



**Directorate of
Intelligence**

Secret

25X1

Operational Status of Iranian Aircraft (s)

An Imagery Analysis Report

Secret

IA 84-10024C

March 1984

Copy

17

25X1

Warning Notice Intelligence Sources
or Methods Involved
(WNINTEL)

National Security Information Unauthorized Disclosure
Subject to Criminal Sanctions

Dissemination Control Abbreviations	NOFORN (NF)	Not releasable to foreign nationals
	NOCONTRACT (NC)	Not releasable to contractors or contractor/consultants
	PROPIN (PR)	Caution—proprietary information involved
	ORCON (OC)	Dissemination and extraction of information controlled by originator
	REL...	This information has been authorized for release to...
	FGI	Foreign government information
	WN	WNINTEL—Intelligence sources or methods involved

A microfiche copy of this document is available from OCR/DLB printed copies from CPAS/IMC. Regular receipt of DDI reports in either microfiche or printed form can also be arranged through CPAS/IMC.

Declassify: OADR
Derived from multiple sources

Abbreviations for compartmented codewords are:
U - UMBRA Z - ZARF G - GAMMA


25X1
25X1
ZS A I



25X1



**Directorate of
Intelligence**

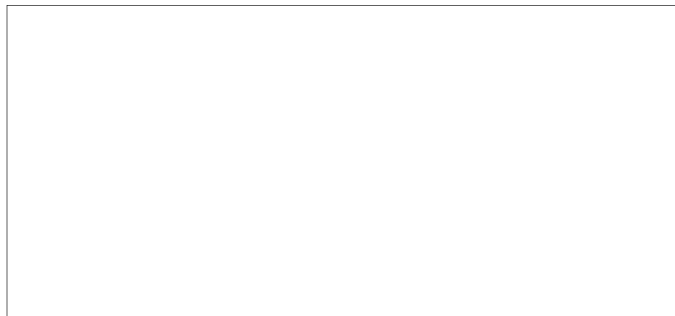
Secret


25X1

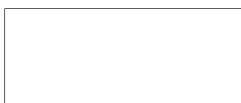
Operational Status of Iranian Aircraft (s)

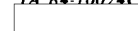
An Imagery Analysis Report

Information available as of
31 December 1983 has been used
in the preparation of this
report. (U)



25X1



Secret
IA 84-10024C

March 1984

25X1

25X1

Secret

25X1

Operational Status of Iranian Aircraft (s)

Summary

Imagery analysis of Iranian fighter and military transport aircraft indicates that only a small portion of the prewar serviceable fighter aircraft are now operational, while most of the military transport aircraft are still serviceable. Of a prewar inventory of about 450 fighters, only 30 to 36 F-4s, 17 to 21 F-5s, and 14 to 20 F-14s appeared to be operational as of 31 December 1983. Another 40 to 46 fighters seen at airfields and repair facilities were identified as derelicts. The rest of the prewar inventory of fighter aircraft have been lost in combat or are nonoperational aircraft that are being stripped of parts to keep other aircraft in service. These findings tend to corroborate a May 1982 CIA report, based largely on nonimagery sources, which assessed a substantial decrease in Iranian air power since the beginning of the Iran-Iraq War.

We estimate from imagery that Iran has an operational fleet of military transport aircraft consisting of 12 Boeing 747s, eight Boeing 707s, 28 to 37 C-130s, 12 Fokker F.27s, 14 Falcon 20s, and one or two P-3s. One to three C-130s, one Boeing KC-707, and three or four P-3s were judged to be nonoperational as of 31 December 1983. Most of the Iranian military air transport fleet is based at Tehran Mehrabad Airfield.

Imagery shows a slight increase, [redacted] 25X1
[redacted] in the number of operational fighter and military 25X1
transport aircraft in Iran's inventory. We would have expected the opposite to have occurred--that war losses and maintenance problems would have caused a reduction in the number of operational aircraft. We are unsure how the Iranians managed to increase their operational aircraft during this period, but we speculate that they may have developed a more effective program of cannibalizing parts from derelict aircraft to make others operable or that they may be flying more marginally capable aircraft.

