Indian Air Force

Indian Air Force	
 The Crest of the Indian Air Force	
Founded	8 October 1932; 86 years ago
Country	India
Type	Air force
Role	Aerial warfare
Size	139,576 active personnel[1] Approx. 1,720+ aircraft[2][3]
Part of	Indian Armed Forces
Headquarters	New Delhi
Motto(s)	नभः स्पृशं दीप्तम् (Sanskrit) IAST: Nabhaḥ Spr̥śaṁ Dīptam (*Touch the Sky with Glory*)[4]

Colour	Navy blue, sky blue & white
Anniversaries	Air Force Day: 8 October[5]
Engagements	**Notable operations**[show]
Website	indianairforce.nic.in
Commanders	
Chief of the Air Staff (CAS)	Air Chief Marshal Birender Singh Dhanoa, PVSM, AVSM, YSM, VM, ADC
Vice Chief of the Air Staff (VCAS)	Air Marshal Anil Khosla, PVSM, AVSM, VM,[6]
Notable commanders	Marshal of the Indian Air ForceArjan Singh Air Chief Marshal Pratap Chandra Lal Air Marshal Subroto Mukherjee
Insignia	
Ensign	
Roundel	
Fin flash	

Aircraft flown	
Attack	Jaguar, MiG-27, Harpy
Electronic warfare	A-50E/I, DRDO AEW&CS
Fighter	Su-30MKI, Mirage 2000, MiG-29, MiG-21, HAL Tejas
Helicopter	Dhruv, Chetak, Cheetah, Mi-8, Mi-17, Mi-26, Mi-25/35, HAL Light Combat Helicopter, HAL Rudra
Reconnaissance	Searcher II, Heron
Trainer	Hawk Mk 132, HJT-16 Kiran, Pilatus C-7 Mk II
Transport	C-130J, C-17 Globemaster III, Il-76, An-32, HS 748, Do 228, Boeing 737, ERJ 135
Tanker	Il-78 MKI

The **Indian Air Force** (**IAF**) is the air armof the Indian armed forces. Its complement of personnel and aircraft assets ranks fourth amongst the airforces of the world.[7] Its primary mission is to secure Indian airspace and to conduct aerial warfare during armed conflict. It was officially established on 8 October 1932 as an auxiliary air force of the British Empirewhich honored India's aviation service during World War II with the prefix *Royal*.[8] After India gained independence from the United Kingdom in 1947, the name Royal Indian Air Force was kept and served in the name of Dominion of India. With the government's transition to a Republic in 1950, the prefix *Royal* was removed after only three years.[*citation needed*]

Since 1950 the IAF has been involved in four wars with neighboring Pakistan and one with the People's Republic of China. Other major operations undertaken by the IAF include Operation *Vijay*, Operation *Meghdoot*, Operation *Cactus* and Operation *Poomalai*. The IAF's mission expands beyond engagement with hostile forces, with the IAF participating in United Nations peacekeeping missions.

The President of India holds the rank of Supreme Commander of the IAF.[9] As of 1 July 2017, 139,576 personnel are in service with the Indian Air Force.[10][11]The Chief of Air Staff, an air chief marshal, is a four-star officer and is responsible for the bulk of operational command of the Air Force. There is never more than one serving ACM at any given time in the IAF. The rank of Marshal of the Air Force has been conferred by the President of India on one occasion in history, to Arjan Singh. On 26 January 2002 Singh became the first and so far, only five-star rank officer of the IAF.[12]

Mission[edit]

Evolution of the IAF Roundel over the years:

1)1933–1942

2)1942–1945

3)1947–1950

4)1950 – present[13]

The IAF's mission is defined by the Armed Forces Act of 1947, the Constitution of India, and the Air Force Act of 1950.[14] It decrees that in the aerial battlespace:

Defence of India and every part there of including preparation for defence and all such acts as may be conducive in times of war to its prosecution and after its termination to effective demobilisation.

In practice, this is taken as a directive meaning the IAF bears the responsibility of safeguarding Indian airspace and thus furthering national interests in conjunction with the other branches of the armed forces. The IAF provides close air support to the Indian Army troops on the battlefield as well as strategic and tactical airlift capabilities. The Integrated Space Cell is operated by the Indian Armed Forces, the civilian Department of Space, and the Indian Space Research Organisation. By uniting the civilian run space exploration organizations and the military faculty under a single Integrated Space Cell the military is able to efficiently benefit from innovation in the civilian sector of space exploration, and the civilian departments benefit as well.[*clarification needed*][15][16]

The Indian Air Force, with highly trained crews, pilots, and access to modern military assets provides India with the capacity to provide rapid response evacuation, search-and-rescue (SAR) operations, and delivery of relief supplies to affected areas via cargo aircraft.[17] The IAF provided extensive assistance to relief operations during natural calamities such as the Gujarat cyclone in 1998, the tsunami in 2004, and North India floods in 2013.[17] The IAF has also undertaken relief missions such as Operation Rainbow in Sri Lanka.[17]

History[edit]

Main article: History of the Indian Air Force

See also: List of historical aircraft of the Indian Air Force

Formation and early pilots[edit]

A Westland Wapiti, one of the first aircraft of the Indian Air Force.

The Indian Air Force was established on 8 October 1932 in British India as an auxiliary air force[18] of the Royal Air Force. The enactment of the Indian Air Force Act 1932[19][20] stipulated out their auxiliary status and enforced the adoption of the Royal Air Force uniforms, badges, brevets and insignia.[21] On 1 April 1933, the IAF commissioned its first squadron, No.1 Squadron, with four Westland Wapiti biplanes and five Indian pilots. The Indian pilots were led by British RAFCommanding officer Flight Lieutenant (later Air Vice Marshal) Cecil Bouchier.[22]

World War II (1939–1945)[edit]

Main article: India during World War 2

World War II photo: Arjan Singh(middle) as Flight Lieutenant. He went on to become Marshal of the Air Force.

During World War II, the IAF played an instrumental role in halting the advance of the Japanese army in Burma, where the first IAF air strike was executed. The target for this first mission was the Japanese military base in Arakan, after which IAF strike missions continued against the Japanese airbases at Mae Hong Son, Chiang Mai and Chiang Rai in northern Thailand.

The IAF was mainly involved in strike, close air support, aerial reconnaissance, bomber escort and pathfinding[*citation needed*] missions for RAF and USAAFheavy bombers. RAF and IAF pilots would train by flying with their non-native air wings to gain combat experience and communication proficiency. IAF pilots participated in air operations in Europe as part of the RAF.[23]

During the war, the IAF experienced a phase of steady expansion. New aircraft added to the fleet included the US-built Vultee Vengeance, Douglas Dakota, the British Hawker Hurricane, Supermarine Spitfire, and Westland Lysander.

In recognition of the valiant service by the IAF, King George VI conferred the prefix "Royal" in 1945. Thereafter the IAF was referred to as the *Royal Indian Air Force*. In 1950, when India became a republic, the prefix was dropped and it reverted to being the Indian Air Force.

First years of independence (1947–1950)[edit]

Refugees awaiting evacuation by IAF Dakota on Poonch airstrip, December 1947.

