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The Independent Communications Authority of South Africa
350 Witch-Hazel Avenue,
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Eco Park, Centurion, Gauteng.

Attention: Mr Mayapple Richard Makgotlho

By email: rmakgotlho@icasa.org.za
jdikgale@icasa.org.za

Dear Sirs,

NOTICES REGARDING DRAFT RADIO FREQUENCY ASSIGNMENT PLANS FOR THE FREQUENCY BANDS 138 TO 144 MHZ, 335.4 MHz TO 380 MHz, 380 MHz TO 399.9 MHz, 406.1 MHz TO 410 MHz, 410 MHz TO 430 MHz, 440 MHz TO 450 MHz; and 1518 MHz TO 1525 MHz FOR PUBLIC CONSULTATION

1. Cell C Limited (“**Cell C**”) would like to thank the Independent Communications Authority of South Africa (“**ICASA**”) for the opportunity to provide written comments to the various draft radio frequency spectrum assignment plans (“**RFSAPs**”) published for consultation in *Government Gazette 47559* on 25 November 2022.
2. Subsequently, ICASA published three (3) erratum’s correcting the naming information contained in the draft RFSAP’s related to the 335,4 to 380 MHz band, 440 to 450MHz band and 1518 to 1525 MHz band in *Government Gazette 47654* on 5 December 2022. Cell C is grateful for these corrections as they provide certainty to the regulatory process.
3. Cell C looks forward to further engaging with ICASA on these draft RFSAP’s. Accordingly, please find below our written submission in this regard.

Cell C hereby confirms its readiness to participate in any subsequent consultations and oral hearings, which may be called for by ICASA.

Yours sincerely

Themba Phiri
Executive Head: Regulatory Affairs
Cell C Limited

CELL C WRITTEN COMMENTS ON THE DRAFT RADIO FREQUENCY SPECTRUM ASSIGNMENT PLANS FOR THE FREQUENCY BAND 138 TO 144 MHz, 335.4 MHz to 380 MHz, 380 MHz to 399.9 MHz, 406.1 MHz to 410 MHz, 410 MHz to 430 MHz, 440 MHz to 450 MHz; and 1518 MHz to 1525 MHz FOR PUBLIC CONSULTATION

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1. GENERAL COMMENTS

- 1.1. Cell C would like to thank ICASA for the opportunity to present these written comments and requests the opportunity to both elaborate on the points below as well as to raise further points via oral submission when public hearings are convened on the RFSAP’s.
- 1.2. Cell C supports and recommends the alignment of these RFSAP’s with the various the resolutions/recommendations as adopted at various international, regional, and national levels (ITU, ATU and SADC), including those arising from WRC 2019 (“WRC 19”). This means the same spectrum bands are used country to country, which allows the same equipment, including devices, to be sold across large regions, bringing down the cost to communicate and thereby benefitting from economies of scale.
- 1.3. In finalizing the RFSAP’s, the migration of licensees including government entities and organizations must follow the process as prescribed in the ECA where relevant. The development of the “RFSAP” and the Frequency Migration Plan (“FMP”) are overseen by different rulemaking provisions. Therefore, there must be no areas of ambiguity, inconsistency, or wrongfully placed spectrum events between the processes. Thus, avoiding protracted delays due to unnecessary litigation.
- 1.4. Cell C recommend that rules, procedures, and conditions regarding spectrum matters such as spectrum migration, sharing, incentives or spectrum surrender for spectrum migrating users be prescribed in a manner that is consistent with the ECA. No migrating licensees should unfairly benefit or treated in a manner that compromises competition in the sector. Any decision taken by ICASA must be informed by robust consultation with affected licensees whilst considering the existing use and value of the affected spectrum bands.

2 Preparation of a Radio Frequency Spectrum Assignment Plan

- 2.1 In terms of the ICASA 2019 Frequency Migration Plan Regulations (“FMP”), regulation 6, “*Preparation of a Radio Frequency Spectrum Assignment Plans (“RFSAP”)*”, states that:

“(1) A change in the use of a radio frequency band(s) must be initiated through a Radio Frequency Spectrum Assignment Plan for the radio frequency spectrum bands in the manner specified in the latest Radio Frequency Spectrum Regulations in force.

(2) With respect to the radio frequency migration process, a Radio Frequency Assignment Plan may include:

(a) The process for migrating existing users and usages from their existing spectrum location, specifying the bands to which the users and uses will be migrated, including in-band migration where applicable.

(b) The time scale for the reallocation of the radio frequency band in question, specifying the date at which the users to be migrated should cease transmission.

