



**NAB WRITTEN SUBMISSION
TO DRAFT UPDATE
OF THE TERRESTRIAL BROADCASTING FREQUENCY PLAN 2013**

18 March 2013

1. INTRODUCTION

- 1.1. The National Association of Broadcasters ("the NAB") is the leading representative of South Africa's broadcasting industry. It aims to further the interests of the broadcasting industry in South Africa by contributing to its development.
- 1.2. The NAB members include:
 - 1.2.1. Three television public broadcasting services and eighteen sound public broadcasting services of the South African Broadcasting Corporation of South Africa ("the SABC");
 - 1.2.2. All the commercial television and sound broadcasting licensees;
 - 1.2.3. Both the major licensed signal distributors (electronic communications network service operators), namely Sentech and Orbicom;
 - 1.2.4. Over thirty community sound broadcasting licensees, and one community television broadcasting licensee, namely, Trinity Broadcasting Network ("TBN").
- 1.3. On 4 February 2013, the Independent Communications Authority of South Africa ("ICASA") published, in government gazette number 36129, a notice inviting interested parties to provide written comments on the draft Update of the Terrestrial Broadcasting Frequency Plan 2013 ("The TBFP") by 8 March 2013. An extension was granted to 18 March 2013. Whilst the NAB appreciates the extension provided on the comment period to this draft plan, individual members of the NAB have indicated that due to the volume of work required to go through the draft plan in detail, any errors found post the submission date, will also be communicated to the Authority.
- 1.4. The NAB appreciates that the regular updating of the Terrestrial Broadcasting Frequency Plan ("The TBFP") is essential to orderly frequency management. It is also in line with the objects of the Electronic Communications Act 36 of 2005 ("the ECA") which require the efficient use of the radio frequency¹ and is essential to keep abreast of developments in the broadcasting sector. While the NAB welcomes the practise of updating the Plan, we have a number of serious

¹ Section 2(e) of the ECA

concerns about proposals contained in the TBFP and these are explained more fully below.

- 1.5. If ICASA convenes oral hearings on the TBFP, the NAB requests an opportunity to make an oral presentation.
- 1.6. We will begin our submission by raising overarching concerns related to the approach adopted by ICASA in the TBFP and the current process. We will then proceed to make specific comments on the TBFP.

2. OVERARCHING CONCERNS

Procedural Issues

- 2.1. The Electronic Communications Act requires ICASA to amend and publish the National Radio Frequency Plan (“the NRFP”) for public comment, taking into account internationally agreed allotments of the radio frequency spectrum². Section 34 (10) then requires ICASA to forward the national radio frequency plan to the Minister for approval. This power is vested in the Minister, because the Minister represents the Republic in international fora such as the ITU and the Minister is the signatory to the ITU Conventions³. The Minister must either approve the plan or notify ICASA that further consultation is required.
- 2.2. On 21 December 2012, ICASA published a draft NRFP 2013 for public comment, and the closing date for public comments was 15 February 2013. The NAB made a comprehensive submission, which highlighted key policy concerns and serious anomalies in the approach adopted by the Authority.
- 2.3. To the best of our knowledge, the draft NRFP 2013 has not been presented to the Minister for approval and yet ICASA has commenced with the updating of the TBFP which is done in accordance with the NRFP. This is procedurally improper. The TBFP is fully reliant on the finalisation of the NRFP. The NAB is of the view that ICASA can only commence the process of updating the TBFP once the Minister has approved the draft NRFP 2013.

² Section 34(5)(5)(6) of the ECA.

³ Section 34(2) of the ECA.

- 2.4. The risks of proceeding with the TBFP in the absence of Ministerial approval of the NRFP are as follows - If the Minister notifies ICASA that further consultation is required on the NRFP, this could necessitate a complete redrafting of the TBFP. The publication of the draft the TBFP in the absence of Ministerial approval of the NRFP is not only procedurally irregular, it could result in a significant waste of time and money for both ICASA and affected stakeholders.
- 2.5. In light of these concerns, the TBFP should be withdrawn until the Minister has given direction on the NRFP.

