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**Independent Communications Authority of South Africa**

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Your reference  
M Mchunu

Our reference  
Peter Grealy / Serenta Govender  
1790174

Date  
29 May 2009

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Dear Sir

**Comments in respect of Draft Radio Frequency Spectrum Fee Regulations**

**1. Introduction**

1.1 We act on behalf of INR South Africa (Proprietary) Limited ("**INR South Africa**").

1.2 INR South Africa currently holds a radio frequency spectrum licence, licence number 501-680-0 ("**the Licence**"), which was issued in respect of a single unmanned, receive-only fixed earth station in the Earth Exploration Satellite Service. The Licence was first issued to INR South Africa on 23 June 2006. The Licence was renewed in January 2009 for a further 1 (one) year term and is currently due to expire on 31 December 2009.

1.3 As a licensee, INR South Africa has a vital interest in the Draft Radio Frequency Spectrum Fee Regulations published in Government Notice 304 of 2009 (dated 16 March 2009) ("**the Draft Fee Regulations**") and is pleased to have the opportunity to comment on the proposed regulations as set out in the Draft Fee Regulations.

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Senior Partner: DM Lancaster Partners: BL Adams RB Africa NG Alp JP Araujo B Aronoff BA Baillie J Banoobhai JM Bellew DHL Booysen AR Bowley PG Bradshaw JL Buckland MS Burger A Christie RS Coelho KM Colman CD Coquelle K Couzyn Z Dasoo JH Davies JHB de Lange M Denenga W de Waal BEC Dickinson DA Dingley HJ du Preez CP du Toit G Edwards JC Els MJR Evans JS Ferraz-Cardoso GA Fichardt LC Fitton JB Forman CP Gaul CL Gliomee LD Goldberg CI Gouws JP Gouws PD Grealy SN Gumedede VW Harrison MH Hathorn B Heever WA Hiepner NA Hlatshwayo S Hockey CM Holfeld PM Holloway SJ Hutton AR James S Jooste N Joubert M Kennedy A Keyser JE King HB Kruger R Kruger J Lamb PSG Leon DB le Roux L Marais BA Matheson S McCafferty MC McIntosh SI Meltzer CS Meyer AJ Mills JA Milner D Milo NN Moshesh MM Mtshali PMP Ngongo MB Nzimande NJ Osburn N Paige AS Parry GR Penfold NJA Robb DR Scholtz JW Scholtz KE Shepherd DH Short GM Sibanda AJ Simpson K Sloth-Nielsen L Stein PS Stein LJ Swaine ER Swanepoel A Toefy D Vallabh PZ Vanda GJ van der Linde JP van der Poel MG Versfeld TA Versfeld IR Vos JWL Westgate BT Williams RH Wilson M Yudaken  
Chief Operating Officer: WMH Thompson

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## 2. Background

### 2.1 Company information

INR South Africa is a wholly owned subsidiary of Raytheon Company ("**Raytheon**"), a company established under the laws of Delaware, USA and having its principal place of business at Waltham, Massachusetts, USA. Raytheon has been awarded a contract to implement and operate the National Polar-orbiting Operational Environmental Satellite System ("**NPOESS**") in South Africa.

### 2.2 National Polar-orbiting Operational Environmental Satellite System

2.2.1 The NPOESS is a low earth orbiting Earth Exploration Satellite Service ("**EESS**") system with remote sensing capability. The satellite system will rely on 15 (fifteen) geographically dispersed receive-only earth station locations and third-party data communications services to send the information to the United States for processing into accessible and archivable data records. INR South Africa plans to operate the licensed earth station in South Africa as part of a private communications network. The private communications network will not be connected to the public switched telephone network and will be used solely for purposes integrally related to the operations of INR South Africa.

2.2.2 Raytheon holds a sub-contract on the NPOESS program by which it is responsible for the ground segment of the NPOESS as a whole. In this regard, Raytheon will provide the ground segment to its customers within the U.S. Government, namely the U.S. National Oceanic and Atmospheric Administration ("**NOAA**") and the NPOESS Integrated Program Office ("**IPO**")<sup>1</sup> on an integrated turn-key basis.

