



The Independent Communications Authority of South Africa
The Chairperson, Mothibi G. Ramusi
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Centurion, 0144

For the attention of: Ms Pumla Ntshalintshali

Per email: pntshalintshali@icasa.org.za / rmakgotlho@icasa.org.za

30 May 2025

Dear Chairperson

DRAFT REGULATIONS ON DYNAMIC SPECTRUM ACCESS AND OPPORTUNISTIC SPECTRUM MANAGEMENT IN THE INNOVATION SPECTRUM FREQUENCY RANGES 3800 - 4200 MHZ AND 5925 – 6425 MHZ

1. The National Association of Broadcasters (**NAB**) refers to the publication by the Independent Communications Authority of South Africa (the **Authority** or **ICASA**) for public consultation of the Draft Regulations on Dynamic Spectrum Access and Opportunistic Spectrum Management (**DSA**) in the Innovation Spectrum Frequency Ranges 3800 - 4200 MHz and 5925 – 6425 MHz on 28 March 2025 in the Government Gazette No. 52415, Notice 6066 of 2025 (the **Draft Regulations on DSA**).
2. The NAB is a leading representative of South Africa's broadcasting industry, representing the interests of all three tiers of broadcasters (public, community and commercial). Our members include the SABC, all the licensed commercial television broadcasters; e.tv, Multichoice, M-Net, independent commercial radio broadcasters such as Kaya FM, YFM, Smile FM, Rise FM, YOU FM, Hot 102.7FM, and radio services of media groups Primedia, Kagiso Media, GH Media, AME, MSG Afrika and a number of community radio broadcasters, and a community television broadcaster, Faith Terrestrial. The NAB membership also extends to signal distributors as well as a range of industry associates.
3. The NAB welcomes the invitation by the Authority to make representations on the Draft Regulations on DSA. At the outset, the NAB wishes to express its support for this process.

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The NAB was established in 1993 as a voluntary association funded by its members

The NAB understands that its individual members will be making detailed and technical submissions to the Authority on the Draft Regulations on DSA. As such, the NAB will not address each and every aspect of the Draft Regulations on DSA, but will provide high-level submissions on key principle concerns relating to the broader broadcasting sector as a whole. The NAB participates in this process with the aim of providing constructive input for ICASA and looks forward to engaging further with the Authority on these issues, including participating in oral hearings.

4. Having reviewed the Draft Regulations on DSA, the NAB notes that despite previous concerns raised by NAB members, co-existence is envisaged in the Draft Regulations on DSA. The NAB submits that such co-existence will be detrimental to Fixed Satellite Services (**FSS**) who are, after all, the primary users in this band.
5. The NAB points out that the Authority has a statutory obligation to ensure that interference to authorised or licensed users is eliminated or reduced to the extent reasonably possible. It is therefore particularly concerning that the Authority is proposing to make regulations which will create serious harmful interference with damaging consequences for existing users.
6. In respect of the Summary Results of Simulations and Trials in the Draft Regulations on DSA, it is noted that there is a lack of specificity in the simulation procedures and criteria used to validate spectrum co-existence. Although desktop simulations were conducted, that the exact methodologies and parameters for real-world conditions are not disclosed in the Draft Regulations. It is unclear if any field measurements were conducted. Furthermore, the Draft Regulations do not specify how these simulations translate into enforceable standards or how they are validated through physical testing. The simulations, for example, study the impact of a “protection distance” whilst the regulations make no mention of this regulatory measure nor its possible application. The NAB submits that the simulation procedures and methodologies used by the Authority must be public, fully disclosed, peer reviewed and must be expanded upon and explained in further detail.
7. Further to the above, the NAB observed errors and inconsistencies in the ICASA simulations, which create uncertainty regarding the validity of the simulations and any conclusions reached thereon. In this respect, it is noted that, firstly, an incorrect noise figure for the FSS receiver was used and subsequently a flawed approach for the protection threshold was applied. Secondly, the path profiles (and subsequently terrain and clutter losses) presented by the

Authority are inconsistent with actual data and path profiles (including terrain and clutter data) for the locations considered by the Authority. As such, the NAB respectfully submits that the Authority appears to have underestimated the interference risk to the FSS installations that were simulated by between 10.3 to 53 dB (or a factor of 10 to 200 000 times).

