

i-CET Paves Way for Elevating & Expanding Ties between India and the US

At a time when a majority of observers were talking about a strain in Indo-US relations due to India maintaining a neutral stand in the Ukrainian conflict, the visit of the NSA Mr Ajit Doval to the US from 30 January to 01 February indicates that the strategic relationship remains on firm footing, with deep interest on both sides regarding deeper collaboration across defence and critical and emerging technologies.

Accompanying Mr Doval to the bilateral dialogue on “Critical and Emerging Technologies” with US NSA Jake Sullivan were the Scientific Adviser to Raksha Mantri, Satheesh Reddy, DRDO Chief Samir V Kamat, Principal Scientific Adviser Ajay Sood, and Secretary (Telecom) K Rajaram.

During his visit to the US, the NSA Mr Ajit Doval interacted with US policymakers and stakeholders—Government, Congress, business, academic and research communities on a range of bilateral, regional and global issues of mutual interest. Apart from meeting with US National Security Adviser Jake Sullivan, he also met Chairman of the Joint Chiefs of Staff General Mark Milley, Acting Secretary of Defence Kathleen Hicks, key Senators and industry leaders.

Secretary of State Antony Blinken tweeted after his meeting with Mr Ajit Doval, “The United States is expanding cooperation with India to address global challenges. I had a good meeting with Indian National Security Advisor Ajit Doval today to discuss deepening our strategic partnership”.

The meeting initiative on Critical Emerging Technology (iCET) translated into action, the announcement made by Prime Minister Narendra Modi and President Joseph Biden during their meeting in Tokyo in May 2022.

According to information both countries agreed to focus on joint production of key items of mutual interest, in the field of defence manufacturing. The US committed to expeditious review of the licence application submitted by General Electric to produce jet engines in India for the indigenously manufactured Light Combat Aircraft. Another decision was on creating a new Innovation Bridge to connect defence start-ups .

Some of the key technology sectors identified under the initiative include defence, semiconductor supply chains, space, and STEM. The initiative in addition identified areas such as biotechnology, advanced materials, and rare earth processing technology. There is an emphasis on finding ways to engage in co-development and co-production while underlining the importance of “innovation bridges” in the key technology areas.

i-CET aims to position the two countries as trusted technology partners by building technology value chains and supporting the co-development and co-production of items. It also aims to address regulatory restrictions, export controls and mobility barriers through a standing mechanism.

US and India plan to share advanced defence and computing technology, including the potential joint production of the jet engines, as the Biden Administration seeks to shift India away from Russia and counter China.

US National Security Adviser Jake Sullivan said in a briefing that the framework won’t be solely driven by the geopolitical challenges posed by Moscow or Beijing. He added that China’s

aggressive military moves and economic practices have had “a profound impact on the thinking in Delhi” and other capitals around the world. “The China-Russia factors are real, but so is the idea of building a deep, democratic ecosystem of high technology.”

During the meeting, the US side also assured support to ease export barriers to India in a few critical areas, including through efforts towards legislative changes.

India and US are likely to take their Defence Cooperation to the next level with the Joe Biden Administration likely to give a green signal to GE, a world leader in military jet engines, to manufacture the GE-414 INS6 engines in India in collaboration with the DRDO and a still-to-be-identified private defence equipment maker.

The India specific GE-414 INS6 engine will power the LCA (Light Combat Aircraft) Mark II, which is likely to be rolled out by Aeronautical Development Agency (ADA) early next year and take to the skies by the end of 2024, and the under-development twin engine Advanced Medium Combat Aircraft. The fighter is expected to take to the skies at the end of this decade with its naval version operating on aircraft carriers.

As per the latest news reports the GE-414 engine will be manufactured under terms that include 100 percent Transfer of Technology (ToT), with the deal likely to be sealed during the on-going visit of the high-level delegation led by National Security Adviser Ajit Doval's to the US.

At a dinner hosted by Indian Ambassador Taranjit Sandhu and attended by senior US officials including the NSA Jake Sullivan, Shri Doval highlighted the need to convert intentions and ideas into actions and specific deliverables through focused steps in a timebound manner.

The negotiations for 100 percent local manufacturing of GE-414 engines began when then DRDO Chief Satheesh Reddy visited US in May 2022 to meet US Under Secretary of Defence for Research and Engineering Heidi Shyu, and her colleague Terry Emmert, the Principal Deputy Chief Technology Officer for mission capabilities.

It is reported that US officials are evaluating a proposal from GE to approve joint production of jet engines for Indian warplanes, Sullivan said Tuesday. He wouldn't speculate on how soon an announcement might come, while adding that the countries are aiming for “fast and ambitious progress.”

While GE-404 engine powers the LCA Tejas Mark I aircraft, the GE-414 engine will power the Mark II Tejas, which will carry nearly 6.5 tonnes of missiles and ammunition and will be a replacement for Mirage 2000 and MiG-29 aircraft.

India plans to produce more than six Squadrons (each Squadron has 18 aircraft) of the Mark II aircraft for the Indian Air Force, and will also be exporting the fighter to interested countries.

Clearance for assembly of GE engines in India would be a step toward lessening the country's historic reliance on Russia for military hardware India now flies a mix of Russian, European and locally produced jets in its fighter fleet.

With the Biden administration likely to give permission for 100% manufacturing TOT to GE, this will lay the foundation for future joint design, development, and manufacture of high-powered engines beyond 110 KN thrust between two countries.

The agreement will be a major milestone as it will result in shifting the manufacturing of certain critical components to India and signals a deepening of linkages White House Press Secretary

Karine Jean-Pierre said that the “important” India-US partnership is between “two friends” which look forward to creating a democratic technology ecosystem to reinforce democratic values and their democratic institutions.

i-CET has launched the mechanisms for both countries to explore and deepen collaboration in several critical and emerging technologies, including Artificial Intelligence, quantum, 6G, space, semiconductors and biotech. This is significant as economic and technological partnership between India and US has, so far, lagged behind the growing strategic convergence. i-CET has the potential to establish new areas of research and production collaboration.

After the India-US civil nuclear cooperation agreement of 2008, US declaring India a Major Defence Partner in 2016 and then placing India on STA1 for higher level technology releases. i-CET has the potential to take academic, industrial and government level collaboration to yet another level.

Geo strategic dynamics no doubt has a role to play as there has been a growing convergence of Indian and US interests in managing the security, economic and technological challenges presented by a rising and assertive China. Apart from this the Ukrainian conflict is also forcing India to reduce its dependence on Russian weapons and military technology and to produce more weapons at home.

If implemented with speed and purpose, the bilateral initiative on i-CET could lend new strategic depth and widen the ambit of the strategic partnership between the two countries.

This initiative which is filled with promise, will not only add to the ‘Atmanirbhar Bharat’ mission but also make India one of the leading civilian as well as military aircraft manufacturers in the world.

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