2.2.3 Accordingly, as a principal element of its parent company's turn-key product, INR South Africa will control and operate the proposed earth station in South Africa, and relay data received by the earth station back to the United States through unaffiliated, duly authorized service providers. Following receipt of

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<sup>1</sup> The IPO reports organizationally within the U.S. Department of Commerce (DOC), National Oceanic and Atmospheric Administration's (NOAA), National Environmental Satellite, Data and Information Service (NESDIS) and is staffed from three U.S. Agencies: NOAA, the U.S. Department of Defense (DoD), and the National Aeronautics and Space Administration (NASA).



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the data in the United States, Raytheon will process this information into Environmental Data Records. The NPOESS system equipment deployed at the earth station site will be controlled and operated by INR South Africa.

2.2.4 As stated in paragraph 2.2.1 above, the location at which the licensed receive-only earth station will operate in South Africa is one of 15 (fifteen) strategically located earth stations to be constructed around the globe. The Licence granted to INR South Africa was anticipated through a change to the South Africa table of frequency allocations in 2004 to accommodate an NPOESS earth station in the 25.5-27.0 GHz band.<sup>2</sup> The earth station locations have been carefully selected so as to support timely downloading and processing of the vast amounts of data the NPOESS system will generate. By dramatically reducing the time between the sensing of data by in-orbit sensors and the processing of the data into Environmental Data Records, NPOESS will facilitate expedited access by U.S. and international users to atmospheric, meteorological, oceanographic, environmental and other information than is possible using polar-orbiting satellite systems currently in operation. The proposed earth station site in South Africa is the only site on the African continent and the private network INR South Africa will operate in South Africa will play a critical role in Raytheon's overall system architecture and the achievement of the foregoing objective.

### 2.3 **History and duration of the NPOESS program**

The very complex process that is the design and development of the NPOESS system began in earnest over 7 (seven) years ago after the U.S. government contracts were awarded to Raytheon and its partners. INR South Africa anticipates that the project will extend over a number of years prior to launch. In this regard, the first NPOESS satellite is expected to be launched in March 2014, while the NPOESS system will continue to operate well into the decade of the 2020's.

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<sup>2</sup> See Appendix A of the Notice in terms of section 29 of the Telecommunications Act, 103 of 1996, regarding the South Africa Table of Frequency Allocations. (Government Gazette No. 26584, Notice No. 1442, page 63, published on 15 July 2004).



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## 2.4 **Selection of a single frequency band for operation worldwide**

A key element in the design and development of, as well as general planning for, the NPOESS system are the common frequencies on which the NPOESS will operate and the geographic location of the earth stations. It is, therefore, vitally important that INR South Africa retain the frequencies (26.55 GHz – 26.85 GHz) for a significant period of time, so as to ensure the successful design and development of the network, as well as the successful operation of the sensors and other components of the spacecraft and earth station antenna system, after satellite launch. The satellites will use the same frequency band to download data to all fifteen earth stations worldwide. Licenses have already been issued for the majority of the earth stations to be located outside the United States, and the process of obtaining licenses is well advanced in the remaining countries.

## 2.5 **Public interest benefits of NPOESS**

2.5.1 The NPOESS system will provide a host of public benefits to South Africa and the world. The remote sensing data collected by the NPOESS system will allow: the improvement of long-term weather forecasting;<sup>3</sup> disaster warning and monitoring such as predicting where severe oceanic storms make landfall; monitoring, understanding and predicting the effects of climate change; oceanic and temperature measurements which will benefit the fishing and shipping industries; monitoring of forest fire particulates and volcanic ash clouds which will improve the ability of responsible agencies to issue aviation warnings; forecasting of “space weather” in the near-earth environment where communications satellites reside and that may impact electric power generation; monitoring of the ozone layer; low to moderate resolution, non-optical imagery which can provide benefits to agriculture; and a myriad of additional scientific and economically beneficial applications.

2.5.2 The processed data records from the NPOESS system will be made freely available to interested users around the globe by the US Government. Accordingly, organizations such as the South African Weather Service and the Oceanographic Research Institute will be able to benefit from the launch of the NPOESS system. NPOESS data records will not be sold for a profit

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<sup>3</sup> Long-term forecasting is defined currently as greater than 3 to 5 days. The NPOESS system will extend today's levels of forecasting accuracy over such periods to 5 to 7 days.



but will be made freely available to all under U.S. Government policy. In this regard, it should be noted that the NPOESS generally, and the operation of the licensed EESS earth station specifically, is not a commercial venture within South Africa. Rather, the proposed construction of an earth station is integral to a project of great public benefit.

