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# **The Afghan Air Force: New Planes, Old Problems, Little Impact**

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**An Intelligence Assessment**

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*May 1986*

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# The Afghan Air Force: New Planes, Old Problems, Little Impact

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An Intelligence Assessment

This paper was prepared by [ ] Office of  
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**The Afghan Air Force:  
New Planes, Old Problems,  
Little Impact**

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**Key Judgments**

*Information available  
as of 1 May 1986  
was used in this report.*

The Soviets have failed to make the Afghan Air Force into an effective military force despite major efforts to upgrade its personnel and inventory. Moscow has increased the Air Force inventory from about 260 to 325 fixed- and rotary-wing aircraft since 1979 and replaced obsolete fixed-wing aircraft with more advanced types, such as MIG-21s. The number of helicopters, which have generally proved to be more effective against small insurgent bands than fixed-wing aircraft, has increased from about 40 to 100. Air Force personnel strength has increased to as much as 10,000 men, after plummeting from about 15,000 to 5,000 after the Soviet invasion.

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Despite this progress, the Afghan Air Force's performance remains poor because of several factors:

- A shortage of skilled pilots and technicians.
- The political unreliability of its personnel.
- Poor command and control procedures.
- Inadequate logistics and intelligence.
- Mountainous terrain, which shields insurgents, and a harsh climate, which sometimes prevents Air Force operations.

Improved insurgent air defenses have also inhibited Air Force effectiveness. We estimate that the Air Force has lost more than 150 aircraft since the war began, mainly as a result of insurgent fire.

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The Soviets have prevented the Afghan Air Force from playing a wider role in the war because of its poor performance. Air Force missions have been largely limited to supporting the Afghan army, and the Soviets, who control nearly all Afghan air operations, do not allow the Afghans to participate in operations involving Soviet troops. We doubt the Soviets will overcome their suspicions about Afghan loyalty and competence enough to let them provide cover for Soviet troops or fly the Soviets' most effective counterinsurgency fixed-wing aircraft, the SU-25.

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The Air Force's continued poor performance will force the Soviet Air Forces to bear the brunt of the air war. The Soviet Air Forces will probably increase their inventory in Afghanistan only gradually over the next several years because their support structure limits their ability to station large numbers of aircraft there. Airfield improvements north of Afghanistan, however, will permit the Soviet Air Forces to increase use of USSR-based aircraft for missions in northern Afghanistan.

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**The Afghan Air Force:  
New Planes, Old Problems,  
Little Impact**

The Afghan Air Force ' nearly collapsed in the wake of the Soviet invasion of Afghanistan in 1979. [redacted] its strength plummeted from about 15,000 before the Soviet invasion to about 5,000 in 1980. Moscow so distrusted the competence and political reliability of Afghan pilots that it halted combat missions temporarily that year. Since then, the Soviets have increased the numbers of Afghan aircraft, and the Air Force has increased its personnel strength to about 10,000, [redacted] Nonetheless, we believe the Afghan Air Force remains a weak extension of the Soviet Air Force because of a shortage of skilled pilots and technicians, politically unreliable personnel, and continuing operational problems. [redacted]

**The Afghan Air Force Role and  
Performance in the War**

The Afghan Air Force's primary mission is to support the Afghan army. [redacted]

' The proper name of this branch of service is Air and Defense Forces. [redacted]

The Air Force has increased its activity in the last year, mainly in the south and west. [redacted] aircraft at Qandahar, Shindand, and Herat in southern and western Afghanistan have become more active than in the past. Aircraft at Bagram, Kabul, and Mazar-e Sharif/Dehdadi airfields in eastern and northern Afghanistan have been flying missions on most days since the Soviet invasion. [redacted]

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We believe the increased activity and modest improvements partly reflect upgrades in the Air Force inventory. [redacted] the Soviets launched an ambitious five-year modernization program shortly after their invasion that called for expansion of the Air Force inventory from 260 fixed-wing aircraft and helicopters to more than 450 by 1985 and the replacement of obsolete aircraft. [redacted] the inventory grew from 261 to 316 aircraft between 1979 and 1981, but it has

