



### PROCURING US F-35 FIGHTER JETS: A POSSIBILITY FOR INDIA TO BRIDGE THE STEALTH GAP?

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The year 2025 has marked a significant development and also opened a new chapter in the Indo-US defence relations, with the US President Donald Trump's offer to sell India the stealth F-35 fighter jets. It is essential for India to strengthen its air power considering its geopolitical landscape. The offer perhaps can provide a boost to India's ambitions to enhance its defence and maintain a strategic edge over its regional adversaries, including China and Pakistan.

"We will be increasing military sales to India by many billions of dollars. We are also paving the way to ultimately provide India with the F-35 stealth fighters," Trump stated.<sup>1</sup> These comments were made as Trump received India's Prime Minister Narendra Modi at the White House. India is already in search of an advanced jet engine for its indigenous fighter jet program – advanced medium combat aircraft (AMCA) and Tejas Mk2, and considering that the F-35s are powered by the F135-PW-100 turbofan engines by Pratt & Whitney, one of the best in the world today, the offer has already opened doors for India.<sup>2</sup> However, it is important to distinguish between two critical and separate challenges – the acquisition of a fifth-generation fighter aircraft and the development of an advanced jet engine. To truly achieve Atmanirbharta in the defence sector, India must not only manufacture these platforms but also secure intellectual property rights. Without full ownership and control over the core technologies, especially the jet engine— often regarded as the pinnacle of aerospace engineering— strategic autonomy would remain incomplete. The offer is still not official, but it is a proposal from America. The question is whether India really needs to procure the fighter jets.

## F-35: An Elite Fighter Jet for the Indian Air Force

The F-35, manufactured by Lockheed Martin, is a single-seat, single-engine, advanced multi-role stealth fighter aircraft with a blend of cutting-edge technology and operational effectiveness. Apart from the US, it is operated by many countries like the UK, Australia, Norway, Italy, Canada, Germany, etc. Some of them are America's North Atlantic Treaty Organisation alliance, and many have strong military alliances with the US. It has the best electronic warfare system, brilliant avionics and integrated sensors for real-time data fusion to enhance situational awareness, including intelligence, surveillance and reconnaissance (ISR) capabilities. The design is revolutionary, minimising radar cross-section, giving enemies a tough time detecting the aircraft. The precision-guided bombs, air-to-air missiles and unprecedented network-centric architecture together make it an ideal fifth-generation combat aircraft.<sup>3</sup>

Earlier, it is nowhere to be seen that India has particularly shown interest in procuring the F-35 fighter jets, and even with this offer, India has not really shown much interest. The offer sits on the discussion table. History has continuously reflected on the instances where Washington has put New Delhi under pressure revolving around geopolitical issues under the Trump administration, first with threats to impose sanctions<sup>4</sup> and now by presenting an alternative to Su-57, Russian fifth-generation fighter jets, primarily to derail the talks and India's relations with Russia. Another question is why the US is keen to sell the F-35s to India.

### What is driving the F-35 Push?

There could be multiple reasons – the American trade deficit with India is significantly high. According to reports from the Office of the United States Trade Representative, the total goods trade of India with the US was estimated to be USD 129.2 billion in 2024. The US goods exported to India in 2024 were USD 41.8, billion which is a 3.4 per cent increase from 2023. The US goods imports from India totalled USD 87.4 billion in 2024, which was a 5.4 per cent increase from 2023.<sup>5</sup> It aligns with Trump's broader policy to prioritise American interests in every possible way. His statement regarding the potential offer of F-35 fighter jets to India used the word "ultimately", suggesting that such an offer might come in due course. Moreover, it indicates a phased approach, wherein the US likely expects India to first consider purchasing other American defence products before any formal discussion on the

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There are three main variants of the F-35. The first is the F-35A (conventional takeoff and landing – CTOL), which is the most widely exported version, costing around USD 80-90 million. The second is the F-35B (short takeoff and vertical landing – STOVL), which is used by the UK, Italy, Japan, and Singapore and costs around USD 115-125 million. The third one is the F-35C (carrier based – CATOBAR), costing around USD 110-120 million, primarily used by the US Navy and not really exported.<sup>6</sup> The key factors that drive high cost include the stealth coating maintenance, software and sensor upgrades, engine overhauls and supply chain dependence, which is controlled by the US.

The second reason is the America First Policy.<sup>7</sup> Considering the different stakeholders like business and industry, military and defence establishments, public and citizens, and even the government and political leadership, this deal would benefit the overall economic development and the American weapon industry.

The third reason could, in all probability, be the close relationship India shares with Russia. India has already purchased the S-400 defence systems from Russia. The catch is that the US would not want the Russian S-400 radars to access the stealth technology data that the F-35 jets possess.<sup>8</sup> The S-400 system has multiple radar stations. Considering that a stealth fighter becomes successful in avoiding detection by one radar, it is still prone to be caught by another radar. The S-400 missile system does not have the capability for passive detection. The aircraft was designed in such a way that it could evade the S-400 defence systems. The integration of this aircraft will welcome a lot of challenges.

### **Unyielding Ambitions Behind the Offer**

So, the question arises, since India already has access to such a system, why would the US still want to sell its stealth aircrafts to India? Primarily, the US will sell the downgraded versions of the F-35s. There is a widespread concern that India's ambitions of Aatmanirbharta might be constrained if it procured the F-35 fighter jets from the US. While some speculate that the US could remotely disable F-35 systems in case of unauthorised use, this is largely a misconception. What remains a legitimate concern, however, is that the F-35's advanced capabilities – particularly its electronic warfare systems, self-protection suite and offensive performance are heavily reliant on a threat library that must be regularly updated. The US typically does not share the software codes or allow independent threat library updates,

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limiting India's ability to adapt the system autonomously. Moreover, the source codes required to integrate indigenous weapon systems are not provided, which would also limit the customisation from India's end.