This information is Secret [redacted] 25X1

Secret

25X1

25X1

Secret

25X1

Introduction

Prior to the war with Iraq, Iran had an inventory of approximately 450 US-manufactured fighter aircraft. This inventory has since dwindled substantially, largely because of combat losses. The lack of spare parts, combat damage, and shortages of qualified maintenance personnel have also rendered a large number of fighters nonoperational. Based on the analysis of reports from a number of sources of varying degrees of reliability, a May 1982 CIA study reported about 175 fighters lost during the war and another 175 grounded as of April 1982. (S [redacted])

25X1

This study was undertaken to estimate from imagery the number, type, and location of Iranian fighter aircraft that remain operational--that is, capable of flight. The paper begins with a discussion of the methodology used to distinguish operational from nonoperational aircraft. (S [redacted])

25X1

On the basis of this methodology, we have estimated the number, type, and location of most operational fighter aircraft, as well as the nonoperational fighter aircraft stored in the open. We have also presented our estimate of the number, type, location, and operational status of medium- and large-sized military transport aircraft. We have not included in this study those transport aircraft that are used exclusively as civil passenger aircraft. (S [redacted])

25X1

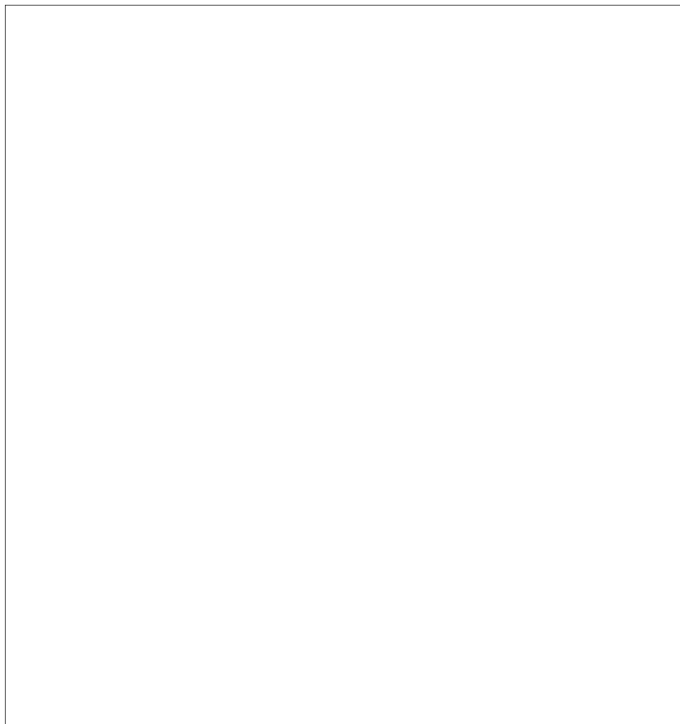
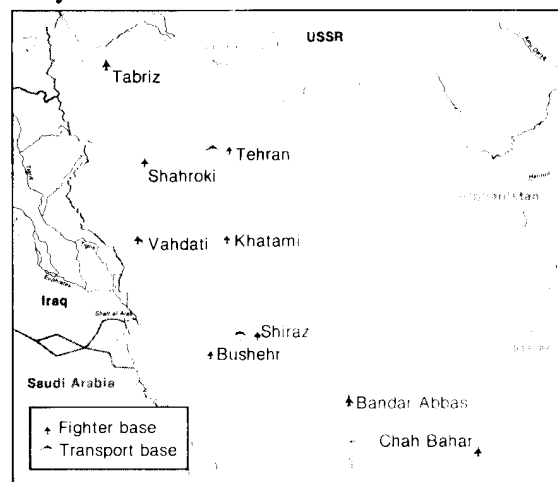


Figure 1

25X1

Permanent Deployment Bases for Iranian Military Aircraft



Secret

25X1

[redacted]

Secret

25X1

25X1

Page Denied

Next 2 Page(s) In Document Denied

Secret

25X1

25X1

Fighter Deployment and Operational Status

We estimate Iran had 30 to 36 F-4, 17 to 21 F-5, and 14 to 20 F-14 aircraft operational at the end of December 1983. Another 10 to 16 F-4, 28 F-5, and two F-86 aircraft seen in the open were judged to be nonoperational, and most of these were obvious derelicts. The deployment of these aircraft by type and number is shown in tables 1 and 2. We believe that Iran has additional fighters stored in covered shelters and maintenance facilities, but we believe these aircraft are not operational because we see no evidence of the activity normally associated with operational aircraft. (S [redacted])

