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Adanis enter aerospace manufacture, partner Saab to build fighter jets

Saab-Adani's Gripen E to compete against Lockheed-Tata's F-16

By Ajai Shukla

In New Delhi on Friday, Saab — a Swedish company that has built more than 5,000 aircraft in its 80 year history — announced a partnership to build the Gripen E fighter with the Adani Group — which has not yet built even a single aerospace component.

The Saab-Adani combine will compete against a Lockheed Martin-Tata Group alliance that was announced in June, to sell the Indian Air Force (IAF) at least 100 single engine medium fighters. The IAF's choice appears to be between Saab's JAS 39E Gripen (or Gripen E) and Lockheed Martin's F-16 Block 70.

For whoever wins, this would be an immensely lucrative contract. At an estimated \$60-80 million per fighter, the money paid out for building 100 fighters will be \$6-8 billion (~40,000-50,000 crore). And the number of fighters eventually built could easily top 200, say senior IAF officers.

Addressing a joint press conference in New Delhi, Gautam Adani of the Adani Group and Saab president, Hakan Buskhe, justified their partnership in terms of “shared mutual values” and a “commitment to nation building”.

A Saab-Adani Group joint press release on Friday stated: “A collaboration between Saab and Adani will combine the technical and product excellence of Saab, along with the industrial engineering, system integration and mega project execution capabilities of Adani with the intention to manufacture defence systems locally in India.”

But sceptics within the defence and aerospace industry believe the key value the Adani Group brings to the table is its proximity to political decision-makers.

Queried about Adani's lack of experience in defence manufacture, Ashish Rajvanshi, aerospace and defence head for Adani, pointed out that the “strategic partner” (SP) policy aimed at building such experience in an inexperienced private sector. “Outside HAL and DPSUs, who has design and systems' integration experience in fighter aircraft, submarines and helicopters in India?” he said.

Several uncertainties hang over the single-engine fighter acquisition, which is being pursued under the SP policy. The defence ministry must first choose Saab as a qualified “original equipment manufacturer” (OEM); and also select Adani Group as an SP that will build the fighter in India with technology transferred from the OEM.

Saab and Adani Group declined to reveal where the Gripen E assembly line would be set up in India.

While Lockheed Martin has experience in building F-16 assembly lines abroad, notably in Turkey and South Korea, Saab has not yet built fighters abroad. It is currently in the process of establishing a line in Brazil to build the Gripen E.

Buskhe talked up the prospect of exporting Gripen E from the Indian line, claiming that Saab's internal assessments were that 400-500 fighters would be sold globally, comprising 7-12 per cent of the world's fighter market.

Asked how many of those would be supplied from India and how many from the existing Swedish line, Buskhe stated there were no plans to expand production in Sweden, so much of the global business would flow

to India. “We would definitely export from India for the global market, provided your government thinks that’s a good idea,” he said.

The Gripen E is an advanced version of the Gripen D fighter that Saab had earlier offered the IAF in a 2007 tender for medium multi-role combat aircraft (MMRCA). The IAF rejected the Gripen D, and also rejected the F16IN Super Viper, an earlier version of the F-16 Block 70 fighter that Lockheed Martin is now offering.

The F-16 Block 70 has more advanced avionics than the earlier Super Viper, especially its electronically scanned airborne radar, the APG-83 Scalable Agile Beam Radar (SABR), built by Northrop Grumman.

The new Gripen E, too, has been significantly improved over the Gripen D. In addition to advanced sensors and radar, the Gripen E incorporates a more powerful General Electric F-414 engine in place of the GE F-404 engine in earlier Gripen variants. It has also been equipped with electronically scanned Selex Raven-05 radar.

Buskhe stated on Friday: “We started [developing the Gripen E] in 2013, when we were honoured by a contract from the Swedish government and, a year later, from the Brazilian government. In less than four years, we have had our first flight.”

He said Saab would begin delivering the Gripen E to Sweden and Brazil in 2019. In addition, Buskhe cited interest in the Swedish fighter from five to six more countries that he declined to name.

