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DEFENCE DIPLOMACY • SECURITY
DefExpo India 2018
Show Daily (Day 3)

"We intend to create far more than an F-16 'assembly line' in India"

VIVEK LALL, Vice President Strategy and Business Development, Lockheed Martin, appreciates the services of F-16 and says, F-16 gives Indian industry a unique opportunity to become a part of the world's largest fighter aircraft ecosystem

What are the latest developments at Lockheed Martin related to the F-16 and the C-130J?
Demand for new production F-16s remains strong. Many air forces are actively engaging with Lockheed Martin about the prospect of procuring new F-16s. We see F-16 production opportunities totaling more than 400 aircraft in Central Europe, the Mediterranean, Asia, and South America. This estimate includes the potential partnership we are pursuing with India to produce F-16 Block 70 aircraft in India.We also have three F-16V upgrade programmes on contract today—more than 300 F-16s altogether—and we are in discussions with several other customers interested in F-16V upgrades.

Lockheed Martin reached a major milestone with the delivery of its 400th C-130J Super Hercules aircraft on February 9. The C-130J Super Hercules is the current production model of the legendary C-130 Hercules aircraft, with operators in 17 nations, including India. The C-130 programme represents a strong legacy of partnership between the U.S. and India. All C-130Js delivered to customers around the world have major aerostructure components from India included in their build through partnership with Tata Advanced Systems Limited (TASL) in Hyderabad, India.

What makes the F-16 the ideal choice of single engine fighter and to what extent has the US government approval been provided for supply of vital technologies related to avionics, radar, weapons and MRO technology?
The F-16 is the only aircraft programme with the proven performance and scale to meet India's single-engine fighter needs and 'Make in India' priorities. No other 4th Generation platform even comes close to matching to F-16's record of real-world combat experience and proven operational effectiveness. To date, 4,588 F-16s have been produced and we see F-16 production opportunities totaling more than 400 aircraft in Central Europe, the Mediterranean, Asia, and South America.

The F-16 is the only true power projection platform in this competition. The ability to project power provides invaluable deterrence against current and potential adversaries. The world's most advanced F-16, the F-16 Block 70, is the only aircraft that can both deter, and if necessary defeat, India's adversaries. Six different air forces have achieved more than 80 air-to-air kills with the F-16 and F-16s are executing combat missions as we speak. The F-16 is also the only offering with operational, combat-proven Active Electronically Scanned Array (AESA) radar. Northrop Grumman's advanced APG-83 AESA radar on the F-16 Block 70 provides F-16s with 5th Generation fighter radar capabilities by leveraging hardware and software commonality with F-22 and F-35 AESA radars.

What opportunities will India have to become part of the global supply chain for the F-16 and does this also extend to the F-35?
We intend to create far more than an F-16 'assembly line' in India. We plan to introduce two new words into the lexicon of international fighter aircraft manufacturing: 'India' and 'exclusive'. F-16 production in India will be exclusive, something that has never before been presented by any other fighter aircraft manufacturer, not in past or present. The F-16 gives Indian industry a unique opportunity to become a part of the world's largest fighter aircraft ecosystem. The F-16 also provides unmatched opportunities for Indian companies of all sizes, including Micro, Small & Medium Enterprises (MSMEs) and suppliers through India, to establish new busi relationships with Lockl Martin and other indu leaders in the U.S. and aro the globe. Approxima half of the F-16's supply ch is common with the Generation F-22 and F It would be inappropr for us speak on behalf of US Government with re to technology transfer, technology improvements continue to flow between

"THE F-16 PROVIDES UNMATCHED OPPORTUNITIES FOR INDIAN COMPANIES OF ALL SIZES"

What is the current status of Lockheed Martin's offer of the F-16 Block 70 to the IAF?
We are continuing to engage in discussions between the Government of India and the US Government regarding the F-16 Block 70 proposal to India. Those discussions have been very positive and we are now awaiting formal requirements from the Indian Air Force.

What are the significant differences between the F-16 Block 70 and Block 50/52?
The F-16 Block 70 being proposed to India will be the most advanced, most technologically advanced and capable F-16 ever produced. The F-16 Block 70 brings the most modern avionics, a proven AESA radar, a modernised cockpit, advanced weapons, longer range with conformal fuel tanks, auto ground collision avoidance capability, and an advanced engine with an extended service life.The AESA radar on the F-16 Block 70 is the result of over two decades of investment, use and experience with AESA technology, and it's fully operational today.

What is the infrastructure that needs to be set up for a fighter aircraft assembly line from scratch – in terms of infrastructure (road/airport), aircraft manufacture (tools/machinery), flight test (runway, ATC, etc.), skilled manpower?
F-16 production in India will indeed require new infrastructure, which supports 'Make in India' from day one. That new infrastructure includes, for example, a runway, a control tower, airspace for advanced fighter aircraft testing, hangars and Final Assembly and Checkout (FACO) manufacturing facilities. A skilled Indian work force would also be needed to build and maintain that infrastructure, as well as the aircraft themselves.

