

New thrust to making indigenous aircraft engines

Bengaluru: Veterans from the country’s premier military and civil aeronautical development agencies have come together to give a new thrust and a roadmap to making Indian engines for future Indian aircraft.

At present, four or five powerful and expensive foreign engine brands keep the country’s aircraft flying. But India should shake off this dependence and fly its own engines. The future requirement of all aircraft programmes could total several thousand engines, costing an estimated 3.52 lakh crore in the coming years, a former Defence Research and Development Organisation (DRDO) official said at the first gathering of the group, the Society for Advancement of Aircraft Propulsions (SAAP), on Saturday.

K. Tamilmani, former Director-General (Aero R&D) of DRDO, said, “The country should form a national body to focus on aero engine development. It could be similar to dedicated agencies created for realising the LCA fighter and missiles.”

Public agencies and labs such as Hindustan Aeronautics Ltd., National Aerospace Labs, and DRDO each have their own activities to develop engines for small and pilot-less planes, trainer aircraft and helicopters. That these efforts could be woven together to get better results was a common view at the gathering.

SAAP founder-president T. Mohana Rao, former director of DRDO’s aero engines node, the Gas Turbine Research Establishment (GTRE), said hand-holding with a foreign major should be explored as engine technology is complex and not easily shared by the five global aero engine players.

The GTRE spent around 30 years and around ₹2,000 crore to develop the Kaveri engine, which was originally planned to fit into the indigenous LCA fighter. The engine did not fully meet the requirement and the LCA’s developers opted to buy GE engines of U.S. make.



Calling it ‘a slight shortfall’ and ‘an evolution process’, Dr. Rao said those efforts should not go waste and must be taken forward. SAAP plans to propose an action plan for indigenous aero engines to the government.

Dr. Rao, during whose time the Kaveri engine was test-flown for 70 hours in a converted Russian IL-76 plane in November 2010, said the engine was technically almost realised, except for its slightly lower thrust and higher weight. He called it an evolution process. Dr. Tamilmani said the engine should have been pursued to its logical end.

“The aircraft engine is imported and is often treated as just another part. But the importance of developing and owning one of our own should not be ignored,” he said.

It was suggested that while massive investment is needed on research and development and testing facilities, India as a prominent importer of fighter planes and other military aircraft should also try to bargain for some engine technology as an offset while buying hardware.

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