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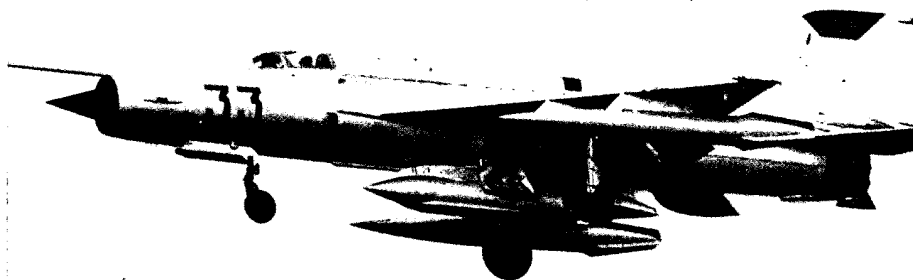
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Figure 1. MIG-21



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fluctuated between 310 and 325 aircraft since then. In 1979 obsolescent MIG-15s, MIG-17s, IL-28 fighter-bombers, and IL-14 transports constituted two-thirds of the Air Force's fixed-wing aircraft, [redacted]

[redacted] By the beginning of 1986, more modern MIG-21s, SU-7s, SU-22s, L-39 trainers, and AN-26 transports constituted 73 percent of the Air Force's fixed-wing aircraft. [redacted]

The Soviets also improved and increased the Air Force's helicopter inventory. Helicopters, which have generally proved to be more effective against small insurgent bands than fixed-wing aircraft, increased from 41 aircraft (16 percent of the inventory) in 1979 to about 100 (30 percent of the inventory) in 1986, [redacted]

[redacted] Moscow replaced earlier model Hind-A (MI-24) attack helicopters with later model Hind-Ds (termed MI-25s by the Afghans) and lightly armed MI-8 transport helicopters with more heavily armed MI-17 models. [redacted]

We believe that the Air Force's increased activity and improvements also indicate some success in the Soviets' pilot recruitment and training program. [redacted]

[redacted] Moscow was actively recruiting new pilots and had sent several hundred trainees to the USSR. [redacted]

[redacted] Afghan pilots are attracted by relatively high pay scales—they earn \$768 a year, while the Afghan annual per capita income is \$150. [redacted]

### Continuing Problems

Despite the infusion of new aircraft, increased activity, and signs of improvement, the Air Force's role in the war remains modest, in our view. The Afghan Air Force remains much less active than the Soviet Air Forces. [redacted]

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Soviet authorities restrict Afghan Air Force operations. [redacted]

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[redacted] The Soviets have not given the Afghan Air Force the SU-25 Frogfoot, the most effective anti-insurgency fixed-wing aircraft in Afghanistan, presumably because of fears of defections. [redacted]

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The Soviets still dominate Afghan Air Force operations. [redacted] Soviet advisers, who are present down to the squadron level, must approve all Air Force operations and accompany Afghan pilots on all missions near the Pakistani border. The advisers also choose all bombing targets and brief Afghan pilots only an hour before bombing missions, giving only the takeoff time, target coordinates, and a sketchy description of the target, [redacted]

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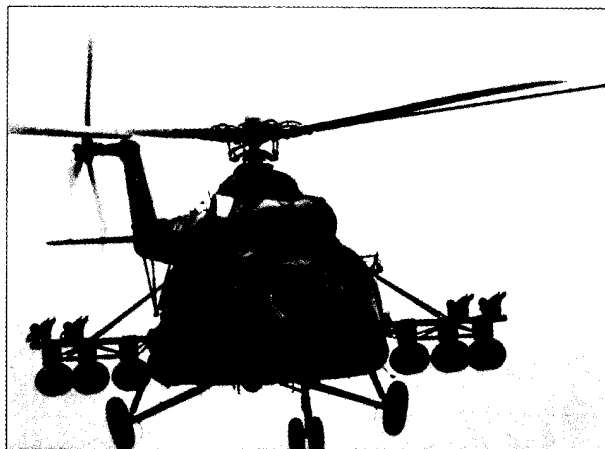


Figure 3. MI-8 Hip

### Skilled Personnel Shortages

The lack of qualified pilots and technicians has slowed the expansion of the Air Force, in our view. [redacted]

[redacted] Afghan aircraft were periodically grounded or flown by Soviet pilots because the Air Force did not always have a pilot for every aircraft. We estimate the Soviets maintain a ratio of 1.3 to 1.5 pilots for every aircraft. [redacted]

We believe that many Afghan pilots are incompetent.

