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An Alert, Aggressive, and Agile Indian Air Force

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Image Source: Wikipedia.webp



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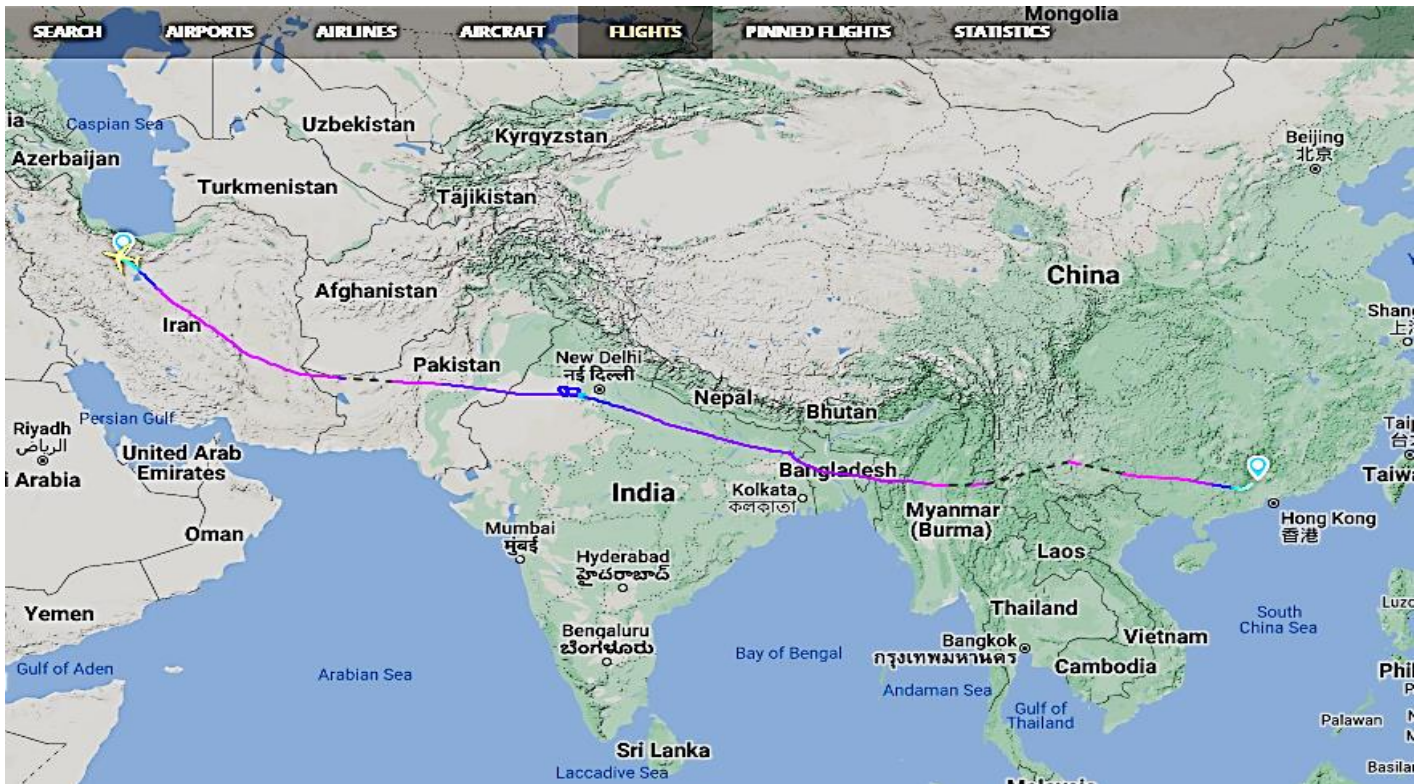
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The Indian Air Force (IAF) is celebrating the 90th anniversary of its formation this year. The IAF is in its celebratory week, which is marked by various events of operational and ceremonial sanctity to showcase the might of the IAF in case of any eventuality, especially in the aerospace and human assistance and disaster relief (HADR) domains. The IAF has always demonstrated itself as the most exceptional professional air force in the world. The highest training standards and an ability to always remain “Alert, Aggressive, and Agile” have been the core mantra of its operational preparedness at all times, that is to say, 24x7x365.

October 3, 2022, witnessed two significant events in the IAF’s history that showcase its present and future ability to safeguard the nation’s skies for the civil populace to live freely without any threat from the medium of air. While the highest military leadership, including Raksha Mantri (RM), Chief of Defence Staff (CDS), and Chief of Air Staff (CAS), were attending the induction ceremony of the first indigenous Light Combat Helicopter (LCH) named “Prachand” at Jodhpur, the Air Defence (AD) fraternity, consisting of Fighter Controllers (FC) and Air Defence System Operators (ADSO) of the IAF, was performing in the most challenging, dynamic and heightened situation to thwart any untoward incident arising out of the likely hijacked plane call sign W581 belonging to Mahan Air of Iran travelling from Tehran to China’s Guangzhou airport via Indian airspace.

The IAF is mandated by the Union War Book of India to safeguard the national airspace from any threat. For the ever-agile and alert control and reporting mechanism of air defence, handling a hijack situation until it was declared a hoax call of the bomb threat was nothing less than a war-like situation with no scope of error. The fighter controllers on duty at the Integrated Air Command and Control System (IACCS) scrambled the Operational Readiness Platform (ORP) aircraft, manned by the pilots, to intercept the plane as soon as it was determined that the aircraft was carrying a live bomb and could be the target of a possible hijacking that could compromise national security. The onus of making the ORP fighter pilot reach the track of interest rests with the FC glued to the radar scope on the ground or on AWACS. An ORP aircraft is positioned by the FC in such a manner that the own aircraft is always in the advantageous position of the intruding aircraft.

