

Declassified in Part - Sanitized Copy Approved for Release 2012/03/21 : CIA-RDP91T01115R000400300001-8

OIA  
DID THE  
DISSEMINATION  
OF THIS  
TYPESCRIPT  
Such

Declassified in Part - Sanitized Copy Approved for Release 2012/03/21 : CIA-RDP91T01115R000400300001-8

25X1

ROUTING			
TO:	NAME AND ADDRESS	DATE	INITIALS
1			
2	61 1 - DDI/C/CPAS/IMC (ATTN:		
3			
4			
<input type="checkbox"/>	ACTION	<input type="checkbox"/>	DIRECT REPLY
<input type="checkbox"/>	APPROVAL	<input type="checkbox"/>	DISPATCH
<input type="checkbox"/>	COMMENT	<input type="checkbox"/>	FILE
<input type="checkbox"/>	CONCURRENCE	<input type="checkbox"/>	INFORMATION
<input type="checkbox"/>		<input type="checkbox"/>	PREPARE REPLY
<input type="checkbox"/>		<input type="checkbox"/>	RECOMMENDATION
<input type="checkbox"/>		<input type="checkbox"/>	RETURN
<input type="checkbox"/>		<input type="checkbox"/>	SIGNATURE
REMARKS:			
FROM: NAME, ADDRESS, AND PHONE NO.			DATE

**TOP SECRET 61**

(Security Classification)

25X11

CONTROL NO. \_\_\_\_\_

25X1

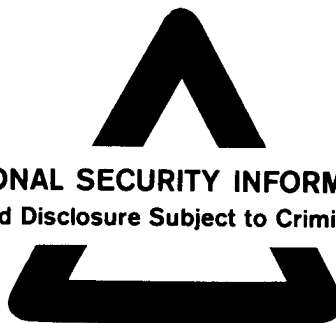
COPY \_\_\_\_\_ OF \_\_\_\_\_

25X1

25X1

Access to this document will be restricted to those approved for the following specific activities:

_____	_____	_____	_____
_____	_____	_____	_____



**NATIONAL SECURITY INFORMATION**  
Unauthorized Disclosure Subject to Criminal Sanctions

**TOP SECRET**  
(Security Classification)

**DISSEMINATION CONTROL ABBREVIATIONS**

<b>NOFORN-</b>	<b>Not Releasable to Foreign Nationals</b>
<b>NOCONTRACT-</b>	<b>Not Releasable to Contractors or Contractor/Consultants</b>
<b>PROPIN-</b>	<b>Caution-Proprietary Information Involved</b>
<b>ORCON-</b>	<b>Dissemination and Extraction of Information Controlled by Originator</b>
<b>REL . . .-</b>	<b>This Information has been Authorized for Release to . . .</b>

Top Secret [redacted]  
NOFORN—NOCONTRACT

25X1

Central Intelligence Agency



Washington, D.C. 20505

**Directorate of Intelligence**

February 1987

**Iraq: Major Weapon Deliveries and their Impact  
on Force Capabilities (S)**

**Summary**

Entering its seventh year of war with Iran, Iraq has become the largest purchaser of foreign-produced military hardware in the world. It is the primary recipient of Soviet arms and the number one client for arms from a variety of Communist and Free World nations. The Iraqi appetite for military hardware is large and broad-based. Since 1983--when Iraq started to incorporate a large amount of new weapons into its ground and air forces--Iraq has received 3,500 tanks and armored personnel carriers and over 300 combat aircraft, according to our analysis. These arms shipments have enabled Iraq to acquire and maintain a significant quantitative advantage in combat equipment over Iran:

- 4 to 1 in medium tanks.
- 3 to 1 in artillery.
- 5 to 1 in combat aircraft.

But, rather than leading to a quick victory, the Iraqi advantage has merely balanced the Iranian superiority in manpower. [redacted]

25X1

Information available as of 1 January 1987 was used in this report. (U)

[redacted]

25X1

[redacted]

IA M 87-20011C

[redacted]

25X1  
25X1

Top Secret

**Top Secret** 

25X1

*Despite Iraq's ability to concentrate an overwhelming amount of combat equipment against Iranian positions--a 100 to 1 medium tank advantage, for example during the February 1985 Hawizah Marsh counteroffensive--Iraq has been unable to do more than blunt Iranian advances, and even then at a high cost in men and equipment. In our judgment, the Iraqi penchant for grasping defeat from the jaws of victory is the result of Iraq's defensive strategy, and poor leadership, tactics, and training. Iranian initiative and fervor only magnify the Iraqi weaknesses.*

25X1

*Continued arms shipments will in all likelihood allow Iraq to persevere in its defensive strategy and hold the Iranians at bay, unless Iran also begins to receive significant arms deliveries. We believe that regardless of how many or what type of conventional weapon Iraq obtains, its battlefield performance is unlikely to improve until changes are made in strategy, leadership, training, and tactics.*

25X1

*If Iraq is to continue to defend its border against Iran, it will need a steady supply of tanks, APCs, artillery, ammunition, and other military-associated equipment to equip new and existing divisions and to replace war losses. Even though the Iraqis receive a large amount of non-Soviet equipment, the USSR will remain Iraq's number one supplier for weapons and ammunition.*

25X1

 25X1**Top Secret**

Top Secret [REDACTED]

25X1

Introduction

The Iran-Iraq war is entering its seventh year. Although intense fighting has been sporadic, Iraq has suffered significant equipment losses to its over 40-division army and has found that a quantitative equipment edge over Iran is essential to maintain military parity. Much of Iraq's military equipment was of Soviet origin at the start of the war, but a six-month arms embargo imposed by the Soviets in 1980 prodded Iraq into acquiring alternative sources of arms from East Europe, China, and the West. By 1983, Iraq started to incorporate a large amount of non-Soviet weapons into its rapidly expanding ground and air forces. As of 1986 other countries such as China, Bulgaria, Poland, Yugoslavia, Brazil and South Africa had also made Iraq their number one client for arms, although the Soviet Union remains Iraq's number one supplier of arms.<sup>1</sup> [REDACTED]

25X1

Nearly all military deliveries to Iraq arrive by sea through Ash Shuaybah, Kuwait; Al Qadimah, Saudi Arabia; and Aqaba, Jordan (figure 1).<sup>2</sup> The Iraqis were forced to use these three Arab ports when their own ports at Umm Qasr and Al Basrah were closed early in the war due to the fighting. Although having to use third party ports complicates Iraq's receipt of arms shipments, the process appears to function sufficiently well, and we have detected no bottlenecks which seriously affect Iraq's war-fighting capability. [REDACTED]

25X1

---

<sup>1</sup>Equipment totals contained in this paper represent estimates acquired solely from analysis [REDACTED]. These estimates may disagree with other estimates in the Intelligence Community acquired from all sources of information. In any case, all estimates show that Iraq has a large and expanding equipment inventory. [REDACTED]

