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Non-compliance to these deadlines will result in your request being failed. **Please pay special attention to the different deadlines for each gazette.**

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take note!

With effect from 01 October, GPW will not longer accept amendments to notices. The cancellation process will need to be followed and a new notice submitted thereafter for the next available publication date.

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GPW has a **2-working day turnaround time for processing notices** received according to the business rules and deadline submissions.

Please keep this in mind when making inquiries about your notice submission at the Contact Centre.

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A reminder that documents must be attached separately in your email to GPW. (In other words, your email should have an Adobe Form plus proof of payment/purchase order – 2 separate attachments – where notice content is applicable, it should also be a 3rd separate attachment).

REMINDER OF THE GPW BUSINESS RULES

- Single notice, single email – with proof of payment or purchase order.
- All documents must be attached separately in your email to GPW.
- 1 notice = 1 form, i.e. each notice must be on a separate form
- Please submit your notice **ONLY ONCE**.
- Requests for information, quotations and inquiries must be sent to the Contact Centre **ONLY**.
- The notice information that you send us on the form is what we publish. Please do not put any instructions in the email body.

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GOVERNMENT NOTICES • GOEWERMENTSKENNISGEWINGS

DEPARTMENT OF SCIENCE AND TECHNOLOGY

NO. 453

20 APRIL 2016

NOTICE OF INTENTION TO MAKE REGULATIONS ON THE PROTECTION OF THE KAROO CENTRAL ASTRONOMY ADVANTAGE AREAS IN TERMS OF THE ASTRONOMY GEOGRAPHIC ADVANTAGE ACT, 2007 AND EXTENSION OF PERIOD FOR WRITTEN REPRESENTATIONS.

I, Grace Naledi Mandisa Pandor, Minister of Science and Technology, in accordance with sections 22, 23, 42, 50 and 51 of the Astronomy Geographic Advantage Act, 2007 (Act No. 21 of 2007) (hereinafter referred to as "the Act"), published proposed Regulations on the Protection of the Karoo Central Astronomy Advantage Areas in terms of the Act, in Government Gazette number 39442, under Notice number 1166, on 23 November 2015 (hereinafter referred to as "the proposed Regulations"). The period provided for the submission of written representations on or objections to the proposed regulations was sixty (60) days from the date of the publication of the notice.

On 11 December 2015, in Government Gazette number 39505, under Notice number 1229, I published a notice extending the period for the submission of written representations or objections to the proposed regulations by a further thirty (30) days, which period expired on 22 February 2016.

Due to some confusion among the public regarding a similar process being undertaken by the Minister of Environmental Affairs and with a view to encouraging public participation in relation to the proposed Regulations, I hereby provide a further opportunity for the submission of written representations on or objections to the proposed Regulations, and therefore extend the period for written representations or objections by an additional sixty (60) days from the date of this notice.

I also hereby substitute Annexure A to Schedule A and Schedule D to Notice number 1166 published in Government Gazette number 39442, on 23 November 2015 with the revised Annexure A to the Schedule A and Schedule D attached to this Notice. There are no other changes to Schedule A and Schedule D. Schedule B and Schedule C to Notice number 1166 are also attached to this notice for ease of reference. There are also no changes to Schedule B and Schedule C.

Written representations that have already been made in response to Notice numbers 1166 and 1229, referred to above, will be taken into consideration.

Interested or affected persons and members of the public who have already made written representations or objections may submit additional written representations or objections within 60 days of date of the publication of this notice, if they wish to do so.

I hereby also give notice that further workshops will be held to address any concerns relating to the proposed Regulations and to provide assistance to members of communities within the Karoo Central Astronomy Advantage Areas who may require

assistance in order to make written representations on or objections to the proposed Regulations.

Members of the public, including interested and affected parties, are invited to attend the workshops, which will be convened as follows –

Date	Venue	Time
16 May 2016	Brandvlei Community Hall	17H00 to 21H00
17 May 2016	Vanwyksvlei Community Hall	17H00 to 21H00
18 May 2016	Carnarvon SASSA Hall	17H00 to 21H00
19 May 2016	Williston Combination School Hall	17H00 to 21H00

All the documents referred to in this Notice are available on the Department of Science and Technology web site (www.dst.gov.za) (under "ENTITIES", then "ASTRONOMY MANAGEMENT AUTHORITY (AMA)" and then "NOTICES"). These documents were also distributed to registered interested and affected parties by registered post in November 2015; and made available at municipal offices in Carnarvon, Fraserburg, Kenhardt, Keimoes, Loxton, Upington, Vanwyksvlei, Victoria West and Williston during January 2016.


Enquiries in relation to this Notice can be directed to:

Mr Mere Kgampe
 Dept of Science and Technology
 Building 53, CSIR Campus
 Meiring Naude Road
 Brummeria
 Pretoria
 0184

Or

Dept of Science and Technology
 Private Bag X894
 Pretoria
 0001

Or
 E-mail address mere.kgampe@dst.gov.za
 Telephone number 012 843 6644


MRS GNM PANDOR, MP
MINISTER OF SCIENCE AND TECHNOLOGY

SCHEDULE A**REGULATIONS TO PROHIBIT AND RESTRICT THE USE OF CERTAIN
RADIO FREQUENCY SPECTRUM AND CERTAIN ACTIVITIES IN THE
KAROO CENTRAL ASTRONOMY ADVANTAGE AREAS DECLARED FOR
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1. Definitions

In these regulations unless the context indicates otherwise –

“Act” means the Astronomy Geographic Advantage Act, 2007 (Act No. 21 of 2007);

“assessment point” means the SKA Virtual Centre or another geographical location or point defined in terms of these regulations, which location is used as the assessment point for the applicable protection measures as prescribed in these regulations;

“co-management entity” means an organ of state, a local community, an individual or other party with whom the relevant management authority has entered into a co-management agreement in terms of section 18 of the Act;

“dBm” means the radio frequency power level expressed in decibels relative to one milliwatt;

“effective radiated power” means the product of the power level supplied to the antenna and the antenna gain relative to a half-wave dipole in the relevant direction;

“essential service” means a radio communications service used in a central astronomy advantage area that is classified as an essential service in terms of the criteria and procedures prescribed in regulation 7 of the Regulations on Administrative Matters for central astronomy advantage areas declared for radio astronomy, 2015;

“Karoo central astronomy advantage areas” means the Karoo central astronomy advantage areas declared by Notice No. 198 published in *Government Gazette* No. 37434 on 12 March 2014;

“Karoo core astronomy advantage area” means the Karoo core astronomy advantage area declared by Notice No. 723 published in *Government Gazette* No. 33462 on 20 August 2010;

“licence exempt operator” means a person who provides a service pursuant to an exemption granted by the Independent Communications Authority of South Africa (ICASA) in terms of section 6 of the Electronic Communications Act, 2005 or uses radio frequency spectrum which is exempt from requiring a radio frequency spectrum licence by virtue of section 31(6) of the Electronic Communications Act, 2005 and regulations made in terms thereof;

“licensee” as defined in the Electronic Communications Act, 2005 means a person issued with a licence to provide services in terms of Chapter 3 or to use the radio frequency spectrum in terms of Chapter 5 of the Electronic Communications Act, 2005;

“protection corridors” mean strips of land, alongside a radio astronomical spiral arms configuration, within which SKA stations in the Karoo Central Astronomy Advantage Area 1 are to be positioned, within a width of 5 km on either side of each spiral arm, as depicted and described in Annexure A;

“radio apparatus” means an electronic communications facility which is capable of transmitting or receiving any signal by radio;

“Radio Astronomy Protection Levels Regulations” means the regulations made to define the radio astronomy observation protection levels for the astronomy advantage areas declared for purposes of radio astronomy, published under Notice No. R.90 in the *Government Gazette* No. 35007 on 10 February 2012;

“radio astronomy station” means one or more receiving systems at a location, including accessory equipment, for receiving radio waves of cosmic origin for the purposes of radio astronomy;

“radio communication” means the emission, transmission or reception of information, including, without limitation, voice, sound, data, text, video, animation, visual images, moving images and pictures, signals or a

combination thereof by means of radio or other electromagnetic waves without the aid of a tangible conductor;

“radio frequency interference” means the detrimental effect of received radio signals that exceed the protection levels prescribed in the Radio Astronomy Protection Levels Regulations, 2012, for more than 5% of the time over a 24 hour period;

“Radio Frequency Spectrum Regulations 2015” means the regulations made by ICASA as published by Notice 279 of 2015, in Government Gazette No. 38641 on 30 March 2015;

“radio station” as defined in the Electronic Communications Act, 2005, means one or more transmitters or receivers or a combination of transmitters and receivers, including the accessory equipment, necessary at one location for carrying an electronic communications service, broadcasting service or any electronic communications authorised by ICASA, and any radio apparatus used at a specific geographical location;

“Regulations on Administrative Matters for central astronomy advantage areas declared for radio astronomy, 2015” means the regulations published by Notice No. xxx in Government Gazette No. xxx on xxx;

“Regulations on Financial Compensation Procedures for central astronomy advantage areas, 2015” means the regulations published by Notice No. xxx in Government Gazette No. xxx on xxx;

“saturation level” means a received power level of (minus) -100 dBm, or higher, for a radio frequency interference signal at which the saturation phenomenon occurs at a radio astronomy station or at a specified assessment point or points, or within a specified area;

“SKA” means the Square Kilometre Array radio telescope consisting of an array of radio astronomy stations to be located within the Republic of South Africa and in participating African countries in accordance with the

decision of the SKA Organisation, a private company (limited by guarantee) incorporated in the United Kingdom; and

“SKA Virtual Centre” means the geographical point located at geographical co-ordinates 30.71292 degrees south and 21.44380 degrees East that relates to the SKA array of radio astronomy stations within the Karoo Astronomy Advantage Areas and is specified as the centre Assessment Point for the application of the protection levels as defined in the Radio Astronomy Protection Levels Regulations.

2. Scope of the regulations

- (1) These regulations apply to the relevant Karoo Central Astronomy Advantage Areas in relation to the frequency spectrum specified in the Notice declaring the Karoo Central Astronomy Advantage Areas.
- (2) If there are differences between the English and the Afrikaans versions of these regulations, the English version will take precedence.

3. Prohibition and restrictions on the use of radio frequency spectrum from 100 MHz to 25.5 GHz

- (1) One (1) year from the date that these regulations come into operation no licensee, licence exempt operator or any other person may use the radio frequency spectrum from 100 MHz to 25.5 GHz for transmissions within the Karoo Central Astronomy Advantage Areas unless –
 - (a) this use is required for the purposes of radio astronomy and related scientific endeavours declared to be so in terms of section 28(1) of the Act; or
 - (b) the use of specific spectrum within the restricted spectrum has been exempt from this prohibition in terms of the relevant provisions of the Regulations on Administrative Matters for central astronomy advantage areas declared for radio astronomy, 2015; or
 - (c) the spectrum use has been exempted in terms of regulation 6 of these regulations; and
 - (d) in the case of paragraph 3(1)(b), the relevant management authority has issued to that person a permit in terms of regulation 4 in the Regulations on Administrative Matters for central astronomy advantage areas declared for radio astronomy, 2015 in relation to the use of that spectrum.

- (2) (a) The prohibition in sub-regulation 3(1) does not apply to the use of radio frequency spectrum from 100 MHz to 200 MHz which was lawfully used immediately before the date of promulgation of these regulations;
- (b) Any licensee or licence exempt operator using any of the radio frequency spectrum referred to in sub-regulation 3(2)(a) within the Karoo Central Astronomy Advantage Areas may only do so if the relevant management authority has issued to that person a permit in terms of sub-regulation 3(1)(d) in relation to the use of that spectrum.
- (3) One (1) year from the date that these regulations come into operation, no television broadcasting service licensee or broadcasting signal distribution licensee may transmit a television broadcasting service in analogue format from a terrestrial transmitting station within the Karoo Central Astronomy Advantage Areas.
- (4) One (1) year from the date that these regulations come into operation no licensee or licence exempt operator or any person may engage in any radio communication with the use of radio frequency spectrum from 100 MHz to 25.5 GHz within the Karoo Central Astronomy Advantage Areas unless –
- (a) this activity is required for the purposes of radio astronomy and related scientific endeavours declared to be so in terms of section 28 (1) of the Act;
- (b) this activity has been exempted from the possession of a permit in terms of regulation 6; or
- (b) possible radio frequency interference has been considered and dealt with by the relevant management authority or co-management entity when considering the licensee or licence exempt operator's application for a permit in terms of the Regulations on Administrative

Matters for central astronomy advantage areas declared for radio astronomy, 2015.

- (5) Any use contemplated in sub-regulation (4) must comply with regulation 4 of these regulations.

4. Conditions on the use of radio frequency spectrum from 100 MHz to 25.5 GHz

- (1) One (1) year from the date that these regulations come into operation, no licensee or licence exempt operator or any person may use radio frequency spectrum from 100 MHz to 25.5 GHz and engage in any radio communication within the Karoo Central Astronomy Advantage Areas unless such use and transmission activity comply with the following conditions –
- (a) does not exceed an effective radiated power of 40 dBm;
 - (b) does not exceed the saturation level within the protection corridors in the Karoo Central Astronomy Advantage Areas, as defined in Annexure A or within a radius of 20 kilometres from the SKA Virtual Centre; and
 - (c) does not exceed the protection levels prescribed in the Radio Astronomy Protection Levels Regulations as applied at the SKA Virtual Centre, unless the use or activity is for an essential service for which a specified interference level in excess of the prescribed protection level has been specified in a permit issued in terms of regulation 4 in the Regulations on Administrative Matters for central astronomy advantage areas declared for radio astronomy, 2015 to the person using that spectrum and conducting that activity.
- (2) Sub-regulation 4(1) also applies to the construction, upgrade, expansion or use of any radio station as contemplated in regulation 5 and in relation to which a permit has been issued.
- (3) Sub-regulation 4(1), except for sub-regulation 4(1)(b), does not apply to any licensee or licence exempt operator who, immediately prior to the date of promulgation of these regulations,

was lawfully permitted to use radio frequency spectrum between 100 MHz to 200 MHz.

5. Conditions on construction, upgrade, expansion or use of radio stations or radio apparatus

- (1) From the date that these regulations come into operation, and unless required for the purposes of radio astronomy and related scientific endeavours, no licensee or licence exempt operator or any other person may construct, upgrade or expand any radio station within the Karoo Central Astronomy Advantage Areas with the use of the radio frequency spectrum from 100 MHz to 25.5 GHz unless such person has applied for, and been granted, a permit for such upgrade or expansion by the relevant management authority in terms of regulation 4 in the Regulations on Administrative Matters for central astronomy advantage areas declared for radio astronomy, 2015.
- (2) One (1) year from the date that these regulations come into operation, no licensee or licence exempt operator or any person may use any radio station or any radio apparatus or any appliance within the Karoo Central Astronomy Advantage Areas that causes radio frequency interference at the SKA Virtual Centre, or saturation level radio frequency interference within the protection corridors in the Karoo Central Astronomy Advantage Areas described in Annexure A, or within 20 km of the SKA Virtual Centre.
- (3) Compliance assessment must be carried out by the licensee or licence exempt operator prior to the issuing of any permit in terms of regulation 4 in the Regulations on Administrative Matters for central astronomy advantage areas declared for radio astronomy, 2015 and must include the following aspects to the extent that they are applicable –
 - (a) The determination of the radio frequency interference level at the SKA Virtual Centre and the saturation level radio frequency interference within the protection corridors in the Karoo Central

- Astronomy Advantage Areas described in Annexure A, or within a radius of 20 km from the SKA Virtual Centre;
- (b) The determination of radio frequency interference referred to in sub-regulation 5(3)(a) must firstly be carried out on the base (fixed) radio stations or radio apparatus or appliances located at a fixed geographical location;
 - (c) If radio frequency interference or saturation level interference may also be caused by mobile or portable radio stations or radio apparatus used in conjunction with the base station or radio apparatus at a fixed location, the determination of radio frequency interference levels must also be carried out with respect to the mobile or portable radio apparatus; and
 - (d) The determination and assessment of radio frequency interference may also be applied to any radio apparatus for which radio frequency spectrum licence exemptions have been prescribed by ICASA in Part III, section (4) of the Radio Frequency Spectrum Regulations 2015 that produces a radiated power level of greater than 250 milliwatt.
- (4) Additional conditions, which may include limitations on the geographical area in which the mobile and portable radio stations may be used or any other method that will restrict the interference to the protection level, will be prescribed for any permit already granted in the event that-
- (a) mobile or portable radio stations used with a base radio station for which a permit had been granted cause radio frequency interference at the SKA Virtual Centre; or
 - (b) there exists saturation level radio frequency interference within the protection corridors in the Karoo Central Astronomy Advantage Areas described in Annexure A, or within 20 km of the SKA Virtual Centre.

6. Exempted radio apparatus

- (1) Radio apparatus, for which radio frequency spectrum licence exemptions have been prescribed by ICASA in Part III, regulation (4) of the Radio Frequency Spectrum Regulations, 2015, is exempted from the requirement prescribed in these regulations for the possession of a permit, provided that –
 - (a) Radio apparatus that produces a radiated power level of greater than 250 milliwatt is excluded from the exemption;
 - (b) Radio frequency interference exceeding the relevant protection level, as prescribed in the Radio Astronomy Protection Levels Regulations, is not caused by the exempted radio apparatus at the SKA Virtual Centre or saturation level interference is not caused within the protection corridors or within a 20 km radius from the SKA Virtual Centre; and
 - (c) The exempted apparatus is only used as prescribed by ICASA and not when the apparatus transmission characteristics are enhanced or multiple units are linked into networks.
- (2) Should any of the radio apparatus contemplated in sub-regulation 6(1) cause radio frequency interference, the use of such apparatus will be subject to protection measures being applied by –
 - (a) the Minister declaring core astronomy advantage areas within which all the exempted radio apparatus may not be used; or
 - (b) the relevant management authority determining permit conditions for the use of that category of radio apparatus.
- (3) The granting or amendment of a permit contemplated in sub-regulation 6(2)(b) will be subject to the procedures and criteria prescribed in the Regulations on Administrative Matters for central astronomy advantage areas declared for radio astronomy, 2015.
- (4) The radio apparatus for which radio frequency spectrum licence exemptions have been prescribed by ICASA, in Part III, section (4) of the Radio Frequency Spectrum Regulations, 2015, should not be operational or be used within 50 km of the SKA Virtual Centre.

7. Location of the SKA Virtual Centre and protection corridors

(1) The geographical location of the SKA Virtual Centre is subject to review and finalisation within twelve (12) months of the promulgation of these regulations.

(2) The protection corridors within the Karoo Central Astronomy Advantage Area 1 are subject to annual review in accordance with progression in the development of the SKA with the intention to phase them out and to require only the protection of the radio astronomy stations located within the corridors.

8. Extension of the one year period

The Minister may, by notice in the *Gazette*, extend the one year period contemplated in sub-regulations 3(1), 3(3), 3(4), 4(1) and 5(2) up to a maximum period of three (3) years.

9. Financial compensation

Any financial compensation contemplated in terms of section 23(3)(a) of the Act with respect to a restriction on radio communication transmissions that were lawfully conducted within the Karoo Central Astronomy Advantage Areas before the promulgation of these regulations will be subject to the Regulations on Financial Compensation Procedures for central astronomy advantage areas, 2015.

10. Offences and penalties

Any person who contravenes these regulations is guilty of an offence and liable on conviction to a fine not exceeding R1 000 000 (one million rand) or to imprisonment or to both a fine and imprisonment.

11. Short title and commencement

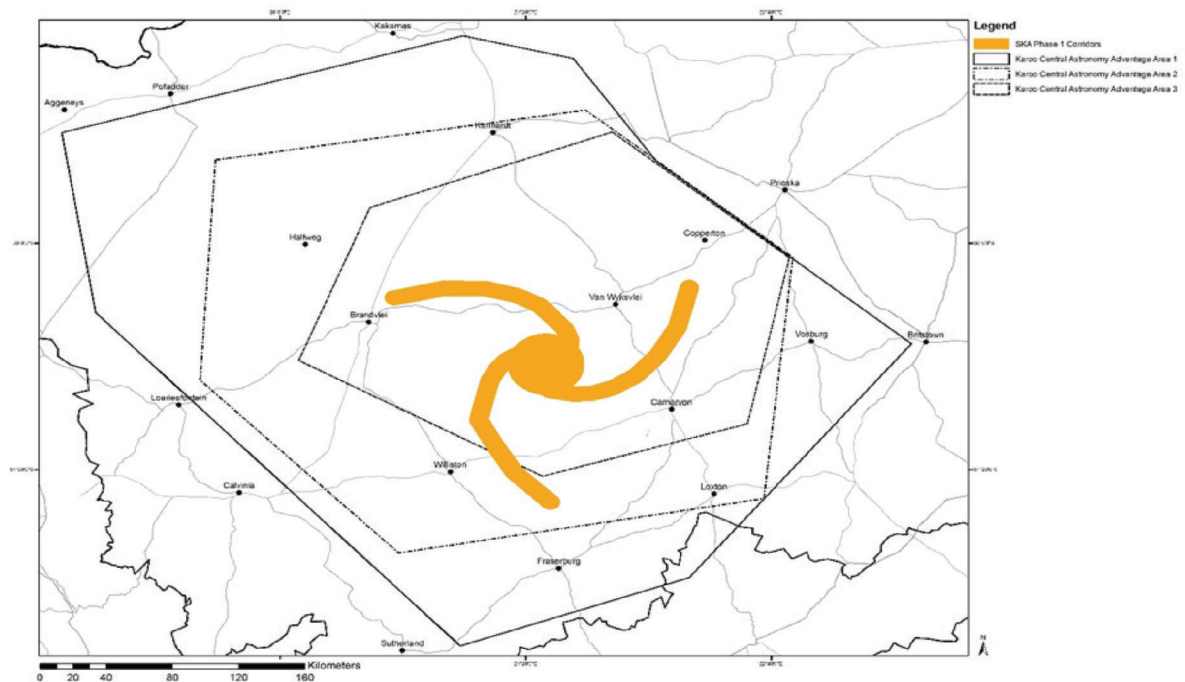
These regulations are called the Karoo Central Astronomy Advantage Areas Spectrum Regulations, 2015 and will come into operation on a date to be determined by the Minister by notice in the *Gazette*.

ANNEXURE A

Map of protection corridors containing the SKA radio astronomy stations within the Karoo Central Astronomy Advantage Area 1

The map below depicts the 20 km radius circle around the SKA Virtual Centre, within which radius circle approximately 173 SKA radio astronomy stations will be located. The map also depicts three protection corridors required for approximately 24 SKA radio astronomy stations located within the Karoo Central Astronomy Advantage Area 1. The protection corridors are required for the SKA configuration refinement over time.

A smaller scale version of the map below and/or a GIS-shape file is available on request from the management authority or co-management entity. The perimeters of the corridors are 5 km distant on either side of the spiral arms along which the SKA stations are to be positioned.



