

As Tejas inches towards final clearance, DRDO chairman explains why the fighter jet programme was delayed

By Sudhi Ranjan Sen

In an exclusive interview to India Today, Dr S Christopher, chairman of Defence Research and Development Organisation (DRDO) clarified that it would be wrong to say that the Tejas Light Combat Aircraft (LCA) was made in a span of three decades. He explained that that it was only in 1998 that the government decided to go for full-scale production of Tejas and allocated money for it.

Crossing yet another milestone last week, Tejas, for the second time, fired an Israeli Derby Air-to-Air Beyond Visual Range (BVR) missile successfully. The Tejas is now a step closer to getting its final operational clearance (FOC) from India's Aeronautical Development Agency (ADA).

US SANCTIONS HURT INDIA

Accepting that the Tejas LCA could have been rolled out much earlier, Dr Christopher said that "sanctions imposed on India" that denied India access to technology after the atomic test in 1998 "affected the development of the fighter."

Soon after the 1998 explosions the United States imposed sanctions on India.

Referred as the Glenn Amendment to the Nuclear Non-proliferation Act of 1994, as many as 200 Indian organisations like the DRDO and Defence Public Sector companies like Hindustan Aeronautics Limited (HAL) and Bharat Earth Movers were bludgeoned with sanctions.

INDIAN AIR FORCE TOO RESPONSIBLE

Dr S Christopher also held the Indian Airforce responsible for the delay in making Tejas. Changing specifications mid-way through the design and development process or changing requirements "led to delays," he said.

The DRDO chairman added that specifications regarding the engine of the Tejas couldn't be finalised for a long time because of the constantly changing requirements.

The AMCA (Advanced Medium Combat Aircraft), however, will roll out much faster than the Tejas. "Learning from past experiences, critical aspects of the Advanced Medium Combat Aircraft (AMCA), a stealth multirole fighter jet being developed by DRDO and Hindustan Aeronautics Limited (HAL), have been frozen," Dr Christopher said.

Comparing India's prowess to make world-class missiles against its poor record to design and develop other complex defence machines, Dr Christopher said, "When technology is denied, one has to accept what is available to one."

The option to source the same item from another country or equipment-maker doesn't exist and this allows scientists and forces to work together to better the product.

COMPETITION HELPS

Indian warship building benefitted from competition. Unlike in making fighters where the country had to rely on HAL, shipyards competed to get orders, which fostered the process of design and development.

The Indian Navy has moved from being a buyers' Navy to a builders' Navy. For about a decade now, almost all Indian warships are made in Indian shipyards. When we were developing the fighter "we had to put all eggs in one basket," whereas there were several contenders in the force for making warships, Dr Christopher said.

<https://www.indiatoday.in/india/story/as-tejas-inches-towards-final-clearance-drdo-chairman-explains-why-the-fighter-jet-programme-was-delayed-1222844-2018-04-29>

BrahMos missile will breach mach 7 barrier in next decade: Top official

Brahmos, the fastest cruise missile in the world co-developed by India and Russia, will be breaching the mach 7 barrier to become a 'hypersonic' system in the next decade, a top official said.

"We will require seven to ten years from now to become a hypersonic missile system," Sudhir Mishra, the chief executive and managing director of the joint venture company Brahmos Aerospace, told here over the weekend. He said the missile, which currently travels at mach 2.8 or 2.8 times the speed of sound, will touch mach 3.5 soon and mach 5 in three years. The current engine will have to be "tinkered" to achieve mach 5 and will have to be replaced to achieve hypersonic speed, he said. The intent is to come out with a missile that will be able to deliver to the next-generation warfare, Mishra said. He said Indian institutions including the DRDO, IITs and Indian Institute of Science are working on technologies which will help it achieve the goals and added that Russian institutes are also doing similar work.

Over the years, the basic missile system has been modified in a such a way that it can be fitted on various platforms, including ships, submarines, the Sukhoi-30 aircraft as well as land, for launch, he said.

Sharma claimed at present the missile system is 5-7 years ahead of the nearest competition from a development perspective.

"Today, this is the fastest cruise missile in the world. Nobody including the US has such a missile system," he said. Mishra said the engine, propulsion technology and seeker are developed by the Russians, while Indians do control systems, guidance, software, airframes and fire control systems.

Over 70 per cent of the components are manufactured using private industry's help, he said. Mishra, however, also conceded that the missiles will be relevant for only 25-30 years and warfare will shift to newer tools like "high power lasers and high power microwave weapons" which will not require "kinetic weapon" systems.

<https://economictimes.indiatimes.com/news/defence/brahmos-missile-will-breach-mach-7-barrier-in-next-decade-top-official/articleshow/63960670.cms>