12 November 2024

Independent Communications Authority of South Africa (ICASA)

350 Witch-Hazel Avenue, Eco Point Office Park

Eco Point, Centurion

Subject: Submission by Globalstar, Inc. to the Consultation on the Proposed new Licensing Framework for Satellite Services in South Africa.

Dear ICASA Team,

Globalstar, Inc. hereby submits the attached comments in response to the Consultation on the Proposed new Licensing Framework for Satellite Services in South Africa as per Government Gazette No. 51044 of 14 August 2024.

Globalstar commends ICASA for its diligent work in developing proposed new rules that embrace the spirit of light-touch regulations whilst ensuring the continued co-existence of all services in South Africa.

Our team remains available for any additional questions or clarifications on this submission, and we thank ICASA for the opportunity to provide our inputs.

Sincerely,

Levin M. Born

Senior Consultant

12 November 2024

Response by Globalstar, Inc. to the Consultation on the Proposed new Licensing Framework for Satellite Services in South Africa

*by electronic mail and paper copy*

**Introduction and Overview of Globalstar, Inc.**

Globalstar, Inc. (“Globalstar”) hereby submits its response to the public consultation on the proposed new licensing framework for satellite services in South Africa as published by the Independent Communication Authority of South Africa (“ICASA”, or the “Authority”) in August of 2024.

We would like to open with a note of thanks to the Authority for its commitment to an open process in rulemaking and for inviting all stakeholders, both national and international, to respond to the consultation. Additionally, we would like to commend ICASA on a very thorough effort in drafting and proposing excellent revisions to the rules as pertain to satellite services and to express our support for implementing such new rules. The tone and intent of the proposed new licensing framework espouse key trends in the industry, including reducing barriers for international operators and supporting investments into infrastructure in South Africa.

Globalstar is a leading provider of global Mobile Satellite Services (“MSS”). Operating continuously in the S-Band and L-Band for more than two decades, our low-Earth orbit (“LEO”) non-Geostationary orbit (“NGSO”) system supports the delivery of reliable MSS to consumers, public safety personnel, and enterprise customers globally. Our network uses a ‘bent-pipe’ architecture with satellites that receive and transmit traffic between an expanding eco-system of mobile Earth terminals and a global network of Gateway Earth Stations (“GES”).

In addition to providing affordable, high-quality MSS to 760,000 of our own end user customers worldwide, Globalstar’s MSS network supports a revolutionary, direct-to-handset “Emergency SOS via Satellite” feature that is now available to users of the iPhone 14, the iPhone 15, and the iPhone 16 family of devices. This service allows users to initiate emergency communications through MSS transceivers containers in these iPhone models, and is currently available in seventeen countries globally[[1]](#footnote-1). On September 16, 2024, Apple announced that with iOS 18, users in the United States and Canada will be able to send non-emergency messages via satellite, including texts, SMS, emoji and tapbacks. Most recently, Globalstar announced an additional $1.7 Billion investment in an expanded mobile satellite network that will continue our innovation and evolution.

Finally, Globalstar notes that it has been fully licensed in South Africa for over ten years, and we hold multiple spectrum authorizations issued to us by ICASA to provide our MSS in the country, which represents our most important market in Africa.

**Responses and Comments**

Globalstar strongly supports ICASA’s core objective of “develop[ing] a transparent and streamlined regulatory framework with clear rules to establish regulatory certainty for potential satellite operators in South Africa” and commends the Authority on developing a draft new framework that aligns well with regional and international best practices, and which displays a clear understanding of the factors that impact satellite operators and service providers.

Primarily, Globalstar would like to express its keen support for the introduction of an administrative-only process for registering satellite systems in South Africa, and the adoption of a blanket licensing regime for user terminals operating in the MSS. Such rules ensure that there is both regulatory certainty for system operators whilst maintaining a light-touch approach that enables a quick introduction and adoption of new technologies.

**Question 1**

“These are the policy principles from the ATU that ICASA seeks to align with. Kindly provide comment(s) on the proposed policy principles and any further recommendations listed in the above section?”

Globalstar supports the adoption of the principles laid out by the ATU in the development of a new licensing framework for satellite services in South Africa. These principles are aligned with our belief that harmonized rules and simplified procedures create a predictable regulatory environment for system operators, whilst ensuring that administrations are able to maintain the necessary oversight within their sovereign territories.

