



COMPANY PROFILE

MAINTENANCE INTEGRATION | INNOVATION

SUPPORT
STANDARDS

SURVEILLANCE
PERFORMANCE

ELECTRONICS
RADAR

UPGRADE
RASS

Who we are

Intersoft Electronics® NV (IE) started its activities as an engineering company in Belgium in 1983. Since then the company has experienced continuous growth which now results in a global presence including;

Intersoft Electronics USA, based in Florida: sales and maintenance office for US market and local sales agencies in Europe, Asia, Africa and South America.

Our team of broad minded and forward thinking people create and deliver cutting edge solutions in the field of radar.

Our scientists and engineers design and build radar analysis tools to enable our customers to reap the benefits afforded through their use.

Our field services personnel have experience in the use of our analysis tools across a wide variety of radar systems produced by many different manufacturers around the world. This experience enhances the quality of our services by bringing qualifications, knowledge and experience in;

*System concept, design and requirements generation,
Manufacture, installation, integration and upgrade,
Qualification testing, optimisation, commissioning and maintenance, as well as
Contract negotiations and project management*

This potent combination guarantees the availability of domain wide products and services for our customers.

Our mission is to be the recognised premier provider of radar quality control tools, software and related professional support services as well as radar innovation technology.

To achieve our mission we will maintain continuous product and service improvement through listening to our customers requirements as well as taking the lead on new technology advancements in RF design and signal processing.

TARGETS

SOFTWARE

QUALITY

ANALYSIS

DEVELOPMENT

MONITORING

DISPLAY INSTALLATION

ENGINEERING

What We Do

We provide Radar Performance Evaluation Products and Services as well as new Radar Technology to Air Navigation Services Providers (ANSP's), both Military and Civil, and radar manufacturers

Our Products and Services enable our customers to achieve comprehensive and reliable radar coverage enabling safer airways.

Products

Radar Performance Evaluation Tools

Covers a broad range of radar test tools for the complete evaluation of the performance quality of surveillance radars and related systems (e.g. ADS-B).

Radar Technology and Innovation

Taking advantage of latest processing techniques to modernise legacy radar systems in order to extend their life.

Services

RASS® Support, Radar Sensor Performance Evaluations, Training and Specialised Domain Consultancy (e.g. Complex Fault Finding)

■ RADAR PERFORMANCE EVALUATION

Our Radar Performance Evaluation tools are known as **RASS® - Radar Analysis and Support System**. Whether you have a 'legacy' system or a Mode-S or 3D radar system, the RASS® tools will suit your analysis requirements. Beyond radar, RASS® can also be used to evaluate ADS-B (Automatic Dependent Surveillance – Broadcast) and Multilateration Systems.

RASS® is a suite of state-of-the-art analysis tools that assist ANSPs, Defence Agencies or Maintenance Repair Organisations to evaluate the performance state of a surveillance system against manufacturer's specifications, contracted performance requirements or international regulatory requirements for safe air traffic management (e.g. ICAO – International Civil Aviation Organisation). RASS® is a recognised evaluation tool used to analyse radar performance and is currently in use worldwide by leading industry organisations to verify radar performance against mandated standards (i.e. EUROCONTROL, North Atlantic Treaty Organisation - NATO, United States Air Force - USAF and Federal Aviation Administration – FAA).

Using the RASS® equipment, the engineer or maintenance technician can evaluate the radar system in a top-down approach in a scientific and repeatable manner from signals in space to the data arriving at the ATC centre. Importantly, the tools are designed to deliver additional benefits, beyond the technical advantages, to the operational side of the business. These advantages include reduction in outages during fault isolation and can be used to significantly reduce costs associated with annual flight testing. Thus commercial benefits are also derived

The Radar Performance Evaluation Tools are divided into 4 categories:

1. Monitoring and Data Analysis Tools

The Monitoring and Data Analysis tools provide software analysis of opportunity traffic for verification of key performance parameters under common air traffic situation and is known as RASS®-R.

RASS®-R runs as continuous daily monitoring and real time quality control. It can be installed at the radar station or in ATC centres, where it can input data for recording and replay purposes, display it on Intersoft's Multi Radar Display (all kinds of radar data, video and weather) and perform statistical analysis (Radar Comparator software).

