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GENERAL NOTICE

NOTICE 1595 OF 2009

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) Sphiwe Nyanda, Minister of Communications, intend to 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).

Interested persons are invited to provide written submissions in relation to the proposed policy direction, within 30 working days of the date of publication of this notice at any of the following addresses:

For attention:	The Director: Space Affairs ICT Infrastructure Development Department of Communications;
post to:	Private Bag X860 Pretoria 0001;
or deliver to:	First Floor, Block F iParioli Office Park 399 Duncan Street Hatfield, Pretoria;
or fax to:	(012) 427 8194;
or e-mail to:	ska@doc.gov.za

Please note that comments received after the closing date may be disregarded.


GEN (RET) SIPHIWE NYANDA
MINISTER OF COMMUNICATIONS

SCHEDULE

POLICY DIRECTION ON SQUARE KILOMETRE ARRAY

1. Background

- 1.1 South Africa is bidding 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, South Africa and Australia are the two countries from which the host country for the SKA will be chosen.
- 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 the Northern Cape Province, 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.
- 1.3 Hosting the SKA 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 declares the Northern Cape Province 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 protected geographical area for the SKA 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 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 Minister of Communications intends to issue a Policy on the Radio Frequency Spectrum in terms of section 3(1) of the Electronic Communications Act, 2005 (Act No. 36 of 2005). The proposed policy *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, natural disaster predictions, detection and mitigation. Consequently, spectrum should be made available, as far as possible, to support and promote scientific research that among other things assist in the process of understanding climate change and the implementation of measures to mitigate its impact;*
 - d) Government supports radio astronomers having continued access to their radio frequency bands necessary for their research, and that their sensitive observations must be free from harmful interference.*
- 2.2 In accordance with the Spectrum Policy intent described above, it is necessary to consider how the usage of the radio frequency spectrum in the 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.
- 2.4 ICASA is directed to ensure as an interim measure, until the regulations under the AGA Act have been promulgated, that the radio frequency spectrum usage within the frequency band from 100 MHz to 25 GHz does

not increase in the protected area. In this regard ICASA should place a moratorium on further radio frequency assignment in the protected area, except under special circumstances that may be considered in consultation with the Minister of Science and Technology.

- 2.5 ICASA is directed to monitor existing radio frequency usage in the protected area to ensure that it does not increase.
 - 2.6 ICASA is directed to ensure that no further radio frequency based infrastructure is established in the protected area, with the exception of the radio trunked network operating in the 66/68 MHz band already licensed by ICASA.
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