(3) A Radio Frequency Spectrum Assignment Plan shall be subject to public consultation:

(a) The Authority shall publish the Radio Frequency Spectrum Assignment Plan in the Government Gazette, inviting interested persons to submit written representations as specified by the notice in the Gazette; and

(b) The Authority may, after any defined period for lodging comments by interested persons has passed, hold a public hearing in respect of the application.”

2.2 Therefore prior to finalizing the RFSAP’s, Cell C recommends that ICASA ensures that the processes listed above are followed and concluded with definitive timelines. We say this because the RFSAP’s must include milestones with dates that provide regulatory certainty to all affected parties so that they understand their roles and responsibilities.

3 TABLE A – RFSAP’s

RFSAP x 7	Current use	Future Use	Migration Timeline and Licensing process	Cell C Comments
<p>335.4 - 380 MHz (Incorrectly referred to the 138 MHz to 144 MHz RFSAP, amended by 5 December 2022 erratum)</p>	<ul style="list-style-type: none"> • FWA (336 – 346 MHz) • FWA (356 – 366 MHz) 366-380 MHz (Govt.) • (PPDR11) 335.4-336 MHz • PMR and/or PAM • Unmanned Aerial Vehicle (UAV) 336-346 paired with 356-366 MHz 	<p>The Authority seeks feedback on coordination arrangements between incumbents in the band and new assignees, including Broadband Fixed Wireless Access and UAV applicants.</p>	<p>The RFSAP shall be effective on the date of issue and follow the Standard Application Procedures</p>	<p>The RFSAP makes References 335.4 - 380 MHz band but was titled 138-144Mhz band, Cell C notes the correction by the published Erratum. Cell C understands that this RFSAP applies to the 335.4 - 380 MHz band and that the RFSAP for the 138 MHz to 144 MHz band was finalised through Government Gazette 41512 on 23 March 2018. In this regard Cell C will limit its comments to the 335.4 - 380 MHz band.</p> <p>Cell C notes the following: ICASA conducted feasibility studies with two (2) proposals for this band. The two proposals were migrating the existing over 1300 fixed links in this 335.4 - 380 MHz band to above 3 GHz as per SADC proposed common sub-allocation/utilisation and that a feasibility study on the use of this band as per SADC Frequency Allocation Plan (FAP) sub-</p>

RFSAP x 7	Current use	Future Use	Migration Timeline and Licensing process	Cell C Comments
				<p>allocation/utilisation to assign BFWA and UAV Fixed and Mobile Services respectively in the band. ICASA has concluded that these proposals would result in a more inefficient use of this spectrum band, because the fixed links would be migrated out (faster) and yet no new BWA/UVA services are licensed in the band soon.</p> <p>ICASA proposes that proceeding with an exclusive assignment just for BFWA (in the Fixed Service) and UAVs (in the Mobile Service) in this band is premature at this stage. Consequently, though the co-primary allocations for Fixed and Mobile Services [and Mobile-Satellite (space-to-earth) services on a secondary basis] will continue, ICASA will <i>not</i> continue with its intention to assign exclusively for just BFWA and UAV applications.</p> <p>Therefore, the intention of this RFSAP is to assign this band for Fixed and Mobile Services (inclusive of <i>non-exclusive</i> BFWA and UAV services) with coordination amongst fixed and mobile services. ICASA states that its decision is consistent with the ITU and SADC allocations for the 335.4 - 380 MHz band. Lastly, Cell C recognises that ICASA will consult with affected Fixed Links Licensees in the band and will revoke their licences after due consultation. Cell C recommends that the principles for preparation, consultation, and finalisation of the RFSAP's as explained in section 2 above be followed.</p>
156.8375 -174 MHz	<ul style="list-style-type: none"> MARITIME MOBILE 		The RFSAP shall be	Cell C notes the following:

