



RPAS-ATM Integration Demonstration

Final Workshop

Welcome & workshop Objectives

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- **Context:** RAID is one of nine projects financed by the SESAR Joint Undertaking
- **Objective:** collect data and experiences for RPAS integration into the current civil Air Traffic Management structure.
- **First Phase:** Real-time human in the loop simulations using the CIRA's Integrated Simulation Facility
- **Second Phase:** Flight tests using FLARE, the CIRA's Flying Lab for Experimental Research, operated as an OPV (Optionally Piloted Vehicle)
- **Highlight:** CIRA achieved by ENAC, for the first time in Italy, the Experimental Permit To Fly for an OPV platform in a flight test area regulated just by a NOTAM

Manned VLA Intruder (STORM RG)

FLARE OPV Aircraft (TECNAM P92)

Small RPAS Intruder Nimbus Esacopter ppl610

FLARE C2 Data-Link

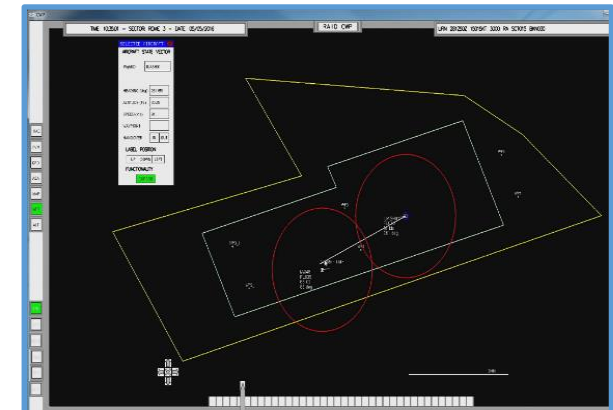
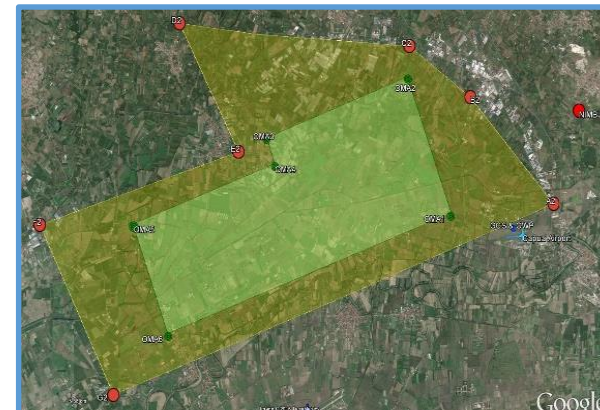
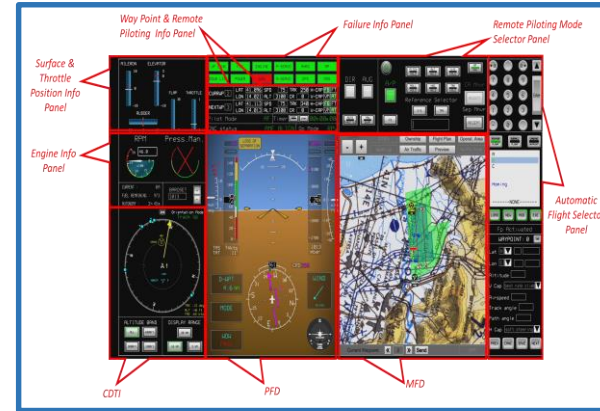
Audio-Video recording and live watching

FLARE Ground Control Station

Test Controller Working Position

RAID Flight Trials Experimental Infrastructures

- Last May 6th the flight test campaign concluded
- 12 flights performed, each 40-45 minutes long
- 6 different operational scenarios with nominal and non-nominal conditions, manned and unmanned intruders
- In addition to CIRA personnel, the flight tests involved several professionals for the best success of the project:
 - ✓ 3 Malta Air Traffic Controllers plus 1 senior Air Traffic Manager
 - ✓ 2 Experienced RPAS pilots,
 - ✓ Human Factors, Safety and Security experts for the flight trials results evaluation.
 - ✓ 1 Safety Pilot,
 - ✓ 1 Flight Director



As last relevant step of the project, the Final Workshop aims to present to the aeronautical and RPAS community:

- The CIRA flight test facilities for the validation of RPAS operations and technologies;
- The flight tests contents and modalities;
- The results of the flight test, with recommendations and lessons learnt;
- Discuss these results with attending experts;
- Collect further ideas and suggestions to be added to the RAID Final report