



NAB
National Association of Broadcasters

**NAB WRITTEN SUBMISSION TO ICASA ON DIGITAL
SOUND BROADCASTING DISCUSSION DOCUMENT**

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The NAB is a voluntary industry association funded by its members





- 1 On 29 March 2018, the Independent Communications Authority of South Africa (ICASA) published in the government gazette number 41534 a discussion document on digital sound broadcasting (DSB). Interested persons were given 45 (forty-five) working days from the date of publication to submit their written comments.
- 2 The National Association of Broadcasters (NAB) is the leading representative of South Africa's broadcasting industry, comprising all three tiers of broadcasters – public, commercial and community, as well as signal distributors, training institutions and industry associates.

BACKGROUND CONTEXT

- 3 Following from the International Telecommunications Union (ITU) Regional Radio-communication Conference 2006 agreement, South Africa has begun the digital migration process from analogue to digital television broadcasting services. The spectrum which will be freed up as a result will be used for *inter alia* DSB.
- 4 The NAB understands that the purpose of this inquiry is to examine the prospects of implementation of DSB services in South Africa as well as to examine the manner in which DSB services can improve spectrum efficiency and management.
- 5 The NAB is encouraged that ICASA has initiated this process given the scarcity of FM frequencies. The NAB also believes that the current trial for DSB will guide ICASA in developing an appropriate framework for the adoption and implementation of DSB in South Africa.



Question 1 – Is there a need for the introduction of DSB technologies in South Africa? Motivate your answer

- 6 Currently there is no spare high-power FM spectrum available particularly in the major metropolitan areas and large cities, as also highlighted by ICASA in the discussion document. This scarcity has become a barrier to entry into the radio broadcasting industry for new entrants as evidenced through the moratorium imposed by ICASA on class licences. This scarcity has also hampered the coverage growth of existing broadcasters.
- 7 There is therefore a dire need for spectrum efficient technologies which will serve as an additional platform for sound broadcasting. The NAB wishes to emphasise that DSB technologies should not be regarded as replacing analogue radio, but rather as co-existing with FM in the same area without any interference. DSB technologies offer a range of benefits including efficient use of spectrum and energy, multiple channel capability, consistent quality of reception and advanced audio quality, as well as value added services, including dynamic label system and display of information.

Question 2 – Do you think the list of technical standards to which the DSB equipment must conform are exhaustive? Motivate your response and suggest other equipment technical standards

- 8 As a member of the ITU South Africa is bound by the international agreements and regulations aimed at harmonising frequency plans. For ease of administration, the regulations divide global radio spectrum into three regions with South Africa falling into region 1 which comprises of Europe, Africa, former states of the Soviet Union, Mongolia, and the Middle East west of the Persian Gulf, including Iraq.



- 9 Following from the paragraph above, South Africa is therefore guided by the standards as adopted in ITU Region 1, which are currently DAB, DAB+ and DRM. Therefore, DSB equipment and specifically the receiver standards must be capable of being used for DAB+ which is an upgrade of the DAB standard, and DRM. In light of the fact that DSB technologies are to be used simultaneously with AM and FM analogue transmission, the equipment must be capable of being switched between digital and analogue standards to ensure continued availability of services for consumers.
- 10 As the DAB and DRM technical standards have been approved by the ITU and rigorously trialled in South Africa, these should be adopted as they are sufficient. Any new technical standards will have to be approved and recognised by the ITU and the South African Bureau of Standards.

**Question 3 – in the absence of a policy directive for providing standard for DSB, should the Authority provide licences for other DSB technologies?
Please motivate your answer**

- 11 South Africa is guided by the technology adopted in ITU Region 1. By adopting the same technologies as the rest of the region, South Africa and the wider African region will benefit from economies of scale as well as best practices in respect of implementation of DSB, customer awareness of DSB services which will in turn encourage an uptake and increased demand of these services.
- 12 There has been extensive research and investment into preparing for the anticipated adoption and implementation of DSB technologies for the South African market. To this end, the broadcasting industry through the trial license granted to the SABC, has been testing DAB+ and DRM



technologies in order to assess *inter alia* the technical functionality, coverage, signal permeability, interference and clutter on coverage areas as well as to demonstrate value added services offered by these technologies.