## 2.6 **NPOESS and national and international policies and objectives**

2.6.1 NPOESS is a key component of the Global Earth Observation System of Systems (“**GEOSS**”), an international distributed network of space- and ground-based monitors which observe the earth's land, water, and air. NPOESS contributes data to the 9 (nine) societal benefit areas of this international effort. These benefit areas include: Human Health & Well Being, Natural & Human Induced Disasters, Weather Forecasting & Warning, Water Resources, Energy Resources, Climate Variability & Change, Sustainable Agriculture & Desertification, Ecosystems and Oceans. Over 76 (seventy six) countries participate in this effort, including South Africa, demonstrating both national and international interest in data sourcing and compilation efforts such as NPOESS.<sup>4</sup> The work of NPOESS and GEOSS is fully complementary to that of the South African Environmental Observation Network (“**SAEON**”), which was established in 2002<sup>5</sup>.

2.6.2 The hosting of a NPOESS earth station in South Africa and ensuring that the relevant Spectrum Fee Regulations complement such a program is wholly consistent with the goals of South Africa's National Space Policy, established by the Department of Trade and Industry in March 2009. As the National Space Policy document explains:

*"Moreover, the country is critically reliant on space science and technology, as space-based systems deliver information and services that protect lives and the environment, enhance prosperity and security, and stimulate scientific, industrial and economic development. In order to maximise the benefits of space science and technology for sustainable development, South Africa requires a guiding framework in*

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<sup>4</sup> Underscoring the importance of GEOSS to the nation, in November 2007, South Africa hosted the Group on Earth Observations (“**GEO**”) Ministerial Summit in Cape Town. GEO manages the development of the GEOSS.

<sup>5</sup> For further information in this regard, please visit <http://www.saeon.ac.za/>



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*the form of a policy and a central institutional framework (an agency) that will streamline the development and maintenance of a set of appropriate, efficient and robust space capabilities. These capabilities will be realised through co-ordination and co-operative governance, in addition to partnerships and linkages with other nations in areas of mutual interest, for the peaceful uses of outer space.”<sup>6</sup>*

- 2.6.3 In this regard, INR South Africa anticipates that the NPOESS earth station, as described above, will help “*deliver [to South Africa] information and services that protect lives and the environment, enhance prosperity and security, and stimulate scientific, industrial and economic development.*” Policies and regulations that promote the cost effective operation of the NPOESS earth station by INR South Africa will help “*maximise the benefits of space science and technology for sustainable development*” and reflect co-ordination and cooperation between countries in their “*mutual interest*”.

### 3. Overview of and general comments

- 3.1 In terms of the Draft Fee Regulations, the Independent Communications Authority of South Africa (“**ICASA**”) proposes to update its Radio Frequency Spectrum Fee Regulations for licenses issued under the Electronic Communications Act, 2005 (“**ECA**”). The Draft Fee Regulations and accompanying Discussion Document considers proposals made to ICASA during the drafting process and reaches several tentative conclusions regarding the Regulations in respect of a variety of types of spectrum licenses. However, an earth station in the Earth Exploration Satellite Service (“**EESS**”) is not among the types of stations for which spectrum fees or a spectrum fee formula has been proposed. As set out below, INR South Africa advocates the adoption of regulations specifically applicable to EESS earth stations which will reflect the public benefit resulting from such applications, including the possible waiver of spectrum licence fees.<sup>7</sup>
- 3.2 The Draft Fee Regulations and the associated Discussion Document recognize the multi-faceted considerations taken into account by ICASA in setting spectrum license fees and considers the different theories under which prices may be set.

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<sup>6</sup> South Africa's National Space Policy, March 2009, page 6.

<sup>7</sup> INR South Africa makes no comment on the propriety of this or any other fee for earth stations used in the provision of commercial broadcast or cable services or used in the provision of common carrier-like voice, data or other communications services.