25X1

25X1

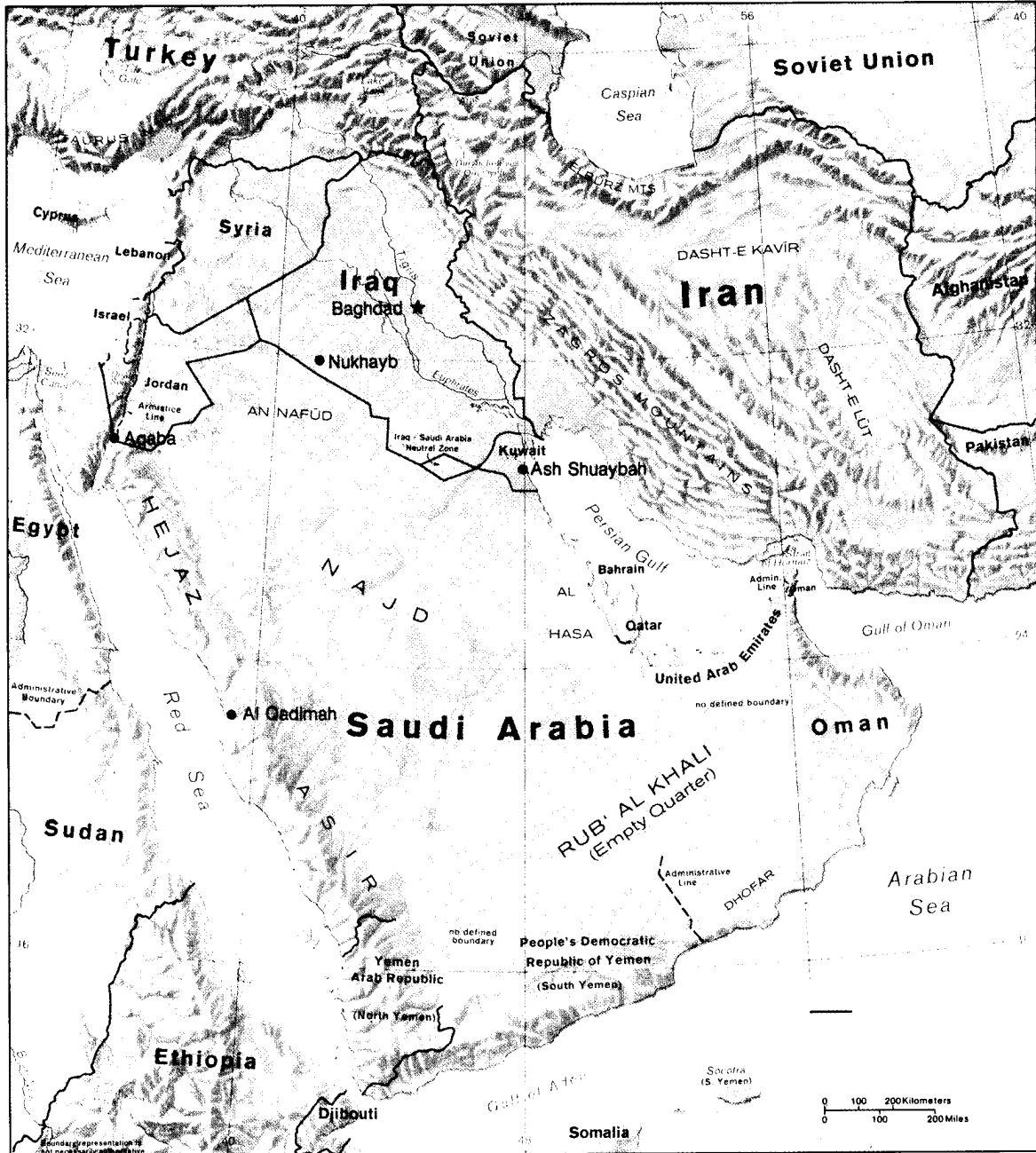
<sup>2</sup>The Soviets have airlifted some arms to Iraq over the course of the war, most notably MIG-25 (Foxbat) aircraft. The three Chinese B-6D (Badgers) were flown to Iraq. Also, during the recent Al Faw offensive, Iraqi IL-76 transport aircraft flew to India, France, and the Soviet Union for ammunition. [REDACTED]

25X1

25X1

Top Secret

**Figure 1**  
**Location of Receiving Ports and Transshipment Points for Soviet and Non-Soviet Military Deliveries to Iraq**



Secret  
NOFORN

Top Secret

25X1

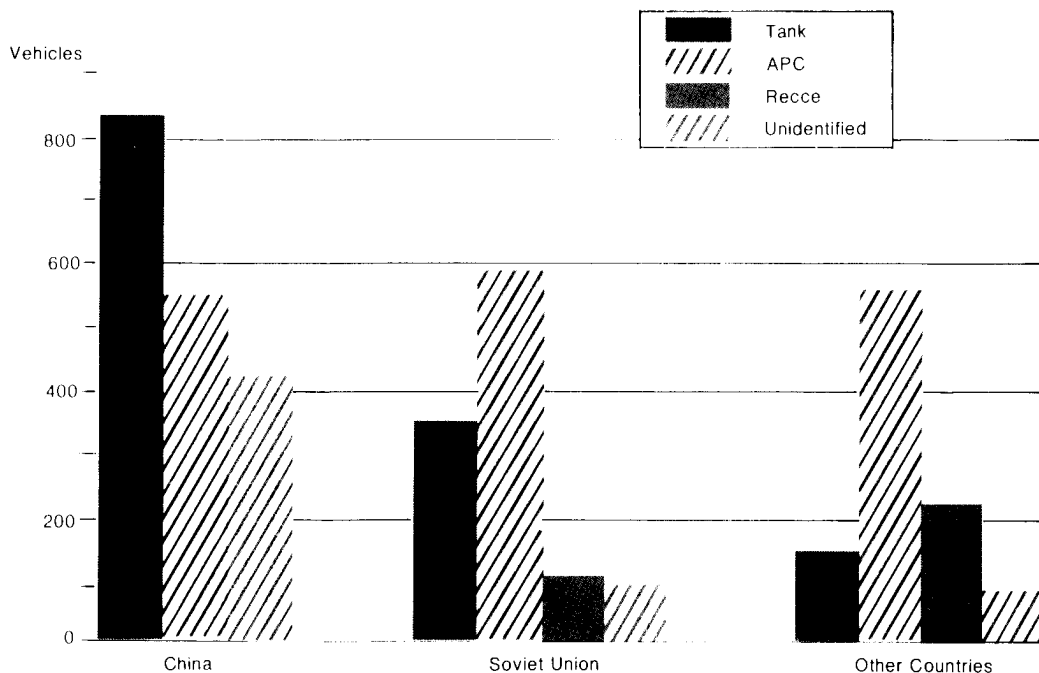
**Port Facilities Used for Arms Deliveries**

The receipt and transport of arms shipments from Iraqi ports are well documented

25X1

For example, Soviet arms destined for Iraq are delivered to the Kuwaiti port of Ash Shuaybah, approximately 50 kilometers (km) from the city of Kuwait. These arms are then transported overland by truck to main storage depots in the Baghdad area. Most non-Soviet arms shipments to Iraq--including Chinese, Eastern European, and Western arms--arrive at the Saudi Arabian port of Al Qadimah, although occasionally arms from Europe arrive at the Jordanian port of Aqaba. From Al Qadimah and Aqaba the arms are transported on heavy-lift transporters and trucks to Iraq. Deliveries coming from Al Qadimah stop at the Iraqi town of Nukhayb, approximately 100 km north of the Saudi-Iraqi border (figure 2), where the arms are transferred to Iraqi heavy-lift transporters and trucks and carried to Baghdad.

