

~~Secret~~

~~NOFORN~~
~~WNINTEL~~
~~NOCONTRAST~~

IA

Middle East/North Africa Security Review (U)

Defense Research Review Series



Defense Intelligence Agency

34

DDI-2006-2-89
September 1989

~~Secret~~

74

DISSEMINATION CONTROL MARKINGS

WNINTEL (WN)	Warning Notice-Intelligence Sources or Methods Involved
ORCON (OC)	Dissemination and Extraction of Information Controlled by Originator
NOCONTRACT (NC)	Not Releasable to Contractors/ Consumers
PROPIN (PR)	Caution-Proprietary Information Involved
NOFORN (NF)	Not Releasable to Foreign Nationals
REL	Authorized for Release to .
FGI	Foreign Government Information

~~Secret~~

~~NOFORN
WNINTEL
NOCONTRACT~~

Middle East/North Africa Security Review (U)

Number 1

Defense Intelligence Review Series

*This is a Department of Defense Intelligence Document
Prepared by the Middle East/Africa Division,
Directorate for Research, Defense Intelligence Agency*

Project Manager: (b)(3);10 USC 424
Middle East/Africa Branch
North Africa Section

Information Cutoff Date: 21 July 1989

Classified by multiple sources
~~Declassify on OADR~~

DDB-2608-2-89

~~Secret~~

Pgs. iii, iv are denied in full

~~Secret~~

CONTENTS (Continued)

	Page
Improvements in the Iraqi Air Force Inventory and Capabilities (C)	25
<i>(S/NF) Beginning in the early 1980s, the Iraqi Air Force initiated a program to expand and modernize its combat aircraft inventory and to improve its capabilities. The upgrade program continued throughout the Iran-Iraq War, with new purchase of aircraft and armaments, and modifications to existing airframes and weapons.</i>	
Related Publications, January - June 1989 (U)	27

v
(Reverse Blank)

~~Secret~~

~~Secret~~

FOREWORD

(U) This is the first issue of a periodical designed to disseminate high-quality basic intelligence on issues affecting United States policy in the Middle East/North Africa. The *Middle East/North Africa Security Review* will appear periodically and will solicit articles from analysts within and outside DIA. Topics crossing regional and functional boundaries are especially welcome. The articles, while brief, are designed to cover their topics in a comprehensive and authoritative manner, and reflect a high degree of analyst initiative. It is also intended that the *Middle East/North Africa Security Review* be an ideal medium for the contributions of new or junior analysts or in which portions of larger works in progress may be published.

(U) Each classified title and heading has been properly marked; all those unmarked are unclassified.

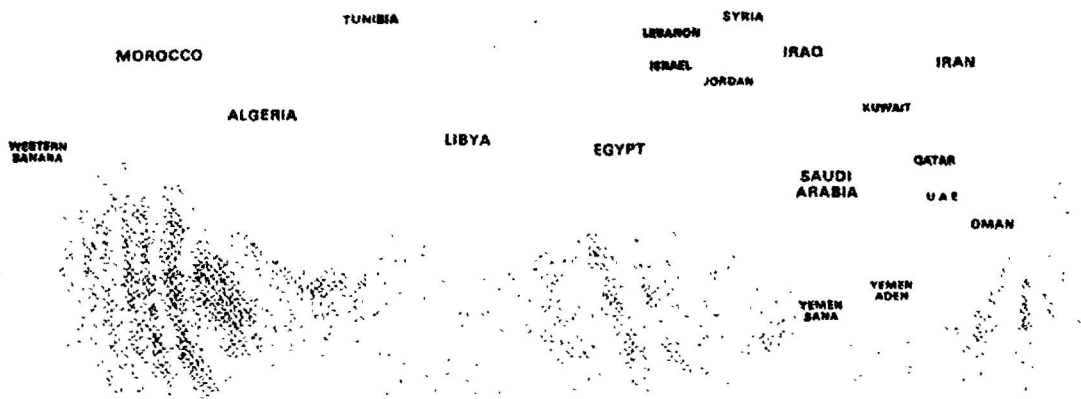
(U) The articles have been fully coordinated with the Directorates for Estimates and Current Intelligence, and the Defense Intelligence Officer for the Middle East and South Asia.