THE ECONOMIC TIMES

Sat, 02 Sep, 2017

Major Change in Strategic Partnership - Cos May get to Enter Multiple Programmes

By Shaurya Gurung

There could be a major change in the strategic partnership policy in defence procurement procedure to allow an Indian private entity to bid and win more than one contract for developing and manufacturing big military equipment, according to an industry insider. A senior government official, however, said that the matter was still under deliberation and has not been finalised. “A recommendation has been taken, but not yet included in the strategic partnership policy,” the official said.

The matter was discussed at a meeting last month between defence ministry's director-general (Acquisition), senior officials, industry associations and individual companies such as L&T, Tata, Reliance, Bharat Forge, Mahindra and Punj Lloyd. The Dhirendra Singh Committee and the subsequent Aatre Committee had placed restrictions in strategic partnership model by recommending that only one strategic Indian private entity be selected to manufacture in one military segment.

The strategic partnership chapter in the latest defence procurement procedure, however, didn't say anything on the issue. The industry insider said that after the chapter was issued, the defence ministry received clarifications and suggestions from industry associations and private companies and it decided to clear all doubts at one go and held the meeting with industry associations and companies.

“After the Dhirendra Singh and Aatre committees recommended a restriction of having only one group per segment, the industry wanted a clarification on whether the restriction remained. At the meeting, MoD officials said that there were no restrictions



Making A New Beginning

Now, the understanding is that a company can bid for becoming a strategic partner for different programmes of a segment and win all if capable

An Industry Insider

on a qualifying Indian company bidding for as many programmes and winning them," the top industry insider said.

For example helicopters are a segment and programmes could be multi-role and utility helicopters for the Navy. Requests for information have already been issued for two helicopter programmes, indicating that the defence ministry will stick to programmes, not segments, according to the official. The earlier understanding in the private industry was that a company can bid for several segments, but can be strategic partner in one segment. Now, the understanding is that a company can bid for becoming a strategic partner for different programmes of a segment and win all if capable, according to the industry insider.

MAIL TODAY

Sat, 02 Sep, 2017

IAF not keen on Russian 5th gen jets

It Seems that the Indian Air Force (IAF) is not in favour of acquiring the 127 fifth-generation fighter aircraft from Russia due to the "very high cost" involved in the project. It in turn wants to back a DRDO Make in India project — which it is planning to develop a similar plane called Advanced Medium Combat Aircraft (AMCA). It is learnt that IAF's views on the aircraft programme have been conveyed to the defence ministry even as a government panel has expressed its views in favour of the programme.

REASONS TO GROUND THE DEAL



■ The cost per aircraft at the time of induction in 2026 is coming out to be around \$250 million, which the Indian Air Force considers way too expensive

■ The total cost of the project involving 127 aircraft would come close to \$32 billion (₹2 lakh crore)

■ USD 6.7 billion (₹44,800 crore) would be the expense for the development programme, which would get only four prototypes of the plane for the force

■ The programme is at an advanced stage in Russia

■ The stealth technology is not as advanced as what the other contemporary

planes have

■ The maintenance of the planes would be a very costly affair like the Su-30MKI fleet

■ The Indian Air Force, in turn, is now set to back a DRDO Make in India project, which it is planning to develop a similar plane called Advanced Medium Combat Aircraft

"The Air Force has its reservations on the programme mainly on three points. First, the project cost is too high and way beyond what it had expected. The learning curve is not there as the project is already at an advanced stage and the stealth technology of the planes is not as advanced as that of the other similar planes," senior government sources told MAIL TODAY. The maintenance cost of the planes is also expected to be very high and similar to that of the Sukhoi-30 planes whose maintenance and upkeep has been quite demanding in their around 20 years in the force, they said. The Russians were developing the aircraft known as PAKFA on their side as a counter to the American F-22 Raptor and F-35 Lightning, which are considered the latest combat planes with stealth technologies and abilities to strike farther than their older counterparts.

