



**NAB SUBMISSION TO THE INDEPENDENT COMMUNICATIONS AUTHORITY
OF SOUTH AFRICA ON THE DRAFT TERRESTRIAL BROADCAST
FREQUENCY PLAN 2008**

16 JANUARY 2009

1. INTRODUCTION

- 1.1 On 07 November 2008, in terms of section 34(8) of the Electronic Communications Act (the EC Act), ICASA invited interested parties to provide written representations on the draft Terrestrial Broadcast Frequency Plan (the draft plan), the closing date for the submission of such written representations is 16 January 2008. The National Association of Broadcasters (the NAB) welcomes the opportunity to make these written representations.
- 1.2 The NAB hereby also requests an opportunity to make oral representations in support of our written submission, should the Authority decide to hold oral representations.
- 1.3 The NAB is the leading representative of South Africa's Broadcasting Industry. The NAB aims to further the interests of the broadcasting industry in South Africa by contributing to its development. The NAB membership includes:
- Three television public broadcasting services, and eighteen sound public broadcasting services, of the South African Broadcasting Corporation of South Africa ("the SABC");
 - All the commercial television and sound broadcasting licensees, both free-to-air and subscription services.
 - Both the licensed common carrier and the selective and preferential carrier broadcasting signal distributors;
 - Over thirty community sound broadcasting licensees, and one community television broadcasting licensee, Trinity Broadcasting Network (TBN)

2. GENERAL COMMENTS

2.1 DATA ACCURACY RADIO FREQUENCY PLANS

- 2.1.1 The NAB submits that the 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 accurate as possible.

- 2.1.2 The NAB supports the notion that the accuracy of the data contained in the Broadcast Frequency Plan is of crucial nature and appreciates ICASA's call for comments on the accuracy and feasibility of frequencies and associated parameters.
- 2.1.3 The NAB appreciates the pressures that currently exist within the Authority, which have been posed by among others the digital migration planning. The NAB is concerned that all of these pressures have had an impact on the many issues laid out in the plan, especially in relation to data accuracy and international coordination.
- 2.1.4 As a result, the NAB is deeply concerned that the 2008 Draft Plan contains numerous inaccuracies and omissions.
- 2.1.5 The NAB's concern stems from the fact that the Frequency Plan is an extremely important document in maintaining order in the broadcasting industry and for planning purposes.
- 2.1.6 The NAB further notes that the frequency plan should contribute to the stability of the broadcast industry by laying out current usage of frequencies and indicating future requirements.
- 2.1.7 The NAB believes that the omissions and inaccuracies that appear in the draft plan can lead to instability and uncertainty for the broadcasting industry.
- 2.1.8 The NAB is of the view that rectifying these issues should be a priority for the regulator.
- 2.1.9 In this regard, the NAB refers ICASA to section 34 of the EC Act which provide as follows:

- 2.1.9.1 Section 34(4) mandates ICASA to prepare a National frequency plan or make modifications to any existing radio frequency plan to bring it into conformity with the EC Act, within 12 months of the coming into effect of the EC Act.
- 2.1.9.2 Section 34(4) requires ICASA to update and amend the frequency plan when necessary in order to keep the plan current. The EC Act further requires that when amending or updating the plan, due regard must be given to the current and future usage of the radio frequency spectrum.
- 2.1.10 It is the NAB's view that as a result of the statutory requirement for ICASA to review the frequency plan when necessary, in order to align the frequency plan with the current status of radio frequency spectrum, ICASA should not lag behind on its obligation to review the frequency plan, as has been the case in previous years.
- 2.1.11 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.
- 2.1.12 The new licencing regime for community sound broadcasting services, which allows community sound broadcasting registrations to be lodged without any limitations on registrants, will indeed exacerbate the necessity for ICASA to regularly review the frequency plan.
- 2.1.13 Furthermore, the NAB recommends that ICASA should revisit and reissue the complete frequency plan every third year provided that the review process, as contemplated above, is adhered to.

