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| **C:\Users\Armin\Desktop\Logo Web Motto.png** | شماره سفارش: 16587 |
| نوع ترجمه: خوب |
| تعداد کلمات: 96000 |
| لطفا در صورت وجود هر گونه سوال از طریق ایمیل *Tarjomano@Gmail.com* و یا شماره تلفن 09107660253 با ما در ارتباط باشید. |

**A. Fighter aircrafts at the beginning of 1978 and 1980**

- Fighter-interceptor F-14. The number assigned was 70[[1]](#footnote-1), the number in full readiness to fly on April 1978, April 1980 and September 22, 1980 were 39, 35 and 19, respectively[[2]](#footnote-2).

- Fighter- bomber Phantom or F-4E aircraft: The number assigned was 167 with the number of 119 in full readiness to fly on April 1978; the number assigned was 165 with the number of 126 in full readiness to fly on April 1980; and the number assigned was 160 with the number of 121 in full readiness to fly on September 22, 1980.

- The RF-4 photographic reconnaissance aircraft: The number assigned was 13 with the number of 12 in full readiness to fly on April 1978; the number assigned was 13 with the number of 10 in full readiness to fly on April 1980; and the number assigned was 12 with the number of 8 in full readiness to fly on September 22, 1980.

- Fighter-bomber F-5E: The number assigned was 136 with the number of 128 in full readiness to fly on April 1978; the number assigned was 135 with the number of 117 in full readiness to fly on April 1980; and the number assigned was 135 with the number of 107 in full readiness to fly on September 22, 1980.

- Two - seat F-5F fighter trainer aircraft: The number assigned was 28 with the number of 26 in full readiness to fly on April 1978; the number assigned was 24 with the number of 19 in full readiness to fly on April 1980; and the number assigned was 26 with the number of 22 in full readiness to fly on September 22, 1980.

- Two - seat F-5B fighter trainer aircraft ": The number assigned was 8 with the number of 3 in full readiness to fly on April 1978; the number assigned was 8 with the number of 2 in full readiness to fly on April 1980; and the number assigned was 8 with the number of 1 in full readiness to fly on September 22, 1980.

B. Transport aircrafts at the beginning of 1978 and 1980

- Boeing 747 strategic fueling aircraft: The number assigned was 10 with the number of 9 in full readiness to fly on April 1978; the number assigned was 10 with the number of 8 in full readiness to fly on April 1980; and the number assigned was 10 with the number of 7 in full readiness to fly on September 22, 1980.

- 707 transport fueling aircraft: The number assigned was 12 with the number of 9 in full readiness to fly on April 1978; the number assigned was 6 with the number of 5 in full readiness to fly on April 1980; and the number assigned was 6 with the number of 1 in full readiness to fly on September 22, 1980.

- P-3F maritime surveillance aircraft: The number assigned was 6 with the number of 3 in full readiness to fly on April 1978; the number assigned was 13 with the number of 10 in full readiness to fly on April 1980; and the number assigned was 14 with the number of 11 in full readiness to fly on September 22, 1980.

- C-130 Tactical Transport Planes: The number assigned was 51 with the number of 36 in full readiness to fly on April 1978; the number assigned was 50 with the number of 29 in full readiness to fly on April 1980; and the number assigned was 49 with the number of 30 in full readiness to fly on September 22, 1980.

- F-27 transport aircraft: The number assigned was 18 with the number of 15 in full readiness to fly on April 1978; the number assigned was 20 with the number of 17 in full readiness to fly on April 1980; and the number assigned was 19 with the number of 16 in full readiness to fly on September 22, 1980.

- Chinook heavy lift aircraft (helicopter): The number assigned was 5 with the number of 2 in full readiness to fly on April 1978; the number assigned was 6 with the number of 2 in full readiness to fly on April 1980; and the number assigned was 6 with the number of 1 in full readiness to fly on September 22, 1980[[3]](#footnote-3).

C. The process and time of scramble flights

Scramble flights timespan is presented in the closing section of this chapter as follows.

The Air Force Airbases had regular schedules for aircrafts on the state of alert. For example, "five minutes" was a set time or a standard that was set for the preparation and flight of a F-5 fighter aircraft. This timespan was fifteen minutes for F-4s and thirty to forty-five minutes for F-14s[[4]](#footnote-4). In Mehrabad Tehran, Hamedan, Bushehr and Bandar Abbas Airbases, there were also one Phantom fighter aircraft in full state of alert to scramble in less than 30 minutes in emergency condition. In Tabriz and Dezful Airbases the similar provisions were made for two other F-5s, and Isfahan and Shiraz Airbases also had a reserved one-hour flight crew[[5]](#footnote-5). This timespan and assigned aircrafts to alert scramble flights was taken as an outstanding point to express the Air Force's operational readiness.

Table 2.2 shows the predicted time to prepare for the scramble missions, the time needed to take off defense plan aircrafts from the Airbases and to be placed under the control of the radar stations associated with the type of fighter in the IRIAF Airbases on the brink of full-scale aggression by the Iraqi Ba'ath army.

