

India's Medium Multi-Role Combat Aircraft (MMRCA) Contract: Uncertainty Continues

Vivek Kapur

Group Captain Vivek Kapur is Research Fellow at the Institute for Defence Studies & Analyses (IDSA), New Delhi

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Summary

The Medium Multi-Role Combat Aircraft (MMRCA) tender is a competition to supply 126 multi-role combat aircraft to the IAF, making it India's single largest defence deal. The MMRCA tender was floated with the idea of filling the gap between its future Light Combat Aircraft and its in-service Sukhoi-30MKI fighter. Closure of the French Mirage-2000 assembly line prompted the IAF to request for 126 such aircraft to the MoD in 2000. Subsequently, MMRCA Request for Information (RFI) was issued in 2001 and the tender was issued in August 2007. The Issue Brief chronicles the need and requirement of MMRC, examines the negotiation process and searches for some plausible alternatives. With some regular media reports highlighting the stumbling blocks, the Issue Brief tries to put things into a perspective.

Introduction

The Indian Air Force's (IAF's) MMRCA project continues to creep towards actualisation. The Issue Brief chronicles the need and requirement of MMRC, examines the negotiation process and searches for some plausible alternatives. With some regular media reports highlighting the stumbling blocks, the Issue Brief tries to put things into a perspective.

Background

IAF had 39.5 fighter squadrons in the early 1990s. The bulk of these comprised variants of the MiG-21, a design dating back to the late 1940s and early 1950s. More modern aircraft included a few squadrons of MiG-23MFs, a dedicated air-to-air fighter, a few squadrons of MiG-23BNs, dedicated air-to-ground attack aircraft, a few squadrons of MiG-27s, upgraded more capable variants of the earlier MiG-23BN, three squadrons of MiG-29s, two squadrons of Mirage-2000H and six squadrons of Jaguars.¹ In the late 1990s a contract was signed with Russia for developing the Su-30MKI for IAF.² The Su-30MKI would marry the Soviet era Su-27UBK, the two seat trainer of the Soviet era Su-27 fighter, airframe with a rear cockpit modified and re-configured for a Weapon Systems Operator (WSO) and avionics sourced from Western Europe, Israel and India and a glass cockpit. The Su-30MKI was to feature thrust vectoring and would also incorporate canard fore planes to enhance manoeuvrability and was to be the heavy end of the future IAF fleet while the under-development Light Combat Aircraft (LCA) "Tejas" was to be the light end of the future fleet, replacing the MiG-21s. The medium weight region³ was populated by Jaguars, Mirage-2000s, Mig-23 variants and MiG-29s. This segment of the fighter fleet required being modernised and a suitable contender to replace these older fighters, which were rapidly nearing the end of their useful service lives, was searched for starting in the early 1990s.

Initially the Mirage-2000 was identified as the most suitable type for induction to fill the medium slot for which there was a requirement of 126 aircraft with a possible extension by another 63 aircraft. Closure of the French Mirage-2000 assembly line, however, forced a look further afield and the MMRCA Request for Information (RFI) was issued in 2001 after IAF conveyed its need for 126 such aircraft to the Ministry of Defence (MoD) in year 2000. A stopgap request from IAF to MoD, in year 2003, to buy 50 Mirage-2000s to shore up the existing Mirage-2000 aircraft in service, thus preventing a rapid fall in fielded

¹ Janes World Air Forces Issue 15-1992

² "Su-30", www.fas.org/man/dod-101/sys/ac/row/su-30.htm, accessed on 15 Apr 2013.