- 2.1.14 It is the NAB's submission that the above recommendation is in line with the requirements of the EC Act. It also allows the Authority and the broadcasting industry the opportunity to adequately address and keep track of changes to the frequency plan.
- 2.1.15 However, the NAB submits that the contemplated process will only be of value to the Authority and the broadcasting industry if the frequency plan is comprehensive and accurate. It is therefore the NAB's view that the 2008 frequency plan should be viewed as an opportunity to eliminate all omissions and inaccuracies. Once this is achieved the process as recommended above could be implemented.
- 2.1.16 The NAB submits that the nature of the tables contained in the draft plan make it difficult to give meaningful comment. The NAB recommends that the tables 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.
- 2.1.17 In addition, the NAB sees no relevance in ICASA having separated the frequencies per the annexures. This further adds to the difficulty of studying and interpreting the frequencies, while having the frequencies all on a single spreadsheet simplifies matters, and provides a holistic picture and making the raw data available for ease of manipulation.

3. GUIDING PRINCIPLES

3.1 Categorisation of Services

- 3.1.1 The Authority states in the draft plan¹ that it will consider the re-categorisation of frequencies where a request is made. To this end, the NAB applauds the Authority's commitment in this regard, as the frequency plan should be a living document, which should reflect changes in the spectrum allocations as and when they arise, and is in support of

¹ On page 4 of the draft plan

the legislative requirement for the review of the frequency plan when necessary. Lack of regular updating of the plan has previously been the stumbling block to prospective licencees as the plan never reflected recent changes. It also adds to the difficulty of developing and implementing new policy as spectrum availability is a pre-requisite for new policy.

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

3.1.1 The NAB submits that when making future assignments in preparation for the digital migration, the Authority should avoid interruptions in the existing broadcasting services. Any frequency migrations that may ensue as a result of the future assignments should be adequately communicated with broadcasting licencees, and properly researched before implementation.

3.1.2 Furthermore, the migration process should be planned and implemented in such a way that double migration to free up future spectrum is avoided as much as possible. Viewers should have no interruptions of services and migrating to new frequencies should be kept as simple and painless as possible.

3.3 Protection of the integrity and viability of the public broadcaster

3.3.1 The NAB supports the Authority's quest to protect the integrity of the public broadcasting licencee. In the assignment of frequencies in relation to spare and assigned public broadcasting services, the Authority must be mindful that the public broadcaster has an obligation to make its services available to all South African citizens and hence has to continually expand the coverage of its services.

3.4 Fair Competition between Broadcasting Services

3.4.1 The NAB supports the introduction of fair competition and diversity in the broadcasting industry. The draft plan stipulates that the plan allows in

most cases, for frequency assignments with similar coverage area for commercial broadcasting licencees and public service licencees.

- 3.4.2 The NAB proposes that the Authority should closely monitor this process in order to avoid interference problems. The NAB foresees that the Authority will be faced with having to prioritise licencees in cases of interference.

4 DIGITAL MIGRATION REQUIREMENTS ANALYSIS

4.1 National Preparatory Analysis

4.1.1 The Authority states that Digital Audio Broadcasting frequencies (DAB) will only be availed, once analogue television broadcasting services have been switched off or when certain television broadcasting services have migrated. The Authority states further that for terrestrial transmission the only option is to deploy DAB in the L-Band in the short term until such time that the television services have migrated.

4.1.2 The NAB proposes that having regard to government policy on broadcasting digital migration, that the migration of FM services is not a national priority for digital migration, the Authority should therefore deal with frequency allocations for DAB once the digital migration process has been completed.

4.1.3 However, should the Authority decide to migrate certain broadcasting services in order to accommodate DAB services, a proper feasibility study must be conducted to ascertain the feasibility of co-existence or the need to migrate existing broadcasting services in order to accommodate DAB services. This process must be done in consultation with broadcasting licencees, and the process should in no way interrupt existing broadcasting services.

4.2 Digital Migration Plan

4.2.1 The Authority states that during the dual illumination period, it may not be possible to reach all areas by analogue and digital broadcasting at the

same time. Due to the topography and geographical limitations of the country, certain parts of the country are currently not receiving any broadcasting services. The Broadcasting Digital migration Working Group (the BDMWG) in its final recommendations to the Minister of Communications did make this observation.