SCHEDULE B**REGULATIONS ON ADMINISTRATIVE MATTERS FOR CENTRAL ASTRONOMY
ADVANTAGE AREAS DECLARED FOR RADIO ASTRONOMY PURPOSES****ARRANGEMENT OF REGULATIONS**

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1. Definitions

In these regulations, unless the context indicates otherwise –

"Act" means the Astronomy Geographic Advantage Act, 2007 (Act No. 21 of 2007);

"affected person" means a person who –

- (a) lawfully conducted an activity in a central astronomy advantage area prior to the restriction of that activity by virtue of regulations made by the Minister in terms of section 23 of the Act; and
- (b) is required by the Minister in terms of section 23(3) (a) of the Act to cease that activity or to comply with conditions prescribed in terms of section 23(3) (b) of the Act;

"assessment point" means the geographical location or any relevant point within an area defined in the relevant central astronomy advantage area Spectrum Regulations, which location or point is used as the assessment point for the applicable protection measures prescribed in the relevant Spectrum Regulations;

"co-management entity" means an organ of state, a local community, an individual or other party with whom the management authority has entered into a co-management agreement in terms of section 18 of the Act;

"competent person" means a person who meets each of the criteria prescribed in regulation 8 of these regulations;

"compliance assessment" means:

- (a) the comparison of radio frequency interference levels at the applicable assessment points according to the protection measures as prescribed in the relevant Spectrum Regulations with the applicable protection levels determined in accordance with the Radio Astronomy Protection Levels Regulations;
- (b) the comparison of radio frequency interference levels at the applicable assessment points according to the protection measures as prescribed in the applicable Spectrum Regulations, with the Saturation Level; and

(c) the determination whether there is compliance with all applicable regulations made in terms of the Act;
to be carried out by the Competent Person designated by the applicant for a permit in terms of regulation 8 of these regulations.

"dBm" means the radio frequency power level expressed in decibels relative to one milliwatt;

"effective radiated power" means the product of the power level supplied to the antenna and the antenna gain relative to a half-wave dipole in the relevant direction;

"essential service" means a radio communications service used in a central astronomy advantage area that is classified as an essential service in terms of the criteria and procedures prescribed in regulation 7 of these regulations;

"ITU" means the International Telecommunications Union;

"licence exempt operator" means a person who provides a service pursuant to an exemption granted by ICASA in terms of section 6 of the Electronic Communications Act, 2005, or uses radio frequency spectrum which is exempt from requiring a radio frequency spectrum licence by virtue of section 31(6) of the Electronic Communications Act, 2005, and regulations made in terms thereof;

"licensee" as defined in the Electronic Communications Act, 2005 (Act No. 36 of 2005) means a person issued with a licence to provide services in terms of Chapter 3 or to use the radio frequency spectrum in terms of Chapter 5 of the Electronic Communications Act, 2005;

"radio apparatus" means an electronic communications facility which is capable of transmitting or receiving any signal by radio;

"Radio Astronomy Protection Levels Regulations" means the regulations made to define the radio astronomy observation protection levels for the astronomy advantage areas declared for purposes of radio astronomy, published

under Notice No. R.90 in the Government Gazette No. 35007 on 10 February 2012;

“radio astronomy station” means one or more receiving systems at a location, including accessory equipment, for receiving radio waves of cosmic origin for the purposes of radio astronomy;

“radio communication” means the emission, transmission or reception of information, including without limitation, voice, sound, data, text, video, animation, visual images, moving images and pictures, signals or a combination thereof by means of radio or other electromagnetic waves without the aid of a tangible conductor;

“radio communications network service licensee” means a person to whom ICASA has issued an electronic communications network service licence in terms of Chapter 3 of the Electronic Communications Act, 2005;

“radio communications service” means any service provided to the public, sections of the public, the State, or the subscribers to such service, which consists wholly or mainly of the conveyance by any means of radio communications over a radio communications network;

“radio frequency interference” means the detrimental effect of received radio signals that exceed the protection levels prescribed in the Radio Astronomy Protection Levels Regulations, 2012, for more than 5% of the time over a 24 hour period;

“Radio Frequency Spectrum Regulations 2015” means the regulations made by ICASA as published by Notice 279 of 2015, in Government Gazette No. 38641 on 30 March 2015;

“radio station” as defined in the Electronic Communications Act, 2005 means one or more transmitters or receivers or a combination of transmitters and receivers, including the accessory equipment, necessary at one location for carrying an electronic communications service, broadcasting service or any

electronic communications authorised by ICASA, and any radio apparatus used at a specific geographical location;

"restricted radio frequency spectrum" means radio frequency spectrum the use of which is prohibited or restricted by the Minister in terms of section 22 of the Act;

"saturation level" means a received power level of (minus) -100 dBm, or higher, for a radio frequency interference signal at which the saturation phenomenon occurs at a radio astronomy station or at a specified assessment point or points, or within a specified area; and

"Spectrum Regulations" means the regulations to prohibit and restrict the use of certain radio frequency spectrum in terms of section 22 of the Act and certain declared activities in terms of section 23 of the Act, within the relevant central astronomy advantage area declared for radio astronomy purposes.

2. Scope of the regulations

- (1) These regulations apply to any central astronomy advantage areas declared for radio astronomy purposes as contemplated in section 9 of the Act.
- (2) If there are differences between the English and the Afrikaans versions of these regulations, the English version will take precedence.

3. Exemption from prohibition or restrictions on radio frequency spectrum use

- (1) In order to determine which radio frequency spectrum may be exempt from a prohibition or restrictions imposed in the relevant Spectrum Regulations on its use for transmissions located within a central astronomy advantage area, the relevant management authority or co-management entity must give notice in the *Gazette*, as soon as reasonably practical after the Spectrum Regulations for that area have been promulgated, of a list of the radio frequency spectrum to be considered for exemption from a prohibition or restrictions on its use for transmissions located within that area.
- (2) The notice contemplated in sub-regulation (1) –
 - (a) may also propose the consolidation of radio frequency spectrum already being used in that central astronomy advantage area; and
 - (b) must invite interested or affected parties to submit written representations on the notice within sixty (60) days from the date of the notice.
- (3) Before gazetting the notice contemplated in sub regulation (1), the relevant management authority or co-management entity must –
 - (a) consult ICASA on the radio frequency spectrum to be considered for exemption; and
 - (b) in the manner contemplated in section 22(4) of the Act, notify all existing licensees and licence exempt operators who operate radio stations in that central astronomy advantage area and who are listed in the permanent register of interested and affected parties for that area, of the notice to be gazetted.

- (4) The relevant management authority or co-management entity must consider the representations received and may request additional information from any person who made written representations.
- (5) After considering the representations and any additional information received, the relevant management authority or co-management entity must make recommendations to the Minister regarding the radio frequency spectrum to be exempted.
- (6) The Minister may, by notice in the *Gazette*, publish the list of exempted radio frequency spectrum at least six (6) months prior to the date when the prohibition or restrictions on the use of spectrum within that area will come into operation.
- (7) The relevant management authority or co-management entity, in response to a request from ICASA, may consider the exemption of additional radio frequency spectrum for use within a central astronomy advantage area.

4. Requirements for a permit and compliance assessment

- (1) A licensee or licence exempt operator or any person who transmitted signals from a radio station within a central astronomy advantage area using radio frequency spectrum immediately before the Spectrum Regulations for that area were promulgated, may only continue transmitting those signals for a period of one (1) year after the coming into operation of those regulations unless the relevant management authority has issued to that licensee or operator a permit for the transmission of those signals beyond such period.
- (2) The Minister may, by notice in the *Gazette*, extend the one (1) year period contemplated in sub-regulation 4(1) to a maximum period of three (3) years.
- (3) A licensee or licence exempt operator or any person may not commence transmitting signals from a radio station within a central astronomy advantage area using radio frequency spectrum after the Spectrum Regulations for that area have been promulgated unless the relevant

management authority has issued to that licensee or operator a permit for the transmission of those signals.

- (4) Radio apparatus, exempted by ICASA in Part III, section (4) of the Radio Frequency Spectrum Regulations, 2015, from the requirement to have a radio frequency spectrum licence do not require a permit to continue or to commence transmitting signals within a central astronomy advantage area after the Spectrum Regulations have been published, provided that -
- (a) the radio apparatus with a radio frequency power output level of greater than 250 milliwatt are excluded from this exemption;
 - (b) the radio apparatus with a radio frequency power output level of less than 250 milliwatt comply fully with the relevant requirements and conditions that are stated in Annexure B of the Radio Frequency Spectrum Regulations 2015,
 - (c) the radio frequency interference described in the relevant Spectrum Regulations is not caused;
 - (d) if radio frequency interference is caused, the geographical use of the apparatus may be restricted as prescribed in the relevant Spectrum Regulations; and
 - (e) The exemption from the requirement for a permit only applies to apparatus used individually as specified in the Radio Frequency Spectrum Regulations 2015 and not when multiple units are linked into networks or the apparatus is enhanced in any way.
- (5) If radio frequency interference is caused by the radio apparatus referred to in regulation 4(4), or if the radio apparatus is not used according to the requirements and conditions prescribed in the Radio Frequency Spectrum Regulations 2015 or if multiple units are linked or the units are enhanced, then a compliance assessment, as contemplated in sub-regulation 4(6) and 4(7), must be carried out to determine the extent of the radio frequency interference and an application for a permit must be made.
- (6) Prior to the issuing of any permit for the transmission of a signal from a radio station within a central astronomy advantage area using radio

frequency spectrum, a compliance assessment must be carried out by the licensee or licence exempt operator on each such signal.

- (7) A compliance assessment may only be carried out by a competent person, as contemplated in regulation 8 of these regulations, who is employed by the licensee or the licence exempt operator transmitting or intending to transmit the signal, or by a competent person contracted by the licensee or operator for this purpose.
- (8) Radio frequency interference levels that are produced by a signal transmitted from any radio station within a central astronomy advantage area must be determined by using the radio station data to be stated in the compliance assessment report and according to the technical criteria prescribed in regulation 6 of these regulations.
- (9) The compliance assessment report applicable to computer modelling must conform with the framework provided in Annexure A to these regulations and include all the information and data required therein.
- (10) For measurements, contemplated in sub-regulation 5(6), an appropriate detailed assessment report must be provided that includes a description of the measurement process and standards used, the list of measuring and ancillary equipment used with calibration certificates, full information on measurement parameters (location, height, date, time, weather, etc.) and the measurement results.
- (11) An application for a permit must conform with the framework provided in Annexure B to these regulations and include all the information and data required therein.
- (12) The completed application form and the compliance assessment report must be submitted by the licensee or licence exempt operator to the relevant management authority for evaluation.
- (13) The radio station data must be submitted in an electronic format, preferably ascii, which must be capable of being captured or converted for use in a computer programme.

- (14) If a substantial number of transmissions and compliance assessments are dealt with in a single application and report, the information and data required in Annexures A and B may be provided in a Microsoft Excel spreadsheet, or any other electronic tabulated data format.
- (15) If a licensee or licence exempt operator is transmitting or intends to transmit signals from a radio station within a central astronomy advantage area using restricted radio frequency spectrum, and would like to continue to use that spectrum after the date when the prohibition or restrictions take effect, that licensee or operator may request an exemption from that prohibition or those restrictions, which request together with the motivation for the request must accompany the permit application and the compliance assessment report submitted to that authority or entity.

5. Evaluation of compliance assessment and the application for a permit

- (1) The relevant management authority or the co-management entity must evaluate each compliance assessment report and application for a permit submitted to it.
- (2) If an incomplete compliance assessment report or permit application is received –
- (a), the applicant will be notified thereof in writing within fourteen (14) days of receiving the application;
 - (b) the incomplete report and/or application may be replaced with a complete version; and
 - (c) The evaluation process will only start when the complete versions of the report and the application are available.
- (3) If the radio frequency spectrum used -
- (a) is not restricted radio frequency spectrum;
 - (b) the determined radio frequency interference levels do not exceed the applicable prescribed protection levels; and
 - (c) the transmission complies with all the applicable restrictions and regulations made in terms of the Act,

the relevant management authority, must within thirty (30) days of the date the permit application and assessment report was submitted to it, excluding the time taken for mandatory external consultations or responses to requests for information to the applicant, issue the permit and notify the licensee or operator in writing.

- (4) If a licensee or licence exempt operator has submitted a request to the relevant management authority for an exemption relating to restricted radio frequency spectrum, that authority, must within sixty (60) days of the date the application was submitted to it, excluding the time taken for mandatory external consultations or responses to requests for information to the applicant, advise the licensee or licence exempt operator in writing of its decision concerning the request for exemption.
- (5) If the determined radio frequency interference levels exceed the applicable prescribed protection levels or the transmission does not comply with any applicable restrictions or regulations, the relevant management authority must, within thirty (30) days of the date that the compliance assessment report was submitted to it, advise the licensee or licence exempt operator of this in writing.
- (6) In the event of a dispute between the applicant and the relevant management authority and co-management entity on the other hand, about:
 - (a) the validity of the radio frequency interference levels determined by means of computer calculations, or
 - (b) the accuracy of the determined radio frequency interference levels that are considered to be unacceptable by the management authority and co-management entity,

then appropriate and feasible measurements of the actual interference level at the prescribed assessment point must be carried out in accordance with the relevant provisions in regulation 6 of these regulations.

- (7) A licensee or licence exempt operator who receives a written notification as contemplated in sub regulation 5(5) may investigate and consider methods to reduce the interference levels to the prescribed protection levels and to

comply with the applicable restrictions and regulations, and submit those proposed methods in writing to the relevant management authority within thirty (30) days from the date on which the notice in sub-regulation 5(5) was received.

- (8) The relevant management authority or the co-management entity must evaluate those proposed methods and, within thirty (30) days of the date of receipt thereof, excluding time taken for mandatory external consultations or responses to requests for information to the applicant, advise the licensee or operator in writing whether the proposed method to limit radio frequency interference is acceptable.
- (9) If the relevant management authority or co-management entity accepts the proposals, then the licensee or operator must implement those proposals within ninety (90) days of the date of receipt of the decision, whereupon that authority must, subject to the successful implementation of the proposals, issue and deliver a permit to the licensee or operator.
- (10) If the relevant management authority requires more time than the time specified within which to make a decision in terms of sub-regulations 5(3), 5(4), 5(5) or 5(8) or it is found that an extensive technical evaluation and/or measurements is required, it may, within the specified period of time, including any valid additional time, advise the licensee or operator that additional time, up to a maximum of one hundred and eighty (180) days is required and provide reasons why it is required.
- (11) If the relevant management authority fails to act within the periods specified in sub-regulations 5(3), 5(4), 5(5) or 5(8) or where the authority, in terms of sub-regulation 5(10) has extended the period by a certain amount of time and fails to act within the extended period, it will be deemed to be a refusal of the application.
- (12) A permit issued to a licensee or a licence exempt operator by the relevant management authority must specify the frequencies or frequency band that may be used, together with the transmission characteristics and the conditions with which the licensee or licence exempt operator must comply.

- (13) If it is reported after a permit has been issued that radio frequency interference to radio astronomy is higher than the level specified in the permit, the compliance assessment report must be verified by applicant for the permit and the relevant management authority.
- (14) The compliance assessment related to the verification referred to in sub-regulation 5(13) and carried out in terms of these regulations, must be reviewed by the applicant and the relevant management authority to determine its correctness taking into account the accuracy of the computer modelling applied or measurements carried out.
- (15) If considered necessary by the relevant management authority or co-management entity, measurements of the radio frequency interference must be carried out. The results of the review will determine whether the transmission characteristics specified in the permit issued must be adjusted in order to avoid that the applicable protection level is exceeded.
- (16) If a licensee or licence exempt operator to whom a permit has been issued seeks to amend the frequencies or frequency band that may be used, the transmission characteristics or the conditions specified in its permit, then it must apply to the relevant management authority for such amendment.
- (17) Regulations 4(6) to 4(16), read with the necessary changes, apply to such application for an amendment of a permit issued.
- (18) If the relevant management authority finds, thirty (30) days after the issuing of a permit, that the conditions specified in the permit are not complied with, then the permit will be immediately withdrawn by the relevant management authority. The holder of such permit must immediately cease any activity conducted under such permit.

6. Technical criteria for the determination of radio frequency interference levels

- (1) The compliance assessment, contemplated in sub-regulation 4(6), must include the following:
- (a) The determination of the radio frequency interference levels related to the protection measures prescribed in the relevant Spectrum

- Regulations with respect to the relevant protection levels prescribed in the Radio Astronomy Protection Levels Regulations;
- (b) The determination of the radio frequency interference levels related to the protection measures prescribed in the relevant Spectrum Regulations with respect to the Saturation Level; and
 - (c) The determination of whether there is compliance with all applicable regulations made in terms of the Act.
- (2) The determination of the radio frequency interference levels should in the first instance be carried out by means of computer modelling which uses scientific methods recommended by the ITU and which calculates the radio frequency interference levels related to the protection measures prescribed in the relevant Spectrum Regulations and the criteria specified in sub-regulation 6(7).
 - (3) If computer modelling is not feasible or appropriate, or if greater accuracy is required than computer modelling can provide, then, the radio frequency interference levels must be determined by means of measurements.
 - (4) The measurement standards and techniques to be used must be agreed upon between the relevant management authority or co-management entity and the competent person, as contemplated in regulation 8 of these regulations, who is conducting the compliance assessment.
 - (5) If agreement cannot be reached, the relevant management authority or co-management entity must determine the appropriate standard and techniques to be used.
 - (6) The reference height for measurements or signal predictions is 10 meters above ground level at the assessment points for the protection measures prescribed in the relevant Spectrum Regulations.
 - (7) The calculation of radio frequency interference levels must be based on the following criteria –
 - (a) the application of the relevant ITU Recommendation on propagation;
 - (b) signal levels that will not be exceeded for more than 5% of the time over a twenty four (24) hour period;

- (c) an isotropic antenna condition with 0dB gain at the assessment points for the protection measures prescribed in the relevant Spectrum Regulations;
 - (d) the use of the best available digital terrain model; and
 - (e) transmitting station data provided by the licensed or licence exempt electronic communication network operator or radio frequency spectrum licensee according to the stated details in Annexure A to these regulations.
- (8) The competent person conducting the compliance assessment must carry out –
- (a) A point-to-point calculation on the propagation paths between the radio station or location of the radio apparatus and the specified assessment points of the radio frequency interference level at the assessment points for the protection measures prescribed in the relevant Spectrum Regulations;.
 - (b) the calculation of the signal path losses over the propagation paths referred to in (a), in dB; and
 - (c) The comparison of the radio frequency interference levels, at the applicable assessment points referred to in (a), to determine whether it exceeds the applicable protection level or not, with:
 - (i) the relevant protection level prescribed in the Radio Astronomy Protection Levels Regulations, or
 - (ii) the saturation level.

The results from (a), (b) and (c) above must be stated in the compliance assessment report prescribed in sub-regulation 4(8).

7. Criteria, procedures and conditions that apply to an essential service

- (1) Radio communication services that provide the applications listed below may be considered by the relevant management authority for classification as essential services –

- (a) broadcasting signal distribution via geostationary satellites for distribution to terrestrial broadcasting transmitters and for direct-to-home reception;
 - (b) electronic communications network services of provincial and national scope licensed by ICASA in terms of section 5(3) of the Electronic Communications Act;
 - (c) electronic communications for the operation and maintenance of electricity transmission and distribution power systems;
 - (d) electronic communications for the operation and maintenance of rail transport;
 - (e) electronic communications for security services and their objects as defined in Chapter 11 of the Constitution of the Republic of South Africa 1996, local government and their objects as defined in Chapter 7 of the Constitution, health services and emergency services;
 - (f) electronic communications for aeronautical and maritime services in frequency spectrum allocations relating to the safety and regularity of flight and sea vessels, including communications, radio navigation and surveillance systems; and
 - (g) geostationary satellite communications.
- (2) In the determination by the relevant management authority of whether a radio communication service included in sub-regulation 7(1) should be classified as an essential service, or not, consideration must be given to –
- (a) the existence of a functionally suitable and economically feasible alternative which complies with or better meets the restrictions, conditions and standards prescribed in these regulations for the protection of radio astronomy; and
 - (b) the possible use of an alternative frequency band and/or an alternative technology that has a lesser radio frequency interference impact on the protection of radio astronomy.
- (3) An applicant for a permit required in accordance with regulation 4 in connection with a radio communication service that may qualify to be

classified as an essential service in terms of sub-regulation 7(1), must indicate this in such application.

- (4) The classification for each different type of radio communication service, operating in a different frequency band or using a different technology, in particular for licensees providing multiple types of services, must be determined separately and so indicated in the permit to be issued.
- (5) The relevant management authority or co-management entity must, before the evaluation process for the compliance assessment and the application for a permit prescribed in regulation 5 commences, determine whether the radio communication service involved will be classified as an essential service.
- (6) If a radio frequency interference level relating to an essential service exceeds the applicable prescribed protection level in terms of the Radio Astronomy Protection Levels Regulations at the prescribed assessment points and cannot be reduced without significantly affecting that service, the provider of that service must include an explanation in the application submitted to the management authority or co-management entity as to the reasons why the interference level cannot be reduced and request that a radio frequency interference level in excess of the prescribed value be permitted.
- (7) A classification as an essential service may be cancelled by the relevant management authority when another electronic communication system that is functionally suitable and economically feasible becomes available which complies with or better meets the restrictions, conditions and standards prescribed in the relevant Spectrum Regulations for the protection of radio astronomy.
- (8) No relief may be granted by the relevant management authority where radio frequency interference may exceed the saturation level at any applicable reference point prescribed in the relevant Spectrum Regulations.

8. Criteria to be met by a person carrying out compliance assessment

- (1) A person who carries out a compliance assessment and compiles the report, must:

- (a) possess a tertiary academic qualification in electronic or radio frequency engineering at least at the level that would qualify that person to be registered as a professional engineering technologist in terms of the Engineering Profession Act, 2000 (Act No. 46 of 2000);
 - (b) have access to or be able to obtain access to a computerised frequency spectrum planning system that is usable to carry out the computer modelling for the radio frequency signal level calculations based on the relevant ITU Recommendations on propagation and uses the best available digital terrain model; and
 - (c) be able to provide at least two references for work carried out successfully within the last five (5) years which involves the determination of radio wave propagation and signal levels.
- (2) Alternative to sub-regulation 8(1), the relevant management authority or the co-management entity must carry out an assessment of the skills and experience of a person wishing to carry out the compliance assessment and the compilation of the report to determine whether the person possesses the required ability and capacity.
 - (3) The required information as stipulated in Annexure A, item 1, must be provided by the applicant for a permit for consideration and assessment by the management authority or co-management entity.

9. Permit register

- (1) The transmission characteristics and the conditions specified in each permit issued in terms of regulation 5 must be entered, by the relevant management authority, into a permit register for the applicable central astronomy advantage area.
- (2) The detailed information to be entered in the permit register must include the data used for the compliance assessment and the assessment results as reflected in Annexure A, items 2 to 6, for each assessment point involved.
- (3) The assessment information in the register may only be made available to the relevant management authority or co-management entity and the permit holder.

10. Offences and penalties

Any person who contravenes these regulations is guilty of an offence and liable on conviction to a fine not exceeding R1 000 000 (one million rand) or to imprisonment or to both a fine and imprisonment.

11. Short title and commencement

These regulations are called the Regulations on Administrative Matters for the Central Astronomy Advantage Areas (Radio Astronomy), 2015, and will come into operation on a date to be determined by the Minister by notice in the Gazette.

