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a European project
to assess *Contract of Objectives*





The CATS project was selected during the 4th call of the European Commission FP6. It started 1st of November 2007 for a three years duration.

The strategic objectives addressed through this project are to propose solutions to cope with the traffic growth and to improve the efficiency of European Air Transportation System (ATS). Two ACARE/SRA.2's High-Level Target Concepts (HLTC), namely Highly Customer-Orientated ATS and Highly Time-Efficient ATS, are specifically addressed.

The CATS project is based on the "arriving on schedule" concept while improving efficiency and synergy between all ATM actors through **Contract of Objectives**.

CONCEPT OVERVIEW

The CATS project proposes an integrated decoupling ATM organisation, where all the actors negotiate and agree on their own objectives. This organisation is based on the breakdown of responsibility between the different actors. The transfer of responsibility between them is now explicit and formally contracted. This will reinforce the arrival punctuality.

The trade-off process, driven by actors' interests and constraints, will reinforce autonomy and responsibility, while allowing a high level of integration between all stakeholders and consistency of the ATM organisation, in order to optimise the use of their scarce resources.

PROJECT OVERVIEW

The main aim of the CATS project is to assess by experimental & operational validation the Contract of Objectives concept.

This will be achieved by:

- defining the interfaces between various actors and operators:
 - ATCO and ATCO in airborne cycle (between two ANSPs);
 - ATCO and air crew in airborne cycle;
 - Airport, airline and ANSP during the renegotiation process;
- assessing, through Human-In-the-Loop experiments, the operational acceptability and the technical feasibility, particularly in case of renegotiation;
- evaluating the impact of this contract in terms of Human Factor issues, safety and operators' workload;
- evaluating the benefits (cost business analysis, safety & risk analysis) and the legal implications.

MEETING THE SESAR OBJECTIVES

The CATS project has been identified during the SESAR definition phase as one of the possible implementation of the Contract notion, and specifically, as being deeply connected to WP3.2 and WP1.2.2 (CDM).

The CATS project has also been identified to fit in with the WP4 of Episode3 project (SESAR Validation).

The CATS project is fully in line with the SESAR objectives.

CATS contracts will provide well-defined objectives for each actor involved on a flight.

CATS objectives represent the commitment of each actor for delivering the aircraft inside temporal and spatial intervals. Each actor commits himself/herself and is accountable for their achievement.

CATS objectives are situated on the transfer of responsibility areas, all actors being accountable for their own achievements.

CATS objectives are negotiated based on schedule integrity at destination, taking into account all the actors' constraints.

CATS contracts will ensure the operational continuity of the flight. ATCOs are now able to visualize, on their own working position, the final objective, instead of managing sectors that they are responsible for without considering global ATM optimisation.

negotiation
Negotiation

collaboration
Collaboration

continuity
Continuity

schedule integrity
Schedule integrity

trade-off
Trade-off

responsibility
Responsibility

transparency
Transparency

Accountability

accountability

commitment
Commitment