

Saras aiming for clearance by 2010

Everything going as planned, India's first home grown multi-role, light transport aircraft Saras designed and developed by the Bangalore based National Aerospace Laboratories (NAL) a constituent of Council of Scientific and Industrial Research (CSIR) would get clearance from the Director General of Civil Aviation (DGCA) by the end of 2010. Right at the moment, NAL is involved in the exercise of reducing the overall weight of Saras by 500-kg. and the weight optimised production standard aircraft would have a new light weight carbon fibre wing and an improved fuselage, an advanced autopilot and a crew alert system. The two prototypes of Saras have so far completed around 200 hours of flying. Though originally, it was planned to involve private sector industrial units in the production of the aircraft, the Bangalore based Indian aeronautical major Hindustan Aeronautics Ltd (HAL) was finally chosen as the production agency for Saras. NAL sources say that the Indian Air Force (IAF) which has evinced interest in Saras would be the first major customer of the aircraft. As envisaged now, IAF is planning to



use the aircraft for transportation, dropping of supplies and evacuation of casualties.

The final production version of Saras—now powered with two Pratt & Whitney Canada engines—is expected to feature a higher performance engine with an eye on reducing the overall weight of the aircraft. As per the original design specification, Saras was expected to weigh over 6000-kg. Saras has state of the art Arinc-429 compatible integrated digital avionics systems. Further, Saras features a glass cockpit, three axis

digital autopilot and pressurised cabin making for a very low cabin noise. Other features of Saras include its inherent flexibility to operate from semi prepared run ways as well as hot and high airfields. With a view to boost its attractiveness in the global market, SARAS will be produced to meet the FAR-25 standards. Saras has a maximum cruise speed of 500 km per hour and an endurance of 4 hours 45 minutes.

Saras is ideally suited for air taxi service, VIP transportation, aerial survey, light package carrier,

remote sensing, coast guard and border patrol. Further, it can also be used as an air ambulance and other community services. NAL's projection is that India would need 200 such aircraft over the next fifteen years.

The developmental schedule of Saras was hit badly by the American sanctions and technology embargo that came in the wake of India's 1998 Pokhran nuclear blasts. Originally conceived of as a joint Indo-Russian project, Saras became a fully Indian venture after the Russian partner pulled out of the project. NAL took up the design and development of Saras with the funding from Technology Development Board (TDB) of India's Department of Science and Technology (DST), CSIR, the parent organisation of NAL, HAL and the Ministry of Civil Aviation.

Meanwhile NAL is planning to develop a regional transport aircraft with 50 and 70 seater capabilities. This aircraft which is expected to boost the prospects of air travel in India would be developed through the well proven private-public partnership route with NAL in the frontline. **SU**

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