

# Kenwood NEXEDGE protecting borders and wildlife at Kruger National Park



# NEXEDGE® Digital Case Study



global communications

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**Kenwood distributor for South Africa and Sub-Saharan Africa, Global Communications has completed the radio communication system upgrade for the South African National Defence Force (SANDF) operating in the worldrenowned Kruger National Park.**



The park which is situated in the heart of the Lowveld covers an area of 19,485 square kilometres and became South Africa's first national park in 1926.

Kruger National Park borders with Zimbabwe in the north and Mozambique to the east and is part of the Kruger to Canyons

Biosphere, an area designated by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) as an International Man and Biosphere Reserve.

It is the natural habitat to some of the most diverse and important wildlife on the planet.



The South African National Defence Force plays a dual role at the park in protecting its national borders and supporting the SAN Parks game rangers in their vital operations against rhino poachers crossing into the park from Mozambique.

**The Kenwood NEXEDGE® system employed by the SANDF at Kruger National Park is based on the International Telecommunications Union (ITU) accepted NXDN, 6.25 kHz channel-spacing FDMA narrowband digital land mobile standard.**



Global Communications enjoys a long and productive relationship with SANDF's SA Army Signal Formation which has been using Kenwood equipment since 1988/89. The Signal Corps emblem depicts Mercurius, the messenger of the gods who projects their motto "Certa Cito" meaning "Swift and Sure".

Like their motto, the implementation of the control-channel trunked system at Kruger National Park took a swift and sure 6-month period to complete from the acceptance of the concept to commissioning of the system.

The NEXEDGE system gives coverage over approximately 50% of the park and comprises 8 microwave linked sites in a fully digital system providing a group call service to 300 users in 21 user groups.

Each of the radio sites include a mast at an average height of 30 metres, Collinear antennas and four combined repeaters configured as one control and three voice channels.



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With close to 10,000 square kilometres of mixed terrain to cover and the risk of incidents and hostile encounters, the system not only has to meet the need for instant, reliable voice communication but also provide GPS tracking of all the radios connected to it so that resources can be deployed or augmented efficiently.



The Kenwood NEXEDGE system at Kruger National Park is designed to ensure the 100% availability of mission critical communications and Global Communications Divisional Manager, Tactical Department, Graham Taylor was heavily involved in its design, development and implementation. He reports: ***“The NEXEDGE system delivers a seamless mission critical communications solution that provides the soldier on the ground with reliable, state of the art, durable and cost-effective communications”.***

In terms of equipment, a total of 40 repeaters are employed along with 176 hand-portable radios and 124 mobiles; although the capacity potential of the system is significantly greater to allow for future expansion.

In addition, Global Communications has the contract for the maintenance and support of the system.