrade. This includes 12 MiG-29 Fulcrums and 500 other fixed- and rotary-wing aircraft (of which some 100 are in storage). The country can tap into large stores of fuel, supplies, and spare parts.

Ground-based air defense assets consist of SA-2 and SA-3 strategic and SA-6 tactical surface-to-air missiles (SAMs) and a wide variety of anti-aircraft artillery (AAA) systems. Yugoslav Ground Forces control SA-9 and SA-13 tactical SAMs, as well as SA-7, SA-14, and probably SA-16 man-portable SAMs. The former Yugoslavia produced the

SA-7, was self-sufficient in ammunition production, and produced several types of AAA pieces. Yugoslavia is likely to have stockpiles of spares and supplies for this equipment. Although spare parts for Soviet-built SAM equipment had to be imported, Yugoslavia probably has a stockpile of SAM equipment sufficient to maintain its current inventory for the foreseeable future. [redacted]

Manpower and Training. The Yugoslav Air and Air Defense Forces are recovering from severe manpower shortages resulting from the breakup of the country. Training is at a normal pace, although at a more basic level, reflecting the need to train new personnel. Emphasis on NCO and training schools, coupled with special pay and allowance, has increased the number of qualified personnel in the Air Force. The Yugoslav Air Force Academy, basic and advanced flight training, and professional military education schools are now relocated and graduating new classes. Pilot training is up from fewer than 60 hours a year to over 100 hours, and simulator time is now available for up to 120 hours a year. Yugoslav pilots are generally capable and well versed in the simple tactical employment of their weapon systems. However, they do not fly complex maneuvers, use multiship formations, or employ advanced combat tactics. [redacted]

Ground-based air defense training has been limited primarily to SA-6 units, which generally train on a bimonthly basis. The SA-2s and SA-3s in the Belgrade area and in central Serbia have been active only sporadically. [redacted]

[redacted]

Leadership and Morale. The Yugoslav Air Force is the most stridently nationalistic service, and Belgrade purged few of its officers in 1992. Its leaders are capable professionals whose hardline views underlie the Air Force's increasingly independent stance in internal political affairs. Senior Air Force officers apparently have widespread support within their service, and their influence is growing within the military as a whole, according to several sources. Press reports suggest that, while senior officers recognize the vulnerabilities of the air force and realize that Western air forces could quickly overwhelm it, they are determined to resist any attack on Yugoslavia as best they can. [redacted]

Yugoslav Combat Capabilities

Threat Perceptions. Yugoslav military leaders share the civilian leaders' view that their nation is besieged by internal and external foes bent on thwarting Serb aspirations for a larger, unified Serb nation. They view the current conflict as a struggle for ethnic survival that Yugoslavia was forced to fight:

- Military leaders have publicly asserted that the West is trying to dominate the post-Cold War world. The United States and Germany, in their view, are using low-intensity conflict, political destabilization, support for secessionist movements in Kosovo and the Sandzak, and the threat of invasion to dismember and subdue the Serb nation.
- Yugoslav military leaders realize that none of the neighboring states poses a military threat to Serbia and Montenegro, but they see continuing threats to ethnic Serbs living in the former Yugoslav republics and expect renewed hostilities with Croatia.

- The leaders are also concerned about the rise of radical political Islam, which they believe could draw support from the Islamic world. They see little direct military threat from Turkey or other Muslim countries, however.

The Yugoslav Armed Forces will respond forcefully to attacks on key Serb-occupied territory around Knin or in eastern Slavonia. They prefer to provide aid to Bosnian Serb forces, however, rather than intervene directly in Bosnia. []

The military regards Albanian nationalism and Muslim unrest as the principal domestic threats. Approximately 12,000 army troops and 25,000 militiamen are deployed in Kosovo to cow the ethnic Albanian majority. Recently, officers have voiced concern over Muslim unrest in the Sandzak and suggested that foreigners may be encouraging armed rebellion there. The army also fears that domestic violence between extreme nationalists and moderate Serbs could fracture the armed forces. Chief of Staff Panic has stated he will at all costs avoid conflict with nationalist paramilitary groups and Serb Interior Ministry forces. []

The Military's Self-Perception. Confident of their capabilities against internal opponents or neighboring states, military leaders know they could not defeat a concerted Western attack. Although they believe that the armed forces are improving, military leaders understand the strengths, weaknesses, and limitations of their services. High-ranking officers have publicly commented on the threat technologically sophisticated weapons pose to Yugoslav forces. Furthermore, they have openly discussed shortages of recruits and noted problems in morale,

training, and logistics. However, drawing on Serb historical experience, senior officers repeatedly have expressed confidence that any foreign attack will stiffen military morale and public resolve, enabling Yugoslavia to outlast an opponent not prepared to fight a prolonged war. []

Operational Capabilities. The army's intelligence, air-ground coordination, transport, and logistic capabilities are adequate against current foes, as are its redundant, secure communications. The Air and Air Defense Forces would face no serious challenges from Macedonia, Croatia, Bosnia and Herzegovina, or Albania. The Yugoslav Navy would play little or no role in operations against these countries, although it could support operations along the Croatian and Albanian coast. Belgrade probably can conduct simultaneous offensive military operations in eastern Slavonia and limited action in Kosovo or on the Prevlaka Peninsula. Should the conflict spread or become more difficult and complex, Yugoslav capabilities would soon be stretched to their limits. Its shortcomings would become more apparent as the army operated farther from its bases, over increasingly rugged terrain, and against determined resistance. []

Direct Intervention in Neighboring States. If they intervened in a neighboring state, the Yugoslavs probably would perform best in eastern Slavonia, near their home bases. The region's relatively flat terrain and well-developed road network would enable Belgrade to employ its armored and motorized forces to their best advantage. The Novi Sad Corps, which operated in Slavonia in the fall of 1991, is headquartered less than 20 miles

combat for about three months. However, the pace of an advance could be slowed dramatically by confusion and inadequate logistics.

The Yugoslav Armed Forces would also be able to intervene effectively in Bosnia and Herzegovina and in Macedonia. The Yugoslavs could quickly move the Novi Sad or Uzice corps into the northern and eastern areas of Bosnia held by the Bosnian Serbs. Superior training, equipment, and firepower would give the Yugoslav forces an overwhelming advantage against the Muslims. As the army moved more deeply into Bosnia, increasingly rugged terrain would confine its heavy forces to the relatively few roads, slowing resupply and making them more vulnerable to Muslim and Croat guerrilla attacks. Casualties from heavy fighting in non-Serb areas, moreover, could undermine popular support at home and affect army morale. Macedonia lacks an effective army. The Yugoslav army's Leskovac or Nis corps could easily occupy the country.

The Yugoslav Armed Forces have only a modest capability for direct intervention in the Krajina region of Croatia. Belgrade has contingency plans for moving its forces and Bosnian Serb troops to the Knin area in case of a major Croatian offensive, but plans for the Bosnian Serbs to do most of the fighting. Even this approach likely underestimates the difficulties the Yugoslavs will encounter. Deploying the Uzice, Mechanized, or Novi Sad Corps to Knin would require moving forces across more than 500 kilometers of rugged terrain on a small number of roads vulnerable to Muslim and Croat attacks. Because deploying and supporting heavy forces would be slow and difficult, Belgrade

from the Croatian border, and the Mechanized Corps could travel from Belgrade along modern highways. During the 1991 campaign, the Yugoslavs demonstrated the capability to use the region's roads and rivers to support approximately 30,000 troops in

may try to use paramilitary forces or air-strikes, instead of conventional ground forces against a Croatian offensive. The Yugoslav army would be unlikely to undertake large-scale ground operations in the Krajina unless local Serb forces were on the verge of collapse. []

Yugoslav forces could invade Albania but would have difficulty operating deep inside the country because of rugged terrain on both sides of the border. Moreover, Yugoslav roads in the region are mostly secondary, and only three cross the border from Montenegro and Kosovo. The Yugoslavs could deploy the Pristina or Podgorica Corps to the border fairly rapidly, but the terrain and lack of roads on the Albanian side would restrict any invasion to infantry operations and punitive airstrikes. Delivery of supplies would be slow and probably inadequate to support sustained combat or penetrations far beyond the Shkoder-Prizren highway crossing northern Albania. []

The Yugoslav military is much more capable than the armed forces of Hungary, Romania, or Bulgaria. Yugoslavia has the military capability to disrupt commercial traffic on the Danube River, deliver airstrikes on key economic targets, and launch cross-border attacks against its neighbors. Although Belgrade is unlikely to attack any of these neighbors, the threat of attack, particularly from the air, has made them cautious in their support of UN sanctions and other initiatives. []

Supporting Local Serb Forces. Yugoslavia is capable of rapidly assisting local Serb forces in Bosnia and Herzegovina and the Krajina:

- [] in March 1993 that about 200 men of the elite 63rd Airborne Brigade, based at Nis,

as well as Yugoslav tank and infantry reconnaissance platoons had been sent to eastern Bosnia to aid the Serb offensive around Muslim-held Srebrenica. Well-disciplined and organized, these troops played a significant role in Bosnian Serb operations against Muslim forces.

- An array of sources report that Belgrade has provided the Bosnian Serbs with fuel, transportation, munitions, and other military assistance since the spring of 1992. The fuel has been especially important to the Bosnian Serb war effort.
- In response to Croatia's late-January 1993 offensive near Zadar, Belgrade sent 500 Yugoslav army "specialists"—probably special forces troops—to the Krajina.

Because of the small scale of operations, relatively small numbers of men or quantities of supply can tip the balance. []

Responding to Western Intervention. Any large-scale Western intervention in the former Yugoslavia would radically change Belgrade's strategic situation. Its reaction, however, would depend on the circumstances surrounding the insertion of Western forces. Should Western forces arrive in Bosnia and Herzegovina with the consent of all parties to enforce a peace agreement, for example, Belgrade would take quiet steps to improve the defensive position of its forces. We judge Belgrade would step up recruitment and training, disperse its forces and supplies—including naval elements from Kotor Bay—and occupy alternate command sites. []

We judge Belgrade would not respond directly to Western intervention to impose an end to the fighting in Bosnia and Herzegovina. The Yugoslavs realize that sending their

army into Bosnia and committing the air force would quickly bring the war to Serbia. Belgrade would instead seek to escalate the costs of intervention to Western forces. Yugoslavia would covertly provide military supplies to the Bosnian Serbs to support a protracted guerrilla war but would adopt a neutral position publicly. The Yugoslavs would also provide safehavens in Serbia and "volunteer" fighters as well as increase the readiness of its forces. Belgrade would calibrate its assistance to maximize Western losses while avoiding steps that could lead to military action against Serbia. []

Belgrade would resist any Western attempt to intervene in Kosovo. The army's Pristina Corps, with up to 12,000 men, is based in Kosovo, and 30,000 men in three other corps—the Podgorica, Nis, and Leskovac—are in nearby Montenegro and southern Serbia. [] army units in Kosovo have supplies for 20 days of combat. Serb civilians in Kosovo are also well equipped with small arms. Ethnic Albanians in Kosovo, although lacking arms, would try to use any Western intervention to achieve their independence. Infantry battles in rough terrain would dominate a conflict in Kosovo; guerrilla operations involving all parties would continue after Yugoslav regular forces in Kosovo were defeated through Western intervention. []

Capability To Defend Serbia and Montenegro. While initially capable of early warning, Yugoslav air defenses would be able to inflict only marginal losses on a concerted Western air offensive and could not stop the rapid destruction of fixed targets. The loss of skilled technicians has greatly reduced the readiness and combat sustainability of the air defenses. Belgrade's

radars and early warning systems would be susceptible to Western electronic countermeasures and standoff weapons; its Soviet surface-to-air missile systems are vulnerable to Western countermeasures, tactics, and weapons. The rapid degradation or destruction of these systems would leave antiaircraft artillery and shoulder-fired missiles as the major threat to Western aircraft. Yugoslav pilots would be unlikely to down more than a few Western aircraft. []

If hostilities appeared imminent, the Yugoslav Navy probably would mine the Montenegrin coastline and defend these minefields. Once hostilities commenced, the vulnerability of the Yugoslav Navy's base structure and its inability to defend the coast suggest that surface and submarine force might attack Western naval forces in the Adriatic, although the probability of a successful attack would be low. []

Likely Military Strategy. Yugoslav military leaders neither expect nor desire a war with the United States or a Western coalition but are prepared to fight if they have to. While many senior officers claim that the United States is trying to encircle and subdue Serbia, they are also convinced that it will try to do so without resorting to force. Even if the West uses force, they believe the United States and its allies lack the political will to undertake a protracted guerrilla war and the long-term occupation of Yugoslavia. Therefore, we judge that the leadership believes war would come only after a prolonged crisis and with ample warning. Belgrade would use such a period to mobilize and disperse its forces; hide key assets; shift

units to deceive US intelligence and minimize the damage from initial enemy air-strikes; and prepare highways, railroads, and bridges for demolition. [redacted]