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In particular, ICASA has recognized an important link between fees and administrative costs.<sup>8</sup>

- 3.3 INR South Africa submits that, as a general matter, annual spectrum fees should be set only to recover the regulatory costs incurred by ICASA in the fulfilment of its obligations. Notionally, such costs would include those associated with enforcement, policy and rule-making, user information, international coordination and related activities. INR South Africa submits that in certain circumstances, for example where a spectrum (especially in lower frequency bands, say below 3 or 5 GHz) is utilised for commercial mobile applications or competitive wireless local loops, it may be appropriate to have the fees reflect the economic value of the spectrum. In this regard, the setting of appropriate fees when there are competing uses for a band can help deter spectrum hoarding and promote efficient uses of spectrum.
- 3.4 However, spectrum fees should not be developed in a monolithic fashion, driven ubiquitously by considerations pertinent to competitive retail services that can be deployed in numerous – but not all – frequency bands by using a variety of licensing approaches. INR South Africa submits that, where the provision of wireless voice, data, or video services direct to the public is not the intended use for a specific license, the regulatory cost variant of “administrative pricing” as set out in the Draft Fee Regulations<sup>9</sup> should be regarded as the appropriate pricing model. In other words, the setting of fees should be unrelated to market considerations. This is especially the case where a licence is to be used in a “non-commercial” fashion, but will make available data that have a multitude of public benefits, as is the case with the proposed NPOESS system. Accordingly,, if a spectrum fee is to apply, the setting of fees for EESS services such as NPOESS should be specifically designed to contribute a share of the costs of spectrum management and monitoring activities which will advance the public interest and further ICASA’s objective - as set out in the Discussion Document - that fee regulations should not hinder economic development but should promote innovation and the dispersal of economic activity throughout the country. In light of the myriad benefits to be derived from NPOESS, INR South Africa submits that economic development will be promoted throughout the country by keeping the

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<sup>8</sup> Draft Fee Regulations, page 5.

<sup>9</sup> Draft Fee Regulations, page 6



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fees applicable to the NPOESS earth station at levels needed to cover likely administrative costs.

#### 4. **Spectrum fees should not apply to EESS**

##### 4.1 **General**

4.1.1 As discussed above, the Draft Fee Regulations and Discussion Document do not propose a specific set of spectrum fees relevant to EESS system. In this regard, INR South Africa proposes that satellite receive-only earth stations, such as one utilised by NPOESS, which support scientific and research purposes in South Africa, should not be subject to any spectrum licence fee at this time. INR South Africa submits that this regulatory waiver of spectrum fees should apply both before they become operational and in the period after they commence operation.

4.1.2 As a result of the many and varied uses to which NPOESS data may be applied, the EESS Licence held by INR South Africa will promote economic development, innovation, and the dispersal of economic activity in South Africa. These benefits are likely universal to EESS applications, although the degree and breadth of benefit will vary depending upon the nature of the EESS program. INR South Africa submits that ICASA should adopt a regulatory fee structure that does not impede the anticipated benefits of EESS systems and further, where the degree of public benefit is large, as it is in the case of NPOESS, INR South Africa suggests that spectrum fees should be subject to waiver in their entirety.

##### 4.2 **A waiver of spectrum fees prior to NPOESS satellite launch is warranted**

4.2.1 INR South Africa is of the view that the waiver of spectrum licence fees prior to the operation of the EESS system is justifiable because of the long lead times inherent in satellite design and development. These systems must select frequencies for downlink channels well in advance of actual launch of the satellites. As noted in paragraph 2.4 above, the NPOESS system must use common frequencies to downlink data to the 15 (fifteen) earth stations of the ground segment worldwide. In conjunction with this selection and in order to ensure proper operation, operators must take concrete steps toward licensing years in advance in order to ensure the contemplated spectrum will



be available for use once the satellites become operational. For this reason, INR South Africa has acted to secure the Licence in South Africa, as it has in a number of other countries where NPOESS earth stations will be located. This is despite the fact that the launch of the first NPOESS satellite is not expected for several more years.

4.2.2 INR South Africa further submits that, despite the fact that a licence has been granted in respect of a specific frequency, for the reasons set out above, public policy warrants a waiver of any spectrum fees that might otherwise apply for the period during which the spectrum is not actively utilised. The primary reason for such waiver is that the agency spectrum management and monitoring activities carried out by ICASA in respect of such frequencies are now at a minimum and require little effort by ICASA until such time as the operation of the NPOESS earth station commences.