After it became independent from the British Empire in 1947, British India was partitioned into the new states of the Dominion of India and the Dominion of Pakistan. Along the lines of the geographical partition, the assets of the air force were divided between the new countries. India's air force retained the name of the Royal Indian Air Force, but three of the ten operational squadrons and facilities, located within the borders of Pakistan, were transferred to the Royal Pakistan Air Force.[24] The RIAF Roundel was changed to an interim 'Chakra' roundel derived from the Ashoka Chakra.[13]

Around the same time, conflict broke out between them over the control of the princely state of Jammu & Kashmir. With Pakistani forces moving into the state, its Maharaja decided to accede to India in order to receive military help.[25] The day after, the Instrument of Accession was signed, the RIAF was called upon to transport troops into the war zone. And this was when a good management of logistics came into help.[25] This led to the eruption of full-scale war between India and Pakistan, though there was no formal declaration of war.[26] During the war, the RIAF did not engage the Pakistan Air Force in air-to-air combat; however, it did provide effective transport and close air support to the Indian troops.[27]

When India became a republic in 1950, the prefix 'Royal' was dropped from the Indian Air Force.[28] At the same time, the current IAF roundel was adopted.[13]

Congo crisis and Annexation of Goa (1960–1961)[edit]

The IAF saw significant conflict in 1960, when Belgium's 75-year rule over Congo ended abruptly, engulfing the nation in widespread violence and rebellion.[29] The IAF activated No. 5 Squadron, equipped with English Electric Canberra, to support the United Nations Operation in the Congo. The squadron started undertaking operational missions in November.[30] The unit remained there until 1966, when the UN mission ended.[30] Operating from Leopoldville and Kamina, the Canberras soon destroyed the rebel Air Force and provided the UN ground forces with its only long-range air support force.[31]

In late 1961, the Indian government decided to attack the Portuguese colony of Goa after years of disagreement between New Delhi and Lisbon.[32] The Indian Air Force was requested to provide support elements to the ground force in what was called Operation Vijay. Probing flights by some fighters and bombers were carried out from 8–18 December to draw out the Portuguese Air Force, but to no avail.[32] On 18 December, two waves of Canberra bombers bombed the runway of Dabolim airfield taking care not to bomb the Terminals and the ATC tower. Two Portuguese transport aircraft (a Super Constellation and a DC-6) found on the airfield were left alone so that they could be captured intact. However the Portuguese pilots managed to take off the aircraft from the still damaged airfield and made their getaway to Portugal.[32] Hunters attacked the wireless station at Bambolim. Vampires were used to provide air support to the ground forces.[32] In Daman, Mystères were used to strike Portuguese gun positions.[32] Ouragans (called Toofanis in the IAF) bombed the runways at Diu and destroyed the control tower, wireless station and the meteorological station. After the Portuguese surrendered the former colony was integrated into India.[32]

Border disputes and changes in the IAF (1962–1971)[edit]

See also: Aerial warfare in 1965 India Pakistan War

In 1962, border disagreements between China and India escalated to a war when China mobilised its troops across the Indian border.[33] During the Sino-Indian War, India's military planners failed to deploy and effectively use the IAF against the invading Chinese forces. This resulted in India losing a significant amount of advantage to the Chinese; especially in Jammu and Kashmir.[33]

Three years after the Sino-Indian conflict, in 1965, Pakistan launched Operation Gibraltar, strategy of Pakistan to infiltrate Jammu and Kashmir, and start a rebellion against Indian rule. This came to be known as the Second Kashmir War.[34] This was the first time the IAF actively engaged an enemy air force.[35] However, instead of providing close air support to the Indian Army,[36] the IAF carried out

independent raids against PAF bases.[37] These bases were situated deep inside Pakistani territory, making IAF fighters vulnerable to anti-aircraft fire.[38]During the course of the conflict, the PAF enjoyed technological superiority over the IAF and had achieved substantial strategic and tactical advantage due to their sudden attack and whole hearted diplomatic and military support from the US and Britain.[34] The IAF was restrained by the government from retaliating to PAF attacks in the eastern sector while a substantive part of its combat force was deployed there and could not be transferred to the western sector, against the possibility of Chinese intervention. Moreover, international (UN) stipulations and norms did not permit military force to be introduced into the Indian state of J&K beyond what was agreed during the 1949 ceasefire.[34] Despite this, the IAF was able to prevent the PAF from gaining air superiority over conflict zones.[39] The small and nimble IAF Folland Gnats proved effective against the F-86 Sabres of the PAF earning it the nickname "Sabre Slayers".[40] By the time the conflict had ended, the IAF lost 60–70 aircraft, while the PAF lost 43 aircraft.[34] More than 60% of IAF's aircraft losses took place in Ground Attack missions to enemy ground-fire, since fighter-bomber aircraft would carry out repeated dive attacks on the same target. According to, Air Chief Marshal Arjan Singh of the Indian Air Force, despite having been qualitatively inferior, IAF achieved air superiority in three days in the 1965 War[41]

HAL HF-24 Marut, the first indigenous fighter jet to enter service with the IAF.

After the 1965 war, the IAF underwent a series of changes to improve its capabilities. In 1966, the Para Commandos regiment was created.[42] To increase its logistics supply and rescue operations ability, the IAF inducted 72 HS 748s which were built by Hindustan Aeronautics Limited (HAL) under license from Avro.[43]India started to put more stress on indigenous manufacture of fighter aircraft. As a result, HAL HF-24 Marut, designed by the famed German aerospace engineer Kurt Tank,[44] were inducted into the air force. HAL also started developing an improved version of the Folland Gnat, known as HAL Ajeet.[45] At the same time, the IAF also started inducting Mach 2 capable Soviet MiG-21 and Sukhoi Su-7 fighters.[46]

Bangladesh Liberation War (1971)[edit]

By late 1971, the intensification of the independence movement in erstwhile East Pakistan lead to the Bangladesh Liberation War between India and Pakistan.[47] On 22 November 1971, 10 days before the start of a full-scale war, four PAF F-86 Sabre jets attacked Indian and Mukti Bahini positions at Garibpur, near the international border. Two of the four PAF Sabres were shot down and one damaged by the IAF's Folland Gnats.[48] On 3 December, India formally declared war against Pakistan following massive preemptive strikes by the PAF against Indian Air Force installations in Srinagar, Ambala, Sirsa, Halwara and Jodhpur. However, the IAF did not suffer significantly because the leadership had anticipated such a move and precautions were taken.[49] The Indian Air Force was quick to respond to Pakistani air strikes, following which the PAF carried out mostly defensive sorties.[50]