In particular, Globalstar would like to express its support for the following:

* The harmonization of procedures across ATU member-states.
* Deferring to ITU registrations and coordination procedures for satellite systems.
* Transparency of rules.
* Blanket licensing for user terminals.
* The review and reduction of spectrum fees.

Further, Globalstar believes that the proposed new framework reflects these principles well, and commends the Authority for the diligent effort.

**Question 2**

“Do you agree with the exclusions of radio navigation satellite services, amateur satellite services, and radio astronomy services indicated above and others if applicable? If not, please explain your reasoning and propose an alternative to this proposal.”

Globalstar is a provider of Mobile Satellite Services, and operates its Gateway Earth Stations in the C-Band as a Fixed Satellite Service (“FSS”). The following table presents our operational frequencies:

|  |  |  |  |
| --- | --- | --- | --- |
| **Band** | **Bandwidth** | **Allocation in ZAF** | **Globalstar Use** |
| 1610.00 – 1621.35 MHz | 11.35 MHz | MSS (E->s) | User Terminal Uplink |
| 2483.50 – 2500.00 MHz | 16.50 MHz | MSS (s->E) | User Terminal Downlink |
| 5091.00 – 5250.00 MHz | 191 MHz | FSS (E->s) | GES Uplink |
| 6875.00 – 7055.00 MHz | 180 MHz | FSS (s->E) | GES Downlink |

Whilst Globalstar does not have an opinion insofar as applies to the exclusion of the listed services from the revised regulations, we would like to ask ICASA to include our operational FSS spectrum in the proposed table of frequencies presented in the consultation paper. We invite the Authority to add a column for the C-Band spectrum so that it is included in the revised spectrum pricing models and rules that the Authority eventually adopts.

Accordingly, Globalstar suggests that the following table replace the one proposed in the consultation paper:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Service Category | Below 1 GHz | L-Band | S-Band | C-Band | Ku-Band | Ka-Band | Q/V Band |
| Non-voice NGSO MSS | 137.00 – 138.00 MHz |  |  |  |  |  |  |
| 148.00 – 150.05 MHz |  |  |  |  |  |  |
| 399.90 – 400.05 MHz |  |  |  |  |  |  |
| 400.15 – 401.00 MHz |  |  |  |  |  |  |
| Voice MSS & Narrowband MSS |  | 1525.00 – 1559.00 MHz |  |  |  |  |  |
|  | 1626.50 – 1660.50 MHz |  |  |  |  |  |
|  | 1610.00 – 1626.00 MHz |  |  |  |  |  |
|  |  | 2483.50 – 2500.00 MHz |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Service Category | Below 1 GHz | L-Band | S-Band | C-Band | Ku-Band | Ka-Band | Q/V Band |
| 2 GHz MSS |  |  | 2000.00 – 2020.00 MHz |  |  |  |  |
|  |  |  | 2180.00 – 2200.00 MHz |  |  |  |  |
| FSS NGSO Feeder Links for MSS |  |  |  | 5091.00 – 5250.00 MHz |  |  |  |
|  |  |  | 6875.00 – 7055.00 MHz |  |  |  |
| GSO and NGSO FSS |  |  |  |  | 10.70 – 12.20 GHz | 18.30 – 18.80 GHz | 40.00 – 42.00 GHz |
|  |  |  |  |  | 14.00 – 14.50 GHz | 19.70 – 20.20 GHz | 47.20 – 51.40 GHz |
|  |  |  |  |  |  | 27.50 – 30.00 GHz |  |
|  |  |  |  |  |  | 19.70 – 20.20 GHz |  |
|  |  |  |  |  |  | 29.50 – 30.00 GHz |  |

**Question 3**

“Do you agree with the proposed approach of having a separate license/authorization (where applicable) for each segment of the Satellite Communications value chain? Please elaborate.”

Globalstar agrees with the proposed approach of having separate licenses or authorization for each segment of the satellite communications value chain. Further Globalstar agrees with the proposed segments, which include a satellite gateway Earth station license, a user terminal network license, and a space segment registration process (see additional responses under Question 8 below).

Additionally, Globalstar would suggest that the Authority make clear in its rules that there is no limitation on the right of a single entity or operator to apply for and be awarded multiple licenses across the categories. Whilst market segmentation is common practice, there are also many operators who integrate their value chain, and the new rules should not impose any limitations on their ability to do so.