Interpretation of Resolution 232 of WRC '12

- 2.6. The NAB has repeatedly raised concerns regarding the Authority's interpretation of ITU Resolution 232, reached at the WRC'12. The resolution provides that frequency allocations in the frequency band 694-790MHz in Region 1 to mobile services can be made on co-primary with broadcasting services, but that such allocations for mobile services in this band will only be made after the ITU-R studies have been concluded, after the WRC'15.
- 2.7. Notwithstanding the provisions of this resolution, ICASA has proceeded to unilaterally make allocations of the frequency band 694-790MHz to IMT services on the basis that this is required in terms of Resolution 232. The NAB has now objected to the Authority's interpretation of this resolution in three separate processes:
 - 2.7.1. In its submission on the draft update of the National Radio Frequency Plan;
 - 2.7.2. In its submission on the first Draft Frequency Migration Regulations and Plan; and again
 - 2.7.3. In its submission on the second Draft Frequency Migration Regulations and Plan
- 2.8. ICASA has repeatedly failed to address broadcasters' concerns regarding the interpretation of Resolution 232. Matters of interpretation aside, it is of even greater concern to the NAB that ICASA would even contemplate the migration of broadcasters out of the band 694 – 790 MHz without having conducted a single study on the future spectrum needs of the broadcasting industry and with no

understanding of the impact its proposals will have on the growth of South African broadcasting.

- 2.9. In the absence of such studies, the Authority cannot be certain whether the proposals in the TBFP are future proof and make adequate allocations for the broadcasting sector.
- 2.10. The Department of Communications (“DOC”) has commissioned consultants to conduct a study on the potential benefits of the digital dividend, including future spectrum needs for broadcasters and anticipated spectrum demand for the next ten years.
- 2.11. The outcome of this study is critical to any future spectrum planning undertaken by the Authority. We are of the view that the outcome of the DOC study should guide both the Department and ICASA and we urge ICASA to await the outcome of the study, if ICASA is not part of the study.

Change in System of Spectrum Management

- 2.12. In the past, ICASA has always allocated spectrum on the basis of assignment. For the first time, ICASA has opted for an *allotment* plan in respect of DTT and DAB allocations set out in the TBFP.
- 2.13. This is a significant departure from the system of spectrum management adopted to date. This change has a significant impact on affected stakeholders, yet ICASA has simply proceeded to allocate spectrum in the TBFP based on allotments without properly consulting affected licensees.
- 2.14. Members of the NAB do not support this move to an allotment plan. The allotment approach is undesirable for the reasons set out below:
 - 2.14.1. It is not preferred internationally. During the African Telecommunications Union (“ATU”) DTT discussions, South Africa was the only country in favour of this method;
 - 2.14.2. It is not efficient in planning. No information is provided regarding the actual location of the transmitter site and the allotment plan provides

frequencies to be used in particular areas without specifying the stations to which the frequencies are assigned. For example, the coordination of allotments in a particular province will require the coordination of the entire province. The entire province will hence be taken as a transmitter site. This creates a problem for South Africa for purposes on international coordination. An assignment plan is easy to work with, as it provides a frequency for each station, and characteristics of a transmitter are known.

- 2.15. The move from the allocation of spectrum on the basis of assignment in favour of planning by allotment materially and adversely affects the rights of broadcasting licensees. The failure to consult affected parties on this significant change in the Authority's approach to spectrum planning raises concerns of lack of procedural fairness. Simply presenting a new allotment plan does not constitute adequate consultation on the decision by ICASA to move away from assignment based planning and allocation.