- 4.2.2 The NAB welcomes the Authority's proposal that there is a need for the establishment of more gap-filler sites to ensure that analogue network is illuminated.
- 4.2.3 To take this matter further, the NAB proposes that the Authority should put an authorisation process in place in order to quicken the process of authorising gap-filler stations.
- 4.2.4 The NAB therefore recommends that the Authority, should set a criteria for the authorisation of gap fillers, specifically for the dual illumination process, in order to facilitate a quick and less strenuous process going forward.
- 4.2.5 The Authority should adopt a registration process similar to the registration process for Community sound broadcasting licences promulgated by section 16 and section 17 the EC Act, which outlines the registration process for the registration of Class Broadcasting licences. This process must be done in conjunction with the provisions of section 31(2) of the EC Act.
- 4.2.6 The registration process to be adopted must enable broadcasting licencees to identify frequencies for gap fillers. The role of the Authority will be to satisfy itself that the identified frequencies do not cause any interference.

4.3 Self-Help Stations

- 4.3.1 The Authority stipulates in the draft plan that no frequencies will be reserved for self-help stations due to the low power used and uncertainty of the requirement.
- 4.3.2 Self-help stations have played and continue to play a pivotal role in availing broadcasting services to those communities which do not have any network coverage. It is foreseen that even post analogue broadcasting, the need for self-help stations will still remain, as there are areas which will never be reached by terrestrial digital signals.
- 4.3.3 The Broadcasting Digital Migration Working Group (BDMWG) in its final report to the Minister of Communications did allude to this fact. A proposal was made in the final report that coverage to such areas should be augmented by satellite reception.²
- 4.3.4 Looking at the draft plan, it is not clear why the Authority has classified self-help stations according to the province in which they are situated. However, in numerous cases this has been done incorrectly and self-help stations have been placed in the wrong province.
- 4.3.5 The NAB also submits that the self-help stations database seems to contain numerous omissions and inaccuracies. This needs to be addressed by ICASA as a matter of urgency. Members will make specific representations on these in their individual submissions.

4.4 Digital Dividend

- 4.4.1 The Authority recognises that after dual illumination, more spectrum will be available for additional digital broadcasting, digital services and telecommunications.
- 4.4.2 The NAB appreciates the fact that there will be excess spectrum released, once the switchover process has been completed. The

Authority is cautioned that when licencing additional services on the freed up spectrum, the Authority should give first preference to broadcasting services.

4.4.3 Consequently, the NAB recommends that:

4.4.3.1 The band plan must ring-fence the digital dividend and it must remain classified as broadcasting spectrum.

4.5.3.2 In terms of footnote 5.316A of the ITU regulations, broadcasting services must be given first priority on the digital dividend. The footnote stipulates *inter alia* that stations of the mobile service with allocations in band 790 to 862 MHz, for Region 1 shall not claim protection from, broadcasting stations.³

4.4.3.2 Furthermore the WRC '07 decision that allows for the licencing of non-broadcasting services in spectrum allocated for broadcasting services only relates to the 790MHz to 862MHz frequency range.

4.4.3.3 In due course, the Authority will be licencing additional digital broadcasting services such as high definition television channels (HDTV), digital mobile television, some of which are spectrum hungry, hence the need to prioritise broadcasting services when dealing with the digital dividend.

4.5 IMT (International Mobile Telecommunications)

4.5.1 The Authority states in the draft plan that the band 790MHz to 862MHz has been identified by the IMT implementation.

4.5.2 On 22 February 2006, the Authority published a notice of its intention to use Channel 65 (822-830 MHz) for non-broadcasting services. At the public hearings that ensued it transpired that the use of channel 65 for

² Report: The proposed switchover to digital broadcasting in SA. Final version 17 Nov 06.

³ World Radiocommunications Conference Final Acts Geneva, 22 October-16 November 2007

non-broadcasting services couldn't be considered in the absence of a feasibility study being conducted to determine such use. It was on the basis of this that the Authority appointed a consultant to investigate the technical feasibility of accommodating non broadcasting services on the channel.

4.5.3 Based on the outcome of the investigation, the Authority among others took a decision that accommodating non-broadcasting services on channel 65 will only be done once the digital migration process has been completed.

4.5.4 The NAB is therefore of the view that in considering the allocations in the 790MHz to 862MHz band, for IMT the Authority must be guided by the principles adopted in the technical feasibility study of using channel 65 for non-broadcasting services.