³ A rough approximation of the weight categories referred are Light =less than 10 ton normal all up weight; heavy= >25 to 30 tons normal all up weight and medium= between 10 and 20-25 tons normal all up weight.

squadrons and especially in the medium segment of the force, was refused by the MoD. The MoD instead asked IAF to go in for a larger fresh tender.⁴ The tender for the MMRCA was issued in August 2007. The tender drew responses from Boeing and Lockheed Martin from the US, Russia's United Aircraft Corporation (UAC), France's Dassault Aviation, European consortium EADS and Sweden's SAAB by February 2008. It was rumoured in April 2009 that SAAB and Dassault were out of the competition due to the aircraft entered by them not meeting a few basic requirements such as the two companies not fielding aircraft with an Active Electronically Scanned Antenna (AESA) radar and the SAAB entry being an older variant of the JAS-39 Gripen aircraft to be offered to IAF. However, it was clarified a month later by MoD that these two companies remained in contention as they had redressed the drawbacks in their originally offered equipment. By April 2010 IAF completed its technical evaluation of the six contenders (Russia's MiG-35, US' Lockheed Martin F-16IN "Viper" and Boeing F-18E/F "Super Hornet", France's Rafale, EADS' Eurofighter Typhoon and Sweden's JAS-39 "Gripen") on the basis of 643 technical parameters⁵. The evaluation by IAF included extensive trials of the aircraft in the varied terrain and climatic conditions (ranging from hot and humid coastal and plains / forested areas, dry deserts to high altitude conditions with high temperatures in Ladakh in summer and high altitudes with sub zero temperatures in Ladakh in winter) that they would face during their service with IAF, if selected. This was followed by evaluation of the offsets deals offered by the six contenders as well as evaluation of the projected life cycle costs of the competitors' aircraft. In April 2011, IAF announced that the French Rafale and EADS' Typhoon were short listed ahead of the other four on basis of the technical evaluation.⁶ The life cycle and initial costs were then examined in detail to identify the lowest bidder or the L1. Rafale was identified as the L1 and exclusive negotiations were initiated with Dassault Aviation to arrive at the final contract.⁷

Negotiations with Dassault for Rafale

Since the time that India entered into exclusive negotiations with Dassault random media reports about problems in these negotiations have continued to surface. The continuous thread that runs through these reports is that the winning aircraft's manufacturer appears to be shying away from adhering to the terms set out in the initial tender as regards the offsets clause as well as the Transfer of Technology (ToT) clauses.⁸

⁴ "Timeline for India's combat jet deal", <http://newindianexpress.com/nation/article389709.ece?service=print>, accessed on 05 Apr 2013.

⁵ Ibid.

⁶ Ibid.

⁷ "Rafale MMRCA for the IAF", <http://www.indiandefencereview.com/news/rafale-mmrc-for-the-iaf/>, accessed on 05 Apr 2013.

⁸ Earlier commentary on this website refers.

While it is understood and even expected that as every aircraft manufacturer and seller is in the business for making a profit and therefore is naturally expected to negotiate hard to maximise his returns; the sporadic reports about glitches in the Rafale negotiations with Dassault bring out signs of a possible desire from the seller to renege on the terms of the initial Request for Proposals (RfP) from global companies. As soon as Rafale was declared the winner Dassault announced that it had entered into an agreement with the newly formed private company Reliance Aerospace,⁹ which has absolutely zero experience or expertise in aircraft manufacture to build the Rafale in India for the Indian order. Thereafter it was reported that Dassault was shying away from ToT for several critical systems including the AESA radar while also trying to reduce the work share to be done in India to build the aircraft¹⁰. The AESA radar ToT was claimed by Dassault to be infeasible as 'India does not have experience in building such advanced radars and hence would find it difficult to absorb this technology', while the work share re-working seemed aimed at protecting French jobs through holding back as much work as possible to be done in France itself. These problems were apparently resolved to the mutual satisfaction of both parties and the negotiations reportedly moved forward. The latest reports speak about Dassault trying to abdicate its responsibility for supply of the 108 aircraft to be built in India by Hindustan Aerospace Limited (HAL) after the initial supply of 18 French built aircraft are delivered. Most of the concessions reportedly sought by Dassault in the negotiations go against the mandatory conditions specified by the Government of India (GoI). It is difficult for the government to give concessions sought by Dassault at this stage. In this context these demands from Dassault are potential deal breakers. Reportedly, the latest demand is that GoI enter into two separate contracts for MMRCA; one with Dassault for 18 ready built aircraft and a separate one with HAL for 108 domestically built aircraft for which Dassault would supply any essential components required and then disassociate itself from manufacture of these 108 aircraft. This would lead to a situation of irresolvable blame games between HAL and Dassault regarding the quality of the 108 Rafale aircraft locally manufactured with no way to resolve issues amicably, if any problems emerge with these machines. This demand obviously can't be conceded as it could lead to the IAF being put in a untenable situation. It is in IAF's interests to enter into a single contract for all the 126 aircraft with the Original Equipment Manufacturer (OEM) Dassault Aviation in this case. This would give a single point of contact and help fix responsibility and accountability with a single entity. Moreover, as the OEM Dassault

