

# SANSA

## MAGNETIC TECHNOLOGY

### Products & Services

The South African National Space Agency (SANSA) is South Africa's government body for the promotion and peaceful use of space, while fostering co-operation in space-related activities and research in space science, communications, navigation and space physics.

SANSA seeks to advance scientific engineering and technological competencies and capabilities through human capital development (HCD), outreach programmes and infrastructure development, and supports the creation of an environment conducive to the industrial development of space technologies within the framework of national government.

Working closely with players in the local space industry, SANSA sources and calibrates magnetic sensors for integration onboard dynamic platforms such as satellites.

SANSA's facilities in Hermanus are well suited for characterising and calibrating magnetic sensors, as well as identifying the magnetic signature of dynamic platforms prior to sensor integration. SANSA is recognised as a national expert in various magnetic technology applications.

SANSA is host to a wide range of state-of-the-art equipment and infrastructure to provide specialised magnetic technology related services on a commercial basis.

### What We Offer

- Calibration and maintenance of landing compasses.
- Presentation of training courses regarding aircraft compass swing procedures.
- Magnetic navigation ground support.
- Geomagnetic data and field modelling.
- Calibration and evaluation of systems containing magnetometers.
- Acquisition, evaluation and calibration of magnetometers for space and other navigation applications.
- Magnetic and electrical field measurements and management.
- Execution of magnetic tests (e.g. RTCA DO-160G) according to international standards.

### Equipment and Infrastructure

Our state-of-the-art equipment and infrastructure includes:

- Large 2.4 m tri-axial Helmholtz Coil system used to evaluate and calibrate various magnetic sensors and systems.
- Zero-field ( $\leq 10$  nT) magnetic shielding chamber for magnetic evaluation of sensors.
- Non-magnetic temperature chamber ( $-60^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ ) for functional temperature evaluation of magnetic sensors.
- High temperature Superconducting Quantum Interference Device (SQUID) for the recording of very faint geomagnetic signals.
- Various high sensitive scalar and vector research-grade magnetometers for measurement and evaluation of magnetic environments.



To find out more about SANSA's magnetic technology products and services or to discuss your specific requirements please contact us.

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