**Figure 2**  
**Minimum Count of Armored Vehicles Delivered to Iraq, 1983-87**



Secret SPOKE  
NOFORN

Top Secret

25X1



Top Secret 

25X1

Inventory of New EquipmentArmor

The Iraqi Army depends on armored vehicles in its prosecution of the war and has enjoyed a quantitative superiority in armor since the war's beginning.

25X1

**Tanks.** Before 1983 the Soviet Union was the principal supplier of medium tanks to Iraq. The 6-month Soviet embargo allowed the People's Republic of China (PRC) to become a principal supplier. The PRC provided over 800 Type 59/69 tanks, which is more than 61 percent of the tanks Iraq received from 1983 to 1986 (figure 3). The Chinese-produced tanks are part of a 1981 arms deal for the delivery of 2,000 Type 59/69 tanks to Iraq. The Soviet T-72 is a more modern tank than the Type 59/69, which in reality is a modified Soviet T-54 medium tank. The Type 59/69, however, is cheaper and well-suited for the Iraqi tactic of retreating tanks in defensive positions along the front. Nonetheless, Iraq received at least 170 T-72 tanks from the Soviet Union in 1986, according to reliable sources and satellite photography. Besides the Soviet Union and China, Iraq also has received at least 50 T-54/55 tanks from Egypt, 100 T-54/55 tanks from Poland, and 22 T-72 tanks from Czechoslovakia.

25X1

**Armored Vehicles.** Iraq receives APCs and other armored vehicles from the USSR and Warsaw Pact countries, the PRC, Brazil, and France. This diversity of sources demonstrates not only the complexity of the Iraqi acquisition program, but also the widespread availability of armored vehicles in the world today.

25X1

On the basis of imagery analysis, we believe most of the APCs and other armored vehicles acquired since 1983 have been used as follows:

- Some of the 260 BMPs and 70 of the BTR-60 APCs from the Soviet Union replaced war losses in combat units.
- The remaining BMPs from the Soviet Union, along with 100 Soviet-produced BMD APCs and some of the 250 Czechoslovakian-produced BMPs, probably formed new brigades in the Republican Guard Forces.<sup>3</sup>
- At least 400 Chinese Type 63 APCs replaced older Soviet and Czech APCs in two Iraqi divisions.
- At least 135 MT-LBs from the Soviet Union and Bulgaria replaced older Soviet APCs in two divisions.

<sup>3</sup>The Republican Guard Forces are equivalent to a corps and consist of 17 brigades.

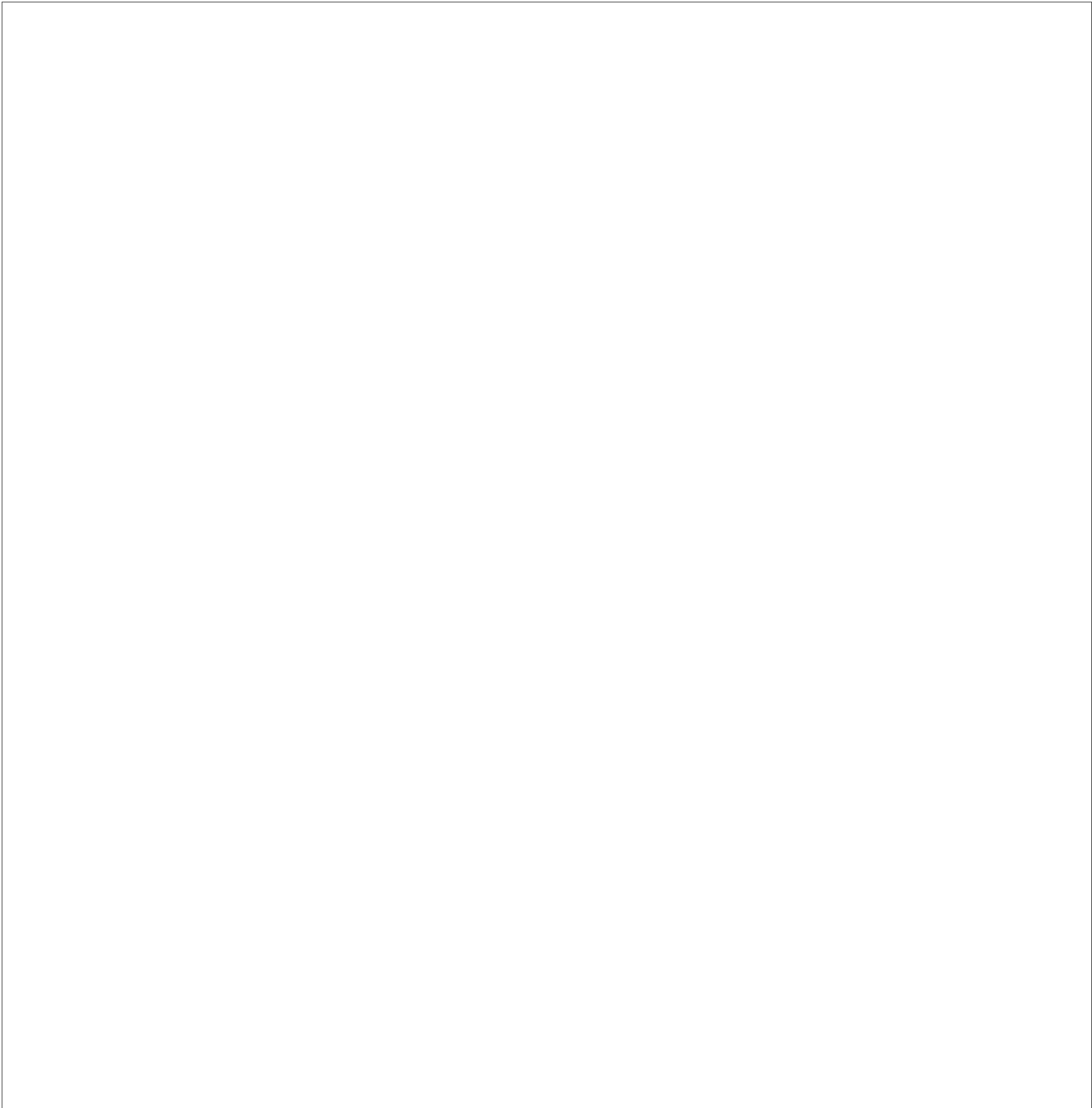
25X1

25X1

Top Secret

Top Secret

25X1



25X1

- Some of the 45 Urutu and 160 Cascavel Brazilian-produced armored reconnaissance vehicles have been identified in brigades of the Republican Guards.
- In 1985 the Iraqis completed testing and evaluation of 33 French VAB APCs at Tikrit Barracks north of Baghdad and have incorporated them into their ground forces.