Yugoslav strategy has long assumed an attack from the north across open plains, but Belgrade could meet attacks from other directions. A ground approach by Western forces through Bosnia and Herzegovina, a third country, or from the coast of Montenegro would provide ample warning to the Yugoslavs. [redacted]

The Yugoslavs believe that the West would inflict heavy losses on their forces in war. Public statements of military leaders suggest that they would expect a devastating, coordinated, all-out attack on the navy, air force, air defenses, and command and control structure, similar to Western operations in the 1991 Persian Gulf war. These leaders realize they cannot match the mobility and firepower of Western forces. Nevertheless, the Ground Forces would fight tenaciously. Instead of trying to hold land and fight a conventional battle, they would seek to buy time for light infantry units to retreat to the hills of southern Serbia and northern Montenegro. There, they would rely on civilian support and weapons caches to support continued operations aimed at driving up the costs of Western intervention. Although less disciplined reservists and some conscripts are likely to desert or perform poorly, the army almost certainly believes that military discipline and intense nationalism will drive most of its forces to fight on in small groups, making use of broken terrain for conducting hit-and-run attacks. The Yugoslavs almost certainly believe that a moderate but steady number of casualties would cause the West eventually to leave Yugoslavia. [redacted]

Effectiveness Over the Long Term. Should the Yugoslavs implement their defensive strategy, their forces would break down into smaller, independent units. Western fixed-wing aircraft, helicopters, and artillery would make coordinated movements by Yugoslav forces difficult, and Western forces would probably dominate urban areas and major roads within a few weeks. In the meantime, local Yugoslav commanders would assume control over available military resources, such as ammunition stockpiles. Coordination among units would decline. Some regular units would probably continue to fight; other units would desert. Over time, some units would become personal armies for local leaders or bandit gangs. Under these conditions, a national army would no longer exist, but some of its elements would pose significant local threats. [redacted]

The Croatian Armed Forces: Building on Modest Foundations

Croatia's Armed Forces have improved substantially since 1991. Croatia quickly created a general staff and rudimentary national guard in mid-1991. Improvements in command structure and training, as well as the organization of regular units, have increased the Croatian army's local combat capability. According to several sources, President Tudjman, an ex-army general, and his advisers now believe the army can eject local Serb forces from selected areas of Serb-occupied Croatia. [redacted]

The Croatian Ground Forces

Manpower and Organization. The Ground Forces have expanded and reorganized to improve their effectiveness. Croatian Ground Forces consist of an estimated 60,000 to

Figure 3
Croatian Armed Forces Headquarters and Operational Zones in Croatia



80,000 men deployed in six operational zones—the equivalent of regional military commands—and organized into 40 brigades, and 17 Home Guard regiments. The army has a core of 20,000 regulars augmented by conscripts and reservists on active duty and a ready reserve of some 100,000. Seven Guards Mobile brigades, professionally manned formations with armor, artillery, and air defense assets, are the most capable units. []

The Ground Forces' ability to organize task forces enhances the flexibility of Croatian forces. Operational zone commanders control all maneuver and support units within a region and can tailor task forces for specific missions. In 1992, President Franjo Tudjman ordered the streamlining of the Defense Ministry and General Staff. These changes improved Zagreb's ability to plan operations and shift forces. Experienced commanders, fully effective battlefield command and control structures, and an efficient administrative system are still lacking, however.

[]

Equipment. The Croatian Ground Forces lack combat power. Zagreb captured approximately 250 tanks, 150 to 250 armored vehicles, and 200 to 300 artillery pieces from federal forces in 1991. While fielded systems include modern M-84 tanks, multiple rocket launchers, and SA-9 air defense systems, the Ground Forces have too few tanks and infantry fighting vehicles to engage in large-scale armored combat or to defend against a major armored attack. The Croatians are also short of spare parts and qualified maintenance personnel. The General Staff has subordinated artillery and combined-arms battalions or companies to infantry brigades to support infantry operations. []



Training. Efforts to improve the level of Ground Forces training have had mixed results. Created in the midst of combat, the Ground Forces have not had time to institutionalize the professionalism required to manage and employ armed forces effectively. The army has officer training schools and courses for noncommissioned officers. The Croatian Chief of Staff has publicly asserted, however, that both the quality and length of training are inadequate and companies and battalions reportedly are short of trained officers. In these circumstances, the Ground Forces continue to rely on reservists who received minimal training under the former Yugoslav army. Five military education centers provide two months of basic training for conscripts, who then are supposed to undergo additional months of specialized training. Training appears to be concentrated at the small-unit level, and deficiencies in basic combat skills and small-unit tactics will continue to hamper operations. []

Logistics. While adequate for defensive or limited offensive operations, Croatian logistics could not support multiple offensives on a broad front. Early in 1992, Zagreb placed support services under the General Staff to

bring order and direction to the haphazard supply system. Spot shortages of ammunition continue to occur, but troops are generally well provisioned. Medical services and supplies, moreover, appear fairly well organized and plentiful. The static, small-scale nature of the combat enables the army to stockpile munitions and materiel before offensives; Guards Mobile brigades that spearhead offensives have logistic priority. Transport shortages, inexperience with mobile support operations, and limited maintenance capabilities would undermine the army's ability to support either large-scale or mobile operations. []

Morale. Croatian morale varies but is generally good. Motivation is highest in elite units, and most regular troops believe they are embarked on a crusade to save Croatia. While the majority of the army is reliable, inadequately trained reserve brigades and Home Guard regiments have dissolved in the face of Serb attacks. The army almost certainly would use them only for local operations or to provide rear-area security. Nevertheless, Chief of Staff Janko Bobetko recently expressed confidence in the army's motivation, and senior officers claim that superior Croatian morale would be a significant advantage in renewed conflict with Yugoslav forces. []

Leadership. Leadership shortcomings limit Croatian tactical effectiveness. Senior officers are capable professionals, and most field commanders are experienced combat veterans; the growing ability to plan military operations and the smooth functioning of the General Staff testify to their skill. However, the Croatian army generally lacks trained and capable junior officers and NCOs. Small-unit operations are poorly coordinated and slapdash in execution, weaknesses that

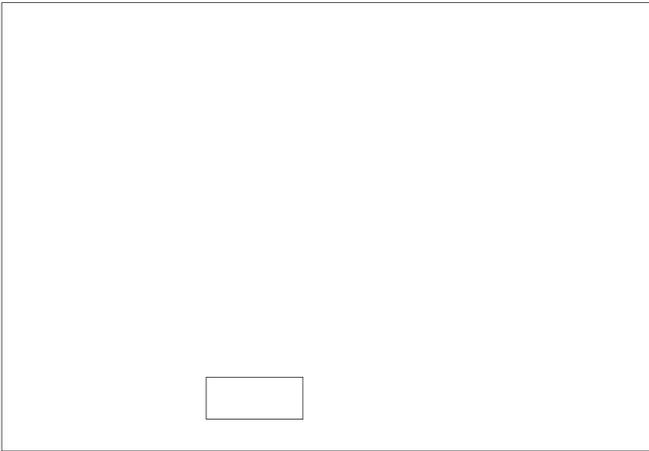
Croatian Civil-Military Relations

The Croatian Armed Forces are highly responsive to the orders of Croatian President Franjo Tudjman. A former major general, Tudjman is the armed forces' Commander in Chief and personally directs their activities. Tudjman heads the Council of Defense and National Security, which consists of the Defense and Foreign Ministers, the Chief of Staff, and other senior decisionmakers. While command ostensibly runs from the president through the Defense Minister to the General Staff, Tudjman, in fact, exercises his authority directly through the General Staff. The Chief of Staff, Gen. Bobetko, is a Tudjman loyalist who takes his orders directly from the President. Bobetko, in turn, has operational control of the military through the service chiefs and operational zone commanders. []

will remain until Zagreb raises the level of training and professional education of its junior leaders. []

The Croatian Navy and Air and Air Defense Forces

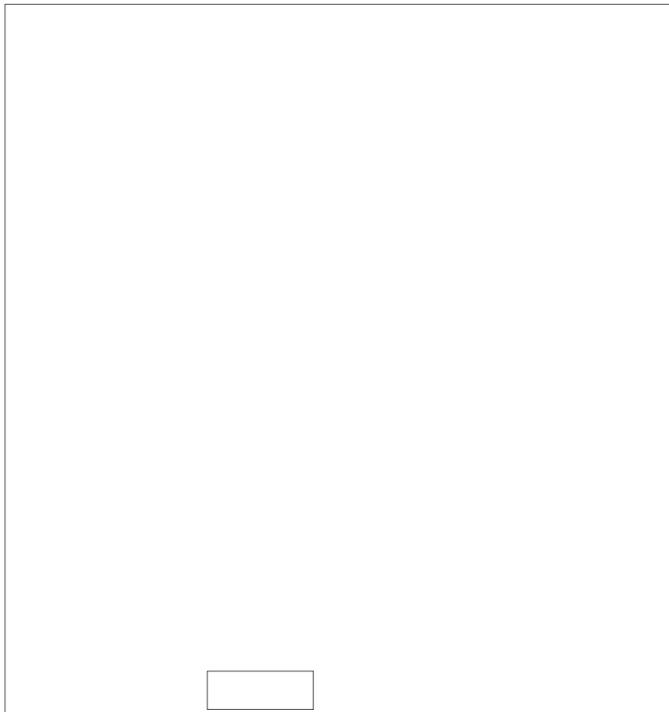
Zagreb's naval, air, and air defense forces cannot damage an adversary's forces significantly. The 5,000-man strong Navy has some four to six combatants, only three or four of which may be equipped with antiship missiles, leaving the force largely dependent on guns and torpedoes. With virtually no capability for extensive offensive operations, Zagreb undoubtedly will meet any naval threat chiefly with mines and coastal artillery. Zagreb has been able to establish only



minimal air and air defense forces. The 4,000-man Air and Air Defense Forces husband their two to five MiG-21s and use modified crop dusters for rudimentary ground strikes. Transport capabilities have improved with the March 1993 acquisition of four MI-8 helicopters, bringing the total inventory to 17. Zagreb remains vulnerable to air attack, although Croatia, which has some 100 SA-7 missiles and 15 to 21 SA-9 launchers, is seeking additional air defense missiles.

Croatian Combat Capabilities

Ejecting Serb Forces From Croatia. Zagreb can retake portions of Serb-held territory but cannot completely expel local Serb troops from Croatia. Croat military operations would be most successful in western Slavonia, where local Serb forces are demoralized and relatively weak. Croatian offensives spearheaded by Guards Mobile brigades are likely to achieve limited territorial objectives, but the Krajina Serbs' overwhelming advantage in heavy weapons probably would soon halt any Croatian advance. Zagreb's forces lack the heavy weapons, command experience, and logistic capabilities needed to mount a major campaign to retake the entire region.



Capability To Defend Croatia From Serb Attack. Bosnian Serb Army (BSA) forces are too stretched to threaten Croatia, but the Croatian Armed Forces would have difficulty coping with Yugoslav attacks intended to punish Croatia or seize additional territory. Croatia could not defend against punitive Yugoslav airstrikes and lacks the air defenses and heavy forces needed to defeat an armored attack in eastern Slavonia. The Croatian Defense Forces (HVO) and Croatian Armed Forces probably could not defend the Neretva River valley and lower Dalmatian coast against a determined attack by Yugoslav armor, artillery, infantry, and airpower.

Ability To Hold Territory in Bosnia and Herzegovina. Zagreb probably will retain control over the bulk of the territory Croatian forces currently control in Bosnia

and Herzegovina. The Bosnian Serbs occupy most of the territory to which they have laid claim and are uninterested in seizing the Croat-majority regions under Zagreb's control. Moreover, the Bosnian Serbs cannot mount the multibrigade combined-arms offensive needed to dislodge the HVO and Croatian Armed Forces from the rugged terrain they hold in Bosnia and Herzegovina. Bosnian government forces are likely to seize some additional territory in central Bosnia, where they have been able to concentrate sufficient manpower to outweigh scattered, lightly armed HVO units. Zagreb almost certainly will bolster the HVO with manpower and heavy weapons from the Croatian army to limit the Bosnian government's territorial gains. Zagreb would carefully weigh the political consequences of such intervention.

Effectiveness Over the Long Term. Croatian ground forces are unlikely to match the federal army's manpower, equipment, and mobility, although barring renewed hostilities against Belgrade, they will slowly improve. The international arms embargo will make it difficult for Zagreb to acquire heavy weapons and air defense missiles. Improved Croatian combat effectiveness, however, largely depends on enhancing combat and leadership skills and strengthening the army's organization. With adequate funding and a respite from the fighting for six to 12 months, Zagreb should be able to bolster its defensive strengths and offensive capabilities. On the other hand, heavy fighting with Yugoslav forces would slow and perhaps reverse the process.

