

BI-MONTHLY SECTOR UPDATE

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Aerospace & Defence

"It is an unfortunate fact that we can secure peace only by preparing for war."

- John F Kennedy

Majority of the procurements and development programs involving the IAF for coming 5-7 years



- Upgradation of existing IAF fleet
- Procurement of new aerospace platforms
- Procurement of weapons and munitions

- Procurement from indigenous vendors and foreign OEMs
- Possible procurements via leasing category

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1

Our Take

DAP 2020 - Implementation in letter and spirit is required

2

Insights and Analysis

- **Aero engines - The power to power**
- **Commercial aerospace - From 2019 to 2020**

3

News and Announcements

Modernization along with Indigenization is the theme

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Our Take

The geo-political scenario continues to be tense on the border areas for India as the 'no war, no peace' situation looks headed for a longer haul in the coming winter. Significant resources continue to be deployed on the border. The Armenia-Azerbaijan border clash does not help matters in these trying times of the pandemic.

India continues to focus on modernization to develop its domestic industry. The DAP 2020 was formally released on 28th September 2020, and it lays down some very fundamental changes including the exclusion of offsets from G2G, IGA and single vendor deals. Focus on military materials, aero engines and fab is a new dimension added. There is also talk of streamlining the lengthy trial processes in the procurement cycles.

The substantial Indian A&D infrastructure base has decades of experience in every segment but

imports still constitute 60-70% of the demand. COVID-19 and the ensuing disruptions in the supply chain across the globe coupled with the border disputes have brought home a strong message. It is imperative for India to be as self-sufficient as possible for all its requirements, including the defence and security aspects. It is now a mandatory requirement that the next 10 years be the most enriching decade from an R&D perspective so that both the public and the private sector can productionize the requirements in-house.

Towards modernization - on the shoulders of indigenization and self-reliance

Maj Gen Rohit Gupta, SM (Retd)
Head - Aerospace and Defence
Primus Partners

Key take-aways

Atmanirbhar Bharat

Make in India

India as global manufacturing hub

Strategic

- ❑ New procurement categories of Leasing and Buy (Global-Manufacture in India)
- ❑ G2G, FMS / IGA and single vendor deals excluded from the scope of offset obligations
- ❑ Aligning of the DAP 2020 with the Negative list
- ❑ FDI capping at 49% for eligibility in procurement categories like Buy (Indian-IDDM), Make-I, Make-II, Production agency in design & development, OFB / DPSU and SP policy
- ❑ Higher IC required in procurement categories
- ❑ Preference to systems and subsystems rather than components in offset discharge
- ❑ Price variation clause introduced
- ❑ Carve out from within defence budget for items in the negative list
- ❑ Reduced levels for accord of AoN

Operational

- ❑ Added emphasis to simulation and / or third-party testing-based certifications where feasible
- ❑ Physical evaluation for only critical operational parameters to reduce duration of trials
- ❑ Added emphasis on in-situ servicing, repair, maintenance actions or modifications as requested by the vendor will be permitted in case the equipment fielded requires any repairs / modifications during course of trials

Insights and Analysis

- Aero engines: *The power to power*

Aero engines form one of the most critical parts of an aerospace platform - both in design, development and manufacturing stage as well as during operations. It is arguably the most technologically demanding piece in the entire aircraft. This is reflected by the fact that only a few countries can claim to have developed the same.

GTRE in India started its Kaveri aero engine project more than three decades back in the late 1980s. However, originally slated to be completed by 1996, till date the engine is still in developmental phase due to various reasons possibly including:

- Under-estimating the effort required due to lack of experience
- Lack of infrastructure for engine and component system-level testing in India
- Further delayed due to US sanctions in 1998 further ensuing the unavailability of critical components and systems
- Unavailability of skilled/technical resources
- Changes in scope during the process of development

More than INR 2000cr has reportedly been spent on the project. However, the engine had not achieved the thrust levels required to power the LCA Tejas aircraft for which it was being built. Now the Kaveri engine is reportedly to be used in UAVs.

The fact that over the life cycle of aircraft engines alone cost a third of the total cost is reflective of the gap that the Indian industry currently faces. For military aircraft alone, India has reportedly imported more than \$1.3 billion worth of engines in the last 15 years. Civil aerospace engines further add to the import bill.

In the civil aerospace segment, India currently has around 690 commercial aircraft in service across all categories and another ~700 on order. These are pre-COVID numbers, and there is certainly no clarity yet

on how the traffic will pan out in the next year or so. IATA expects global traffic in 2020 to be down 66% YoY compared to a previous forecast of a 63% decline. However, while the short and medium-term market may have been impacted, it is expected that the market in the long term (2-3 years maybe) will get back to pre-COVID levels. The Indian market size would arguably not change drastically after 3 years. Hence aircraft demand would still be there if not for long haul/wide-body aircraft, but at least for short-haul and narrow-body aircraft. Pre-COVID forecast numbers of aircraft manufacturers were for ~1900 new aircraft (~80% single-aisle) in the next 20 years. That is a minimum requirement of over 3000 engines.

The military segment, on the other hand, has been a very focussed sector, more so in the recent past where globally there have been escalations and clashes on border areas. In the case of India also, there have been many emergency procurements to plug gaps in majority vintage weaponry in inventory. When it comes to aero platforms across the three services, there are billions of dollars worth of procurements planned - LCA, MMRCA 2.0, MRCBF, TEDBF, AMCA, AVRO replacement program, AWACS, NUH, LUH, LCH and transport aircraft - to name a few. All in all, in the military segment, the aero-engine market (excluding spares) would be for more than 3000 engines in the coming 5-10 years.