Once the aircraft in question is in contact, the fully armed ORP pilot carries out the necessary offensive actions with absolute proficiency in a calm and composed manner. The professional acumen of a team of FC-Pilots is the basic prerequisite of any such tactical action, be it in peacetime or wartime. For an air defence operator, the chances of handling situations like these are less than once in a lifetime, but alertness, agility, and aggressiveness have to be maintained for one such opportunity. One has to be ready for potential threats, which can include a bomb threat or a suspicious object on board, or in the worst case scenario, a hijacking attempt.

Figure 1: Flight Path of Iranian Mahan Airlines Call Sign W581 on October 3, 2022

Source: Flightradar24

While in most cases, the FC and ORP pilot attempt hard to establish communication with the aircraft and restore the flight path, if there's a safety incident where the plane fails to respond back or take a course correction, the pilot is authorised by the FC to act as per SOP. This, however, is not easy as the lives of hundreds of passengers are at stake. One wrong call can lead to irrecoverable results for the entire situation. On this occasion, the plane was timely and successfully intercepted and was constantly shadowed till it exited the easternmost part of the Indian airspace into Chinese airspace (Fig 1).

It is incidental that RM Rajnath Singh, along with the CAS, witnessed the functioning of the IACCS at a premier radar station of the IAF a month ago. He was exposed to the unflinching and relentless task conducted by the air warriors at IACCS. The system is a crucial enabler in operations and the linchpin of the IAF's march towards network-centricity. The system's capabilities boost the situational awareness of its users, thus reducing the IAF's sensor-to-shooter loop. The robust system includes built-in redundancies that allow for flawless operations amongst its assets across the nation. The robust system includes built-in redundancies that allow for flawless operations amongst its assets across the nation. The RM was demonstrated through various networked operations conducted at varied locations across the country. Among these were the networked and coordinated operations of fighter, transport, and remotely piloted aircraft. In addition, he was briefed on the nuances of peacetime command and control functions, such as ensuring the air defence of

critical areas on a daily basis as well as during large events, which were actively demonstrated by the air warriors of the IAF, making it an invaluable and mighty air force at the age of 90.¹

Let there be no doubt that the IAF in these 90 years has grown by leaps and bounds in transforming from a tactical air force to a strategic air force. Today, it commands position No. 3 in the world, only behind the United States and Russian Air Forces, as per the World Directory of Modern Military Aircraft (WDMMA) global ranking (Fig 2). The Chinese People's Liberation Army Air Force and the Israeli Air Force follow India in fourth and fifth place, respectively, in the global ranking.²

It would be apt to understand that these rankings are not merely based on the aircraft inventory but depend on numerous tangibles and intangibles. Despite the Chinese People's Liberation Army Air Force currently maintaining 2,084 total units³ in its active aircraft inventory against 1645 total units,⁴ it has a lower 'True Value Rating' (TvR) than India. The TvR scores for the top air forces are depicted below.

Figure 2: World Directory of Modern Military Aircraft Global Ranking of Air Forces



Source: WDMMA 2022

The Global Air Powers Rating (2022) states, "The WDMMA annual ranking uses a formula that considers the modern aerial fighting capabilities and values connected to the total fighting strength of the major air forces throughout the world. The methodology yields the TvR, which distinguishes powers based not just on total strength but also on modernisation, logistical support, assault and defence capabilities, etc." In this manner, power is evaluated based not just on its total number of aircraft, but also on the quality and overall composition of its inventory. Special-mission, specialised bomber forces, counter-air operations, training, and on-order units are given more weight than categories that some countries ignore. Beyond this, emphasis is placed on the

capabilities of the local aircraft industry; inventory balance, which is the general mix of unit types; and force experience.

The most recent additions to the Indian Air Force's fighter fleet are the Rafale and the Light Combat Aircraft (LCA). The C-17 and C130-J have provided the IAF with unrivalled strategic airlift capacity in the region. The Apache assault helicopter and the Chinook heavy-lift helicopter are two of the finest assets in the military aviation industry. The recent introduction of indigenous LCH has increased the offensive firepower of rotary-wing aircraft. The IAF has made significant strides in network-centric operations. The IACCS integrates radars, missiles, and air defence fighters located around the country. This includes the AWACS and AEW&C airborne radar systems. The nation's air defence capabilities have also been enhanced by deploying layered missile defence to all important locations and areas. The Russian-obtained S-400 system is being deployed. Medium Range Surface to Air Missile (MRSAM) and Aakash are the most important components of the innermost layers. All these assets are being manned and operated by air warriors who keep the skies safe and always endeavour to touch the sky with glory.

NOTES:

¹ Press Release, "Hon'ble Raksha Mantri Shri Rajnath Singh Visits Premier Radar Station of IAF," *Press Information Bureau* (Defence Wing), Government of India. New Delhi, August 29, 2022, <https://indianairforce.nic.in/category/press-release/>. Accessed on October 4, 2022.

² "Global Air Powers Ranking (2022) Current ranking of the various armed air services of the world provided by WDMMA," *World Directory of Modern Military Aircraft*, <https://www.wdmma.org/ranking.php>. Accessed on October 4, 2022.

³ "People's Liberation Army Air Force (2022) Current Active Inventory: 2,084 Aircraft" *World Directory of Modern Military Aircraft*, February 18, 2022, <https://www.wdmma.org/peoples-liberation-army-air-force-china.php>. Accessed on October 4, 2022.

⁴ "Indian Air Force (2022) Current Active Inventory: 1,645 Aircraft," *World Directory of Modern Military Aircraft*, February 18, 2022, <https://www.wdmma.org/indian-air-force.php>. Accessed on October 4, 2022.