

SANSA

SPACE SCIENCE RESEARCH INFRASTRUCTURE

Geo-Space Laboratory
 SANSA operates a wide range of space monitoring instruments forming a geophysical network across Southern Africa and the south Atlantic ocean, providing valuable space science data for national and international research projects.

Ionosondes
 Used for monitoring the ionosphere to ensure accurate modelling of HF communication paths required for communication and navigation sectors.

Magnetometers
 Used for recording the Earth's magnetic field to International Real-time Magnetic Observatory Network (INTERMAGNET) standards.

WWLLN Receiver
 The World Wide Lightning Location Network is used for lightning detection and mapping.

Neutron Monitors
 Used for measuring the number of high-energy charged particles striking the Earth's atmosphere from outer space.

Ionospheric Scintillation Monitor
 Used for measuring ionospheric density fluctuations at GPS frequencies and the Total Electron Content of the ionosphere.

SuperDARN HF Radar
 The Super Dual Auroral Radar Network is used to study the Earth's upper atmosphere by monitoring the motion of charged particles in the ionosphere.

Optical Space Research Lab
 Used for observing natural optical emissions within the upper atmosphere between 50-300 km altitude.

HF Doppler Radar
 Used for determining the height and density of the ionosphere for accurate HF radio communication prediction.

