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ZEHST PROJECT: AN ULTRA HIGH SPEED CIVILIAN TRANSPORT

Abstract

Relying on Astrium expertise, EADS Innovation Works launched an advanced project phase for evaluating an ultra high speed point-to-point transport. This project is dubbed Zero Emission Hypersonic Transport (ZEHST) and was made public at last Paris Air Show in June 2011. Astrium Spaceplane team acts as Design Authority on behalf of the partnership which gathers MBDA and ONERA under EADS Innovation Works leadership. Initial phase of the project is co-funded by French Airworthiness Authority (DGAC) and is assumed to be completed by id of of 2013. Main purpose of the on-going phase is two-fold : get a business design concept iteration completed and edit a Technology maturation plan including flight tests. This phase relies heavily on lessons learned from various past projects including operational Concorde Supersonic Transport (SST). Beyond information about project status, various aspects of the project will be addressed in this paper :

- The set of level-0 requirements which blend aeronautic and space-like features of the vehicle and its operations with great attention ;
- Impact to vehicle design and concept of operations when applying aeronautic oriented safety and regulations at large to such class of missions ;
- How zero emission standpoint is at heart of the different trades-off currently conducted internally to the team.

Ultimate ambition of the project is to get a worldwide magnitude including European and Japanese partners at first.