

**Abstract of a Paper for the Parallel Sessions**

**Title of the Presentation:**

High stability Altimeter Sensor system for Air data Computers (HASTAC)

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**Abstract Text:**

The strategic objective for the EC FP6 project HASTAC is to increase the safety in all in-flight situations, particularly low visibility situations, by improving the transducers used in Air Data Computers (ADC) for aircraft applications. The results are relevant in auto pilot situations in the reduced vertical separation minima legislation of 1000ft, as well as in demanding manual flying situations in darkness and low visibility. Used in transponder applications, the project will give significantly increased reliability in altitude information for manual and automated Air Traffic Control systems. Aircraft Traffic Collision Avoidance Systems will also benefit from more accurate and reliable altitude information, which will allow the automated avoidance instructions to be more accurate and effective.

The project will develop a new generation of Barometric pressure sensors and compensated Transducers, which will be used in the building of Air Data Computers (ADC), suitable for fixed wing and rotary wing applications. Such sensor systems will give altitude accuracy capabilities significantly improved over those available today. Aircraft flight testing performed in the project will demonstrate the effectiveness of the performance improvement. A new generation of transducers with a new silicon micro sensor (absolute pressure sensing element) as the key component, will also be available for other application areas, such as transponders and cabin pressure control systems.

The work performed during the first year show promising results, and the consortium will make demonstrations of the sensors, transducers and the system during autumn 2007.