"The cost of the FGFA programme is coming to be huge. While we have already spent close to \$300 million (₹2,000 crore) on the preliminary design phase, the Russians are demanding \$6.7 billion (₹44,800 crore) as the development cost of the planes — which is coming to be much higher than what we had perceived," the sources revealed. "The Russians are asking us to make big investments in the programme. While we are planning to induct only 12 of these planes in their IAF, they are asking India to buy 127 of these aircraft," added the sources. Sources said the investment of \$6.7 billion (₹44,800 crore) would give India only four prototypes of the FGFA aircraft and it will have to pay another \$135 million (₹900 crore) each for the 127 planes, which would be ready for induction only after 2027-28.

The cost per aircraft at the time of delivery in 2027-28, due to high inflation in defence deals, would come around \$250 million bringing the total project value to around \$32 billion (₹2 lakh crore), sources also said. Air Marshal S Varthman committee has recommended that the IAF should go ahead to coproduce the planes with Russia and the Defence ministry has to decide on it taking into account both the viewpoints.



Sat, 02 Sep, 2017

Russia refused to toe China line on Doklam: Envoy

By Saibal Dasgupt

Russia took a neutral view of the Doklam issue and refused to be persuaded by Beijing's efforts to malign New Delhi during the border standoff, the Russian ambassador to China told Russian journalists here.

Observers said Moscow's attitude towards the India-China confrontation would have a positive influence on the Delhi-Moscow relationship, as well as on Prime Minister Narendra Modi's role at the BRICS Summit, to be attended by leaders of member-states Brazil, Russia, India, China and South Africa, in the coastal Chinese city of Xiamen on Sunday.

Hours before India and China entered into an agreement to pull out troops and defuse the Doklam crisis on August 28, ambassador Andrey Denisov had said, "The situation on the India-China border is something that we all regret." "We think our Chinese and Indian friends can resolve the problem by themselves. We don't think they need any mediators who can influence their respective positions on the issue," Denisov added.

He was quoted by the Russian media as saying, "We can say that Russia is using its goodwill in both these countries."

Experts said Denisov's statement showed that two weeks of efforts by Chinese envoys to build a diplomatic front against India on the border issue did not have any impact on Russia, regarded as being closer to China compared to several Western nations.

The ambassador also said Russia had sought to play a role in world affairs whenever it could do so.



Sat, 02 Sep, 2017

China names commanders for army, air force

China has appointed new commanders of its army and air force in a reshuffle ahead of next month's Communist Party congress, as President Xi Jinping brings new blood into the military's top ranks amid an ambitious modernisation programme.

China's armed forces, the world's largest, are ramping up their capabilities with new equipment like aircraft carriers and stealth fighters as the country pursues a more assertive stance in the disputed East and South China Seas and seeks to project power far from home shores.

The new army chief, Han Weigu, is not a high-profile figure but has risen rapidly, with three promotions since 2015. He was also commanding officer in charge of a military parade in Inner Mongolia in July overseen by Xi to mark 90 years since the founding of the People's Liberation Army. His new position was announced by state media on Friday.

The new air force chief, Ding Laihang, announced by the defence ministry on the same day, is also a relatively low-profile figure, who ran air force operations for China's northern theatre command before his promotion.

New navy chief Shen Jinlong took up his position in January. Sources with ties to the leadership say he is close to Xi. All three men could be promoted to the Central Military Commission headed by Xi, which is in overall charge of the People's Liberation Army, when the party holds its once-in-five-years congress in Beijing next month.



Sun, 03 Sep, 2017

Trump & Moon agree to boost South Korean missile capabilities

The United States and South Korea agreed Friday to strengthen Seoul's defences and Washington gave a nod to billions in arms sales to the country, the White House said, days after North Korea fired a missile over Japan and threatened further launches. In Seoul, the presidential Blue House spokesman confirmed that US President Donald Trump and his South Korean counterpart Moon Jae-in agreed to enhance the country's deterrence against North Korea by boosting its missile capabilities.

Pyongyang fired an intermediate-range Hwasong-12 over Japan early on Tuesday, which it said was a mere curtain-raiser for the North's resolute countermeasures against ongoing US South Korean military drills. It came as US and South Korean forces were nearing the end of the 10-day annual Ulchi Freedom Guardian joint exercises, which the North regards as a rehearsal for invasion. Trump has insisted that all options are on the table in an implied threat of pre-emptive military action, while on Thursday US heavy bombers and stealth jet fighters took part in a joint live fire drill in South Korea intended as a show of force.