Within the first two weeks, the IAF had carried out almost 12,000 sorties over East Pakistan and also provided close air support to the advancing Indian Army.[51] IAF also assisted the Indian Navy in its operations against the Pakistani Navy and Maritime Security Agency in the Bay of Bengal and Arabian Sea. On the western front, the IAF destroyed more than 20 Pakistani tanks,[52] 4 APCs and a supply train during the Battle of Longewala.[53] The IAF undertook strategic bombing of West Pakistan by carrying out raids on oil installations in Karachi, the Mangla Dam and a gas plant in Sindh.[54] Similar strategy was also deployed in East Pakistan and as the IAF achieved complete air superiority on the eastern front, the ordnance factories, runways, and other vital areas

of East Pakistan were severely damaged.[55]By the time Pakistani forces surrendered, the IAF destroyed 94 PAF Aircraft[56] The IAF was able to conduct a wide range of missions – troop support; air combat; deep penetration strikes; para-dropping behind enemy lines; feints to draw enemy fighters away from the actual target; bombing; and reconnaissance. In contrast, the Pakistan Air Force, which was solely focused on air combat, was blown out of the subcontinent's skies within the first week of the war. Those PAF aircraft that survived took refuge at Iranian air bases or in concrete bunkers, refusing to offer a fight.[57] Hostilities officially ended at 14:30 GMT on 17 December, after the fall of Dacca on 15 December. India claimed large gains of territory in West Pakistan (although pre-war boundaries were recognised after the war), and the independence of Pakistan's East wing as Bangladesh was confirmed. The IAF had flown over 16,000 sorties[51] on both East and West fronts; including sorties by transport aircraft and helicopters.[51] while the PAF flew about 30 and 2,840. More than 80 percent of the IAF's sorties were close-support and interdiction, and according to neutral assessments about 45 IAF Aircraft were lost while, Pakistan lost 75 aircraft.[58] Not including any F-6s, Mirage IIIs, or the six Jordanian F-104s which failed to return to their donors. But the imbalance in air losses was explained by the IAF's considerably higher sortie rate, and its emphasis on ground-attack missions. On the ground Pakistan suffered most, with 9,000 killed and 25,000 wounded while India lost 3,000 dead and 12,000 wounded. The loss of armoured vehicles was similarly imbalanced. This represented a major defeat for Pakistan.[59] Towards the end of the war, IAF's transport planes dropped leaflets over Dhaka urging the Pakistani forces to surrender, demoralising Pakistani troops in East Pakistan.[60]

Incidents before Kargil (1984–1988)[edit]

In 1984, India launched Operation Meghdoot to capture the Siachen Glacier in the contested Kashmir region.[61] In Op Meghdoot, IAF's Mi-8, Chetak and Cheetah helicopters airlifted hundreds of Indian troops to Siachen.[62] Launched on 13 April 1984, this military operation was unique because of Siachen's inhospitable terrain and climate. The military action was successful, given the fact that under a previous agreement, neither Pakistan nor India had stationed any personnel in the area. With India's successful Operation *Meghdoot*, it gained control of the Siachen Glacier. India has established control over all of the 70 kilometres (43 mi) long Siachen Glacier and all of its tributary glaciers, as well as the three main passes of the Saltoro Ridge immediately west of the glacier—Sia La, Bilafond La, and Gyong La. Pakistan controls the glacial valleys immediately west of the Saltoro Ridge.[63][64] According to *TIME* magazine, India gained more than 1,000 square miles (3,000 km^2) of territory because of its military operations in Siachen.[65]

IAF An-32s were used to airdrop humanitarian supplies in Operation Poomalai.

Following the inability to negotiate an end to the Sri Lankan Civil War, and to provide humanitarian aid through an unarmed convoy of ships,[66] the Indian Government decided to carry out an airdrop of the humanitarian supplies on the evening of 4 June 1987 designated Operation Poomalai (Tamil: Garland) or Eagle Mission 4.[66] Five An-32s escorted by four Mirage 2000 of 7 Sqn AF, 'The Battleaxes', carried out the supply drop which faced no opposition from the Sri Lankan Armed Forces. Another Mirage 2000 orbited 150 km away, acting as an airborne relay of messages to the entire fleet since they would be outside radio range once they descended to low levels. The Mirage

2000 escort formation was led by Wg Cdr Ajit Bhavnani, with Sqn Ldrs Bakshi, NA Moitra and JS Panesar as his team members and Sqn Ldr KG Bewoor as the relay pilot.[66][67] Sri Lanka accused India of "blatant violation of sovereignty".[66] India insisted that it was acting only on humanitarian grounds.[66]

In 1987, the IAF supported the Indian Peace Keeping Force (IPKF) in northern and eastern Sri Lanka in Operation Pawan. About 70,000 sorties were flown by the IAF's transport and helicopter force in support of nearly 100,000 troops and paramilitary forces without a single aircraft lost or mission aborted.[68] IAF An-32s maintained a continuous air link between air bases in South India and Northern Sri Lanka transporting men, equipment, rations and evacuating casualties.[68] Mi-8s supported the ground forces and also provided air transportation to the Sri Lankan civil administration during the elections.[68] Mi-25s of No. 125 Helicopter Unit were utilised to provide suppressive fire against militant strong points and to interdict coastal and clandestine riverine traffic.[68]

On the night of 3 November 1988, the Indian Air Force mounted special operations to airlift a parachute battalion group from Agra, non-stop over 2,000 kilometres to the remote Indian Ocean archipelago of the Maldives in response to Maldivian president Gayoom's request for military help against a mercenary invasion in Operation Cactus. The IL-76s of No. 44 Squadron landed at Hulhule at 0030 hours and the Indian paratroopers secured the airfield and restored Government rule at Male within hours.[69] Four Mirage 2000 aircraft of 7 Sqn, led by Wg Cdr AV 'Doc' Vaidya, carried out a show of force early that morning, making low-level passes over the islands.

Kargil War (1999)[edit]

On 11 May 1999, the Indian Air Force was called in to provide close air support to the Indian Army at the height of the ongoing Kargil conflict with the use of helicopters.[69] The IAF strike was code named Operation Safed Sagar.[69] The first strikes were launched on 26 May, when the Indian Air Force struck infiltrator positions with fighter aircraft and helicopter gunships.[70]The initial strikes saw MiG-27s carrying out offensive sorties, with MiG-21s and later MiG-29sproviding fighter cover.[71] The IAF also deployed its radars and the MiG-29 fighters in vast numbers to keep check on Pakistani military movements across the border.[72] Srinagar Airport was at this time closed to civilian air-traffic and dedicated to the Indian Air Force.[70]

On 27 May, the Indian Air Force suffered its first fatality when it lost a MiG-21 and a MiG-27 in quick succession.[notes 1][73][74] The following day, while on an offensive sortie, a Mi-17 was shot down by three Stinger missiles and lost its entire crew of four.[71] Following these losses the IAF immediately withdrew helicopters from offensive roles as a measure against the threat of Man-portable air-defence systems (MANPAD). On 30 May, the Mirage 2000s were introduced in offensive capability, as they were deemed better in performance under the high-altitude conditions of the conflict zone. Mirage 2000s were not only better equipped to counter the MANPAD threat compared to the MiGs, but also gave IAF the ability to carry out aerial raids at night. The MiG-29s were used extensively to provide fighter escort to the Mirage 2000.[75]Radar transmissions of Pakistani F-16s were picked up repeatedly, but these aircraft stayed away. The Mirages successfully targeted enemy camps and logistic bases in Kargil and severely disrupted their supply lines.[76] Mirage 2000s were used for strikes on Muntho Dhalo and the heavily defended Tiger Hill and paved the way for their early recapture.[71] At the height of the conflict, the IAF was conducting over forty sorties daily over the Kargil region.[75]By 26 July, the Indian forces had successfully repulsed the Pakistani forces from Kargil.[77]