- 13 So far, the findings indicate that DAB+ uses spectrum efficiently, it provides advanced audio quality and visual information displayed on screens. The DAB+ and DRM technologies will address the challenges faced by the industry and also offer great opportunity for growth and diversity of services.
- 14 The broadcasting industry is highly regulated, and compliance by licensees is critical to ensure continued investment in the sector and availability of financial resources. It is therefore of the utmost importance that there be regulatory certainty in light of the technological developments impacting on our industry. This certainty is primarily provided through legislative review and policy directives. The Electronic Communications Act 36 of 2005, as amended, (ECA) empowers the Minister to issue policy directives on the application of new technologies pertaining to electronic communications services, broadcasting services and electronic communications network services.
- 15 The NAB recommends that ICASA facilitates engagements between the Department of Communications (DoC) and the Department of Telecommunications and Postal Services (DTPS) respectively, to fast-track the finalisation and publication of a policy, which clearly sets out the rationale, objective and context (both national and international). Once approved, the policy will serve as a point of reference and guidance for the development of regulations and amendment of legislation as may be necessary. The NAB is aware that there are on-going engagements



between the two departments on broadcasting digital migration and we trust that there will be progress in this regard.

Question 4 – South Africa through its international agreements at ITU and SADC level agreed on DAB+ and DRM systems. Please indicate which other digital sound broadcasting technology(ies) if any should be considered for South Africa? Please motivate

16 The NAB wishes to highlight the importance of ensuring that standards work across the entire ITU region 1 and not only for one specific jurisdiction. Any variance from what has been adopted through the ITU will have an adverse socio-economic impact as it will disrupt communication services and economic activities across the region. Furthermore, consistency in the standards across the region will contribute to the gradual decrease in the unit prices of receivers as the demand for DSB services increases.

Question 5 – To use spectrum efficiently, the digital sound broadcasting network can be planned on a Single Frequency Network. Do you think that it would be applicable for purposes of digital sound broadcasting? Please motivate

17 DAB+ and DRM systems can function on both single frequency and multi-frequency networks (SFN/MFN). Although both systems have been trialled in South Africa, only the DAB+ system was trialled on a SFN. The findings of the DAB+ trial indicate network instability due to the large geographic area which the system is to cover per province. In order to alleviate this shortcoming, the NAB recommends that SFNs only be used in the larger metropolitan areas, and MFNs be used in other parts of the country.



Questions 6.1 – Should the Authority consider one or more mux operator(s) for DSB? Please motivate

- 18 The NAB wishes to first highlight that there is currently no provision in the ECA for a mux operator licence category, it is therefore unclear who can be licenced as a mux operator and what the requirements would be. The activity of multiplexing is a technical one which does not fall within the current licensing framework and is dealt with by the broadcasting licensee/s either choosing to self-provide or enter into a commercial contract for provision with a broadcasting signal distributor (ECNS licensee).
- 19 The NAB respectfully submits that any change in the licensing framework will bring about uncertainty to the detriment of the industry and require the amendment of legislation. Therefore, NAB recommends that in the same manner that broadcasters are granted spectrum licences, broadcasters must continue to be granted transmission licences for DSB services.
- 20 DAB+ is capable of delivering high quality audio and high-speed data services. Data services can be programme associated data such as a CD cover of the song playing on-air or an accompanying graphic, or short text services, it may also be non-programme associated data such as interactive web-based content.
- 21 Accordingly, the broadcasters who apply for the radio frequency spectrum licence which will be used to create the DAB+ multiplex will require broadcasting service licences. They may also require Electronic Communication Service licences if they intend providing non-programme associated data utilising the capacity assigned to them in the radio frequency spectrum licence. Once they have been assigned the radio



frequency spectrum licence the broadcasting licensees may either choose to self-provide broadcasting signal distribution, or they may elect to enter into a contract with a broadcasting signal distributor who has the requisite Electronic Communication Network Service licence to do so.