[redacted] pilot error accounts for about 25 percent of Air Force crashes and that pilots have particular problems flying the Air Force's more advanced aircraft, the SU-22 and MIG-21. [redacted]

[redacted] by 1985 the Soviets had allowed the SU-22 inventory to dwindle to 12; they had planned to increase the inventory to 55, [redacted]

[redacted] there is a 30-percent shortage of mechanics to carry out routine maintenance. The shortage leads to accidents because pilots are forced to fly aircraft that are overdue for maintenance, [redacted]

[redacted] Afghan mechanics were not allowed to make even minor repairs without Soviet supervision because the Soviets do not trust their competence. [redacted]

We believe the personnel shortages are caused by several factors:

- Many of the more competent Air Force personnel were purged in the wake of the Communist takeover in 1978 and Soviet invasion in 1979, [redacted]

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- Kabul has had problems recruiting and retaining pilots and mechanics since then because of a continuing exodus of technically competent Afghans to Pakistan and the West and a lack of experience with modern machinery and high illiteracy rates in the populace at large.

- Fear of improved insurgent air defenses may hinder pilot recruitment. [redacted]

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### Political Unreliability

Sabotage and defections plague the Air Force, [redacted] Dissident Air Force officers blew up 19 Afghan aircraft at Shindand Airbase in June 1985—the most spectacular sabotage since the Soviet invasion. [redacted]

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Afghan pilots, including one who had won the Air Force's highest medal, and crews have frequently defected to Pakistan. Pilots defected with two MI-25 helicopters in 1985, an AN-26 transport plane in 1984, an SU-7 fighter in 1983, and an MI-8 helicopter in 1981. [redacted]

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[redacted] continuing Soviet domination of the Air Force is the most important cause of Air Force unrest. Afghan personnel resent both the disparaging remarks that the Soviets often make about their capabilities and the presence of Soviet advisers. [redacted]

Sympathy for the insurgents also contributes to the Air Force's political unreliability, in our view. [redacted]

[redacted] Afghan pilots sometimes do not attack insurgent convoys or report them to their superiors because the pilots support the insurgents, [redacted]

#### **Party Factionalism**

We believe that political infighting between the Khalqi faction of the ruling Afghan Communist party, who are mainly rural ethnic Pushtuns, and the Parchami faction, who are mainly urban Pushtuns and non-Pushtuns, feeds internal unrest in the Air Force. [redacted] each faction blamed the other rather than insurgent sympathizers for the Shindand sabotage in 1985. [redacted]

[redacted] We believe these tensions are increased by the imbalance between the Parchami-dominated Air Force high command and the rank and file, where Khalqis outnumber Parchamis 2 to 1, [redacted]

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**Command and Control**

The Air Force's cumbersome command and control procedures, characteristic of Soviet-trained air forces, are probably its most serious operational problem.

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[Redacted]

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We believe that the Air Force has made only modest progress in overcoming its command and control problems. A Soviet AN-26 aircraft, reconfigured as an airborne command post, began to participate in Afghan air and ground operations in 1982 or 1983, enabling senior Soviet Air Forces commanders to maintain simultaneous communication with Afghan army commanders and Air Force pilots. The presence of an observation aircraft, however, warns insurgents of imminent operations. Attempts to delegate authority have had a limited impact, in our view.

[Redacted]

The Soviets have made moderate progress in improving logistics, in our view.

Moscow has extended a fuel pipeline from the Soviet border to Bagram and Shindand, but there is no evidence of plans to extend it to other airfields. We believe that road security is somewhat better than it was and that Soviet technicians repair damage to fuel pipelines more quickly than they did in the past.

[Redacted]

[Redacted]

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**Logistics**

We believe that the priority given to the Soviet Air Forces' fuel and munition needs, insurgent attacks on convoys, and poor roads inhibit Air Force support for the Afghan army.