Another critical limitation is the probable denial of the integration with India's Integrated Air Defence System (IADS). The dependency of the F-35 on sensor fusion and real-time data sharing to enhance situational awareness can become a challenge if it is not integrated with IADS as well. There must be some thought given to the strategic trade-offs that India must weigh between immediate capability enhancement and long-term technological sovereignty.

The life cycle cost of the aircraft is high, possibly the most highest in the world. The operational cost for an hour would be approximately INR 30 lakhs. Even America is currently at the discovery stage when it comes to sustainable cost factors. Despite the F-35 being the centrepiece of the US military strategy, its projected lifetime sustainment costs have surged from USD 1.1 trillion in 2018 to USD 1.6 trillion in 2023. The Department of Defence will reduce the induction of the jet itself since the cost factor is too high.<sup>9</sup>

According to Greg Williams, Director, Project on Government Oversight Centre for Defence Information, the incoming Trump administration should be worried. When speaking about the F-35 Lightning II with BNN Bloomberg, he mentioned that "the Trump administration should bear in mind we have been flying the F-35 for 18 years, and we still can't maintain it, keep its stealth skin intact, or shoot its gun straight."<sup>10</sup> Clearly the F-35 is not a new aircraft, but an old one that requires major modifications. The 11th crash has been reported since 2018, recently at the Ellison Air Force Base, due to in-flight malfunction and not because of combat. It has been mentioned by Trump himself that the "F-35 program and cost is out of control. Billions of dollars can and will be saved on military (and other purchases) after January 20th."<sup>11</sup> A few months ago, Elon Musk slammed the F-35 Project. He had called it the "worst military value for money in history", and he had also shared a video of a fleet of small drones, calling the people building the manned fighter jets like F-35 as idiots.<sup>12</sup>

Undoubtedly, the aircraft has faced a lot of criticism over time, and now it is being offered to New Delhi. Additionally, it can be assumed that the US trusts India way too much. When we analyse the situation with Turkey, the F-35 sales were banned after it purchased the S-400 air defence systems from Russia, even though it was a founding partner in the program.<sup>13</sup> Clearly, the presence of F-35 at Aero-India 2025 indicates that the US sees India as a prospect and it is like Trump has just handed over the fighter jets to India in hand. Will buying a squadron of F-35s be a success for the Indian government, or will it expose the failures of its defence sector?

## Weighing Options, Securing Interests

To maintain the ideal strength of the Indian Air Force (IAF), at least 45 squadrons of fighter jets are required. Forty squadrons should be the minimum requirement. Failure to procure this will definitely affect the national security of the country. The IAF currently possess only 31 fighter squadrons, which is below the minimum strength furthering serious concerns regarding defending the country against a two-fold war that could occur with China and Pakistan in the future.

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The US is well aware that a fifth-generation aircraft is the need of the hour for India. While Russia's SU-57 was once considered a potential option, India withdrew from the earlier joint Fifth Generation Fighter Aircraft (FGFA) programme due to its limited access to technical know-how and an unsatisfactory share in the developmental process. India's exit also stemmed from its strong resolve to pursue indigenous fifth-generation capabilities through the AMCA Programme led by the Defence Research and Development Organisation (DRDO). However, at the Aero Expo in Bengaluru in February 2025, the SU-57 has already won Indian hearts. Moreover, a proposal has been made through Russia to jointly develop a new Indian fifth-generation fighter – SU-57E. However, there are certain problems associated with SU-57, like assembly issues, subpar stealth capability, and limited availability. According to Fortune India, there are over 1000 F-35s currently operational around the world, and conversely, Russia has managed to make just 40 SU-57s at the Komsomolsk-on-Amur aviation plant.<sup>14</sup> None yet has been inducted in a foreign air force. Battlefield exposure is also limited.

Only time will tell whether India will procure the F-35s or the SU-57. It must look beyond the cost and capabilities of the two aircraft. Meanwhile, rest assured, India will have to focus on its own fifth generation fighter aircraft, AMCA, as China is moving ahead at a quick pace. India, even though it is the fifth largest economy in the world, still lacks a fifth-generation fighter aircraft. China is already flying its sixth-generation fighter jet. Even if India boosts up its AMCA program, there is a possibility of testing the first flight by 2028, and its induction will probably happen by 2035. China perhaps will have around 1000 fifth-generation aircrafts by then.

India must expedite its defence production capacity and, subsequently, its research and development. Earlier SAFRAN (France), General Electric (US) and Rolls Royce (UK) have all proposed a joint development, joint production of a high-

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powered jet engine (110 KN) with varying transfer of technologies and intellectual property rights.<sup>15</sup> The latest offer is from the United Engine Corporation (UEC) of Russia. All proposals are presently under consideration at the Ministry of Defence (MoD) and one of them is likely to be finalised by the year end.

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The Raksha Mantri has officially designated this year as the year of defence reforms, ultimately signalling a renewed push towards systemic transformation in India's defence sector<sup>16</sup> Streamlining procurement, promoting indigenous manufacturing and strengthening strategic autonomy are some of the aims to be achieved. India must create a strategic roadmap when foreign acquisitions like the F-35s are concerned so that they serve as capability bridges and not endpoints while the country builds towards indigenous fifth-generation platforms. India must focus on building up its security, primarily focusing on its air power to bridge the stealth gap. The focus can shift to increasing the procurement of drones, which is a much more viable option than buying an archaic unicorn. It needs to be ensured that the spirit of reforms remains intact and the self-reliance goals in the long term are strategically met.

## Notes:

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