**Question 4**

“Please provide your comments on the proposals in the preceding paragraph and the duration of the Gateway Earth Station licenses.”

As stated above, Globalstar supports the segmentation of licenses and the addition of a standalone Gateway Earth Station license in South Africa. In addition, we would like to propose the following comments and points for consideration:

* The duration of the GES license should be extended to ten years. Satellite operators deploy Gateways as near-permanent facilities and invest large sums into ensuring that the necessary infrastructure is deployed at these locations. Accordingly, longer term regulatory certainty would support investments into such facilities, as operators would be confident that they would enjoy long term protections from interference.
* Globalstar supports the categorization of the GES license as a Private Electronic Communication Network Service (P-ECNS) license as this would reduce the administrative compliance burden placed on the operators. Globalstar recommends that the Authority be clear in setting the specific limitations and permissions that such a licensee would have under this license. For example, the proposed new rules state that “the Gateway Earth Station licensee may establish a Gateway […] and it shall not be permitted to provide any telecommunications service or broadcasting service directly to the end-users […]”, however we believe that the intention is for these Gateways to relay end-user traffic to and from the satellites and terrestrial networks, making this condition somewhat self-contradicting. Accordingly, we hope that the Authority can provide additional clarity in its proposed new rules.

**Question 5**

“Please comment on the above-mentioned alternative proposals to levy the spectrum fees for Gateway Earth Stations and indicate your preferred option. The Authority understands that there are other spectrum fee calculation methodologies used elsewhere in the world. Please give details of the methodologies which you believe would be most suitable for South Africa.”

Globalstar strongly supports the introduction of revised spectrum fee formulae for GES spectrum assignments in South Africa, and agrees that the current models do not suitably accommodate NGSO system operations. Globalstar would like to propose the following additional comments as relate to this section:

* In the proposed model where ICASA would apply a high-throughput satellite factor of between 0.1 and 0.3 to the current fee formula, Globalstar would like to ensure that such a factor is also applied to GES operating in the C-Band, rather than limiting the application of this factor to GES operating in the Ka-Band and above. Whilst Globalstar understands that new NGSO systems utilize a large range of frequencies to operate, we hope that systems such as ours, which use relatively less total spectrum to operate our GES, would also benefit from the proposed new reduction factors.
* In the proposed model where ICASA would apply a different ‘unit’ value to the fee formula as per the table in Section 8.1, Globalstar suggests that the Authority apply the fee per MHz, rather than per MHz paired. GES operating within NGSO satellite systems such as ours do not necessarily use an equal amount of spectrum for downlinks as they do for uplinks, and accordingly a pairing methodology would not be practical in this case. We propose that the Authority consider removing the pairing rule and simply apply a reduced unit fee per MHz.
* Further to the above, Globalstar would like to note its very strong support for the annual spectrum fees being levied per GES facility, rather than per antenna.

After reviewing both proposed options, Globalstar notes a preference the second method, wherein the Authority would apply a reduced ‘unit’ value to the amount of MHz assigned to a given GES facility in South Africa. This method yields a lower annual spectrum cost for our gateway operations, and takes into account spectrum range factors by applying different unit values to different bands.

**Question 6**

“Kindly comment on the section above and on the proposal for blanket licensing with a fee for a set number of terminals under a new proposed license regime to be referred to as a “Satellite User Station Network License”. If possible, please provide a breakdown of terminals with the corresponding spectrum fee values in South African Rands.”

Globalstar supports the introduction of a blanket license for user terminals operating in the Mobile Satellite Services, as well as adopting cross-border roaming principles for end-user terminals. We would like to propose the following additional comments:

* The Authority has used different terms for the proposed blanket license, and we would like to clarify that the license will be named a “Satellite User Terminal Network License” rather than a “Satellite User Station Network License”. This would ensure clarity on the type of license being considered, as the term ‘station’ could encompass GES as well as user terminals.
* We would like to express our support for the adoption of a technology neutral approach to user terminal licensing.

A blanket licensing regime for user terminals operating in the MSS is greatly beneficial to operators such as Globalstar, and eases the regulatory burden associated with our services. Further, we consider the proposed terms and conditions, as well as the proposed fees for such licenses, to be reasonable and implementable.

**Question 7**

“Kindly comment on the appropriateness of using regulation 37 of the ICASA radio regulations (“recognition of licenses issued by other countries”) to recognize ESIM licenses issued in other countries.”

