A major responsibility is the NAVAIDS flight inspection and calibration. For this purpose, RCAA is operating its own aircraft Beechcraft 350 Super King Air equipped with the most modern Automatic Flight Inspection System (UNIFIS 3000) for NAVAIDS flight inspection and calibration through the NAVAIDS Flight Inspection Department. The NAVAIDS Flight Inspection Department has the main responsibility to perform commissioning, periodic and special flight inspections for en-route, terminal and landing aids (including ILS CAT III).

The Automatic Flight Inspection System (UNIFIS 3000) is fully automatic, based on the latest computer hardware and software techniques. The system meets ICAO Annex 10, Annex 14, Document 8071 and FAA OAP 8200.1 requirements. The AFIS provides a capability to perform airborne inspection of en-route, terminal navigation and landing aids (including ILS Cat III) in VFR and IFR flight condition.

There is no requirement to land the aircraft or to close the runway when performing a fully automatic inspection.

The flight inspection system is able to use the best combination of the most modern positioning systems (camera updating IRS, differential GPS and radio-theodolite), being capable to use two of them in the same time, being independent by GPS jammings and interferences.

The Romanian Civil Aeronautic Authority (RCAA) as it now stands, was established in 1993 and has been acting since as the safety regulator and oversight authority for civil aviation in Romania.

Safety is its main duty. The goals are aligned with those established by ICAO and the European Civil Aviation Organisations, to maintain and increase aviation safety by effective and efficient processes and measures in the areas of safety regulation and oversight.
CALIBRATION AIRCRAFT

The aircraft (Beechcraft 350) is a Business Category turboprop with an advanced Flight management and autopilot systems. Its wide flaps permit very low approach speeds, facilitating approaches to short runways. It is possible to operate the aircraft with a maximum airspeed of 270 kts and from ground level to FL 350. Its endurance is five hours flying time with the necessary reserve in addition.

Automatic Flight Inspectin System (AFIS)

The system’s real-time acquisition and computation capabilities permit calibration, correction and recalibration of navigation and landing aids to be performed during the same time. The AFIS presents the full inspection results to the operator in real time permitting adjustments during the procedures. All recordings are saved for archive and post-flight analysis.

Differential GPS (DGPS) subsystem provides accurate position and velocity data to the Position Reference System having the capability to receive and process differential corrections.

Radio Telemetry Theodolite subsystem (RTT) uses a digital theodolite and a UHF telemetry link to the aircraft measuring the aircraft azimuth and elevation angular data and transmitting data to the aircraft. Voice communication with the aircraft is supported by a separate portable VHF transceiver.

The system allows:

- automatic processing, post-processing, recalculating and storing of data for a further analysis, reports printing and graphical recording of the chosen parameters
- spectral analysis of the signals received from the AFIS antennas and oscillograms for the signals taken over by FIS from its own receivers
- a subsequent analysis of the mission on board of the aircraft, as well as on ground using a mission computer

For any further information, please contact
Mr. Iulian DUMITRESCU
Head of NAVAIDS Flight Inspection Department (since July 1997)
Telephone: +4021.208.1560
Fax: +4021.208.1561
e-mail: iulian.dumitrescu@caa.ro