4.2.3 The need for a system such as NPOESS to obtain a licence well in advance of operation is easily distinguished from spectrum warehousing. Spectrum warehousing is a speculative activity, i.e. that demand will emerge to justify putting the licensed spectrum into use. In such a scenario, it is quite conceivable that the spectrum may never be put into use as licensed or that such use will be delayed indefinitely. However, the application for a licence well in advance of an EESS satellite launch is a prudent, if not necessary measure to ensure the satellite will be capable of operation within a specific frequency once the time arrives. Given the function of an EESS system such as NPOESS and considering the advanced stage of design and development of the NPOESS program, there is no doubt that the spectrum in question will be utilized once the first NPOESS satellite is in orbit. As previously stated, the earth station to be located in South Africa is the only station on the continent of Africa and is critical to the development of timely environmental data records concerning the African continent, the western Indian Ocean, the south eastern Atlantic Ocean and the waters south of the continent.

#### 4.3 **A waiver of spectrum fees subsequent to launch is also warranted**

INR South Africa proposes further that a general waiver which would apply during the operation of the EESS NPOESS earth station is also merited. As noted in paragraph 2.5 above, NPOESS will produce numerous data records that will be of great benefit to South African business and society, as well as to the international



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community at large. As a result of these tremendous advantages for South Africa and given that these data records will be available without charge pursuant to U.S. Government policies, INR South Africa contends that a waiver of the spectrum licence fee for the entire period of operation is warranted. In addition, EESS systems that yield similar benefits should also be eligible for a fee waiver during their period of operation.

**5. If spectrum fees are adopted for EESS Stations, a number of adjustments to the application of Unit Fees (per MHz) should be clearly promulgated**

5.1 At a minimum, if ICASA does not believe that a general waiver of spectrum fees for EESS earth stations is appropriate, ICASA should make clear in its final regulations that where the spectrum use is for the public benefit (and not for the provision of commercial services to the public for a profit), fees should be set principally to recover regulatory costs and be subject to a number of fee reducing factors, as outlined below. The application of such factors will result in the payment of a substantially lower fee for EESS spectrum authorizations, such as the Licence, which is appropriate when considering their public benefit and non-commercial nature.

5.2 As stated above, the proposed spectrum fee regulations do not clearly state what fees, in the absence of a waiver, would apply to EESS earth stations. The closest model, although an imperfect one, is that for Very-Small Aperture Terminals (“**VSATs**”) which the Discussion Document suggests should be equal to the Unit Fee (per MHz) times the bandwidth (BW)<sup>10</sup>. Assuming *arguendo* that the VSAT fee as proposed, were to apply to EESS earth stations the annual fee payable in respect of the NPOESS earth station (which will operate with a 300 MHz bandwidth, 26.55-26.85 GHz) would be R 600 000.<sup>11</sup> This exorbitant amount would needlessly and unjustifiably increase the operational costs of the NPOESS operation.

5.3 Accordingly, INR South Africa believes that the VSAT model is inappropriate for EESS systems for a variety of reasons. VSATs are typically used to support commercial operations such as point of sale credit card transactions and have

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<sup>10</sup> Draft Fee Regulations, pages 28-29

<sup>11</sup> Section 7.5.1 of the Draft Fee Regulations proposes to set the Unit Fee at R2000. Draft Fee Regulations at page 22.



much smaller data rates than the planned EESS NPOESS earth station. NPOESS requires tremendous download rates in order to yield the benefits described above. If a waiver of fees for EESS systems is not adopted, rather than apply to EESS earth stations a simple formula that multiplies bandwidth by the unit spectrum fee (per MHz), INR South Africa submits that ICASA should apply a number of factors to EESS earth station spectrum fees using the Unit Fee times Channel Bandwidth in MHz as the starting point.

5.4 We set out below a number of factors which, in our view, should be applied to EESS earth stations in a ***cumulative*** fashion:

5.4.1 a public interest factor in certain circumstances;

5.4.2 a degree of sharing factor;

5.4.3 a geographic factor;

5.4.4 a discount for large bandwidth factor in certain circumstances;

5.4.5 a frequency band factor; and

5.4.6 a multi-year operation factor.

5.5 Further, the area sterilized (“**ASTER**”) factor should not apply to EESS earth stations where the licensee is amendable to co-channel coordination and continues to demonstrate this commitment over the years.