Table 2-2. State of alert timespan, type of fighter, associated Airbases with the IRIAF radar control stations on the brink of imposed war.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No. | Airbase | Readiness (minutes) | Aircraft | Radar station | Number of aircrafts |
| 1 | Mehrabad | 15 | F-4 | Karaj | 1 |
| 2 | Tabriz | 5 | F-5 | Tabriz | 2 |
| 3 | Hamedan | 15 | F-4 | Hamedan | 1 |
| 4 | Dezful | 5 | F-5 | Dehloran | 2 |
| 5 | Bushehr | 15 | F-4 | Bushehr | 1 |
| 6 | Shiraz | 45 | F-14 | Bushehr | 1 |
| 7 | Isfahan | 45 | F-14 | -- | 1 |
| 8 | Bandar Abbas | 15 | F-4 | Bandar Abbas | 1 |

**Chapter Three**

**A review of the IRIAF Air Defense System before the outbreak of imposed war**

The first and second chapters briefly reviewed and analyzed the enemy's air strikes and the IRIAF measures, the state of alert of the air force and the number of aircrafts, including transport and fighter aircrafts. In this chapter, to follow up on the previous discussions, while briefly introducing "the IRIAF Air Defense Command System", we present the operational status of this great command before the outbreak of the imposed war in the form of historical background, organization and expansion of major units, command and control structure, air defense system of forward airbases, portraying Iran territory sky and ... along with its performance on the outbreak of the imposed war on September 22, 1980.

it should be noted that: basically, for Air Force, air defense is of great importance to defend the valuable assets of the air force against enemy air strikes (defending hangars and flight runways, airport facilities, protecting radar stations and intercepting processes and defense of maneuvers units in critical missions), as well as the provision of air protection for critical regions and infrastructure of the country, and to accomplish this, a large and extensive command was organized inside the air force under the command of the force.

Of course, the history and process of the formation of the air defense in the air force (along with the changes in this command during the Islamic Revolution and then on the verge of imposed war) are audible and of particular historical attraction; thus, having provided the reader with a brief account of the history of this command, there are some pages on the identity and development of defensive units, describing the actions and functions of this command in the days leading up to the war, i.e., the events of September 22, 1980 and the reaction of this powerful defense system to the enemy attack.

1) The background and status of air defense commands on the brink of imposed war

Air Defense Command was under the command of the IRIAF, before the separation of the air defense base “Khatam-ol-Anbia” from the IRIAF that is briefly referred to as follows:

Basically, the idea of ​​creating air defense in Iran dates back to the years after World War I (1935 - 1939), two decades after the Air Force established.

Accordingly, at first, the order of the troops ( the Army) No. 1825 was issued on April 1933 and this is the first indication of the creation of two anti-aircraft base in the ground force, with the Iranian army having Cannon  75 mm made of Buffers, Sweden. Since then, all three Iranian ground, naval and air forces have gradually developed a radar-powered ballistic missile system for tactical air defense operations. But this system only provided air defense for its own forces, and the vital facilities of the country had almost no consistent and coordinated air defense, especially in the field of anti-aircraft weapons[[6]](#footnote-6).

In 1957, the Air Force surface to air defense unit was equipped with an anti-aircraft “ZU-23 mm anti-aircraft auto cannon” and then “Tiger cat” surface-to-air missiles. In 1960, the first radar system (made of the UK) was also introduced to strengthen tactical air surveillance (and, in fact, to change its surveillance system to a better position). Two radar systems were deployed in Tabriz and Babolsar in two years. Since then, numerous radar stations have been deployed across the west and south borders of the country.

To put in a nut shell, on the up-to-date equipment and facilities can be said that from May 22, 1968 to June 21, 1968 radar stations and mass destruction surface to air weapons were updated and radar stations at Karaj (in the center of the country), Tabriz, Hamadan (Sobashi) in the west and Bushehr, Dezful, Behbahan, Jask, Bandar Abbas (Geno) etc. ... in the south and the radar stations of Mashhad, Shahr Abad, Babolsar in the northern part of the country and ..., were equipped and took control of several separated air defense groups with surface to air weapons including non-radar and radar anti-aircrafts including Oerlikon , Rapier surface-to-air missile system, HAWK, and ... along with the command of the Ten Commandments of the Air Force, the Air Force Training Command (now martyr Khazaee), Airborne Logistics Command, Central Support Command and Information and Reconnaissance Command, as described in Volume One.

With the outbreak of the imposed war, the strategic air defense against the high altitude invasion and the threat of ballistic missiles seemed necessary and inevitable. The former system did not address this issue due to the presence of US troops in the country and region. The US Navy and its missile units, together with control stations and satellite data monitored the missile movement in the countries of the region in the Middle East, Southeast Asia and Australia, and were able to respond appropriately against them. To protect its transnational interests, the United States has also defended Iran's sky and was responsible for this in Iran, in accordance with its strategy.