25X1

Top Secret

25X1

Top Secret [REDACTED]

25X1

**Artillery.** Iraq has greatly improved its quantitative and qualitative advantage in artillery over Iran with the delivery of French and Soviet self-propelled (SP) howitzers and long-range artillery like the Austrian 155-mm (GHN-45) gun-howitzer. Since 1983, Iraq has received over 800 artillery pieces--mostly towed field artillery--from both Soviet and non-Soviet countries (figure 4). [REDACTED]

25X1

**Towed Field Artillery.** The bulk of the artillery delivered to Iraq since January 1983 has consisted of towed models supplied by Austria, China, and Third World countries--over 500 weapons. Even though Soviet-produced artillery is still the most prevalent found in the Iraqi ground forces, the Iraqis have acquired only about 100 towed field artillery pieces from the Soviets since 1983.

- Austria has delivered at least 170 towed 155-mm GHN-45 gun-howitzers to Iraq through Jordan. The GHN-45, with its range of nearly 40 km provides Iraq with an excellent corps-level weapon for counter-battery fire.
- China has delivered over 200 field artillery pieces, from 100-mm antitank guns to 152-mm gun-howitzers. The most numerous artillery piece delivered to Iraq is the 152-mm (Type 83) gun-howitzer, of which Iraq has received 160.
- South Africa has agreed to supply 100 G-5 gun howitzers and Iraq has already received 72 of them. The gun is similar to the GHN-45. (S NF WN)

**Self-propelled Artillery.** Three countries, the Soviet Union, France, and Bulgaria, have provided Iraq with self-propelled (SP) guns since 1983. The Soviets shipped Iraq at least 45 122/152-mm SP howitzers; France delivered 56 155-mm GCT SP howitzers, which the Iraqis attached to the Republican Guard Forces; and Bulgaria has supplied six 122/152-mm SP howitzers. [REDACTED]

25X1

**Other Artillery.** Unlike other Arab countries such as Syria, Egypt, and Libya, Iraq does not have a large number of multiple rocket launchers (MRLs) in its inventory. Consequently, Iraq has acquired only a few MRLs since 1983. Only about 60 truck-mounted MRLs were received from the Soviet Union and China, and 20 Astros II MRLs from Brazil. The Astros II has a range of 30 km and provides Iraq with a long-range saturation weapon. [REDACTED]

25X1

[REDACTED] the Iraqis deployed eight Astros II MRLs to the Hawizah Marsh along the Tigris River in 1985. (S NF WN)

25X1

<sup>3</sup>The Republican Guard Forces are equivalent to a corps and consist of 17 brigades. [REDACTED]

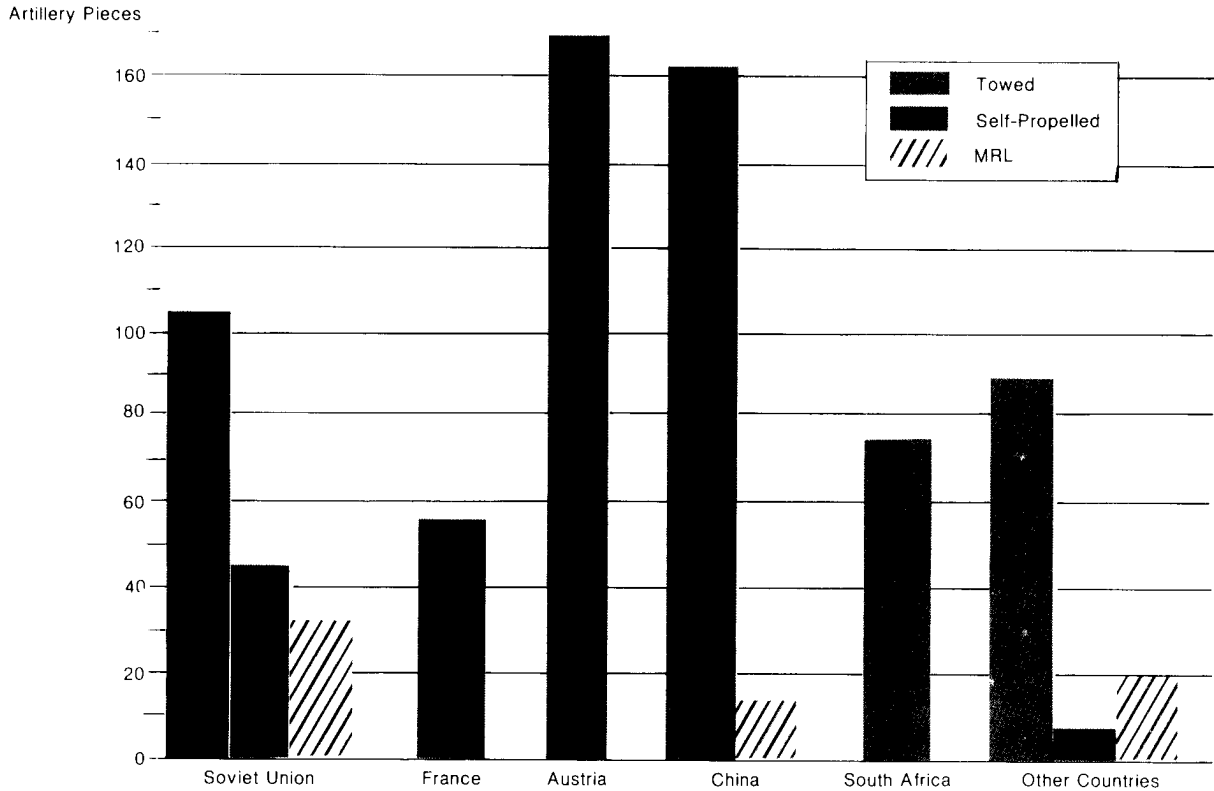
25X1

25X1

Top Secret

25X1

**Figure 4**  
**Minimum Count of Artillery Pieces Delivered to Iraq, 1983-87**



**Secret**  
**NOFORN**

### Air Defense

Iran's dwindling air force no longer poses a major threat to Iraq, although the Iranian Air Force has had limited success attacking Iraqi ground forces and rear areas by flying at low altitude, [redacted]. Apparently to counter this threat, Iraq over the last three years has purchased mobile, low-altitude surface-to-air missile (SAM) systems and additional antiaircraft artillery (AAA). [redacted]

25X1

25X1

**Mobile SAM Systems.** Since 1984, the Soviets have provided Iraq with two new low-altitude SAM systems--the SA-8 and the SA-13. Satellite imagery shows that the SA-8 is deployed in rear areas near corps and division headquarters. The SA-13, the follow-on to the SA-9, will probably be deployed to the Iran-Iraq border and provide low-altitude air defense for one of the five Iraqi

25X1

Top Secret

Top Secret



25X1



25X1

armor divisions. Since late 1983, Iraq has purchased at least 20 truck-mounted Roland II SAM systems (figure 5). The West German-French produced Roland II is designed to defend against low-altitude air attacks, and [redacted] the Iraqis have deployed it along the border, at airfields, and at the chemical production plants at Al Qaim and Samarra. [redacted]

25X1

25X1

**Towed Antiaircraft Artillery.** Iraq has received most of its towed AAA since 1983 from China--over 1,100 57-mm (Type 59) and 14.5 millimeter (mm) (ZPU-4) AAA guns. The AAA has been used to form units for new Iraqi ground force divisions and to provide air defense for major economic and military facilities. Other countries providing Iraq with AAA include the Soviet Union with 79 23-mm (ZU-23) guns and Hungary with 118 57-mm guns. [redacted]