2. Environment Simulation and Target Injection

Intersoft Electronics offers a range of products for on-site and off-site target injection as flight test alternative for verification of system performance under any operational scenario/environment. The radar environment simulators and target generators can create a very realistic and repeatable environment for the radar. These systems will prove to be invaluable instruments for factory and site acceptance of radars and ADS-B systems.



3. Site Maintenance Tools

The RASS[®]-M (Radar Analysis Support System for Maintenance activities) tools are used by radar technicians during recurring maintenance activities to collect and analyse the data of the radar under test. Using RASS[®]-M the evaluation of the radar system will be completed quickly and with little interference to the controllers since the RASS[®]-M system can be connected to signals which are already available and this under operational conditions. The testing of key technical parameters using the RASS[®]-M tools provides early identification of developing hardware problems during regular maintenance check-ups.

4. Site Expert Measurement Tools

The RASS[®]-S (Radar Analysis Support System for Site activities) hardware tools allow the users to test advanced technical parameters for hardware performance verification and advanced fault isolation driven by a set of highly performant software tools. They help to carry out a thorough periodic check-up and are an investigation tool for every radar engineer, resulting in an increase of the radar's efficiency and lifetime, at limited cost.

■ RADAR TECHNOLOGY & INNOVATION

The many years of experience in producing radar test equipment served as a background for the development of a range of radar subsystems which are now used as 'building blocks' offered in Radar Upgrade projects, Service Life Extension Programs (SLEP) and modular radar solutions. SLEPs are a cost-effective solution to alleviate component obsolescence, which can create soaring maintenance and support costs and in turn can reduce the performance and reliability of an ageing radar system. A SLEP can also enhance the performance capabilities of a radar system to meet the challenging changing radar environment (wind farm mitigation, bird/drone detection,...).

■ SERVICES

Organisations can achieve significant technical and commercial benefits in the utilisation of the services on offer.

The services we provide to our clients include;

- Training and Support of all RASS[®] products,
- Radar Sensor Performance Evaluations and Specialised Consultancy including
 - Complex Fault Finding
 - On-site mentoring
 - Independent Verification and Validation for all Acceptance Testing phases
 - Radar Optimisation





Worldwide more than
500 RASS® systems

are used by

Civil/Military ATC organisations,
radar/radome manufacturers,
National Administrations and ANSPs.



Intersoft Electronics USA
US Office Florida

Intersoft Electronics NV
Head Office Belgium



Benefits

The benefits that can be achieved from our Products and Services are diverse. Some of the more noticeable are;

Increased Revenue

- High quality radar coverage enables utilisation of minimum separation standards maximising aircraft within the coverage volume
- Reduce overheads by standardising measurement and analysis equipment for multiple platforms
- Improve revenue through performance guarantees
- Reduce operating costs for implementing new systems and maintaining existing systems

Improved Safety

- Higher Probability of Detection (Pd) reduces likelihood of Violation of Controlled Airspace (VCA) issues
- Identify coverage issues more efficiently and cost effectively
- Preempt coverage outages through monitoring of performance trends
- Ensure systems remain operationally compliant to mandated standards (i.e. EUROCONTROL, ICAO)

Reduce Risk

- RASS® is radar manufacturer independent
- All measurements and analysis are scientifically repeatable
- Provides accountability by ensuring suppliers deliver in accordance with functional and operational specifications
- Ensures the performance state over the lifecycle of the system

Improved Operational Availability

- Reduce outages for systems under investigation
- Expedites responses from suppliers in analysis of faults as majority of radar suppliers use RASS® at the factory level

Improved 'in-country' capability

- Increase the performance measurement and complex fault isolation capability of the local engineers and technicians
- Improved oversight of maintenance repair organisation
- Reduce reliance on external suppliers

Future Proofing

- The same measurement and analysis equipment is used across different platforms
- Expedite acceptance testing for replacement systems
- Consolidate test equipment – no need to maintain old conventional test equipment

Perception

- Industry recognition in following best practices that comply with regulatory standards
- Be seen by the public as using industry leading techniques to ensure safety in a cost effective manner
- Be seen to be 'green'. More efficient airways saves on fuel emissions.

■ GLOBAL PRESENCE



Intersoft Electronics NV Head Office

Lammerdries-Oost 27 | B-2250 Olen, Belgium
tel +32 14 23 18 11 | support@intersoft-electronics.com



Intersoft Electronics USA US Office, Florida

support@intersoftelectronics-usa.com

■ WWW.INTERSOFT-ELECTRONICS.COM