



**NAB REPRESENTATIONS TO THE INDEPENDENT  
COMMUNICATIONS AUTHORITY OF SOUTH AFRICA ON ITS  
INTENTION TO USE CHANNEL 65 (822 – 830 MHz) FOR NON-  
BROADCASTING SERVICES AS PUBLISHED IN  
GOVERNMENT GAZETTE NUMBER 28547, NOTICE 315 OF  
2006**

**30 MARCH 2006**

## **1. INTRODUCTION**

- 1.1. In the Government Gazette of 22 February 2006, ICASA in terms of Section 29(4) of the Telecommunications Act and Section 31(2) of the Independent Broadcasting Authority Act invited interested parties to make written representations regarding its intention to use channel 65 as described in the annual terrestrial broadcasting frequency plan for “non-broadcasting purposes”. The National Association of Broadcasters (“the NAB”) welcomes the opportunity to make these written representations. The NAB would also like to have the opportunity to make an oral representation at the hearings of this matter when they occur.
- 1.2. The NAB is the leading representative of South Africa’s broadcast industry representing:
  - 1.2.1. All television broadcasters;
  - 1.2.2. Eighteen SABC radio stations;
  - 1.2.3. Thirteen commercial radio broadcasters, the only community television broadcaster and over thirty community radio broadcasters; and
  - 1.2.4. Both the common carrier and the selective and preferential carrier licensed signal distributors.

## **2. PRIOR NAB SUBMISSIONS ON THIS ISSUE**

- 2.1. In 1999 the Independent Broadcasting Authority (IBA) initiated an inquiry into the use of the 800 MHz band for wireless local loop (WLL) applications.
- 2.2. The NAB, in its response to this inquiry indicated that it supported the submissions made by Orbicom (Pty) Ltd and Sentech, both of whom strongly opposed the proposed sharing arrangement.
- 2.3. In 2002, ICASA invited comment in relation to an amendment of the radio frequency band plan for the range 20MHz to 3GHz.

- 2.4. In those representations, the NAB stated its position that it supported the principle of sharing spectrum between services wherever possible, particularly to maximise efficient use of the broadcasting spectrum.
- 2.5. In relation to that proposed amendment of the radio frequency band plan, the NAB opposed the Gazette.
- 2.6. In those same submissions the NAB argued that a study had to be conducted to determine national spectrum requirements, particularly in relation to the requirements of the frequency range in question.
- 2.7. The NAB also raised matters in relation to interference and the costs in relation to any study that would need to be undertaken.
- 2.8. In 2004, a further Gazette was published in relation to the same range of the radio frequency band plan. That Gazette referred to the 2002 Gazette and the public process which understood the need for sharing channels 64 to 68 of the UHF television band. The findings stated in that Gazette were that:
  - 2.8.1. spectrum sharing can occur in certain circumstances;
  - 2.8.2. sharing between analogue broadcasting transmission and digital transmission is not feasible;
  - 2.8.3. two television channels would be required for WLL services;
  - 2.8.4. studies needed to be undertaken to assess feasibility;
  - 2.8.5. the digital migration process needed to be taken into account;
  - 2.8.6. universal television coverage has not yet been achieved in South Africa;
  - 2.8.7. spare capacity in the television band needs to be used in relation to that television coverage;

- 2.8.8. economies of scale will eventually result in affordable voice and data services;
  - 2.8.9. band sharing cannot be over emphasised; and
  - 2.8.10. ICASA has decided to conduct a full-scale research into these sharing possibilities.
- 2.9. The start date of the research project was to be 1 April 2004.
- 2.10. The NAB understands that while certain steps may have been undertaken in relation to a study in that regard, the results of that study have never been made public and the public have never been given an opportunity to comment. It is against that backdrop that ICASA has published the 2006 Gazette.