International Co-ordination and Harmonisation

- 2.16. South Africa has an obligation to coordinate and harmonise the TBFP with other SADC countries. It is an ITU principle that a country that fails to coordinate with its neighbouring countries loses any international protection against harmful interference. The NAB is concerned about whether ICASA has coordinated and consulted with the SADC countries in preparing this draft Plan. The NAB therefore wishes to ascertain the process and protocols ICASA followed in harmonising the TBFP with the rest of the SADC countries.

3. SPECIFIC COMMENTS ON DRAFT PLAN

Data Accuracy

- 3.1. The terrestrial broadcasting frequency plan serves as an information document, not only for existing broadcasters but also for prospective investors in the broadcasting industry. For this reason, the NAB is of the view that the plan should be as comprehensive and as accurate as possible.

- 3.2. The accuracy of the data contained in the TBFP is crucial and the NAB is deeply concerned that the TBFP contains numerous inaccuracies and omissions. These inaccuracies and omissions include, but are not limited to, the following;
- 3.2.1. Frequencies of certain licenced community sound broadcasting services are not reflected in the TBFP;
 - 3.2.2. Certain Community sound broadcasting frequencies are reflected as spare, while they are in fact licenced, for instance Grahamstown frequency 99.0MHz is reflected as spare, while it is licenced to Kowie FM;
 - 3.2.3. Station names have not been replaced with new ones for instance Heart FM is still referred to as P4CT;
 - 3.2.4. ICASA uses acronyms SPA and SP interchangeably, while only SPA has been defined to mean spare.
- 3.3. The frequency plan should contribute to the stability of the broadcast industry by laying out current usage of frequencies and indicating future requirements. The omissions and inaccuracies that appear in the TBFP can lead to instability and uncertainty for the broadcasting industry. The NAB is therefore of the view that rectifying these issues should be a priority for the regulator.
- 3.4. In addition to the frequent reviews to the frequency plan, the NAB recommends further that ICASA should hold annual reviews of the frequency plan, which should be limited to amendments for which ICASA has received applications, as well as such amendments as might be contemplated by ICASA in terms of orderly frequency management and as required by international regulation and co-ordination. This is in line with the NAB submission dated 16 January 2009.⁴ Furthermore, the NAB notes that ICASA has honoured its proposal for it to revisit and reissue the complete frequency plan every third year.
- 3.5. It is the NAB's submission that the above recommendation is in line with the requirements of the EC Act. It also allows ICASA and the broadcasting industry the opportunity to adequately address and keep track of changes to the frequency plan.

⁴ NAB submission on the draft terrestrial broadcasting frequency plan 2008

- 3.6. However, the NAB submits that the contemplated process will only be of value to ICASA and the broadcasting industry if the frequency plan is comprehensive and accurate. It is therefore the NAB's view that the TBFP should be viewed as an opportunity to eliminate all omissions and inaccuracies. Once this is achieved the process as recommended above could be implemented.
- 3.7. The Authority has not highlighted changes to the tables contained in the TBFP. This makes it very difficult to comment meaningfully. The NAB recommends that the tables should clearly highlight the changes and modifications that have been made to the plan for ease of reference, using the ITU convention of indicating all changes by ADD, MOD and SUP for additions, modifications and supplements respectively.

Re-planning of the VHF Band

- 3.8. The NAB notes and agrees with ICASA that "the VHF band III has nine channels of 8MHz bandwidth each, and all these frequencies are extensively used for television transmission in analogue format." ICASA further states that as a result of this, "certain services will have to be migrated in order for Digital Terrestrial Audio Broadcasting to be deployed".⁵
- 3.9. With the migration of analogue television broadcasting services out of the 790-864 MHz UHF band (dividend 1) of existing 37 Single Frequency Network ("SFN") assignments, approximately 3 million viewers will be negatively impacted for a period of time estimated between 1 and 5 days, per transmitter site. The interruption will last for a number of months, as it will be done on a phased approach. On the other hand, the migration of existing broadcasting services, out of the 690-790MHz UHF band (dividend 2) has a much greater impact, as approximately 22 million viewers will be negatively affected.
- 3.10. In addition to the concerns already raised regarding the migration of broadcasters out of this band, the NAB cautions ICASA that the proposed migration will have a direct impact on the public service obligations and imperatives of broadcasting licensees and could potentially damage the public perception of DTT. The

⁵ At page 16 of THE TBFP

financial impact will be significant and, to date, ICASA has given no indication of how broadcasters will be compensated for the costs of the proposed migration.