What are the key technologies that LM is prepared to offer to India for a potential contract award?
Lockheed Martin does not speak for the US Government (USG), but levels of the US government have expressed strong support for the F-16 offer in India. The US Department of Defense (DoD) has provided multiple briefings to the Indian Government demonstrating their support for an F-16 partnership with India. The US Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics (OUSD AT&L), International Cooperation (IC) Directorate, has proactively brought together the DoD and inter-agency communities to support establishing the release policy for an F-16 deal. The US Secretary of Defense and Secretary of State have also both clearly and publicly stated their support for a cooperative Make in India fighter programme in India. We would not be proposing what we are if it did not have the full support of the USG. It is also important to note that all other western fighter aircraft platforms currently being proposed to India include US components and technologies that will require USG approval.

What were the results from the Bengaluru suppliers meet held before Aero India, how many vendors have been shortlisted?
We had productive and positive discussions with a number of Indian companies and we are continuing to engage with Indian industry about potential opportunities. The F-16 provides unmatched opportunities for Indian companies of all sizes, including Micro, Small & Medium Enterprises (MSMEs) and suppliers throughout India, to establish new business relationships with Lockheed Martin and other industry leaders in the U.S. and around the globe.

Has sale of the AESA radar and other sensors, advanced air to air weapons (AMRAAM, Sidewinder, etc) been cleared to India?
Lockheed Martin does not speak for the U.S. Government (USG), but levels of the USG have expressed strong support for the F-16 offer in India. We are also still awaiting formal requirements from the Indian Air Force, which will drive further government-to-government discussions regarding specific weapons systems and the transfer of certain technologies.

Will India have the option to integrate weapons of her choice on F-16s?
We are still awaiting formal requirements from the Indian Air Force, which will drive further government-to-government discussions regarding the integration of specific weapons systems. That said, the F-16 is the only aircraft platform in this competition that can easily incorporate a variety of weapons systems, including indigenous, India-sourced systems. Lockheed Martin has more than 36 years of weapon integration experience with the F-16. No other organisation can match this weapons integration experience. In concert with the US Air Force and multiple F-16 Foreign Military Sales customers, Lockheed Martin have certified more than 3,300 carriage and release configurations for greater that 180 weapon and store types.

How many orders does LM have for the F-16 Block 70 and how long is the production line in the USA expected to remain open?
The US and Bahrain signed a government-to-government Letter of Offer and Acceptance, or LOA, agreement last November approving the sale of 16 new production F-16s to Bahrain. In September 2017, the US State Department approved a proposed (Foreign Military Sale) programme to upgrade the Bahrain Royal Bahraini Air Force's Block 40 aircraft to the F-16V configuration. We see F-16 production opportunities totaling more than 400 aircraft in Central Europe, the Mediterranean, Asia, and South America. This estimate includes the potential partnership we are pursuing with India to produce F-16 Block 70 aircraft in India.

What are the challenging issu related to ToT of critical and p prietary technology – especia that which is governed by US G rules – to any export customer?
Lockheed Martin does not spe for the U.S. Government (US but we do not anticipate challenges regarding future ports. Lockheed Martin has tensive experience setting production facilities around world, from which F-16s h been exported. We successfu stood up four F-16 Final Asse bly and Checkout (FACO) cilities in Belgium, Netherlan Turkey and Italy.

How does the F-16 compare terms of cost of acquisition operation as compared to its tw engine competitors?
The success of the F-16—3, F-16s flying today with 25 le ing air forces—is a testamen the cost-effective, combat-pr en capabilities the F-16 deliv The single-engine F-16 ha 30-40 percent lower operat and maintenance cost per fly hour than twin-engine airc in its class, according to figu published by the Office of Under Secretary of Defe Those cost-effective, com proven capabilities are F-16 production opportun today total 'more than 400 craft, including India. Whe you're talking about battlefi or budgets, the F-16 is the c choice for India.

Is Lockheed Martin conside any changes to its current posal for manufacture of F- India?
Our proposed F-16 part ship with India stands firm. F-16 remains the only air programme in this compet with the proven perform and industrial scale to India's operational needs 'Make in India' priorities. F-16 Block 70 is an opportu for India to redefine its ge litical, military and indu power and relationships the U.S. and other leading tions for generations to com

F-16, F-22 and F-35 for decades, at a fraction of the cost to F-16 operators.

How has Lockheed Martin ascertained the capabilities of firms in India to be part of a potential F-16 programme for manufacture in India?