ANNEXURE A: Framework for compliance assessment report

1. Competent person who carried out the investigation

- 1.1. Name of the competent person:
- 1.2. Proof that the competent person meets each of the requirements prescribed in Regulation 8:
 - 1.2.1. Academic qualification:
 -
 - 1.2.2. Access to computerised frequency planning system
 -
 - 1.2.3. Two references for frequency spectrum planning work carried out in last five years:
 - 1.2.3.1.
 - 1.2.3.2.
- 1.3. Alternative to 1.2, request that an assessment of the person is carried out
 -

2. Radio station data for a particular transmission

The items below apply to a fixed radio station. If another situation is involved in the assessment, then only the applicable items must be completed and sufficient information provided to properly characterise and identify the transmission source.

A tabulated schedule must be used for multiple transmissions from a station at a particular location or from stations at different locations

- 2.1. Carrier frequency (in MHz to 4 decimals):
 -
- 2.2. Unique reference number (not more than ten characters/numerals):
 -
- 2.3. Name of licensee or licence exempt operator:
 -
- 2.4. Radio station name:
 -
- 2.5. Geographical coordinates (in degrees up to four decimals)
 -

- 2.6. Ground level height above sea level (in metres):
.....
- 2.7. Height above ground level of the transmitting antenna centre (in metres):
.....
- 2.8. EIRP in the direction of the Assessment Point (AP) (in dBm):
.....
- 2.9. Polarisation of the transmitted signal:
.....
- 2.10. Bandwidth of the transmitted signal (in MHz):
.....

3. Technical criteria applied to signal level calculation

- 3.1. Computerised frequency planning system used:
.....
- 3.2. The ITU Recommendation applied in propagation calculations:
.....
- 3.3. Option chosen (if any) in the ITU Recommendation applied:
.....
- 3.4. Digital topographical terrain model used:
.....

4. Results of the radio frequency interference (RFI) compliance assessment at the applicable AP with respect to the radio astronomy protection level

- 4.1. Applicable AP: Geographical coordinates (in degrees up to four decimals):
.....
- 4.2. RFI level (in dBm/Hz) at the AP:
.....
- 4.3. Propagation path loss (in dB) between the radio station and the AP:
.....
- 4.4. Protection level (PL)(in dBm/Hz) as determined in terms of the Radio Astronomy Protection Levels Regulations:.....

4.5. Result of the RFI and PL levels comparison:

.....

5. Results of the RFI compliance assessment at the applicable AP with respect to the saturation level

5.1. Location of the applicable AP: Geographical coordinates (in degrees up to four decimals)

.....

5.2. RFI levels at the applicable AP

.....
.....

5.3. Result of the comparison with the saturation level

.....

6. Assessment of compliance with all applicable regulations made in terms of the Act

6.1. All applicable regulations are complied with: Yes.....or No.....

6.2. Provide references to applicable regulations that are not complied with, with the reasons for non-compliance

.....
.....

7. Compliance Assessment Report signed by:

In signing this Compliance Assessment Report, I declare that the information and results provided in this report are to the best of my knowledge truthful and correct.

_____	_____	_____	_____
Name of person	Signature	Date	Place

ANNEXURE B: Framework for an application for a permit

1. Applicant

1.1. Name of person or entity.....

1.2. ID or registration number.....

1.3. If an entity, name of contact person and her/his
position.....
.....

1.4. Postal address.....

1.5. Email address.....

1.6. Telephone numbers.....

2. Details of transmissions for which permits are required (if more than three transmissions are involved, use a tabulated schedule)

Details	Transmission 1	Transmission 2	Transmission 3
Site name			
Geographical coordinate (latitude)			
Geographical coordinate (longitude)			
Type of radio communications			
Carrier/centre frequency (MHz)			
Transmit power at antenna input (dBm)			
Antenna type & gain (dB)			
ICASA radio frequency spectrum licence number			

Frequency spectrum in use (Restricted/Exempted)			
Compliance assessment done (Yes/No)			
Radio frequency interference exceeds protection level (Yes/No)			
Radio frequency interference exceeds saturation level (Yes/No)			
Compliance with applicable restrictions in Spectrum Regulations (Yes/No)			
Considered to qualify for classification as an essential service (yes/no)			

3 Application for a permit or permits signed by:

In signing this Application, I declare that the information provided is to the best of my knowledge truthful and correct.

Name of person

Signature

Date

Place

SCHEDULE C
REGULATIONS ON FINANCIAL COMPENSATION PROCEDURES FOR
CENTRAL ASTRONOMY ADVANTAGE AREAS

ARRANGEMENT OF REGULATIONS

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1. Definitions

In these regulations unless the context indicates otherwise –

"Act" means the Astronomy Geographic Advantage Act, 2007 (Act No. 21 of 2007);

"affected person" means a person who –

- (a) lawfully conducted an activity in a central astronomy advantage area prior to the restriction of that activity by virtue of regulations made by the Minister in terms of section 23 of the Act; and
- (b) is required by the Minister in terms of section 23(3) (a) of the Act to cease that activity or to comply with conditions prescribed in terms of section 23(3) (b) of the Act;

"co-management entity" means an organ of state, a local community, an individual or other party with whom the relevant management authority has entered into a co-management agreement in terms of section 18 of the Act;

"financial loss" means –

- (a) the cost to a radio communications network service licensee to implement a requirement or a condition imposed in terms of section 23 of the Act;
- (b) the connecting cost and additional user cost to a radio communications service user for an electronic communications service that is different to the electronic communications service used by that user prior to the promulgation of a regulation made in terms of section 23 of the Act;

"GPS" means global positioning system;

"licence exempt operator" means a person who provides a service pursuant to an exemption granted by ICASA in terms of section 6 of the Electronic Communications Act, 2005, or uses radio frequency spectrum which is exempt from requiring a radio frequency spectrum licence by virtue of section 31(6) of the Electronic Communications Act, 2005, and regulations made in terms thereof;

"licensee" means a person to whom ICASA has issued a licence to provide a service in terms of Chapter 3 or to use radio frequency spectrum in terms of section 31 of the Electronic Communications Act, 2005; and

"Spectrum Regulations" means the regulations to prohibit and restrict the use of certain radio frequency spectrum in terms of section 22 of the Act and certain declared activities in terms of section 23 of the Act, within the relevant central astronomy advantage area declared for radio astronomy purposes.

2. Scope of the regulations

- (1) These regulations apply to any central astronomy advantage area declared for radio astronomy purposes and related scientific endeavours.
- (2) If there are differences between the English and the Afrikaans versions of these regulations, the English version will take precedence.

3. Procedures and criteria to apply for financial compensation

- (1) An affected person who has suffered a financial loss solely as a direct result of that person's compliance with a requirement or a condition imposed in terms of section 23(3)(a) or (b) of the Act, or a person whose use of the service of a licensee or a licence exempt operator is adversely affected as a direct result of that operator's compliance with a requirement or a condition imposed in terms of section 23(3)(a) or (b) of the Act, may apply for compensation in terms of this regulation.
- (2) The application for compensation contemplated in sub-regulation (1) must be done on a form obtained from the relevant management authority or co-management entity and submitted to the relevant management authority or co-management entity within two (2) years of the implementation of the relevant requirement or condition.
- (3) The said application must contain –
 - (a) the applicant's full name, postal address, email address, telephone number and tax reference number;
 - (b) the address where the applicant will accept service of any notice, process or any other document concerning the application;
 - (c) the address or GPS location where the applicant lawfully conducted the relevant activity or used the service, which is the subject of the application, immediately before the implementation of the relevant requirement or condition;
 - (d) if at the time of making the application, the applicant conducts the activity or uses the service which is the subject of the application at an address or GPS location different from the address or location provided in sub-regulation (c) , the details of the different address or location;

- (e) a copy of all relevant documents published by notice in the *Gazette* in terms of section 23 of the Act;
- (f) a detailed description of the activity lawfully conducted or the service used by the applicant immediately before the implementation of the relevant requirement or condition;
- (g) an affidavit by the applicant confirming –
 - (i) whether the applicant solely as a direct result of compliance with the requirement imposed in terms of section 23(3) (a) of the Act, ceased the relevant activity and the date thereof;
 - (ii) the manner and extent to which the applicant modified its conduct of the relevant activity solely as a direct result of compliance with a condition imposed in terms of section 23(3)(b) of the Act; or
 - (iii) the manner and extent to which the applicant's use of the service was adversely affected solely as a direct result of compliance with a requirement or condition imposed in terms of section (23)(3)(a) or (b).
- (h) a detailed description of any property or equipment which was owned or used by the applicant to conduct the relevant activity or the service where the use of that property or equipment has been adversely affected solely as a direct result of compliance with the requirement or condition imposed in terms of section 23(3) of the Act, including a detailed description of –
 - (i) the condition of the property or equipment;
 - (ii) the extent to which the applicant used the property or equipment to conduct the relevant activity or use the service;
 - (iii) the market value of the property or equipment;
 - (iv) the record of the acquisition or use of the property or equipment;
 - (v) the extent to which the State invested in, subsidised, or otherwise assisted the applicant with the acquisition or maintenance of the property or equipment or the conduct of the relevant activity; and

- (vi) the extent to which the property or equipment has been adversely affected solely as a direct result of compliance with the requirement or condition imposed in terms of section 23(3) of the Act, taking into account other possible uses of that property by the applicant or a third party;
 - (i) a detailed description of any financial loss suffered by the applicant solely as a direct result of compliance with the requirement or conditions imposed in terms of section 23(3) of the Act, including any financial loss due to a conversion to an alternative electronic communication service as the impacted service was no longer usable;
 - (j) any other particulars which are relevant or necessary for the relevant management authority or co-management entity to-
 - (i) consider the application; and
 - (ii) calculate the amount of compensation to be paid, if any, including full particulars as to the basis and manner of calculation of all amounts;
 - (k) a complete record of any correspondence with, and written representations submitted to the relevant management authority or co-management entity in terms of section 23 of the Act; and
 - (l) supporting evidence in respect of paragraphs (f) to (j).
- (4) If an applicant applies for compensation in relation to different activities or services, the applicant must submit a separate application in relation to each activity or service.

4. Processing of the application by the management authority

- (1) The relevant management authority or co-management entity may request, in writing, such further information from the applicant as may be necessary to consider the application and the applicant must respond to the request for further information within thirty (30) days from the date that the request was sent.
- (2) The relevant management authority or co-management entity must consult ICASA, on each application received, to determine whether the activity

involved in the application for financial compensation was lawfully conducted within the relevant central astronomy advantage area immediately before the relevant Spectrum Regulations were promulgated.

- (3) The relevant management authority or co-management entity must refer the application, all relevant documentation and any further particulars submitted by the applicant, together with a recommendation by the relevant management authority or co-management entity on the application, to the Minister for a decision within sixty (60) days from the date that the last information required was received.
- (4) The relevant management authority or co-management entity must -
 - (a) Within ninety (90) days of receipt of the last information required for an application, inform the applicant in writing of the Minister's decision and provide the applicant with written reasons for the decision; and
 - (b) Any decision to grant compensation must be accompanied by an offer of compensation determined by the Minister.

5. Determination of compensation by the Minister

- (1) If the Minister decides that the applicant should receive compensation, the amount of compensation, the manner and the time of payment thereof must be just and equitable, reflecting an equitable balance between the public interest and the interests of the affected person, having regard to all the relevant circumstances, including –
 - (a) the nature and extent of the activity lawfully conducted or the service used by the applicant immediately before the implementation of the relevant requirement or condition;
 - (b) the extent to which the applicant ceased the relevant activity, the nature and extent to which the applicant modified its conduct of the relevant activity, or the extent and nature to which the applicant's use of the service was adversely affected, solely as a direct result of compliance with the requirement or conditions imposed in terms of section 23(3) of the Act;

- (c) the property or equipment which was owned or used by the applicant to conduct the relevant activity or use the service and the extent to which the use thereof has been adversely affected solely as a direct result of compliance with the requirement or conditions imposed in terms of section 23(3) of the Act; and
- (d) the financial loss suffered by the applicant solely as a direct result of compliance with the requirement or conditions imposed in terms of section 23(3) of the Act.

6. Acceptance of the offer by the applicant

- (1) Within thirty (30) days of the receipt of the offer in sub-regulation 4(4)(b), the applicant must inform the relevant management authority or co-management entity in writing of its acceptance or rejection of the offer.
- (2) If the applicant accepts the offer made in terms of sub-regulation 4(4)(b), the relevant management authority or co-management entity must pay the applicant the amount in a manner and within the period agreed upon by the applicant and the relevant management authority or co-management entity, which period may not be more than sixty (60) days after receipt of notice of acceptance of the offer from the applicant.
- (3) The applicant may take the Minister's decision, contemplated in regulation 5(1), on review in terms of the provisions of the Promotion of Administrative Justice Act, 2000.

7. Offences and penalties

Any person who contravenes these regulations is guilty of an offence and liable on conviction to a fine not exceeding R1 000 000 (one million rand) or to imprisonment or to both a fine and imprisonment.

8. Short title and commencement

These regulations are called the Regulations on Financial Compensation Procedures for central astronomy advantage areas, 2015, and will come into operation on a date to be determined by the Minister by notice in the Gazette.

SCHEDULE D**REGULATIONS RESTRICTING ELECTROMAGNETIC INTERFERENCE
WITHIN THE KAROO CENTRAL ASTRONOMY ADVANTAGE AREA 1****ARRANGEMENT OF REGULATIONS**

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Annexure A:	Map of protection corridors containing the SKA radio astronomy stations within the Karoo Central Astronomy Advantage Area 1	12
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1. Definitions

In these regulations unless the context indicates otherwise –

"Act" means the Astronomy Geographic Advantage Act, 2007 (Act No. 21 of 2007);

"co-management entity" means an organ of state, a local community, an individual or another party with whom the relevant management authority has entered into a co-management agreement in terms of section 18 of the Act;

"distribution power system" means a power system that operates below 132 kV;

"electrical equipment" means any electrical machinery, appliances or devices used for construction, exploration, farming, household, manufacturing, maintenance, or mining purposes;

"electrical infrastructure" means any infrastructure or facility to be used in any way for electricity generation, electricity distribution, electricity transmission, or for a distribution or transmission power system, or electrical facilities and equipment used for any application excluding electricity distribution and transmission that existed prior to the date on which these regulations are promulgated by publication in the Government Gazette;

"electricity distribution" means the conveyance of electricity through a distribution power system;

"electricity generation" means the production of electricity by any means including inverters converting direct current into alternating current;

"Electricity Regulation Act" means the Electricity Regulation Act, 2006 (Act No. 4 of 2006);

"electricity transmission" means the conveyance of electricity through a transmission power system;

"electromagnetic interference" means radio frequency interference emitted unintentionally by electricity generation installations, electricity distribution or transmission infrastructure, and electrical equipment, and which characteristically occupies broad parts of the radio frequency spectrum;

"ITU" means the International Telecommunications Union;

"Karoo Central Astronomy Advantage Area 1" means the Karoo Central Astronomy Advantage Area 1 declared in Notice No. 198 in Government Gazette No. 37434 published on 12 March 2014;

"protection corridors" mean strips of land, alongside a radio astronomical spiral arms configuration, within which SKA stations within the Karoo Central Astronomy Advantage Area 1 are to be positioned, with a width of 5 km on either side of each spiral arm, as defined in Annexure A;

"Radio Astronomy Protection Levels Regulations, 2012" means the regulations made to define the radio astronomy observation protection levels for the astronomy advantage areas declared for purposes of radio astronomy, published in Notice No. R.90 in Government Gazette No. 35007 on 10 February 2012;

"radio astronomy station" means one or more receiving systems at a location, including accessory equipment, for receiving radio waves of cosmic origin for the purposes of radio astronomy;

"radio frequency interference" means the detrimental effect of received radio signals or signals from electromagnetic emissions that exceed the protection levels prescribed in the Radio Astronomy Protection Levels Regulations, 2012;

“SABS” means the South African Bureau of Standards established by section 3 of the Standards Act, 2008 (Act No. 8 of 2008);

“SANS” means a South African National Standard developed by the SABS in terms of the Standards Act, 2008 (Act No. 8 of 2008), and includes international standards adopted by the SABS;

“separation distance” means the minimum clear distance required between any electrical infrastructure and the nearest SKA Infrastructure Territory, in order not to exceed the applicable protection levels prescribed in the Radio Astronomy Protection Levels Regulations;

“SKA” means the Square Kilometre Array radio telescope consisting of an array of radio astronomy stations to be located in the Republic of South Africa and in participating African countries in accordance with the decision of the SKA Organisation, a private company (limited by guarantee) incorporated in the United Kingdom;

“SKA Infrastructure Territories” means the protection corridors within the Karoo Central Astronomy Advantage Area 1 as defined in Annexure A and the 20km radius circular area around the SKA Virtual Centre;

“SKA Virtual Centre” means the geographical point located at geographical co-ordinates 30.71292 degrees South and 21.44380 degrees East that relates to the SKA array of radio astronomy stations within the Karoo Astronomy Advantage Areas and is specified as the centre Assessment Point for the application of protection levels as defined in the Radio Astronomy Protection Levels Regulations, 2012; and

“transmission power system” means a power system that operates at or above 132 kV.

2. Scope of the regulations

- (1) Subject to sub-regulation 3(3), these regulations apply to any electrical infrastructure and electrical equipment within the Karoo Central Astronomy Advantage Area 1.
- (2) If there are differences between the English and the Afrikaans versions of these regulations, the English version will take precedence.

3. Conditions for electrical infrastructure

- (1) No person may construct, install, operate or use any electrical infrastructure and electrical equipment within the Karoo Central Astronomy Advantage Area 1 unless it complies with these regulations and the relevant management authority has issued a permit in relation thereto.
- (2) All electrical infrastructure and any electrical equipment used in connection therewith –
 - (a) may not cause electromagnetic interference within SKA Infrastructure Territories which exceeds the protection levels prescribed in the Radio Astronomy Protection Levels Regulations, 2012; and
 - (b) must be separated from the nearest SKA Infrastructure Territory by a minimum separation distance determined in accordance with regulation 8 of these regulations.
- (3) Electrical infrastructure with an electrical power rating of less than 10 kVA, located at a distance greater than 6 km from the nearest SKA Infrastructure Territory, is exempted from the requirement to acquire and possess a permit and to provide the information specified in sub-regulation 6(2) unless it is found that interference is caused.
- (4) Electrical infrastructure with an electrical power rating of more than 10 kVA but not more than a 100 kVA, located at a distance from the nearest SKA Infrastructure Territory of greater than that to be prescribed by the Minister for the various types of facilities or

equipment, must acquire a permit but is exempted from compliance with sub-regulation 6(2) of these regulations subject thereto that electromagnetic interference is not caused.

4. Additional conditions for electricity generation by means of wind turbines

- (1) In addition to the conditions in regulation 3, no person may erect a wind-driven electrical turbine generator with a capacity of 10 kVA or more within any radio line-of-sight of the SKA Infrastructure Territories.
- (2) In order to determine whether a radio line-of-sight condition exists, a topographical terrain profile must be drawn between –
 - (a) the maximum height above sea level of the tip of a turbine blade on the generator; and
 - (b) the ground height above sea level plus 15 metres at the nearest point of any SKA Infrastructure Territory, or any other point within the SKA Infrastructure Territories if deemed to be required by the relevant management authority as a result of intervening topography;

using a minimum of 20 meter resolution digital terrain model for the area and taking the ground conductivity in the Karoo Central Astronomy Advantage Area 1 into account.

- (3) If the determination in sub-regulation (2) is affected by the possible use of non-reflective turbine blades or the non-existence of a radio frequency interference source that may be reflected, an assessment with calculations or measurements must be carried out to verify that the applicable protection levels as prescribed in the Radio Astronomy Protection Levels Regulations, 2012, will not be exceeded.

5. Additional conditions for distribution or transmission power systems

- (1) In addition to the conditions in regulation 3 of these regulations, no person may construct or install any new overhead distribution or transmission power systems with a voltage rating –

- (a) equal or greater to sixty-six thousand Volts (66 000 V) within sixteen km of SKA Infrastructure Territory; and
 - (b) less than sixty-six thousand Volts (66 000 V) within six km of SKA Infrastructure Territories.
- (2) Despite compliance with sub-regulation (1), the distribution or transmission power system may not cause electromagnetic interference to SKA Infrastructure Territories which exceeds the protection levels prescribed in the Radio Astronomy Protection Levels Regulations, 2012.

6. Application and conditions for a permit

- (1) An applicant for a permit, contemplated in sub-regulation 3(1) of these regulations, must submit the application to the management authority or co-management entity for the Karoo Central Astronomy Advantage Area 1.
- (2) The application contemplated in sub-regulation (1) must contain –
- (a) a design report of the proposed new infrastructure and a list of all the electrical equipment to be installed or used;
 - (b) a GIS-shape file or electronically tabulated data, of the proposed location of the new infrastructure, including the ground level height above sea level and the maximum height of the new infrastructure above ground level;
 - (c) the electromagnetic emissions determined in accordance with regulation 3(3);
 - (d) the required minimum separation distance; and
 - (e) the list of geographical locations where the required separation distance is not complied with.
- (3) The management authority or the co-management entity must consider the application and inform the applicant in writing of its decision no later than sixty (60) days of receipt of the application.
- (4) If the authority or entity considering the application is satisfied that the electrical infrastructure and any electrical equipment used in

connection therewith complies with regulations 3, 4 and 5 of these regulations, that authority must issue a permit to the applicant.

- (5) If the application does not comply with regulations 3, 4 and 5, the authority or entity must allow an applicant, within a period of thirty (30) days of date of request, to provide details of mitigation measures which the applicant will take to comply with the regulations.
- (6) The relevant management authority or entity considering the application must take into account the mitigating measures and take a decision on the application no later than sixty (60) days of receipt of the application.
- (7) If the authority or entity decides to grant the permit,
 - (i) the authority or entity must issue the permit; and
 - (ii) the permit must include all the conditions with which the applicant must comply relating to electrical infrastructure, and its construction, installation or operation.
- (8) If a person or entity who has been issued a permit ceases its operations or ceases to use any electrical infrastructure to which the permit relates, that person or entity must give written notice thereof to the authority or entity which granted the permit within three months of such cessation.

7. Determination of electromagnetic emission levels

- (1) For the purposes of these regulations, electromagnetic emissions must be determined with reference to any applicable SANS standard or a standard prescribed in terms of the Electricity Regulation Act.
- (2) If the emission standard has not been determined as contemplated in sub-regulation (1), or the emissions are different to those specified in the applicable standard, a detailed measurement report of the actual emission levels based on the applicable SANS measurement standard or a measurement report from an accredited measurement laboratory in the Republic or another country must be provided by the applicant to the authority or entity, together with supporting documentation.

- (3) If an applicable standard, as contemplated in sub-regulation (1) or (2) above, is not available or deemed to be inappropriate by the relevant management authority, and the undertaking of a measurement campaign is not possible due to technical or other reasons, the relevant management authority or co-management entity must determine which existing standard is the most appropriate and must be used.
- (4) A suitable standard may also be established in terms of section 37 of the Act.