25X1

[redacted] the Iraqis frequently use the ZU-23 AAA guns at defensive strongpoints and near brigade and battalion headquarters in a direct-fire role against ground targets. [redacted]

25X1

25X1

**Aircraft**

The Soviet Union is the major supplier of combat aircraft--over 200 total since 1983--to Iraq (figure 6). France, Egypt, and China also supply combat aircraft, and the Soviet Union and four western nations have supplied Iraq with helicopters. [redacted]

25X1



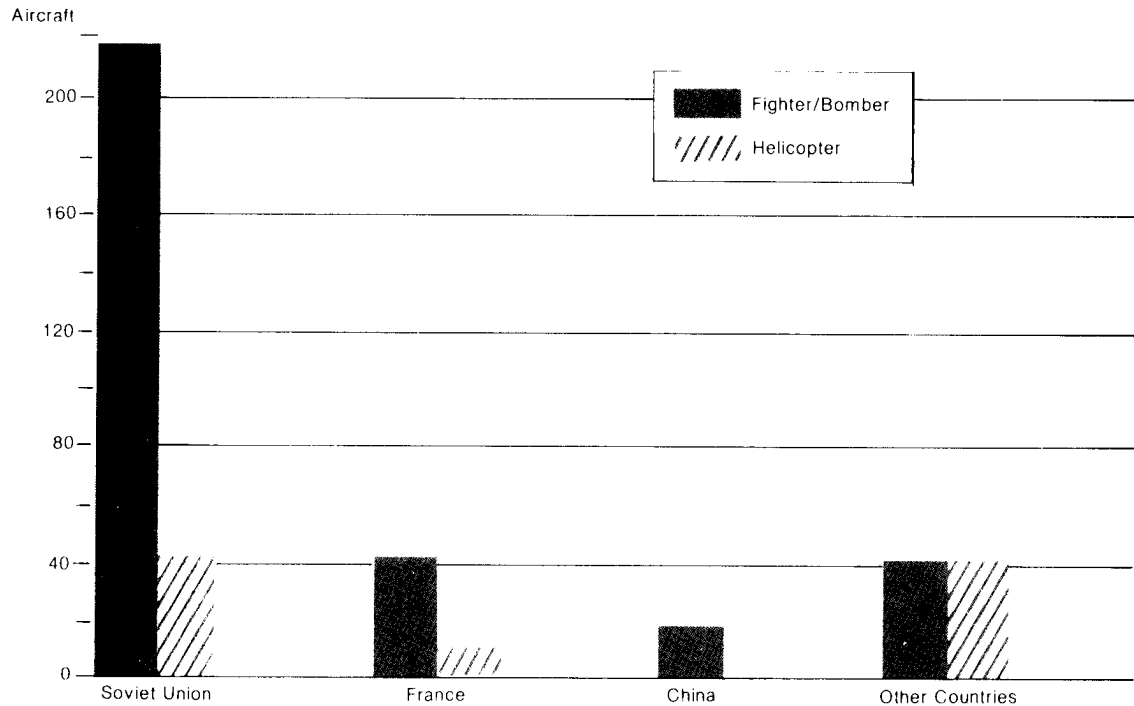
25X1

Top Secret

Top Secret

25X1

**Figure 6**  
**Minimum Count of Aircraft Delivered to Iraq, 1983-87**



Secret

25X1

**Fighters and Fighter-bombers.** In 1985, Iraq became the first country outside the Soviet Union and Czechoslovakia to receive the SU-25 (Frogfoot) ground attack aircraft, and in 1986 it became the first country outside the Soviet Union to receive the MIG-29 (Fulcrum) fighter aircraft (figure 7). Analysis [ ] indicates that Iraq received 36 SU-25 ground attack aircraft in 1985 and 1986. The Iraqis first used the SU-25 in the Al Faw area in 1986, [ ]. In late 1986, Iraq received 21 MIG-29 fighters. [ ] the pilots for these planes were trained in the Soviet Union, and the aircraft could be available for operations by mid-1987. Since 1983, Iraq has also received at least 70 MIG-23 (Flogger)--with 20 or more of these being the improved Flogger

25X1  
25X125X1  
25X1  
25X1

25X1

Top Secret

Top Secret [redacted]

25X1

G fighter variant--and over 60 SU-17/20/22 (Fitter) fighter-bombers.<sup>4</sup> The delivery of the Frogfoots, Fulcrums, Floggers, and Fitters has allowed Iraq to deploy new fighter/bomber squadrons and maintain a numerical aircraft superiority over Iran. [redacted]

25X1  
25X1

[redacted] we believe Iraq has received over 40 French F-1 (Mirage) fighter-bombers since 1983; at least 20 are capable of carrying the Exocet air-to-surface missile. According to defense attache reporting, in early 1986 the Iraqis completed training on an F-1EQ variant capable of carrying the AS-30L laser-guided missile--which has a more powerful warhead than the Exocet. [redacted]

25X1  
25X1

25X1

China and Egypt are the only other countries to provide Iraq with a significant number of fighter aircraft since 1983. In 1984 Egypt sold Iraq 40 F-7--the Chinese version of the MIG-21 Fishbed--that were originally purchased from China. Between 1983-1985, [redacted] the Chinese delivered Iraq at least another 40 F-7. [redacted]

25X1  
25X1

**Bombers.** The Chinese also shipped three of four contracted for B-6D/Badger bombers (a Chinese-built version of the Soviet-designed aircraft) in 1986. The B-6D can carry two Chinese-produced C-601 air-to-surface missiles. Its unrefueled combat radius of 1,200 nautical miles gives the Iraqis the capability to attack any target in the Persian Gulf without having to refuel in neighboring states. [redacted]

25X1

**Helicopters.** The Soviet Union has provided Iraq with 42 combat capable helicopters since 1983. Besides the Soviet Union; West Germany, Spain, France, and Italy are involved in the sale and supply of helicopters to Iraq, as Iraq continues to broaden its search for Western equipment. West Germany and Spain supplied Iraq with over 40 BO-105 helicopters, at least 10 of which the Iraqis have modified for ground attack purposes. France supplied at least 12 Gazelle helicopters, and Italy is negotiating for helicopter sales to Iraq.<sup>5</sup> [redacted]

25X1

<sup>4</sup>At least 78 Fitters have been shipped to Iraq, but Iraq sent at least 17 of these to the Soviet Union for refurbishment. [redacted]

