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## GOVERNMENT NOTICE

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DEPARTMENT OF COMMUNICATIONS

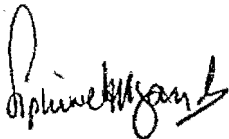
No. 402

14 May 2010

MINISTER OF COMMUNICATIONS

**POLICY DIRECTION ISSUED UNDER THE ELECTRONIC  
COMMUNICATIONS ACT, 2005 (ACT NO. 36 OF 2005) WITH REGARD TO  
THE SQUARE KILOMETRE ARRAY**

I, Gen (Ret) Sipiwe Nyanda, Minister of Communications, hereby make the policy direction in the Schedule on the Square Kilometre Array in terms of section 3(2)(c) of the Electronic Communications Act, 2005 (Act No. 36 of 2005).



**GEN (RET) SIPHIWE NYANDA  
MINISTER OF COMMUNICATIONS**

## SCHEDULE

### POLICY DIRECTION ON SQUARE KILOMETRE ARRAY

#### 1. Background

1.1 South Africa is ready to host the world's most powerful radio telescope, the Square Kilometre Array (SKA) in Southern Africa. Following an initial identification of sites suitable for the SKA by the International SKA Steering Committee in 2006, Southern Africa and Australia are the finalists.

1.2 The SKA telescope will be an extensive array of approximately 3 000 antennas. Half of these will be concentrated in a 5 km diameter core region, and the rest will be distributed out to 3 000 km from this central concentration. South Africa's bid proposes that the core of the telescope be located in an arid area of the Northern Cape Province of the Republic of South Africa, with about three antenna stations in Namibia, four in Botswana and one each in Mozambique, Mauritius, Madagascar, Kenya and Zambia. Each antenna station will consist of about 30 individual antennas. These antennas will all be connected via a data communications network to a very large and powerful data processing facility on the core SKA site in the Northern Cape Province. The combined collecting area of all these antennas will add up to one square kilometre. The telescope will be operated and monitored remotely from Cape Town, where the operations and science centre will be located. Government has proceeded to develop and construct the MeerKAT radio telescope adjacent to the area reserved for the SKA Core. The MeerKAT will have an array of 80 antennas and will serve as a pathfinder for the SKA.

1.3 Hosting the SKA and establishing the MeerKAT would be a major accomplishment for the Astronomy Geographic Advantage Programme (AGAP), an initiative by the South African Government to establish a hub of world-class astronomy facilities in Southern Africa.

1.4 Parliament passed the Astronomy Geographic Advantage Act of 2007, which seeks to declare the Northern Cape Province, excluding the Sol Plaatjie Municipality, as an astronomy advantage area. An area of 12.5 million hectares around the proposed core of the SKA will be protected as a radio astronomy reserve, with strict regulations controlling the generation and transmission of interfering radio signals in the reserve and the area around it.

1.5 The interim protected geographical area for the SKA and the MeerKAT shall be a circular area with a 75 km radius around the SKA centre point located at 21.388000 degrees east and 30.714800 degrees south (hereinafter referred to as the interim protected area).

1.6 Hosting the SKA in South Africa will boost the development of high level skills and cutting edge technology infrastructure in Africa, and will also attract expertise and collaborative projects to the continent.

## 2. Policy direction to ICASA

2.1 The National Radio Frequency Spectrum Policy that was published in Government Gazette No 33119 on 16 April 2010 in terms of section 3(1) of the Electronic Communications Act, 2005 (Act No. 36 of 2005) *inter alia* proposes the following in relation to scientific research:

a) *The radio spectrum facilitates a range of scientific applications used for research purposes;*

b) *Often such scientific applications must compete for spectrum with commercial applications. It is in the national interest that the need for active and passive scientific research should be taken into account when allocating spectrum;*

c) *Government is conscious of the role that radio frequency spectrum plays in environmental and climate change monitoring, including weather forecasting, and natural disaster prediction, detection and mitigation. Consequently, spectrum should be made available, as far as possible, to support and promote scientific research that among other things assists in the process of understanding climate change and the implementation of measures to mitigate its impact.*

2.2 In accordance with the provisions of the National Radio Frequency Spectrum Policy, it is necessary to consider how the usage of the radio frequency spectrum in the interim protected area can best facilitate scientific research and specifically achieve the objectives of the SKA.

2.3 In order to ensure that the astronomy advantage areas as contemplated in the Astronomy Geographic Advantage Act, 2007 (Act No. 21 of 2007) (AGA Act) are preserved and protected as contemplated in the AGA Act, the Minister of Science and Technology is currently developing the regulations required under the AGA Act. A number of activities in the AGA Act require consultation between the Minister of Science and Technology and the Independent Communications Authority of South Africa (ICASA) to ensure successful implementation and the concurrence of ICASA. In this regard ICASA is directed, in terms of section 3(2)(c) of the Electronic Communications Act, 2005 (Act No. 36 of 2005) (the ECA), to consult, provide assistance and render advice to the Minister of Science and Technology to achieve the objectives of the AGA Act relating to the radio frequency spectrum and to perform the responsibilities of ICASA as contemplated in the AGA Act. ICASA is also directed to consult with relevant licensees and other stakeholders.

2.4 ICASA is directed to ensure that appropriate interim measures are implemented, until the regulations under the AGA Act have been promulgated, to limit the negative impact of possible radio frequency interference in the interim protected area and to inform all licensees and other stakeholders accordingly.

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