### 3. THE NAB'S KEY CONCERNS

- 3.1. In approaching these representations the NAB has a number of key concerns. Certain of these are concerns of a policy nature and certain are concerns of a technical nature. Once we have considered the Gazette, we will deal with each of these in turn, but at the outset, summarise our key concerns as follows:

#### 3.1.1. Policy

- 3.1.1.1. The negative impact on migration from digital to analogue broadcasting and the period of dual illumination;
- 3.1.1.2. The apparent disregard authority of the ITU and the lack of consultation regarding ITU policy;
- 3.1.1.3. The lack of policy in relation to the frequency plan and spectrum usage;
- 3.1.1.4. The lack of policy in relation to sharing the band in question.

### 3.1.2. **Technical**

- 3.1.2.1. Interference in relation to metropolitan areas caused by the change to the frequency plan;
- 3.1.2.2. The manner in which sharing will be implemented;
- 3.1.2.3. Technical difficulties caused by the limitations offered by Channel 65.

3.2. In order to try to clarify the meaning of the Gazette, particularly in relation to sharing the 800Mhz broadcasting band, the NAB wrote to ICASA on 17 March 2006 to try to clarify matters in relation to the enquiry particularly in relation to sharing and whether it is ICASA's intention to allocate channel 65 for use by telecommunication services. In its reply of 24 March 2006, ICASA offered no clarification but simply referred the NAB back to the discussion document. It is against a background without clarity that the NAB makes its submissions.

## 4. **THE 2006 GAZETTE ITS IMPLICATIONS AND THE NAB'S POSITION**

4.1. In relation to the 2006 Gazette, the NAB notes that it has been published properly in terms of Section 29(4) of the Telecommunications Act but limited to Section 31(2) of the IBA Act. This section deals with the frequency plan and the basis upon which that frequency plan had to be first published after the commencement of the IBA Act and the annual revisions thereof. Section 29 of the IBA Act which is notably absent from the general notice deals with matters in relation to the administration, management, planning and use of broadcasting services frequency bands. It is submitted by the NAB that it would have been proper and better suited to this inquiry to publish the notice in terms of Section 29 of the IBA Act. By not stipulating clearly in the notice, matters in relation to the radio frequency band plan, members of the public who may otherwise have been interested to comment would not have the opportunity to understand what the precise intention of the amendment is. This is important as, for example, the change in frequency at Port Elizabeth City could result in viewers having to acquire new receiving antennas.

In the preamble to the general notice, it is stated that ICASA is mandated to regulate broadcasting in the public interest and ensure fairness and a diversity of views broadly representing South African society. It is also mandated to regulate telecommunications in the public interest. It is apparent therefore, that ICASA might from time to time be required to determine matters where there are competing and possibly conflicting interests between broadcasting services and telecommunications services. The Gazette which is under consideration in terms of this matter appears to seek comment on a matter of obvious competing public interests. On the one hand, the broadcasters would, if the matter attracted the support of ICASA, be required to vacate channel 65 while that channel would become allocated for non-broadcast usages. However, the Gazette does not make clear anywhere what the proposed usages of that channel might be, for example, whether the intended services would be fixed or mobile services.

- 4.2. In the discussion document the key objective is to “provide spectrum for non-broadcasting services in the band 822 to 830MHz”. While the Gazette asserts that the Authority has conducted research into how sharing can be achieved, the results as stated previously, have never been published or made public. However, the technical feasibility according to the discussion part of the Gazette appears to demonstrate two things:

- 4.2.1. Channel 65 is most suited to hosting non-broadcasting services; and
  - 4.2.2. While the previous findings have been that if there was to be some use by non-broadcasting services on channel 65, those would have to be on a sharing basis, sharing can now only be achieved within the band of channels excluding channel 65.
- 4.3. Without the Gazette being clear in relation to the basis upon which the non-broadcasting services may be allowed to occupy channel 65 and not specifically excluding the use of mobile services, the NAB has no other option but to assume that this is a distinct possibility. If the non-broadcasting services were of a fixed nature only, then there would be certain feasibilities in relation to sharing Channel 65 between broadcasting and fixed telecommunication services. The fact that sharing of channel 65 is not

proposed, points to the fact that there is certainly to some extent, an intention to make channel 65 available for use by mobile services.