8. In addition, on a single simulation scenario has been relied upon by the Authority in its methodologies, along with a few point-to-point analyses to validate the simulation. It is submitted that this is inadequate as a basis for an assessment of DSA regulation given the high risk of interference to the primary services. This limitation of the simulation becomes apparent when reviewing the comprehensive studies done by OFCOM, CEPT and others – which were conducted with extensive public consultation and industry engagement. In light of this, it may be imprudent for the Authority to proceed with regulations informed by flawed simulations, inadequate consultation and insufficient engagement, and to pursue the regulation of a solution in conflict with recommendations and outcomes from comprehensive studies conducted elsewhere. The NAB submits that the following studies may be useful for the Authority to consider when determining a broader and more detailed approach:

- 8.1. *A review of 5G/Satellite compatibility studies in C-band* by Richard Womersley dated 20 October 2021;¹ and

- 8.2. The CEPT Electronic Communications Committee's Report 358 on *in-band and adjacent bands sharing studies to assess the feasibility of the shared use of the 3.8-4.2 GHz frequency band by terrestrial wireless broadband low/medium power (WBB LMP) systems providing local-area network connectivity*, which was updated on 7 March 2025.²

9. The Summary Results of Simulations and Trials in the Draft Regulations on DSA also appear to focus on specific urban and rural areas for simulations and analyses, with a particular concentration around Johannesburg and Pretoria. Rural simulations were limited to sites such as iXopo in KwaZulu-Natal. The Authority failed to consider the C-Band receive locations submitted to it as part of informal engagements, with the simulation subsequently misrepresenting the actual situation with far greater interference impact. Furthermore, the limited simulations for rural KZN focus on certain isolated areas, and the limited simulations

¹ Available at https://www.lstelcom.com/fileadmin/content/lst/marketing/brochures/C-band_compatibility_report.pdf

² Available at <https://docdb.cept.org/download/4673>

fail to adequately consider the interference to Sentech sites with FSS installations and do not aid in providing a comprehensive national picture. The NAB submits that the Authority should pursue industry and peer engagement, and that further studies, including simulations and field measurements, in a greater spread of regions, both urban and rural, should be conducted to ensure nationwide viability.

10. The NAB further notes that the Authority had limited engagements with various interested stakeholders, and these engagements were insufficient to address the complexity of concerns raised by parties, including concerns raised by broadcasters. As noted above, it is unclear how the Authority arrived at its measurements, or how field tests were undertaken. It appears that field tests were undertaken without the involvement of broadcasters who have a direct interest in such tests, and who are also members of the NAB. As such, the NAB therefore submits that the broadcasting sector was not properly consulted and requests that further detailed engagements are undertaken by the Authority with broadcasters and that further field tests be conducted by the Authority in conjunction with broadcasters. The NAB also notes the Authority's proposal in the Draft Regulations to create what is, in essence, a sub-regulator for spectrum sharing. The Draft Regulations propose the designation of a Unified Spectrum Switch Provider (**USSP**), which will effectively act as a de facto sub-regulator. The NAB is profoundly concerned about ICASA's delegation of regulatory powers to another body. Absent a lawful delegation, it is not permissible for any person or body which is not ICASA to perform the functions and duties and to exercise the powers bestowed upon ICASA in terms of the Electronic Communications Act 36 of 2005 (**ECA**) and the Independent Communications Authority of South Africa Act 13 of 2000 (**ICASA Act**).
11. In the NAB's view this impermissible delegation and other fundamental problems with the Draft Regulations render them fatally flawed and leave them vulnerable to legal challenge.
12. The NAB has further concerns regarding whether the proposed Draft Regulations will result in more efficient spectrum use, especially when the existing spectrum use in the 5925 to 6425 MHz (Wi-Fi) band has not been demonstrated. The NAB is also concerned about the risk of undermining long-term government investments, which could hamper potential growth opportunities.



13. The NAB urges the Authority to take a cautious and evidence-based approach in finalising the Draft Regulations on DSA. It is essential that any regulatory framework be built on robust, transparent methodologies and supported by inclusive consultations, including the involvement of broadcasters in such consultations. The NAB reiterates the importance of regulatory instruments that are clear, technically sound and fit for purpose.

14. The NAB avails itself to engage further with the Authority on the above submissions during oral hearings.

Yours sincerely

[Sent electronically]

Nadia Bulbulia
Executive Director