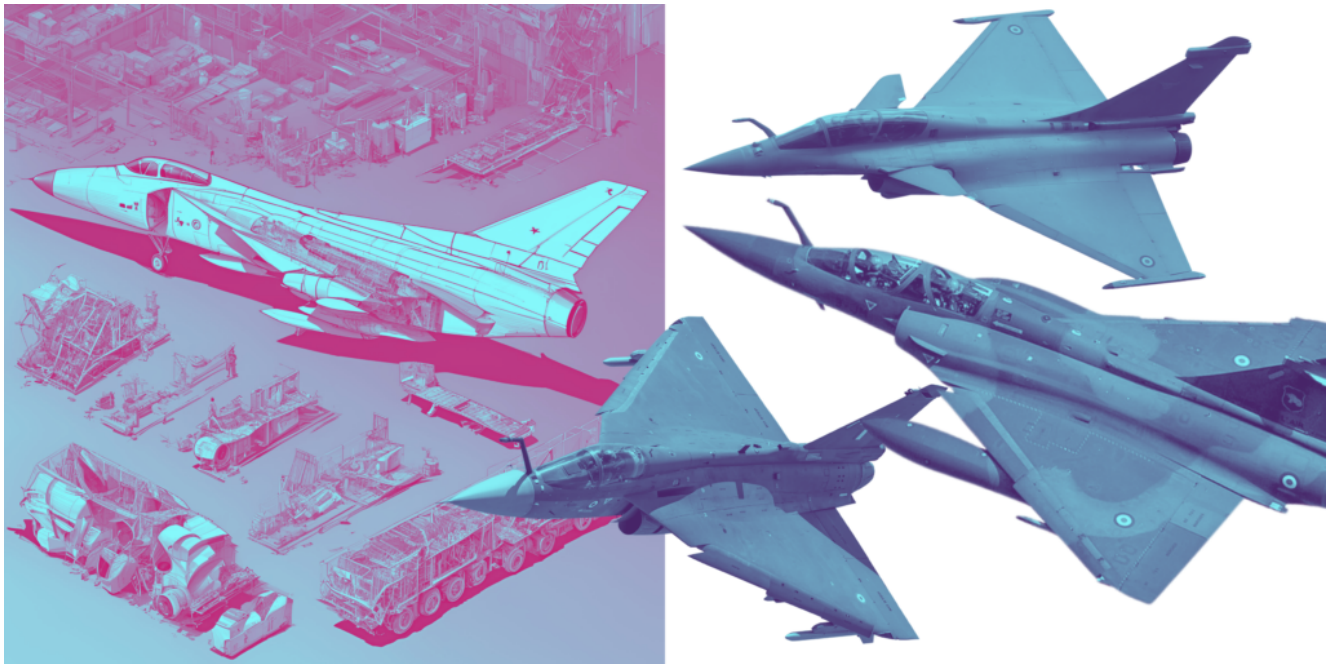


# Indian Airforce's shrinking squadrons: Shortfall and rationalization amid the China challenge

July 12, 2024

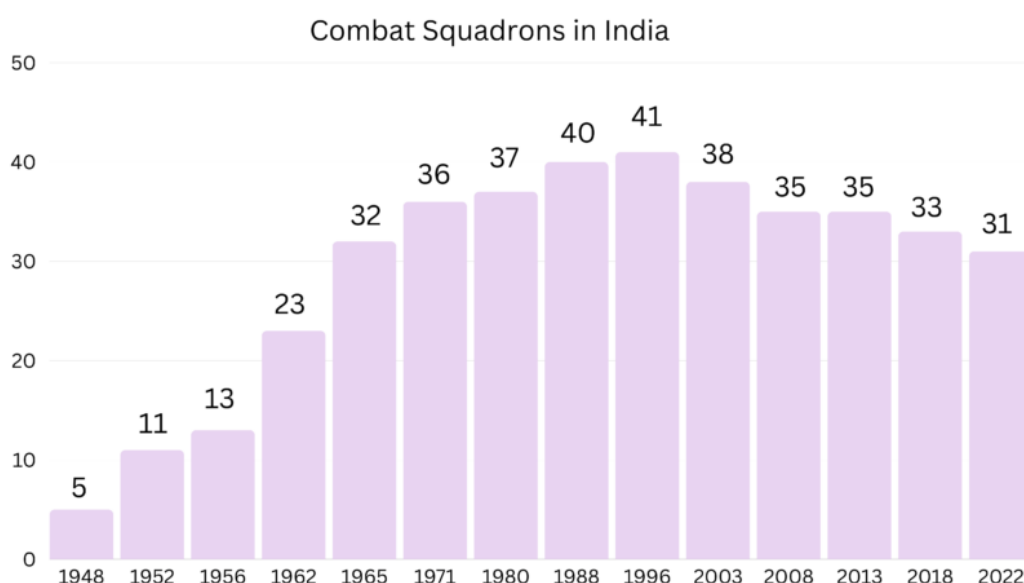


Amid concerns about the shrinking size of Indian Air Force (IAF) squadrons, India is [discussing](#) purchasing 12 used Mirage-2000-5 fighter jets from Qatar. Since India already operates close to three squadrons of the slightly less advanced Mirage-2000-H, the induction of the additional jets is likely to be relatively free of complications. Indian officials have also sought to [clarify](#) that these jets are not meant to be cannibalized for spares but are meant to be used for flying operations. In another development, the delivery of the Tejas Light Combat Aircraft (LCA) Mk 1A, developed by Hindustan Aeronautics Limited (HAL), is expected to begin by the end of July 2024. Initially [scheduled](#) for February 2024, the delivery was delayed due to supply chain issues related to engine delivery by GE.

Furthermore, India's 5<sup>th</sup> fighter aircraft program for Advanced Medium Combat Aircraft (AMCA) is [progressing slowly](#), with a target for induction by 2034. At a time when China and Pakistan's air force inventory consists of 5<sup>th</sup> generation fighters (with Pakistan [looking](#) to purchase FC-31 5<sup>th</sup> generation aircraft from China), the AMCA program attains paramount importance for the IAF.

In the next fifteen years, multiple squadrons of the IAF will be [phased out](#), beginning with the three remaining Mig-21 Bison squadrons the following year. To address this shortfall, the IAF ordered 83 LCA Mk-1A, and the Ministry of Defense has [approved](#) the