Likely Croatian Army Response to Western Intervention. The Croatian army could continue to improve its capabilities and maintain limited pressure on Serb-occupied areas in

Croatia if the West were to intervene to support a negotiated settlement in Bosnia and Herzegovina, but a Western attack on Serb forces would tempt Zagreb to retake lost ground. Zagreb would probably be reluctant to incur Western ire by attempting the wholesale expulsion of Serb forces from Croatia after a diplomatic solution in Bosnia. Instead, the Croatian army probably would maintain pressure and launch local offensives along the borders of Serb-held territory, while Zagreb pressed for a diplomatic solution. Zagreb would view a Western attack on the Serbs, either in Bosnia or in Yugoslavia, as an opportunity to seize the Krajina and retake all of Slavonia. Unless restrained by the West, Croatia almost certainly would attempt to do so.

Krajina Serb Forces

The self-proclaimed "Republic of Serb Krajina" created a semiautonomous military in the spring of 1992. Headquartered in Knin, Krajina Serb forces consist of an estimated 40,000 ex-Yugoslav Peoples Army, ex-Territorial Defense Forces, police, and volunteers organized into six corps, with 26 brigades. The Krajina Serb Army fields numerous heavy weapons, including 300 tanks, 80 armored fighting vehicles, and 430 artillery pieces, along with dozens of heavy mortars, antitank guns, and light air defense artillery. Most of this equipment is currently operational, but the Krajina Serbs probably cannot maintain it over the long term without external assistance. Three FROG surface-to-surface missile launchers were seen in convoy in the possession of Krajina Serb forces in mid-July. These may have been provided by either Yugoslav or Bosnian Serb forces.

Figure 4
Krajina Serb Forces Corps Headquarters in Croatia



Heavy weapons provide the Krajina Serb Army an advantage over Croatian ground forces, but command, discipline, and organizational problems constrain its effectiveness. Political turmoil within the Serb community reportedly has prompted dissent within the officer corps and disorganization at the tactical level. The Krajina Serbs have little ability to shift forces among widely separated areas. Largely mobilized reservists, these troops reportedly are ill disciplined and fight poorly. Krajina Serb authorities will continue to depend on the Bosnian Serb Army for supplies and reinforcements. Acting in concert, the Krajina Serb forces and Bosnian Serb Army or Yugoslav Armed Forces would pose a significant threat to the Croatian Armed Forces. []

Forces in Bosnia and Herzegovina

The Bosnian Serb Army: Dominating the War

Origins and Manpower. Formed in the spring of 1992 from Yugoslav Armed Forces units based in Bosnia and Herzegovina, the Bosnian Serb Army (BSA) is commanded by a former Yugoslav general, Ratko Mladic. It has approximately 60,000 to 80,000 men organized into six corps and 58 brigades; 10 artillery and antiaircraft regiments, one FROG surface-to-surface rocket battalion, and two antitank regiments to supply heavy firepower. Some 30,000 Serb irregulars supplement the BSA. Since the beginning of 1993, the BSA has been making a systematic effort to standardize its brigades and integrate Territorial Defense Force fighters. Although its regular units are responsive to Mladic's authority, many irregulars and part-time fighters continue to conduct operations on their own. The Bosnian Serbs also

have the only fixed-wing combat capability in Bosnia and Herzegovina. Before the implementation of the "no-fly zone," they employed their air force primarily in support of their sieges. []

Equipment and Training. In March 1992, apparently on orders from Belgrade, the Yugoslav army turned over most of its arms and munitions in Bosnia and Herzegovina to the Bosnian Serbs. The BSA received approximately 400 to 750 tanks, approximately 200 other armored vehicles, 700 to 800 artillery pieces, and 450 heavy mortars, as well as about 30 helicopters and 21 fixed-wing combat aircraft. Because almost all BSA troops were in the former Yugoslav army, they have little difficulty operating their equipment, and their interoperability with Yugoslav forces would be high. Nonetheless, BSA overall training levels appear low. Centers for basic and advanced training have been reported at Manjaca and Bijeljina, but the BSA apparently remains short of adequately trained troops. [] Serb combat operations suggests that BSA troops use simple but effective tactics and procedures appropriate for undertrained personnel. []

Logistics. The BSA is largely self-sufficient in ammunition and most military consumables, but relies on Yugoslavia for fuel, transportation, spare parts, and maintenance support. There is some evidence of ammunition deliveries from Yugoslavia, but the quantities are insufficient to support the level of fighting in the region. Storage facilities at Banja Luka and Han Pijesak reportedly hold large quantities of ammunition and are supplemented by storage facilities scattered

Figure 5
Bosnian Serb Army (BSA) Headquarters, Corps, and
Areas of Responsibilities in Bosnia and Herzegovina



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parts and support from Belgrade. These problems have sometimes caused local shortages and make it difficult for the BSA to shift or concentrate forces rapidly. If Belgrade followed through with its promise to cut off aid to the Bosnian Serbs, the BSA would gradually lose its mobility and units would be left to live off local stockpiles. Medical support appears adequate. The BSA has at least one depot repair base, southwest of Sarajevo at Hadzici.

Morale. Morale varies greatly among BSA units and appears fair but fragile. Better trained units, such as engineers, appear to have the best morale. Many Serb fighters are not professionals and have never faced a well-armed or highly capable enemy. Desertions are common, particularly among troops serving away from their homes. Morale among Serb troops in eastern Bosnia fell sharply when they faced determined Muslim attacks in January 1993. Most BSA units would fall apart under a sustained Western combined-arms attack.

Leadership. BSA leaders are capable but cautious and unwilling to risk their forces. Many officers are veterans of the former Yugoslav army. They have a clear understanding of their forces' capabilities and limitations and gear their operations accordingly. As a result, the Serbs avoid directly attacking Bosnian army positions—which would risk heavy casualties and strain the logistic system. They prefer to surround Muslim-held areas and use their advantage in heavy weapons to shell them into submission. Coupled with their territorial objectives, this approach gives the war a slow-moving, siege-prone character.

throughout Bosnia and Herzegovina. Consequently, we believe that the BSA has ample reserves of ammunition for current levels of combat.

The BSA has received regular truck shipments of fuel from Yugoslavia, which we believe indicates it may have little in storage. The BSA's truck fleet is stretched thin, is short of fuel tanker trucks, and requires

Bosnian Serb Civil-Military Relations

Nominally controlled by the civilian government of the Serb Republic of Bosnia and Herzegovina, the BSA is largely an independent institution under General Mladic's control. President Radovan Karadzic has complained that:

- *The BSA does not follow his orders and has told him that he does not command the army.*
- *The army does not provide him with full information about its own plans and activities and withholds intelligence information from him.*
- *The BSA dismisses officers appointed by him whom it does not find acceptable.*

Vice President Nikola Koljevic considers Mladic dangerous.

Mladic appears to have established an effective command and control system. Information flows reasonably smoothly, and the BSA has demonstrated the capability to plan and execute operations effectively. The Serb command system's greatest weakness is logistics. Local commanders sometimes have to go outside BSA channels to overcome temporary supply shortages.

Bosnian Serb Combat Capabilities

Forcing a Military Decision in Bosnia and Herzegovina. The BSA can conquer most remaining Muslim-held areas of Bosnia and Herzegovina, but only at a political and

military price it is unwilling to pay. Because the Serbs control much of the flow of civilian supplies into Muslim areas they could starve both residents and defenders. The Serbs can concentrate their forces and firepower and reduce Muslim pockets one at a time, as they have been doing in eastern Bosnia since early February 1993. They could follow this strategy until only Tuzla, Bihac, and Sarajevo are left. The Serbs would then be capable of taking these towns one at a time by siege. This approach would take many months, involve a level of casualties greater than the BSA has been willing to accept, and incur a high risk of Western intervention. Consequently, the Serbs probably will not try to take by force all of Muslim-held Bosnia and Herzegovina but will maintain pressure on them.

Ability To Hold Territory. The BSA can hold virtually all its territory against attacks by any local opponent. Muslim attacks have pushed back Serb forces and taken Serb-held land, but these gains have been marginal or temporary. The BSA is the most mobile force in Bosnia and Herzegovina. Its capability to shift and reinforce units—albeit slowly—and call on Belgrade for emergency aid, as it did to repel Muslim attacks along the Drina River in early 1993, gives it a virtually unmatched operational advantage.

Likely Response to Western Intervention. The BSA would resist Western intervention in Bosnia and Herzegovina charged with rolling back Serb territorial gains or disarming the BSA but would quickly disintegrate in the face of a determined Western operation. Limited mobility would make it difficult for units to avoid coordinated air and

ground attacks by Western forces, and units attempting to resist would be overwhelmed quickly. Inadequate intelligence and communications would make it almost impossible for BSA units to support one another. Realizing they were no match for Western forces, large numbers of BSA soldiers would surrender, desert, or flee to Yugoslavia, in our judgment. Similarly, the Bosnian Serb air force would be easily overwhelmed by Western airpower. Thousands of other Bosnian Serbs would, however, conduct guerrilla warfare against Western occupation forces, probably with support from Belgrade.

Effectiveness Over the Long Term. If a political settlement ends the fighting in Bosnia and Herzegovina and sets territorial boundaries, the BSA will gradually decline into a small militia. Whether it formally annexes the Bosnian Serb areas or not, Belgrade is likely to view them as Yugoslav territory. The Yugoslav army probably would absorb the BSA's best units and weapons, discharge the irregulars, and convert many of the remaining troops into reservists. The former BSA units would still be stationed in Bosnia to guard the frontiers.

The Bosnian Army: Outgunned But Hanging On

Origins and Numbers. The Bosnian Army was formed in the spring of 1992 when the government in Sarajevo took control of the various militia, reserve, and paramilitary units in Bosnia and Herzegovina. Although mostly Muslim, the Army also includes Croat and Serb personnel. With the addition of volunteers and a small number of foreign Islamic fighters, the Bosnian Army now has perhaps 100,000 to 120,000² men, organized

² This figure includes personnel previously considered as irregulars outside the Army's formal structure.

in six corps and over 70 brigades. Almost entirely infantry, its units vary widely in manpower, organization, and military capability. Despite the title—The Army of Bosnia and Herzegovina—units are not firmly controlled by Sarajevo. Because units are cut off from one another and fighting in isolated pockets, local commanders are virtually autonomous. As a result, the Bosnian Army is essentially a local defense force, with most units incapable of shifting areas of operation or undertaking coordinated tactical maneuvers.

Equipment and Training. Bosnian forces are poorly trained and have little equipment. In the spring of 1993, the entire Army had only 25 tanks and fewer than 200 artillery pieces and heavy mortars; there is a continuing shortage of rifles. The government forces lack a formal training system; troops appear to rely on skills learned in the former Yugoslav army or practical experience.

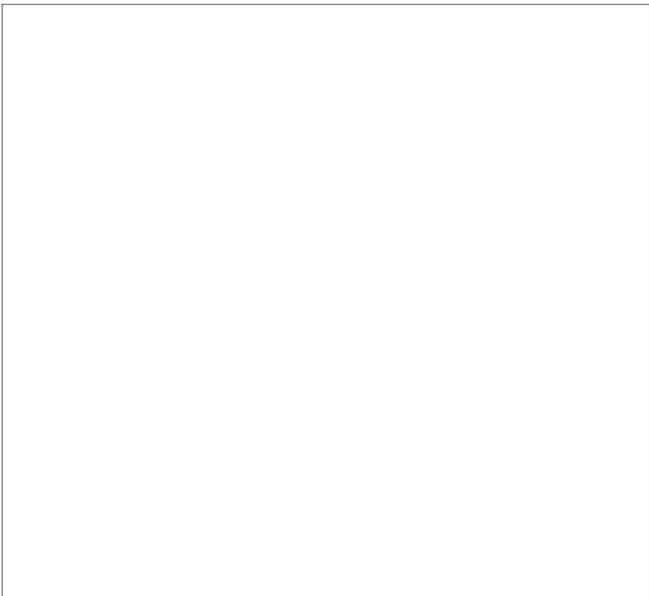
Logistics. Government forces are short of vital military supplies and are unable to distribute adequately items needed for combat:

- The most critical shortage is of ammunition. In March 1993 the defenders of Srebrenica reported grave shortages of all types of ammunition, but especially artillery rounds. In one brigade, according to a military debriefing, each soldier was limited to 70 rounds of rifle ammunition per week during the fall of 1992.
- Medical supplies are scarce. Medical items sought in late 1992 included sterile gloves, thermometers, and bandages, as well as antibiotics and other medications.