Trump and Moon spoke on the phone Friday about North Korean's continued destabilising and escalatory behaviour, the White House said in a statement. "The two leaders agreed to strengthen our alliance through defence cooperation and to strengthen South Korea's defence capabilities. President Trump provided his conceptual approval of planned purchases by South Korea of billions of dollars in American military equipment," South Korea said. Park Soo-hyun, the spokesman for Seoul's presidential office, said the leaders had reached an agreement in principle to loosen — to the extent hoped by the South Korean side — limits on the South's ballistic missile capability. Under a bilateral agreement with the United States, Seoul is currently restricted to ballistic missiles with a maximum range of 800 kilometre and payload of 500 kg.

The South wants the maximum warhead weight doubled to one tonne, and the Pentagon has said it was actively considering the revision. Signed with the US in 2001 — the year South Korea joined the Missile Technology Control Regime (MTCR) — the agreement initially limited Seoul to rockets with a range of just 300 kilometer, due to US concerns about triggering a regional arms race in Northeast Asia. However, after a long-range rocket test by North Korea in 2012, Seoul managed to negotiate the near threefold increase in the range limit to 800 kilometer, putting North Korean military facilities which were previously out of range within reach, as well as parts of China and Japan. Tensions on the Korean Peninsula are at their highest point in years after a series of missile tests by Pyongyang. Calls are also mounting in South Korea for Seoul to build nuclear weapons of its own to defend itself as nuclear armed North Korea's missile stand-off with the US escalates. The South, which hosts 28,500 US troops to defend it, is banned from building its own nuclear weapons under a 1974 atomic energy deal it signed with Washington, which instead offers a nuclear umbrella against potential attacks. Park said the two leaders reaffirmed the need to bring Pyongyang back to dialogue by applying maximum sanctions and pressure. However, Trump said after the latest missile test that negotiations with Pyongyang were not the answer.

Sat, 02 Sep, 2017

‘US missile shield is 100% ready for Pyongyang rockets’

A TOP US military chief has said the Army’s missile defence system in an Alaskan base is “100 per cent” ready to defend against North Korean rockets. Colonel Kevin Kick, commander of the 100th Missile Defence Brigade, revealed his confidence in the GroundBased Interceptor anti-missile system at Fort Greely, Alaska. The WWII military base is home to 33 missile interceptors standing at 60 feet with “kill vehicles” fixed at the tip. Colonel Kick told CNN: “You’d see a flash of flame as that GBI would leave the tube at an incredible speed. I have 100 per cent confidence the missile system would work.”

Despite this show of confidence, the anti-missile system has a checkered past. According to data from the Missile defence Agency, in 18 tests conducted, interceptors have struck their targets only 10 times. Fort Greely is a World War II army base which reopened in 2004. According to ABC News, it is only one of two missile defence facilities in the country with a population of around 500 people.

California’s Vandenberg air force Base is used as a backup. This comes at a time of heightened tensions over North Korea’s provocative missile launches in the region. Just Thursday, North Korea warned Japan that joining the West in criticising their nuclear missiles program means “imminent self-destruction”, as Tokyo moves to increase its military budget. Tension between North Korea and the rest of the world has soared after Pyongyang fired a missile over Japan under the supervision of an overjoyed Kim JongUn. The North’s official KCNA news agency decried the former colonial power in a commentary, saying: “Japan has now come out with its sleeves rolled up in supporting its master's anti-DPRK war moves.”

*Sat, 02 Sep, 2017*

RAF opens combat unit to women

Britain's Royal Air Force has become the country's first military service to open up all roles to women - including close combat roles. The RAF will start taking applications on Friday from women interested in joining its ground-fighting force, a 2,000strong regiment that protects bases and airfields around the world.