Balance between protection of existing broadcasting services and the need for digital migration

3.11. The NAB wishes to make a point that existing analogue broadcasting services enjoy priority on the frequencies they are currently occupying. The NAB therefore wishes to caution ICASA that when making any frequency changes to existing analogue broadcasting services, this must be done in accordance with the ITU Resolution 232. Furthermore in line with the NAB submission on the draft Frequency Migration Regulations, ICASA must conduct studies to ascertain the viability of the proposed frequency changes and assignments.

Allocation for STLs

3.12. In line with its recommendations made in its previous submissions on the Draft Frequency Migration Regulations as well as the draft National Radio Frequency Plan, the NAB notes that ICASA has failed to make allocations for studio transmitter links (“STLs”) in the TBFP. In our submissions we made a proposal that the band 400 – 420 MHz be made available on primary basis for STL services. These assignments will help alleviate any regulatory uncertainty relating to frequency allocations to STLs, as these services are currently not formally allocated any frequency bands. Any interference caused by the unregulated frequency use could have a detrimental impact on a station’s operations and viability. STLs are not exempted in ICASA’s RF equipment licence exemptions and should be properly regulated.

3.13. The NAB recommends that spectrum be allocated for both digital and analogue STLs in the draft Frequency Migration Plan, as leaving the situation unattended would have a detrimental effect on licensed broadcasters.

3.14. Most radio broadcasters use Studio- to- Transmitter Links to convey their stations output to the relevant transmitters. In Gauteng for example this is done on TV Channel 66, using digital technology in 2MHz blocks. This spectrum is located in

the band which will form part of Digital Dividend 1, hence it has become more urgent for ICASA to make definite allocations for STLs.⁶

Digital Audio Broadcasting

3.15. The NAB applauds the forward looking nature of the TBFP, as it seeks to make digital audio broadcasting (DAB) allocations in the VHF band. The NAB is further encouraged by ICASA's approach of promoting research into broadcasting technology,⁷ as the NAB will soon be launching a DAB+ trial, and we believe this trial will create some vigour within the sound broadcasting sector to adopt digital audio in the future, and afford ICASA the opportunity of licencing new sound broadcasters, giving the public more choice, as there are no spare frequencies in most metropolitan cities.

3.16. In the TBFP, ICASA indicates that there will not be a switch-off date for AM and FM transmission, but rather digital audio will be an additional audio service. While the NAB agrees that a FM and AM switch-off is not likely in the short to medium term, the decision whether or not to switch off FM and AM is a policy decision to be taken by the Authority after a consultative and public process. International trends have revealed that in countries such as Norway, Denmark and Germany, governments have taken policy decisions to ultimately switch off FM transmission. In the UK trials are currently being carried out to test the effect of a potential FM switch-off on a selected community. These countries with the exception of the UK which adopted DAB, have fully adopted DAB+ as their preferred standard. Major car brands, such as VW and Lexus are equipped with DAB receivers as standard equipment. Household DAB receiver penetration in these countries is also increasing, and the receivers are readily available in leading electronics stores. Consequently, receiver prices have dropped drastically in line with increased supply.

