



Public hearings:
Draft Frequency Migration Regulation
and
Frequency Migration Plan

2 November 2012

Introduction

- BanziNET wishes to thank ICASA for the invitation to present our views on the Draft Frequency Migration Regulations and Plans
- We address:
 - Aspects not covered sufficiently in the draft plan such as wholesale / shared infrastructure
 - We highlight only the areas we propose alternatives for

Further Detail Pertaining to the Plan

- The regulation should enforce the use of technologies that make efficient use of spectrum such as:
 - LTE, WiMAX & CDMA for broadband
 - TETRA, 2-slot TDMA/FDMA for public and private mobile radio
 - DVB-T2, DVB-T2 Lite T-DAB for broadcasting
- Promote the use of shared high-sites and high-site backhaul
 - A standardised high-site engineering & installation practise should be compiled & enforced by ICASA. Poor installation standards, connectors & cables at high sites cause interference to all spectrum users
 - Promote the provision of wholesale high-site IP backhaul. This approach would replace:
 - Multiple simplex links (mostly used for PMR services)
 - Multiple IP backhaul links
- 1/2 –channel receiver off-set should be considered to minimise inter-modulation product interference for analogue and digital PMR services

1/2-Channel PMR Offset Advantages

- Using 1/2-channel frequency offset at the HS receivers, will significantly reduce 5th order intermod products falling directly on the receive frequencies.
- Simplex frequencies should NOT be used to provide point-to-point / point-to-multipoint fixed services or be located at fixed locations where other radio services' (such as Land Mobile Repeater) operate, as the probability of interference within licenced land mobile frequency bands is increased and should be addressed as more and more possibly interfering channels will be introduced with 12.5kHz and 6.25kHz channel assignments.
- A technical forum should be established to address the appropriate channel plan.

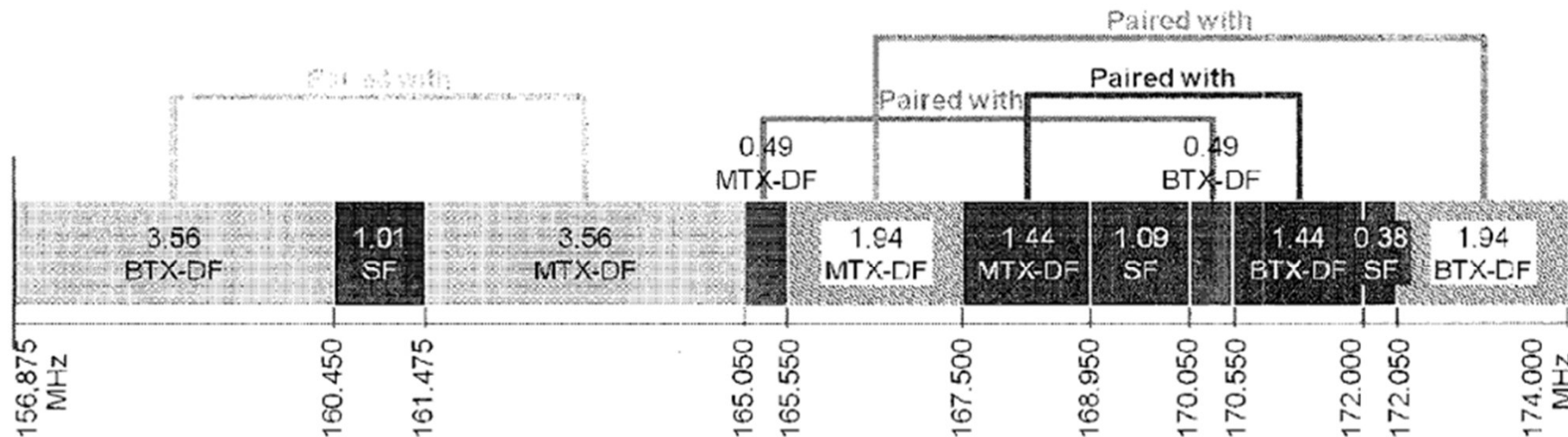


Figure 3 Proposed Allocation 156.875MHz – 174MHz

Problems/Alternative Suggestions (1)

- 156.4875-156.5625MHz & 156.875-174.0MHz
 - Single frequency/simplex requirements (alarm or land-mobile repeaters) should be minimised by rather making use of IP networks such as IP backhaul /ADSL/2G/3G/4G
- 235MHz-267MHz
 - We propose that 230-238MHz be included in this band, as it forms a complete 8MHz DVB-T2 channel
 - 238-242MHz paired with 254-267MHz should be retained as a national trunking service and extended to SADC. A more efficient digital TDMA DMR technology should be considered for this band.
 - TV channel 13 should be removed from high power TV broadcasting after ASO, and allocated to low power TV SFN/MFN services or DVB-T2 Lite.

Problems/Alternative Suggestions (2)

- 450MHz-470MHz
 - Services in this band are currently allocated to push-to-talk, mostly via a repeater, and is suggested to be migrated to 3GHz and the band be used for Mobile IMT. The new suggested allocation is not practical.
 - Current users of the 450-470MHz band would have to be accommodated in new bands. With the proposed allocation of 410-430MHz for public trunking there could be a good reason to migrate these users into this band.

Questions?