8. Determination of minimum separation distances

- (1) The determination of the minimum separation distance by the applicant must be carried out by means of physical measurements or computerised propagation calculations to determine the required frequency dependent attenuation of the electromagnetic interference to avoid any interference exceeding the protection levels prescribed in the Radio Astronomy Protection Levels Regulations, 2012, within the SKA Infrastructure Territories.
- (2) The reference heights for the measurement or prediction process are –
- (a) the maximum height above sea level of the electrical infrastructure; and
 - (b) the ground height above sea level plus 15 metres at any relevant location within the SKA Infrastructure Territories.
- (3) The determination of the separation distance must be based on the following criteria:
- (a) The relevant ITU Recommendations on propagation.
 - (b) The interference level that will not be exceeded for more than 5% of the time over a twenty-four hour period.
 - (c) The use of an isotropic antenna with 0dB gain at the relevant point within the SKA Infrastructure Territories.

- (d) The use of a digital terrain model with the best resolution available.
 - (e) The ground conductivity within the Karoo Central Astronomy Advantage Area 1.
 - (f) The electromagnetic emission level determined according to regulation 7 of these regulations that would cause the highest level of interference.
- (4) The required frequency dependant attenuation of the electromagnetic interference to be used to determine the minimum separation distance is the difference between the highest electromagnetic emission level determined according to regulation 7 of these regulations that would cause the highest level of interference and the applicable protection level prescribed in the Radio Astronomy Protection Levels Regulations, 2012.
- (5) The minimum separation distance must be determined using the applicable ITU Recommendation for radio wave propagation and the required attenuation of the electromagnetic interference determined in sub-regulation 8(4) of these regulations.

9. Procedures to resolve electromagnetic interference

In the event that electromagnetic interference is caused by electrical infrastructure or electrical equipment exempted from these regulations in terms of sub-regulations 3(3) or 3(4) of these regulations or by electrical infrastructure or electrical equipment for which a permit has been issued, due to errors or accuracy limitations in the calculations to determine separation distances, the following criteria and procedures shall apply-

- (1) The relevant management authority must request a detailed measurement report on the actual electromagnetic interference levels based on the applicable SANS measurement standards, or another applicable standard as determined by the relevant management authority, together with supporting documentation, to be provided to the management authority or the co-management entity by the person who owns the infrastructure or electrical equipment.

- (2) If the person who owns the electrical infrastructure or electrical equipment is not able to provide the report, then the management authority or the co-management entity must, at the cost of the person who owns the infrastructure or electrical equipment, arrange for the measurements to be done in order to determine to what extent the applicable protection level prescribed in the Radio Astronomy Protection Levels Regulations, 2012, is exceeded.
- (3) The electromagnetic interference must be reduced to below the applicable protection level prescribed in the Radio Astronomy Protection Levels Regulations, 2012, by establishing the required minimum separation distance determined in accordance with regulation 8 of these regulations or by implementing appropriate mitigation measures around the source of the electromagnetic interference.
- (4) A permit must be issued by the management authority in which the conditions for the ongoing operation of the electrical infrastructure or electrical equipment are specified.

10. Location of the SKA Virtual Centre and protection corridors

- (1) The geographical location of the SKA Virtual Centre is subject to review and finalisation within 12 months of the promulgation of these regulations.
- (2) The protection corridors within the Karoo Central Astronomy Advantage Area 1 are subject to annual review in accordance with progression in the development of the SKA with the intention to phase them out and to require only the protection of the radio astronomy stations located within the corridors.

11. Offences and penalties

Any person who contravenes these regulations is guilty of an offence and liable on conviction to a fine not exceeding R1 000 000 (one million rand) or to imprisonment or to both a fine and imprisonment.

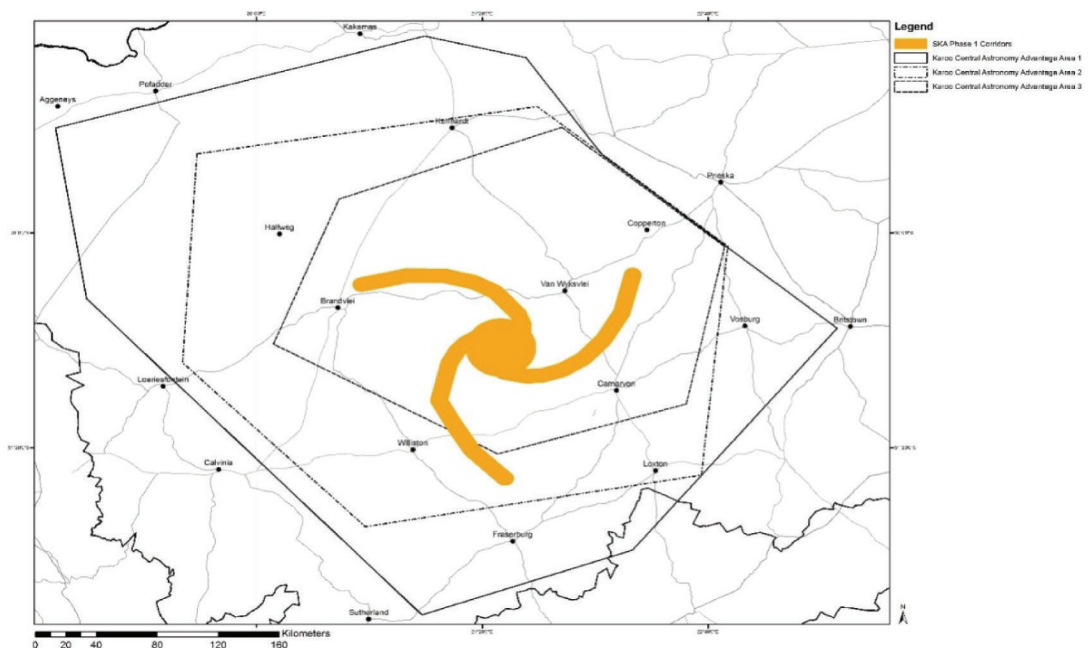
12. Short title and commencement

These regulations are called the Regulations Restricting Electromagnetic Interference in the Karoo Central Astronomy Advantage Area 1, 2015, and will come into operation on a date to be determined by the Minister by notice in the Gazette.

ANNEXURE A**Map of protection corridors containing the SKA radio astronomy stations within the Karoo Central Astronomy Advantage Area 1**

The map below depicts the 20 km radius circle around the SKA Virtual Centre, within which radius circle approximately 173 SKA radio astronomy stations will be located. The map also depicts three protection corridors required for approximately 24 SKA radio astronomy stations located within the Karoo Central Astronomy Advantage Area 1. The protection corridors are required for the SKA configuration refinement over time.

A smaller scale version of the map below and/or a GIS-shape file is available on request from the management authority or co-management entity. The perimeters of the corridors are 5 km distant on either side of the spiral arms along which the SKA stations are to be positioned.



DEPARTEMENT VAN WETENSKAP EN TEGNOLOGIE

NO. 453

20 APRIL 2016

KENNISGEWING VAN VOORNEME OM REGULASIES VIR DIE BESKERMING VAN DIE KAROO SENTRALE ASTRONOMIEVOORDEELGEBIEDE TE MAAK KRAGTENS DIE WET OP GEOGRAFIESE ASTRONOMIEVOORDEEL, 2007, EN VERLENGING VAN DIE TYDPERK VIR GESKREWE VERTOË.

Ek, Grace Naledi Mandisa Pandor, Minister van Wetenskap en Tegnologie het, kragtens artikels 22, 23, 42, 50 en 51 van die "Astronomy Geographic Advantage Act, 2007 (Act Nr. 21 of 2007)" (hierna hierin na verwys as "die Wet"), op 23 November 2015, voorgestelde Regulasies vir die Beskerming van die Karoo Sentrale Astronomievoordeelgebiede in Staatskoerant Nr. 39442, onder Kennisgewing Nr. 1166, gepubliseer (hierna hierin na verwys as "die voorgestelde Regulasies"). Die tydperk toegelaat vir die indiening van geskrewe versoë op of besware teen die voorgestelde Regulasies, was sestig (60) dae vanaf die datum waarop die kennisgewing gepubliseer is.

Op 11 Desember 2015, het ek in Staatskoerant Nr. 39505, onder Kennisgewing Nr. 1229, 'n kennisgewing gepubliseer om die tydperk vir die indiening van geskrewe versoë of besware op die voorgestelde Regulasies met 'n verdere dertig (30) dae te verleng. Die verlengde tydperk het op 22 Februarie 2016 verstryk.

Weens 'n mate van verwarring onder die publiek betreffende 'n soortgelyke proses wat deur die Minister van Omgewingsake onderneem word en met die oogmerk om die openbare deelname met betrekking tot die voorgestelde Regulasies aan te moedig, voorsien ek hiermee 'n verdere geleentheid vir die indiening van geskrewe versoë op of besware oor die voorgestelde Regulasies en word die tydperk vir geskrewe versoë of besware aldus met 'n bykomende sestig (60) dae vanaf die datum van hierdie kennisgewing, verleng.

Ek vervang hiermee ook die Bylae A aan Skedule A en Skedule D aan Kennisgewing nommer 1166 wat op 23 November 2015 in Staatskoerant 39442 gepubliseer is, met die gewysigde Bylae A aan Skedule A en Skedule D wat by hierdie Kennisgewing aangeheg is. Daar is geen ander veranderinge aan Skedule A en Skedule D nie. Skedule B en Skedule C aan Kennisgewing nommer 1166 is ook vir maklike verwysing aan hierdie Kennisgewing aangeheg. Daar is ook geen veranderinge aan Skedule B en Skedule C nie.

Geskrewe versoë wat alreeds in reaksie op Kennisgewing nommers 1166 en 1229, hierbo na verwys, gemaak is, sal in oorweging geneem word.

Belanghebbende en geaffekteerde persone en lede van die publiek, wie alreeds geskrewe versoë of besware gemaak het, mag, indien dit hulle wens is, bykomende geskrewe versoë of besware binne die sestig (60) dae tydperk na die datum van die publikasie van hierdie Kennisgewing indien.

Ek gee ook hiermee kennis dat verdere werkwinkels gehou sal word om enige bekommernisse betreffende die voorgestelde Regulasies aan te spreek en om ondersteuning te verleen aan lede van gemeenskappe binne die Karoo Sentrale

Astronomievoordeelgebiede wat ondersteuning mag benodig om geskrewe vertoë op of besware teen die voorgestelde Regulasies te maak.

Lede van die publiek, insluitende belanghebbende en geaffekteerde partye, word uitgenooi om die werkwinkels by te woon, wat soos volg gehou sal word:

Datum	Plek	Tyd
16 Mei 2016	Brandvlei Gemeenskapsaal	17H00 tot 21H00
17 Mei 2016	Vanwyksvlei Gemeenskapsaal	17H00 tot 21H00
18 Mei 2016	Carnarvon SASSA Saal	17H00 tot 21H00
19 Mei 2016	Williston Combination Skoolsaal	17H00 tot 21H00

Al die dokumente na verwys in hierdie Kennisgewing is op die Departement van Wetenskap en Tegnologie se webwerf beskikbaar (www.dst.gov.za) (onder "ENTITIES", dan "ASTRONOMY MANAGEMENT AUTHORITY (AMA)" en dan "NOTICES"). Die dokumente is ook aan geregistreerde belanghebbende en geaffekteerde partye met geregistreerde pos in November 2015 versprei en is beskikbaar gestel by die munisipale kantore in Carnarvon, Fraserburg, Kenhardt, Keimoes, Loxton, Upington, Vanwyksvlei, Victoria Wes en Williston during Januarie 2016.

Navrae in verband met die Kennisgewing kan gerig word aan:

Mnr. Mere Kgampe Dept. van Wetenskap en Tegnologie Gebou 53, WNNR Kampus Meiring Naude-weg Brummeria Pretoria 0184	OF	Dept. van Wetenskap en Tegnologie Privaatsak X894 Pretoria 0001
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Of

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Telefoonnommer 012 843 6644



MEV GNM PANDOR, LP
MINISTER VAN WETENSKAP EN TEGNOLOGIE

SKEDULE A**REGULASIES OM DIE GEBRUIK VAN SEKERE
RADIOFREKWENSIESPEKTRUM EN SEKERE AKTIWITEITE IN DIE
KAROO SENTRALE ASTRONOMIEVOORDEELGEBIEDE VERKLAAR VIR
RADIOASTRONOMIE DOELEINDES TE VERBIED EN TE BEPERK.****INDELING VAN DIE REGULASIES**

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Bylae A: Kaart van die beskermingsgange wat die SKA radio-astronomie-
stasies binne die Karoo Sentrale Astronomievoordeelgebied 1
insluit

1. Woordomsrywings

In hierdie regulasies, tensy dit uit die samehang anders blyk, beteken–

"beskermingsgange" stroke land, naasliggend aan 'n radio astronomiese spiraalarm konfigurasie, waar binne SKA-stasies in die Karoo Sentrale Astronomievoordeelgebied 1 geplaas sal word, met 'n wydte van 5 km aan weerskante van elke spiraalarm soos uitgebeeld en omskryf in Bylae A;

"dBm" die radiofrekwensie kragvlak uitgedruk in desibels met verwysing na een milliwatt;

"effektiewe uitgestraalde krag" die produk van die radiofrekwensiekrag aan die antenna gelewer en die antennewins, relatief tot 'n half golflengte dipool, in die betrokke rigting;

"Karoo kernastronomievoordeelgebied" die Karoo Kernastronomievoordeelgebied verklaar op 20 Augustus 2010 in Kennisgewing No. 723 in Staatskoerant No. 33462;

"Karoo sentrale astronomievoordebiede" die Karoo Sentrale Astronomievoordebiede verklaar op 12 Maart 2014 in Kennisgewing No. 198 in Staatskoerant No. 37434;

"lisensie vrygestelde operateur" 'n persoon wat 'n diens verskaf ingevolge die vrystelling deur OKOSA toegestaan kragtens artikel 6 van die Wet op Elektroniese Kommunikasie of radiofrekwensiespektrum gebruik wat vrygestel is van die vereiste vir 'n radiofrekwensiespektrum lisensie in gevolge artikel 31(6) van die Wet op Elektroniese Kommunikasie en regulasies daarkragtens gemaak;

"lisensiehouer" soos omskryf in die Wet op Elektroniese Kommunikasie, 2005 (Wet No. 36 van 2005) 'n persoon aan wie 'n lisensie uitgereik is om dienste te verskaf kragtens Hoofstuk 3 of die radiofrekwensiespektrum gebruik kragtens Hoofstuk 5 van die Wet op Elektroniese Kommunikasie,

2005;

"medebestuursentiteit" 'n staatsorgaan, 'n plaaslike gemeenskap, 'n individu of 'n ander party met wie die betrokke bestuursgesag 'n medebestuursooreenkoms aangegaan het kragtens artikel 18 van die Wet;

"noodsaaklike diens" 'n radiokommunikasiediens gebruik in 'n sentrale astronomievoordeelgebied wat as 'n noodsaaklike diens geklassifiseer is kragtens die kriteria en prosedures voorgeskryf in regulasie 7 van die Regulasies oor Administratiewe Aangeleenthede vir die sentrale astronomievoordeelgebiede verklaar vir radio-astronomie, 2015;

"radio-apparaat" 'n elektroniese kommunikasie fasiliteit wat in staat is om enige sein deur middel van radio te ontvang of te versend;

"Radio-astronomie Beskermingsvlakke Regulasies" die regulasies gemaak om die beskermingsvlakke vir radio-astronomie waarnemings in die gebiede wat as astronomievoordeelgebiede vir radioastronomie doeleindes verklaar is, te bepaal en wat op 10 Februarie 2012 in Kennisgewing No. R.90 in Staatskoerant No. 35007 gepubliseer is;

"radioastronomie stasie" een of meer ontvangstelsels by 'n plek, insluitend die bybehorende toerusting, vir die ontvangs van radiogolwe van kosmiese oorsprong vir die doeleindes van radioastronomie;

"Radiofrekwensiespektrum Regulasies 2015" die regulasies deur OKOSA gemaak wat op 30 Maart 2015 in Kennisgewing No. 279 van 2015, in Staatskoerant No. 38641 gepubliseer is;

"radiofrekwensiesteuring" die nadelige effek van radioseine ontvang wat die beskermingsvlakke in die Radio-astronomie Beskermingsvlakke Regulasies, 2012, voorgeskryf vir meer as 5% van die tyd oor 'n tydperk van 24 uur oorskry;

"radiokommunikasie" die uitstraling, uitsending of ontvangs van

inligting, insluitend, sonder beperking, stem, klank, data, teks, video, animasie, visuele beelde, bewegende beelde en prente, seine of 'n kombinasie daarvan deurmiddel van radio of ander elektromagnetiese golwe sonder die hulp van 'n tasbare geleier;

"radio stasie" soos omskryf in die Wet op Elektroniese Kommunikasie, 2005, een of meer senders of ontvangers of 'n kombinasie van senders en ontvangers, insluitend die bybehorende toerusting, wat op een plek nodig is vir die uitvoering van elektroniese kommunikasie, 'n uitsaaidiens of enige elektroniese kommunikasie wat deur OKOSA gemagtig is, en enige radio-apparaat wat op 'n spesifieke geografiese ligging gebruik word,

"Regulasies oor Administratiewe Aangeleenthede vir sentrale astronomievoordeelgebiede verklaar vir radio-astronomie, 2015" die regulasies soos gepubliseer op xxxx in Kennisgewing No. xxx van xxx in Staatskoerant No. xxx;

"Regulasies oor Finansiële Kompensasie Prosedures vir sentrale astronomievoordeelgebiede, 2015" die regulasies soos gepubliseer op xxxx in Kennisgewing No. xxx in Staatskoerant No. xxx;

"SKA" die Square Kilometre Array-radioteleskoop bestaande uit 'n opset van radio-astronomie stasies om in die Republiek van Suid-Afrika en in deelnemende Afrika-lande geplaas te word volgens die besluit van die SKA-organisasie, 'n private maatskappy (beperk deur garansie) opgeneem in die Verenigde Koninkryk;

"SKA Virtuele Middelpunt" die geografiese punt by die geografiese koördinate 30.71292 grade Suid en 21.44380 grade Oos wat verband hou met die SKA-opstelling van radioastronomie stasies binne die Karoo Astronomievoordeelgebiede en wat as die middelste Waardebepalings Verwysingspunt voorgeskryf is vir die toepassing van beskermingsvlakke soos in die Radioastronomie Beskermingsvlakke Regulasies bepaal;

"versadigingsvlak" 'n kragvlak van (minus) -100 dBm, of hoër, ontvang

vir 'n radiofrekwensie steuringsein waarby die versadigingsverskynsel voorkom by 'n radio-astronomie stasie of by 'n gespesifiseerde waardebeplating verwysingspunt of -punte of binne 'n bepaalde gebied;

“waardebeplating verwysingspunt” die SKA Virtuele Middelpunt of ander geografiese ligging of punt gedefinieer in terme van hierdie regulasies, wat gebruik word as die waardebeplatingpunt vir die toepassing van die toepaslike beskermingsmaatreëls soos voorgeskryf in hierdie regulasies; en

"Wet" die Astronomy Geographic Advantage Act, 2007 (Act No. 21 of 2007).

2. Toepassing van die regulasies

- (1) Die regulasies is van toepassing op die betrokke Karoo Sentrale Astronomievoordeelgebiede wat verband hou met die frekwensiespektrum in die Kennisgewing gespesifiseer waarin die Karoo Sentrale Astronomievoordeelgebiede verklaar is.
- (2) Indien daar verskille tussen die Engelse en Afrikaanse weergawes van hierdie regulasies is, sal die Engelse weergawe voorrang geniet.

3. Verbod en Beperkinge op die gebruik van radiofrekwensiespektrum vanaf 100 MHz tot 25.5 GHz

- (1) Een (1) jaar nadat hierdie regulasies in werking gestel is, mag geen lisensiehouer of lisensie-vrygestelde operateur of enige ander persoon die radiofrekwensiespektrum vanaf 100 MHz tot 25.5 GHz vir uitsendings binne die Karoo Sentrale Astronomievoordeelgebiede gebruik nie, tensy –
 - (a) die gebruik benodig word vir die doeleindes van radioastronomie en verwante wetenskaplike ondernemings as sodanig verklaar kragtens artikel 28(1) van die Wet; of
 - (b) die gebruik van die spesifieke spektrum binne die beperkte spektrum van die verbod vrygestel is kragtens die betrokke voorskrifte in die Regulasies op Administratiewe Aangeleenthede vir sentrale astronomievoordeelgebiede verklaar vir radioastronomie, 2015; of
 - (c) die spektrumgebruik ingevolge regulasie 6 van hierdie regulasies vrygestel is; en
 - (d) in die geval van paragraaf 3(1)(b), dat die betrokke bestuursgesag 'n permit kragtens regulasie 4 van die Regulasies op Administratiewe Aangeleenthede vir sentrale astronomievoordeelgebiede verklaar vir radioastronomie, 2015, aan daardie persoon uitgereik het in verband met die gebruik van daardie spektrum.
- (2) (a) Die verbod in subregulasie 3(1) is nie van toepassing nie op die gebruik van radiofrekwensiespektrum vanaf 100 MHz tot 200MHz wat wettiglik in gebruik was onmiddellik voor die

- uitvaardiging van hierdie regulasies;
- (b) Nogtans, mag enige lisensiehouer of vrygestelde operateur wat enige van die radiofrekwensiespektrum waarna in 3(2)(a) verwys is en dit binne die Karoo Sentrale Astronomievoordeelgebiede gebruik, dit net doen indien die betrokke bestuursgesag 'n permit kragtens sub-regulasie 3(1)(d) aan daardie persoon uitgereik het met betrekking tot die gebruik van daardie spektrum.
- (3) Een (1) jaar vanaf die datum waarop hierdie regulasies in werking tree, mag geen televisie uitsaaidienslisensiehouer of uitsaaiseinverspreidingslisensiehouer 'n televisie-uitsaaidiens in analoog formaat oor 'n terrestriële sendstasie binne die Karoo Sentrale Astronomievoordeelgebiede geleë, uitsend nie.
- (4) Een (1) jaar vanaf die datum waarop hierdie regulasies in werking tree, mag geen lisensiehouer of lisensie vrygestelde operateur of enige persoon in enige radiokommunikasie met die gebruik van die radiofrekwensiespektrum van 100 MHz te 25,5 GHz binne die Karoo Sentrale Astronomievoordeelgebiede betrokke wees nie, tensy -
- (a) die aktiwiteit nodig is vir die doeleindes van radioastronomie en verwante wetenskaplike ondernemings as sodanig verklaar kragtens artikel 28(1) van die Wet;
- (b) die aktiwiteit vrygestel is van die besit van 'n permit in terme van regulasie 6; of
- (c) moontlike radiofrekwensiesteuring in oorweging geneem is en gehanteer is deur die betrokke bestuursgesag of medebestuursentiteit tydens die oorweging van die lisensiehouer of lisensie-vrygestelde operateur se aansoek vir 'n permit kragtens die Regulasies op Administratiewe Aangeleenthede vir sentrale astronomievoordeelgebiede verklaar vir radioastronomie, 2015.
- (5) Enige beoogde toepassing van subregulasie (4) moet voldoen aan regulasie 4 van hierdie regulasies.