Figure 6
Bosnian Army Headquarters, Corps, and
Areas of Responsibility in Bosnia and Herzegovina



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This table is ~~Secret~~ [redacted]

Serb blockades make regular resupply of isolated units extremely difficult; in eastern Bosnia, supplies are often delivered by mule convoys. [redacted]

Sarajevo has sought both to buy weapons and ammunition abroad and to make them in Bosnia and Herzegovina. All imported arms enter Bosnia and Herzegovina through Croatian-held territory, and Zagreb halted these shipments in the spring of 1993. By its own count, as of February 1993 Sarajevo had imported some 25,000 rifles, about 100 mortars, 15 million rounds of rifle ammunition, and 47,000 mortar rounds. Given the scope of the fighting and shortages, these supplies have been inadequate. In January 1993 the Bosnian Government still sought another 100,000 assault rifles with 750 million rounds of ammunition, as well as mortars and artillery pieces, on the international arms market. Factories in government-held areas, particularly around Sarajevo, have produced some weapons and several million

rounds of rifle ammunition, but production is reportedly slowing as stocks of parts and explosives are exhausted. [redacted]

Morale. Bosnian Army morale appears to be good. Government forces fight tenaciously on the defensive and have frequently attacked superior Serb forces; desertions do not appear to be a serious problem. They are motivated by the knowledge that they are defending their homes and families and by the desperation of their position. Because they know the consequences of losing, government forces will retain their cohesion and continue fighting stubbornly. In some battles, such as the one around Jajce in the fall of 1992, trapped army units stood and fought to the last man. [redacted]

Leadership. The Bosnian Army is commanded by officers of the former Yugoslav Peoples Army, and additional leaders have emerged during the war, partially compensating for the Army's lack of professional officers and NCOs. Fragmentary evidence indicates that these leaders have emerged by combining combat performance, bravery, and charisma. Although this process has given the government forces a cadre of effective local leaders whom troops will follow, the Army has been unable to develop systematic procedures for identifying and training professional officers. The local nature of leadership and troop loyalties hinders efforts to coordinate actions, makes replacing unit leaders difficult, and makes enforcing cease-fire agreements difficult. [redacted]

Bosnian Army Combat Capabilities

Ability To Hold or Retake Territory. The Army cannot hold territory against determined Serb offensives. Because many

government units are either trapped in Serb-surrounded areas or lack mobility, Sarajevo is unable to shift its forces to counter a Serb advance. Because they are outgunned and low on ammunition, government forces can rarely reply to Serb artillery, counter Serb armor, or stop Serb infantry attacks with massed firepower. Except in cities like Sarajevo, where the prospect of street fighting deters an all-out Serb attack, the BSA can continue to take government-held areas one at a time. The government forces have seized terrain from HVO forces that lack Croatian army support.

Similarly, the Bosnian Army cannot permanently retake ground from the Serbs. Local government units have frequently attacked Serb-held areas near Sarajevo and in eastern Bosnia, taking and holding ground for short periods. Invariably, however, the Serbs regroup, counterattack, and eject the Bosnian forces. Bosnian units have frequently attacked to cut Serb supply lines, especially those in northern Bosnia and near Sarajevo, but they have been unable to hold their ground for more than a few days.

Likely Response to Western Intervention.

The Bosnian Army would welcome Western intervention in Bosnia and Herzegovina. Sarajevo undoubtedly views Western action as its best chance for survival. Intervention and an end to Serb attacks would greatly reduce pressure on the Army, which would almost certainly use the breathing room to rest, train, and rearm. The Bosnian Army would also try to occupy areas vacated by retreating BSA units and would probably step up guerrilla attacks on Serb forces. Should Western peacekeepers try to stop these actions, the government forces probably would respond violently, while trying to make their acts appear to be the work of Serbs.

Effectiveness Over the Long Term. If the West does not intervene, the Bosnian Army's capabilities will steadily deteriorate. As the Serbs continue to take government-held areas, centralized command and control will be lost, and the Bosnian Army probably will become a series of locally controlled commands. In such a situation these forces will turn increasingly to uncoordinated small-unit operations. Determined ethnic cleansing by the Serbs, however, would reduce the Muslim population and make operations steadily more difficult.

Croatian Defense Forces

Origins and Numbers. Aided by Zagreb, Bosnian Croats organized the HVO in the spring of 1992. Originally a loose collection of Croatian Democratic Union (HDZ) activists, local citizens, and ex-Territorial Defense Forces personnel, HVO unit organization grew stronger with the influx of former Yugoslav Peoples Army officers and troops, as well as Croatian army officers and personnel. Croatian Defense Forces now consist of an estimated 40,000 to 50,000 men divided among four operational zones and organized in 28 brigades. Locally recruited HVO units rely on the Croatian Armed Forces for support and assistance and generally coordinate their activities with Zagreb, but they retain substantial operational independence.

Equipment and Training. The HVO is a light infantry force whose equipment and training are inadequate for offensive operations without major reinforcements. Senior Croatian officials have acknowledged arming the HVO, and reports indicate the HVO has enough small arms. An HVO brigade may have as many as four to five tanks or armored vehicles and eight to 12 artillery

Figure 7
Croatian Defense Forces (HVO) Headquarters and
Operational Zones in Bosnia and Herzegovina



pieces or heavy mortars, but most units have fewer. [redacted]

the HVO recently established a basic training course, but most training is provided in individual units with widely varying quality. [redacted]

Logistics. HVO logistics are makeshift but reasonably effective. Spot munitions shortages have been reported, and food distribution reportedly is a continuing problem. Units are generally well equipped with small arms, ammunition, and equipment, due to Zagreb's direct support for the HVO. HVO activities are coordinated with the Croatian General Staff, and the Croatian army trucks supplies directly to HVO units. Adequate for operations close to support bases, the current level of logistic capability would not permit HVO forces to undertake mobile or extended operations. [redacted]

Morale and Leadership. Morale in HVO units appears to be uniformly good because the troops are defending their homes, families, and property. This strong commitment enables Croatian troops to overcome some of the deficiencies in their training. Despite some problems, especially in central Bosnia, HVO forces appear relatively disciplined and reasonably effective. Some brigades probably are led by Croatian Armed Forces officers.³ Like the Croatian Armed Forces, the HVO almost certainly has an inadequate number of trained, effective junior officers and NCOs—shortages that will continue to limit its tactical operations. [redacted]

³ The Acting Assistant Secretary of State for Intelligence and Research believes that, while some HVO brigades may be led by Croatian Armed Forces officers, there is no specific evidence to support this. [redacted]

HVO Combat Capabilities. Supported by the Croatian Armed Forces, HVO forces can hold most of the land they currently occupy against the Bosnian Serb Army or Bosnian forces. Rough terrain, fluid and discontinuous frontlines, and the small-scale, relatively static nature of most combat enable the HVO both to harass Serb forces and to secure communications lines with scattered artillery outposts. In the unlikely event that BSA or Bosnian operations endangered Croatian control of occupied portions of Bosnia and Herzegovina, Croatian army regulars would immediately reinforce threatened sectors. In early May 1993, for example, after heavy fighting broke out between the HVO and Bosnian units around Mostar, Croatian President Tudjman ordered approximately 3,000 regular Croatian army troops sent to Bosnia to reinforce the HVO, according to a generally reliable source. [redacted]

Acting alone, the HVO cannot take additional territory in Bosnia and Herzegovina. Croatian Defense Forces lack the transport, communications, logistic support, and command structure needed to undertake mobile operations across a broad front. HVO units reportedly are also reluctant to engage enemy forces beyond their home regions. In addition, they are no match for better armed Bosnian Serb Army units and probably incapable of withstanding heavy attack by Serb armor or artillery. The HVO's manpower, mobility, and heavy weapons would be inadequate to overcome Bosnian forces, should the HVO attempt a large-scale offensive. [redacted]



Effectiveness Over the Long Term. The military capabilities of the HVO will improve modestly over time. Zagreb aims to hold portions of Bosnia and Herzegovina principally with HVO troops and probably will take small steps to bolster their capabilities. Combat skills will improve if the HVO institutionalizes basic training, and the shortage of junior officers and NCOs can be redressed if the Croatian army increases professional training. Acquisition of substantial amounts of armor and artillery is unlikely, but Zagreb might provide the HVO with more light antitank weapons and mortars. In the event of heavy Serb-Croat fighting in Bosnia, the

Bosnian Croats will mobilize additional manpower but would still rely on the Croatian army to hold off the Serbs or Bosnian Government forces.

Likely Response to Western Intervention. Croatian Defense Forces would exploit the presence of Western combat forces to solidify their control of territory in Bosnia and Herzegovina. Croatian Defense Forces are likely to view foreign intervention against the Serbs as disabling their strongest enemy. They almost certainly would take advantage of the likely disintegration of the Bosnian

Serb Army to assert control over the remaining contested portions of western Herzegovina, to retake territory around Jajce and Kupres, and to improve defensive positions astride Serb supply lines in northern Bosnia. They will not surrender their weapons and are likely to resist Western efforts to disarm the HVO or reintroduce Sarajevo's authority in areas they currently occupy.

Annex A

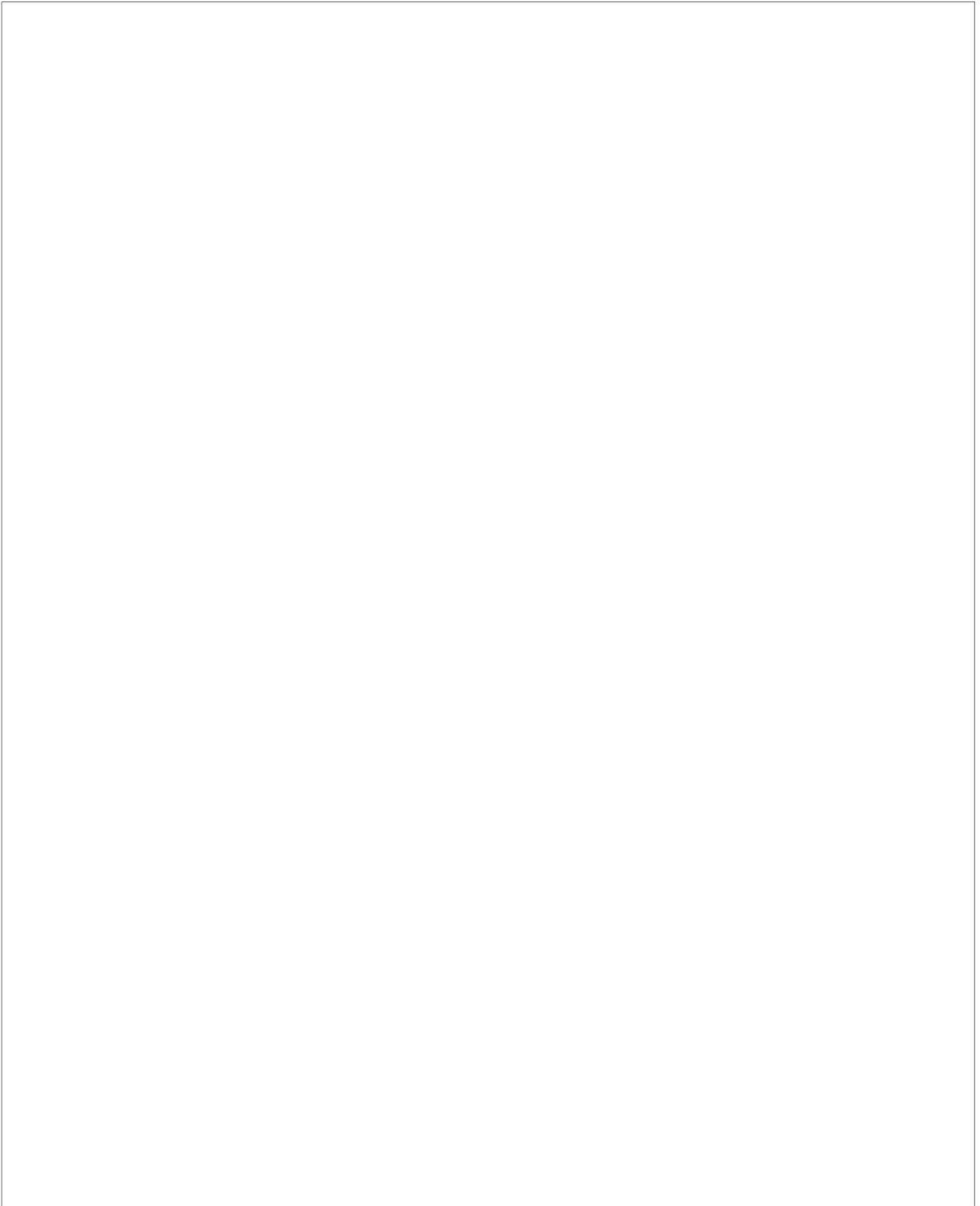
Force Structure of the Yugoslav Ground Forces

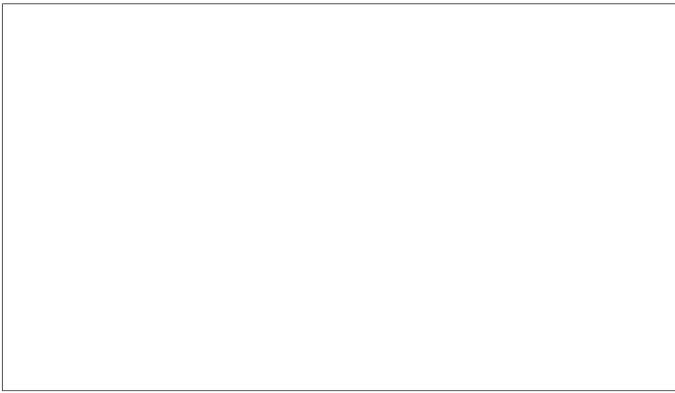
Yugoslavia's most capable ground forces are deployed opposite Croatia and in areas of potential domestic unrest. The bulk of the Ground Forces' striking power—tanks, fighting vehicles, and heavy artillery—resides in 65 maneuver brigades. The 11 armored and mechanized brigades are its most capable units. Eight are in northern Serbia for possible use against Croatia or to contain conflict in Vojvodina or the Sandzak; two more are in Kosovo. According to an untested source, the government recently created a special corps to control a military police brigade and commando troops in Belgrade, whose mission we judge to be regime security.

