THE HINDU

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HAL has designs on a full LCA for Navy

It eyes lead role in light plane project

By Madhumathi D.S.

Bengaluru: After playing a prominent supporting role in the Light Combat Aircraft naval prototype's tricky landing and take-off debuts from a Navy ship last week-end, Hindustan Aeronautics Ltd eyes the prospect of fully designing and developing a twin-engine fighter plane for the Navy if or when an occasion comes up.

Asked what the successful twin acts of naval prototype NP2 mean for its manufacturer HAL, company Chairman and Managing Director R. Madhavan said the recent ship-based trials will, of course, not translate to business from the Navy unless a twin-engined fighter project formalises from the Force.

Mr. Madhavan said, "It is our desire that the twin-engine Navy project be given to us so that we can design LCA-Navy as required. Such a step will lead to speeding up the project."

HAL has already been deeply involved in the ongoing deck trials of the two naval prototypes; it has produced them for the Defence Research & Development Organisation DRDO. The defence public sector company has contributed to designing sub-systems of the LCA project - a plane that was originally started for the Air Force.

The DRDO's special arm ADA or the Aeronautical Development Agency in Bengaluru is tasked with designing and developing the LCA versions and future indigenous fighter planes.

Vital parts

HAL said many critical paraphernalia and support staff for the naval prototype were its contributions, both before and during the recent trials on the ship.

It contributed the arrestor hook system, a redesigned landing gear, a speed controlling device for landings, a drooped nose to give the pilot a good view, a stronger fuselage and the fuel dump.

"We anyway design the LCA structures. Our engineering is proven. If it is possible to extend it to the full project, it would speed up the R&D," Mr. Madhavan said.

"If a twin-engine naval aircraft project should come up, then HAL can offer the Navy a deck-based aircraft." With a design house each in Bengaluru and Nashik, he said HAL was up to taking up such a task. The two Navy prototypes NP1 and NP2, seen as potential trainers, are derived from the IAF version of the indigenous light fighter. A production standard version called NP5 has also been considered.

All these are single-engine while the Navy indicated in 2016 that it needed only two-engined aircraft. With a double-engine LCA being some time away, more so for the Navy, it is an area of interest for its stakeholders.

Rare capability

The second LCA-Navy prototype LCA-NP2 achieved two technologically challenging feats. On January 11 it did an arrested landing on the relatively narrow decks of the carrier INS Vikramaditya and took off the next day ìn what is called the ski jump style.

Underlining the achievement, Mr. Madhavan said only 3-4 countries have such a technology to deploy or land their fighters from the limited confines of a carrier.

Currently HAL's fixed-wing design house is working on the HTT-40 basic trainer aircraft.

About the scope for a naval aircraft fleet an informed person said its current fleet of Russian origin MiG-29Ks are expected to go obsolete around 2028-32. Another opportunity to replenish naval

aircraft could arise if the country goes in for a third aircraft carrier around the year 2040 as envisioned for the long term

https://www.thehindu.com/news/national/hal-has-designs-on-a-full-lca-for-navy/article30579389.ece

Daily Research Plot

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Naval model of India's Tejas fighter conducts maiden flight from plane service – The diplomat

By Mike Butcher

The naval variant of India's Tejas fighter jet carried out its first a hit ski soar take-off and arrested touchdown from the INS Vikramaditya on January 12.

The naval model of the Hindustan Aeronautics Restricted (HAL) Tejas Gentle Battle Plane (LCA) carried out its first-ever take off and arrested touchdown from the Indian Army's Kiev-class plane provider INS Vikramaditya on January 12, the Indian Ministry of Protection (MoD) introduced over the weekend.

The MoD hailed the a hit take-off and touchdown as an "vital milestone." Commodore Jaideep Maolankar did the maiden touchdown, in keeping with the MoD.

"With the of entirety of this feat, the indigenously evolved area of interest applied sciences explicit to deck primarily based fighter operations were confirmed, which is able to now pave find out how to increase and manufacture the Dual Engine Deck Primarily based Fighter for the Indian Army, which is predicted to proudly fly from the plane carriers by way of the yr 2026," the MoD added.

The Protection Analysis and Construction Group (DRDO) and the Aeronautical Construction Company (ADA) were running on a twin-engine medium-weight fighter jet for the Indian Army's long run provider drive.

Indian Army Leader Admiral Karambir Singh famous closing yr that the DRDO has introduced to increase such an plane in response to its enjoy with the naval variant of the Tejas LCA.

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Closing November, a Tejas LCA took off for the primary time with two past visible vary (BVR) and two shut fight air-to-air missiles (CCM) from the Army's Shore Primarily based Check Facility (SBTF) at INS Hansa, situated at a naval air station close to Dabolim in Goa.

The Indian Army has many times dominated out the operational deployment of the naval model of the Tejas LCA because of this a lot of technical shortcomings together with its unmarried engine, in addition to over the top weight, which might save you the fighter jet from sporting an good enough payload when running from a provider.

"The Army has been transparent from the very starting that it wishes a twin-engine plane and no longer single-engine as a result of although an engine fails, the plane will have to have the ability to land at the provider," a Army supply advised The Print in December 2019. The brand new twin-engine variant will reportedly be supplied with the extra tough Normal Electrical F414 afterburning turbofan engine. As I defined in the past:

The Tejas calls for a brief take-off however arrested restoration (STOBAR) configured provider.

INS Vikramaditya and INS Vikrant, India's first indigenously constructed flattop,are each fitted with STOBAR programs for launching plane from a ski-jump, while the second one provider of the brand new Vikrant-class, the INS Vishal, will most probably use a catapult assisted take-off however

arrested restoration (CATOBAR) plane release gadget, perhaps incorporating the brand new electromagnetic plane release gadget (EMALS) generation.

Over 50 ski soar take-offs and landings have reportedly been carried out by way of the naval model of the Tejas LCA on the coaching facility at INS Hansa in Goa. The primary arrested touchdown was once performed in September 2019.

https://dailyresearchplot.com/2020/01/16/naval-model-of-indias-tejas-fighter-conducts-maiden-flight-from-plane-service-the-diplomat/