

European Commission DG Research Project dedicated to SMEs Support Aeronautics and Space

Pre-project Acronym	P²AR
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Pre-project Administrative Overview	
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AeroPortal Contact Point	CIAO TECH email : p.salvatore@ciaotech.it
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Thematic priorities	AAT.2008.3.4.4.
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Type of Action	Collaborative Project Level 1
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Pre-project Full Name	Passive Precision Approach Radar
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Pre-project abstract

Strategic objectives addressed

Advanced techniques for all weather ground based high precision landing and take off systems taking into account concepts under development in SESAR.

Strategic expected achievements

Usage of passive radar network for increasing safety in the landing/take-off phases.

Proposal abstract

The project idea is to use passive radar networks for developing an all weather, low cost and ground based system able to monitor/guide the precise landing/take-off of the aircrafts. These critical phases are currently monitored by the Surface Monitoring Radar (that provides a 2D position of the aircraft) and by the multi-lateration system (that provides a 3D position of the aircraft).

Exploiting existing e.m. sources (e.g. Communication Signals and Primary Radar Signals) available in the airport area, a passive radar network could achieve precise 3D position of the aircraft in the landing and/or take off phases, thus resulting to be complementary to the existing systems (such as the multi-lateration system) because it does not need the cooperation of the aircraft.

Because of its cost effectiveness, P²AR system will be particularly suited for being used in small/medium airports, that will be able to provide safety conditions and a service comparable with that of larger airports, even if with a limited available budget.

P²AR project also foresees the integration of the new approach system with the existing sensors in order to improve the achievable performance and the data rate.

Project duration (in Months)	36	Total Eligible Cost (in Euro)	-	EC Contribution requested (in Euro)	-
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Targets and needs of the pre-project:

The partners' complementary knowledge and competencies in the field of data fusion and management of information from the P²AR system and existing sensors; in particular, support is expected in the following activities:

- Integration of new interferometric multi-band system data in the operative procedure of ATC.
- Management of system information (presentation and consistency) taking account of new SESAR procedures

Partnership size: 10.

Budget objective: TBD.

Duration: 36 months.

Proposal submission: 7th may 2008.

FOR INFORMATION, PLEASE CONTACT THE AEROPORTAL CONTACT POINT

AeroSME and SCRATCH have merged in AeroPortal Project