(U) Questions and comments concerning this publication should be referred in writing to the Defense Intelligence Agency (b)(3):10 USC 424 Washington, D.C., 20340-0001. Articles to be submitted should be sent through secure means to the same address. Requests for additional copies of this review or any of the documents listed under "Related Publications" should be forwarded through command approval channels, as appropriate, to DIA (b)(3):10 USC 424 in accordance with DIA Manual 59-1, *Intelligence Dissemination/Reference Services*.

~~Secret~~

~~Secret~~

UNCLASSIFIED



~~Secret~~

Pgs. 1-2 are denied in full

~~Secret~~

(b)(3):10 USC 424

(b)(3):10 USC 424

(b)(3):10 USC 424

**Research and Technologies Division, DIA
(202) 373-4280**

(b)(3):10 USC 424

**Middle East/North Africa Division, DIA
(202) 373-4352**

~~Secret~~

Pg. 5 is denied in full

~~Secret~~

(b)(1),1.4 (c)

(b)(1),1.4 (c)

(b)(3):10 USC 424

Middle East/Africa Division, DIA
(202) 373-4338

~~Secret~~

Pg. 7 is denied in full

~~Secret~~

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(3):10 USC 424

**Middle East/North Africa Division, DIA
(202) 373-4341**

(b)(3):10 USC 424

**Industrial Resources and Production
Division, DIA
(202) 373-3500**

~~Secret~~

Pg. 9 is denied in full

~~Secret~~

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(3):10 USC 424

**Middle East/North Africa Division, DIA
(202) 373-4321**

~~Secret~~

Pgs.11-12 are denied in full

~~Secret~~

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(3):10 USC 424

Middle East/North Africa Division, DIA
202-373-4398

13
(Reverse Blank)

~~Secret~~

Pg. 14 is denied in full

~~Secret~~

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(3):10 USC 424

Middle East/Africa Division, DIA
202-373-4403

~~Secret~~

Pg. 17 is denied in full

~~Secret~~

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(3):10 USC 424

Middle East/Africa Division, DIA
202-373-4327

~~Secret~~

Pg. 19 is denied in full

~~Secret~~

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(3):10 USC 424

Middle East/North Africa Division, DIA
(202) 373-4341

~~Secret~~

~~Secret~~

Progress on Iranian Rearmament (U)

(S/NF/WW) Iran has begun the long process of rebuilding its armed forces. Since the cease-fire in the war with Iraq, it has begun to reconstitute some of its ground units by repairing tanks, APCs, and artillery pieces. This activity is proceeding at a very slow pace, and the Iranians remain heavily outnumbered by the Iraqis in all categories of ground equipment. Although (b)(1),1.4 (c)

few other improvements to Iran's Air Force or Navy have been noted, and both services still suffer from serious spare parts, maintenance and ordnance problems, and low operational ready rates.

(S/NF/WW) Iran suffered severe personnel and equipment losses during the last months of the war with Iraq. Iraq destroyed, damaged, or captured hundreds of tanks, APCs, artillery pieces, multiple rocket launchers, and air defense guns. These items included such items as T-62, Type 59, M60, and Chieftain tanks; BMP, BTR-60 and M113 armored personnel carriers; and 170-mm Koksan, 155-mm M109, self-propelled and 105-mm, 122-mm D-74, and 130-mm M46 towed artillery pieces. In addition to the larger items, the Iranians lost large numbers of machine guns, rifles, ammunition, land mines, helmets, and chemical defensive gear. The loss of this equipment, together with the larger items, shows the extent of the damage the Iraqis inflicted on Iran's ground forces in the last months of the war and shows the monumental task Iran faces in rebuilding its military establishment.

(S/NF/WW) To begin the process, Iran has concentrated on its ground units since the cease-fire. While progress seems fairly slow, there is evidence of repair activity as well as activity in the arms industry and a few deliveries.

(S/NF/WW) Iran has been repairing older, damaged, and captured ground equipment since August 1988. It is using depots both along the border and in rear areas and has repaired both Western and Soviet equipment. Iran then moves the equipment to frontline units for deployment. However, only about 50 percent of the repaired tanks and artillery pieces and 20 percent of the repaired APCs have actually been assigned to frontline units. The rest remains in depots.