25X1

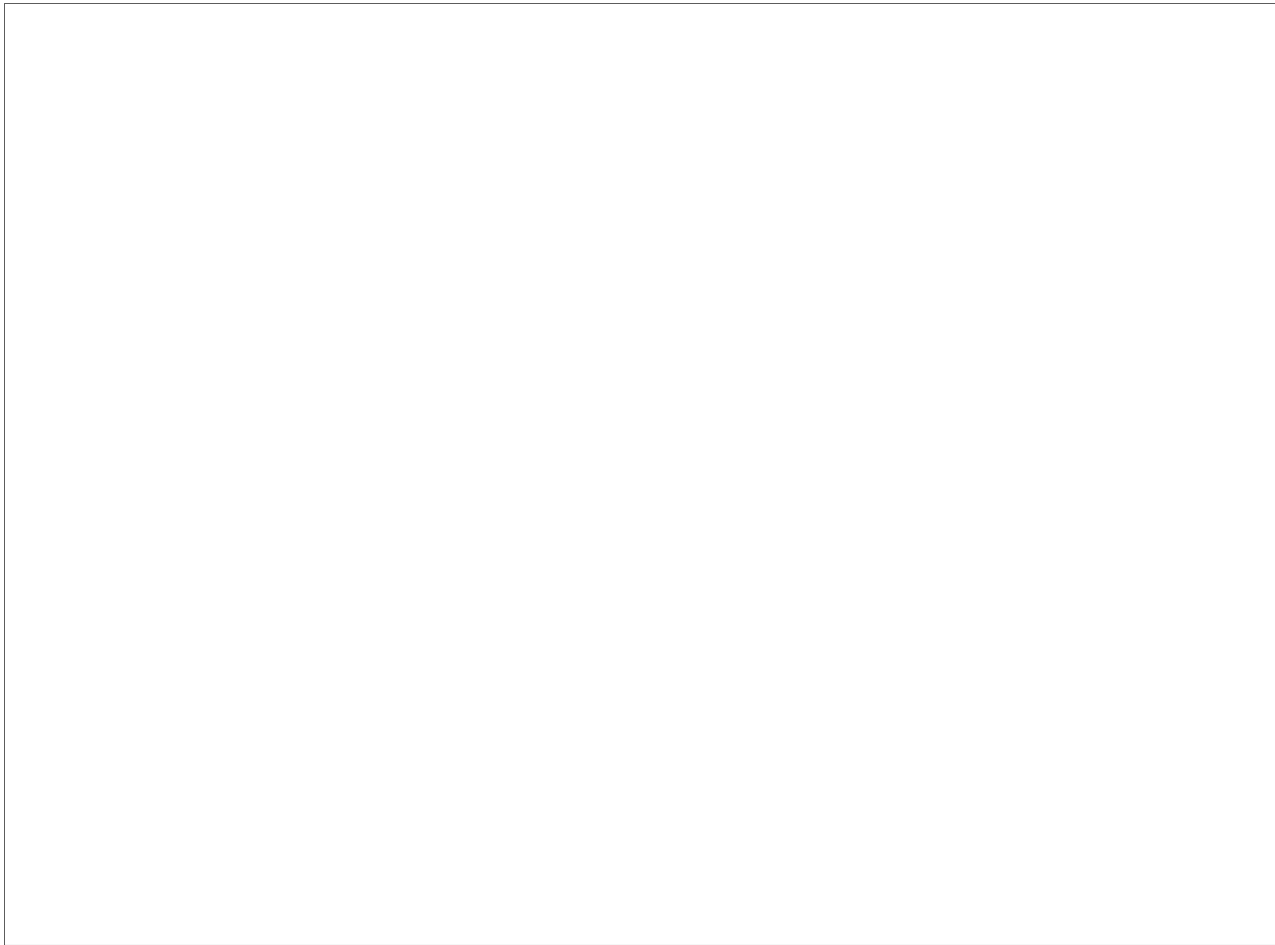
<sup>5</sup>Some modifications to Iraqi helicopters have been done by Spain. [redacted]

25X1

[redacted] 25X1

Top Secret [redacted]

25X1



25X1

**US Arms Deals with Iraq**

The official US position has been to remain neutral in the conflict between Iran and Iraq. The United States has encouraged other countries, including its NATO allies, not to sell arms to either Iran or Iraq. [redacted]

25X1

however, within the last three years Baghdad has successfully negotiated for the delivery of the civilian versions of the US Bell 214ST helicopter and the C-130/L-100 transport aircraft. The contracts call for Iraq to receive 45 of the multi-purpose US-made 214ST helicopters and 10 L-100 transport aircraft. Despite the civilian nature of these aircraft, we believe the Iraqis are likely to use them for military purposes, because the Iraqis have converted all 30 Hughes 500 helicopters received from the US in 1983 to gunships, [redacted] [redacted]

25X1;1  
25X1

[redacted]

[redacted]

25X1

Top Secret



Top Secret [REDACTED]

25X1

**Naval Vessels**

Because the ports of Al Basrah and Al Faw are closed and the port of Umm Qasr is vulnerable to Iranian attack, Iraq has done little to improve its navy. [REDACTED]

25X1

Iraq received two Osa II patrol boats from the Soviet Union in 1984 and has also taken receipt of ten Italian-produced ships,

25X1

[REDACTED] The contract calls for Iraq to receive four frigates, six corvettes and one replenishment oiler. Because of the closure of Iraqi ports, the ships are currently still at the Italian shipyards. [REDACTED]

25X1

**Use of Modern Arms**

Iraq has considerably more military equipment than Iran, an advantage particularly evident in ground and air forces. Our analysis shows that Iraq enjoys:

- A 4 to 1 advantage in medium tanks.
- A 3 to 1 advantage in artillery.
- A 5 to 1 advantage in combat aircraft.

In spite of favorable weapon ratios, Iraq's military, albeit with Iranian help, has found ways to enable Iran to remain even. [REDACTED]

25X1

25X1

Considering Iraq's current quantitative equipment edge and its continuing acquisition of new and often more sophisticated equipment, the failure of its military to decisively defeat Iran directs attention to Iraqi leadership and battlefield tactics. From our analysis [REDACTED]

25X1

25X1

[REDACTED] we have gained an understanding of how Iraq uses the many modern weapons at its disposal, [REDACTED]

25X1

**Tactics**

For the past five years of the war, Iraq has pursued a strategy of strategic defense to minimize its own casualties and wage a war of attrition with Iran. Based on the historical record, such a strategy should have led to a lessening of Iraqi casualties with a corresponding increase in Iranian casualties. Iraqi forces fighting on their own soil, with equipment superiority, in prepared defensives, and with strong interior lines of supply would seem to be in an enviable position. Ideally, they could punish Iranian forces without exposing themselves to the serious losses sometimes realized in offensive operations. But, the fervor of the Iranian attacks and Iran's seeming disregard for heavy casualties have put severe strains on the Iraqi strategy. One Iraqi response to the Iranian tactics has been to purchase increasing amounts of military hardware. But, as our evidence

25X1

Top Secret

Top Secret [REDACTED]

25X1

clearly shows, the addition of new weapon systems, for the most part, has not changed Iraq's conduct of the war or its success on the battlefield. [REDACTED]

25X1

### Armor

[REDACTED]  
[REDACTED] we know that the Iraqi Army provides very little infantry support to its armor. This tactic probably led to the large armor losses in past battles. In the March 1985 Iranian offensive west of the Hawizah Marsh, over 300 Iraqi medium tanks were lost or damaged--including as many as 120 of the modern T-72s. This despite the fact that [REDACTED]

25X1

25X1

[REDACTED] the Iraqis had at least a 100 to 1 advantage over the Iranians in tanks. Again in the February 1986 Al Faw offensive, over 250 Iraqi medium tanks and APCs were lost or damaged. We believe that in both instances Iraq lost most of its armor to hand-held RPG-7 antitank weapons, because Iran had very few tanks involved in either battle. The lack of adequate Iraqi infantry support to counter Iranian infantrymen spelled disaster for Iraq's armor columns. [REDACTED]