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**Environmental Difficulties**

Afghanistan's mountainous terrain and harsh climate add to the operational problems of the Afghan—and Soviet—Air Forces. [ ] jet fighters have poor maneuverability in the numerous narrow mountain valleys of eastern and northern Afghanistan and often must attack targets from high altitudes, reducing accuracy. We believe that rugged terrain makes aerial observation of small insurgent groups difficult and often interferes with communications between pilots and air controllers. In summer, hot weather causes helicopters to overheat. In winter, hazardous storms and poor visibility caused by rain and snow hamper operations. [ ]

**Improved Insurgent Air Defenses**

We believe that improved insurgent air defenses have had a major impact on Air Force operations. [ ]

[ ] Afghan pilots have adopted more cautious tactics, such as spending less time over targets and attacking from higher altitudes, in the face of better insurgent tactics and weapons. [ ]



Figure 7. MI-8 Hip that was shot down [ ]

air losses, they have an important psychological impact because Afghan pilots tend to avoid insurgent bands that they believe may be armed with missiles, [ ]

The insurgents have improved their air defense inventory. [ ] some insurgent bands that previously had one heavy machinegun and no SA-7 portable, heat-seeking surface-to-air missiles now have two or three heavy machineguns and missiles. Heavy machineguns (12.7- and 14.5-mm) are useful because they are relatively easy to operate and maintain. Although we estimate that surface-to-air missiles account for only about 5 percent of Afghan

**Outlook**

We believe the Soviets will not make major progress on these problems and that the performance of the Afghan Air Force will continue to suffer:

- It will remain difficult to recruit and retain qualified pilots and mechanics.
- The Soviets are unlikely to modify rigid command and control procedures.

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[ ] we estimate the Afghan Air Force has lost a minimum of 150 aircraft to insurgent antiaircraft fire and sabotage since the war began. [ ]

We estimated that the Afghan Air Force would have at least 273 more aircraft than observed in its functioning inventory if all confirmed deliveries [ ] are taken into account. Not all of the missing aircraft were shot down by insurgents or sabotaged. [ ] 113 of the missing or nonfunctioning aircraft are derelict. We judge that about one-fourth of them, or about 28, became derelict because of combat damage or sabotage, while attrition and accidents accounted for the remainder.

[ ] another 21 aircraft were sabotaged in 1985, and [ ]

[ ] pilots have defected with five aircraft since 1981. This leaves an estimated 134 aircraft lost away from the airfields. Because pilot error accounts for about one-fourth of all air losses, we estimate that about 100 of these aircraft were shot down by the insurgents. The minimum number of losses, therefore, is estimated at about 150. [ ]

We believe, however, that the Afghan Air Force has lost more than 150 aircraft, and [ ] losses could be as high as 230.

We undoubtedly have missed some deliveries [ ] and the daily variation of aircraft totals at airfields, although we are fairly certain that we can detect all large deliveries (squadron size or larger—10 to 20 aircraft).

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- Fuel shortages will remain a problem, particularly at Qandahar and the smaller airports, and Soviet aircraft will continue to receive priority for fuel.
- Air Force intelligence will remain erratic.
- We do not believe that Moscow will permit the Air Force to participate in operations involving Soviet troops or to transfer to the Afghans its most effective fixed-wing aircraft in Afghanistan, the SU-25 Frogfoot, because of fears of pilot defections. [ ]

The Soviets probably will further increase and upgrade the Afghan Air Force inventory, especially helicopters. New parking areas for helicopters can be built quickly—[ ] 20 hardstands for a squadron of Soviet helicopters were completed in less than three months at Qandahar. But airfield capacities, rear service deficiencies, and the continued vulnerability of supply lines to insurgent attacks make it difficult to support an increase in large numbers of Afghan fixed-wing aircraft. [ ]

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We estimate, however, that the Air Force may receive more advanced weapons, such as the precision-guided air-to-surface missiles that were introduced into the Soviet inventory in 1985, and fuel-air explosives to replace iron bombs. The new weapons would be particularly useful in attacking targets—such as insurgent positions protected by rock outcroppings or in caves—where greater accuracy and penetrability would be required. Afghan helicopters and most fixed-wing aircraft could use laser designators to deliver precision-guided munitions accurately against even small targets from altitudes as high as 1,500 meters—beyond the reach of heavy machinegun fire. Effective use of precision-guided weapons, however, would require better intelligence on the locations of resistance targets as well as extensive training. [ ]