5.5.1 **Public interest**

Apart from instances in which EESS earth stations are found to be directly in support of a retail or wholesale service offering, EESS earth station spectrum fees should be subject to a fee reduction of 50% independent of any other adjustments. This reduction should reflect the general public interest benefits expected from the operation of the station.

5.5.2 **Shared use factor and inapplicability of an ASTER factor**

5.5.2.1 We are further of the view that where a license is authorized on a single-site specific basis (as opposed to a geographic area basis) and where the spectrum is subject to shared use (whether or not there currently are other users), this will warrant a further fee reduction.



While the NPOESS earth station will operate under primary status re ICASA regulations and the South Africa National Table of Frequency Allocations, the Licence is not exclusive. Shared use will therefore be possible, subject to coordination. INR South Africa proposes that the reduction factor of 50%, as proposed in the Draft Fee Regulations<sup>12</sup>, should apply to EESS stations that do not operate on an exclusive basis and are not licensed on a geographic basis, i.e. are licensed on a site-specific basis.

5.5.2.2 INR South Africa submits further that EESS stations should receive a waiver from any ASTER factor that is applied to a licence, provided that the station operator displays a willingness to work coordination issues in good faith<sup>13</sup>. In this regard, a waiver will be appropriate to the extent that practice shows that the EESS station is not effectively sterilizing the use of the spectrum. At most, and in light of the public interest benefits flowing from EESS systems such as NPOESS, the ASTER factor applicable to EESS systems should never exceed 2 (two).

### 5.5.3 **Geography**

Where EESS earth stations are located outside of major urban areas, such as Johannesburg, Cape Town, or Durban, it is our view that they should be eligible for a further reduction up to an additional 50%. Accordingly, INR South Africa submits that the geographic factors proposed by ICASA in section 7.2.3 of the proposed regulations are appropriate and should be fully applicable to EESS earth stations<sup>14</sup>.

### 5.5.4 **Discount for large bandwidth**

5.5.4.1 It should further be taken into account that the large bandwidth of the planned NPOESS station in the Ka band – 300 MHz – is a function of the limited windows of time for communication<sup>15</sup> and the large amounts

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<sup>12</sup> Draft Fee Regulations, pages 15-16

<sup>13</sup> Draft Fee Regulations, pages 16-17.

<sup>14</sup> Draft Fee Regulations, pages 14-15.

<sup>15</sup> Because the NPOESS satellites are polar-orbiting, communications between the satellites and the earth stations will be of quite limited extent during any pass-over of the satellite and will vary over a seventeen day cycle before repeating the same paths through the sky as observed from a given earth station location. The lower the satellite appears in the sky at its highest point during a given pass-over, the shorter the window for communications.



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of data to be downlinked, on the order of 8 (eight) to 10 (ten) terabytes of data each day. As such, it represents an efficient operation despite the otherwise relative scale of the channel bandwidth. Accordingly, INR South Africa advocates that where an EESS station licensee can demonstrate the need for the channel bandwidth requested for efficient operation, it should receive a discount below the fee that otherwise applies, by multiplying the Unit Fee (per MHz) by the bandwidth.

5.5.4.2 Accordingly, even where ICASA adopts a linear bandwidth scaling factor as proposed<sup>16</sup>, EESS earth stations outside congested frequency bands (i.e. above the frequency bands 5 GHz) should enjoy a discount factor as described in this paragraph. INR South Africa observes, however, that the Draft Fee Regulations describes such a scheme as a “*discount for large bandwidth approach*”. In this regard, it would appear that ICASA is concerned that such a regulatory framework will do little to encourage spectrum efficiency. However, due to the nature of the NPOESS system, a large bandwidth is essential. Consequently, applying the “*discount for large bandwidth approach*” in this limited instance would not discourage efficiency nor send inappropriate signals to other operators, which are unlikely to make a similar case for the allocation of a large channel bandwidth.

5.5.4.3 INR South Africa proposes, therefore, that EESS systems able to demonstrate an appropriate need should be entitled to a 0.75 per MHz scaling factor for systems 50-150 MHz in total channel bandwidth and a scaling factor of 0.50 per MHz for systems with total channel bandwidths in excess of 150 MHz.