- 4.4. The NAB submits that in terms of the ITU Radio Regulations, the band 790-862 MHz is allocated to the broadcasting service and the fixed service on a co-primary basis in ITU Region 1. The South African Table of Allocations indicates that in South Africa the band 470-854 MHz is exclusively allocated to the broadcasting service, and the band 854-862 MHz is exclusively allocated to the fixed service. The allocation of any part of the band 790-862 MHz to the mobile service would be in contravention of Article 5 of the ITU Radio Regulations, as well as in contravention of No 4.4 of the ITU Radio Regulations, which prohibits the assignment of frequencies in derogation of the ITU table of frequency allocations. The NAB submits that the introduction or permissibility of any mobile networks in relation to channel 65 will contravene the ITU regulations to which South Africa is a signatory.
- 4.5. Without having the benefit of the Gazette expanding upon what non-broadcasting services might be utilised, the NAB has had to come to its own conclusions in this regard. Ultimately, the NAB is of the view that it is the intention to allow either the USAL's, possibly the SNO and possibly even other mobile networks to use the channel. This might also include the requirement of the channel by 3G mobile services.
- 4.6. Should the frequencies be made available to the USAL's or other mobile operators, then the source of interference would be unknown and the imposition on other broadcasters using other channels within that band will be affected. The NAB submits that ICASA has not fully considered the implications for the public through the effective interference that will be caused by the allocation of channel 65 for non-broadcasting purposes. It has also not properly considered the position of other broadcasting channels which continue operating within that band. Finally, it seems that ICASA has not taken into account the interference with other broadcasters using channel 65 within the geographic proximity of those areas which will be required to be vacated.

## **5. MOST SIGNIFICANT CAUSES FOR CONCERN**

The NAB turns its attention to the detail of the key areas of concern set out briefly at paragraph 3 above.

### **5.1. POLICY CONCERNS**

5.1.1. Importantly, South Africa is about to embark upon the process of the migration to digital broadcasting. It has been agreed that this process of digital migration will take between ten and fifteen years and will more likely lean towards a longer period. For a significant period of digital migration, there will be a process of dual illumination which will mean that broadcasters who are required ultimately to be broadcasting on a digital platform will for an interim period, remain on an analogue frequency and simultaneously on a digital one. This period of dual illumination forms a significant amount of the policy work being undertaken by government in order to establish the viability, feasibility and roll out. It is technically clear that during the period of dual illumination, the broadcasters will need all of the spectrum available to them. While the NAB recognises the difficulty of balancing objectives and the competing interests of Government objectives such as digital migration and the needs of broadcasting services as opposed to the needs of telecommunications services, these policy objectives need to be prioritised and clearly spelled out in terms of national policy to ensure regulatory guidance and certainty in future.

5.1.2. The second significant cause of concern to the NAB is the overriding authority imposed by the ITU and its regulations and findings. Section 29 of the IBA Act makes it clear that the Republic will meet the obligations imposed by the ITU as and when necessary. The NAB is of the view that given the pre-existing regional ITU findings and the recommendations which have been accepted by ICASA, that the vacation of channel 65 would contravene the ITU regulations. The NAB submits that all of the neighbouring countries would need to be consulted and the new allocations and future assignments be co-ordinated in accordance with the relevant ITU provisions. Given that it



has already been made clear that the vacation of channel 65 by broadcasting services would fly in the face of the needs of the country in the period of dual illumination towards a digital broadcasting environment, this would seem to be an act in flagrant disregard of the ITU and should, on those grounds alone, be abandoned.