Post Kargil incidents (1999–present)[edit]

On 10 August 1999, IAF MiG-21s intercepted a Pakistan Navy Breguet Atlantique which was flying over Sir Creek, a disputed territory. The aircraft was shot down killing all 16 Pakistani Navy personnel on board.[78] India claimed that the Atlantic was on a mission to gather information on IAF

air defence,[79] a charge emphatically rejected by Pakistan which argued that the unarmed aircraft was on a training mission.[80]

Since the late 1990s, the Indian Air Force has been modernising its fleet to counter challenges in the new century. The fleet size of the IAF has decreased to 33 squadrons during this period because of the retirement of older aircraft. Still, India maintains the fourth largest air force in the world. The IAF plans to raise its strength to 42 squadrons.[81] Self-reliance is the main aim that is being pursued by the defence research and manufacturing agencies.

On 20 August 2013, the Indian Air Force created a world record by performing the highest landing of a C-130J at the Daulat Beg Oldi airstrip in Ladakh at the height of 16614 feet (5065 meters).[82][83] The medium-lift aircraft will be used to deliver troops, supplies and improve communication networks. The aircraft belonged to the *Veiled Vipers* squadron based at Hindon Air Force Station.[84]

On 13 July 2014, two MiG-21s were sent from Jodhpur Air Base to investigate a Turkish Airlines aircraft over Jaisalmer when it repeated an identification code, provided by another commercial passenger plane that had already entered Indian airspace before it. The flights were on their way to Mumbai and Delhi, and the planes were later allowed to proceed after their credentials were verified.[85]

On 25 July 2014, an advanced landing helicopter crashed in a field near Sitapur in Uttar Pradesh, on its way to Allahabad from Bareilly. At least 7 people were killed as a result.[86]

On 28 March 2014, C-130J-30 KC-3803 crashed near Gwalior, India, killing all 5 personnel aboard.[87][88][89] The aircraft was conducting low level penetration training by flying at around 300 ft when it ran into wake turbulence from another aircraft in the formation, which caused it to crash.[90]

On 2 January 2016, the Pathankot Air Force Station was attacked by terrorists resulting in seven casualties.[91]

On 22 November 2017 at 10:40 AM, the IAF conducted the first test launch from air of the 2.8 Mach surface attack Brahmos missile.[92]

Structure[edit]

The President of India is the Supreme Commander of all Indian armed forces and by virtue of that fact is the national Commander-in-chief of the Air Force. The Chief of the Air Staff with the rank of air chief marshal is the Commander of the Indian Air Force. He is assisted by six officers, all with the rank of air marshal:

Post	Current Holder
Chief of the Air Staff	Air Chief Marshal Birender Singh Dhanoa, PVSM, AVSM, YSM, VM
Vice Chief of the Air Staff	Air Marshal Anil Khosla, PVSM, AVSM, VM[93][6]
Deputy Chief of the Air Staff	Air Marshal V R Chaudhari, AVSM, VM[94]

Air Officer in Charge of Administration	Air Marshal Pradeep Padmakar Bapat, VSM[95]
Air Officer in Charge of Personnel	Air Marshal B Suresh, AVSM, VM[96]
Air Officer in Charge of Maintenance	Air Marshal R K S Shera, AVSM, VSM[97]
Director General of Inspection and Flight Safety	Air Marshal S Harpal Singh, AVSM, SM[98]
Director General of Air Operations	Air Marshal Amit Dev, VSM[99]
Director General of Works and Ceremonial	Air Marshal MSG Menon, VSM[100][101]
Director General of Medical Services (Air)	Air Marshal Pawan Kapoor, VSM Bar, PHS[102][103]

In January 2002, the government conferred the rank of Marshal of the Air Force on Arjan Singhmaking him the first and only *Five-star* officer with the Indian Air Force and ceremonial chief of the air force.[104]

Commands[edit]

The Indian Air Force is divided into five operational and two functional commands. Each Command is headed by an Air Officer Commanding-in-Chief with the rank of Air Marshal. The purpose of an operational command is to conduct military operations using aircraft within its area of responsibility, whereas the responsibility of functional commands is to maintain combat readiness. Aside from the Training Command at Bangalore, the primary flight training is done at the Air Force Academy, Dundigul (located in Hyderabad), followed by operational training at various other schools. Advanced officer training for command positions is also conducted at the Defence Services Staff College; specialised advanced flight training schools are located at Bidar, Karnataka and Hakimpet, Telangana (also the location for helicopter training). Technical schools are found at a number of other locations.[105]

Name	Headquarters	Commander
Central Air Command (CAC)	Allahabad, Uttar Pradesh	Air Marshal Shyam Bihari Prasad Sinha
Eastern Air Command (EAC)	Shillong, Meghalaya	Air Marshal Raghunath Nambiar[106]

Name	Headquarters	Commander
Southern Air Command(SAC)	Thiruvananthapuram, Kerala	Air Marshal Balakrishnan Suresh[107]
South Western Air Command(SWAC)	Gandhinagar, Gujarat	Air Marshal Harjit Singh Arora[108][109]
Western Air Command(WAC)	New Delhi	Air Marshal Chandrashekharan Hari Kumar
Training Command (TC)+	Bangalore, Karnataka	Air Marshal Rakesh Kumar Singh Bhadauria
Maintenance Command(MC)+	Nagpur, Maharashtra	Air Marshal Hemant Sharma

Note: + = Functional Command

Stations[edit]

Main article: List of Indian Air Force stations

Within each operational command are anywhere from nine to sixteen bases or stations, each commanded by an air commodore. A station typically has one wing and one or two squadrons assigned to it.

Wings[edit]

Indian Air Force

Nabha Sparsham Deeptam

"Touch the Sky with Glory"

Headquarters

- New Delhi

History and traditions

- History of the Indian Air Force
- Future of the Indian Air Force

Aircraft

- Active Indian Air Force aircraft
- History of Indian Air Force aircraft

Installations

- Bases

Exercises

- List of exercises of the Indian Air Force

Personnel

- Chief of Air Staff
- Ranks and insignia
- Garud Commandos

- v
- t
- e

A wing is a formation intermediate between a command and a squadron. It generally consists of two or three IAF squadrons and helicopter units, along with forward base support units (FBSU). FBSUs do not have or host any squadrons or helicopter units but act as transit airbases for routine operations. In times of war, they can become fully fledged air bases playing host to various squadrons. In all, about 47 wings and 19 FBSUs make up the IAF.[110][111] Wings are typically commanded by a group captain.

Squadrons and units[edit]

Squadrons are the field units and formations attached to static locations. Thus, a flying squadron or unit is a sub-unit of an air force station which carries out the primary task of the IAF. A fighter squadron consists of 18 aircraft; all fighter squadrons are headed by a commanding officer with the rank of wing commander.[112] Some transport squadrons and helicopter units are headed by a commanding officer with the rank of group captain.