We would like to propose that the Authority make clear that cross-border roaming rights for user terminals operating in both the FSS and MSS are applied, and not strictly limited to Earth Stations in Motion (ESIMs) operating in the FSS. Globalstar’s services are intended to be used globally as a personal emergency messaging device, and should be permitted to roam into South Africa and continue to operate legally for limited periods, as long as such user terminals are licensed by another administration.

**Question 8**

“Please provide your comments and details of the best practices in other jurisdictions to fulfill the intentions of the Authority as indicated in the above section. Furthermore, considering the provision set out in the Astronomy Geographic Advantage (AGA) Act of 2007, and the requirements of the Radio Quiet Zone, what measures and techniques do you propose to be employed in mitigating the possible interference that may be caused by the satellites within the Astronomy radio frequency bands in South Africa?”

Globalstar supports the introduction of registration regime for satellite system operators, principally intended to build a direct relationship between the foreign operator and the Authority. However, we have noted that this section as presented in the consultation paper, presents some conflicting statements and terms that we believe should be revised so as to ensure clarity and certainty for system operators such as Globalstar.

We would like to propose that the Authority rename the “Authorized List of Space Stations” to the “Registered List of Space Stations”. As stated in the consultation paper, there is no intention by the Authority to assess or authorize any space stations, but simply to establish an administrative process by which a foreign satellite system operator can register their space segment in South Africa, thereby creating a direct relationship between the Authority and the system operator. This nuance is critical in that it sets the key tone of the engagement: the operator is not applying to ICASA for any authorization, but rather submitting to ICASA registration information that shows that it is already authorized by and compliant with international bodies such as the ITU and which provides its contact information. In following the above, we would therefore like to suggest that ICASA remove references to ‘authorizations’ or ‘applications’ from its new rules, and strictly utilize the terms ‘registrations’ and ‘submissions’.

Globalstar’s systems do not operate within or near radioastronomy allocated spectrum, and accordingly we do not have any comments to provide on this specific topic. We would like to recall that we have been licensed and operating our services in South Africa for over ten years and have successfully respected all rules as relate to the Radio Quiet Zones and the AGA Act.

**Question 9**

“Please provide proposals on the role the satellite operators can play in ensuring that broadband connectivity reaches the areas of the country in terms of community networks with satellite connectivity as a backhaul.

Kindly provide a regulatory solution that can be applied by satellite operators to address the shortcomings of terrestrial networks in providing to unserved and underserved areas of the country. This may include collaboration with the government programs to reach out to those unserved and underserved areas of the country.”

Globalstar has been providing reliable MSS to individuals, businesses, and governments around the world for over twenty years. By leveraging the inherent coverage benefits of its satellite systems, it has been able to provide critical and life-saving communications in areas and at times where terrestrial networks have failed. More recently, the integration of Globalstar’s transceivers into the newer generation of iPhone models has extended the access to our services to millions of additional users globally.

Whilst the Globalstar system does not provide a backhauling solution, it is able to link directly to user devices on the ground without needing to rely on any terrestrial infrastructure. This makes our services accessible always: anywhere, and anytime, even in cases of natural disasters such as hurricanes, earthquakes, and more, where terrestrial infrastructure is destroyed or taken offline. The success and importance of such critical links is reflected in the number of lives our services have helped save.

Globalstar’s services already provide 100% coverage of the South Africa territory, and accordingly we do not have any additional comments as relate to regulatory mechanisms for improving such coverage and access to services.

**Conclusion**

Globalstar is grateful for the opportunity given to us to provide our comments and inputs on the proposed new licensing framework for satellite services in South Africa. We intend our contributions to be constructive inputs based on our long history of operating across many countries globally. Noting that the new rules are being considered to accommodate the multiple new NGSO systems offering high-throughput data links to users, we would like to recall to the Authority that MSS such as our life-saving services remain a very important component of the industry. We hope that our experience and long-term approach to regulatory compliance and operational efficiencies are well-reflected in this contribution, and that the Authority continues to accommodate services and systems such as ours in South Africa.

1. Emergency SOS via satellite is available in Australia, Austria, Belgium, Canda, France, Germany, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Portugal, Spain, Switzerland, the United Kingdom, and the United States. See *Use Emergency SOS via satellite on your iPhone*, Apple, [https://support.apple.com/en-us/101573](NULL) (July 29th, 2024) [↑](#footnote-ref-1)