- 5.1.3. It is also important to point out that to the best of the NAB's knowledge, ICASA has never informed the ITU that it is making or wishes to make channel 65 available for non-broadcast purposes and again, this seems to contravene both international law and the diplomatic goodwill which has been generated by this country in its relationship with the ITU.
- 5.1.4. Considering that this matter has been raised twice previously, it is the third area of concern to the NAB that it is being raised again, with a more extreme consequence for broadcasters without a clear policy being enunciated in relation to spectrum usage. The NAB has already, both formally and informally, raised with ICASA matters in relation to the various draft frequency plans prepared by ICASA and the fact that until such time as a final frequency plan is established which will once and for all, set out all matters in relation to frequency usage and interference, this step set out in this Gazette seems premature. Furthermore, in the absence of clear guidelines and a policy document, ICASA does not seem to have weighed up and certainly not made available for public comment, its views as to why there should be a sacrifice on the part of the broadcasting industry in favour of that of the telecommunications industry.
- 5.1.5. The fourth area of concern to the NAB is that previously, the policy, however unformulated and broad, set out an understanding that sharing was a key factor. This has been replaced by a concept of migration, at least away from channel 65 and replaced by the concept that sharing should happen across the whole band. Therefore, the other channels, while remaining within the range will be seen to be participating in some form of arrangement of sharing. The NAB submits that this is not what was contemplated previously and demonstrates a shift in policy.

- 5.1.6. The fifth cause for concern is in relation to one of the possible usages of the channel and that is in relation to the USAL services intending to use CDMA 800 technology. The NAB understands that concern has been expressed by various groups including, the American trade mission, about the hardware. Particularly in this regard, we refer to the telephony hand-sets, which are very cheap and will be made available in African countries including South Africa in what has been described as a “dumping” policy. While the telephony units may be usable and while communication by certain members of the public in those particularly rural areas may be paramount, the effect of the placement of such hardware would be to isolate those communities. By this we mean that the hardware does not provide for interoperability for users to choose between networks when outside of a USAL’s coverage area, is not capable of upgrades, is not capable of accepting different forms of software development into its circuitry and if there is ever a need for more advanced applications, there will be in place a technology system and a hardware usage system which would be backward rather than forward looking. The NAB cautions, to the extent that this is a matter of fact, to be wary and significantly concerned about the ramifications in this regard. The NAB is also concerned that CDMA technology does not propose and provide any value added services for the users in the areas in question.

## **5.2. TECHNICAL CONCERNS**

- 5.2.1. The sixth key concern relates to interference, particularly in relation to metropolitan areas. The draft changes to the frequency plan which are contained in the Gazette at page 8 contain a certain number of gaps where proposed frequencies have not been allocated. This indicates obvious shortcomings in the frequency plan at this early stage. Furthermore, it is submitted that even in certain instances where proposed frequencies have been allocated, these may not be optimal in relation to matters of interference. Without having undertaken significant testing, the NAB has already been able to establish that, for example, in both Mulbarton and Port Elizabeth City, the frequencies identified in the

notice as the destination frequencies for the existing CH 65 transmissions are the same frequencies that ICASA has identified for digital transmission at these sites. This means that at these sites there can be no period of dual illumination in the transition to digital, but that there will have to be an instantaneous switch-over. The NAB submits that this is not in the interests of television viewers in these areas.

5.2.2. The seventh significant cause for concern is that all telecommunications operators who require access to the band in question cannot operate within the provisions of channel 65. It appears to the NAB therefore that this is the first step of a logical process of migration which will require broadcasters to vacate other channels within the band for non-broadcast services in due course.

5.2.3. The eighth area of concern is that it has come to the NAB's attention that at least one operator wishes to deploy high speed wireless Internet access in Sandton specifically using the band 822-830MHz. If this is indeed the case, the NAB strenuously objects to this.

## **6. CONCLUSION**

6.1. This document sets out the NAB's essential concerns and difficulties against the backdrop of the Gazette. Our representations have been somewhat hamstrung by the fact that the policy proposed by ICASA or the policy which has informed it is not made clear. The concept of "non-broadcasting services" has been left to supposition and conjecture.

6.2. In conclusion it is submitted that until such time as all major policy issues have been clarified, made available for public comment and formed the basis for public engagement, until such time as the ITU and South Africa's neighbours have been approached and their views dealt with, and until such time as the period of digital migration is complete, vacating channel 65 for use by non-broadcasting services can not be justified and should not be considered.

- 6.3. The NAB shall make further submissions in regard to these representations and shall amplify them at the oral hearings of this matter.

NAB

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