5 Efficient Use of the National Broadcast Frequency Spectrum

5.1 The NAB is concerned that the Authority is continually adding frequencies to the Plan and this has the effect of decreasing the usable field strength of existing assignments in the Plan. Section 34(6)(c) of the EC Act requires that the Authority must aim at reducing congestion in the use of radio frequency spectrum. The Authority is further required in terms of section 34(6)(d) to aim at protecting licencees from harmful interference.

5.2 By adding frequencies to the plan, interference levels increase as additional assignments can only be made by re-using frequencies. The NAB submits that the Authority should publish the resultant usable field strengths that result from additions to the plan to enable the South African broadcasting sector to objectively assess the Plan.

5.3 The NAB submits that without reference usable field strengths and new usable field strengths as a result of the additional frequencies being published, it is impossible to ascertain the impact on existing broadcasters.

6 Broadcasting Frequency Bands Included In The Frequency Plan And Its Usage In South Africa

6.1 MF-AM BROADCASTING BAND

6.1.1 The Draft Plan states that there is currently a medium to high power MF-AM transmitting site situated at Meyerton, Springs, Roodepoort, Komga Ga-Rankuwa and Klipheuwel. NAB queries the validity of the Roodepoort transmitter. In the past the SABC did operate a MF transmitting site at Maraisburg in Roodepoort. However, this site was closed down and sold. The NAB therefore proposes that Roodepoort should be deleted from the transmitter sites listed.

6.2 E.R.P.

6.2.1 It is stated in the Draft Plan that the ERP is “sometimes” rounded off to the nearest integer. The NAB submits that the Authority should specify when such rounding off occurs. However, the NAB would urge the Authority to adopt the ITU practise of indicating ERP in dBW.

6.3 Joint Spectrum Advisory Committee

6.3.1 The broadcasting industry has in the past made requests and submissions to the Authority to establish a committee to assist it with spectrum management. This will relieve some of the pressure on the Authority’s resources and in the interest of orderly frequency management.

6.3.2 The NAB strongly believes that the recommendation to make use of the expertise in the broadcasting industry, if accepted, will not negatively impact on the independence of the Authority. Such a committee will not have decision-making powers and can only make recommendations to the Authority.

6.3.3 The ITU has recognised that countries often have limited resources that can be applied to spectrum management and that often spectrum users and service providers are the most qualified to deal with the issues. Spectrum users also have a great deal of motivation for resolving

spectrum issues because spectrum management is essential to the success of their organisations.

6.3.4 Consequently, in order to promote the efficient and effective co-ordination of the broadcasting frequency band plan, and a continued monitoring and review of the broadcasting band plan, the NAB recommends that the Authority should establish a joint spectrum advisory committee (JSAC). The Authority has made such a proposal already, in the draft Broadcasting Digital Migration Framework Regulations ⁴(draft DTT Regulations).

6.3.5 It is the view of the NAB that such a committee should not only exist to assist with the migration process but should be utilised by the Authority on all spectrum related matters.

6.3.6 To this end the NAB suggests that the JSAC be tasked with:

6.3.6.1 Reviewing the broadcasting frequency plan when necessary, in terms of section 34(5) of the EC Act;

6.3.6.2 Making recommendations to the Authority on changes that have occurred on the broadcasting frequency plan, as a result of new allocations that have been made;

6.3.6.3 Advising the Authority on the re-categorisation of frequencies that are not being used by the designated broadcasting services;

6.3.6.4 The JSAC may advise the Authority on any issue affecting the broadcast frequency band plan;

6.3.6.5 The recommendations of the JSAC shall not be binding on the Authority.

6.3.7 Alternatively the JSAC that will be established in terms of the draft DTT Regulations, upon its dissolution six months after the completion of the

⁴ Published in government gazette 31490, Notice number 1240 of 2008, on page 17

digital migration process, should further be empowered to look into reviewing the band plan as anticipated by the EC Act.

7 CONCLUSION

- 7.1 The NAB wishes to thank the Authority for the opportunity to make these written representations.

- 7.2 The NAB wishes to reiterate the importance of the accuracy of the Terrestrial Broadcast Frequency Plan in the interest of orderly frequency management in South Africa.

- 7.3 As the leading industry representative, the NAB trusts that ICASA will consider its submission carefully. The NAB is available to assist ICASA on any matter raised in its submission on the Draft Terrestrial Broadcasting Plan.