⁹ Gulshan Luthra, "Rafale Partners with RelianceRIL should become the biggest Indian player in Combat Jets", http://www.indiastrategic.in/topstories1357_Rafale_partners_with_Reliance.htm, accessed on 14 Apr 2013.

¹⁰ Huma Siddiqui, "MMRCA deal: Negotiations between defence ministry, Dassault run into fresh hurdle", <http://www.financialexpress.com/news/mmrca-deal-negotiations-between-defence-ministry-dassault-run-into-fresh-hurdle/1055029/2>, accessed on 13 Apr 2013.

is in a better position to monitor the manufacturing process and ensure that the needed quality is delivered and also the obvious choice in being the party most able to resolve problems that emerge at a later date with these aircraft. A license manufacturer would not be able to do this as he is just building machines to someone else's design through following laid down instructions and blueprints. The licensed manufacturer would have "know how" about building the aircraft but not "know why". This knowledge gap would severely restrict the licensed manufacturer's ability to resolve problems without assistance of the designer of the aircraft. This is also why the many license manufacture programs undertaken by HAL over the years while giving this organisation "know how" have failed to deliver on "know why" and thus an inability to design and develop required aircraft indigenously forcing the IAF as well as civil aviation companies to import their aircraft. Thus it is obvious that GoI and IAF can not accept the latest Dassault demand that the 108 aircraft to be manufactured by HAL be de-linked from Dassault through entering into a separate contract with HAL for these.

Hard negotiations to maximise profits are understandable but if these reports are correct then Dassault appears to be trying to wriggle out of the terms of the initial request and of the tender that it entered into of its own free will. Some signs of arrogance and indications of bad faith from Dassault are also visible in these negotiation glitches. The Indian media has given prominence to the falling number of IAF fighter squadrons possibly leading to an impression that the IAF is desperate to ink the deal for Rafale on any terms. This false impression may be a factor in Dassault's behaviour in the current round of negotiations. Possibly Dassault is hoping to leverage the dwindling number of IAF fighter squadrons to force an agreement to its advantage. If true this can do immense damage to France's future association with the Indian defence apart from losing out on this particular contract. It is also a fact that the IAF does require modern aircraft inducted at the earliest in order to maintain the force level desired. Hence it is relevant to take a look at IAF's options with regard to the MMRCA.

IAF's Possible Alternatives to the Rafale Deal

The IAF could, in the face of Dassault's unrelenting series of unreasonable demands leading to a total breakdown of the negotiations, take any of the following actions:

- IAF could quite easily close negotiations with Dassault citing the company's desire to reverse all the conditions set out in the very first call for participation as being totally unacceptable; and opt to enter into negotiations with any of the other contestants (Eurofighter Typhoon, Boeing's F-18E/F "Super Hornet", Lockheed Martin's F-16IN "Viper", SAAB's JAS 39 "Gripen" or the Russian MiG-35) in the MMRCA competition. From the point of view of costs alone; and also considering the larger strategic picture given the increasing assertiveness and belligerence of the Peoples Republic of China (PRC) as seen in the South China Sea, Senkaku Islands dispute with Japan and the

more recent deep incursions by the Peoples Liberation Army's (PLA's) troops into Indian Ladakh near Daulat Beg Oldi (DBO), the Boeing F-18E/F "Super Hornet" may be the most suitable alternative aircraft to the Rafale in the long term interests of IAF and India.