By the outbreak of the Iraq imposed war on Iran, it expanded its scope using ground-to-ground missiles, the organization named the Country Air Defense Command was established which was responsible for strategic air defense[[7]](#footnote-7). Since the organization lacked the proper weapon to achieve the desired defense, it did not succeed much, and often used tactical weapons from the air force and the facilities of other ministries (such as shelters and trenches for its staff), and the transfer of surface to air missiles (HAWK), to the battlefield fronts. In other words, the air defense system of the battle scene was introduced as a strategic air defense, and it was pretended that the strategic air defense and defense were both within a system, as it will be described in the appropriate time and in the process of imposed war description in the upcoming volumes.

However, the weaknesses in radar coverage and the process of detecting and confronting air threats and strikes with scramble aircrafts) along with the degree of combat readiness of air defense systems have already been presented.

Now, given what is said about the IRIAF state of alert process and the degree of readiness of the operational units, it can be recognized that the conditions and similar solutions are not limited to airborne units and air defense command was also included in. Thus, we will review examples of the correspondence and solutions adopted on by the Air Defense Command below, and recalling that before the presentation of this strategy, the training of the surface to air units of the air defense was delayed for eighteen months due to the lack of target carrying aircrafts.

"From: Air Defense Command

To: Commander of the IRIAF

About: State of alert letter No 4-3/15-1001/ dated on April 12, 1980:

On April 6, 1979, the commission formed at that command and the target carrying aircrafts were scheduled for surface-to-air units training.

The first program is going to be executed from April 19, 1980 to April 23, 1980 for the Battalions of 12th of Mehr Abad, the Ground-to-Air Air Training Center and Babolsar Unit in the Sadr Abad Tir Square. In accordance with existing regulations and instructions, this training is canceled when the combat readiness is higher than stage 3.

Air Defense Commander - Lt. Col. Arsalan Pour-Arsalan

On behalf of Colonel Nasser Iskandar Afshar

- Subsequently, according to the necessity and specific conditions governing the country, the IRIAF Deputy of Operations reminds Air Defense Command, in the letter No. 4-3/15-10-23/ dated on April 12, 1980, as follows:

"Check out the designs and documents carefully. 50% of the volume of training should be reduced and 50%, on the other hand, should be added to preparedness and surveillance. "

Now with such a background, it is necessary to briefly describe the state of the air defense command since the beginning of 1980 so that interested enthusiasts will be informed.

1. On April 15, 1980, the command of the Third Airbase of Hamedan sent a report to the IRIAF headquarter on the weakness of the air defense while recalling the IRIAF experiences of the night-time operations with the counter-revolutionary groups in Kurdistan and the involvement of the base with unknown agents from the Iraqi Air Force.
2. On April 25, 1980 and in conjunction with the Tabas event, the Air Force proposed to change the location of two air defense radar commanders from Zabul and Birjand (which was anticipated to defend against the air and rampant aggression of Afghanistan) to Zahedan and Chabahar, in the hope of preventing future American aggressive measures.

1. The number of F-14s was up to 70 in the spring of 1978 and seven more were delivered to the air force on March 21, 1978 to September 22, 1978 (Of course, the total number of F-14 aircraft purchased were 80, two of which toppled during training in 1979 and the other one has not been delivered to Iran because of cruel sanctions!). [↑](#footnote-ref-1)
2. This statistic confirms the fact that on 1978 even when the provider was in contact and supplied the spare parts, only 39 aircrafts were in operational readiness (about 55%) due to the technical system and maintenance complexities, this trend has fallen below this level and has declined to 19 on the brink of the imposed war, which is even less than 25%! With the help of the IRIAF technical staff, the number of ready fighters increased by more than 16 after the invasion of the Iraqi Ba'ath army on September 22, 1980, as described in Chapter 5. [↑](#footnote-ref-2)
3. For more information on the state of alert of fighter aircrafts, including F-4D and F-5A, refer to: Nasrollah Zeinali (1394) " Air Support Logistics in the Sacred Defense" Tehran: the IRIAF Center for Strategic Publications, Vol. 1, pp. 267-279. [↑](#footnote-ref-3)
4. In the course of the imposed war, in 1364, on the initiative of Martyr Abbas Babaei, the IRIAF deputy of operation of the time and the efforts of pilots and other technical personnel of the Air Force, based on operational necessities with new measures and acceptance of certain reasonable risks, succeeded in reducing the takeoff of the F-14 scramble mission to fifteen minutes at night and five minutes in day, and this is one of the outstanding capabilities of the force to overcome some of the IRIAF bottlenecks and accelerate its operation. [↑](#footnote-ref-4)
5. Flight Crew refers to crew members such as: Pilot, Navigator, Engineer and Flight Mechanic, Flight attendant, Load master, etc., which accompany an operational flight mission. [↑](#footnote-ref-5)
6. The air defense system that covers the entire country is called strategic air defense, which includes "strategic air surveillance " and "strategic air defense". [↑](#footnote-ref-6)
7. Radar systems were installed and operated from Tabriz, Babolsar, Mashhad, Shahr Abad, Hamedan, Dezful, Jask, Kish, Bandar Abbas, Bushehr, Abdanan, Karaj and Geno (Bandar Abbas) radar sites from 1956 to 1975; The country's defense command, headed by Dr. Hassan Rouhani, was formed on November 15, 1985, and the missile attacks in the cities started from February 29, 1988. [↑](#footnote-ref-7)