



## Security of Aircraft in the Future European Environment

### BACKGROUND

The SAFEER IP is a large integrated project designed to restore full confidence in the air transport industry. The overall vision for SAFEER is the construction of advanced aircraft security systems designed to prevent on-board threats. The main goal of these systems is to ensure a fully secure flight from departure to arrival destination whatever the identified threats are.

### PROJECT OBJECTIVES

The project's baseline is the assumption that upstream identification control and airport specific security measures have all been completed. The project is focussed on the implementation of a wide spectrum of threat sensing systems, and the corresponding response actions against physical person(s) or electronic intruders. One of the key aspects of the project is an integrated information management system underpinned by a secure communication system. One of the short term goals of SAFEER is to influence security bodies at National level, at European level (proposal to Documentation 30 of ECAC-CEAC) and at world level (proposal to Annex 17 of ICAO-OACI).

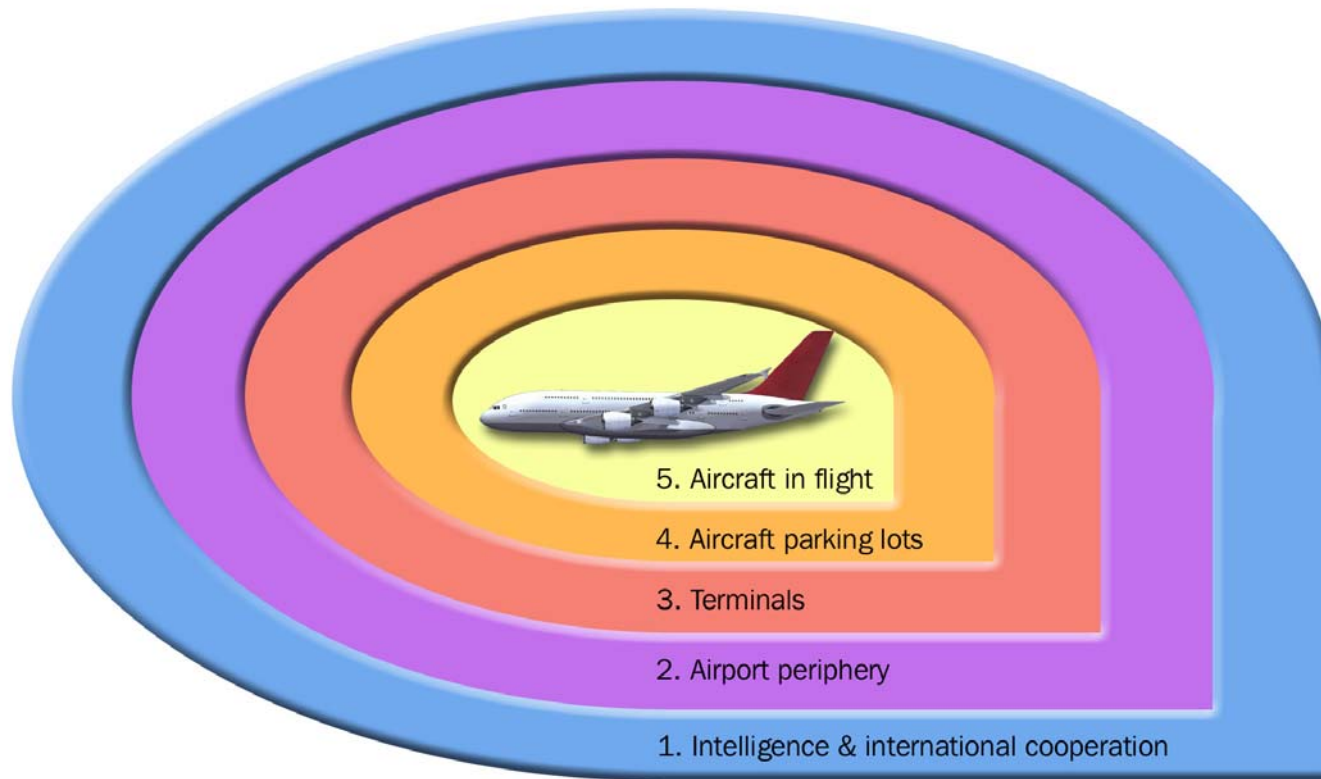
### DESCRIPTION OF THE WORK

For reaching these objectives SAFEER has 5 key activities (Sub-Projects):

1. Onboard Threat Detection System (OTDS): an integrated threat detection system based on processing of multiple sensor information is being elaborated, prototyped and evaluated.
2. Threat Assessment and Response Management System (TARMS): an integrated information management system and decision support tool
3. Flight reconfiguration: includes an Emergency Avoidance System (EAS) and an automatic guidance system to control the aircraft for a safe return
4. Data Protection System (DPS) securing all the data exchanges (in and out the aircraft).
5. Security evaluation activities, including legal and regulatory issues about citizens' privacy and rights, economic analysis, and dissemination activities

The proponents are major European industrial actors of the Aeronautical sector associated with a high level research centre, several relevant SMEs and some specialised universities. A certain degree of confidentiality on proposed sensors and technologies will, for obvious reasons, be imposed on the obtained results.





## EXPECTED ACHIEVEMENTS

Demonstration of SAFEE systems will be performed at 3 sites:

The evaluation campaigns of the Onboard Threat Detection System (OTDS) will be conducted in a mock-up of an Airbus aircraft cabin at Airbus' Hamburg site.

The final demonstration of TARMS will be built around the existing GRACE cockpit simulator at NLR in Amsterdam.

The capability of EAS will be demonstrated on a Thales-Avionics simulator (in Toulouse)

The DPS securing all the data exchanges will be validated at each site where it is possible to demonstrate it.

Title: Security of Aircraft in the Future European Environment

Acronym: SAFEE  
 Contract Nr: AIP3-CT-2003-503521  
 Total Cost: 35,824 M•  
 EU Contribution: 19,450 M•  
 Starting Date: 01/02/2004  
 Duration: 48 months  
 Web-site: secure web site with password access

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