The Ground Forces are striving to extract maximum combat power from existing forces. Yugoslav army corps do not have command and control structures intended to control mobile operations. The corps are static area defense commands assigned armored, mechanized, infantry, and artillery brigades consonant with their missions.

Ground Forces are retiring World War II-era equipment—for example, T-34 tanks, M-46 tank destroyers, and A-19 artillery—and are redistributing hundreds of newer heavy weapons withdrawn from Slovenia and Croatia. The Ground Forces have taken control of the Territorial Defense Forces and assigned to rear area and local defense missions their estimated 400,000 personnel who would be available in wartime.

Yugoslavia's Ground Forces could not survive a Western attack as a conventional armored force, but we judge Belgrade would be able to mobilize and disperse a guerrilla army. The General Staff has transferred 24 cadre light infantry brigades from the Territorial Defense Forces and created motorized brigades equipped with small arms and mortars for extended combat. Multiple garrisons and depots, decentralized mobilization points, and extensive munitions stockpiles would present foreign forces with few concentrated targets. Centralized conscription and recruiting will enable authorities to





call up additional manpower with warning of war. In our judgment, reservists would generally report in response to a direct threat to Yugoslavia, and the army's field forces could swell to well over 200,000, augmented by thousands of reservists or local defense forces. Fragmentary evidence indicates recent mobilization drills have been well organized and effective. 

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Annex B

Force Structure of the Yugoslav Navy

Belgrade is struggling to align the Navy into an effective force, but the Navy has little offensive capability. Only four frigates, eight to nine patrol boats, and two to three operational submarines possess modern weapons for use against Western forces. Although these forces are designed for offshore raiding, the Navy has lost the tunnels, ports, and other safehavens upon which its former doctrine of hit-and-run attacks rested. The Navy also lacks the sensors, weapons, and platforms for over-the-horizon attacks. In our judgment, in operations short of war, the Navy will restrict its operations to the Montenegrin coast—mining those waters if the West intervened against the Bosnian Serbs. If the West attacked Yugoslavia, the Navy would attempt to attack Western naval forces in the Adriatic with submarine and surface forces. [redacted]

Yugoslav authorities control over 4,800 operational naval mines, including acoustic, bottom influence, and moored contact mines. According to attache reporting, plans call for laying 3,000 mines off the Montenegrin coast. [redacted]

The Ground Forces' Maritime Command possesses artillery and antiship missiles for coastal defense. [redacted] the missile regiment, equipped with an estimated 12 SS-C-3 launchers and 48 missiles, is

located near the Tivat naval base, the principal facility near Kotor Bay. [redacted] some missiles may also be deployed in the vicinity of the port at Bar. The Ground Forces also have two regiments of 36 to 40 M-46 130-mm field guns for coastal defense, and imagery shows half of these guns are at Tivat. The remainder, along with a substantial but unknown number of World War II-era 88-mm, 90-mm, and 94-mm antiaircraft guns deployed as coastal artillery, are scattered in other coastal positions. [redacted]

Yugoslavia's naval aviation capabilities are limited. The prewar air force had three squadrons trained for antiship operations. These units probably are deployed at Ivangrad and Podgorica, but there is little continuing training in an antiship role. Although the Air Force has early versions of the TV-guided Maverick missile and reportedly has Soviet-made AS-7 Kerry air-to-ground missiles, it would depend primarily on gravity bombs and unguided rockets to attack foreign shipping. [redacted]

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Annex C

Force Structure of the Yugoslav Air and Air Defense Forces

Belgrade is restructuring the Air Force to boost the capabilities of a shrunken force. The service reportedly now comprises a single air corps with subordinate brigades at Batajnica, Kraljevo, Podgorica, and Pristina. Its inventory includes:

- Five fighter-bomber squadrons.
- Six fighter squadrons.
- Two reconnaissance squadrons.
- Five attack helicopter squadrons.
- Three transport/utility squadrons

The Air Force inventory remains a generation or more behind that of Western forces. Its most effective platforms are the 12 high-performance, all-weather MiG-29s equipped with older AA-8 and more recent AA-10 and AA-11 missiles. the Air Force has stored more than 100 outdated Galeb-Jastreb fighter-bombers. The primary air-to-air platforms are the 111 MiG-21 fighters equipped with AA-2 and AA-8 missiles.

Air Force operations have not significantly affected the military situation on the ground. Commanders have been reluctant to expose Gazelle and Hip C attack helicopters to ground fire and relied on MiG-21s, Oraos, and Super-Galebs for close air support in

earlier fighting. Croat and Muslim troops have openly acknowledged the psychological effect of attacks to which they could not respond. Their military impact has been undermined, however, by the small scale of most ground combat, the proximity of the engaged forces to each other, and the cover afforded by difficult terrain. The effectiveness of airstrikes has been reduced by limited supplies of smart munitions and the propensity to attack from high altitude.

The limited number of modern combat aircraft and dated air-to-air weapons would not allow the Yugoslav Air and Air Defense Forces to withstand a Western coalition air campaign. However, they would be quite capable against neighboring air forces. Their pilots are proficient at simple intercepts and night operations but lack the training and equipment to conduct effective operations against NATO air forces. In our judgment, air combat would reveal widespread shortcomings in defensive maneuvering, the use of countermeasures, and beyond-visual operations. The Yugoslav Air and Air Defense Forces do, however, enjoy the advantages of simple operating systems, dispersal in rugged terrain, stockpiles of war material, and a legacy of self-sufficiency. The General Staff is competent and has completed an overhaul of its air defense doctrine.

The Air Defense Forces field a range of strategic and tactical surface-to-air missiles.

[redacted] five SA-2 and seven SA-3 battalions defend Belgrade and air-bases and defense industries south of the city. Four additional SA-3 battalions protect key airfields elsewhere in Yugoslavia. The Yugoslav Air and Air Defense Forces control five deployed SA-6 regiments, and the Ground Forces control 84 SA-9 launchers and four SA-13 launchers. [redacted]

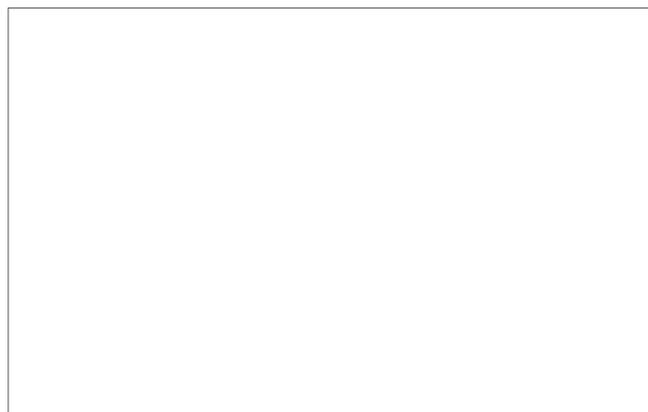
Annex D

Force Structure of the Croatian Ground Forces, Navy, and Air and Air Defense Forces

Although Zagreb is attempting to increase mobility and firepower, the Croatian Ground Forces generally remain a territorial defense force. Despite the creation of Guards Mobile brigades, most of the force consists of relatively immobile, lightly armed infantry brigades and Home Guard regiments suited principally for local defense. Insufficient weapons, as well as the limited training, poor discipline, and the frequent morale problems among mobilized reservists, will continue to constrain the Ground Forces' capacity to undertake multibrigade offensive operations.

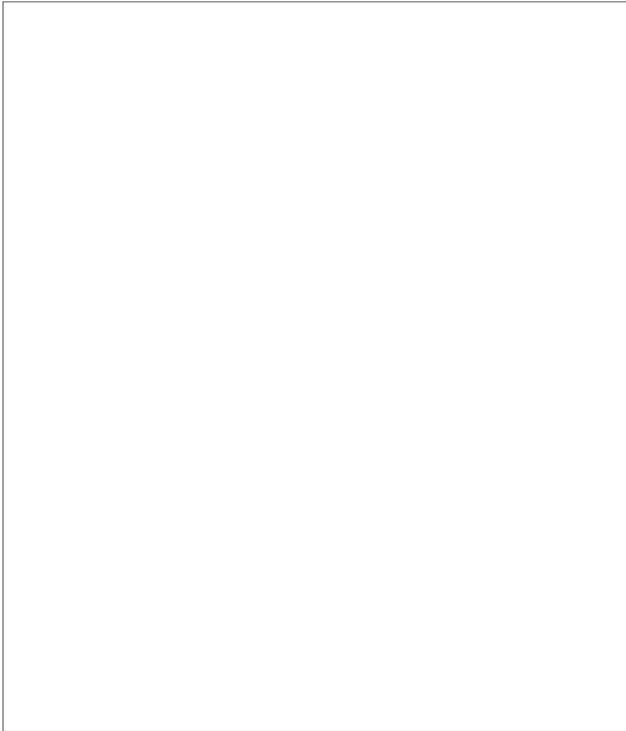
Croatian brigades, the basic combat unit, vary in strength and capability. Units range in size from 1,000 to 3,000 men. Guards Mobile brigades, the most standardized and capable units, have the greatest firepower—four infantry battalions, a tank company or battalion, and organic air defense—and a reduced logistic structure to heighten mobility. Two brigades are opposite Serb forces in western Slavonia, and the remainder shift across operational zones as needed. Infantry brigades, the Ground Forces' backbone, have different amounts of armor, artillery, and air defense weapons and probably are task organized. Home Guard regiments, designed for static defense, are equipped with small arms, light artillery, and mortars.

The Croatian Ground Forces are attempting, with mixed success, to extract maximum combat power from available resources. The



General Staff has created a core of reliable, effective, and better armed troops in the Guards Mobile brigades. Moreover, an influx of former Yugoslav Peoples Army officers and the overhaul of the General Staff have strengthened planning. Recent operations show improvements in the Ground Forces' use of terrain and fire support. Its capabilities as a maneuver force are unlikely to show substantial improvement, however, until Zagreb successfully addresses shortcomings in small-unit leadership and a continuing inability to coordinate operations effectively.

The Croatian Navy is the smallest fleet in the Adriatic and will continue to maintain a low operational profile. The fleet is divided into operational sectors headquartered at Pula, Sibenik, and Kardeljevo (Ploce). Key combatants (Koncar- and Osa-class guided missile boats) probably are sailing from Split.



Operational readiness has improved, but patrols remain short and close to shore and shortages of parts and technicians continue to undermine weapons effectiveness. Croatia probably intends in the future to patrol the southern Adriatic from refurbished naval bases at Vis and Lastovo Islands. Its current orientation is defensive, however, and evidence exists that Zagreb plans to mine key sections of its coastline if the federal navy attacks.

The Croatian Air Force and Air Defense Forces operate almost as a “flying club” of little military utility. No strategic air defense exists, and most air defense weapons are integrated within Ground Forces units.

Annex E

Force Structure of the Bosnian Serb Army

The Bosnian Serb Army (BSA) is organized the same way as the former Yugoslav Peoples Army (JNA), from which it inherited most of its units and equipment. The BSA has six corps—Sarajevo-Romanija, I Krajina, II Krajina, Herzegovina, Eastern Bosnia, and Drina—five of which are renamed JNA corps. Each corps is based on two to four motorized brigades, usually supplemented by light infantry, an antitank brigade, and an artillery brigade; there are only two armored brigades attached to the BSA corps. Motorized, armored, and light infantry brigades usually have three maneuver battalions; a mortar platoon; and engineering, signal, medical, and service platoons. The army's surface-to-surface FROG rocket battalion and four SA-2 battalions, all located around Banja Luka, are not attached to any of the corps.