We have been deeply engaged with Indian industry and others in the global F-16 industrial ecosystem about this potential transformational F-16 partnership with India. Those engagements have been very positive and encouraging. Lockheed Martin has partnered with India for more than 25 years and remains committed to fostering technology development, manufacturing and strategic collaboration. That strategic partnership is reflected in our successful joint venture company with Tata Advanced Systems Limited (TASL), which manufactures major airframe components for the C-130J airlifter and S-92 helicopter.

What is the status of the proposal with Tata to produce the F-16 in India and what steps need to be taken to create fighter class production and assembly facilities in India?

Lockheed Martin and Tata Advanced Systems Limited (TASL) signed a letter of intent to work together on F-16 Block 70 production in India as part of a proposal to offer the aircraft to the Indian Air Force. Our partnership with TASL involves standing up world-class facilities and capabilities in India, with India, for India. Such a major undertaking is always done by steps and we are working closely with TASL, Indian industry and our US partners to establish a transformational F-16 partnership with India. Towards that goal, TASL and General Electric (GE) recently announced that they have begun construction on a new facility in Hyderabad, India, positioning the two companies to build engine components for military and commercial platforms.

What is the status of C-130J deliveries to the IAF and has there been interest in the C-130J from other potential operators in India?

The Indian Air Force currently operates 11, C-130J Super Hercules. Five are operated by the No. 77 Squadron (Veiled Vipers) stationed at Air Force Station Hindon. These aircraft were delivered from 2010 through 2011. The remaining six are operated out of Air Force Station Arjan Singh by No. 87 Squadron (The Raptors). These aircraft were delivered in 2017. The Indian Air Force is on contract to receive an additional C-130J.

What are the future developments/variants of the C-130J that could be of interest to India?

One of the hallmarks of the C-130J Super Hercules is its unmatched mission versatility, making it one aircraft that can support 17 different mission requirements (through production or post-production modification). These missions include: personnel recovery, air drop, special ops, combat delivery, personnel transport, aerial firefighting, search and rescue, electronic surveillance communication, special passenger accommodations, aeromedical, commercial freight delivery, gunship, aerial refueling, rapid ground refueling, intelligence, surveillance and reconnaissance, and maritime surveillance. A number of these missions are applicable to those supported by India's military operators and we stand ready to support any airlift mission needs required by India's military operators.

Is the Javelin ATGM still on offer for India and can export clearance be obtained for license production of Javelin in India under ToT (Transfer of Technology) clause?

The Javelin Anti-Tank Guided Missile (ATGM) remains a viable offer for India. The Raytheon-Lockheed Martin Joint Javelin Venture team and the US Government (USG) recently responded to a Request for Information (RFI) from the Indian Army and Navy for their Anti-Tank Guided Munition (ATGM) requirements for Fast Track Procurements. The USG has confirmed that the ToT and accompanying co-production offer provided as part of the Defence Technology and Trade Initiative (DTTI) remains an option for India. We stand ready with our industry and USG partners to support future discussions on Javelin procurement for the GoI and Indian Army and Navy. Javelin is the only shoulder-launched ATGM on the market with a proven combat record that has the lethality to destroy all main battle tanks and achieve fire and forget guidance out to 4 kilometers.

Please update on the manufacture airframe components for the C-130J airlifter and S-92 helicopter by JV partner TASL?

Tata Lockheed Martin Aerostructures Limited (TLMAL) is a joint venture established in 2010 between Tata Advanced Systems Limited (TASL) and Lockheed Martin Aeroframe Corporation located in Hyderabad, India. TLMAL began producing C-130J Super Hercules airframe components in late 2011. TLMAL not only exemplifies the Government of India's 'Make in India' objectives, but it has the distinction of being the single global source of C-130J empennage assemblies included on all new Super Hercules aircraft produced in Marietta, Georgia, in the US. To date, TLMAL has manufactured more than 55 C-130J empennages. Empennage assemblies produced by TLMAL include the aircraft's horizontal and vertical stabilizers along with leading edges and tip assemblies. Since, production began in 2010, TASL has delivered 120 cabins to Sikorsky's S-92 assembly plant in the United States. Today, production of more than 5,000 precision components that compose each S-92 cabin is 100 percent indigenous to India — supplied by a joint venture company called Tata Sikorsky Aerospace Ltd., also located in Hyderabad.

Has Lockheed Martin been informed of any changes to the single-engine fighter decision?

The Government of India has not yet issued formal requirement, but we are continuing to support government-to-government discussions and engage with Indian companies about F-16 industrial opportunities.

How does Lockheed Martin intend to move forward on its partnership with Tata if the single engine fighter programme falls through?

We look forward to building on the success of our partnerships with Tata on premiere programmes like the C-130J airlifter and S-92 helicopter, and developing new relationships with India. Lockheed Martin has partnered with India for more than 25 years and we're eager to strengthen and grow long-term, strategic partnerships to achieve 'Make in India' objectives and deliver advanced, affordable capabilities that position India for the future.

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