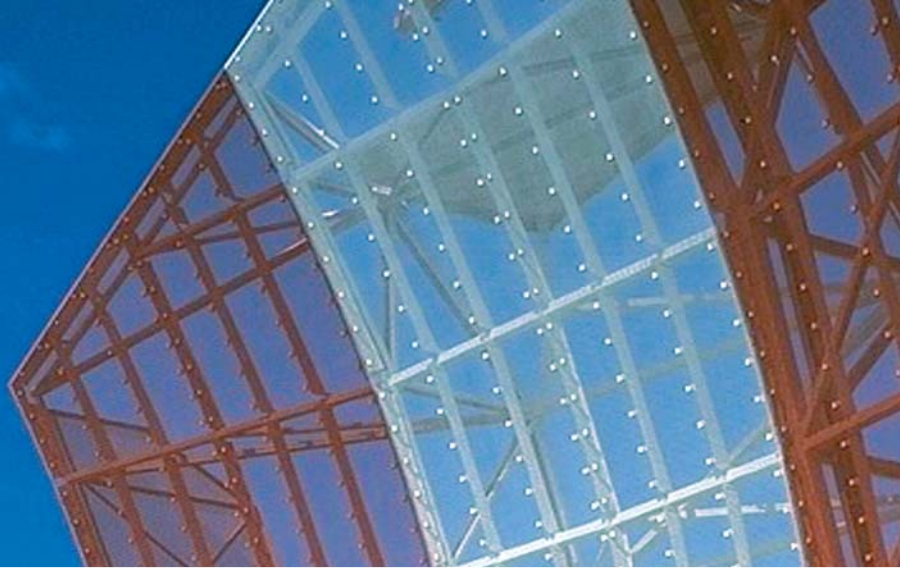




Flight Calibration Services

Flight Testing of Radar Systems





Your Partner for Radar Flight Testing

The Requirement

No new radar installation or major upgrade to a radar sensor is complete without a commissioning flight check as the final essential milestone. The radar user, i.e. Civil Aviation Authority, Air Navigation Service Provider (ANSP) or military user must carry out a flight check to confirm that the system is within the required specifications and fit for its operational use, as governed by the following documents:

- ICAO Annex 10, Annex 14 and Doc 8071 Vol. III (Testing of Radar Surveillance Systems)
- EUROCONTROL Surveillance Standard (EST).

Scope

Radar flight testing typically comprises:

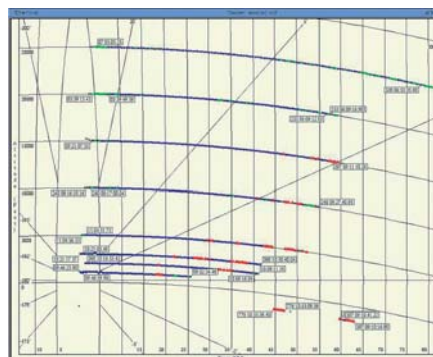
- supply of critical quality figures such as probability of detection (PD), resolution and others
- coverage evaluation on test radial and Standard Instrument Arrivals and Departure Routes
- facility performance optimization, e.g. tilt
- general certification of system performance.

Flight Check Aircraft

FCS employs specially equipped Learjet 35 aircraft for radar flight testing. This aircraft features excellent performance figures, the capability to fly at flight level (FL) 450, a small radar cross-section and extremely rapid deployment times at a favorable cost of operation. Depending on customer requirements, FCS alternatively also employs our King Air 350 turboprop aircraft, equipped with a flight inspection system (FIS).

Tools

The essential recording and radar data quality analysis work for radar flight testing is carried out on the ground, in contrast to the FIS-equipped flight inspection aircraft used for conventional Nav aids calibration or procedure validation. To accomplish this task, FCS uses SASS-C, as recommended by EUROCONTROL. SASS-C is a complex tool with numerous configuration options requiring specific setting-up for single sensor evaluation. FCS provides highly competent SASS-C expertise through a special partnership, thus ensuring complete and concise





evaluation reports in accordance with the pertinent standards.

Project Management

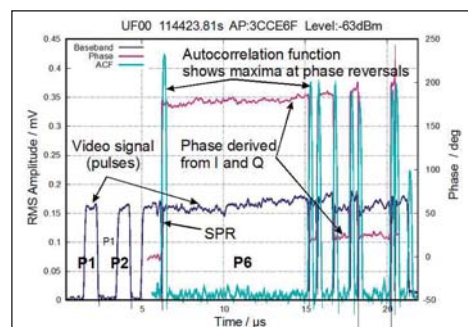
Commissioning flight checking is frequently carried out in project environments under intense time pressure involving many technical and operational parties. FCS radar flight inspectors will ensure a perfect co-ordination of the project with their dual background of both Air Traffic Controller and radar specialist and their long experience in coordinating radar flight checks.

Advancing the State-of-the-Art

FCS has developed special technologies to analyze the signal-in-space of radar, Mode S and MLAT/WAM signals. Radio field effects and interaction between transponders, ground radars and aircraft TCAS systems can be made fully transparent through FCS airborne recording and analysis using SISMOS technology. This insight permits our customers to fully understand and optimize their systems even in the most critical operational environments.

Why chose FCS as your Partner

Radar systems are safety-critical and expensive infrastructure investments with a life span sometimes exceeding 20 years. Therefore, only the most competent and experienced partner should be entrusted with the critical task of radar commissioning flight testing. Choose FCS with our background of hundreds of successful radar flight testing missions in Europe and abroad and our outstanding technical expertise for your flight testing projects.



FCS Flight Calibration Services GmbH

Hermann-Blenk-Straße 32 A
38108 Braunschweig
Germany

Tel.: +49 531 23777-0
Fax: +49 531 23777-99

E-mail: info@flightcalibration.de
Web: www.fcs.aero

FCS Flight Calibration Services GmbH is a joint venture
of DFS, skyguide and Austro Control