4. Voorwaardes vir die gebruik van radiofrekwensiespektrum vanaf 100 MHz tot 25.5 GHz

- (1) Een (1) jaar nadat hierdie regulasies in werking gestel is, mag geen lisensiehouer of lisensie-vrygestelde operateur of enige persoon die radiofrekwensiespektrum vanaf 100 MHz tot 25.5 GHz gebruik en betrokke wees in radiokommunikasie binne die Karoo Sentrale Astronomievoordeelgebiede nie, tensy die gebruik en uitsendingsaktiwiteite aan die volgende voorwaardes voldoen –
- (a) effektiewe uitgestraalde krag oorskry nie 40 dBm nie;
 - (b) die versadigingsvlak word nie binne die beskermingsgange in die Karoo Sentrale Astronomievoordeelgebiede, soos in Bylae A omskryf, of binne 'n radius van 20km vanaf die SKA Virtuele Middelpunt, oorskry nie; en
 - (c) die beskermingsvlakke in die Radioastronomie Beskermingsvlakke Regulasies bepaal, soos by die SKA Virtuele Middelpunt toegepas, word nie oorskry nie, tensy die gebruik of aktiwiteit vir 'n noodsaaklike diens is waarvoor 'n spesifieke steuringsvlak groter as die voorgeskrewe beskermingsvlak gespesifiseer is in die permit uitgereik kragtens regulasie 4 in die Regulasies op Administratiewe Aangeleenthede vir sentrale astronomievoordeelgebiede verklaar vir radioastronomie, 2015, aan die persoon wat die spektrum gebruik of die aktiwiteit uitvoer.
- (2) Sub-regulasie 4(1) is ook van toepassing op die oprigting, opgradering, uitbreiding of gebruik van enige radiostasie soos beoog in regulasie 5 en volgens 'n permit wat in die verband uitgereik is.
- (3) Sub-regulasie 4(1), behalwe vir sub-regulasie 4(1)(b) is nie van toepassing op enige lisensiehouer of lisensie-vrygestelde operateur wat onmiddellik voor die uitvaardiging van hierdie regulasies toegelaat was om wettiglik die radiofrekwensie spektrum tussen 100 MHz en 200 MHz te gebruik nie.

5. Voorwaardes op konstruksie, opgradering, uitbreiding of gebruik van radiostasies of radio-apparaat

- (1) Vanaf die datum wanneer hierdie regulasies in werking tree, en tensy

dit nodig is vir die doeleindes van radio-astronomie en verwante wetenskaplike ondernemings, mag geen lisensiehouer of lisensie vrygestelde operateur of enige ander persoon enige radiostasie in die Karoo Sentrale Astronomievoordeelgebiede bou, opgradeer of uitbrei nie wat die radiofrekwensiespektrum vanaf 100 MHz tot 25,5 GHz gebruik nie, tensy die betrokke persoon vir 'n permit aansoek gedoen het, en dit toegestaan is vir sodanige opgradering of uitbreiding deur die betrokke bestuursgesag kragtens regulasie 4 in die Regulasies op Administratiewe Aangeleenthede vir sentrale astronomievoordeelgebiede verklaar vir radioastronomie, 2015.

- (2) Een (1) jaar vanaf die datum waarop hierdie regulasies in werking tree, mag geen lisensiehouer of lisensie vrygestelde operateur of enige persoon enige radiostasie of enige radioapparaat of enige toestel binne die Karoo Sentrale Astronomievoordeelgebiede gebruik nie wat radiofrekwensiesteuringsvlak radiofrekwensiesteuringsvlak binne die beskermingsgange in die Karoo Sentrale Astronomievoordeelgebiede, soos omskryf in Bylae A, of binne 20 km vanaf die SKA Virtuele Middelpunt veroorsaak.
- (3) Voldoeningsbepaling moet deur die lisensiehouer of lisensie vrygestelde operateur uitgevoer word voor die uitreiking van enige permit kragtens regulasie 4 in die Regulasies op Administratiewe Aangeleenthede vir sentrale astronomievoordeelgebiede verklaar vir radioastronomie, 2015, en moet die volgende aspekte insluit tot die mate waartoe hulle van toepassing is –
 - (a) Die bepaling van die radiofrekwensiesteuringsvlak by die SKA Virtuele Middelpunt en die versadigingsvlak radiofrekwensiesteuringsvlak binne die beskermingsgange in die Karoo Sentrale Astronomievoordeelgebiede, soos omskryf in Bylae A, of binne 20 km vanaf die SKA Virtuele Middelpunt;
 - (b) Die bepaling van radiofrekwensiesteuringsvlak na verwys in subregulasie 5(3)(a) moet eerstens op die basis (vaste) radiostasies of radio-apparaat of toestelle by 'n vaste

geografiese ligging geplaas, uitgevoer word;

(c) Indien radiofrekwensiesteuring of versadigingsvlak steuring ook veroorsaak mag word deur mobiele of draagbare radiostasies of radio-apparaat wat in verband met die basis stasie of radio-apparaat by 'n vaste ligging gebruik word, moet die bepaling van radiofrekwensiesteuringsvlakke ook met betrekking tot die mobiele of draagbare radio-apparaat uitgevoer word; en

(d) Die bepaling en waardebeplanning van radiofrekwensiesteuring mag ook van toepassing wees op enige radio-apparaat waarvoor radiofrekwensiespektrum lisensie vrystellings deur OKOSA voorgeskryf is in Deel III, regulasie (4) van die Radiofrekwensiespektrum Regulasies 2015 wat 'n uitgestraalde kragvlak van groter as 250 milliwatt het.

(4) Bykomende voorwaardes, wat beperkinge op die geografiese area waarin die mobiele of draagbare radiostasies gebruik mag word, of enige ander metode wat die steuring tot die beskermingsvlak sal beperk, mag insluit, sal voorgeskryf word vir enige permit wat reeds uitgereik is, in die geval dat –

(a) Mobiele of draagbare radiostasies wat saam met 'n basis stasie waarvoor 'n permit reeds uitgereik is, gebruik word, radiofrekwensiesteuring by die SKA Virtuele Middelpunt veroorsaak; of

(b) Daar versadigingsvlak radiofrekwensiesteuring bestaan binne die beskermingsgange in die Karoo Sentrale Astronomievoordeelgebiede, soos omskryf in Bylae A, of binne 20 km vanaf die SKA Virtuele Middelpunt.

6. Vrygestelde radioapparaat

(1) Radio apparaat, waarvoor radiofrekwensiespektrumlisensie vrystellings deur OKOSA in Deel III, regulasie (4) van die Radiofrekwensiespektrum Regulasies 2015 voorgeskryf is, word vrygestel van die vereiste vir die besit van 'n permit in hierdie regulasies voorgeskryf is, onderworpe daaraan dat –

(a) Radioapparaat wat 'n uitgestraalde kragvlak van meer as 250

- milliwatt produseer, van die vrystelling uitgesluit is;
- (b) Radiofrekwensiesteurings van meer as die relevante beskermingsvlak soos in die Radio-Astronomie Beskermingsvlakke Regulasies voorgeskryf, nie by die SKA Virtuele Middelpunt of versadigingsvlak steuring nie binne die beskermingsgange of binne 'n 20 km radius vanaf die SKA Virtuele Middelpunt veroorsaak word nie; en
 - (c) Die vrygestelde radio-apparaat word slegs gebruik soos deur OKOSA voorgeskryf en nie wanneer hulle transmissie eienskappe versterk word of verskeie eenhede in netwerke gekoppel word nie.
- (2) Indien enige van die radio-apparaat in sub-regulasie 6 (1) oorweeg, radiofrekwensiesteurings veroorsaak, sal die gebruik van sulke apparaat onderhewig wees aan die toepassing van beskermingsmaatreëls deurdat–
- (a) die Minister kern astronomievoordeelgebiede verklaar waarbinne al die vrygestelde radioapparaat nie gebruik mag word nie; of
 - (b) die betrokke bestuursowerheid voorwaardes in 'n permit bepaal vir die gebruik van daardie kategorie van radio-apparaat.
- (3) Die toestaan of wysiging van 'n permit, in subregulasie 6(2)(b) beoog, sal onderworpe wees aan die voorwaardes en kriteria voorgeskryf in die Regulasies oor Administratiewe Aangeleenthede, vir sentrale astronomievoordeelgebiede verklaar vir radio-astronomie, 2015.
- (4) Die radioapparaat waarvoor vrystellings vir radiofrekwensiespektrumlisensies deur OKOSA voorgeskryf is in Deel III, regulasie (4) van die Radiofrekwensiespektrum Regulasies 2015 behoort nie in werking te wees of gebruik te word binne 50 km van die SKA Virtuele Middelpunt nie.

7. Ligging van die SKA Virtuele Middelpunt en beskermingsgange

(1) Die ligging van die SKA Virtuele Middelpunt is onderhewig aan hersiening en finalisering binne 12 maande van die uitvaardiging van hierdie regulasies.

(2) Die beskermingsgange in die Karoo Sentrale Astronomievoordeelgebied 1 is onderhewig aan jaarlikse hersiening in ooreenstemming met vordering in die ontwikkeling van die SKA met die doel om die gange uit te faseer en om slegs die beskerming van die radio-astronomie stasies binne die gange geleë, te vereis.

8. Finansiële vergoeding

Enige finansiële vergoeding wat beoog word kragtens artikel 23(3)(a) van die Wet in verband met 'n beperking op radiokommunikasie uitsendings wat wettig uitgevoer is binne die Karoo Sentrale Astronomievoordeelgebiede voordat hierdie regulasies uitgevaardig is, sal onderworpe wees aan die Regulasies op Finansiële Kompensasie Procedures 2015 vir sentrale astronomievoordeelgebiede, 2015.

9. Misdrywe en strawwe

Enige persoon wat hierdie regulasies oortree, is skuldig aan 'n misdryf en by skuldigbevinding strafbaar met 'n boete van hoogstens R1 000 000 (een miljoen rand) of gevangenisstraf of beide 'n boete en gevangenisstraf.

10. Kort titel en inwerkingtreding

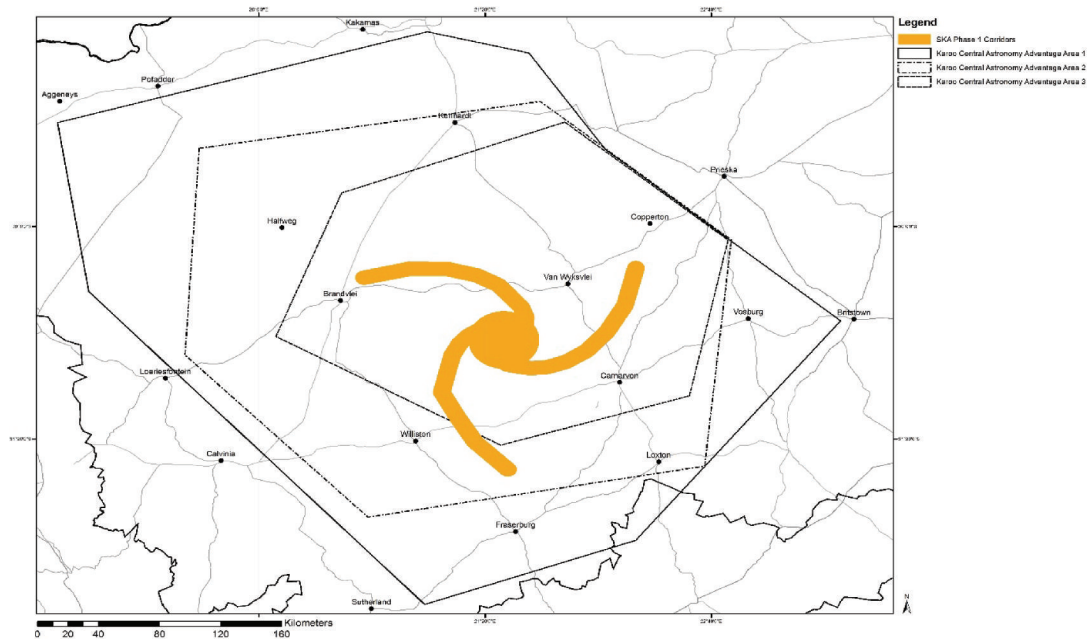
Hierdie regulasies heet die Karoo Sentrale Astronomievoordeelgebiede Spektrum Regulasies, 2015 wat op 'n datum in werking sal tree om deur die Minister bepaal te word met 'n kennisgewing in die Staatskoerant.

BYLAE A

Kaart van die Beskermingsgange waarin die SKA Radio-astronomie Stasies binne Karoo Sentrale Astronomievoordeelgebied 1 geleë is

Die kaart hieronder beeld die 20-kilometer straal sirkel rondom die SKA Virtuele Sentrum uit, waarbinne ongeveer 173 SKA radio-astronomie stasies geplaas sal word. Die kaart toon ook drie beskermingsgange wat nodig is vir ongeveer 24 SKA radio-astronomie stasies binne die Karoo Sentrale Astronomievoordeelgebiede 1 geleë. Die beskermingsgange word benodig vir die SKA-opset ontwikkelingsproses met die verloop van tyd.

'n Kleiner skaal weergawe van die kaart hieronder en / of 'n GIS-vorm lêer is op versoek beskikbaar van die bestuursgesag of mede-bestuursentiteit. Die buitengrense van die gange is op 'n afstand van 5 km aan weerskante van die spiraal arms waarlangs die SKA-stasies geplaas sal word.



SKEDULE B**REGULASIES OOR ADMINISTRATIEWE AANGELEENTHEDE VIR SENTRALE
ASTRONOMIEVOORDEELGEBIEDE VERKLAAR VIR RADIOASTRONOMIE
DOELEINDES****INDELING VAN DIE REGULASIES**

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1. Woordomsrywings

In hierdie regulasies, tensy dit uit die samehang anders blyk, beteken—

“beperkte radiofrekwensiespektrum” die radiofrekwensiespektrum waarvan die gebruik deur die Minister kragtens artikel 22 van die Wet verbied of beperk is;

“bevoegde persoon” ’n persoon wat aan elkeen van die vereistes voldoen wat in regulasie 8 van hierdie regulasies voorgeskryf is;

“dBm” die radiofrekwensie kragpeil uitgedruk in desibels met verwysing na een milliwatt;

“effektiewe uitgestraalde krag” die produk van die krag aan die antenna gelewer en die antennewins, relatief tot ’n half golflengte dipool, in die betrokke rigting;

“geaffekteerde persoon” ’n persoon wat –

- (a) wettiglik ’n aktiwiteit in ’n sentrale astronomievoordeelgebied uitgevoer het voor die beperking van daardie aktiwiteit deur middel van regulasies wat deur die Minister kragtens artikel 23 van die Wet gemaak is; en
- (b) kragtens artikel 23(3)(a) van die Wet deur die Minister vereis word om daardie aktiwiteit te staak of om aan voorwaardes wat kragtens artikel 23(3)(b) van die Wet voorgeskryf is, te voldoen;

“ITU” die International Telecommunication Union;

“lisensie vrygestelde operateur” ’n persoon wat ’n diens verskaf ingevolge die vrystelling deur OKOSA toegestaan kragtens artikel 6 van die Wet op Elektroniese Kommunikasie, 2005 of radiofrekwensiespektrum gebruik wat vrygestel is van die vereiste vir ’n radiofrekwensiespektrum lisensie in gevolge artikel 31(6) van die Wet op Elektroniese Kommunikasie, 2005 en regulasies daarkragtens gemaak;

“lisensiehouer” soos omskryf in die Wet op Elektroniese Kommunikasie, 2005 (Wet No. 36 van 2005) ’n persoon aan wie ’n lisensie uitgereik is om dienste te

verskaf kragtens Hoofstuk 3 of die radiofrekwensiespektrum te gebruik kragtens Hoofstuk 5 van die Wet op Elektroniese Kommunikasie, 2005;

"medebestuursentiteit" 'n staatsorgaan, 'n plaaslike gemeenskap, 'n individu of 'n ander party met wie die bestuursgesag 'n medebestuursooreenkoms aangegaan het kragtens artikel 18 van die Wet;

"noodsaaklike diens" 'n radiokommunikasiediens in 'n sentrale astronomievoordeelgebied gebruik wat as 'n noodsaaklike diens geklassifiseer is kragtens die kriteria en prosedures in regulasie 7 van hierdie regulasies voorgeskryf;

"Radio-astronomie Beskermingsvlakke Regulasies" die regulasies gemaak om die radio-astronomie waarneming beskermingsvlakke te definieer vir die astronomievoordeelgebiede wat vir die doel van radio-astronomie verklaar is, en op 10 Februarie 2012 in Kennisgewing No. R.90 in Staatskoerant No. 35007 gepubliseer is;

"radio-astronomie stasie" een of meer ontvangstelsels by 'n plek, insluitend die bybehorende toerusting, vir die ontvangs van radiogolwe van kosmiese oorsprong vir die doeleindes van radio-astronomie;

"radio-apparaat" 'n elektroniese kommunikasiefasiliteit wat in staat is om enige sein per radio uit te send of te ontvang;

"radiofrekwensiesteuring" die nadelige impak van radioseine wat ontvang word en die beskermingsvlakke in die Radio-astronomie Beskermingsvlakke Regulasies, 2012 voorgeskryf, oorskry vir meer as 5% van die tyd oor 'n tydperk van 24 uur;

"Radiofrekwensiespektrum Regulasies" die regulasies wat deur OKOSA gemaak soos gepubliseer op 31 Maart 2011 in Kennisgewing 184 van 2011, in Staatskoerant No. 34172;

"radiokommunikasie" die uitstraling, uitsending of ontvangs van inligting, insluitend sonder beperking, stem, klank, data, teks, video, animasie, visuele beelde, bewegende beelde en prente, seine of 'n kombinasie daarvan

deurmiddel van radio of ander elektromagnetiese golwe sonder die hulp van 'n tasbare geleier;

"radiokommunikasiediens" enige diens voorsien aan die publiek, dele van die publiek, die Staat, of intekenaars tot so 'n diens, wat in sy geheel of hoofsaaklik bestaan uit oordrag met enige soort radiokommunikasie oor 'n radiokommunikasienetwerk;

"radiokommunikasie netwerkdiens lisensiehouer" 'n persoon aan wie OKOSA 'n elektroniese kommunikasienetwerkdiens lisensie kragtens Hoofstuk 3 van die Wet op Elektroniese Kommunikasie uitgereik het;

"radio stasie" soos in die Wet op Elektroniese Kommunikasie, 2005 gedefinieer, een of meer senders of ontvangers of 'n kombinasie van senders en ontvangers, insluitend die bybehorende toerusting, wat op een plek nodig is om 'n elektroniese kommunikasiediens, 'n uitsaaidiens of enige elektroniese kommunikasie wat deur OKOSA gemagtig, oor te dra, en enige radio-apparaat wat by 'n spesifieke geografiese ligging gebruik word;

"Spektrum Regulasies" die regulasies om die gebruik van sekere radiofrekwensiespektrum kragtens artikel 22 van die Wet en sekere verklaarde aktiwiteite kragtens artikel 23 van die Wet binne die betrokke sentrale astronomievoordeelgebiede vir radio-astronomie doeleindes verklaar, te verbied of te beperk.

"versadigingsvlak" 'n kragvlak van (minus) -100 dBm of hoër vir 'n radiofrekwensie steuringsein ontvang waarby die versadigingsverskynsel voorkom by 'n radio-astronomie stasie of by 'n gespesifiseerde verwysingspunt of -punte of binne 'n gespesifiseerde area;

"voldoeningsbepaling":

(a) die vergelyking van radiofrekwensie steuringsvlakke by die betrokke waardebepalingspunte volgens die beskermingsmaatreëls voorgeskryf in die betrokke Spektrum Regulasies met die toepaslike beskermingsvlakke bepaal

in ooreenstemming met die Radio-astronomie Beskermingsvlakke Regulasies;

- (b) die vergelyking van radiofrekwensie steuringsvlakke by die toepaslike waardebepalingspunte volgens die beskermingsmaatreëls voorgeskryf in die toepaslike Spektrum Regulasies met die versadigingsvlak; en
- (c) die bepaling of daar voldoening is aan alle toepaslike regulasies kragtens die Wet gemaak;

om uitgevoer te word deur die bevoegde persoon aangewys deur die aansoeker vir 'n permit kragtens regulasie 8 van hierdie regulasies;

“waardebepalingspunt” die geografiese ligging, of enige betrokke punt binne 'n area, wat in die betrokke sentrale astronomievoordeelgebiede Spektrum Regulasies gedefinieer is vir gebruik as die waardebepalingspunt vir die toepaslike beskermingsmaatreëls voorgeskryf in die betrokke Spektrum Regulasies; en

"Wet" die Astronomy Geographic Advantage Act, 2007 (Act No. 21 of 2007).

2. Toepassing van die regulasies

- (1) Die regulasies is van toepassing op enige sentrale astronomievoordeelgebiede wat vir die doeleindes van radio-astronomie verklaar is soos beoog in artikel 9 van die Wet.
- (2) Indien daar verskille tussen die Engelse en Afrikaanse weergawes van hierdie regulasies is, sal die Engelse weergawe voorrang geniet.

3. Vrystelling van verbod of beperkings op gebruik van radiofrekwensiespektrum

- (1) Om vas te stel watter radiofrekwensiespektrum vrygestel kan word van 'n verbod of beperking op die gebruik daarvan in die betrokke Spektrum Regulasies opgelê vir uitsendings binne 'n sentrale astronomievoordeelgebied geleë, moet die betrokke bestuursowerheid of medebestuursentiteit in die Staatskoerant kennis gee, so gou as wat redelikerwys prakties is nadat die Spektrum Regulasies vir daardie gebied afgekondig is, van 'n lys van die radiofrekwensiespektrum wat oorweeg moet word vir vrystelling van 'n verbod of beperkings op die gebruik daarvan vir uitsendings binne daardie gebied geleë.
- (2) Die kennisgewing in sub-regulasie (1) beoog -
 - (a) mag ook die samevoeging voorstel van radiofrekwensiespektrum wat reeds binne daardie sentrale astronomievoordeelgebied in gebruik is; en
 - (b) moet belanghebbende en geaffekteerde persone uitnoui om geskrewe voorleggings na aanleiding van die kennisgewing in te dien, binne sestig (60) dae vanaf die datum van die kennisgewing.
- (3) Voor die publikasie van die kennisgewing in die Staatskoerant, in sub-regulasie (1) beoog, moet die betrokke bestuursgesag of medebestuursentiteit-
 - (a) OKOSA raadpleeg oor die radiofrekwensiespektrum wat vir vrystelling oorweeg moet word; en

- (b) volgens die metode in artikel 22(4) van die Wet beoog, al die bestaande lisensiehouers en lisensie vrygestelde operateurs wat radiostasies binne daardie sentrale astronomievoordeelgebied bedryf en wat in die permanente register van belanghebbende en geaffekteerde persone vir daardie gebied gelys is, in kennis stel van die kennisgewing wat in die Staatskoerant gepubliseer sal word.
- (4) Die betrokke bestuursgesag of medebestuursentiteit moet die voorleggings ontvang, oorweeg en mag bykomende inligting van 'n persoon wat die geskrewe voorlegging gemaak het, aanvra.
- (5) Na oorweging van die voorleggings en enige bykomende inligting wat ontvang is, moet die betrokke bestuursgesag of medebestuursentiteit aanbevelings aan die Minister maak betreffende die radiofrekwensiespektrum om vrygestel te word.
- (6) Die Minister mag die lys van vrygestelde radiofrekwensiespektrum met 'n kennisgewing in die Staatskoerant publiseer ten minste ses maande voor die datum waarop die verbod of beperkings op die gebruik van die spektrum binne daardie gebied in werking sal tree.
- (7) Die betrokke bestuursgesag of medebestuursentiteit mag, in reaksie op 'n versoek van OKOSA, die vrystelling van bykomende radiofrekwensiespektrum vir gebruik binne 'n sentrale astronomievoordeelgebied oorweeg.