Question 6.2 – Would you propose a total switch-off of the traditional analogue AM and FM sound broadcasting? Please motivate

22 Unlike television broadcasting which is migrating from analogue to digital broadcasting, digital sound broadcasting is meant to serve as an alternative distribution platform, and not replace analogue frequencies altogether in the medium to long term. It is important for the market for DSB services to be allowed time to grow and establish itself before there can be consideration of a total switch-off. Currently, the price of DAB+ receivers varies from approximately R600 (six hundred Rands) and may not be affordable, particularly in rural areas, where citizens depend on radio as a primary means of accessing information. The NAB therefore recommends that analogue sound broadcasting services must continue to be available.

23 Furthermore, most jurisdictions have not begun measures to switch off analogue sound broadcasting services, as there is no need to at this stage to phase out analogue sound broadcasting services.

Question 7 – Should the Authority adopt the strategy used in other international markets of licensing DSB services in the primary markets first and then a nationwide rollout? Please motivate

24 The NAB respectfully submits that it is not necessary to consider the licensing in terms of primary or secondary markets. The NAB recommends that similar to the approach adopted by other regulators such as the



Australian Communications and Media Authority, ICASA should rather be guided by the availability of spectrum, market readiness and the uptake of DSB services by consumers which will in turn determine how it is implemented and licensed across the country.

- 25 The NAB recommends that there should be dual illumination wherein DSB and analogue sound broadcasting services are available to consumers simultaneously. In considering the financial implications which dual illumination will have on incumbent broadcasters, the NAB is of the view that in terms of licensing DSB services ICASA should prioritise broadcasters who are already bearing onerous transmission costs for analogue broadcasting.
- 26 The roll out of DSB services is also largely dependent on full DTT migration, which will free up spectrum. Currently, only channel 13F is available for DSB, this constraint must be borne in mind when considering the implementation of DSB. This spare spectrum 13F could be used for a small scale commercial DSB launch ahead of the earmarked DAB+ spectrum becoming available.
- 27 In light of other features of DSB technologies, there may also be an emergence of niche services focusing on specific content. Whilst these services may not occupy capacity, ICASA ought to also include this aspect in the regulatory framework.



Question 8 – Can the current sound broadcasting market afford new DSB licensees in community, commercial and public service? In your answer, explain your reasons and/or choice for any of your submission

- 28 The implementation of DSB has the potential to enable greater diversity of content, language and formats. However, the Authority is aware that advertising revenue remains the primary source of funding in the broadcasting sector. A market study will therefore be required to assess the feasibility of licensing new DSB services. It may be necessary to allow existing licensees the opportunity to grow the demand and uptake of new radio equipment (considering the costs of DAB+ and DRM radios) and then to gradually phase in new licenses.
- 29 The Authority will have to carefully assess the three-tier broadcasting system and the roles that each tier (public, community and commercial) plays in providing diverse broadcasting services across the country.
- 30 The NAB therefore recommends that ICASA conduct a socio-economic impact assessment which will highlight the financial implications of implementing DSB and provide some guidance on the most feasible and cost-effective manner in which DSB services can be made available.



Concluding remarks

- 31 The NAB wishes to thank ICASA for the opportunity to make input into this important process. The NAB believes that the findings of the digital radio trials will certainly provide guidance and recommendations on the most efficient way to implement DSB.

- 32 In conclusion, the NAB looks forward to ICASA engaging with the DoC and DTSP towards finalising a clear policy on digital sound broadcasting.