Flights[edit]

Flights are sub-divisions of squadrons, commanded by a squadron leader. Each flight consists of two sections.[113]

Sections[edit]

The smallest unit is the section, led by a flight lieutenant. Each section consists of three aircraft.

Within this formation structure, IAF has several service branches for day-to-day operations. They are:[114]

Flying Branch **Technical Branch** **Ground Branch**

- Flying
- Engineering
- Logistics
- Administration
- Accounts
- Education
- Medical & Dental
- Meteorological

Garud Commando Force[edit]

This section **needs additional citations for verification**.Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed. *(October 2018) (Learn how and when to remove this template message)*

Main article: Garud Commando Force

In September 2004, the IAF established its own special operation unit called the Garud Commando Force, consisting of approximately 1,500 personnel. For starting this special force volunteers from existing trades were called and sent for commando and specialised training at various institutes of army and other forces. The airmen who successfully completed all course were inducted in Garud force, while special recruitment and selections from various IAF training institute were made for selecting young air warriors for Garud SF. By doing this IAF got two set of personnel for its SF, i.e. experienced senior lot with experience of working in various IAF units and younger airmen who can be groomed and brought up to the standards of SF. The unit derives its name from *Garuda*, a divine mythical bird of Hindu Mythology, but more commonly the word for Garuda in Sanskrit. Garud is tasked with the protection of critical installations; During hostilities, Garuds undertake combat search and rescue, rescue of downed airmen and other forces from behind enemy lines, suppression of enemy air defence (SEAD), radar busting, combat control, missile and munitions guidance ("lasing" of targets) and other missions in support of air operations. It has been suggested that they undertake an offensive role including raids on enemy air bases etc. during times of war.

Apart from protecting air bases from sabotage and attacks by commando raids, they are also tasked to seal off weapons systems, fighter hangars and other major systems during intrusions and conflicts. and disaster relief during calamities.[115]

Integrated Space Cell[edit]

Main article: Integrated Space Cell

An Integrated Space Cell, which will be jointly operated by all the three services of the Indian armed forces, the civilian Department of Space and the Indian Space Research Organisation (ISRO) has been set up to utilise more effectively the country's space-based assets for military purposes.[15][16] This command will leverage space technology including satellites. Unlike an aerospace command, where the air force controls most of its activities, the Integrated Space Cell envisages co-operation and co-ordination between the three services as well as civilian agencies dealing with space.[116]

India currently has 10[117] remote sensing satellites in orbit. Though most are not meant to be dedicated military satellites, some have a spatial resolution of 1 metre or below which can be also used for military applications. Noteworthy satellites include the Technology Experiment Satellite (TES) which has a panchromatic camera (PAN) with a resolution of 1-metre,[118] the RISAT-2 which is capable of imaging in all-weather conditions and has a resolution of one metre,[119] the CARTOSAT-2, CARTOSAT-2A[120][121] and CARTOSAT-2B[122] which carries a panchromatic camera which has a resolution of 80 centimetres (black and white only).

Display teams[edit]

Main articles: Surya Kiran and Sarang

Sarang display team

The Surya Kiran Aerobatic Team (SKAT) (*Surya Kiran*is Sanskrit for *Sun Rays*) is an aerobaticsdemonstration team of the Indian Air Force. They were formed in 1996 and are successors to the *Thunderbolts*.[123] The team has a total of 13 pilots (selected from the fighter stream of the IAF) and operate 9 HAL HJT-16 Kiran Mk.2 trainer aircraft[123]painted in a "day-glo orange" and white colour scheme. The Surya Kiran team were conferred squadron status in 2006, and presently have the designation of 52 Squadron (*"The Sharks"*).[124] The team is based at the Indian Air Force Station at Bidar.[123] The IAF has begun the process of converting Surya Kirans to BAE Hawks.[125]

Sarang (Sanskrit for *Peacock*) is the Helicopter Display Team of the Indian Air Force. The team was formed in October 2003 and their first public performance was at the Asian Aerospace Show, Singapore, 2004.[126] The team flies four HAL Dhruvs[127] painted in red and white with a peacock figure at each side of the fuselage. The team is based at the Sulur Air Force Station, Coimbatore.

Personnel[edit]

Officers of the IAF in their uniform.

Over the years reliable sources provided notably divergent estimates of the personnel strength of the Indian Air Force after analysing open-source intelligence. The public policy organisation GlobalSecurity.org had estimated that the IAF had an estimated strength of 110,000 active personnel in 1994.[105] In 2006, Anthony Cordesman estimated that strength to be 170,000 in the International Institute for Strategic Studies (IISS) publication *"The Asian Conventional Military Balance in 2006"*.[128] In 2010, James Hackett revised that estimate to an approximate strength of 127,000 active personnel in the IISS publication *"Military Balance 2010"*.[129]

As of 1 July 2017, the Indian Air Force has a sanctioned strength of 12,550 officers (12,404 serving with 146 under strength), and 142,529 airmen (127,172 serving with 15,357 under strength).[10][11]

Rank structure[edit]

Main article: Air Force ranks and insignia of India

The rank structure of the Indian Air Force is based on that of the Royal Air Force. The highest rank attainable in the IAF is Marshal of the Indian Air Force, conferred by the President of India after exceptional service during wartime. MIAF Arjan Singh is the only officer to have achieved this rank. The head of the Indian Air Force is the Chief of the Air Staff, who holds the rank of Air Chief Marshal.

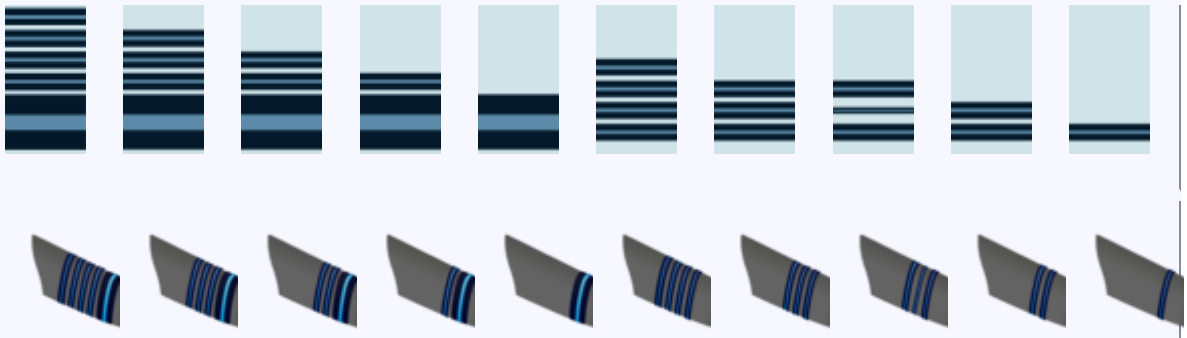
Officers[edit]