4. Vereiste vir 'n permit en voldoeningsbepaling

- (1) 'n Lisensiehouer of 'n lisensie vrygestelde operateur of enige persoon wat seine vanaf 'n radiostasie binne 'n sentrale astronomievoordeelgebied met die gebruik van radiofrekwensiespektrum binne daardie gebied uitgesend het, onmiddellik voordat die Spektrum Regulasies vir daardie gebied afgekondig is, mag slegs vir 'n tydperk van een jaar aanhou om daardie seine uit te send nadat daardie regulasies in werking getree het, tensy die betrokke bestuursgesag 'n permit vir die uitsending van daardie seine aan daardie lisensiehouer of operateur uitgereik het vir die uitsending van daardie seine na die eenjaar tydperk.

- (2) Die Minister mag, met 'n kennisgewing in die Staatskoerant, die eenjaar tydperk in subregulasies 4 (1) beoog, tot 'n maksimum tydperk van drie jaar verleng.
- (3) 'n Lisensiehouer of 'n lisensie vrygestelde operateur of enige persoon mag nie, nadat die Spektrum Regulasies vir 'n sentrale astronomievoordeelgebied afgekondig is, begin om seine met die gebruik van radiofrekwensiespektrum vanaf 'n radiostasie binne daardie gebied uit te send nie, tensy die betrokke bestuursgesag 'n permit vir die uitsending van daardie seine aan daardie lisensiehouer of operateur uitgereik het nie.
- (4) Radio-apparaat wat deur OKOSA in Deel III, artikel (4) van die Radiofrekwensiespektrum Regulasies, 2015, vrygestel is van die vereiste om 'n radiofrekwensiespektrumlisensie te besit, benodig nie 'n permit om aan te hou of om te begin om seine binne 'n sentrale astronomievoordeelgebied uit te send nie nadat die Spektrum Regulasies afgekondig is, onderworpe daaraan dat:
 - (a) radio-apparaat met 'n radiofrekwensie kraguitset van meer as 250 milliwatt van die vrystelling uitgesluit is;
 - (b) radio-apparaat met 'n radiofrekwensie kraguitset van minder as 250 milliwatt ten volle voldoen aan die toepaslike vereistes en toestande in Bylae B van die Radiofrekwensiespektrum Regulasies, 2015, gespesifiseer;
 - (c) die radiofrekwensiesteuring in die betrokke Spektrum Regulasies beskryf, nie veroorsaak word nie;
 - (d) dat as radiofrekwensiesteuring veroorsaak word, die geografiese gebruik van die apparaat beperk mag word soos in die betrokke Spektrum Regulasies voorgeskryf; en
 - (e) die vrystelling van die nodigheid vir 'n permit slegs van toepassing is op apparaat wat individueel gebruik word soos in die Radiofrekwensiespektrum Regulasies, 2015, gespesifiseer en nie wanneer veelvuldige eenhede in netwerke gekoppel is nie of die apparaat op enige manier versterk is nie.

- (5) Indien radiofrekwensiesteuring veroorsaak word deur radio-apparaat waarna in subregulasie 4 (4) verwys is, of indien die radioapparaat nie gebruik word volgens die vereistes en toestande in die Radiofrekwensiespektrum Regulasies, 2015, voorgeskryf nie, of as veelvuldige eenhede gekoppel is of die eenhede versterk is, dan moet 'n voldoeningsbepaling soos in subregulasies 4(6) en 4(7) beoog, uitgevoer word om die omvang van die radiofrekwensiesteuring te bepaal en moet aansoek vir 'n permit gedoen word.
- (6) Voor die uitreiking van enige permit vir die uitsending van 'n sein vanaf 'n radiostasie in 'n sentrale astronomievoordeelgebied met die gebruik van radiofrekwensiespektrum, moet 'n voldoeningsbepaling uitgevoer word deur die lisensiehouer of lisensie vrygestelde operateur vir elke sodanige sein.
- (7) 'n Voldoeningsbepaling kan slegs deur 'n bevoegde persoon, soos in regulasie 8 van hierdie regulasies beoog, uitgevoer word wat in diens van die lisensiehouer of die lisensie vrygestelde operateur staan wat die sein uitsend of van voorneme is om dit te doen, of deur 'n bevoegde persoon wat deur die lisensiehouer of operateur vir hierdie doel gekontrakteer is.
- (8) Radiofrekwensiesteuringvlakke wat geproduseer word deur 'n sein uitgesend vanaf enige radiostasie binne 'n sentrale astronomievoordeelgebied moet bepaal word deur die gebruik van die radiostasie data om in die voldoeningbepalingsverslag vermeld te word en volgens die tegniese kriteria in regulasie 6 van hierdie regulasies voorgeskryf.
- (9) Die voldoeningbepalingsverslag van toepassing op rekenaarmodellering moet ooreenstem met die raamwerk wat in Bylae A van hierdie regulasies verskaf is en moet al die inligting en data daarin vereis, insluit.
- (10) Vir metings, soos in subregulasie 5(6) beoog, moet 'n geskikte gedetailleerde voldoeningsverslag verskaf word wat 'n beskrywing van die metingsproses en standarde gebruik, die lys van meet- en bybehorende toerusting gebruik met kalibrasie sertifikate, volledige inligting oor die metingsparameters (plek, hoogte, datum, tyd, weerstoestand, ens) en die meet resultate insluit.

- (11) 'n Aansoek om 'n permit moet ooreenstem met die raamwerk in Bylae B van hierdie regulasies voorsien en al die inligting en data daarin vereis, insluit.
- (12) Die voltooide aansoekvorm en die voldoeningbepalingsverslag moet deur die lisensiehouer of lisensie vrygestelde operateur aan die betrokke bestuursgesag vir evaluering voorgelê word.
- (13) Die radiostasie data moet in 'n elektroniese formaat voorgelê word, verkieslik ascii, met die moontlikheid om dit vir gebruik in 'n rekenaarprogram in te voer of om te skakel.
- (14) Indien 'n aansienlike aantal uitsendings en voldoeningbepalings in 'n enkele aansoek en verslag gehanteer word, kan die inligting en data nodig volgens Bylaes A en B verskaf word in 'n Microsoft Excel spreiblead, of enige ander elektroniese getabuleerde data formaat.
- (15) Indien 'n lisensiehouer of lisensie vrygestelde operateur met uitsendings besig is, of van voorneme is om seinuitsendings te doen, vanaf 'n radiostasie binne 'n sentrale astronomievoordeelgebied met die gebruik van beperkte radiofrekwensiespektrum, en graag wil voortgaan om daardie spektrum te gebruik na die datum waarop die verbod of beperkings in werking tree, kan daardie lisensiehouer of operateur 'n vrystelling van daardie verbod of sodanige beperkinge versoek en die versoek met 'n motivering daarvoor saam met die permitaansoek en die voldoeningbepalingsverslag by daardie gesag of entiteit indien.

5. Evaluering van voldoeningsverslae en die aansoek vir permit

- (1) Die betrokke bestuursgesag of medebestuursentiteit moet elke voldoeningsverslag en aansoek vir 'n permit wat ingedien is, evalueer.
- (2) Indien 'n onvolledige voldoeningsverslag of permit aansoek ontvang word –
 - (a) sal die aansoeker daarvan skriftelik in kennis gestel word binne veertien (14) dae na ontvangs van die aansoek;
 - (b) mag die onvolledige verslag en/of aansoek deur 'n volledige weergawe vervang word; en

(c) sal die evalueringsproses slegs 'n aanvang neem wanneer die volledige weergawes van die verslag en aansoek beskikbaar is.

(3) Indien die radiofrekwensie spektrum in gebruik –

- (a) nie beperkte radiofrekwensie spektrum is nie;
- (b) die vasgestelde radiofrekwensie steuringsvlakke nie die toepaslike voorgeskrewe beskermingsvlakke oorskry nie; en
- (c) die uitsending aan al die toepaslike beperkinge en regulasies kragtens die Wet gemaak, voldoen,

moet die betrokke bestuursgesag binne dertig (30) dae vanaf die datum waarop die permitaansoek en voldoeningsverslag by die bestuursgesag ingedien is, uitgesluit die tydsverloop vir verpligte eksterne raadplegings en reaksies op versoeke vir inligting aan die aansoeker, die permit uitreik en die lisensiehouer of operateur skriftelik daarvan in kennis stel.

(4) Indien 'n lisensiehouer of 'n lisensie vrygestelde operateur 'n versoek by die betrokke bestuursgesag ingedien het insake die vrystelling van beperkte frekwensiespektrum, dan moet daardie gesag binne sestig (60) dae na die datum waarop die aansoek voorgelê is, uitgesluit die tydsverloop vir verpligte eksterne raadpleging en reaksies op versoeke vir inligting aan die aansoeker, die lisensiehouer of lisensie vrygestelde operateur skriftelik adviseer oor sy besluit rakende die versoek vir vrystelling.

(5) Indien die radiofrekwensiesteuringsvlakke die toepaslike voorgeskrewe beskermingsvlakke oorskry of die uitsending voldoen nie aan enige van die toepaslike beperkings of regulasies nie, moet die betrokke bestuursgesag binne dertig (30) dae vanaf die datum waarop die voldoeningsverslag by die gesag ingedien is, die lisensiehouer of lisensie vrygestelde operateur skriftelik daarvan in kennis stel.

(6) In die geval van 'n dispuut tussen die aansoeker en die betrokke bestuursgesag en medebestuursentiteit aan die ander kant, oor –

- (a) die geldigheid van die radiofrekwensie steuringsvlakke bepaal deur middel van rekenaarberekeninge; of

(b) die akkuraatheid van die vasgestelde radiofrekwensiesteuringsvlakke wat as onaanvaarbaar deur die bestuursgesag en die medebestuursentiteit beskou word,

dan moet daar toepaslike en uitvoerbare metings van die werklike steuringsvlak by die gespesifiseerde waardebepalingspunt uitgevoer word in ooreenstemming met die betrokke voorskrifte in regulasie 6 van hierdie regulasies.

- (7) 'n Lisensiehouer of lisensie vrygestelde operateur wat 'n geskrewe kennisgewing soos in sub-regulasie 5(5) beoog, ontvang, mag ondersoek instel en metodes oorweeg om die steuringsvlakke te verminder na die voorgeskrewe beskermingsvlakke en om aan die toepaslike beperkings en regulasies te voldoen en mag die voorgestelde metodes skriftelik aan die betrokke bestuursgesag voorlê binne dertig (30) dae na die datum waarop die kennisgewing in subregulasie 5(5) ontvang is.
- (8) Die betrokke bestuursgesag of die medebestuursentiteit moet daardie voorgestelde metodes te evalueer en binne dertig (30) dae vanaf die datum van ontvangs daarvan, uitgesluit die tydsverloop vir verpligte eksterne raadplegings of reaksies op versoeke vir inligting aan die aansoeker, die lisensiehouer of operateur skriftelik in kennis stel of die voorgestelde metode om radiofrekwensiesteuring te beperk, aanvaarbaar is.
- (9) Indien die betrokke bestuursgesag of medebestuursentiteit die voorstelle aanvaar, dan moet die lisensiehouer of die operateur daardie voorstelle binne neëntig (90) dae vanaf die datum van ontvangs van die besluit die voorstelle in werking stel waarna die gesag, onderhewig aan die suksesvolle implementering van die voorstelle, die permit moet uitreik en aan die lisensiehouer of operateur lewer.
- (10) Indien die betrokke bestuursgesag meer tyd nodig as die tyd gespesifiseer kragtens sub-regulasies 5(3), 5(4), 5(5) of 5(8) om besluite te neem, of daar bevind word dat 'n uitgebreide tegniese evaluering en/of metings nodig word, mag die gesag binne die gespesifiseerde tydperk, insluitend enige geldige bykomende tyd, die lisensiehouer of operateur in

kennis stel dat bykomende tyd, tot 'n maksimum van een honderd en tagtig (180) dae nodig is en redes verstrekkend waarom dit nodig is.

- (11) Indien die bestuursgesag nalaat om binne die tydperke in sub-regulasies 5(3), 5(4), 5(5) of 5(8) gespesifiseer, op te tree, of waar die gesag kragtens sub-regulasie 5(10) die tydperk met 'n sekere hoeveelheid van die tyd verleng het en nalaat om binne die verlengde tydperk op te tree, word dit geag dat die aansoek geweier is.
- (12) 'n Permit wat deur die betrokke bestuursgesag aan 'n lisensiehouer of 'n lisensie vrygestelde operateur uitgereik is, moet die frekwensies of die frekwensieband wat gebruik mag word spesifiseer tesame met uitsendingseienskappe en voorwaardes waaraan die lisensiehouer of operateur moet voldoen.
- (13) As 'n verslag ontvang word, nadat die permit uitgereik is, dat die radiofrekwensiesteuring aan radio-astronomie hoër is as die vlak wat in die permit gespesifiseer is, dan moet die voldoeningbepalingsverslag deur die aansoeker vir die permit en die betrokke bestuursgesag bevestig word.
- (14) Die bevestiging van die voldoeningbepaling wat op subregulasie 5(13) betrekking het en kragtens hierdie regulasies uitgevoer word, moet deur die aansoeker en die betrokke bestuursgesag hersien om word om die korrektheid daarvan te bepaal met inagneming van die akkuraatheid van die rekenaarmodellering toegepas of die metings uitgevoer.
- (15) As die betrokke bestuursgesag of medebestuursentiteit dit nodig ag, dan moet metings van die radiofrekwensiesteuring uitgevoer word. Die resultate van die hersiening sal bepaal of die uitsendingseienskappe in die uitgereikte permit aangepas moet word om te verhoed dat die toepaslike beskermingsvlak oorskry word.

- (16) As 'n lisensiehouer of 'n lisensie vrygestelde operateur aan wie 'n permit uitgereik is, verlang om die frekwensies of die frekwensieband wat gebruik mag word, die uitsendingseienskappe, of die voorwaardes in die permit voorgeskryf, te wysig, dan moet daar by die betrokke bestuursgesag aansoek gedoen vir so 'n wysiging.
- (17) Regulasies 4(6) tot 4(16), met die nodige wysigings in ag geneem, is op so 'n wysigingsaansoek vir 'n uitgereikte permit van toepassing.
- (18) Indien die bestuursgesag dertig (30) dae na die uitreiking van 'n permit vasstel dat die voorwaardes in die permit nie nagekom word nie, dan sal die permit onmiddellik deur die betrokke bestuursowerheid teruggetrek word. Die houer van so 'n permit moet onmiddellik enige aktiwiteit wat kragtens die permit uitgevoer word, staak.

6. Tegniese standaard vir die bepaling van radiofrekwensie steuringsvlakke

- (1) Die voldoeningsbepaling, in subregulasie 4(6) beoog, moet die volgende insluit:
 - (a) Die bepaling van die radiofrekwensie steuringsvlakke wat ooreenkom met die beskermingsmaatreëls in die betrokke Spektrum Regulasies voorgeskryf met betrekking tot die toepaslike beskermingsvlakke in die Radio-astronomie Beskermingsvlakke Regulasies, 2012, voorgeskryf;
 - (b) Die bepaling van die radiofrekwensie steuringsvlakke wat ooreenkom met die beskermingsmaatreëls in die betrokke Spektrum Regulasies voorgeskryf met betrekking tot die versadigingsvlak; en
 - (c) Die bepaling of daar voldoening is aan al die toepaslike regulasies kragtens die Wet gemaak.
- (2) Die bepaling van die radiofrekwensie steuringsvlakke moet in die eerste plek uitgevoer word deur middel van die rekenaarmodellering wat wetenskaplike metodes deur die ITU aanbeveel, gebruik en wat radiofrekwensie steuringsvlakke bereken wat ooreenkom met die beskermingsmaatreëls in die betrokke Spektrum Regulasies voorgeskryf en die kriteria in subregulasie 6 (7) gespesifiseer.
- (3) As rekenaarmodellering is nie haalbaar of toepaslik is nie, of as groter akkuraatheid vereis word as wat rekenaarmodellering kan voorsien, dan

moet die radiofrekwensie steuringsvlakke deur middel van metings bepaal word.

- (4) Die metingstandaarde en tegnieke wat gebruik word, moet ooreengekom word tussen die betrokke bestuursgesag of medebestuursentiteit en die bevoegde persoon, soos in regulasie 8 van hierdie regulasies beoog, wat die voldoeningsbepaling sal uitvoer.
- (5) Indien 'n ooreenkoms nie bereik kan word nie, moet die betrokke bestuursgesag of medebestuursentiteit 'n gepaste standaard en tegnieke bepaal om gebruik te word.
- (6) Die verwysingshoogte vir metings of seinvoorspellings is 10 meter bo die grondvlak by die waardebepalingspunte vir die beskermingsmaatreëls in die betrokke Spektrum Regulasies voorgeskryf.
- (7) Die berekening van radiofrekwensie steuringsvlakke moet op die volgende kriteria gebaseer wees -
 - (a) die toepassing van die toepaslike ITU Aanbeveling vir golfvoortplanting;
 - (b) seinvlakke wat vir nie meer as 5% van die tyd oor 'n vier en twintig (24) periode oorskry sal word nie;
 - (c) 'n isotropiese antenna toestand met 0 dB wins by die waardebepalingspunte vir die beskermingsmaatreëls in die betrokke Spektrum Regulasies voorgeskryf;
 - (d) die gebruik van die beste beskikbare digitale terrein model; en
 - (e) senderstasiedata deur die gelisensieerde of lisensie vrygestelde elektroniese kommunikasienetwerk operateur of radiofrekwensiespektrum lisensiehouer verskaf word volgens die gespesifiseerde besonderhede in Bylae A tot hierdie regulasies.
- (8) Die bevoegde persoon wat die voldoeningsbepaling hanteer, moet uitvoering gee aan –
 - (a) 'n Punt-tot-punt berekening op die golfvoortplantingspad tussen die radiostasie of ligging van die radio-apparaat en die gespesifiseerde waardebepalingspunte van die radiofrekwensie steuringsvlak by die waardebepalingspunte vir die beskermingsmaatreëls in die betrokke Spektrum Regulasies voorgeskryf;

- (b) die berekening van die seinpadverliese oor die golfvoortplantingspaaie na verwys in (a), in dB; en
- (c) die vergelyking van die radiofrekwensie steuringsvlakke, by die toepaslike waardebevestigingspunte na verwys in (a) om te bepaal of dit die toepaslike beskermingsvlakke oorskry of nie, met:
 - (i) die betrokke beskermingsvlak in die Radio-astronomie Beskermingsvlakke Regulasies, 2012, voorgeskryf, of
 - (ii) die versadigingsvlak.

Die resultate van (a), (b) en (c) hierbo moet in die voldoeningbepalingsverslag in subregulasie 4(8) voorgeskryf, verstrekk word.

7. Kriteria, prosedures en voorwaardes van toepassing op 'n noodsaaklike diens

- (1) Radiokommunikasiedienste wat die toepassings hieronder gelys, verskaf, mag deur die betrokke bestuursorgaan oorweeg word vir klassifikasie as noodsaaklike diens -
 - (a) uitsaaiersverspreiding via geostasionêre satelliete vir verspreiding na terrestriële uitsaaiers en direk-na-huis ontvangs;
 - (b) elektroniese kommunikasienetwerkdienste van provinsiale en nasionale omvang deur OKOSA gelisensieer kragtens artikel 5(3) van die Wet op Elektroniese Kommunikasie;
 - (c) elektroniese kommunikasie vir die bedryf en instandhouding van elektrisiteitstransmissie en -verspreiding kragstelsels;
 - (d) elektroniese kommunikasie vir die bedryf en instandhouding van spoorvervoer;
 - (e) elektroniese kommunikasie vir sekerheidsdienste en hul doelwitte soos in Hoofstuk 11 van die Grondwet van die Republiek van Suid-Afrika 1996, omskryf, plaaslike regering en hul doelwitte soos in Hoofstuk 7 van die Grondwet omskryf, gesondheidsdienste en nooddienste;
 - (f) elektroniese kommunikasie vir lugvaart en maritieme diens in frekwensiespektrum toewysings met betrekking tot die veiligheid en

gereeldheid van vlugte en die seevaartuie, insluitend kommunikasie, radio navigasie en waarnemingstelsels; en

(g) geostasionêre satellietkommunikasie.

(2) In die bepaling deur die betrokke bestuursgesag of 'n radiokommunikasiediens in sub-regulasie 7 (1) ingesluit as 'n noodsaaklike diens geklassifiseer behoort te word, of nie, moet oorweging gegee word aan –

(a) die bestaan van 'n funksioneel geskikte en ekonomies gangbare alternatief wat voldoen aan, of beter voldoen aan, die beperkings, voorwaardes en standarde in hierdie regulasies vir die beskerming van radio-astronomie voorgeskryf; en

(b) die moontlike gebruik van 'n alternatiewe frekwensieband en/of 'n alternatiewe tegnologie wat 'n mindere radiofrekwensie steuringsimpak het op die beskerming van radio-astronomie het.

(3) 'n Aansoeker vir 'n permit benodig ooreenkomstig regulasie 4 in verband met 'n radiokommunikasiediens wat mag kwalifiseer om as 'n noodsaaklike diens kragtens subregulasie 7(1) geklassifiseer te word, moet dit so in sodanige aansoek aandui.

(4) Die klassifikasie vir elke verskillende tipe radiokommunikasiediens, wat in 'n ander frekwensieband werk of 'n ander tegnologie gebruik, in die besonder vir lisensiehouers wat veelvuldige tipes dienste verskaf, moet afsonderlik bepaal word en so in die permit uitgereik, aangedui word.

(5) Die betrokke bestuursgesag of medebestuursentiteit moet, voordat die evalueringsproses vir die voldoeningbepaling en die aansoek vir 'n permit soos in regulasie 5 voorgeskryf, 'n aanvang neem, bepaal of die radiokommunikasiediens betrokke as 'n noodsaaklike diens geklassifiseer sal word.

(6) As 'n radiofrekwensie steuringsvlak met betrekking tot 'n noodsaaklike diens die toepaslike voorgeskrewe beskermingsvlak kragtens die Radio-astronomie Beskermingsvlakke Regulasies, 2012, by die voorgeskrewe waardebevestigingspunte oorskry en nie verminder kan word sonder om daardie diens aansienlik te beïnvloed nie, moet die verskaffer van daardie diens 'n verduideliking in die aansoek by die bestuursgesag of

medebestuursentiteit ingedien, insluit oor die redes waarom die steuringsvlak nie verminder kan word nie en versoek dat 'n radiofrekwensie steuringsvlak wat meer as die voorgeskrewe waarde is, toegelaat word.

- (7) 'n klassifikasie as 'n noodsaaklike diens kan gekanselleer word as 'n ander elektroniese kommunikasiestelsel wat funksioneel geskik en ekonomies gangbaar is en voldoen aan of beter voldoen aan die beperkings, voorwaardes en standaarde in die betrokke Spektrum Regulasies vir die beskerming van die radio-astronomie voorgeskryf.
- (8) Geen verligting mag deur die betrokke bestuursgesag toegestaan word waar radiofrekwensiesteuring die versadigingsvlak by enige toepaslike verwysingspunt in die betrokke Spektrum Regulasies voorgeskryf, oorskry nie.