### 5.5.5 **Frequency band**

INR South Africa concurs that a frequency band factor is appropriate as proposed in the Draft Fee Regulations<sup>17</sup> and that this factor should apply to receive-only EESS earth stations despite the fact that they are not transmitting. The reason for this is that typically, the signal received by the EESS earth stations from the satellites will be rather close to the noise floor.

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<sup>16</sup> Draft Fee Regulations, page 12.

<sup>17</sup> Draft Fee Regulations, page 14.



As such, their potential interference impact on other users in the band will be minimal. Moreover, as noted in the Draft Fee Regulations, lower frequencies are more attractive due to lower infrastructure and power costs. EESS systems that operate at high frequencies are as entitled to the frequency proposed factor as any other radio systems. In the case of NPOESS, operating in the Ka Band, the frequency band factor of 0.1, as proposed for the 23-30 GHz band, should apply.

#### 5.5.6 **Multi-year operation**

5.5.6.1 As set out in paragraph 2.3 above, the design and development of an EESS station extends over a number of years. In the case of the NPOESS, the project has been under development since early in the decade, and INR South Africa anticipates that active operations are likely to continue well into the decade of the 2020s. Given that a key element in the design and development of, as well as general planning for, the NPOESS system are the frequencies NPOESS will operate on, it is vitally important that INR South Africa obtain and retain the licensed frequencies to ensure the successful operation of the project. While the Licence is currently renewed on an annual basis, INR South Africa proposes that to the extent that a spectrum fee is applicable, the licence fee payable should be commensurate with the anticipated length of the operation.<sup>18</sup> In other words, where licensees demonstrate that the license will be utilised for a significant period, licensees should be entitled to a commensurate reduction in renewal fees.<sup>19</sup>

5.5.6.2 While the multi-year factor would not apply precisely as proposed<sup>20</sup>, provided that INR South Africa certifies that the NPOESS program is expected to continue for at least 10 (ten) years, INR South Africa submits that the annual fee should be reduced commensurate with the average annual reduction available to multi-year licensees. Thus, using the figures provided in the draft regulations an EESS system that

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<sup>18</sup> INR South Africa anticipates that the NPOESS program will run for the better part of two decades and has requested an extended license term with renewal rights to reflect the anticipated duration of the program.

<sup>19</sup> On 16 October 2006, INR South Africa submitted a request to ICASA that the term of validity of the Licence issued under the ECA be extended to a period of approximately eight years, with the option to renew the Licence for an equal period upon expiration of the Licence. See *attached* letter of Webber Wentzel Bowens, Counsel for INR South Africa, to Chairperson, Independent Communications Authority of South Africa (dated 16 October 2006). That request is still pending.

<sup>20</sup> Draft Fee Regulations, pages 20-21.



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certifies operation is expected to continue for at least 10 (ten) years after launch will be allowed to apply a factor of 0.676 to its annual fee<sup>21</sup>. If, for whatever reason, the earth station does not operate for the full 10 (ten) years, a true-up fee should apply at the time the EESS earth station ceases operation.

**5.6 Fee waivers should still be available in limited circumstances upon a demonstrated showing of public benefit**

5.6.1 Finally, INR South Africa proposes that ICASA in adopting its final regulations for spectrum fees should recognize that while general regulations will be appropriate in most cases involving certain licenses types, there may be cases where a waiver of the rules is nonetheless appropriate. This is true for EESS, as all systems will not be the same nor yield the same degree of public benefit. In addition, there may be other services besides EESS where a waiver of the rules is appropriate in specific circumstances. Accordingly, INR South Africa submits that the final regulations should make explicit provision for a procedure, applicable to all non-commercial wireless services, for case-by-case waivers or exceptions from fees that would otherwise be applicable.

5.6.2 INR South Africa is sensitive to the flood of waiver applications that could be encouraged by such a statement. Accordingly, INR South Africa suggests that ICASA should make clear its intention that waivers will not be granted as a matter of course and will rarely, if ever, be granted to entities using the spectrum to provide commercial radio services in South Africa. In addition, in respect of those entities not providing commercial mobile or fixed radio services, ICASA should make clear that waiver requests must be accompanied by a compelling showing of sufficient public interest.

6. In closing, INR South Africa would like to thank ICASA for allowing it the opportunity to comment on the Draft Radio Frequency Spectrum Fee Regulations.

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<sup>21</sup> Draft Fee Regulations, page 21.



Yours faithfully

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