(S/NF/WW) Iran's rate of repair probably varies, but as many as 50 armored vehicles per month may have been repaired in its 10 depots. The rate seems higher for tanks than for APCs by about 2 to 1. Thus, since the cease-fire, Iran

may have repaired more than 300 tanks and about 200 APCs. Additionally, there are over 300 tanks, nearly 500 APCs, and about 500 artillery pieces whose status is uncertain but which may be repairable in the longer term at or near the depots.

(S/NF/WW) With the repaired equipment, Iran has begun to re-equip its damaged frontline units. Although there has been some activity in the deployment areas of most of the units along the central and southern border, the equipment assigned is still well below pre-war TO&E levels. For example, the division with the most activity - the 16th armored - had a pre-war TO&E of 318 tanks and 499 APCs. However, at present, only about 60 tanks and 50 APCs are believed to be assigned to this unit.

(S/NF/WW) These improvements to Iran's ground forces are reasonable measures taken by Iran's military establishment regardless of any political infighting in Tehran. During the war, Iran adapted to its own weaknesses despite severe shortages of key items. Thus it is not surprising to see an innovative Army taking advantage of peacetime to repair damaged equipment and rebuild its units. However, despite Iran's efforts, Iraq continues to hold a commanding advantage in all categories of ground equipment.

(S/NF/WW) The Air Force still suffers from major spare parts, maintenance, and ordnance problems, and the number of operational fighters remains low at about 70 to 75. (b)(1),1.4 (c)

which, after considerable training and logistics efforts, will augment Iran's point defense of key

~~Secret~~

~~Secret~~

economic and military facilities. There have been no other significant changes to the Air Force's order of battle since the cease-fire, and most of its activity has involved training. Although sortie rates dropped drastically immediately after the cease-fire - the lowest rates were about 30 per month - the rate gradually returned to pre-cease-fire levels of about 250 per month by the spring of 1989. Fully 90 percent of these sorties involve training, such as pilot proficiency and ground control intercepts. To augment the Air Force's training program, Iran has contracted with Brazil for 15 Tucano trainers, and delivery may have already begun.

(b)(1),1.4 (c)

(S/NF/WW) The Navy has problems similar to those of the Air Force. However, it managed to deploy 24 combatants to the Kish Island area for its exercise in May 1989. It was a joint exercise with some Air Force and ground elements. Activity included multiple rocket launchers and naval gunfire, an amphibious landing, a paratroop from C-130s, and a heliborne assault. Some of the helicopters (SH-3s) deployed from LSTs. The Navy remains essentially a patrolling force. Since the cease-fire, it has continued patrols in the Southern Gulf and has expanded patrols near Northern Gulf oil fields. Its only additions since the cease-fire have been two small Dutch support ships.

(S/NF/WW) In one other development, the Navy showed its ability to deploy and launch a STYX anti-ship missile from a water tanker in April. In May a STYX was deployed to another tanker, but no launch occurred.

(b)(1),1.4 (c)

(b)(1),1.4 (c)

(S/NF/WW) Since the cease-fire, Iran has been working to expand its arms industry. Its production line of small arms and small arms ammunition should allow it to replace any losses of this type of equipment. Iran also produces some large-caliber ammunition and anti-tank grenades, but not in significant quantities. While Iran's military industry is producing other items such as short-range rockets (Oghab), naval mines, infantry support boats, and remotely piloted vehicles, and may be modifying APCs, multiple rocket launchers, and mortars, it cannot manufacture enough of these items to replace the war losses. It does not produce tanks or artillery pieces. Iran is interested in developing tactical missiles and short-range ballistic missiles.

(b)(1),1.4 (c),1.4 (h)

(S/NF/WW) The political turmoil in Tehran and the indecision about where to place priorities in the rebuilding of Iran's armed forces may have delayed the conclusion of arms agreements and the delivery of new arms within the last year. Thus, since August 1988 Iran has received only a few items from foreign sources, such as MRLs and SCUD transporters from North Korea. In addition, possibly up to 50 T-54/T-55s recently arrived in Bandar Abbas from Eastern Europe. These may be repaired tanks being returned to Iran. However, Iran is seeking arms from a wide variety of sources, and Rafsanjani's recent talks in Moscow included discussions about reviving the Soviet-Iranian arms relationship, established under the Shah. Other possible sources for large

~~Secret~~

~~Secret~~

quantities of tanks, APCs, and artillery include China, North Korea, and Eastern European nations.

