applied science & magnetic technology

Calibration and maintenance of landing compasses and magnetic surveys of compass swing areas.

Magnetic navigation ground support and instrument calibration.

Calibration and evaluation of systems containing magnetometers.

Acquisition, evaluation and calibration of magnetometers for space and other navigation applications.

Presentation of training courses regarding aircraft compass swing procedures to SAAF and the aviation industry.

Execution of magnetic tests (e.g. RTCA DO-160G) according to international standards.

Magnetic and electrical field measurements and management.

Services

Integration of magnetometers with navigation and orientation systems, including in-flight calibration algorithms.



Non-magnetic temperature chamber (-60°C to + 60°C) for functional temperature evaluation of magnetic sensors.

Zero-field (≤ 10 nT) magnetic shielding chamber for magnetic evaluation of sensors.

Instruments and Facilities

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Training

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.

Large 2.4 m tri-axial Helmholtz Coil system used to evaluate and calibrate various magnetic sensors and systems.





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