

F-35 fighter jet proposal to India: weighing pros and cons

Introduction

During the recent visit of Prime Minister Narendra Modi to the United States (US) between 13 and 14 Feb 2025, the US President Donald Trump surprisingly announced the sale of F-35 stealth fighter jets to India. This announcement is still a proposal and could take shape through a Foreign Military Sale (FMS) route, which is a government-to-government deal with Pentagon acting as an intermediary between the defense contractor (Lockheed Martin) and India. Through this deal, US is looking to expand its sales in the USD 200 bn military modernisation market of India over the next decade.¹ This proposal has put India into a difficult position as India is facing challenges from China and Pakistan, while also aiming to reduce military imports.

Some military experts feel that F-35s can expand India's conventional deterrence, diversify national defense procurements, and offset pressure on tariff and trade deficit issues with the US, while others emphasise that India is looking for more coproduction, research and development in the country, rather than simply import weapons shelling billions of dollars. Likewise, any FMS is a time-taking process with many difficulties and complications involved which can take years to negotiate and resolve. Also, the proposed F-35 deal will not fill India's immediate requirement of more than 100 aircraft soon.² Therefore, this proposal of the F-35 sale to India should be scrutinised from India's national interest point of view, rather than America's commercial or geopolitical goals.

Positive aspects of F-35 proposal

The F-35 is said to have a distinct advantage by virtue of its continuous production output and a proven manufacturing process, as Lockheed Martin is manufacturing it on a large scale to deliver to the US partners and allies unlike other equipment manufacturers who do not produce fast and enough in numbers. The single-engine F-35 is stealthy with an ultra-low Radar Cross-Section (RCS) with an emphasis on data fusion, interconnectivity, and versatility.³ The F-35 has a superior sensor fusion which allows them to share and fuse data with other platforms like fighters, Airborne Warning and Control System, ground radars, and command centers, allowing them to operate together as a single, intelligent force rather than as individual units.⁴

Pakistan has plans to acquire 40 J-35 stealth aircrafts from China in the near future which could significantly impact the dynamics of the India vs China-Pakistan air-power strengths.⁵ Therefore, F-35s, to some extent, can help in countering the threat of the J-35. This offer could help India to bolster its depleting combat aircraft strength, which currently stands at 31 squadrons against a sanctioned strength of 42 squadrons.⁶

Disadvantages of F-35 offer

There are major drawbacks of the F-35 offer which should not be ignored too. These include off-the-shelf price, technologies provided, life cycle, maintenance costs, etc. The US could also restrict India from operating the S-400 air defence systems along with the F-35, as that could expose the F-35's stealth characteristics, electronic warfare capabilities, etc., to the powerful radars of the S-400. At the strategic level, the F-35 acquisition could push India further towards the US sphere of influence and can adversely impact the *Atmanirbhar Bharat* (self-reliant India) initiative of India which is currently developing its own fifth-generation fighter jet Advanced Medium Combat Aircraft (AMCA) project.⁷ The F-35 deal could likely be priced at more than USD 100 bn for India but, unfortunately, it will not involve technology transfer for local manufacturing. There can be compatibility issues in terms of air-to-air refuelling due to different configuration design, integration with India's 'Integrated Air Command and Control System', incompatibility with Russian-origin communication suites, software, hardware, and weapons inventory differences.⁸

Military analysts have flagged the effectiveness of F-35's stealth as modern battlespace theatre will continue to field powerful radars that can detect stealth aircraft. Other than that, there are flaws with F-35's fleet availability, as its availability rate is abysmal. Hidden costs, platform complexity, and impact on India's war strategy are the factors which diminish F-35's efficiency.⁹ The US has additional binding laws and rules that states that the US government needs to grant permission to a country before they can use the US-made aircraft and weapons in a war, even if that country purchases from the US.¹⁰ Pentagon's Director, Operational Test, and Evaluation office published a report in early 2024 which found that F-35s broke down regularly, leading to repairs taking an average of 141 days. Critical failure rate for F-35 was more than double of what was anticipated.¹¹ The US Government Accountability Office research shows that the F-35 faces production issues and modernisation delays that increase its costs. This forced the US Air-Force and Navy to fly the F-35s even lesser.¹²

United States-Russia stealth-fighter competition

The US offer of F-35 comes during the Aero India show in Bangalore, where the Russian Su-57 also participated and displayed its aerial capabilities. Through the offer of F-35, the US could be attempting to pre-empt a potential Su-57 deal and steer India further away from Russian defense technology.¹³ The Su-57 first flew in 2010 and entered service in 2020. It has thrust-vectoring engines, which provides close-range dogfighting and air-superiority, as agility and high velocity take precedence over pure stealth capabilities. The F-35, on the other hand, first flew in 2006 and entered service in 2015. It prioritises stealth, network-centric warfare, and data fusion, allowing it to detect and eliminate threats before getting detected first. The F-35 is stealthier due to its low RCS, embedded sensors, and radar-absorbing materials as compared to the Su-57, which has partially exposed engine nozzles, having higher RCS. The difference in cost is drastic, with Su-57E export version priced at USD 35–40 mn per unit, whereas the F-35A costing at USD 80–100 mn per unit.¹⁴

India's position and requirements

India, at present, is pursuing self-reliance in defense manufacturing through 'Make in India' initiative. Due to this India is committed to its indigenous Light Combat Aircraft (LCA) Tejas and the upcoming stealth AMCA. AMCA, being developed by Defence Research and Development Organisation and Hindustan Aeronautics Limited, is expected to take first flight by 2028 and enter service in the early 2030s. India is likely to continue investing in the AMCA and LCA Mk2. The Indian Air Force is currently focussing on acquiring 114 multi-role fighters to maintain air-superiority through the Multi-role Fighter Aircraft deal, which will bolster its depleting fighter squadrons.¹⁵ India's defence industry leaders are also not impressed with the F-35 offer. Zen Technologies CMD has labelled the F-35 as 'White Elephant', citing its cost and design flaws. He emphasised on joint development and IP ownership rather than imports.¹⁶

Conclusion

There is no doubt that the F-35 offer to India was made by the US President Trump purely from a business perspective to sell weapons to earn revenue for the American defence manufacturers and not to fall behind in India's lucrative defence market. We should also remember that any major FMS deal will involve the approval of the US Senate, which will rigorously factor in additional elements like India's human rights record, election fairness, and other related American propaganda. Adding to the concern regarding India's operation

of the S-400, its almost certain that the US will instruct India to refrain using S-400's full radar detection capabilities to operate the F-35 freely in Indian skies. This again bursts the bubble of the F-35's advanced stealth capabilities. The advancements in stealth technology runs parallel to anti-stealth technology and by now, we should acknowledge the S-400's capabilities to detect stealth.

Therefore, in order to safeguard *Atmanirbhar* 'Make in India' initiative, India should avoid falling in the F-35 proposal trap and instead continue to invest in long-range radars, missiles, Tejas and AMCA projects as it moves forward to fulfil its defence requirements. Considering the current geopolitical realities, a conflict with India's principal adversary China is very remote. If at all, the IAF desires the need of stealth jets in very near future, the Indian government could look into the Su-57 or F-35 proposals, but in lease mode for few years instead of buying the platforms as leasing the foreign platforms, will not affect India's indigenous projects and will save huge costs.

Endnotes

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