We expect that the Air Force's limitations will force the Soviets to continue to bear the brunt of the air war. We believe the Soviet Air Forces will continue to increase their inventory in Afghanistan only gradually over the next several years because their support infrastructure restricts their ability to station large numbers of aircraft there. We believe that airfield improvements north of Afghanistan will permit the Soviets to increase their use of USSR-based aircraft for missions in northern Afghanistan. [ ]

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**Appendix A**

**Organization of the  
Afghan Air Force**

Most of the Afghan Air Force's approximately 325 aircraft are organized into five regimental-size fighter wings, one helicopter regiment, and one fixed-wing transport regiment. These units are located at Afghanistan's seven major airfields. Kabul is the Air Force's headquarters. Aircraft periodically deploy to smaller airfields such as Gardeyz, Khowst, Ghazni, and Asadabad.

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[redacted]

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**Qandahar Airfield**

Qandahar Airfield is the home base for the 366th Fighter Wing and the 379th Independent Helicopter Battalion. The 366th Fighter Wing was an active unit until the sabotage at Shindand in June 1985. The subsequent decrease in activity probably reflects increased security precautions.

[redacted]  
[redacted]

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**Kabul**

Kabul, the home airfield for the 377th Helicopter Regiment and the 373rd Fixed-Wing Transport Regiment, is the only airfield where Afghan aircraft consistently outnumber Soviet aircraft.

[redacted]  
[redacted]

**Shindand Airfield**

Shindand is the home base for the 335th Fighter-Bomber Wing and the 375th Independent Helicopter Battalion. The 335th Wing has been relatively inactive.

[redacted]  
[redacted]

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**Bagram Airfield**

Bagram is the home airfield for the 355th Fighter Wing, which has about 42 MIG-21 Fishbeds, and the 322nd Fighter Wing, which has about 12 SU-22 Fitters. The 355th's relatively [redacted] stable inventory suggest that it is one of the Air Force's better units.

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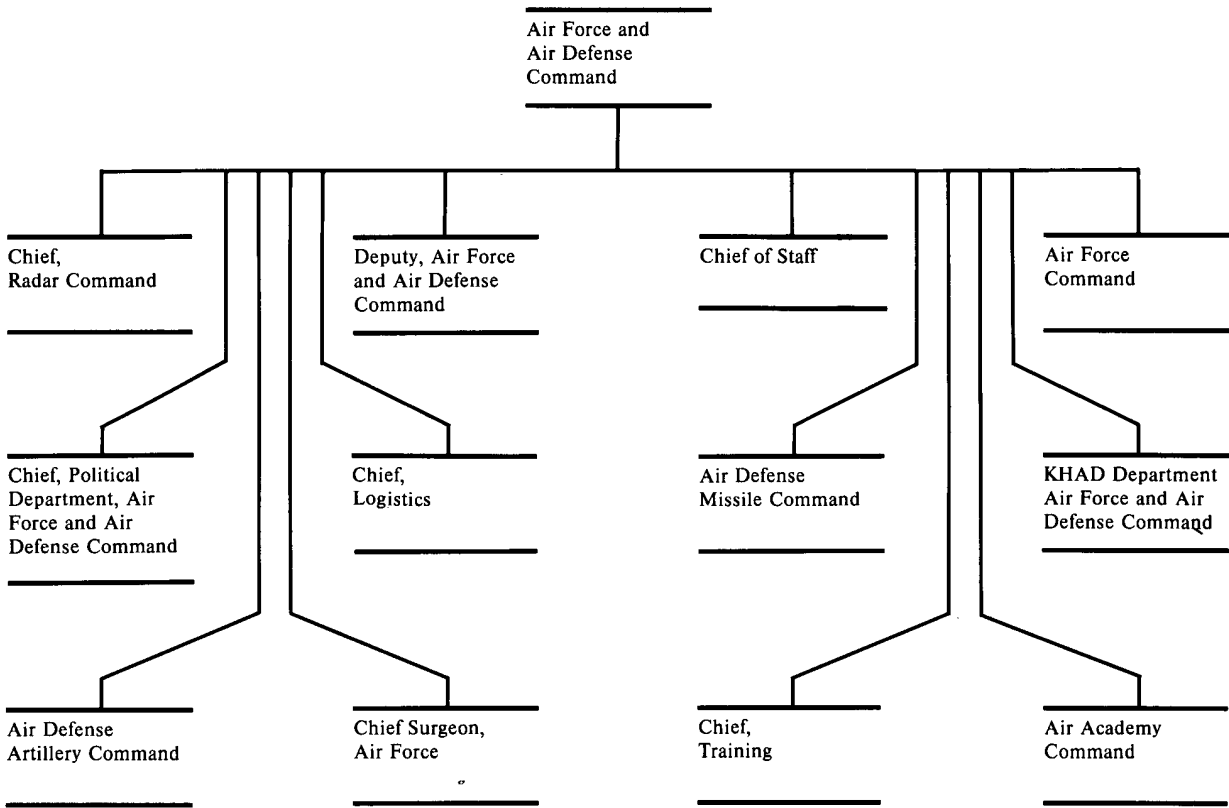
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**Figure 9**  
**Organization of Afghan Air Force/Air Defense Command**