25X1

25X1

25X1

### Artillery

[REDACTED] we know that Iraq acquired an assortment of new towed and self-propelled artillery since 1983. This artillery has been spread among Iraqi combat divisions and combat support units. During the past four years, Iraq used this artillery in counteroffensives and to blunt Iranian offensives on the Majnun Islands and at Al Faw. [REDACTED]  
[REDACTED]

25X1

25X1

25X1

Despite the Iraqi quantitative advantage in artillery, in our judgment Iraq's artillery tactics are, for the most part, poor. Since the start of the war, Iraq has had a tendency to position its artillery too far to the rear, thus protecting it from the shorter-ranged Iranian artillery, but negating its long-range effectiveness. This was quite evident at Al Faw in 1986 when the majority of Iraqi artillery was originally positioned and repositioned so it could only reach the Iranian frontlines and not staging areas in the rear, thus allowing the Iranians to continue their resupply effort west of the Shatt Al Arab. [REDACTED]

25X1

Top Secret [REDACTED]

25X1

Top Secret [redacted]

25X1

In another instance in the Al Faw campaign, Iraq employed the accurate, long-range GHN-45 gun-howitzer at close range against dispersed Iranian infantry positions instead of suppressing Iranian artillery located east of the Shatt Al Arab.<sup>6</sup> This inefficient use of artillery, in our opinion, has negated Iraq's quantitative and qualitative advantage in artillery. Nonetheless, [redacted] the Iranian attack on the South Majnun Island in September 1986 was hampered by effective artillery fire from the Iraqi artillery forces in III Corps. [redacted]

25X1

25X1

Air

Iraqi employment of combat aircraft has been poor. Despite an overwhelming advantage in combat aircraft, Iraq has failed to exploit this situation to the fullest. [redacted]

25X1

25X1

[redacted] Iraqi General Headquarters in Baghdad rigidly controls aircraft which, in turn, reduces pilot initiative. [redacted]

25X1

25X1

[redacted] Iraqi pilots fly bombing missions at altitudes of 10,000 to 20,000 meters, in an attempt to avoid Iranian defense, when Soviet doctrine calls for ordnance to be dropped from a height of 1,000 to 3,000 meters. The SU-25 Frogfoot ground attack aircraft is flown at altitudes of 3,000 to 5,000 meters rather than the recommended 200 to 2,500 meters. The flight profiles are part of the government's policy to minimize aircraft losses, but poor training and ineffective leadership undoubtedly play a part. In any case, high altitude attacks decrease targeting success. [redacted]

25X1

25X1

In 1986, the Iraqi Air Force became more proficient. The combination of modern aircraft and weapons, a weak Iranian Air Force and air defense network, and more aggressive tactics have led to better Iraqi Air Force performance. By using the Mirage F-1 aircraft equipped with the AS-30L laser-guided missile, the Iraqi Air Force has inflicted heavy damage on Iranian oil facilities and powerplants. The Iraqis have also used the AS-30L against bridges spanning the Shatt Al Arab waterway to Al Faw, indicating that an abundant supply of the guided missiles are available for use in tactical operations. In our analysis, the

<sup>6</sup>For further information on the Iraqi use of the GHN-45, see CIA, Typescript Memorandum IA M 86-20071J, [redacted] December 1986 (Top Secret Codeword Noforn Nocontract), The GHN-45 155-mm Gun Howitzer in Iran and Iraq: A Case Study of Modern Arms Acquisition, Assimilation, and Use in the Third World. [redacted]

25X1

25X1

25X1

Top Secret [REDACTED]

25X1

Iran-Iraq war will not be won in the air, but the increased aggressiveness of the Iraqi Air Force has reduced Iranian oil revenues,<sup>7</sup> and hampered the Iranian preparations for major attacks. [REDACTED]

25X1

## Training

### Ground

Throughout the war, the Iraqis have offered training courses on armor and field artillery tactics, and on joint combat helicopter and ground forces operations. Also, training exercises and battle simulations are conducted at the battalion, brigade, and division level at the front. [REDACTED]

25X1

[REDACTED] air elements providing tactical support for the ground forces, this cooperation has not led to success at the front, indicating that joint training is ineffective or insufficient. Indeed, despite specialized training, Iraqi ground forces have performed poorly in battle, probably because of the low level of training and the quality of leadership in the Iraqi ground forces. [REDACTED]

25X1

25X1

25X1

The initial training for infantry, armor, and artillery personnel occurs at three different garrisons:

- Infantry at Rasheed Barracks.
- Armor at Tikrit Barracks.
- Artillery at Khan Al Mahawil Barracks.

Conscripts receive small arms training, driver training, and weapons familiarization. [REDACTED]

25X1

[REDACTED] we believe combined arms training is not taught at these facilities. In our judgment, the Iraqis rely on the combat schools established in some of the infantry, mechanized infantry, and armored divisions to teach combined arms training. [REDACTED]

25X1

25X1

At the front, most training [REDACTED] is at the battalion level in tank and artillery units. We see little evidence that mechanized infantry training or combined arms exercises with tanks and mechanized infantry. The lack of such training could help explain why the Iraqis suffer such heavy armor losses to the Iranians. [REDACTED]

25X1

25X1

<sup>7</sup>For further information on the Iraqi Air Force, see CIA Near East and South Asia Review, NESAR 86-028C, SC00453/86, 19 December 1986 (Top Secret Codeword Noforn), Why the Iraqi Air Force Has Been More Effective. [REDACTED]

25X1

25X1

Top Secret [REDACTED]

25X1

**Air**

[REDACTED] the Iraqi Air Force (IAF) training programs begin with the selection of applicants. Qualified cadets report to a three-year training course at the IAF Academy at Al Sahra Airfield near Tikrit. The course is broken down into six months of basic military training and one year of basic pilot training on L-29/Maya and L-39 jet trainers. Actual combat training is done at squadron level at the assigned air bases. Selection of which type of plane a pilot will fly has more to do with Ba'ath party membership than individual qualifications. [REDACTED]

25X1

25X1

25X1

The air campaign in 1986 against Iranian economic targets indicates to us that Iraqi pilots are competent. In our opinion, the IAF's problems cannot be totally attributed to poor pilot training. Indeed, [REDACTED] for each operation the IAF headquarters specifies the number of aircraft to use, which pilots will fly, the target, ordnance to be used, and the altitude to fly for the entire mission. IAF headquarters also provides the exact coordinates where the pilots will turn. The centralized control of all aspects of the air operation is contrary to US Air Force doctrine which espouses centralized control of assigned air resources but decentralized execution of operations. [REDACTED]

25X1

25X1

We do not know why the IAF headquarters places such stringent controls on air operations. This policy places undue stress on pilot capabilities, however, and we have detected problems in Iraqi pilot training. [REDACTED] Iraqi F-1 Mirage pilots, who are trained by the French, are not instrument-qualified and only fly when the weather is good. F-1 pilots also do not train to bomb in close formation which results in wide dispersal of ordnance. [REDACTED] however, the French-trained F-1 pilots are better trained than their Soviet-trained counterparts on the MIG-23. [REDACTED]