The BSA has not undertaken a reform program similar to the Yugoslav army's, largely because its structure is adequate for immediate goals. Bosnia's rugged terrain and poor road network put armored forces at a disadvantage; consequently, the BSA's corps structure provides sufficient resources for moving and concentrating forces without sacrificing the infantry component essential for success in the Bosnian hills. In addition, continuing combat operations and a shortage of manpower preclude the BSA from withdrawing frontline units for reorganizing and retraining.

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Annex F

Force Structure of the Bosnian Army

Bosnian Army organization reflects its hasty formation in the spring of 1992. Formally, the army is organized into six corps: I (Sarajevo), II (Tuzla), III (Zenica), IV (Mostar), V (Bihac), and VI (Konjic), with a total of more than 70 brigades. Unlike the BSA, however, neither corps nor brigades have a standard organization. Some brigades reportedly have as many as 4,000 to 5,000 men, while others have fewer than 1,000.

Because the corps operate in isolated pockets, they have become largely independent of one another. Each corps consists mostly of

men from a particular geographic area, making it dedicated to local defense but reluctant to help units only a few miles away. Moreover, the Bosnian government has little more than nominal control over the corps, making it difficult to order and carry out coordinated operations. This has worked to the Serbs' advantage, enabling them to defeat Bosnian Army strongholds one by one, while minimizing the risk of surprise attack in the rear.

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Annex G

Force Structure of the Croatian Defense Forces

The Croatian Defense Forces (HVO) has few standardized units, and most of its combat formations are incompletely equipped. Brigades, consisting of three to six infantry battalions, an antitank battery, a mortar battery, and support platoons, are the basic maneuver unit. Brigade size varies from a few hundred to several thousand men, and few have the complete table of organization and equipment. The average brigade probably has 2,000 to 3,000 men, equipped with light artillery, various mortars, and antitank weapons. Some units probably have a handful of T-54/55 tanks and/or armored vehicles, but antitank weapons are generally in short supply, and none of the HVO brigades has organic air defense. []

HVO lines of command vary, and brigade commanders almost certainly have broad independence within their area of responsibility. In one of four HVO operational

zones—comparable to corps—brigades are subordinate to operational groups. Echelons above brigade, however, are not mobile command and control structures and appear to be principally static area defense commands. Most units take orders from Croatian Democratic Union (HDZ) leader and HVO chief Mate Boban, but the Bosnian government has operational control over four to seven HVO brigades. Press [] reporting indicate joint HVO–Bosnian Army local commands have been formed in Bihac and along the northern corridor, and other reporting indicates that the two forces continue to plan joint operations. []

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Annex H

Chemical Warfare Capabilities

Before it broke up, Yugoslavia had the most sophisticated defensive chemical warfare (CW) industry in Eastern Europe and produced individual protective equipment, various CW agent detection devices, and some decontamination equipment. [redacted]

[redacted] the former Yugoslavia also produced chemical warfare agents and munitions at two locations—Mostar and Krusevac. These agents include the nerve agent sarin, the blister agent mustard, and tear gas, as well as the psychotropic agent BZ. All offensive CW production plants that we have identified are under the control of the Yugoslav military. [redacted]

We assess that Belgrade has at least a small stockpile of delivery vehicles for chemical weapons. Reporting indicates that Yugoslavia has produced 155-mm artillery shells, as well as 128-mm and 262-mm rockets with CW agent fills. Approximately 1,000 rounds of each caliber were produced, and 4,800

122-mm artillery shells are available for filling if agent production is resumed. As of 1990, total production was estimated at 5 tons of sarin, 1 ton of mustard, and 100 tons of tear gas. It is not clear what type of chemical weapons employment doctrine Belgrade might use. [redacted]

The Bosnian government has a limited chemical capability based on commercially produced chlorine and phosgene gases. Up to 1,500 tons of phosgene and chlorine have been produced in a chemical plant near Tuzla. While the Bosnian government lacks chemical artillery munitions, these gases could be released from canisters. Yugoslav army gas masks provide protection from these gases, so the threat is chiefly to civilians. Desperate Bosnian defenders may be tempted to use these gases in a propaganda ploy to gain international attention. [redacted]

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Annex I

Terrorism—A Nonconventional Response to Intervention?

The international terrorism threat to US and other Western interests has grown with US participation in humanitarian aid missions to Bosnia and would increase with direct US or Western military intervention. Bosnian Muslims and Serb radicals currently represent the primary potential threats. [redacted]

As long as Serbs are winning the war in Bosnia, we believe that Serbia has little to gain by conducting or sponsoring terrorist acts in the United States and Europe. The threat of Serb-sponsored terrorism against the United States and other Western countries would grow, however, if the Serbs perceived an increasingly anti-Serb slant in Western efforts to resolve the conflict. [redacted]

The greatest threat would come from independent Serb paramilitary groups—particularly those led by “Arkan,” “Captain Dragan,” Vojislav Seselj, and Dragoslav Bokan. They all have access to arms and explosives, and some are skilled at eluding police and traveling under false documents. They are capable of carrying out terrorist acts against US interests in the former Yugoslavia, Western Europe, and possibly the United States, although probably not against well-defended diplomatic or military facilities. Some members of Arkan’s group may be planning terrorist attacks in the United States and Western Europe. [redacted]

[redacted]

Since the bombing of the World Trade Center in New York, Serbs outside Serbia have made numerous terrorist threats. These individuals probably are capable of mounting low-level attacks against US facilities, like the summer 1992 firebombings against the USIS library in Belgrade and the vandalism in February 1993 against the USIS and German libraries. [redacted]

There is no evidence that the Serbian government is developing an infrastructure to attack well-defended targets in Europe. The former Yugoslav intelligence service, however, was known to assassinate dissidents abroad, and the current Serbian service, undoubtedly has inherited that capability. [redacted]

Over the long term, Bosnian Muslims, who are likely to be the biggest losers and to blame the West, may become the biggest threat. They have links to Iranian-supported Hizballah—which reportedly has a cell in Bosnia—and other Middle Eastern terrorist groups that pose a substantial threat to the United States. A delegation from the Bosnian cell attended Hizballah’s foreign policy conference in Beirut in August 1992, [redacted]

[redacted] In addition, we estimate that 150 Iranian Revolutionary Guard Corps (IRGC) personnel are training Muslim fighters in Bosnia. [redacted]

We believe that Palestinian terrorist groups that either maintained relations with or operated in Yugoslavia before the war will take into account developments in the Middle East, their own political agendas, and state sponsors' reactions before attacking US targets. The Popular Front for the Liberation of Palestine-General Command (PFLP-GC)—which is developing close ties to Iran—is the Palestinian terrorist group most likely to stage attacks on behalf of Bosnian Muslims. Other Palestinian terrorist organizations with a presence in Yugoslavia—including the Abu Nidal organization, Abu Abbas's faction of the Palestine Liberation Front (PLF), and remnants of the Fatah Special Operations (or Hawari) Group—have not yet considered the conflict in Bosnia an important part of their political or operational agendas.

Of the groups involved in the fighting in Bosnia, the Croats, in our view, currently have less motivation to undertake terrorist acts than either the Bosnian Muslims or the Serbs. Nonetheless, observers note that there is strong anti-UN sentiment among the Croatian people, and Croat extremist groups and paramilitary forces are capable of using terrorism or supporting terrorist groups as a means of venting their frustration with the UN force's inability to bring about a complete Serb withdrawal from eastern Croatia. Croat groups have conducted terrorist acts in the past, primarily against official Yugoslav targets.

Annex J

Paramilitary Terrorism in the Former Yugoslavia

The majority of paramilitary groups conducting terrorism in Bosnia and Croatia are armed wings of established ultranationalist political parties in Serbia and Croatia. In Croatia, the most visible and violent national organization is the HOS, the armed faction of the Croatian Party of Rights. HOS leader Dobislav Paraga has been an outspoken opponent of efforts by the Zagreb government to negotiate with Serbia. HOS forces were heavily involved in the fighting in western Herzegovina and are accused of detaining and mistreating Serbian civilians. A search of Croatian Party of Rights headquarters in Zagreb uncovered 3 tons of weapons and explosives. Several HOS leaders, including Paraga, Ante Djapic, Mile Dedakovic, and Ante Prkacin, have been charged with terrorism and with calling for the forceful overthrow of the Croatian government.

Three well-known Serbian paramilitary organizations are responsible for much of the terrorism associated with Serbia's attempt to annex lands in Bosnia and Croatia. The size of these forces is undetermined. They operate sporadically and are reported in most major areas of ethnic fighting.

The Serbian Chetnik Movement (SCP), the paramilitary wing of the ultranationalist Serbian Radical Party (SRS), is led by Vojislav Seselj. Seselj is a member of both the Serbian and Yugoslav parliaments. Seselj's SCP troops are known for ethnic cleansing in

Croatia and Bosnia. Ceko Dacevic, a notorious local chieftain of the SCP in Montenegro, was arrested by authorities in Pljevlja. Dacevic is suspected of orchestrating bombings and assaults against Muslim homes and businesses in the Sandzak region.

Zeljko Raznjatovic, a common criminal who is on Interpol's watch list for violent criminals, has adopted the alias "Arkan" and leads a paramilitary band based in Belgrade. Arkan's group reportedly trains near Ilok and Erdut in Sector East of the UN Protection Force Zone. The group has expelled non-Serbs from their homes and businesses and has stolen property.

The paramilitary wing of the Serbian National Renewal Party (SNO), called the White Eagles, is led by Dragoslav Bokan. The White Eagles gained notoriety for murdering Muslim civilians during the assault on Visegrad in April 1992. Bokan is a close associate of SNO leader Mirko Jovic. Jovic and the SNO have been associated with several other paramilitary formations, including the Ravna Gora Youth, the Serbian Falcons, and Dusan the Strong.

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Annex K

Impact of Terrain and Weather on Military Operations

Climatic Overview

The former Yugoslavia has two widely varying geographic and climatic regions, each with a differing impact on military operations. The climate of the coast is Mediterranean, with hot, dry summers and cool, wet winters. The interior highlands and northern plains differ from the coast in that precipitation is spread more evenly throughout the year, temperatures are slightly colder, and snow occurs frequently during winter. The mean relative humidity varies regionally, seasonally, and diurnally, depending primarily on elevation, exposure, and proximity to water bodies. Surface winds are usually light and variable throughout the year. Air operations are barely hindered at any time during the year along the coast or during the summer in the highlands and northern plains. During the late fall through early spring these higher elevations experience conditions that could hamper air operations nearly 50 percent of the time.

Potential Impact on Ground Operations

The Northern Plain. The northern region, which runs in a northwest-southeast axis for some 480 km—roughly corresponding to the area between Zagreb and Belgrade—accounts for approximately 20 percent of the former Yugoslavia. This area—with a maximum width of 210 km—is generally low and flat and is bounded on its southern extent by the Sava River plain. It is well suited for large-scale, rapid ground operations.

Weather does not provide a significant obstacle to military activities in this region. Intensely hot summers with long dry spells are common. In winter, sometimes for prolonged periods, bitterly cold winds can result in temperatures well below freezing—average minimum January temperatures are about -3°C and maximum about 3°C —but snow is not common. July temperatures can range between 16°C and 29°C . Summer rains that fall in the form of heavy thunderstorms can temporarily inhibit some operations, however.

The Southern Mountains. The region to the south of the Sava River includes Croatia's Dalmatian coast, virtually all of Bosnia, and southern Serbia. This region—which accounts for the remaining 80 percent of the former Yugoslavia—is characterized by numerous mountain ridges and peaks, narrow steep-sided valleys, and scattered level basins. The highest elevations—a maximum of 2,820 meters—can be found in the western portion of the area, but average elevations range between 1,500 and 2,100 meters. Although ideally suited for irregular operations, the varied and channelizing terrain makes the region unsuitable for large-scale ground operations by heavy forces.

Unlike the northern plain, weather in this region does limit military operations. Heavy precipitation in the form of rain and snow is common in this area. The western region is

wetter, with rain throughout the year—mean annual precipitation is about 180 millimeters. Winter snows and ice—which last for about three months—can close many roads throughout Bosnia and slow movements in Croatia and Serbia. Spring thaws in the mountains may also cause some local flooding. Mean temperatures are also lower because of altitude, with 54 temperatures decreasing by about 2°C for every 300-meter increase in altitude.

Potential Climatic Impacts on Aerial Operations

Winter months are the worst for conducting aerial operations in the former Yugoslavia. Cloud cover is especially persistent in the interior highlands and northern plains during the late fall, winter, and early spring (October through March), often impeding operations 50 percent of the time. Weather conditions are much better along the coast year-round, however, although ceilings and visibilities are sometimes restricted in late fall and winter by fog, rain, and snow. At the end of winter and in early spring, winds sometimes of gale force and lasting days can occur along the Adriatic coast. Overall, the period May through August is best for aerial operations.