Anyone holding Indian citizenship can apply to be an officer in the Air Force as long as they satisfy the eligibility criteria. There are four entry points to become an officer. Male applicants, who are between the ages of 161/2 and 19 and have passed high school graduation, can apply at the *Intermediate* level.[130] Men and women applicants, who have graduated from college (three-year course) and are between the ages of 18 and 28, can apply at the *Graduate* level entry.[131] Graduates of engineering colleges can apply at the *Engineer* level if they are between the ages of 18 and 28 years. The age limit for the flying and ground duty branch is 23 years of age and for technical branch is 28 years of age.[132] After completing a master's degree, men and women between the ages of 18 and 28 years can apply at the *Post Graduate*level. Post graduate applicants do not qualify for the flying branch. For the technical branch the age limit is 28 years and for the ground duty branch it is 25.[133] At the time of application, all applicants below 25 years of age must be single.[134] The IAF selects candidates for officer training from these applicants. After completion of training, a candidate is commissioned as a Flying Officer.[135]

show

Equivalent ranks of Indian military

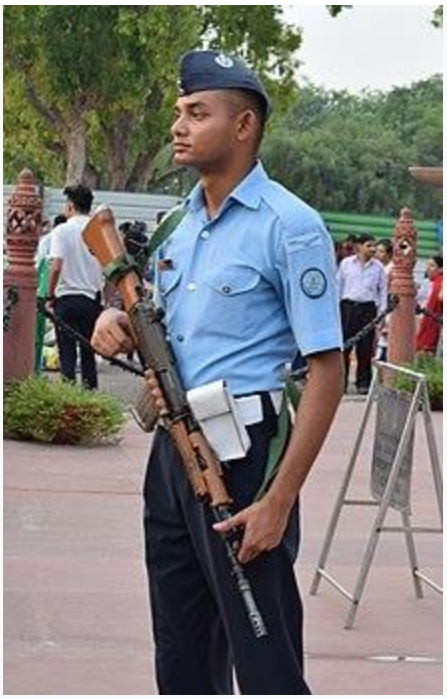
Ranks of the Indian Air Force – Officer Ranks



Rank	Marshal of the Air Force[1]	Air Chief Marshal[2]	Air Marshal	Air Vice Marshal	Air Commodore	Group Captain	Wing Commander	Squadron Leader	Flight Lieutenant	Flying Officer

- [1] Honorary/War time rank
- [2] Held only by the Chief of Air Staff

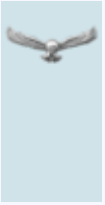
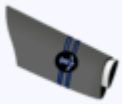
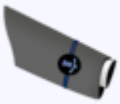
Airmen[edit]



An Aircraftsman of the Indian Air Force with his uniform, Shoulder Rank Patch and INSAS rifle standing guard at the India Gate memorial at New Delhi.

The duty of an airman is to make sure that all the air and ground operations run smoothly. From operating Air Defence systems to fitting missiles, they are involved in all activities of an air base and give support to various technical and non-technical jobs.[136] The airmen of Technical trades are responsible for maintenance, repair and prepare for use the propulsion system of aircraft and other airborne weapon delivery system, Radar, Voice/Data transmission and reception equipment, latest airborne weapon delivery systems, all types of light, mechanical, hydraulic, pneumatic systems of airborne missiles, aero engines, aircraft fuelling equipment and heavy duty mechanical vehicles, cranes and loading equipment etc.[137] The competent and qualified Airmen from Technical trades also participate in flying as Flight Engineers, Flight Signallers and Flight Gunners. The recruitment of personnel below officer rank is conducted through All India Selection Tests and Recruitment Rallies. All India Selection Tests are conducted among 15 Airmen Selection Centres (ASCs) located all over India. These centres are under the direct functional control of Central Airmen Selection Board (CASB), with administrative control and support by respective commands. The role of CASB is to carry out selection and enrolment of airmen from the Airmen Selection Centres for their respective commands.[136]Candidates initially take a written test at the time of application. Those passing the written test undergo a physical fitness test, an interview conducted in English, and medical examination. Candidates for training are selected from individuals passing the battery of tests, on the basis of their performance. Upon completion of training, an individual becomes an Airman.[136] Some MWOs and WOs are granted honorary commission in the last year of their service as an honorary Flying Officer or Flight Lieutenant before retiring from the service.[136]

Airmen during Air Force Day celebration. The logo (roundel) of IAF can be seen on the aircraft.

Ranks of the Indian Air Force – enlisted ranks								
	Junior commissioned officer				Enlisted			
Shoulder				Arm				
Sleeve								
Rank	Master warrant officer	Warrant officer	Junior warrant officer		Sergeant	Corporal	Leading aircraftsman	Aircraftsman

Honorary officers[edit]

- Sachin Tendulkar was the first sportsperson and the first civilian without an aviationbackground to be awarded the honorary rank of group captain by the Indian Air Force.[138]

Non combatants enrolled and civilians[edit]

Non combatants enrolled (NCs(E)) were established in British India as personal assistants to the officer class, and are equivalent to the *orderly* or *sahayak* of the Indian Army.[139]

Almost all the commands have some percentage of civilian strength which are central government employees. These are regular ranks which are prevalent in ministries. They are usually not posted outside their stations and are employed in administrative and non-technical work.[140][141]

Training and education[edit]

Main article: Military academies in India

The Indian Armed Forces have set up numerous military academies across India for training its personnel, such as the National Defence Academy (NDA). Besides the tri-service institutions, the Indian Air Force has a Training Command and several training establishments. While technical and other support staff are trained at various Ground Training Schools, the pilots are trained at the Air Force Academy, Dundigul (located in Hyderabad). The Pilot Training Establishment at Allahabad, the Air Force Administrative College at Coimbatore, the Institute of Aerospace Medicine at Bangalore, the Air Force Technical College, Bangalore at Jalahalli, the Tactics and Air Combat and Defence Establishment at Gwalior, and the Paratrooper's Training School at Agra are some of the other training establishments of the IAF.

Aircraft[edit]

Main article: List of active Indian military aircraft

An Indian SU-30K Flanker landing at Gwalior airbase

A C-130J Hercules on approach

Antonov An-32B at Leh Airbase.