A market for ~6000 engines (and this is without including MRO / spares business) in the next decade or so should be enough business potential for, if not a single company, then a consortium of 2-3 companies to attempt this segment in the coming 5 years. Inorganic mode of entry would be the best way forward with incremental development within the country utilizing and developing domestic capabilities.

Insights and Analysis

- Commercial aerospace : From 2019 to 2020



The commercial aerospace industry, which includes the civil aviation sector, and the allied manufacturing and service sectors is a sector susceptible to both macro and micro-events. The ongoing COVID-19 pandemic is expected to result in a significant economic downturn which is pegged to be almost at equal levels, if not more, to the 2008 financial crisis. The growth in this industry has a substantial correlation with the growth in GDP, ATF prices and the geopolitical situation.

Globally deliveries of aircraft in the first seven months of 2020 have reduced by more than 50% YoY. From 2019, where the aircraft manufacturers were seeking to increase production rates to meet the demand, anywhere between 30-40% production rate cuts have been announced, and air traffic is not expected to return to pre-COVID levels for the next 2-3 years at least.

The aviation industry in India has arguably been one of the most impacted by the ongoing COVID-19 pandemic. YoY revenues have witnessed a steep decline....

Parameter	Apr - June 2019	Apr - Jun 2020	Change
Revenue of Indian airlines	INR 25,517cr	INR 3,651cr	-86%
Revenue of airport operators	INR 5,745cr	INR 894cr	-84%

... while pax count has reduced considerably...

Parameter	Jan - Aug 2019	Jan - Aug 2020	Change
Domestic Pax count (in lakhs)	943.58	401.17	-58%

...along with the load factors of most of the scheduled airlines, which have averaged between 50-55% in the last four months (till August 2020) compared to an 80-90% in normal cases.

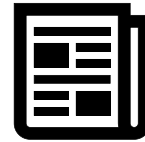
Indian airlines are reportedly staring at revenue losses of ~INR 1,30,000 crore between 2020 and 2022. InterGlobe Aviation, the parent firm of Indigo which has the highest market share in India, reported a ~92% decline in revenues during the quarter ending June 2020. There have also been layoffs across all areas, be it airlines (~7%), airports (~5%), ground handling (~22%) or cargo operations (~11%) between March 2020 and July 2020.

While IATA forecasts the global full-year 2020 traffic to be down 66% compared to 2019, for the Indian airlines a few steps that should be further emphasized to reduce the impact on airlines, include:

- ① An Indian leasing company for Indian airlines
- ① Interest free credit line or moratorium on loans and the interests on such loans
- ① Reducing / temporarily removing excise duty on ATF from the current 11% (ATF forms 40-50% of the cost for airlines)
- ① Additional unsecured credit of 2-4 months for ATF by oil marketing companies
- ① Moratorium of tax and other statutory dues and levies

With an order book of around 600-800 aircraft, Indian airlines had prepared to thrive in the long haul but now require all the support to survive the crisis.

News & Announcements



Some buzz on the industry

Effective 01 October 2020, the DAP 2020 was released on 30 September 2020, with a focus on indigenization and identifying critical areas like aero engines, military materials and fab
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India exploring alternatives for buying the commercial aircraft division of Embraer.
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OFB corporatization has moved forward with a private sector consultant appointed to advise on the same
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Webley & Scott set to begin production of pocket revolvers in collaboration with UP based Sial Manufacturers Pvt Ltd in UP defence corridor
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Import orders for carbines and self propelled air defence systems worth ~\$2.5bn cancelled - to be made in India
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Some buzz on the industry players

SAAB mentioned they have not chosen their SP for the MMRCA 2.0 program and want to work with multiple partners in India,
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IAI acquired 50% of BlueBird Aero Systems. Cyient has a JV with BlueBird.
[Read More](#)

India on 30 September 2020 successfully tested the extended range version of the BrahMos supersonic cruise missile,
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Another batch of ~72000 SiG Sauer rifles worth ~\$100mn cleared for procurement
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India has decided to procure General Atomics MQ-9B Guardians
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'Idea Realization'— a unique approach to examine futuristic ideas required for the growth of an organization or a sector or geography, from the perspective of assured on ground implementability.

India is and will continue to be a complex opportunity. Private and Public sector need trusted advisory partners in order to tap into this opportunity. Primus Partners is your go-to trusted Advisory for both public and private sector organizations involved intricately with nation building, and the creation and growth of robust corporations as engines of progress.

Our core strength comes from our founding partners, who are goal-oriented, with extensive hands-on experience and subject-matter expertise, which is well recognized in the industry. Our core founders form a diverse cohort of leaders from both genders with experience across industries (Public Sector, Healthcare, Transport, Education, etc), and with varied specialization (engineers, lawyers, tax professionals, management, etc).

Primus Partners brings experience of working in more than 30 countries with private and public sector, including working with Government of India, building and leading large consulting teams at the leadership level, and creating one of the largest public sector consulting practice in India. They also represent 200 person years of experience in leading global and Indian consulting firms and the public sector.

The founding team is supported by a distinguished advisory board that includes experts with leadership experience across government, large corporate and notable civil society organisations.

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