8. Kriteria vir persoon wat die voldoeningsbepaling uitvoer

- (1) 'n Persoon wat die voldoeningsbepaling uitvoer en die verslag opstel, moet:
- (a) 'n tersiêre akademiese kwalifikasie in elektroniese of radiofrekwensie ingenieurswese besit, tenminste op die vlak wat die persoon sal kwalifiseer om as 'n professionele ingenieurstechnoloog kragtens die Wet op die Ingenieursweseprofessie, 2000 (Wet No 46 van 2000) te registreer;
 - (b) toegang hê tot of in staat wees om toegang te bekom tot 'n gerekenariseerde frekwensiespektrum beplanningstelsel wat bruikbaar is om rekenaarmodellering uit te voer vir die radiofrekwensie seinvlak berekeninge op die betrokke ITU aanbevelings oor voortplanting gebaseer en gebruik maak van die beste beskikbare digitale terreinmodel; en
 - (c) in staat wees om ten minste twee verwysings te verskaf vir werk wat suksesvol binne die laaste vyf (5) jaar uitgevoer is en die bepaling van radiogolf voortplanting en seinsterktes behels het.
- (2) Alternatief tot sub-regulasie 8(1), moet die betrokke bestuursgesag of die medebestuursentiteit 'n evaluering van die vaardighede en ervaring van 'n persoon wat die voldoeningsbepaling en die samestelling van die verslag wil uitvoer om bepaal of die persoon oor die nodige vermoë en kapasiteit beskik.

- (3) Die nodige inligting soos in Bylae A, item 1 bepaal is, moet deur die aansoeker vir 'n permit verskaf word vir oorweging en evaluering deur die bestuursgesag of medebestuursentiteit.

9. Permitregister

- (1) Die uitsendingseienskappe en die voorwaardes wat in elke permit kragtens regulasie 5 uitgereik, gespesifiseer is, moet deur die betrokke bestuursgesag in 'n permit register vir die betrokke sentrale astronomievoordeelgebied ingeskryf word.
- (2) Die besonderhede van die inligting wat in die permit register ingeskryf moet word, moet die data wat vir die voldoeningsbepaling gebruik is en die voldoeningsresultate insluit, soos weerspieël in Bylae A, items 2 tot 6, vir elke waardebepalingspunt wat betrokke is.
- (3) Die waardebepalingsinligting in die register mag slegs aan die betrokke bestuursgesag of medebestuursentiteit en die permithouer beskikbaar gestel word.

10. Misdrywe en strawwe

Enige persoon wat hierdie regulasies oortree, is skuldig aan 'n misdryf en by skuldigbevinding strafbaar met 'n boete van hoogstens R1 000 000 (een miljoen rand) of gevangenisstraf of beide 'n boete en gevangenisstraf.

11. Kort titel en inwerkingtreding

Hierdie regulasies heet die Regulasies oor Administratiewe Aangeleenthede vir die Sentrale Astronomievoordeelgebiede (Radio-astronomie) en sal op 'n datum in werking tree om deur die Minister bepaal te word deur middel van 'n kennisgewing in die Staatskoerant.

BYLAE A: Raamwerk vir die voldoeningbepalingsverslag**1. Bevoegde persoon wat die ondersoek uitgevoer het**

- 1.1. Naam van die bevoegde persoon:
- 1.2. Bewys dat die bevoegde persoon aan elk van die vereistes in regulasie 8 voorgeskryf, voldoen:
- 1.2.1. Akademiese kwalifikasie:
.....
- 1.2.2. Toegang tot 'n gerekenariseerde frekwensie beplanningstelsel
.....
- 1.2.3. Twee verwysings na frekwensiespektrum beplanningswerk wat in die laaste vyf jaar uitgevoer is:
- 1.2.3.1.
- 1.2.3.2.
- 1.3. Alternatief vir 1,2, versoek dat 'n evaluering van die persoon uitgevoer word
.....

2. Radiostasie data vir 'n spesifieke uitsending

Die items hieronder is van toepassing op 'n vaste radio stasie. As 'n ander situasie betrokke is in die voldoeningbepaling, dan moet slegs die toepaslike items ingevul word en voldoende inligting verskaf word om die uitsendingsbron behoorlik te omskryf en te identifiseer.

'n Getabuleerde skedule moet gebruik word vir veelvuldige uitsendings vanaf 'n stasie by 'n spesifieke plek of van stasies by verskillende plekke

- 2.1. Draerfrekwensie (in MHz tot 4 desimale):
.....
- 2.2. Unieke verwysingsnommer (nie meer as tien karakters/syfers nie):
.....
- 2.3. Naam van lisensiehouer of lisensie vrygestelde operateur:
.....
- 2.4. Radiostasie naam:
.....

2.5. Geografiese koördinate (in grade tot vier desimale)

.....

2.6. Grondvlak bo seevlak (in meters):

.....

2.7. Hoogte bo grondvlak van die sendantenne middel (in meters):

.....

2.8. EUK in die rigting van die Waardebepalingspunt (WP) (in dBm):

.....

2.9. Polarisasie van die sein oorgesend:

.....

2.10. Bandwydte van die sein oorgesend (in MHz):

.....

3. Tegniese voorwaardes op die seinsterkte berekening toegepas

3.1. Gerekenariseerde frekwensiebeplanningstelsel gebruik:

.....

3.2. Die ITU Aanbeveling toegepas op die voortplantingberekeninge:

.....

3.3. Opsie verkies (indien enige) vir die ITU Aanbeveling toegepas:

.....

3.4. Digitale topografiese terreinmodel gebruik:

.....

4. Resultate van die radiofrekwensiesteuring (RFS) voldoeningsbepaling by die toepaslike AP met betrekking tot die radio-astronomie beskermingsvlak

4.1. Toepaslike AP: Geografiese koördinate (in grade tot vier desimale):

.....

4.2. RFS vlak (in dBm/Hz) by die AP:

.....

4.3. Voortplantingpadverlies (in dB) tussen die radiostasie en die AP:

.....

4.4. Beskermingsvlak (BV) (in dBm/Hz) soos bepaal volgens die Radio-astronomie Beskermingsvlakke Regulasies:

.....

4.5. Resultaat van die RFS en PL vlakke vergelyking:

.....

5. Resultate van die RFS voldoeningsbepaling by die toepaslike AP met betrekking tot die versadigingsvlak

5.1. Ligging van die toepaslike AP: Geografiese koördinate (in grade tot vier desimale):

.....

5.2. RFS vlakke by die toepaslike AP:

.....

5.3. Resultaat van die vergelyking met die versadigingsvlak:

.....

6. Voldoeningsbepaling m.b.t. alle toepaslike regulasies kragtens die Wet maak

6.1. Alle toepaslike regulasies word aan voldoen: Ja.....of Nee.....

6.2. Verskaf verwysings na toepaslike regulasies waaraan nie voldoen word nie, met die redes vir nie-voldoening

.....

7. Voldoeningsverslag onderteken deur:

Met die ondertekening van hierdie Voldoeningsverslag, verklaar ek dat die inligting en resultate in hierdie verslag na die beste van my wete waar en korrek is.

Naam van persoon

Naamtekening

Datum

Plek

BYLAE B: Raamwerk vir 'n permitaansoek**1. Aansoeker**

1.1. Naam van persoon of entiteit.....

1.2. ID of registrasienommer.....

1.3. Indien 'n entiteit, die naam van kontakpersoon en haar/sy posisie

.....

1.4. Posadres.....

1.5. e-posadres.....

1.6. Telefoonnommers.....

2. Besonderhede van uitsendings waarvoor permitte vereis word (indien meer as drie uitsendings betrokke is, gebruik 'n getabuleer skedule)

Besonderhede	Transmissie 1	Transmissie 2	Transmissie 3
Perseelnaam			
Geografiese koördinaat (breedtegraad)			
Geografiese koördinaat (lengtegraad)			
Tipe radiokommunikasie			
Draer / middel frekwensie (MHz)			
Sendkrag by antenna-inset (dBm)			
Antenna tipe & wins (dB)			
OKOSA radiofrekwensie spektrumlisensie nommer			

Frekwensiespektrum in gebruik (Beperkte / vrygestelde)			
Voldoeningsbepaling gedoen (Ja/Nee)			
Radiofrekwensie steuring oorskry beskermingsvlak (Ja/Nee)			
Radiofrekwensie steuring oorskry versadigingsvlak (Ja/Nee)			
Voldoening aan die toepaslike beperkinge in Spektrum Regulasies (Ja/Nee)			
Mening oor kwalifikasie vir klassifikasie as 'n noodsaaklike diens (Ja/Nee)			

3. Aansoek om 'n permit of permitte onderteken deur:

In die ondertekening van hierdie aansoek, verklaar ek dat die inligting wat verskaf is na die beste van my wete waar en korrek is.

Naam van persoon

Naamtekening

Datum

Plek

SKEDULE C
REGULASIES OOR FINANSIELE VERGOEDINGSPROSEDURES
VIR SENTRALE ASTRONOMIEVOORDEELGEBIEDE

INDELING VAN DIE REGULASIES

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1. Woordomsrywings

In hierdie regulasies tensy dit uit die samehang anders blyk, beteken–

"finansiële verlies" –

- (a) die koste vir 'n radiokommunikasie netwerkdienis lisensiehouer om 'n vereiste of 'n voorwaarde kragtens artikel 23 van die Wet voorgeskryf, te implementeer; en
- (b) die aansluitingskoste en bykomende gebruikskoste vir 'n radiokommunikasiedienis gebruiker vir 'n elektroniese kommunikasiedienis wat anders is as die elektroniese kommunikasiedienis wat deur daardie gebruiker benut is voor die uitvaardiging van 'n regulasie kragtens artikel 23 van die Wet gemaak;

"geaffekteerde persoon" 'n persoon wat –

- (a) wettiglik 'n aktiwiteit in 'n sentrale astronomievoordeelgebied uitgevoer het voor die beperking van daardie aktiwiteit deur middel van regulasies wat deur die Minister kragtens artikel 23 van die Wet gemaak is; en
- (b) kragtens artikel 23(3)(a) van die Wet deur die Minister vereis word om daardie aktiwiteit te staak of om aan voorwaardes wat kragtens artikel 23(3)(b) van die Wet voorgeskryf is, te voldoen;

"GPS" die global positioning system;

"lisensiehouer" 'n persoon aan wie OKOSA 'n lisensie uitgereik het om 'n diens kragtens Hoofstuk 3 van die Wet op Elektroniese Kommunikasie, 2005, te verskaf of om radiofrekwensiespektrum kragtens artikel 31 daarvan, te gebruik;

"lisensie vrygestelde operateur" 'n persoon wat 'n diens verskaf ingevolge die vrystelling deur OKOSA toegestaan kragtens artikel 6 van die Wet op Elektroniese Kommunikasie, 2005 of radiofrekwensiespektrum gebruik wat vrygestel is van die vereiste vir 'n radiofrekwensie spektrum lisensie in gevolge artikel 31(6) van die Wet op Elektroniese Kommunikasie, 2005, en regulasies daarvolgens gemaak;

"medebestuursentiteit" 'n staatsorgaan, 'n plaaslike gemeenskap, 'n individu of 'n ander party met wie die betrokke bestuursgesag 'n medebestuursooreenkoms aangegaan het kragtens artikel 18 van die Wet;

"Spektrum Regulasies" die regulasies om die gebruik van sekere radiofrekwensiespektrum kragtens artikel 22 van die Wet en sekere verklaarde aktiwiteite kragtens artikel 23 van die Wet binne die betrokke sentrale astronomievoordeelgebied vir radio-astronomie doeleindes verklaar, te verbied of te beperk; en

"Wet" die Astronomy Geographic Advantage Act, 2007 (Act No. 21 of 2007).

2. Toepassing van die regulasies

- (1) Die regulasies is van toepassing op enige sentrale astronomievoordeelgebied verklaar vir radio-astronomie doeleindes en verwante wetenskaplike ondernemings.
- (2) Indien daar verskille tussen die Engelse en Afrikaanse weergawes van hierdie regulasies is, sal die Engelse weergawe voorrang geniet.

3. Prosedures en kriteria om vir finansiële vergoeding aansoek te doen

- (1) 'n Geaffekteerde persoon wat 'n finansiële verlies gely het, alleenlik as 'n direkte oorsaak van daardie persoon se voldoening aan 'n voorgeskrewe vereiste of voorwaarde kragtens artikel 23(3)(a) of (b) van die Wet, of 'n persoon wie se gebruik van 'n diens verskaf deur 'n lisensiehouer of 'n lisensie vrygestelde operateur, nadelig geaffekteer is, as 'n direkte gevolg van daardie operateur se voldoening aan 'n vereiste of voorwaarde toegepas kragtens artikel 23(3)(a) of (b) van die Wet, mag vir kompensasie kragtens hierdie regulasie aansoek doen.
- (2) Die aansoek om vergoeding in sub-regulasie (1) beoog, moet op 'n vorm by die betrokke bestuursgesag of medebestuursentiteit verkry, gedoen word, en moet by die betrokke bestuursgesag of medebestuursentiteit ingedien word binne twee (2) jaar na die implementering van die betrokke vereiste of voorwaarde.
- (3) Die gemelde aansoek moet die volgende insluit -
 - (a) die aansoeker se volle name, posadres, e-posadres, telefoon nommer en belastingverwysingsnommer;
 - (b) die adres waar die aansoeker aflewering van enige kennisgewing, proses of enige ander dokument met betrekking tot die aansoek in ontvangs sal neem;
 - (c) die adres of GPS ligging waar die applikant die betrokke aktiwiteit wettig uitgevoer het of waar die diens wat die onderwerp van die aansoek is, onmiddellik voor die implementering van die betrokke vereiste of voorwaarde gebruik is;
 - (d) Indien die aansoeker, teen die tyd dat die aansoek gedoen word, die aktiwiteit uitvoer of die diens gebruik, wat die onderwerp van die aansoek

- is, by 'n adres of GPS ligging wat anders is as dit wat onder sub-regulasie (c) hierbo verstrekk is, verskaf dan daardie ander adres of ligging;
- (e) 'n afskrif van al die betrokke dokumente wat met 'n kennisgewing in die Staatskoerant kragtens artikel 23 van die Wet gepubliseer is;
- (f) 'n gedetailleerde beskrywing van die aktiwiteit wat wettig uitgevoer is of die diens wat gebruik is onmiddellik voor die implementering van die betrokke vereiste of voorwaarde;
- (g) 'n beëdigde verklaring deur die applikant wat bevestig –
- (i) of die aansoeker die betrokke aktiwiteit gestaak het slegs as 'n direkte gevolg van die voldoening aan die vereiste kragtens artikel 23(3)(a) van die Wet toegepas en die datum waarop dit gedoen is;
 - (ii) die manier en die omvang van die aansoeker se verandering van sy uitvoering van die betrokke aktiwiteit slegs as 'n direkte oorsaak van die voldoening aan 'n voorwaarde kragtens artikel 23(3)(b) van die Wet toegepas; of
 - (iii) die aard en die omvang van die nadelige effek op die aansoeker se gebruik van die diens slegs as 'n direkte oorsaak van die voldoening aan 'n vereiste of voorwaarde kragtens artikel 23(3)(a) of (b) van die Wet toegepas;
- (h) 'n gedetailleerde beskrywing van enige eiendom of toerusting wat deur die aansoeker besit of gebruik was om die betrokke aktiwiteit uit te voer of die diens waar die gebruik van daardie eiendom of toerusting nadelig geaffekteer is, alleenlik as 'n direkte gevolg van voldoening aan die vereiste of voorwaarde toegepas kragtens artikel 23(3) van die Wet, met insluiting van volledige beskrywings van –
- (i) die toestand van die eiendom of toerusting;
 - (ii) die mate waartoe die aansoeker die eiendom of toerusting gebruik het om die betrokke aktiwiteit uit te voer of die diens te gebruik;
 - (iii) die markwaarde van die eiendom of toerusting;
 - (iv) die geskiedenis van die verkryging of gebruik van die eiendom of toerusting;
 - (v) die mate waartoe die Staat belê het in, 'n subsidie verskaf het, of andersins hulp verleen het aan die aansoeker met die verkryging of

instandhouding van eiendom of toerusting of om die betrokke aktiwiteit uit te voer; en

- (vi) die mate waartoe die eiendom of toerusting nadelig geaffekteer is alleenlik as 'n direkte gevolg van voldoening aan die vereiste of voorwaarde kragtens artikel 23(3) van die Wet toegepas, met inagneming van ander moontlike gebruike van die eiendom deur die aansoeker of 'n derde party;
 - (i) 'n volledige beskrywing van enige finansiële verlies deur die aansoeker gelyk as 'n direkte gevolg van voldoening aan die vereiste of voorwaardes kragtens artikel 23(3) van die Wet toegepas, insluitend enige finansiële verlies as gevolg van 'n omskakeling na 'n alternatiewe elektroniese kommunikasiediens omdat die geaffekteerde diens nie langer bruikbaar was nie;
 - (j) enige ander besonderhede wat betrokke of nodig is vir die betrokke bestuursgesag of medebestuursentiteit om -
 - (i) die aansoek te oorweeg; en
 - (ii) die vergoedingsbedrag om betaal te word, indien enige, te bereken, insluitend volle besonderhede van die grondslag en metode om al die bedrae te bereken;
 - (k) 'n volledige opgawe van enige briefwisseling met, en geskrewe vertoë voorgelê aan die betrokke bestuursgesag of medebestuursentiteit kragtens artikel 23(3) van die Wet; en
 - (l) ondersteunende getuienis met verwysing na paragrawe (f) tot (j).
- (4) Indien 'n aansoeker vir vergoeding in verband met verskillende aktiwiteite of dienste aansoek doen, moet die aansoeker 'n afsonderlike aansoek met betrekking tot elke aktiwiteit of diens indien.

4. Verwerking van die aansoek deur die bestuursgesag

- (1) Die betrokke bestuursgesag of medebestuursentiteit mag skriftelik sodanige verdere besonderhede van die aansoeker versoek as wat nodig mag wees om die aansoek te oorweeg en die aansoeker moet binne dertig (30) dae na die versoek gestuur is, op die versoek vir verdere inligting reageer.

- (2) Die betrokke bestuursgesag of medebestuursentiteit moet OKOSA raadpleeg op elke aansoek ontvang, om vas te stel of die aktiwiteit betrokke in die aansoek om finansiële vergoeding wettig binne die betrokke sentrale astronomievoordeelgebied uitgevoer was onmiddellik voordat die betrokke Spektrum Regulasies uitgevaardig is.
- (3) Die betrokke bestuursgesag of medebestuursentiteit moet die aansoek, al die betrokke dokumentasie en enige verdere besonderhede deur die aansoeker ingedien, tesame met n aanbeveling deur die betrokke bestuursgesag of medebestuursentiteit op die aansoek, na die Minister verwys vir 'n beslissing binne sestig (60) dae vanaf die datum wat die laaste inligting benodig, ontvang is.
- (4) Die betrokke bestuursgesag of medebestuursentiteit moet –
- (a) Binne neëntig (90) dae na die ontvangs van die laaste inligting vir 'n aansoek benodig, die aansoeker skriftelik van die Minister se besluit in kennis stel en die aansoeker met geskrewe redes vir die besluit voorsien; en
 - (b) by enige besluit oor die toestaan van vergoeding 'n aanbod van vergoeding soos deur die Minister bepaal, insluit.

5. Bepaling van vergoeding deur die Minister

- (1) Indien die Minister besluit dat 'n aansoeker vergoed behoort te word, moet die bedrag van die vergoeding, en die manier en tyd van betaling daarvan, regverdig en billik wees wat 'n billike balans tussen die openbare belang en die belange van die geaffekteerde persoon weerspieël met inagneming van al die betrokke omstandighede, insluitend -
- (a) die aard en omvang van die aktiwiteit wettig uitgevoer, of die diens deur die aansoeker gebruik onmiddellik voor die inwerkingstelling van die betrokke vereiste of voorwaarde;
 - (b) die mate waartoe die aansoeker die betrokke aktiwiteit gestaak het, die aard en omvang waartoe die aansoeker sy/haar uitvoering van die betrokke aktiwiteit verander het, of die mate en aard waartoe die aansoeker se gebruik van die diens nadelig geaffekteer is, alleenlik as 'n

direkte resultaat van voldoening aan die vereiste of voorwaardes kragtens artikel 23(3) van die Wet toegepas;

- (c) die eiendom of toerusting wat deur die aansoeker besit of gebruik was om die betrokke aktiwiteit uit te voer, of die diens te gebruik en die mate waartoe die gebruik daarvan nadelig geaffekteer is, alleenlik as 'n direkte resultaat van voldoening aan die vereiste of voorwaardes kragtens artikel 23(3) van die Wet toegepas; en
- (d) die finansiële verlies deur die aansoeker gely, alleenlik as 'n direkte resultaat van voldoening aan die vereiste of voorwaardes kragtens artikel 23(3) van die Wet toegepas.

6. Aanvaarding van die aanbod deur die aansoeker

- (1) Binne dertig (30) dae na die ontvangs van die aanbod in subregulasie 4(4)(b), moet die aansoeker die betrokke bestuursgesag of medebestuursentiteit skriftelik in kennis stel of die aanbod aanvaar of verwerp word.
- (2) Indien die aansoeker die aanbod kragtens subregulasie 4(4)(b) maak, aanvaar, moet die betrokke bestuursgesag of mede-bestuursentiteit die aansoeker die bedrag betaal op 'n manier en binne die tydperk waarop daar tussen die aansoeker en die betrokke bestuursgesag of medebestuursentiteit ooreengekom is, welke tydperk nie meer as sestig (60) dae na die ontvangs van die kennisgewing van aanvaarding van die aanbod deur die aansoeker mag wees nie.
- (3) Die aansoeker mag die Minister se besluit in regulasie 5(1) beoog, in hersiening neem kragtens die bepalinge van die Wet op die Bevordering van Administratiewe Geregtigheid, 2000.

7. Misdrywe en strawwe

Enige persoon wat hierdie regulasies oortree, is skuldig aan 'n misdryf en by skuldigbevinding strafbaar met 'n boete van hoogstens R1 000 000 (een miljoen rand) of gevangenisstraf of 'n boete en gevangenisstraf.

8. Kort titel en inwerkingtreding

Hierdie regulasies heet die Regulasies oor Finansiële Vergoedingsprosedures vir sentrale astronomievoordeelgebiede, 2015, en sal op 'n datum in werking tree om deur die Minister bepaal te word met 'n kennisgewing in die Staatskoerant.

