GENERAL NOTICE

NOTICE 1272 OF 2008

INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA (ICASA)

NOTICE IN TERMS OF SECTION 34 OF THE SOUTH AFRICAN ELECTRONIC ACT, NO. 36 of 2005 ("THE ACT") INVITING REPRESENTATIONS WITH REGARD TO THE DRAFT TERRESTRIAL BROADCASTING FREQUENCY PLAN 2008

The Independent Communications Authority of South Africa ("The Authority") hereby gives notice and invites comments on the Draft Terrestrial Broadcasting Frequency Plan 2008, under section 34(8) of the Act, to make written representations on the Draft Plan.

Electronic copy of the Draft Plan is available on the Authority's website at http://www.icasa.org.za. Hard copies can also be obtained in the Authority's Library at 164 Katherine Street, PinMill Farm, Block D, Sandton, between 08h30 and 16h30, Monday to Friday.

Interested persons are hereby invited to submit written representations on this Draft Terrestrial Broadcasting Frequency Plan, to be received by no later than 16H00 on the 21st November 2008 by post, hand delivery, fax and electronically (Microsoft Word or Adobe PDF) for the attention of:

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Block A, Pin Mill Farm, 164 Katherine Street, Sandton

or

Private Bag X10002, Sandton 2146;

Persons making written representations are requested to indicate if they wish to make oral submissions in the event that the Authority decides to conduct oral hearings in terms of Section 34(9) of the Act.

All written representations submitted to the Authority pursuant to this notice will be made available for inspection by interested persons at the Authority's library and copies of such representations will be obtainable on the payment of the prescribe fee.

At the request of any person who submits written representations pursuant to this notice, the Authority may determine that such representations or any portion thereof is confidential. If the request for confidentiality is refused, the person making the request will be allowed to withdraw such representations or portion thereof.

With respect to written representations or portions thereof determined to be confidential, the Authority may direct that the public or any member or category thereof, shall not be present while any oral submissions relating to such representations or portions therefore are being made; provided that interested parties shall have been notified of this intention and allowed to object thereto. The Authority will consider the objections and notify all interested parties of its decision.

PARIS MASHILE
CHAIRPERSON
INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA

ICASA

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Independent Communications Authority of South Africa

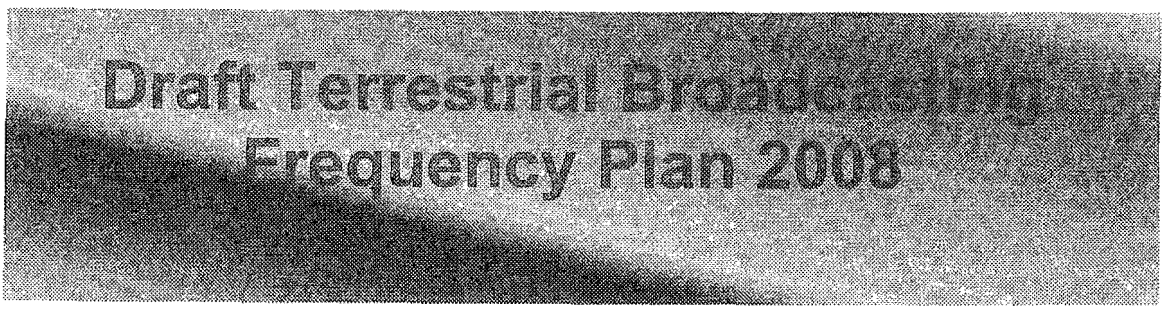

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Table of Contents

LIST OF TABLES

Annexure

1 INTRODUCTION AND BACKGROUND

Subsequent to the publication of the South African Table of Frequency Allocation (SAFTA) in terms of sections 30 (1) and 34 of the ECA, the Authority hereby publishes this document on Broadcasting Frequency Allotment as an Annexure to the SAFTA. This document should thus be read together with the SAFTA. The document is published for the purposes of adding further detail to the allotment of broadcasting frequencies, with a specific emphasis on frequencies that will be assigned for digital migration purposes.

Given the complex nature of digital migration, which should be accomplished with a short space of time, the Authority believes that consensus on the allotment and assignment of frequencies is required. This clarity will, in particular, assist the electronic communications network services (ECNS) in the rollout of an electronic communications network across the country. In the interest of providing the necessary clarity in respect of the Authority's perspective of the whole broadcasting sector, the document also highlight the allotment of frequencies for the purposes of sound broadcasting services.

The Authority published the first final Terrestrial Broadcast frequency plan in October 1999. Two revisions have since been published in July 2002 and December 2005 respectively.