procurement of an additional 97 Mk-1A, bringing the total to 180 Mk-1A. Thus, the LCA will constitute most of the IAF's fighters in the next few decades. However, the present fighter jet programs cannot provide IAF with its 42-sanctioned squadron strength.

India's need to bolster overall deterrence against China (and the prospect of a two-front war) hinges on air power. Therefore, procurement and investment plans will be crucial to India's future security and policy toward China in response to the ongoing depletion.



## The depletion challenge

With the decommissioning of Mig-29, Jaguar, and Mirage [scheduled](#) in the next 10-15 years (amounting to almost 250 aircraft), the IAF will need help to reach the sanctioned strength of 42 squadrons. A report by *The Print* claimed that as per IAF projections, even if all the 36 Rafales, LCA Mk 1 and MK 1A, and two additional squadrons of Su-30 MkI are included, the squadron strength will [decrease](#) to 27 by 2032 and 19 by 2042. Additionally, two squadrons of Jaguar and one of Mirage are exclusively reserved for nuclear missions. Currently, the strength of the IAF fleet (31 squadrons) exists only on paper due to the low availability of aircraft, such as Su-30 MkI, which is less than 50%. A media [report](#) from 2014, cited the Su-30 MkI's availability rate as just 48%. The jet is currently [undergoing](#) a slow and expensive modernization drive, with greater emphasis on indigenization. Therefore, the purchase of 12 used Mirages from Qatar, along with LCA Tejas, AMCA, and the multi-role fighter aircraft (MRFA) program for 114 aircraft, underscores the urgent need for the IAF to stabilize its squadron strength.

