Source : www.thehindu.com Date : 2021-09-13

LCA-MK2 TO ROLL OUT NEXT YEAR, FIRST FLIGHT IN 2023, SAYS SCIENTIST

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More teeth:An LCA jet. The Mk2 will be heavier and much more capable than the current LCA variants.File photoMURALI KUMAR K

The configuration for the Light Combat Aircraft (LCA)-Mk2 has been frozen and steel cutting is expected to begin soon while configuration for the fifth-generation Advanced Medium Combat Aircraft (AMCA) has been frozen and preliminary design completed, a senior scientist from the Aeronautical Development Agency (ADA) has said.

“The detailed design is complete. In fact, we are in the critical design review stage and metal cutting should start very shortly. Roll-out of the aircraft (Mk2) is planned next year and the first flight in early 2023. We are well on track to achieve these goals,” Girish S. Deodhare, Programme Director (Combat Aircraft) & Director, ADA, said at an event by the Centre for Air Power Studies and Society of Indian Defence Manufacturers.

Enhabced range

The aircraft features enhanced range and endurance including an onboard oxygen generation system, which is being integrated for the first time, Dr. Deodhare said.

Heavy weapons of the class of Scalp, Crystal Maze and Spice-2000 will also be integrated on the Mk2. The LCA-Mk2 will be a heavier and much more capable aircraft than the current LCA variants.

The Mk2 is 1,350 mm longer featuring canards and can carry a payload of 6,500 kg compared to 3,500 kg the LCA can carry.

In February, the Defence Ministry signed a Rs. 48,000-crore deal with Hindustan Aeronautics Ltd. (HAL) to supply 83 LCA-Mk1A to the Indian Air Force. In August, the HAL signed a $716 million deal with GE Aviation of the U.S. for 99 F404 aircraft engines and support services to power the Mk-1A. The Mk2 will be powered by a more powerful GE-414 engine.

The Indian Air Force (IAF) has one squadron of the LCA in initial operational clearance and deliveries of the second squadron in final operational clearance configuration are under way.

The HAL has already set up a second assembly line to ramp up production from eight aircraft a year to 16. Order for 83 Mk-1A is expected to be completed by 2028-29, Dr. Deodhare said.

Stealth aircraft

Stating that the initial design of the AMCA was started way back in 2009, Dr. Deodhare said that it would be a twin engine stealth aircraft with an internal weapons bay and a diverterless supersonic intake, which has been developed for the first time for which the design is complete.

It will be a 25-tonne aircraft with internal carriage of 1,500 kg of payload and 5,500-kg external payload with 6,500 kg of internal fuel.

On the current status of the AMCA, Dr. Deodhare said the configuration had been frozen, preliminary service quality requirements finalised and preliminary design review completed.

“We are moving to critical design review by the middle of next year with the roll-out planned in 2024 and first flight planned in 2025.”

The AMCA will have stealth and non-stealth configuration and will be developed in two phases, AMCA Mk1 with existing GE414 engine and an AMCA Mk2 with an advanced, more powerful engine to be developed later along with a foreign partner, Dr. Deodhare added.

The manufacturing and production of the aircraft will be through a special purpose vehicle, which will also have participation of private industry.

Simultaneously, the project for development of a twin-engine deck-based fighter jet meant to fly from the Navy’s aircraft carriers is also making progress. On the various programmes under way, Dr. Deodhare said there was commonality of systems and technologies.

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