2 GUIDING PRINCIPLES

The Authority's approach to this document was informed by a number of principles as outlined below:

2.1 Categorization of Services

As part of the promotion of all components of broadcasting services, the plan is categorised into:

Individual TV/Sound Broadcasting Services	Class TV/ Sound Broadcasting Services
Public National (PNS)	Community District (CTY)
Commercial National(CML)	

The categorisation was informed by the following:

- Expressions of interest for commercial, community and digital broadcasting services;
- The Triple Inquiry Report, including language obligations[1];
- The current licensed broadcasting services;
- The SABC radio language service expansion;
- Coverage and ERP requirements of broadcasters;
- Additional regional public broadcasting services licenses.

The Authority may consider re-categorisation where a request is made. In analysing the request, the Authority will consider optimum usage of the broadcast frequency spectrum and changes (technology or otherwise) in the broadcasting industry.

A request for categorisation must be made in writing and completed with full motivation. . The application will be gazetted by the Authority for public comments. In case of objections, the Authority may decide to hold public hearings before a final decision is made.

2.2 Contribution to the Diversity Requirements of the Act

Section 2(s) (i) of the EC Act promotes a diversity of services. The Terrestrial Broadcasting Frequency Plan is aimed at contributing to diversity by amongst other things ensuring audiences have access to different categories of services on different technological platforms.

[1] See page 8 of the Triple Inquiry Report 1995.

2.3 Protection of national and regional Identity, Character and Culture

The Terrestrial Broadcasting Frequency plan attempts to give every citizen access to at least one broadcast frequency assignment for a service in his or her language of choice. In areas of greatest demands, such as Johannesburg, a greater number of frequency assignments are grouped together to address this need. The Authority has noted that the roll out of digital terrestrial and satellite broadcasting would go a long way to help alleviate the shortage of frequency assignments in some geographic areas.

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

The Terrestrial Broadcast Frequency Plan does not deprive any existing licensed broadcaster of any frequency assignment. Future assignments though might necessitate some frequency changes to existing broadcasting services. These changes will as far as possible be limited to stations that have a low ERP and a small coverage area[2]. The GE-06 plan has made provisions for 2x1.5 MHz of a national T-DAB network for the whole country from 214-230MHz.

It was agreed with the neighbouring countries, that in areas where there is more demand, each country could add more channels after consultation with the affected neighbouring countries. T-DAB allotment can only be available once the current analogue services have migrated to digital.

[2] Frequency changes will be made in accordance with Section 31(4) of the EC Act

2.5 Protection of the integrity and viability of the public broadcaster

Section 2(t) of the Act advocates the protection of the integrity and viability of public broadcasting services. The plan protects all operational PBS services and reserves frequency assignments to cater for public broadcasting. These PBS frequency assignments are listed as Spare (SP) or Operational (OP) status. Television frequency assignments with a low ERP (less than 1 kilowatt) were not considered for co-ordination and are therefore marked as SPA or OPE.

2.6 Efficient Use of the National Frequency Spectrum

Section 2(e) of the Act provides for the efficient use of the radio frequency spectrum.

2.7 Fair Competition between Broadcasting Services

Section 2(g) of the Act mandates the Authority to ensure fair competition between broadcasting licensees. In order to fulfil this mandate, the plan allows, in most cases, for frequency assignments with similar coverage area (CML, PBS, PNS) in the same licence areas. This will allow for fair competition between different private broadcasters due to the equal potential listener- and viewer-ship from a transmitter site. The responses for the expressions of interest for radio (community and commercial) were taken into account in developing the Plan. The Community frequency assignments vary in ERP from area to area, and sometimes in the same area, depending upon the coverage requirements for each Community.

2.8 Promotion of stability in the broadcasting Industry

The Authority has attempted to make frequency assignments available according to demand, need and population distribution.

2.9 Promotion of research into broadcasting policy and technology

The Authority has actively supported the promotion of research into broadcasting policy and technology and has licensed test broadcasts for both T-DAB Eureka 147 as well as DVB-T. Tests have been conducted by Sentech in Johannesburg and Pretoria for T-DAB on 239.2 MHz and 1466.656 MHz. Test for DTT has been carried out on channel 58 in Johannesburg. Orbicom and MNET have also conducted DTT tests in Johannesburg, Kyalami and Helderkruin on channel 62. The Authority has also licensed DVB-H test licenses to MNET, Vodacom and Sentech The feedback received from the tests assist the Authority in acquiring insight on pertinent issue of the technology

3 DIGITAL MIGRATION REQUIREMENTS ANALYSIS

3.1 National Preparatory Analysis

The Authority has in the past year licensed DVB-H test licenses to MNET, Vodacom and Sentech. The feedback received from the tests assist the Authority in getting to acquire knowledge on the technology and insight from industry of the potential that such a technology could have in the development of digital broadcasting in the country.