A Mil Mi-17 helicopter

An Ilyushin Il-78MKI at RIAT 2007

An AEW&C Embraer ERJ 145

A HAL Dhruv on the Indian Air Force Sarang display team

See also: List of historical aircraft of the Indian Air Force

The Indian Air Force has aircraft and equipment of Russian (erstwhile Soviet Union), British, French, Israeli, US and Indian origins with Russian aircraft dominating its inventory. HAL produces some of the Russian and British aircraft in India under licence. The exact number of aircraft in service with the Indian Air Force cannot be determined with precision from open sources. Various reliable sources provide notably divergent estimates for a variety of high-visibility aircraft.[142] Flight International estimates there to be around 1,721 aircraft in service with the IAF.[2] While the International Institute for Strategic Studies provides a similar estimate of 1,724 aircraft.[3] Both

sources agree there are approximately 900 combat capable (fighter, attack etc.) aircraft in the IAF.[2][3]

Multi-role fighters and strike aircraft[edit]

- Sukhoi Su-30MKI: The IAF's primary air superiority fighter with the additional capability to conduct air-ground (strike) missions is Sukhoi Su-30MKI. The IAF have placed an order for a total of 272 Su-30MKIs[143] of which 242[144] are in service as of January 2016.
- Mikoyan MiG-29: The Mikoyan MiG-29 known as *Baaz* (Hindi for Hawk) is a dedicated air superiority fighter and constitutes a second line of defence after the Sukhoi Su-30MKI. 69 MiG-29s are in service, all of which have been recently upgraded to the MiG-29UPG standard.[145]
- Dassault Mirage 2000: The Dassault Mirage 2000, known as *Vajra* (Sanskrit for Diamond or thunderbolt) in Indian service, is the primary multirole fighter, the IAF currently operates 49 Mirage 2000Hs and 8 Mirage 2000 TH all of which are currently being upgraded to the Mirage 2000-5 MK2 standard with Indian specific modifications and 2 Mirage 2000-5 MK2 are in service as of March 2015.[146][147]
- HAL Tejas: The MiG-21s are planned to be replaced by the indigenously built HAL Tejas.[148][149] The first Tejas IAF unit, No. 45 Squadron IAF *Flying Daggers* was formed on 1 July 2016 with two aircraft. Initially being stationed at Bangalore, the first squadron will be placed at its home base at Sulur, Tamil Nadu.[150] The Tejas will comprise 40 aircraft of the MK1 variant and 83 of the MK1A variant. The latter will have an AESA radar, improved EW fit and internal changes for ease of maintenance.

Tejas

- SEPECAT Jaguar: The SEPECAT Jaguar known as *Shamsher* serves as the IAF's primary ground attack force.[151] The IAF currently operates 139 Jaguars.[152] The first batch of DARIN-1 Jaguars are now going through a DARIN-3 upgrade being equipped with EL/M-2052 AESA radars, and an improved jamming suite plus new avionics.
- Mikoyan MiG-27: The Mikoyan MiG-27 known as *Bahadur* (Hindi for Valiant) serves as the IAF's primary ground attack force. The IAF currently operates over 85 MiG-27s.[153] The type will be phased out soon to account for increasing serviceability concerns and 40 of them have been upgraded for improved strike missions, including laser designation and with self-protection jamming
- Mikoyan-Gurevich MiG-21: The Mikoyan-Gurevich MiG-21 serves as an Interceptor aircraft in the IAF. The IAF have phased out most of its MiG-21s and plans to keep only 125 that have been upgraded to MiG-

21 Bison standard.[154] These aircraft will be phased out between 2014 and 2017.[155]

Airborne early warning and control system[edit]

The IAF is currently training the crew in operating the indigenously developed DRDO AEW&CSflying on the Embraer ERJ 145 aircraft. The IAF also operates the EL/W-2090 Phalcon AEW&C incorporated in a Beriev A-50 platform. A total of 3 such systems are currently in service, with possible orders for 2 more.[156][157][158] The two extra Phalcons are currently in negotiation over price differences between Russia and India. India is also going ahead with Project India, an inhouse AWACS program to develop and deliver 6 Phalcon class AWACS, based on DRDO work on the smaller AEW&CS.

Aerial refuelling[edit]

The IAF currently operates 7 Ilyushin Il-78MKIs in the aerial refuelling (tanker) role.[159][160]

Transport aircraft[edit]

Boeing C-17 Globemaster III

For strategic airlift operations the IAF uses the Ilyushin Il-76, known as *Gajraj* (Hindi for King Elephant) in Indian service.[161] The IAF operated 17 Il-76s in 2010,[162] which are in the process of being replaced by C-17 Globemaster IIIs.[163][164]

The IAF C-130Js are used by special forces for combined Army-Air Force operations.[165] India purchased six C-130Js; however one crashed at Gwalior on 28 March 2014 while on a training mission, killing all 5 on board and destroying the aircraft.[166][167] The Antonov An-32, known in Indian service as the *Sutlej* (named after Sutlej River), serves as a medium transport aircraft in the IAF. The aircraft is also used in bombing roles and para-dropping operations.[168] The IAF currently operates 105 An-32s, all of which are being upgraded.[168] The Dornier Do 228 serves as light transport aircraft in the IAF.[169]The IAF also operates Boeing 737s[170] and Embraer ECJ-135 Legacy aircraft[171] as VIP transports and passenger airliners for troops. Other VIP transport aircraft are used for both the President of India and the Prime Minister of India under the call sign Air India One.[172]

The Hawker Siddeley HS 748 once formed the backbone of the IAF's transport fleet, but are now used mainly for training and communication duties.[173] A replacement is under consideration.[174]

Trainer aircraft[edit]

IAF BAE Hawk Mk 132.

The HAL HPT-32 Deepak is IAF's basic flight training aircraft for cadets.[175] The HPT-32 was grounded in July 2009 following a crash that killed two senior flight instructors,[176] but was revived in May 2010[176] and is to be fitted with a parachute recovery system (PRS) to enhance survivability during an emergency in the air and to bring the trainer down safely.[176] The HPT-32 is to be phased out soon.[176] The HPT 32 has been replaced by Pilatus, a Swiss aircraft. The IAF uses the HAL HJT-16 Kiran mk.I for intermediate flight training of cadets, while the HJT-16 Kiran mk.II provides advanced flight and weapons training.[177][178] The HAL HJT-16 Kiran Mk.2 is also operated by the Surya Kiran Aerobatic Team (SKAT) of the IAF.[179] The Kiran is to be replaced by the HAL HJT-36 Sitara.[180] The BAE Hawk Mk 132 serves as an advanced jet trainer in the IAF and is progressively replacing the Kiran Mk.II. The IAF has begun the process of converting the Surya Kiran display team to Hawks.[125] A total of 106 BAE Hawk trainers have been ordered by the IAF of which 39 have entered service as of July 2010.[181] IAF also ordered 72 Pipistrel Virus SW 80 microlight aircraft for basic training purpose.[182][183]

Helicopters[edit]

The HAL Dhruv serves primarily as a light utility helicopter in the IAF. In addition to transport and utility roles, newer Dhruvs are also used as attack helicopters.[184] 4 Dhruvs are also operated by the Indian Air Force Sarang Helicopter Display Team.[127] The HAL Chetak is a light utility helicopter and is used primarily for training, rescue and light transport roles in the IAF.[185] The HAL Chetak is being gradually replaced by HAL Dhruv.[185] The HAL Cheetah is a light utility helicopter used for high altitude operations. It is used for both transport and search-and-rescue missions in the IAF.[186]

The Mil Mi-8 and the Mil Mi-17, Mi-17 1V and Mi-17V 5 are operated by the IAF for medium lift strategic and utility roles. The Mi-8 is being progressively replaced by the Mi-17 series of helicopters.[187][188] The IAF has ordered 22 Boeing AH-64E Apache attack Helicopters, 68 HAL Light Combat Helicopters(LCH),35 HAL Rudra attack Helicopters, 15 CH-47F Chinook heavy lift helicopters and 150 Mi-17V-5s to replace and augment its existing fleet of Mi-8s and Mi-17s and Mi-24's.[189] The Mil Mi-26 serves as a heavy lift helicopter in the IAF. It can also be used to transport troops or as a flying ambulance. The IAF currently operates 3 Mi-26s.[190]

The Mil Mi-35 serves primarily as an attack helicopter in the IAF. The Mil Mi-35 can also act as a low-capacity troop transport. The IAF currently operates 2 squadrons (No.104 Firebirds and No.125 Gladiators) of Mi-25/35s.[191]

Unmanned Aerial Vehicles[edit]

The IAF currently uses the IAI Searcher II[192] and IAI Heron[193] for reconnaissance and surveillance purposes. The IAI Harpy serves as an Unmanned Combat Aerial Vehicle (UCAV) which is designed to attack radar systems.[194] The IAF also operates the DRDO Lakshyawhich serves as realistic towed aerial sub-targets for live fire training.[195]

Land-based missile systems[edit]

Akash missile.