3.17. DAB was adopted as a South African standard by the SABS on 13th December 2005 ref SANS 300401. This standard is the same as the ETSI EN 300401

⁶ NAB written submission to ICASA: Draft Frequency Migration Regulations And Frequency Migration Plan 12 October 2012

⁷ Page 14 of the TBFP

European standard. DAB was subsequently elected by the Minister of Communications in a Policy Directive, and South Africa has made provision in the ITU register for DAB Eureka 147. Flowing from this, ICASA made allocations for DAB in the 2008 Plan as well as the current draft Plan. ICASA is also aware of the 2006 Digital Migration Working Group Report (“the DMWG Report”) wherein recommendations were made to the Minister to consider DAB but did not exclude any other future standards.

3.18. The NAB appreciates that ICASA has allocated two DAB multiplexes per province (in accordance with Annexure D). The NAB believes further that in the interest of efficient spectrum use, also bearing in mind issues of demand and uptake of new technologies, not all provinces are on par. The NAB therefore proposes that ICASA should reconsider the provincial multiplex allocations for DAB. It would seem there are areas of inefficiency and wastage, for example, in provinces such as the Northern Cape, two multiplexes may be underutilised, due to socio economic issues. On the other hand, densely populated areas such as Gauteng, the Western Cape and Kwa Zulu Natal would require more than 2 multiplexes. The NAB attributes the problem of over providing multiplexes to the provincial allotments approach that ICASA has adopted. The NAB therefore proposes that ICASA considers reassigning more spectrum for DAB in the metropolitan areas where it is mostly required. This will in turn impact the VHF assignments for DTT and therefore requires a complete re-plan of the VHF band.

3.19. Furthermore, it is noted from the allocated frequencies for DAB that there are adjacent provinces namely Eastern Cape and the Free State that have the same allocated frequencies. Should the programming of these provincial multiplexes not be the same, nor in synchronisation in the overlapping areas, serious interference will occur, and make the transmissions unusable.

Self-help Stations

3.20. The NAB notes that ICASA still does not see the need to reserve frequencies for self-help stations due to the low power used and uncertainty of the requirement. The NAB however notes that self-help assignments have been listed in Annexures **B** and **F** of the TBFP, in accordance with the 2008 TBFP. The NAB would like ICASA to confirm that, post the analogue switch off, all existing self-help-stations will be migrated to Direct to home satellite (“DTH”) services.

Re-utilization of Spectrum after Analogue Switch-off

- 3.21. ICASA indicates that its UHF DTT frequency plan is based on provincial frequency networks (“SFNs”), and that the Plan allows for seven national DTT multiplexes.
- 3.22. The NAB is not aware of any public consultation leading to ICASA concluding that seven national DTT multiplexes will be sufficient to address the needs of existing and new terrestrial broadcasters, nor are we aware of any JSAG consultations in this regard.
- 3.23. It appears that ICASA has reached the conclusion that seven national multiplexes will be sufficient in the absence of any studies and without any consultation. The Authority’s proposals will have far reaching implications for the growth of terrestrial broadcasting and the cavalier approach to the future spectrum needs of the broadcasting sector is of great concern.
- 3.24. If ICASA had conducted even a preliminary assessment of the future spectrum needs of broadcasters, such an assessment would reveal that any plan which provides only seven national multiplexes for terrestrial broadcasting will be wholly inadequate for future requirements.
- 3.25. Even the briefest glimpse at worldwide trends confirms that the future standard for terrestrial television will be high definition and multi-channel. The European Broadcasting Union (“EBU”) estimates that at least 20 to 25 HDTV channels are needed to create an appealing DTT platform offering. In order to offer South African TV viewers 20 – 25 HDTV channels on the free-to-air DTT platform, at least 6 DVB-T2 multiplexes would be required for free-to-air alone, this number does not even begin to take into account the needs of current and future subscription services or the spectrum demands of new technologies like Ultra-HDTV.

4. CONCLUSION

- 4.1. The NAB once again thanks ICASA for the opportunity to make a written submission. The members of the NAB remain committed to the ICASA processes, and we are available to provide clarity, should ICASA require it.