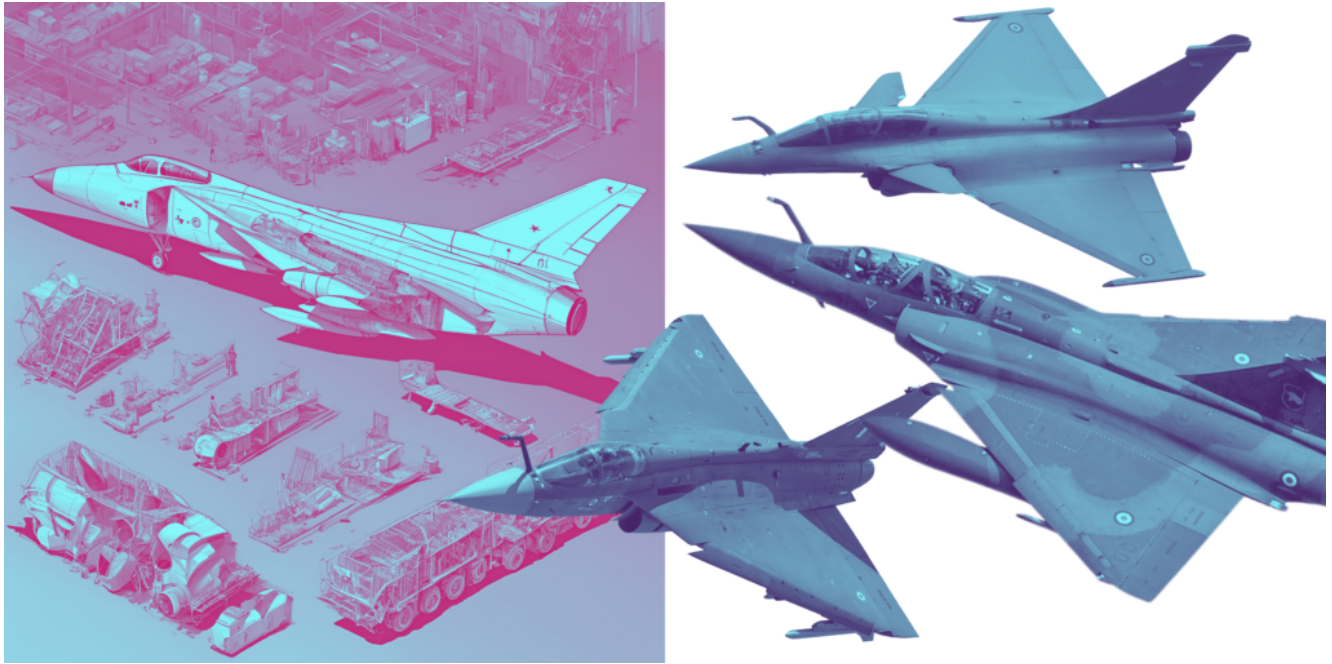
AIRCRAFT PROGRAMME	GENERATION	STATE OF PROGRESS	EXPECTED INDUCTION TIMEFRAME	STAKEHOLDER	NUMBER OF AIRCRAFT
LCA Mk 1A	4 plus gen	Undergoing serial production	Delivery to be completed by 2028	HAL with GE F-404 engine	83 (with 97 more ordered, totaling 180)
LCA Mk 2	4 plus gen	In developmental stage	Ready for production by 2027	HAL with GE F-414 engine (engine to be co-produced with HAL)	NA
Advanced Medium Combat Aircraft (AMCA)	5th gen	In developmental stage	Ready for induction in 2034	Two variants of AMCA: first one by HAL with GE F-414 engine; and second by HAL with more powerful engine, not decided yet	NA
Multi Role Fighter Aircraft (MRFA)	4 plus gen	Request for Information (RFI) is issued	NA	To be decided under provisions of Make in India of the Defence Acquisition Procedure of 2020	114