~~(S/NF/WW)~~ Iran has begun to rebuild its armed forces, but is moving at a fairly slow pace, with most of the emphasis on the ground forces. This pace could accelerate should Rafsanjani and Ayatollah Khamenei consolidate their political

power in the coming months. Nevertheless, DIA believes it may be close to 2 years before the Iranians will have any real defensive capability and into the mid-1990s before they will represent any real threat to Iraq.

(b)(3):10 USC 424

Middle East/North Africa Division, DIA
202-373-4343

~~Secret~~

~~Secret~~

Improvements in the Iraqi Air Force Inventory and Capabilities ~~(C)~~

~~(S/NF)~~ In the early 1980s, the Iraqi Air Force initiated a program to expand and modernize its combat aircraft inventory and to improve its air combat capabilities. The upgrade program continued throughout the Iran-Iraq War with new purchases of aircraft and armaments, and modifications to existing airframes and weapons. Indications in the first half of 1989 suggest that this upgrade program will continue in the post-war period.

~~(S/NF)~~ During the war with Iran, Iraq almost doubled its combat aircraft inventory, adding the MIRAGE F-1E, MiG-23 FLOGGER E/F/G/H, MiG-25 FOXBAT A/B/D/E, MiG-29 FULCRUM A, SU-24 FENCER D export, SU-25 FROGFOOT A, and the Chinese B-6D BADGER. Except for the FENCER and possibly the FULCRUM, all of these aircraft saw combat during the war. Incrementally and collectively, they contributed to a major increase in the war fighting capability of the Iraqi Air Force.

~~(S/NF)~~ Iraq apparently intends to continue the upgrade program in the post-war period. Iraq announced the possible purchase of 54 MIRAGE 2000N-1 strike aircraft during the recent Baghdad military exhibition. Unconfirmed reporting indicates that Iraq may be considering a Soviet offer to buy the SU-27 FLANKER long-range counter-air fighter. In addition to purchases, Iraq is modifying existing aircraft to increase their capabilities. During the Baghdad exhibition, Iraq displayed a MiG-23BN/FLOGGER H which had been modified for air refueling; an IL-76MD/CANDID, called "Baghdad One," which had been modified with a French Tiger G radar to make it an airborne early warning aircraft; and a French MIRAGE F-1EQ5 modified to carry a Soviet AS-14 laser-guided air-to-surface missile using a probable French ATLAS laser pod. Although unconfirmed, Iraq reported the conversion of an IL-76 to an air refueling tanker and is probably in the market for the Soviet MIDAS. In addition to the AS-14, Iraq displayed other modified ordnance, including an AA-6 modified for air-to-surface missions reportedly carried by the MiG-25/FOXBAT. With the infusion of new fighter aircraft, older models such as the FITTER A, FISHBED C+E, HAWKER HUNTER, and FRESCO are likely to be phased out of the inventory.

~~(S/NF)~~ The magnitude and scope of the upgrade program clearly indicates that Iraq intends to expand the quantity and improve the quality of its combat aircraft. Furthermore, the purchase of Chinese B-6D BADGERs and FISHBED F-7s, the possible sale of the French MIRAGE 2000, and the purchase of Brazilian and Swiss trainer aircraft suggest that Iraq's Air Force may want more balance in its sources of combat aircraft. This has not gone without notice in the Soviet Union. It may account for the Soviet initiative to sell the FLANKER to Iraq, which would make Iraq the first recipient of that aircraft outside of the Warsaw Pact. In addition, Iraq continues to seek coproduction and indigenous assembly arrangements as part of new aircraft (especially trainer aircraft) and ordnance purchases as a means of gaining greater control over its sources as well as reaping the economic benefits of producing at home. So far Iraq has not been successful in this pursuit, but the possibility of success in the future cannot be ruled out.