- IAF could even forego the MMRCA altogether in favour of larger numbers of Su-30MKIs and deeper upgrades to older types (Mig-29, MiG-27, Jaguar and Mirage-2000), in order to extend their service life, as well as place larger orders of the LCA. More Su-30MKIs would require just an extension of the license terms with Russia and these aircraft would be built in India itself giving better control on technology ownership while reducing the number of types in service. LCAs in larger numbers in conjunction with more Su-30s would lead to a larger heavy and light end and a relatively less populated medium force level; but all built in India with primarily Indian acquired or owned technology. However, the weak middle end of the force structure issue apart, in the long run this option is likely to give a major impetus to indigenous design and development if for no other reason than there being no other choice and for this reason this option may thus be in the longer term interests of the country as well as the IAF.
- IAF could also forego the MMRCA in favour of larger numbers of Su-30MKI (including the proposed deep upgrade of the Su-30MKIs to Super 30¹¹ standard, which would include several Fifth Generation features) and earlier induction of enhanced numbers of the Fifth Generation Fighter Aircraft (FGFA), based on Russia's Sukhoi T-50 prototype, being developed jointly with Russia.
- Some of the funds currently earmarked for the Rafale purchase could be diverted towards accelerating development of the LCA's later and more advanced variants (LCA Mk-II/III etc)¹² as well as towards accelerated induction of FGFA's.

The possible options available bring out that the IAF is by no means powerless in face of the apparent bullying by Dassault in the negotiations to finalise the MMRCA contract. Unnecessary delay tactics by Dassault can be countered by IAF. The possible options available make clear that the IAF can ensure its force structure remains as potent as desired even without the Rafale deal fructifying, though with some re working of the long term

¹¹ "India Ordering, Modernizing SU-30MKIs", <http://www.defenseindustrydaily.com/india-ordering-modernizing-su-30mkis-05852/>, accessed on 25 April 2013. and "India's SU-30 MKI to be upgraded to Super Sukhoi By Russia", <http://www.defencenow.com/news/279/indias-su-30-mki-to-be-upgraded-to-super-sukhoi-by-russia.html>, accessed on 25 April, 2013.

¹² "India Turns to Overseas Firms to Increase LCA Production Level", <http://www.defencenow.com/news/142/india-turns-to-overseas-firms-to-increase-lca-production-level.html>, accessed on 15 April 2013.

plans already in place along with a reallocation of available funding. As per reports in magazines such as India Strategic IAF is planning its long term structure to include 272 Su-30MKI, 126 MMRCA, incremental orders of LCA and 144 FGFA, aiming to build up to 42 Squadrons by 2027¹³. In case MMRCA does not fructify the funds earmarked for this program could be diverted towards increased numbers of any of the other aircraft types.

While the seller does have some advantages over the buyer in the prevailing situation, however, long term interests dictate that undue advantages will be detrimental to the overall strategic relationship between France-India. Historically, France's aircraft industry has had its footprint in India ever since the IAF first bought fighters from Dassault in the early 1950s.

It would be prudent for Dassault to keep the negotiations for finalising the contract within the boundaries set out in the initial RfI, RfP and Tender.

Conclusion

The MMRCA deal has progressed from the initial RfP to selection on technical merits with Rafale as the first choice. However, exclusive negotiations with Dassault have dragged on for over a year with media reports suggesting that Dassault is trying to change the initial terms to evade several crucial clauses regarding ToT, work share to be undertaken by HAL and overall responsibility, etc. All these points were the initial requirements to be met by the vendor. Hence Dassault's demand for changes is surprising. The IAF does have several alternative options in case it becomes clear that Dassault is not really serious about concluding the contract in line with the parameters set out from the beginning. In the bargain it is possible that Dassault may lose out on this contract as well as vitiate the atmosphere to the extent that in future the Indian military keeps the French arms industry at arms length.

¹³ Gulshan Luthra and AM Ashok Goel, "IAF Transformation Maturing with New Aircraft, More Squadrons", India Strategic, Vol 7 Issue 10 October 2012. pp 4-11.