Surface-To Air Missiles[edit]

The SPYDER (Surface-to-air PYthon and DERby) is an Israeli short and medium range mobile air defence system developed by Rafael Advanced Defense Systems with assistance from Israel Aerospace Industries (IAI). The SPYDER is a low-level, quick-reaction surface-to-air missile system capable of engaging aircraft, helicopters, unmanned air vehicles, drones, and precision-guided munitions. It provides air defence for fixed assets and for point and area defence for mobile forces in combat areas. Six SPYDER-MRs along with 300 Python-5 surface to missiles (SAMs) and 300 Derby SAMs are in service with the Indian Air Force

The S-125 Pechora[196] and the 9K33 Osa[139] as Surface-to-air missile systems in service are being replaced with the Akash medium range surface-to-air missile system. A total of 8 squadrons has been ordered so far[197] out of which 2 squadrons have been delivered and stationed at Gwalior and Pune.

Ballistic missiles[edit]

The IAF currently operates the Prithvi-II short-range ballistic missile (SRBM). The Prithvi-II is an IAF-specific variant of the Prithvi ballistic missile.[198]

Future[edit]

Main article: Future of the Indian Air Force

The number of aircraft in the IAF has been decreasing from the late 1990s due to the retirement of older aircraft and several crashes. To deal with the depletion of force levels, the IAF has started to modernise its fleet. This includes both the upgrade of existing aircraft, equipment and infrastructure as well as induction of new aircraft and equipment, both indigenous and imported. As new aircraft enter service and numbers recover, the IAF plans to have a fleet of 42 squadrons.[199]

Expected future acquisitions[edit]

Single-engined fighter[edit]

On 3 January 2017, Minister of Defence Manohar Parrikar addressed a media conference and announced plans for a competition to select a Strategic Partner to deliver "... 200 new single engine fighters to be made in India, which will easily cost around (USD)$45 million apiece without weaponry" with an expectation that Lockheed Martin (USA) and Saab (Sweden) will pitch the F-16 Block 70 and Gripen, respectively. An MoD official said that a global tender will be put to market in the first quarter of 2018, with a private company nominated as the strategic partners production agency followed by a two or more year process to evaluate technical and financial bids and conduct trials, before the final government-to-government deal in 2021. This represents 11 squadrons of aircraft plus several 'attrition' aircraft.[200] India is also planning to set up an assembly line of American Lockheed Martin F-16 Fighting Falcon Block 70 in Bengaluru. It is not yet confirmed whether IAF will induct these aircraft or not.

In 2018, the current defence minister Nirmala Seetharaman gave the go ahead to scale up the manufacturing of Tejas at HAL and also to export Tejas. She is quoted saying "We are not ditching the LCA. We have not gone for anything instead of Tejas. We are very confident that Tejas Mark II will be a big leap forward to fulfil the single engine fighter requirement of the forces.".[201] IAF committed to buy 201 Mark-II variant of the Tejas taking the total order of Tejas to 324.[202] The government also scrapped the plan to import single engine fighters leading to reduction in reliance on imports thereby strengthening the domestic defence industry.[203]

The IAF also submitted a request for information to international suppliers for a stealth unmanned combat air vehicle (UCAV)[204]

Current acquisitions[edit]

Dassault Rafale

The IAF has placed orders for 120 HAL Tejasfighters,[205] 36 Dassault Rafale multi-role fighters,[206] 112 Pilatus PC-7MkII basic trainers,[207][208] 72 HAL HJT-36 Sitaratrainers,[125] 72 Pipistrel Virus SW 80 microlight aircraft,[209][183] 10 C-17 Globemaster III strategic air-lifters,[210] 65 HAL Light Combat Helicopters,[211] 139 Mi-17V-5helicopters.[189][212] and the IAF has also ordered 18 Israeli SPYDER Surface to Air Missile (SAM) units.[213] IAF has also ordered 6 Airbus A330 tanker aircraft,[214] 22 AH-64E Apache Longbow heavy attack helicopters,[215] 15 CH-47F medium lift helicopters[216][217] and IAI Harop UCAVs.[194][218]

DRDO and HAL projects[edit]

Indian defence companies such as HAL and DRDO are developing several aircraft for the IAF such as the HAL Tejas,[148][149] Advanced Medium Combat Aircraft (AMCA),[219] DRDO AEW&CS (revived from the Airavat Project),[220] NAL Saras,[221] HAL HJT-36 Sitara,[222] HAL HTT-40, HAL Light Combat Helicopter (LCH),[223] HAL Light Utility Helicopter (LUH),[224]DRDO Rustom[225] and AURA (Autonomous Unmanned Research Aircraft) UCAV.[226] DRDO has developed the Akash missile system for the IAF[227][228] and is developing the Maitri SAM with MBDA.[229] DRDO is also developing the Prithvi II ballistic missile.[230]

HAL has undertaken the joint development of the Sukhoi/HAL FGFA (Fifth Generation Fighter Aircraft)[231] (a derivative project of the Sukhoi Su-57) with Russia's United Aircraft Corporation(UAC). HAL is also close to develop its own fifth generation fighter aircraft HAL Amca which will be inducted by 2028. DRDO has entered in a joint venture with Israel Aerospace Industries(IAI) to develop the Barak 8 SAM.[232] DRDO is developing the air-launched version of the BrahMos cruise missile in a joint venture with Russia's NPO Mashinostroeyenia. DRDO has now successfully developed the nuclear capable Nirbhay cruise missile.[233]

Network-centric warfare[edit]

The Air Force Network (AFNET), a robust digital information grid that enabled quick and accurate threat responses, was launched in 2010, helping the IAF become a truly network-centric air force. AFNET is a secure communication network linking command and control centres with offensive aircraft, sensor platforms and ground missile batteries. Integrated Air Command and Control System (IACCS), an automated system for Air Defence operations will ride the AFNet backbone integrating ground and airborne sensors, weapon systems and command and control nodes. Subsequent integration with civil radar and other networks shall provide an integrated Air Situation Picture, and reportedly acts as a force multiplier for intelligence analysis, mission control, and support activities like maintenance and logistics. The design features multiple layers of security measures, including encryption and intrusion prevention technologies, to hinder and deter espionage efforts.[234]