Winter (December to February). Winters are generally mild and rainy along the coast, but it can be very cold in the higher mountains. Snow is common inland from December through March but is rare along the coast. Over the plains in the northeast, winters are

cold with light precipitation, falling quite often as snow. Frequent low-pressure systems moving through the area make cloud cover greatest in winter. Maximum precipitation associated with these lows occurs in fall and early winter.

Spring (March to May). Cloudiness either stays the same as in winter or decreases, depending on location. Vertical development in the clouds increases as the months progress. Precipitation is generally plentiful because migratory low-pressure systems are numerous. Most precipitation falls as heavy showers or in short periods of heavy continuous rain or snow.

Summer (June to August). The best weather occurs during the summer because the frequency of migratory weather systems is at a minimum and visibility remains good until early fall. Coastal areas have land and sea breezes with the sea breeze, the stronger of the two, sometimes reaching 21 knots. Most precipitation comes from afternoon or evening thunderstorms.

Fall (September to November). The number of low-pressure systems crossing over Yugoslavia begins to increase during the fall, bringing increased cloudiness, and decreased visibility occurs. Skies are generally cloudiest in the afternoon. Restricted visibility occurs most often in late fall, associated with the increase in rain and snow.

Annex L

Transportation, Energy, and Communications Infrastructure

Overview

As a result of the breakup of the former Yugoslavia, the Croatian-Serbian war, and the ongoing conflict in Bosnia, much of the region's already strained infrastructure has been seriously degraded:

- The former Yugoslavia had a relatively well-developed communications infrastructure. The civil Post, Telephone, and Telegraph (PTT) authorities maintained a network of buried coaxial cable and line-of-sight microwave radio relays that facilitated civil telecommunications, while providing channels to military subscribers when necessary. In addition, the former Yugoslav Peoples Army operated its own dedicated microwave radio relay network, supported by buried cable and high-frequency radio nets. Shortly before the dissolution of the Yugoslav state, civil networks were being upgraded with advanced digital switches, cellular networks, and fiber-optic transmission systems. Serbia, Croatia, Slovenia, and Macedonia are currently operating inherited telecommunications infrastructure to support their national requirements; telecommunications systems in Bosnia and Herzegovina are badly damaged and operate only intermittently.
- The energy infrastructure—which was able to satisfy much of Yugoslavia's energy needs—included a wide variety of hydroelectric and standard coal- and oil-fired

generating facilities. War damage, sanctions, and mismanagement have reduced capacity in some areas. For example, Croatia's Dalmatian coast has been virtually cut off from the rest of the national grid since 1992 when Serb forces destroyed key transport lines—resulting in severe shortages. Some parts of Bosnia have been similarly cut off. Rerouting power supplies to these areas will require expensive infrastructure improvements.

- The former Yugoslav transportation network is also in poor condition. Despite its role as a key avenue for north-south traffic through the Balkans, much of the road and rail network has not been adequately maintained. War damage—particularly destroyed bridges and tunnels—has further reduced capacity.

Serbia

Serbia's civil telecommunications network lags behind comparable Western systems. International communications with Serbia is provided by cable and microwave links, as well as by the INTELSAT satellite station at Ivanjica, approximately 70 miles south of Belgrade. The army has access to the former Yugoslav Peoples Army military microwave network for national-level military communications. Tactical communications are a mixture of frequency-hopping radios capable of high-speed digital encryption and frequency synthesis and older FM radios lacking these advanced capabilities.

Serbia's energy infrastructure includes a combination of hydroelectric and thermal facilities, but the Serbian power network can best be described as average—plants with a capacity in excess of 5,000 MW supply the national grid. Sizable deposits of lignite coal are located in Serbia. Bituminous coal reserves are concentrated in Serbia. []

Serbia's roads and railways are at best in only fair condition. Serbia also has a fairly extensive system of water transport feeding into the Danube. []

Bosnia

Bosnia's civil telecommunications infrastructure has been severely damaged in the fighting. The network relied primarily upon microwave radio relay. No major satellite earth stations are located in Bosnia, although many private concerns operate portable uplink stations. The Bosnian government has been forced to rely on ham radio operators to communicate with enclaves cut off from Sarajevo. []

Bosnia produced enough electrical power—1,900 MW—to serve itself and part of Croatia's Dalmatian coast before the war. Large coal-fired power plants are located near Tuzla and in the Zenica-Sarajevo region. Several large hydroelectric facilities are situated along the Neretva River near Mostar and near Jajce along the Vrbas River. Bosnia holds about a third of coal reserves in the former Yugoslavia but has no significant deposits of oil or gas. A large coal facility is located near Zenica where a coal deposit of 66 million tons was identified. []

Bosnia's transportation infrastructure is in need of significant repair. More than 60 percent of the roads are unpaved. Paved routes that serve industrial centers are in poor condition. The war has destroyed numerous bridges and tunnels and rendered Bosnia's rail network largely unusable. []

Croatia

Inadequate by Western standards, some key Croatian facilities have been upgraded with satellite earth stations, digital switches, and fiber-optic transmission systems. A cellular communications system has operated in Zagreb since 1991. Digital exchanges capable of handling Telex and Fax links began operating between Zagreb and Split in 1990. A digital telephone exchange and optical cable link also came on line connecting Zagreb and the industrial center of Sisak that year. Direct international dialing is available in Zagreb, although connections tend to be spotty. []

The well-developed Adriatic port system is the keystone of the country's transportation network, but Croatia's road network is below Western standards. Primary roads are hard surfaced but have only two lanes with a passing shoulder. A few superhighways exist immediately around Zagreb and along segments of the Zagreb-Belgrade route. Inland waterways—the Danube and the Sava—play a key role in regional economic transport. []

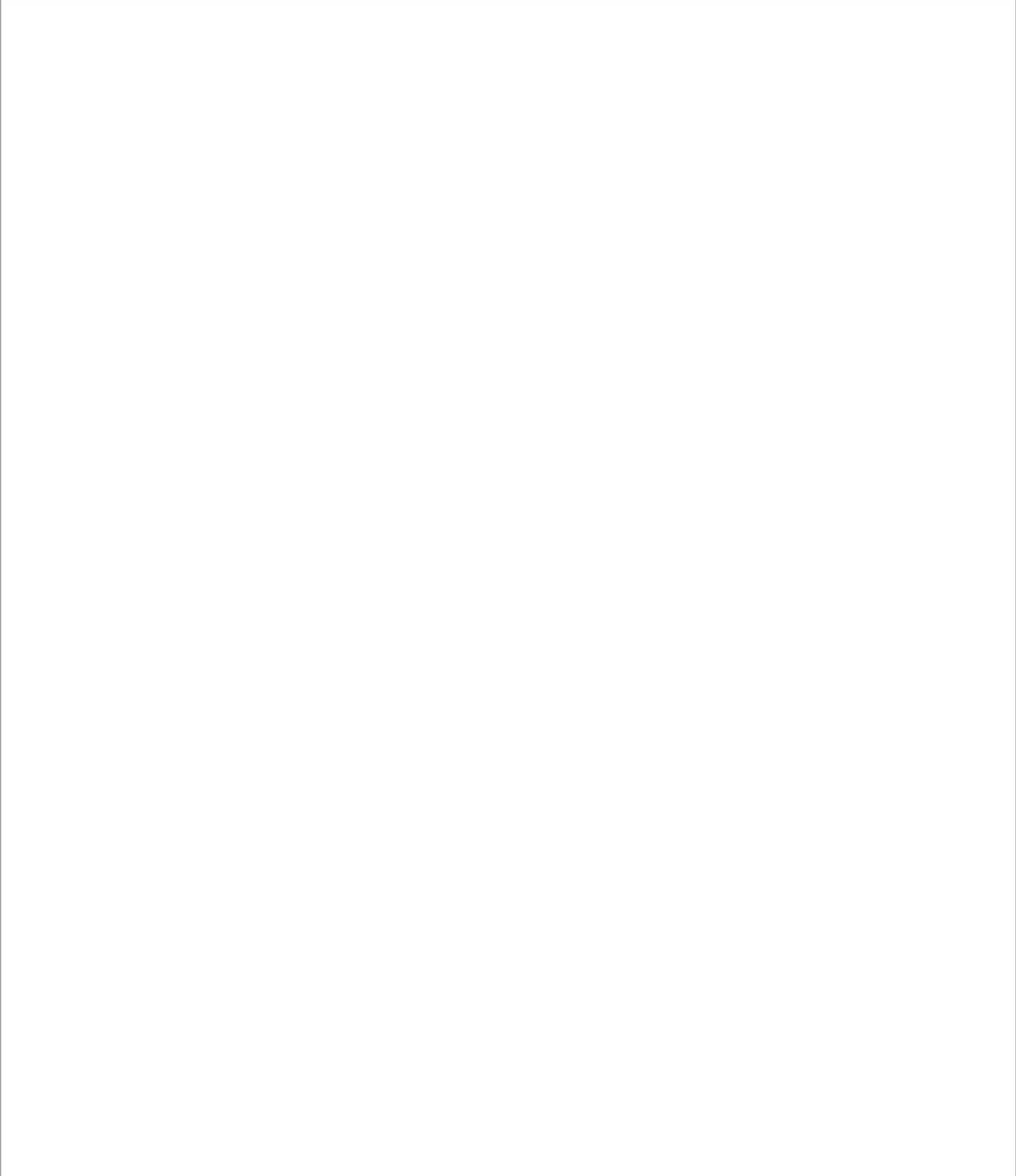
Often unreliable, Croatia's internal electric power network satisfied about half of its 4,000-MW requirements. The war has seriously degraded Croatia's electrical power

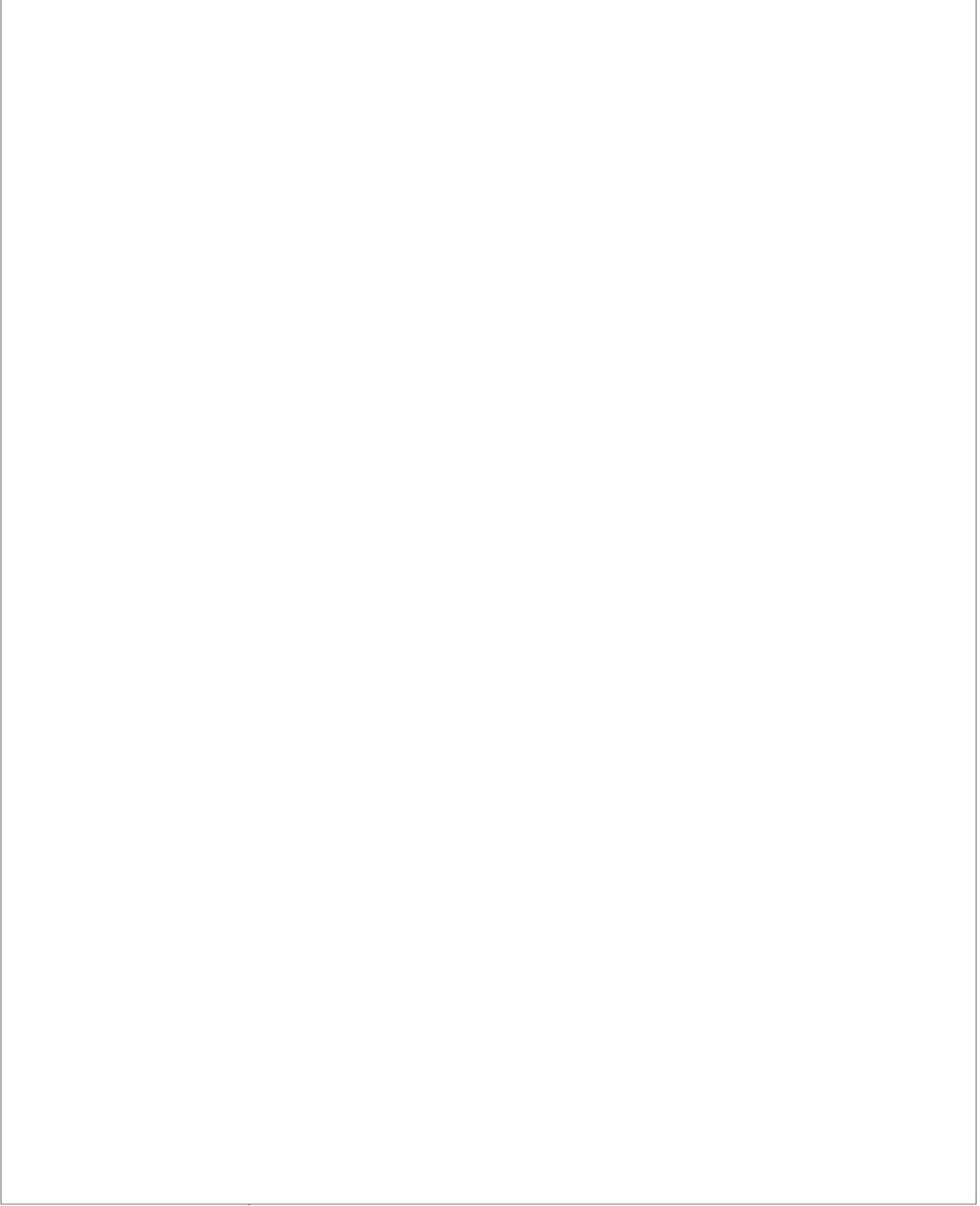
industry, however, severing transmission grids connecting hydroelectric and oil-fired generating facilities in the northern and southern regions of the country. The nation has significant oil and gas reserves, but few proved coal reserves. Croatian petroleum reserves, some 150 million barrels—most of which are in Serb hands, represent 66 percent of known former Yugoslav reserves and could meet about 75 percent of Croatian needs.