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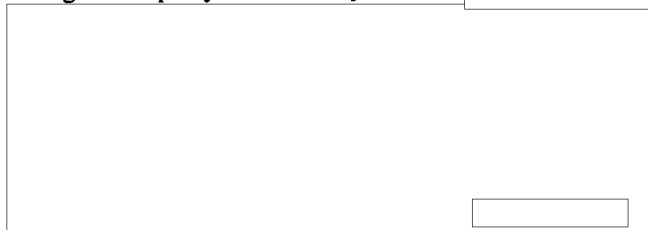
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**Herat Airfield**

Herat is the home of the 376th Independent Helicopter Battalion, which has only two MI-8 Hip helicopters. The unit probably exists mainly to transport high-level party and military officials. [REDACTED]

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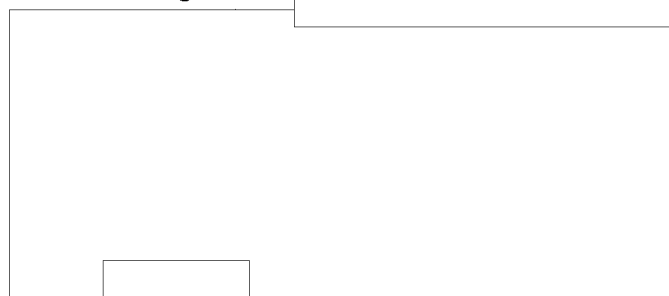
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**Dehdadi/Mazar-e Sharif Airfields**

These two airfields are the main pilot training bases for the Afghan Air Force. [REDACTED]

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[REDACTED] The unit more than doubled in size during the period 1984-85, possibly because of a shift in training from the Soviet Union to Afghanistan. [REDACTED]

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**Figure 10**  
**Major Afghan Airfields and Landing Strips, April 1986**



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**Appendix B**

**Key Figures in the  
Afghan Air Force**

Maj. Gen. Abdul Qader, 50, is the Commander in Chief for Air and Defense Forces and the head of the Afghan Air Force, according to the US Embassy. Qader, a Khalqi, has an engineering background and was the Air Force Chief of Staff from 1980 to 1984. He commanded Bagram Airfield before the Soviet invasion. An Embassy source reports that Kabul would have preferred a pilot for the top position, but the likely candidates were considered to be too young. Qader replaced Maj. Gen. Nazar Mohammad, who became chief of the Armed Forces General Staff in 1984 and subsequently was named Defense Minister.

[redacted]

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The rise of Maj. Gen. Abdul Fatah, who is Air Force commander and in charge of day-to-day operations, reflects the growth of Parchami power, according to the US Embassy. Since Fatah replaced a Khalqi in 1983, he has worked to relegate Khalqis to inconsequential positions. We believe that Fatah, an alternate member of the Communist party Central Committee, may carry more weight than Qader in Afghan political circles because of his Parchami connections.

[redacted]

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[redacted]

[redacted] Fatah is a Soviet-trained SU-22 pilot who commanded Bagram Airfield before becoming Air Force commander.

[redacted]

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The Air Force's political commissar, Mohammad Karim Azizi, and the commander of Air Defense Forces—antiaircraft and related units—Maj. Gen. Abdul Qayum Samadi, are also Parchamis,

[redacted]

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Azizi replaced a Khalqi in 1983.

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