## National coulement programme

Equipment

SNIGGER
A network of
instrumentation which form
a single analytical research
system for observing the link
between the magnetosphere,
the ionosphere and the
Earth's surface.

The South African
Ionospheric, Geophysics
and Geomagnetic
Environmental Resource
(SNIGGER)

Impact Areas

Natural Resource Management

SNIGGER assists in identifying mineral rich areas and increases the precision of mineral exploration surveys in South Africa due to daily magnetic variation monitoring.

Magnetotelluric
Stations
Used for imaging the Earth's subsurface by measuring the natural variations of electrical and magnetic fields at the Earth's surface.

Doppler Radar
Used for taking
measurements at fixed
frequencies within the F2 layer
of the ionosphere.

Namibia

Botswana

South Africa

Dual Frequency GPS schrillation Monitors

Magnetorilluric (MT) assions

Doppler rater

Ionospheric
Research
Data from SNIGGER provides valuable information on the ionosphere which is used for applications such as communication and navigation systems.

Geomagnetic
Research
Modelling of Geomagnetically
Induced Currents in the national
power grid through accurate
knowledge of the local
ground conductivity.

GPS Scintillation

Monitors

Used to derive ionospheric scintillation parameters and the total electron content of the ionosphere.

Skills
Development
SNIGGER provides
opportunities for unique
science projects which enhance
critical skills, strengthen global
partnerships and research
outputs for the
nation.