In announcing the decision in July, defence secretary Michael Fallon said that this was a “defining moment for the RAF.” Fallon says individuals capable of meeting the standards for the regiment should be allowed to serve regardless of gender. Prime Minister David Cameron lifted the ban on women serving in close combat units in 2016 and the services are making the transition. Britain's army has opened up some of its close combat roles to women, but not all roles.

*Sun, 03 Sep, 2017*

Former-U.S. Navy pilot to head NASA

U.S. President Donald Trump announced on Friday that he plans to appoint James Bridenstine, a former Navy pilot and Republican congressman, to head the U.S. space agency NASA.

Mr. Bridenstine, 42, who backed Mr. Trump during the U.S. presidential campaign, had long been considered the favourite for the job of NASA administrator. But the nomination drew fire from two U.S.

Senators from Florida. Mr. Bridenstine, who was elected to Congress from Oklahoma in 2012, is a member of the House Armed Services Committee and the Committee on Science, Space and Technology.

According to the trade publication SpaceNews, Mr. Bridenstine has been a big proponent of giving the private sector a larger role in space.

THE ECONOMIC TIMES

Sun, 03 Sep, 2017

Weight issue not linked to PSLV heat shield glitch: ISRO chief

By Srinivas Laxman & Surendra Singh

New Navsat Launch Soon: VSSC Head

ISRO chairman AS Kiran Kumar on Saturday firmly denied that the PSLV-C39 rocket carrying eighth navigation satellite IRNSS-1H failed on Thursday as it was carrying one-tonne extra load. A report in TOI on Saturday had stated that “the PSLVC39 rocket, which failed to launch the IRNSS-1H, was dragged down by at least one tonne extra weight”. The report stated that this was more than the design permitted.

Speaking to TOI on Saturday prior to making a pre sanitation at the Nehru Centre in Mumbai, the ISRO chief said: “The report is incorrect and the rocket was not carrying any extra load.” He said the heat shield added additional weight to the launch vehicle as it failed to get detached at the second stage and went along till the fourth stage separation point. “It was not because ISRO put any additional weight prior to the launch,” he said. He added that a portion of the rocket with the satellite enclosed in the heat shield was currently orbiting 163km x 6,600 km and was being tracked by the multi-object tracking radar at Satish Dhawan Space Centre, Sriharikota. “It is expected to remain this way for another 25 days,” he said. Kiran Kumar said a failure analysis committee was being formed to study the setback.

Dr K Sivan, director of Thiruvananthapuram-based Vikram Sarabhai Space Centre (VSSC), said, “Launch failure will not affect future missions as they will go as planned. But corrective measures will be taken in future for all types of vehicles as the heat shield separation mechanism is similar in all launchers.”

The unsuccessful launch has necessitated the urgent launch of the ninth navigation satellite IRNSS-1I. Dr Sivan said the “standby ninth satellite will be launched soon”. India had imported 27 atomic clocks for the nine satellites of NavIC (desi GPS). Seven of these satellites, with three atomic clocks each, are already in orbit. The eighth satellite IRNSS-1H, launched on Thursday, got stuck within the heat shield. It was supposed to replace India's first navigation satellite IRNSS-1A as the three atomic clocks of the latter had stopped working last year. Dr Sivan also said that the “process to make indigenous atomic clocks has started within the country” by a government organisation. He, however, said that the navigation system is very much operational and is not affected.

Scientists spot ‘spiders’ on Mars

Formed by networks of cracks on surface

As many as 10,000 citizen scientists have helped discover landforms known as ‘spiders’ on parts of Mars where they were previously thought not to exist.

The ‘spiders’ are named for their arachnid-like appearance and are a type of land erosion where networks of cracks form on martian soil, completely different to anything on Earth, researchers at Oxford University in the U.K. said.

The discovery was made by volunteers working on behalf of Planet Four: Terrains, an online project hosted by Zooniverse, the world’s largest and most popular people-powered research platform, they said.

Araneiforms — the scientific name for these features — occur at the planet’s South Pole and form when carbon dioxide turns to ice during the martian winter.

As the seasons change, direct sunlight penetrates the translucent ice, warming the land beneath. The land surface then gets eroded as the gas races out and rips off little bits of dirt, forming spindly branches which resemble spider legs.