



Peace Parks Foundation
Meerkat video

Meerkat Mk I deployed in the Kruger National Park

MEERKAT MK I

A persistent wide-area radar/ electro-optic surveillance system

The Meerkat Mk I Persistent Wide Area Surveillance System proved highly successful in supporting rangers to stabilise wide areas of the Kruger National Park against the scourge of rhino poaching.

Since deployment, rhino losses in the area of operation were reduced from two to three per day to less than one per year.

- Meerkat Mk 1 is an integrated sensor system designed to provide real-time situational awareness in an area of interest.
- It uses X-band Frequency-Modulated Continuous-Wave (FMCW) radar technology to detect and localise potential intruders, providing reaction forces with accurate, real-time information sufficient to intercept suspects.
- It is integrated with a bespoke long-range electro-optic and infrared camera system, with laser illumination to support manual classification of detected intruders 24/7.
- Meerkat is a South African technology solution developed in-country for local conditions.

CONTACT DETAILS:

>> **Charl Petzer**

Project Manager: Technology against wildlife crime

cpetzer1@csir.co.za



Functions

- Radar detection and localisation of moving, human-sized targets
- Electro-optic system with infrared laser illumination for classification and monitoring
- Display and recording of information for:
 - Domain awareness
 - Intercept control
 - Actionable intelligence
 - Post-mission analysis

Characteristics

- 24/7 operation
- > 200 km² coverage (20 000 ha)
- Redeployable by helicopter to high sites to prevent the development of crime crisis zones
- Unattended, solar-powered sensor operation on remote high sites
- Data link to an operator station at command headquarters
- Operator console optimised to provide situational awareness

Meerkat Mk I has been replaced by Meerkat Mk II and is no longer available on the market.