

Launch 'Mission Aero Engine', says industry, as Govt scouts for partners

SELF RELIANCE. 'Design, develop and manufacture a 110 kN thrust-class core engine through the private sector'

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As India moves towards finalising a deal with French aerospace major Safran for the indigenous co-development of advanced fighter jet engines, the domestic defence industry has urged the government to simultaneously launch a "Mission Aero Engine" to develop indigenous 110 kN thrust engines for both military and civilian applications.

The recommendation, made by the Society of Indian Defence Manufacturers (SIDM) in a recent report titled, *A Road Map for Aero Engine Development in India*, cautions that overdependence on foreign partners could expose India's aviation sector to future sanctions or delays arising from geopolitical factors. The report was



CHINK IN ARMOUR. India is highly vulnerable as any sanction by the US, UK, France or Russia can affect the defence and civil aviation sector, says industry BENOIT TESSIER

released by Defence Minister Rajnath Singh on Monday.

"India is highly vulnerable, and any restriction or sanction — whether by the USA, UK, France or Russia — can severely affect our Armed Forces as well as the high-growth civil aviation sector," the report warns.

The SIDM has proposed that the government launch Mission Aero Engine as a flagship national programme under Aatmanirbhar Bharat

to achieve genuine self-reliance in critical aerospace propulsion technologies.

DOMESTIC EXPERTISE

The mission, it suggests, should aim to design, develop and manufacture a 110 kN thrust-class core engine through the private sector, supported by government grants and incentives, while leveraging the technical expertise and infrastructure available in the Turbine

Research Establishment (GTRE).

According to SIDM's assessment, India will require at least 712 engines in the coming years for the Light Combat Aircraft (LCA) series — including Mk-1, Mk-1A and Mk-2 variants — as well as the future Advanced Medium Combat Aircraft (AMCA).

The combined market value of these engines is estimated at over ₹60,000 crore.

Currently, the LCA Tejas Mk-1A fighters are powered by GE F404 engines. GE and Hindustan Aeronautics Ltd (HAL) are also in the process to finalise a deal to co-produce the F414 jet engine in India, with about 80 per cent ToT for powering the Tejas Mk-II fighter jet and other Indian combat aircraft.

Each engine is likely to cost about \$ 10 million.

The indigenous Kaveri engine programme, originally conceived for the LCA, was shelved after delays and performance shortfalls. However, its derivative Dry Kaveri is being developed for unmanned aerial platforms, and the DRDO is reportedly working on reviving the full-fledged version with an afterburner to reach 80 kN thrust.

The report highlights that the same 110 kN core engine modified with thrust reversal, additional fan and turbine stages, and without an afterburner could also power single-aisle commercial aircraft such as the Airbus A320 and Boeing 737 series.

This dual-use potential, it notes, would significantly enhance the commercial viability of the indigenous engine programme and help build a sustainable aero-engine ecosystem in India.