25X1

25X1

25X1

**Implications and Outlook**

Iraqi training, tactical use of military equipment, and leadership have all contributed to Iraq's lack of significant success. Iraq enjoys an overwhelming advantage in numbers of mechanized formations. But, poor training and poor weapons employment, in combination with the Iraqi pursuit of a static defensive posture based on prepared strongpoints, gives the initiative on the ground to the Iranians. Joint training between Iraqi air and ground elements has been insufficient to insure close cooperation and success at the front line. Artillery employment has had mixed success, although Iraq has an unqualified superiority in number of artillery weapons at the

[REDACTED] 25X1

Top Secret [redacted]

25X1

front. Centralized control of air force operations has minimized Iraqi air losses, but, at the same time, reduced the air force's effectiveness. [redacted]

25X1

Nevertheless, the addition of new weapons and the continued delivery of weapons systems already in the Iraqi inventory should allow Iraq to maintain its defensive strategy in the war with Iran, if it so chooses. In our opinion, if Iraq is to continue to defend its border against Iran using its present strategy, a steady supply of tanks, APCs, artillery, ammunition, and other military-associated equipment will be needed to maintain its quantitative edge over Iran and to replace war losses. [redacted]

25X1

Iraq will probably continue to import arms from its new suppliers, but the Soviet Union, in our analysis, will remain its main supplier. If the Soviet Union and China do not meet Iraqi armor needs, then Iraq may turn to Eastern Europe for Soviet-designed tanks and APCs or risk further complicating their logistics and training by purchasing tanks from Brazil or another Western country. We believe that Iraq--with this large infusion of non-Soviet equipment--may eventually or may already suffer from maintenance and logistics problems because of the large variety of weapons. The Iraqis are pleased with the aircraft and training from France, according to a western military attache, and consequently they will probably seek additional combat aircraft from France, especially if the F-1 has continued success attacking Iranian economic targets. [redacted]

25X1

In our opinion, Iraq will face some problems with creditors because the recent fall in oil prices reduces revenues. As a consequence, the Iraqi populace may be forced to accept severe austerity measures so Iraq can continue to finance the war. On the other hand, Saudi Arabia and Kuwait, Iraq's principal benefactors, probably see no alternative except to continue to support Iraq, despite lower oil prices, because they fear an Iranian victory. [redacted]

25X1

Top Secret [redacted]

25X1

Appendix  
Minimum Count of Major Weapon Deliveries to Iraq  
January 1983 through 31 December 1986<sup>a</sup>

Equipment	Other or Unknown	Austria	Brazil	Bulgaria	China	Czechoslovakia	Egypt	France	Hungary	Poland	South Africa	Soviet Union	West Germany	Total
<u>Tanks<sup>b</sup></u>														1,341
T-72						22						225		
Type 59/59					927									
T-54/55							50 <sup>b</sup>			100				
Unidentified Tanks												117		
<u>Armored Personnel Carriers</u>														1,509
BMD												106		
BMP						250						262		
MT-LB				196								59		
BTR-60 PB												97		
BTR-60 PU												8		
ACRV												15		
French 4x4 VAB								33						
AMX-10								2						
Type 701A/750 Command Vehicle					144									
Ambulance														
Type 63/531					378									
Unidentified Armored Personnel Carriers	63			16	20							60		
<u>Armored Reconnaissance Vehicles</u>														379
BRDM-2	1											91		
EE-11 (Urutu)			45											
EE-9 (Cascavel)			160											
Fiat	35													
Unidentified Armored Reconnaissance Vehicles	32											15		
<u>Unidentified Armored Vehicles<sup>c</sup></u>	85				427							99		611
<u>Artillery</u>														892
122-mm/152-mm SP howitzer				6								45		
155-mm GCT SP howitzer								52						
155-mm GIN-45 howitzer		170												
155-mm G-5 howitzer										72				
152-mm M-1984 howitzer					160									
152-mm D-20 howitzer												16		
152-mm ML-20	12													
130-mm M-45 field gun	19													
122-mm D-30 howitzer												89		
105-mm howitzer	36													
85/100-mm antitank gun	25													
Astros II multiple rocket launcher <sup>d</sup>			20											
122-mm (BM-21) multiple rocket launcher												55		
Unidentified artillery <sup>e</sup>	38				46							16		

Top Secret

20

Top Secret

25X1

25X1

Appendix  
 Minimum Count of Major Weapon Deliveries to Iraq  
 January 1983 through 31 December 1986<sup>a</sup> (continued)

Equipment	Other or Unknown	Austria	Brazil	Bulgaria	China	Czechoslovakia	Egypt	France	Hungary	Poland	South Africa	Soviet Union	West Germany	Total
.....														
Antiaircraft artillery														1,342
57-mm AAA					683				118					
37-mm AAA	24													
23-mm (ZU-23) AAA												79		
14.5-mm (ZPU-2/4) AAA					192									
Unidentified Antiaircraft Artillery	3				235							8		
<b>SAM Equipment</b>														
SA-13 Transporter-erector launchers (TEL)												12		
SA-8 TEL												12		
SA-8 Resupply Vehicle												6		
SA-6 TEL												6		
SA-6 Missiles												240		
SA-3 Launcher												17		
SA-3 Canister Transporter												6		
SA-2 Launcher												26		
SA-2 Missile Transporter												42		
SA-2 Missiles												76		
Roland I Launcher												1		
Roland II Launcher												22		
<b>SSM Equipment</b>														
Soud Missile Airframe												54		
Frog-7 Rocket												15		
<b>Aircraft</b>														
Mig-29 (Fulcrum)												21		364
Mig-25 (Foxbat)												11		
Mig-23 (Flogger)												73		
Mig-21 (Fishbed)												9		
UMig (Trainer)												4		
SU-25 (Frogfoot)												36		
SU-17/20/22 (Fitter) <sup>f</sup>												61		
F-7					43		40							
Mirage F-19								43						
B-6D (Badger-China)					3									
MI-17 (Hip-Hi) helicopter												34		
MI-24/25 (Hind) helicopter												8		
MBB BK-117 helicopter													6	
MBB BO-105 helicopter <sup>h</sup>													UNK	
SA. 341/342 (Gazelle) helicopter								12						

Top Secret

21

Top Secret

25X1

25X1

25X1



---

(continued)

<sup>b</sup>Iraq may have also received 50 to 60 TR-77 tanks—the Romanian version of the T-55 tank. [redacted]

<sup>c</sup>The phrase unidentified armored vehicles includes all armored vehicles we could not more precisely identify as tanks or APCs [redacted]

<sup>d</sup>Iraq could have received as many as 38 Astros II MRAs. [redacted]

<sup>e</sup>Antitank gun of unknown caliber. [redacted]

<sup>f</sup>Includes 34 Pitter J. [redacted]

<sup>g</sup>Includes 20 Mirage F-1EQ5 fighter-bombers—the Exocet carrying variant. [redacted]

<sup>h</sup>Iraq has received at least 40 BO-105 helicopters from Spain and West Germany, and nine to 13 have converted to gunships. [redacted]

This appendix is Secret Noform.

25X1  
25X1  
25X1  
25X1  
25X1  
25X1  
25X1

Top Secret

[redacted] 25X1

Top Secret

[redacted]

25X1