The Department of Communications in preparing the country for the Regional Radiocommunications Conference (RRC-06) that was held in May/June 2006 established a National Preparatory Task Team, with the view of developing a digital plan for South Africa. The National Preparatory Task Team, subsequently agreed on a plan that was submitted to the International Telecommunications Union (ITU). The plan was developed as follows:

The Plan seeks to address the introduction of new players in the market from the inception of digital transmission. This plan attempts to meet the industry requirements as submitted by industry.

The plan permits new players, albeit limited and as services begin to switch off analogue transmissions a further freeing of spectrum will permit more role players to enter into the market.

The Plan also addresses the Digital Audio Broadcasting (DAB) services needs by the industry. The occupancy of the Very High Frequency Band (VHF) by television services further limits the introduction of Digital Audio Broadcasting in the short term.

Due to the limited number of VHF channels available and the intensive occupancy of VHF band, use of these frequencies for DAB and DTT can only occur once existing analogue television services have migrated to digital or in a sudden switch over scenario. The VHF band has only seven frequency assignments, and all this frequencies are extensively used for television transmission in analogue format.

It is therefore essential that in order for Digital Audio Broadcasting to be deployed in this band some services will have to be migrated first.

The Plan proposes that should there be a need for introduction of DAB before some television assignments have migrated; the L-Band should be used in the short term. The bands that DAB can operate are the VHF band , the L-Band and through satellite. Therefore in as far as terrestrial transmission is concerned the only option is to deploy DAB in the L-Band in the short term until such time that the television services have migrated.

3.2 Industry Digital Migration Requirements Analysis

The requirements for DTT spectrum have been compiled in consultation with the industry through an exercise carried out by the Department of Communications in preparation for RRC-06. The requirements are shown in Table 1 below.

Table 1: Digital Migration Industry Requirements

Services	Short to immediate term (up to 5 years)	Long term (after dual illumination)
National public television broadcasting Services	2 x 8 MHz fixed	2 x 8 MHz fixed
National commercial television broadcasting services	2 x 8 MHz fixed 3 x 8 MHz mobile	2 x 8 MHz fixed 3 x 8 MHz mobile
Regional television broadcasting (9 Provinces)		1 x 8 MHz per province 15 x 8 MHz National
Metropolitan commercial	2 x 8 MHz mobile	1 x 8 MHz mobile
National public audio broadcasting services		3 x 1.5 MHz (24 services)
National commercial audio broadcasting services		2 x 1.5 MHz (16 services)
Regional audio broadcasting services		2 x 1.5 MHz per province
Metropolitan audio broadcasting services		3 x 1.5 MHz per province 5x 1.5 MHz National

3.3 Digital Migration Plan

The planning principles supported by South Africa are those that provide balance between the protection of existing services and the introduction of a spectrum efficient digital broadcasting. The introduction and migration strategy for digital broadcasting hinges on the availability of spectrum.

The Authority has decided to prioritize the allocation of frequencies for digital broadcasting. We have taken into account legislative obligations and practical limitations.

This would include availability of spare usable frequencies to be used for digital broadcasting. It might not always be possible to have analogue coverage and digital coverage at the same time in some areas.

The Authority is also proposing that due to the nature of digital broadcasting, there might be a need to establish more gapfiller sites to ensure that the analogue network is emulated, and would therefore propose that in the interest of ensuring that the network reception is sufficient, there would be an authorization process to assist in making sure that network rollout happens quickly, and timely.

The Authority would also encourage the early migration of services that could, especially if such a migration would result in the freeing of spectrum. This is to ensure that spectrum is freed early to the benefit of the efficient use of spectrum.

On the basis of the technical analysis and limited spectrum resource the authority produced a plan for digital migration as tabulated in Table 2.

Table 2: Provision for Digital Migration Requirements

Services	**Short to immediate term (up to 5 years)**
National public television broadcasting Services	1 x 8 MHz fixed
National commercial television broadcasting services	1 x 8 MHz fixed
Community television broadcasting (9 Provinces)	
National commercial Mobile	2 x 8 MHz mobile
National public audio broadcasting services	
National commercial audio broadcasting services	
Community audio broadcasting services	
Metropolitan audio broadcasting services	

3.3.1 Digital Terrestrial Television

Two UHF channels are identified for mobile DTT use in Gauteng and surrounding areas, Durban and surrounding areas, Cape Town and surrounding areas. These channels will be below 700 MHz to allow for DVB-H applications. Further channels for digital broadcasting services will be available after analogue switch-off. In planning for digital services, coverage equivalent to that currently provided by analogue services must be ensured. This could necessitate additional low power gap fillers.