25X1

Because Iran has had difficulty in getting spare parts, some aircraft have been stripped of parts to keep others in service. Most of the nonoperational aircraft parked in the open were probably placed there after being stripped of scarce parts and electronics. Some of these aircraft were randomly parked in groups off the runway, indicating they were junked airframes; others were parked near runways, probably to simulate operational aircraft (figure 3). (S [redacted])

25X1

Secret

25X1

Secret

25X1

Table 1
Estimated Number of Selected Aircraft Types at Iranian Airfields

Aircraft Type By Airfield	Operational Aircraft	Nonoperational or Derelict Aircraft
Tehran Mehrabad ^a		
F-4	4-9	10-16
F-5	11-15	1
C-130	17-20	1-3
747	12	
707	8	
F.27	9	
Falcon 20	14	
T-33		3
Tehran Dosan Tappeh		
T-33	1-2	1
F.27	3	
Tabriz		
F-5	2	8
Shahroki		
F-4	3	
Vahdati		
F-4	4	
F-5	2	19
F-86		2
Bushehr		
F-4	6	

Secret

25X1

Secret

25X1

Table 1 (continued)

Aircraft Type By Airfield	Operational Aircraft	Nonoperational or Derelict Aircraft
Shiraz ^b		
F-4	9	
F-14	6-8	
KC-707		1
P-3	1-2	3-4
C-130	8-12	
Khatami ^c		
F-14	8-12	
C-130	3-4	
F-5	2	
Bandar Abbas		
F-4	3-4	
Chah Bahar ^d		
F-4	1	

^aOne C-130 is probably an RC/EC-130.

^bThe F-4s occasionally deploy to Shiraz Airfield from an unknown location. Only six P-3s were delivered to Iran. They were originally assigned to Bandar Abbas Airfield.

^cThe F-5s departed this airfield in December 1983. We are not sure where they are now located.

^dThis airfield is used as a forward operating base.

This table is Secret

25X1

Secret

25X1

Secret

25X1

Table 2
Total Estimated Number of Selected Aircraft Types in Iranian Inventory

Aircraft Type	Operational Aircraft	Nonoperational or Derelict Aircraft
F-4	30-36	10-16
F-5	17-21	28
F-14	14-20	
T-33	1-2	4
C-130 ^a	28-37	1-3
747 ^b	12	
707 ^b	8	1
F.27	12	
Falcon 20	14	
P-3	1-2	3-4
F-86		2

^a Including a possible RC/EC-130.

^b Including tanker versions.

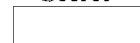
This table is Secret

25X1


Secret

25X1

Secret



25X1

It appears that most F-4 aircraft maintenance and cannibalization takes place at Iran Aircraft Industries (IACI), a government-owned aerospace company that provides the majority of all depot-level maintenance for military aircraft. Increasing numbers of F-4s have appeared at IACI since the beginning of 1982, providing evidence of a growing maintenance problem with these aircraft (figures 4 and 5). According to a reliable source, periodic depot maintenance now takes four to six months to complete for an F-4, compared to the two or three months it took prior to the war. (S 

25X1

25X1



Secret



25X1

Page Denied

Secret
[Redacted]

25X1

F-5 aircraft have not been noted at IACI, except for one F-5 aircraft fuselage that has been there for over two years. According to various sources, maintenance facilities are available at airfields where F-5s are based. Iran has also had the F-5 longer than any other fighter aircraft, so they have greater familiarity with its equipment and probably have qualified personnel at the airbases to perform maintenance. Maintenance for the F-14 is probably done at both IACI and at the bases of Khatami and Shiraz where these aircraft are assigned (figure 6). (S [Redacted])