SKEDULE D**REGULASIES OM ELEKTROMAGNETIESE STEURING IN DIE KAROO
SENTRALE ASTRONOMIEVOORDEELGEBIED 1 TE BEPERK****INDELING VAN DIE REGULASIES**

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Bylae A: Kaart van die beskermingsgange wat die SKA radio-astronomie stasies binne die Karoo Sentrale Astronomievoordeelgebied 1 insluit

13

1. Woordomsrywings

In hierdie regulasies tensy dit uit die samehang anders blyk, beteken–

"beskermingsgange" stroke land, naasliggend aan 'n radio astronomiese spiraal arms konfigurasie waar binne SKA-stasies in die Karoo Sentrale Astronomievoordeelgebied 1 geplaas sal word, met 'n wydte van 5 km aan weerskante van elke spiraalarm soos uitgebeeld en omskryf in Bylae A;

"elektriese krag distribusiestelsel" 'n stelsel vir elektriese kragverspreiding wat onder 132 kV werk;

"elektriese krag transmissiestelsel" 'n stelsel vir elektriese kragverspreiding wat op of bo 132 kV werk;

"elektrisiteitsopwekking" die produksie van elektrisiteit op enige manier, insluitend omsitters wat gelykstroom na wisselstroom verander;

"elektrisiteitstransmissie" die vervoer van elektrisiteit deur middel van 'n transmissiestelsel vir elektriese kragverspreiding;

"elektrisiteitsverspreiding" die vervoer van elektrisiteit deur middel van 'n distribusiestelsel vir elektriese kragverspreiding;

"elektriese toerusting" enige elektriese masjinerie, toerusting of toestelle wat gebruik word vir konstruksie, eksplorاسie, boerdery, huishouding, vervaardiging, instandhouding, of mynbou doeleindes;

"elektriese infrastruktuur" enige infrastruktuur of fasiliteit wat op enige manier gebruik word vir die opwekking van elektrisiteit, die verspreiding van elektrisiteit, die transmissie van elektrisiteit, of vir 'n elektriese krag distribusie- of transmissiestelsel, of elektriese fasiliteite en toerusting gebruik vir enige aanwending uitgesluit elektrisiteitsverspreiding en -transmissie wat bestaan het voor die datum waarop hierdie regulasies is uitgevaardig deur publikasie in die Staatskoerant;

"elektromagnetiese steuring" radiofrekwensiesteuring onbedoeld uitgestraal deur elektrisiteitsopwekking installasies, elektrisiteitsverspreiding of transmissie infrastruktuur, en elektriese toerusting, en wat kenmerkend wye dele van die radiofrekwensiespektrum beset;

"ITU" die International Telecommunication Union;

"Karoo Sentrale Astronomievoordeelgebied 1" die Karoo Sentrale Astronomievoordeelgebied 1 op 12 Maart 2014 verklaar in Kennisgewing No. 198 in Staatskoerant No. 37434;

"medebestuursentiteit" 'n staatsorgaan, 'n plaaslike gemeenskap, 'n individu of 'n ander party met wie die betrokke bestuursgesag 'n medebestuursooreenkoms aangeaan het kragtens artikel 18 van die Wet;

"Radio-astronomie Beskermingsvlakke Regulasies, 2012" die regulasies gemaak om die beskermingsvlakke vir radio-astronomie waarnemings in die gebiede wat as astronomievoordeelgebiede vir radioastronomie doeleindes verklaar is, te bepaal en wat op 10 Februarie 2012 in Kennisgewing No. R.90 in Staatskoerant No. 35007 gepubliseer is;

"radioastronomie stasie" een of meer ontvangstelsels by 'n plek, insluitend die bybehorende toerusting, vir die ontvangs van radiogolwe van kosmiese oorsprong vir die doeleindes van radioastronomie;

"radiofrekwensiesteuring" die nadelige effek van radioseine of elektromagnetiese uitstralings wat ontvang word en die beskermingsvlakke in die Radioastronomie Beskermingsvlakke Regulasies, 2012 voorgeskryf, oorskry;

"SABS" die Suid-Afrikaanse Buro van Standaarde ingestel deur artikel 3 van die Wet op Standaarde, 2008, (Wet No. 8 van 2008);

"SANS" 'n Suid-Afrikaanse Nasionale Standaard deur die SABS ontwikkel kragtens die Wet op Standaarde, 2008 (Wet No. 8 van 2008) ontwikkel is en sluit internasionale standaarde in, wat deur die SABS geïnkorporeer is;

"SKA" die Square Kilometre Array-radioteleskoop bestaande uit 'n opset van radio-astronomie stasies om in die Republiek van Suid-Afrika en in deelnemende Afrika-lande geplaas te word volgens die besluit van die SKA-Organisasie, 'n private maatskappy (beperk deur garansie) opgeneem in die Verenigde Koninkryk;

"SKA Virtuele Middelpunt" die geografiese punt by geografiese koördinate 30.71292 grade Suid en 21.44380 grade Oos wat verband hou met die SKA-opstelling van radioastronomie stasies binne die Karoo Astronomievoordeelgebiede en wat as die middelste Waardebepaling Verwysingspunt voorgeskryf is vir die toepassing van beskermingsvlakke soos in die Radioastronomie Beskermingsvlakke Regulasies, 2012, bepaal.

"skeidingsafstand" die minimum vry afstand tussen enige elektriese infrastruktuur en die naaste SKA Infrastruktuur Grondgebied vereis, ten einde nie die toepaslike beskermingsvlakke in die Radio-astronomie Beskermingsvlakke Regulasies, 2012, voorgeskryf, te oorskry nie;

"SKA Infrastruktuur Grondgebiede" die beskermingsgange in die Karoo Sentrale Astronomievoordeelgebied 1 soos in Bylae A gedefinieer en die sirkelvormige gebied met 'n 20km straal om die SKA Virtuele Middelpunt;

"Wet op Elektrisiteitsregulering" die Wet op Elektrisiteitsregulering, 2006 (Wet No. 4 van 2006); en

"Wet" die Astronomy Geographic Advantage Act, 2007 (Act No. 21 of 2007);

2. Toepassing van die regulasies

- (1) Onderworpe aan sub-regulasie 3(3), sal hierdie regulasies van toepassing wees op enige nuwe elektriese infrastruktuur en toerusting binne die Karoo Sentrale Astronomievoordeelgebied 1.
- (2) Indien daar verskille tussen die Engelse en Afrikaanse weergawes van hierdie regulasies is, sal die Engelse weergawe voorrang geniet.

3. Voorwaardes vir elektriese infrastruktuur

- (1) Geen persoon mag enige elektriese infrastruktuur en toerusting binne die Karoo Astronomievoordeelgebied 1 oprig, installeer, bedryf of gebruik nie tensy dit aan hierdie regulasies voldoen en die betrokke bestuursgesag 'n permit daarvoor uitgereik het.
- (2) Alle nuwe elektriese infrastruktuur en enige elektriese toerusting wat in verband daarmee gebruik word -
 - (a) mag nie elektromagnetiese steuring aan die SKA Infrastruktuur Grondgebiede veroorsaak wat die beskermingsvlakke in die Radioastronomie Beskermingsvlakke Regulasies, 2012, voorgeskryf, oorskry nie, en
 - (b) moet met 'n minimum skeidingsafstand volgens regulasie 8 van hierdie regulasies bepaal, van die naaste SKA Infrastruktuur Grondgebied verwyderd wees.
- (3) Elektriese infrastruktuur met 'n elektriese kragvermoë van minder as 10 kVA, geleë op 'n afstand van meer as 6 km vanaf die naaste SKA Infrastruktuur Grondgebied, word vrygestel van die vereiste om 'n permit te verkry en te beskik en om die inligting wat in sub-regulasie 6(2) verlang word, te verskaf tensy daar bevind word dat steuring veroorsaak word.
- (4) Elektriese infrastruktuur met 'n elektriese kragvermoë van meer as 10 kVA maar nie meer as 'n 100 kVA nie, geleë op 'n afstand vanaf die naaste SKA Infrastruktuur Grondgebied van meer as dit om deur die Minister voorgeskryf te word vir die verskillende soorte fasiliteite of toerusting, moet 'n permit te bekom, maar word vrygestel om aan sub-regulasie 6 van hierdie regulasies te voldoen onderworpe daaraan dat elektromagnetiese steuring nie veroorsaak word nie.

4. Bykomende voorwaardes vir elektrisiteitsopwekking deur middel van windturbines

- (1) Bykomend tot die voorwaardes in regulasie 3, mag geen persoon 'n windgedrewe elektriese turbine-opwekker met 'n kapasiteit van 10kVA of meer binne enige radiosiglyn van die SKA Infrastruktuur Grondgebiede oprig nie.
- (2) Om vas te stel of daar 'n radiosiglyn toestand bestaan, moet 'n topografiese terreinprofiel geteken word tussen -
 - (a) die maksimum hoogte bo seevlak van die punt van die turbinelem op die opwekker; en
 - (b) die grond hoogte bo seevlak plus 15 meter by die naaste punt van enige SKA Infrastruktuur Grondgebiede of enige ander punt binne die SKA Infrastruktuur Grondgebiede indien dit nodig geag word deur die betrokke bestuursgesag as 'n gevolg van die topografie tussenin;met die gebruik van ten minste 'n 20 meter resolusie digitale terreinmodel vir die gebied en met inagneming van die grondgeleiding in die Karoo Sentrale Astronomievoordeelgebied 1.
- (3) Indien die bepaling in sub-regulasie (2) deur die moontlike gebruik van nie-weerkaatsende turbinelemme beïnvloed mag word, of indien 'n radiofrekwensiesteuringsbron wat weerkaats mag word, moontlik nie bestaan nie, moet 'n waardebepaling met berekeninge of metings nogtans uitgevoer word om te bevestig dat die toepaslike beskermingsvlakke soos in die Radioastronomie Beskermingsvlakke Regulasies, 2012, voorgeskryf, nie oorskry sal word nie.

5. Bykomende voorwaardes vir elektriese krag distribusie- en transmissiestelsels

- (1) Benewens die voorwaardes in regulasie 3 van hierdie regulasies, mag geen persoon enige nuwe oorhoofse elektriese krag distribusie- of transmissiestelsels oprig of installeer nie met 'n spanningsvermoë -
 - (a) gelyk aan of groter as 66 000 Volt binne 16 km van die SKA Infrastruktuur Grondgebiede; en

- (b) minder as 66 000 Volt binne 6 km van die SKA Infrastruktuur Grondgebiede.
- (2) Ondanks voldoening aan sub-regulasie (1), mag die elektriese krag distribusie- of transmissiestelsel nie elektromagnetiese steuring aan die SKA Infrastruktuur Grondgebiede veroorsaak wat die voorgeskrewe beskermingsvlakke in die Radioastronomie Beskermingsvlakke Regulasies, 2012, oorskry nie.

6. Aansoek en voorwaardes vir 'n permit

- (1) 'n Aansoeker vir 'n permit, in subregulasie 3(1) moet sy aansoek by die bestuursgesag of die mede-bestuursentiteit vir die Karoo Sentrale Astronomie-voordeelgebied 1 indien.
- (2) Die aansoek in sub-regulasie (1) beoog, moet die volgende bevat-
- (a) 'n ontwerpverslag vir die voorgestelde nuwe infrastruktuur en 'n lys van al die elektriese toerusting wat geïnstalleer of gebruik gaan word;
 - (b) 'n "GIS-shape" lêer of elektronies getabuleerde data van die voorgestelde ligging van die nuwe infrastruktuur, insluitend die hoogte van die grondvlak bo seevlak en die maksimum hoogte van die nuwe infrastruktuur bo grondvlak;
 - (c) die elektromagnetiese uitstraling bepaal volgens regulasie 3(3);
 - (d) die nodige minimum skeidingsafstand; en
 - (e) die lys van geografiese liggings waar daar nie aan die vereiste skeidingsafstand nie aan voldoen word nie.
- (3) Die bestuursgesag of die medebestuursentiteit moet die aansoek oorweeg en die aansoeker nie later nie as sestig (60) dae na die ontvangs van die aansoek skriftelik van sy besluit in kennis stel.
- (4) Indien die gesag of die entiteit wat die aansoek oorweeg tevrede is dat die elektriese infrastruktuur en enige elektriese toerusting wat in verband daarmee gebruik word aan regulasies 3, 4 en 5 voldoen, moet daardie gesag 'n permit aan die aansoeker uitreik.
- (5) As die aansoek nie voldoen aan regulasies 3, 4 en 5 nie, moet die gesag of entiteit die aansoeker toelaat om binne dertig (30) dae vanaf die datum van die versoek, besonderhede te verstrek oor die

beperkingsmetodes wat die aansoeker sal toepas om aan die regulasies te voldoen.

- (6) Die betrokke bestuursgesag of entiteit wat die aansoek oorweeg, moet die beperkingsmetodes in ag neem en 'n besluit op die aansoek neem nie later nie as sestig (60) dae na die ontvangs van die aansoek
- (7) As die gesag of die entiteit besluit om die permit toe te staan,
 - (i) moet die gesag of entiteit die permit uitreik; en
 - (ii) die permit moet al die voorwaardes insluit waaraan die aansoeker moet voldoen met betrekking tot die elektriese infrastruktuur en die konstruksie, installasie of bedryf daarvan.
- (7) As 'n persoon aan wie 'n permit uitgereik is sy bedryf staak of ophou om enige elektriese infrastruktuur waarmee die permit verband hou, te gebruik, dan moet daardie persoon binne drie maande na die staking van gebruik of die sluiting, geskrewe kennis daarvan gee aan die gesag of entiteit wat die permit uitgereik het.

7. Bepaling van elektromagnetiese uitstralingsvlakke

- (1) Vir die doeleindes van hierdie regulasies, moet elektromagnetiese uitstraling bepaal word met verwysing na enige toepaslike SANS standaard of 'n standaard wat kragtens die Wet op Elektrisiteitsregulering voorgeskryf is.
- (2) Indien die uitstraling nie bepaal is soos in sub-regulasie (1) beoog nie, of die uitstraling is anders as dit wat in die toepaslike standaard gespesifiseer is, moet 'n gedetailleerde metingsverslag van die werklike uitstralingsvlakke op die toepaslike SANS meetstandaarde gebaseer of 'n metingsverslag van 'n geakkrediteerde metingslaboratorium in Suid-Afrika of in 'n ander land, deur die aansoeker verskaf word aan die gesag of entiteit, tesame met ondersteunende dokumentasie.
- (3) Indien 'n toepaslike standaard, soos in sub-regulasie (1) of (2) hierbo beoog, nie beskikbaar is nie of geag om onvanpas te wees deur die betrokke bestuursgesag, en die onderneming om 'n metingsveldtog uit te voer is nie moontlik nie as gevolg van tegniese of ander redes,

dan moet die betrokke bestuursgesag of medebestuursentiteit bepaal watter standaard die mees geskikte is en gebruik moet word.

- (4) 'n Geskikte standaard kan ook kragtens artikel 37 van die Wet gevestig word.

8. Bepaling van minimum skeidingsafstande

- (1) Die bepaling van die minimum skeidingsafstand deur die aansoeker moet deur middel van fisiese metings of gerekenariseerde golfvoortplantingsberekeninge uitgevoer word om die vereiste frekwensie afhanklike verswakking van die elektromagnetiese steuring nodig te bepaal om enige steuring binne die SKA Infrastruktuur Grondgebiede wat die beskermingsvlakke in die Radio-astronomie Beskermingsvlakke Regulasies, 2012, voorgeskryf, te vermy.
- (2) Die verwysingshoogtes vir die metings- of voorspellingsproses is -
- (a) die maksimum hoogte bo seevlak van die elektriese infrastruktuur; en
 - (b) die grondhoogte bo seevlak plus 15 meters by enige toepaslike ligging binne die SKA Infrastruktuur Grondgebiede.
- (3) Die bepaling van die skeidingsafstand moet op die volgende kriteria gebaseer wees:
- (a) Die betrokke ITU Aanbevelings oor golfvoortplanting.
 - (b) Die steuringsvlak wat nie vir meer as 5% van die tyd oor 'n tydperk van 24 uur oorskry sal word nie.
 - (c) Die gebruik van 'n isotropiese antenne met 0 dB wins by die betrokke punt binne die SKA Infrastruktuur Grondgebiede.
 - (d) Die gebruik van 'n digitale terrein model met die beste resolusie beskikbaar.
 - (e) Die grondgeleiding binne die Karoo Sentrale Astronomievoordeelgebied 1.
 - (f) Die elektromagnetiese uitstralingsvlak volgens regulasie 7 in hierdie regulasies bepaal wat die hoogste steuringsvlak sal veroorsaak.

- (4) Die benodigde frekwensie afhanklike verswakking van die elektromagnetiese steuring om gebruik te word om die minimum skeidingsafstand te bepaal, is die verskil tussen die hoogste elektromagnetiese uitstralingsvlak volgens regulasie 7 van hierdie regulasies bepaal wat die hoogste steuringsvlak sal veroorsaak en die toepaslike beskermingsvlak in die Radioastronomie Beskermingsvlakke Regulasies 2012, voorgeskryf.
- (5) Die minimum skeidingsafstand moet bepaal word deur die gebruik van die toepaslike ITU Aanbeveling vir radiogolf voortplanting en die benodigde verswakking van die elektromagnetiese steuring in subregulasie 8(4) van hierdie regulasies bepaal.

9. Prosedures om elektromagnetiese steurings op te los

In die geval dat elektromagnetiese steuring veroorsaak word deur elektriese infrastruktuur of elektriese toerusting wat vrygestel is van hierdie regulasies kragtens sub-regulasies 3(3) of 3(4) van hierdie regulasies of deur elektriese infrastruktuur of elektriese toerusting waarvoor 'n permit uitgereik is, as gevolg van foute of beperkings op die akkuraatheid van berekeninge om skeidingsafstande te bepaal, dan sal die volgende kriteria en prosedures van toepassing wees –

- (1) Die betrokke bestuursgesag moet 'n volledige metingsverslag aanvra wat op die werklike elektromagnetiese steuringsvlakke volgens die toepaslike SANS meet standarde gebaseer is, of 'n ander toepaslike standaard soos deur die betrokke bestuursgesag bepaal, wat saam met ondersteunende dokumentasie aan die bestuursgesag of die medebestuursentiteit verskaf moet word deur die persoon wat die eienaar is van die infrastruktuur of elektriese toerusting.
- (2) As die persoon wat die eienaar van die elektriese infrastruktuur of elektriese toerusting is, nie in staat is om die verslag te voorsien nie, dan moet die bestuursgesag of die medebestuursentiteit reël dat die metings gedoen word, met die koste daarvan deur die eienaar van die infrastruktuur of elektriese toerusting gedek, om te bepaal tot watter mate die toepaslike beskermingsvlak in die Radio-astronomie Beskermingsvlakke Regulasies, 2012, voorgeskryf, oorskryf word.

- (3) Die elektromagnetiese steuring moet verminder tot onder die toepaslike vlak in die Radio-astronomie Beskermingsvlakke Regulasies, 2012, voorgeskryf, deur die vereiste minimum skeidingsafstand daar te stel volgens regulasie 8 van hierdie regulasies of om gepaste beperkingsmaatreëls rondom die bron van die elektromagnetiese steuring te implementeer.
- (4) 'n Permit moet word deur die bestuursgesag uitgereik word waarin die voorwaardes vir die voortgesette bedryf van die elektriese infrastruktuur of elektriese toerusting gespesifiseer word.

10. Ligging van die SKA Virtuele Middelpunt en beskermingsgange

- (1) Die geografiese ligging van die SKA Virtuele Middelpunt is onderhewig aan hersiening en finalisering binne 12 maande na die uitvaardiging van hierdie regulasies.
- (2) Die beskermingsgange in die Karoo Astronomievoordeelgebied 1 is onderhewig aan jaarlikse hersiening in ooreenstemming met vordering in die ontwikkeling van die SKA met die doel om hulle uit te faseer en om slegs die beskerming van die radio astronomie stasies binne die gange geleë, te vereis.

11. Misdrywe en strawwe

Enige persoon wat hierdie regulasies oortree, is skuldig aan 'n misdryf en by skuldigbevinding strafbaar met 'n boete van hoogstens R1 000 000 (een miljoen rand) of gevangenisstraf of 'n boete en gevangenisstraf.

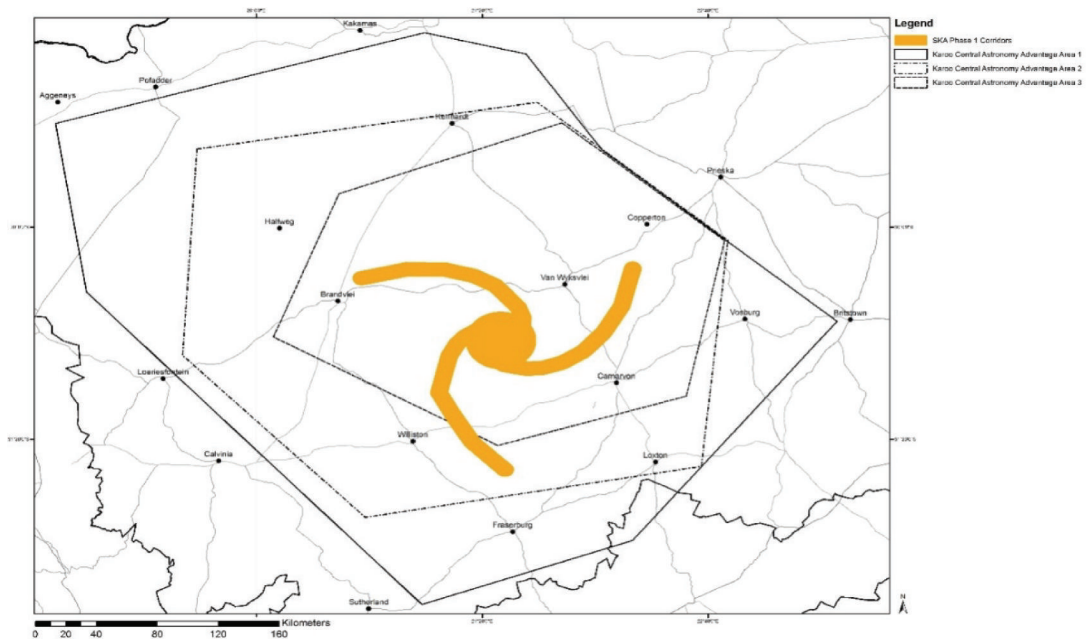
12. Kort titel en inwerkingtreding

Hierdie regulasies heet die Regulasies om Elektromagnetiese Steuring binne die Karoo Sentrale Astronomievoordeelgebied 1, te beperk, 2015, en sal op 'n datum in werking tree om deur die Minister bepaal te word met 'n kennisgewing in die Staatskoerant.

BYLAE A**Kaart van die Beskermingsgange waarin die SKA Radio-astronomie Stasies binne Karoo Sentrale Astronomievoordeelgebied 1 geleë is**

Die kaart hieronder beeld die 20-kilometer straal sirkel rondom die SKA Virtuele Sentrum uit, waarbinne ongeveer 173 SKA radio-astronomie stasies geplaas sal word. Die kaart toon ook drie beskermingsgange wat nodig is vir ongeveer 24 SKA radio-astronomie stasies binne die Karoo Sentrale Astronomievoordeelgebiede 1 geleë. Die beskermingsgange word benodig vir die SKA-opset ontwikkelingsproses met die verloop van tyd.

'n Kleiner skaal weergawe van die kaart hieronder en / of 'n GIS-vorm lêer is op versoek beskikbaar van die bestuursgesag of mede-bestuursentiteit. Die buitengrense van die gange is op 'n afstand van 5 km aan weerskante van die spiraal arms waarlangs die SKA-stasies geplaas sal word.



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