## Deterrence potential of airpower

The military balance on land favors China at the LAC,

and [practical difficulties](#) in blockading Chinese trade at the Malacca Strait deny India deterrence-enhancing options in the maritime domain. This makes airpower the only way to strengthen deterrence against China, without which India will find itself in an increasingly unenviable strategic position. Notably, the geographical terrain at the LAC provides significant advantages to the IAF, a service that, in turn, has [always trained and prepared](#) for deterrence-enhancing 'bold' offensive operations. India's much more numerous number of airfields (and on lower altitudes) also enable both resiliency as well as flexibility. Noting this difference and the psychological disadvantage it imbues in Beijing, Air Marshal Anil Chopra [suggests](#), "The IAF should thus concentrate on neutralizing PLAAF airfields using surface and air-launched missiles and build inventories accordingly". Reflecting on the role of air power in light of dwindling assets, military historian Arjun Subramaniam [describes](#) India's airpower as the, "only credible coercive deterrent in both conflict prevention and conflict cessation before hostilities spread to multiple domains".

Thus, if India intends to exploit the operational advantages bestowed by geography and enhanced by doctrine and training against China, it needs to arrest the dwindling squadron strength of the IAF.



## Shortfall and rationalization

To make up for dwindling squadron strength, the IAF appears to be rationalizing its assets. This includes bolstering the fleet of armed UAVs and building a multi-layered air defense network to relieve some of the IAF's assets from the task of aerial interdiction. The IAF [has](#) a fleet of Israeli-origin Searcher, Heron Mark-1 and Heron Mark-2 drones, and the upcoming US MQ-9B Reaper and indigenous Tapas drones. Its air defense network consists of Israeli Spyder and Barak-8, Russian S-400 (of which, two remaining regiments are expected to be delivered by 2026-27), and the indigenous Akash.

The original plan of the LCA program was to proceed directly to LCA Mk 2 after LCA Mk 1, with LCA Mk 1A not initially included. Therefore, the decision to develop LCA Mk 1A, incorporating four significant improvements over LCA Mk 1 before LCA Mk 2, represents an interim solution to address the declining squadron numbers. This indicates India's prioritization of quantity over quality, as highlighted by the Comptroller and Auditor General (CAG) [report](#), which pointed out several flaws in the LCA Mk 1.

Furthermore, the IAF has been resisting the theaterisation of the armed forces because it has limited squadrons that it

prefers not to divide among various theatres. The IAF emphasizes using airpower for strategic targeting (deep air support) of crucial lines of communication, such as strategic highways and rail lines, logistical bases, etc., rather than close air support on the battlefield. Amid ongoing [disagreements](#) between the IAF and the Indian Army (IA) over the division of air assets, the IA is increasingly relying on its own assets to achieve outcomes akin to those of close air support. The Army Aviation Corps now [possesses](#) formidable combat strike platforms in the form of drones (Israeli Heron, Hermes, and the upcoming US MQ-9B) and helicopters (upcoming LCH Prachand). The Army has ambitious [plans](#) for inducting state-of-the-art longer-range precision-guided artillery systems with shoot and scoot capabilities that could replicate CAS missions – a global [trend reenforced](#) by the lesson of the Russia-Ukraine war. This increased self-reliance on the IA's part also frees the IAF to focus on its preferred and core missions.

## **Challenges ahead**

The shrinking squadron size of the IAF reflects the implications of India's past indecisiveness about aircraft production/procurement programs. Thus, if India wants to achieve the three mutuals with China – mutual respect, mutual sensitivity, and mutual interests – as reiterated by [EAM Jaishankar](#) in his meeting with Chinese Foreign Minister Wang Yi on the sidelines of the SCO summit, formidable investments in airpower and its rationalization will be the hinge factor. Currently however, India is resorting to adhoc measures to address the depletion of squadrons.

The IAF will face increasingly challenging and stretched circumstances over the next decade, given the growing security challenges across the LAC. As such, future iterations of India's plans for theaterisation, the IAF's strategic doctrine, and a potential National Security Strategy (NSS) should address this ongoing challenge of depletion in the face

of growing threats.