25X1

Military Transport Aircraft Deployment and Operational Status

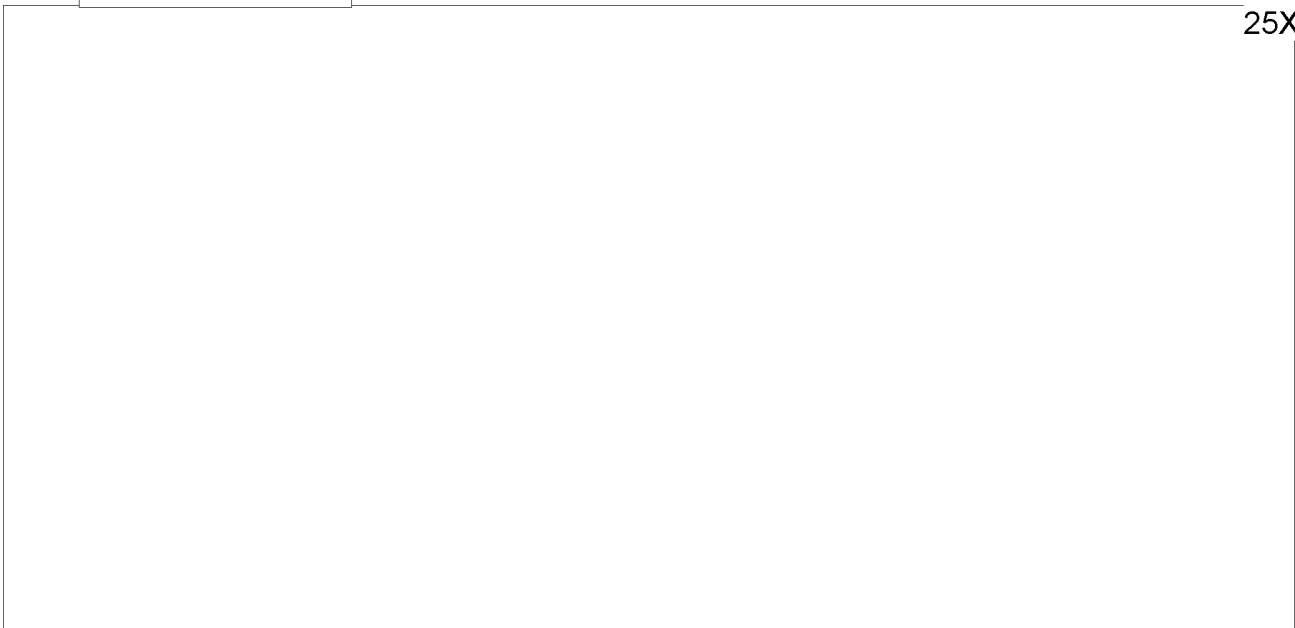
We estimate Iran had 12 Boeing 747, eight Boeing 707/KC-707, 28 to 37 C-130, 12 Fokker F.27, 14 Falcon 20, and one or two P-3 aircraft operational at the end of December 1983. In addition, one to three C-130s, one Boeing KC-707, and three or four P-3 aircraft were judged to be nonoperational. The bulk of the air transport fleet is based at Tehran Mehrabad Airfield. The type and number of transport aircraft at each airfield are shown in tables 1 and 2. (S [Redacted])

25X1

The nonoperational C-130 aircraft were parked on aprons at Tehran Mehrabad and were partially disassembled. The nonoperational Boeing KC-707 and P-3 aircraft were located at Shiraz. One of these C-130s and the KC-707, which was also missing its left wingtip, have been in nonoperational status for over a year. (S [Redacted])

25X1

25X1



Secret
[Redacted]

25X1

Secret

25X1

Recent Changes In Operational Fighter and Military Transport Aircraft Inventories

During the latter half of 1983, the overall number of operational fighter and military transport aircraft in Iran's inventory increased slightly, as shown on table 3. We are unsure how the Iranians accomplished the increase in view of Iran's aircraft maintenance difficulties, which has been reported by several sources. We speculate, however, that the recent increases may have resulted from a more effective cannibalization program of removing parts from derelict aircraft and using them to keep a greater number of other aircraft flyable. Alternatively, the Iranians may have elected to fly more aircraft without all of their subsystems operable. If the latter is true, the Iranians would be accepting the risk of flying larger numbers of marginally capable aircraft at reduced levels of effectiveness. Various human sources have previously reported that the Iranians fly some of their aircraft with inoperable subsystems. We have no information to indicate the Iranians have obtained aircraft parts from other countries, although the possibility exists that they may have clandestinely obtained such parts. (S [redacted])

25X1

Table 3
Changes in Number of Operational Aircraft in Iranian Inventory

Aircraft Type	Operational Aircraft as of [redacted]	Operational Aircraft as of [redacted]
F-4	28-31	30-36
F-5	15-19	17-21
F-14	12-14	14-20
P-3	4-5	1-2

25X1

Note: No changes were observed in the number of operational C-130, T-33, 747, 707, F.27, Falcon 20 and F-86 aircraft in Iran's inventory between [redacted]

25X1

25X1

This table is Secret [redacted]

25X1

Secret

12

25X1

Secret

Secret