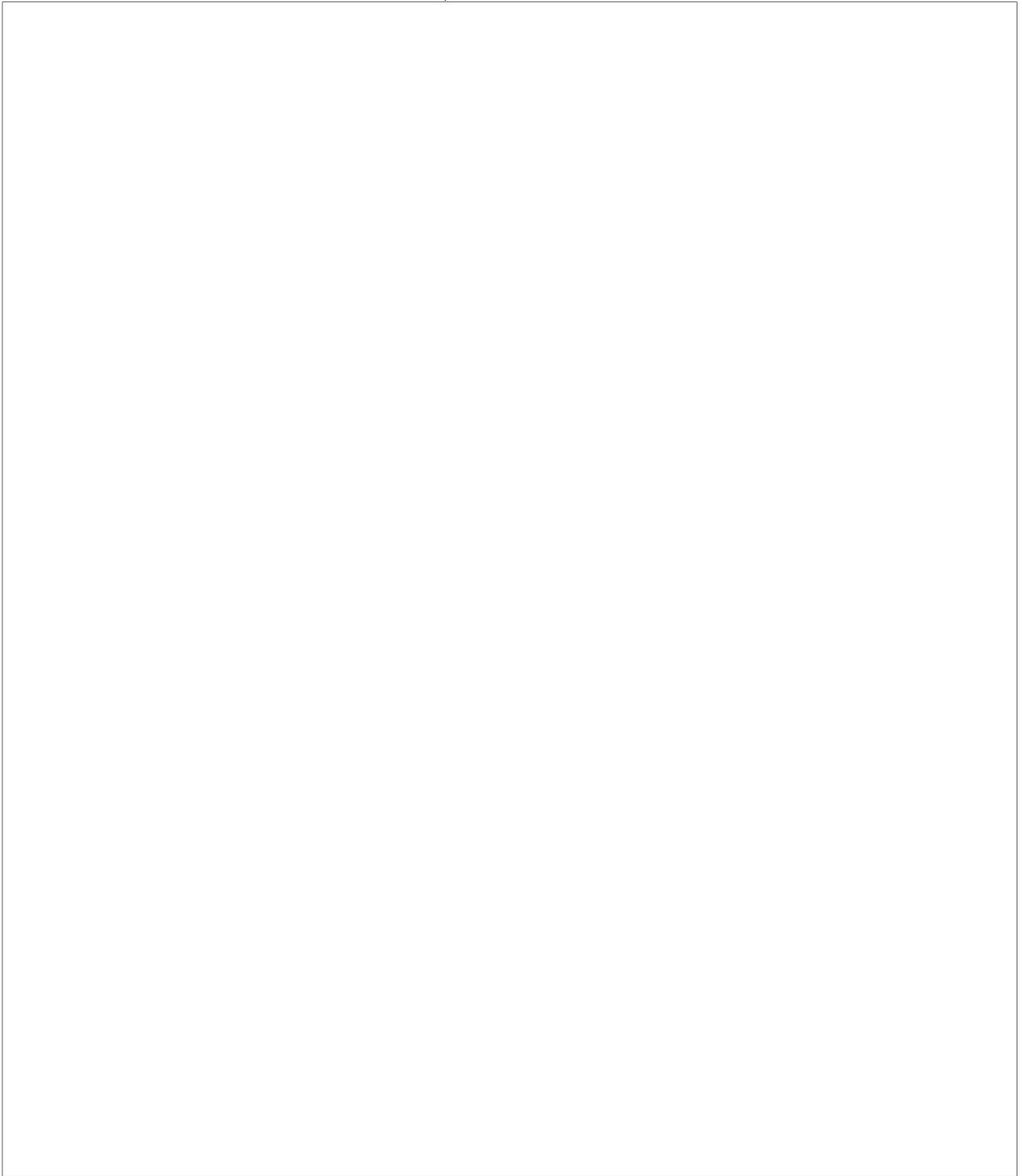
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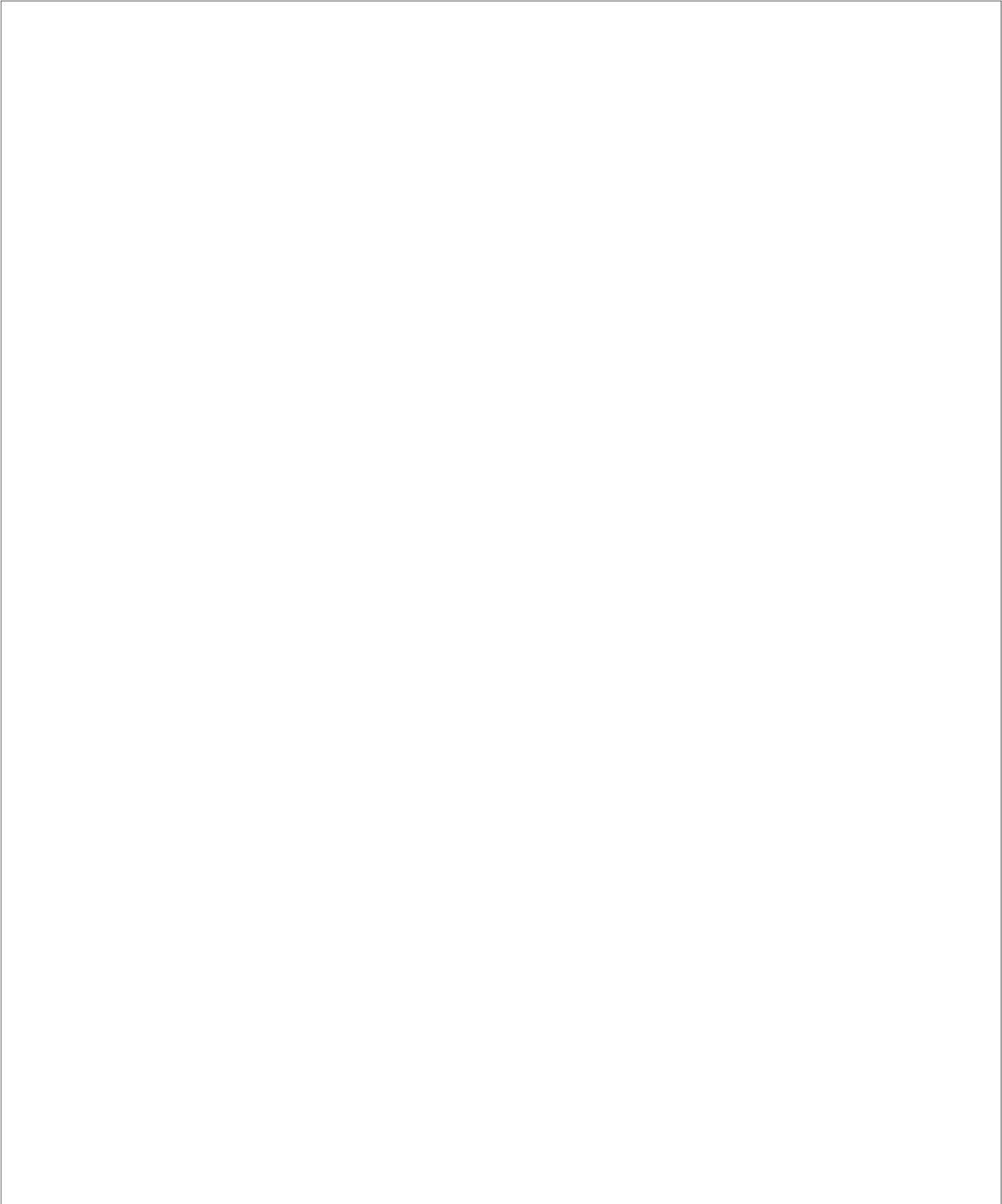
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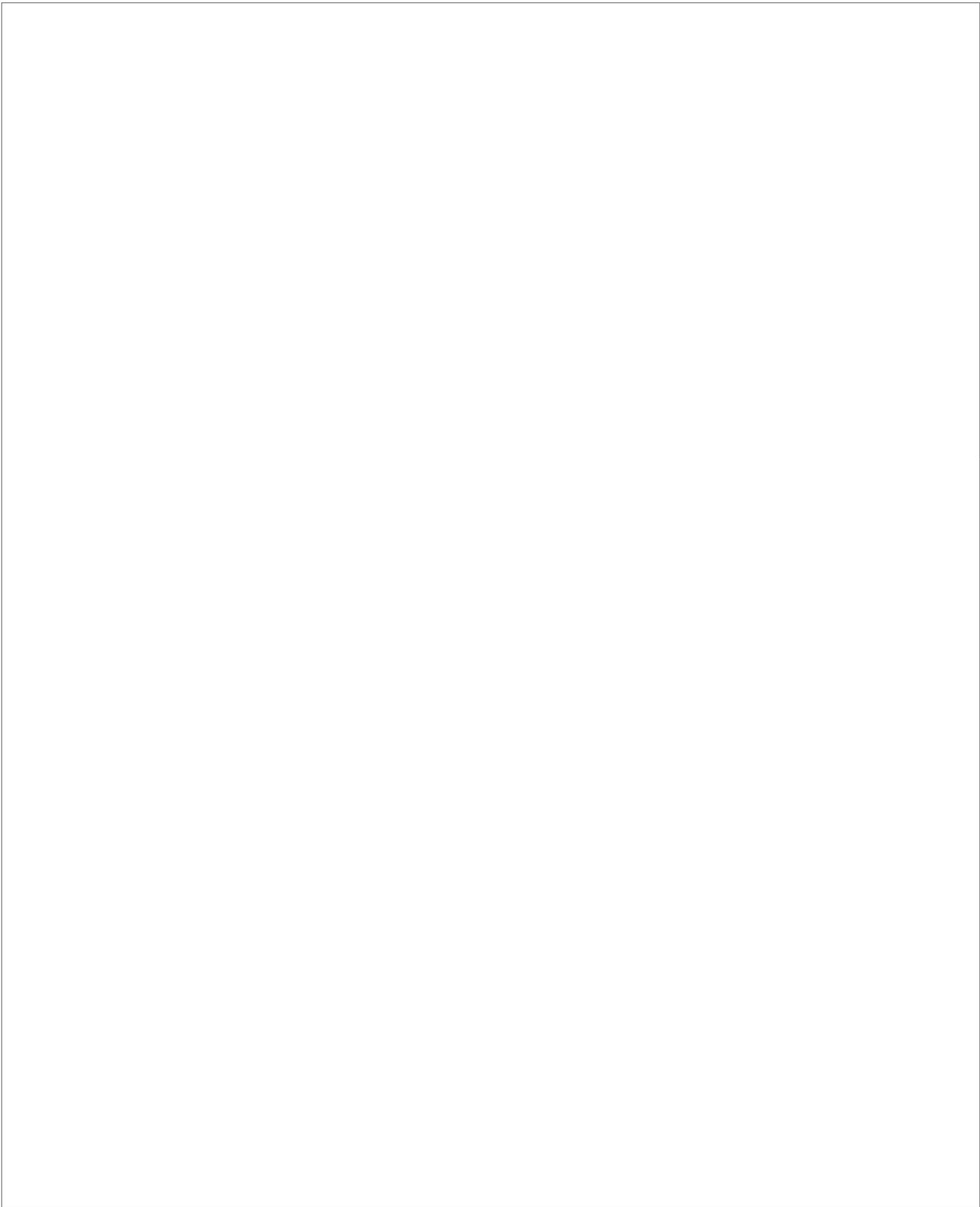














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**Information available as of 22 July 1993 was used
in the preparation of this National Intelligence Estimate.**

**The following intelligence organizations participated
in the preparation of this Estimate:**

The Central Intelligence Agency
The Defense Intelligence Agency
The National Security Agency
The Bureau of Intelligence and Research,
Department of State

also participating:

The Deputy Chief of Staff for Intelligence,
Department of the Army
The Director of Naval Intelligence,
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The Assistant Chief of Staff, Intelligence,
Department of the Air Force
The Director of Intelligence,
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