

Air Marshal (Retd) Anil Chopra writes on

Make In India Fighter Contenders and Options

The Indian Air Force (IAF) has a sanctioned strength of 42 fighter squadrons. However, the service is down to 31 squadrons currently. The IAF had anticipated the phaseout of the MiG 21, 23 and 27 squadrons well in time and had moved the case for 126 fighter aircraft as early as 2001. The Medium Multi-Role Combat Aircraft (MMRCA) purchase tender for 126 aircraft was floated in 2008 to fill the gap between the still to be inducted Light Combat Aircraft (LCA) and the in service Sukhoi Su-30MKI air superiority fighter.

The contest was between six fighter aircraft, Boeing F/A-18E/F Super Hornet, Dassault Rafale, Eurofighter Typhoon, Lockheed Martin F-16, Mikoyan MiG-35 and Saab JAS 39 Gripen. After an intensive technical evaluation, by April 2011, the bidders were reduced to two fighters—Eurofighter Typhoon and Dassault Rafale. On 31 January 2012, it was announced that Dassault Rafale had won the competition due to its lower life-cycle cost (LCC). However, the deal stalled due to disagreements over production in India. As negotiations stalled, a government to government (G2G) contract was signed on 23 September 2016 for 36 Rafale aircraft to be bought in flyaway condition. The €7.8 billion deal included certain India specific modifications and ground infrastructure and technical support requirements. All 36 aircraft arrived in India as per plan in 2022.

The delays in indigenous LCA resulted in IAF squadrons continuing to reduce. Despite IAF committing to 40 LCA Mk.1 and 83 LCA Mk.1A and having given tacit approval for LCA Mk.II, the inductions remained slow. IAF also fully backs the indigenous Advanced Medium Combat Aircraft (AMCA). Meanwhile, the LCA Mk.II will be using the GEF414 engine. The same may also go in the initial AMCA. India and the United States are in conversation about manufacturing the F414 in India.

Multi-Role Fighter Aircraft RFI

The IAF needed to acquire 114 MRFA (Multi-Role Fighter Aircraft) and

the Request for Information (RFI) was issued in April 2018. The Indian Navy's deck-based fighter requirement was to be viewed in conjunction. Eight aircraft are in the competition. These are the Boeing F/A-18E/F Super Hornet, Boeing F-15EX Eagle II, Dassault Rafale, Eurofighter Typhoon, Lockheed Martin F-21 (A F-16V variant with India-specific customisation), Mikoyan MiG-35, Saab JAS-39 Gripen E/F and Sukhoi Su-35. At least six of these were in the MMRCA competition, but most aircraft have seen significant upgrades since they were evaluated last around 2010-11. The Request for Proposal (RFP) has still to be issued. There are complexities related to the level of Transfer of Technology (ToT) and Make in India quantum and phases and the proposal to link aeroengine transfer of technology to this deal.

IAF Chiefs have been insisting that any aircraft that India purchases should be able to match those of adversaries. The People's Liberation Army Air Force (PLAAF) is pulling ahead in both numbers and quality. They have inducted nearly 150 fifth-generation J-20 aircraft.

Boeing F/A-18IN

This twin-engine multirole fighter first flew in 1978 as Hornet and is operated by US Marines and US Navy, Royal Australian and Spanish Air Forces among others. The Hornet and Super Hornet have successfully taken part in the Gulf and Middle East wars. The Super Hornet has a new larger airframe and has seen extensive avionics upgrades. The aircraft is powered by two General Electric F414-400 turbofans. The variant likely to be offered will be customised for India and called F/A-18IN, and have a modern AESA radar. Boeing and Tata's joint venture, the Tata Boeing Aerospace Limited (TBAL) facility at Hyderabad, supports India as a global exporter of aerospace. The 14,000 square meter facility makes aero-structures of Boeing's AH-64 Apache helicopter for customers worldwide. Over 150 Apache fuselage have been delivered. Boeing also announced a new production line for vertical fin structures for the Boeing 737



family. This is the first time the Super Hornet is being offered for production in a foreign country.

Boeing F-15EX Eagle II

The Boeing F-15EX Eagle II is an advanced two-seat variant of the F-15E Strike Eagle and made its maiden flight in February 2021. Improvements included the Advanced Missile and Bomb Ejector Rack (AMBER) system to carry up to 16 air to air missiles, Active Electronically Scanned Array (AESA) radar, infrared search and track, advanced avionics, electronic warfare (EW) equipment, conformal tanks and revised structure with a service life of 20,000 hours. The USAF went ahead with these to maintain fleet size as F-22 production ended. The USAF has ordered around 80 aircraft. The Israeli Air Force ordered 25 F-15IA fighters and plans to upgrade 25 F-15Is to the F-15IA standard. The aircraft has a max take off weight of 36.7 tons, similar in class to Sukhoi Su-30MKI at 38.8 tons.