The Authority is also mindful that for the mobile DTT networks using the DVB-H standard to operate and sufficiently cover the whole metropolitan areas, there would be a need to migrate some services in the identified channels. The Authority is however cognizant that the services that would have to move are in the low power sites and therefore would not significantly hamper the launch of a commercial DVB-H network, while services are moved from the occupied channels.

It is the Authority's view that the licensing of DVB-H networks could go ahead while at the same time, time frames are established on the migration of the services from the identified channels of DVB-H networks in the metropoles. This would ensure that DVB-H frequency network licensing does not have to be hampered by the migration of the services from the identified channels.

For the mobile DTT networks, using the DVB-H standard, to operate and sufficiently cover the whole metropolitan areas and surrounding areas, there will be a need to migrate some services from identified channels. The services that will have to move are predominantly in the low power sites and therefore will not significantly hamper the launch of a commercial DVB-H network. Channels 33 and 35 will be used for DVB-H in Gauteng and surrounding areas. Channels 25 and 33 will be used for DVB-H in Durban and surrounding areas.

In Cape Town and surrounding areas channels 28 and 32 will be used for DVB-H.

These identified DVB-H frequencies will necessitate migration of some services in the metropoles, as per agreement from the South Africa National Preparatory Team that represented South Africa during GE-06 planning, however a commercially viable network could still be launched while at the same time migrating services in the occupied areas. It is therefore the Authority's intention to license these frequencies as per GE-06, while at the same time migrating services from the identified frequencies, in order to facilitate the launching of mobile DTT using the DVB-H standard in the country.

3.3.4 Self- Help Stations

The Authority does not reserve frequencies for self-help stations due to the very low power used and the uncertainty of the requirement. Assignments are made as and when required. Therefore, the assignments listed in Annexure B and F are all operational. Self-Help frequencies should be proposed by the applicant.

3.3.5 Provincial (Regional) Broadcasting

It is the Authority's view that the two national DTT frequency networks that used in GE-06 plan fully accommodate the regional public services of the SABC.

3.4 Digital Dividend

The migration process will release much of the spectrum currently occupied by analog services. After dual illumination more spectrum will be available for additional digital broadcasting, Digital audio services and telecommunications.

3.4.1 Digital Audio Broadcasting

Digital dividends in terms of digital audio broadcasting are not attractive. On the other hand the cost, including social cost, of converting existing AM and FM might be high. DAB will be introduced in Band III after digital migration for television. Authority recommends that DAB be introduced when the market is ready. Ideally, digital audio broadcasting should augment and not replace AM and FM.

Therefore, there is no switch-off date for AM and FM. Rather there should be a commitment to grant fair access to spectrum where the right conditions prevail. The Authority has recommended to the ITU that Channel 9 and 10 (214-230MHz) be identified for DAB.

3.4.2 Digital Television broadcasting

The anticipated spectrum to be released by analog services from current SABC, eTV and Mnet services which will translate to bandwidth for new services or enhancement of existing services. Table 2 highlights a preliminary plan on how the freed spectrum will be distributed for future Broadcasting services, which will be occupying 470 MHz to 782 MHz Band. Broadcasters will be engaged further in a separate process to ensure a fair criterion is used in the distribution of spectrum after dual illumination.

3.4.3 IMT (International Mobile Telecommunications)

The band 790 MHz to 862 MHz has been identified by for IMT implementation. After dual illumination this spectrum will be freed for IMT. The Authority will undertake a separate process to determine the criteria to be used to access the spectrum

4. THE FREQUENCY PLANNING AND ASSIGNMENT PROCESS

4.1 Background

The frequency assignments listed fall into one of three levels of assignment status. These levels are:

(a) Frequencies assigned and in use (OP or OPE);

(b) Spare frequency assignments in the vicinity of an existing transmitting station site or frequency assignments available for use in the vicinity of a theoretically determined lattice node point (SP or SPA); and

(c) Frequencies licensed and awaiting finalisation of technical parameters or the installation of transmitting equipment (LI or LIC).

The information is provided in tables, which is structured to give the transmitting station name, its geographic co-ordinates, the frequency and the channel, the maximum effective radiated power and the polarisation mode. In cases where the frequency is already in use, the name of the licensed broadcasting service is also given, together with the date it came on air. In each case, it is indicated into which of the three above-mentioned assignment-status levels the frequency assignment falls.