~~(S/NF)~~ The composition of the upgrade program may indicate Iraq's tactical and strategic purposes in acquiring this specific mix of aircraft. Most of the new aircraft are either air-to-ground or dual-capable. These include the MIRAGE F-1EQ4/5/6, FLOGGER F/G/H, FENCER, and FROGFOOT. The BADGER B-6D is a long-range bomber. Of the two proposed purchases, the MIRAGE 2000N-1 is optimized for long-range penetration strikes (some may also be interceptors), and the FLANKER is dual-capable. Furthermore, the MIRAGE and FENCER are air-refuelable. The Iraqis also claim to have modified the FLOGGER F/H, a ground-attack variant, for air refueling. This suggests that Iraq is aggressively developing an improved close air

~~Secret~~

~~Secret~~

support and battlefield interdiction capability. Even more significant, it suggests that Iraq is developing a long-range strike capability including fighter escorts for strike aircraft and vulnerable bombers to deep targets.

~~(S/NF)~~ Iraq proved, during the war with Iran, that its refuelable MIRAGE F-1s are capable of effectively striking deep targets such as Larak Island in the Strait of Hormuz. A refuelable FLOGGER F/H could also reach similar deep targets. FENCER's unrefueled combat radius, with six 500-kg bombs and two 3,000-liter external fuel pods flying a ground attack profile, is 440 NM and, using a NATO HI-LO-HI profile, is 710 NM. FENCER could reach any target in Israel and Syria, targets in Iran as deep as Tehran, and in Saudi Arabia as deep as Riyadh. Refueling would extend the combat radii to cover most of Iran and the Arabian peninsula. FENCER's terrain-following navigation radar improves survivability and surprise through low-level penetration techniques. FULCRUM, in a ground attack role, with four 250-kg bombs and two 1,200-liter external fuel tanks, and flying a NATO HI-LO-HI profile, can reach targets as deep as 680 NM. FLANKER, in a ground-attack role, with 10 250-kg bombs, 2 AA-11, and 1 4,500-liter external tank, and flying a NATO HI-LO-HI profile, can reach targets at 650 NM. These ranges clearly indicate that the Iraqi threat to regional states has increased and will continue to do so as new aircraft are assimilated. However, it is unlikely that Iraqi pilots will be able to quickly or fully assimilate these complex highly sophisticated aircraft. The state-of-the-art weapon systems on board these aircraft, especially FENCER, are work-intensive and require a situational awareness that will be difficult for Iraqi pilots and weapon systems officers to achieve. The effective employment of FENCER and FULCRUM may not be achieved for several years.

~~(S/NF)~~ Providing escort and top cover for long-range strikes during the war with Iran was difficult without long-range interceptors. The

BLINDERS, BADGER As, and BADGER B-6Ds - very vulnerable bombers - usually went on attack missions without escort or top cover over the final legs to the target. With long-range interceptors such as FULCRUM, FLANKER, FOXBAT A/E, and MIRAGE F-1, Iraq will be able to provide protection all the way to target for their bombers and long-range strike aircraft. Although not refuelable, the combat radius for these interceptors with external tanks is between 630 and 980 NM. In addition to longer range intercept capability, their greater range also permits more time on combat air patrol stations within the national borders and over the battlefield. The advanced air intercept radars and computers on the FULCRUM and FLANKER give these aircraft a true look-down/shoot-down capability and an ability to engage beyond visual range. The infrared search and track systems and laser range finders on these aircraft also allow passive acquisition of targets and attacks without radar emissions.

~~(S/NF)~~ Iraq has been the first Middle East customer to receive the FROGFOOT, FULCRUM, and FENCER and the first outside of the Warsaw Pact offered the FLANKER. The acquisition of the latest variants of Soviet fighter aircraft appears to reflect a change in Iraqi-Soviet relations. Heretofore, Syria has usually been the first Middle East recipient of new Soviet fighter variants. Iraq seems to have replaced Syria as the "most favored" Soviet client for new aircraft sales. The Soviets are likely to be very protective of their relationship with Iraq against incursions by Western countries, especially France. If the upgrade in aircraft quantity and quality continues, with a commensurate improvement in aircrew capabilities, Iraq could become the premier Arab air power in the near term.

(b)(3):10 USC 424

Middle East/North Africa Division, DIA
(202) 373-4327

~~Secret~~

Pgs. 27, DL-1 and DL-2
are denied in full