The SABC/Sentech in consultation with the former Postmaster General drafted the original broadcasting frequency plans for Medium Wave, VHF/FM and VHF/UHF/Television for South Africa. All these plans, except the Medium Wave plan, were internationally co-ordinated and accepted by the International Telecommunication Union (ITU) as being fully in compliance with its regulations.

After the establishment of the IBA in 1994, these frequency plans were amended and incorporated into an Interim Frequency Plan, based on which the Authority issued almost 100 new temporary community-broadcasting licences.

This Interim Frequency Plan was further amended to comply with the recommendations of the then IBA's "Report on The Protection and Viability of Public Broadcasting Services; Cross Media Control of Broadcasting Services; Local Television Content and South African Music" (referred to as the "Triple Inquiry Report", August 1995). Using an assignment method of [3]foremost priority, further assignments were made to cater for the needs of Community Sound Broadcasters, and frequency assignments in the Plan were categorised as Community, Public, and Commercial.

The resultant frequency plan was published as a draft in the Government Gazette for comment during October 1995. It was again amended, first published as a draft and then as a final plan in 1999. Subsequently, the plan was revised and updated and finally published in July 2002, and December 2005.

During the time that the Authority has been issuing temporary community sound broadcasting licences, various geographic areas have been identified in which a shortage of frequency assignments exists. A Community Radio Frequency Plan, using an assignment method of foremost priority has been compiled on a province-by-province basis. This plan contains all FM and MF frequency assignments that are available for community broadcasting in all nine provinces. Frequency assignments occupied by the current community broadcasters are not specified separately as new applicants can also apply for these. The plan was aimed at providing the maximum number of frequency assignments at the lowest possible interference levels. Technical limitations and population figures were used as a guide.

The Provincial frequency plans do not distinguish between frequency assignments for community of interest and geographical communities. The Provincial frequency plans include MF frequency assignments that can only be used in specified areas. The frequencies are all above 1269 kHz and have a maximum EMRP of 1 kilowatt.

[3] The method of foremost priority is defined as choosing the most suitable and minimum interference frequency for assignment at a specific coordinate or location.

The Authority will not consider an increase in the EMRP above 1 kilowatt for any of these frequency assignments. Due to frequency re-use, the night-time coverage may be somewhat reduced due to interference from sky wave signals of stations operating on the same frequency. The Authority will only protect the 24-hour service contour from interference.

The Frequency Plan incorporates the two national Digital Terrestrial Television (DTT) frequency networks using the Digital Video Broadcasting – Terrestrial (DVB-T) standard that were submitted to the ITU for incorporation in the GE-06 plan. The Authority notes that two metropolitan DTT frequency networks using the Digital Video Broadcasting – Terrestrial (DVB-T) standard were submitted to the ITU for incorporation in the GE-06 plan.

However, after due consideration of the policy directions issued by the Minister of Communications in terms of section 3(1) and (2) of the EC Act in Government Notice 876, Government Gazette Vol. 507, No. 30308, on 17 September 2007, directing the Authority to consider allocating spectrum for the provision of mobile broadcasting services these two metropolitan DTT frequency networks are now referred to as using the Digital Video Broadcasting – Handheld (DVB-H) standard.

This change is in accordance with the GE-06 plan which allowed for the introduction of alternate technology standards on these frequencies so long as they caused no more interference than the DVB-T standard. These reservations have been indicated in the table of assignments as a way forward to secure a smooth analogue-digital migration.

4.2 Purposes of a Terrestrial Broadcasting Frequency Plan

A frequency plan has several purposes:

- It gives direction in the broadcasting industry;
- It allows the Authority to determine a broad strategic view on how it will distribute frequencies across the country;
- It sets out the basis upon which licences can be granted, and puts in the public domain information about the total number and mix of licences that can be considered at a particular point in time;
- It gives status to planned assignments so that they can be entered into the master frequency register to be taken into account in all future planning and potential interference assessments. This is to prevent other assignments or changes being made either by the Authority or our neighbouring administrations, which might make the reserved frequency unsuitable for use;
- The Authority takes into cognisance the technological advancement and policies when reviewing the frequency plan; and
- To ensure South African Broadcasting is globally competitive.

The broadcasting frequency plan is thus a significant policy document, with extensive engineering input in order for it to be reliable and to ensure stability in a growing broadcasting industry. The frequency plans for FM sound and television broadcasting have been developed on the basis of providing essentially the full range of services to the majority of the population.

4.3 Compliance with Internationally Accepted Methods

As a requirement of section 30 (2) of the EC Act, the frequency plans are based on internationally accepted practices and the levels of spectrum usage are consistent with international practice. The same basic planning assumptions providing substantially low interference service within the intended service area were used.