RFSAP x 7	Current use	Future Use	Migration Timeline and Licensing process	Cell C Comments
	(distress and calling via DSC) <ul style="list-style-type: none"> • Mobile-satellite (Earth-to-space) • PMR and / or PAMR 		effective on the date of issue and follow the Standard Application Procedures	ICASA conducted feasibility studies wherein the swapping MTX and BTX to optimise the usage of the band and using simplex frequencies (FDMA or TDMA) with different channel spacing, including coexistence of multiple technologies where considered. ICASA plans to finalise this RFSAP through this Government Gazette. Cell C notes that ICASA has concluded that proceeding with the MTX-DF/BTX-DF swap would not be optimal and would leave the current RFSAP arrangement as is.
380 MHz to 399.9 MHz	<ul style="list-style-type: none"> • Digital Trunking (Emergency) (380 – 387 MHz) (PPDR36) • PMR and/or PAMR (335.4-336 MHz) • Digital Trunking (387 – 390 MHz) (Govt.) • PMR and/or PAMR 	The use of the band is limited to Digital PPDR (including Digital PMR) services using 2 x 10 MHz or 20 MHz for the Digital PPDR/PMR services.	The RFSAP shall be effective on the date of issue and follow the Standard Application Procedures	Cell C notes the following: The implementation of the Migration of the Government Services from the 406 - 410/416 - 420 MHz and 413 - 416/423 - 426 MHz bands into the 380 - 400 MHz band began in 2010. Reserve the overall band for digital public safety. All non-digital and non-PPDR users will be migrated out of this band. ICASA conducted feasibility studies and found the most efficient use of this band is for PPDR (digital) services and all public safety services be consolidated in this band. Cell C recommends that the principles for preparation, consultation, and finalisation of the RFSAP's as explained in section 2 above be followed. Specifically consultation must take place with users such as the Metro Police, SAPS, Fire-Fighting services, Ambulance Services, Border Control, National Security, and other Government Services.
406.1 MHz to 410 MHz	<ul style="list-style-type: none"> • Digital Trunking (Emergency) (380 – 387 MHz) • Mobile-satellite (space-to-Earth) 	Digital Mobile Radio (DMR) and Fixed Services along with the Radio	The RFSAP shall be effective on the date of issue and	Cell C notes the following: ICASA conducted feasibility studies and has concluded that the most efficient use of the band will be for Digital

RFSAP x 7	Current use	Future Use	Migration Timeline and Licensing process	Cell C Comments
	<ul style="list-style-type: none"> • Digital Trunking (387 – 390 MHz) (Govt.) 387.0-390.0 MHz • PMR and/or PAMR • Emergency) (390 – 397 MHz) (PPDR) 	Astronomy Service.	follow the Standard Application Procedures	<p>Mobile Radio (DMR) and Fixed Services along with the Radio Astronomy Service which is consistent with the ITU.</p> <p>That this will result in all other users being migrated, making this a dedicated band for public safety and all other uses (e.g., all existing analogue PMR or analogue mobile) will migrate out of the band.</p> <p>Existing analogue Fixed and Mobile licences for the use of the band will be revoked by the 31st of March 2023 in favour of digital fixed and mobile uses.</p>
410 MHz to 430 MHz	<ul style="list-style-type: none"> • MOBILE-SATELLITE (Earth-to[1]space) • Mobile MTX (407.625 – 410 MHz) Government use for public safety • Fixed Links (406.1 – 407.625 MHz) • Fixed Links (407.625 – 410 MHz) • Mobile MTX (406.1 – 407.625 MHz) • Mobile MTX (407.625 – 410 MHz) • PMR and/or PAMR • PPDR 	Potential emerging applications such as broadband PPDR and IoT.	The RFSAP shall be effective on the date of issue and follow the Standard Application Procedures	<p>Cell C notes the following: ICASA plans to reconsider the exclusive allocation of trunking services to include potential emerging applications such as broadband Public Protection and Disaster Relief (PPDR) and Internet of Things (IoT). The need for high-speed data and other additional services increases bandwidth requirements where CDMA-PAMR using 1.25 MHz channel bandwidth or LTE (Long-Term Evolution) based technologies using 200 kHz, 1.4 MHz, 3 MHz, and 5 MHz channel bandwidth will meet the requirements of such services.</p> <p>Cell C is in support of the proposed allocation of the LTE band 88 for PMR region 1 (412 – 417 MHz for uplink and 422 – 427 MHz for downlink) in addition to trunking services.</p>
440 MHz to 450 MHz; (amended by 5 December 2022 erratum)	<ul style="list-style-type: none"> • Telemetry / Data BTX (440 – 441 MHz) • FIXED (telemetry, dual frequency alarm systems) 		The RFSAP shall be effective on the date of issue and follow the Standard Application Procedures	The RFSAP makes References 440 MHz to 450 MHz band but was titled 138-144Mhz, Cell C notes the correction by the published Erratum. Cell C understands that this RFSAP applies to the 440 MHz to 450 MHz band Cell C notes the following:

RFSAP x 7	Current use	Future Use	Migration Timeline and Licensing process	Cell C Comments
	<ul style="list-style-type: none"> • Agricultural Telemetry Application • Roving simplex Application • Simplex Applications • Mobile MTX (441.1 – 445 MHz) • Single Frequency Mobile (441–441.1 MHz) • PPDR, PMR and/or PAMR446 (446 – 446.1 MHz) 			<p>ICASA conducted a feasibility study into the possibility to use the band 440 MHz – 450 MHz for Public Protection and Disaster Recovery (PPDR) as mandated by the 2019 Radio Frequency migration plan. The outcome of the feasibility study in which ICASA has seen little to no evidence of a PPDR ecosystem emerging in this band as for other bands like 410-430 MHz are noted by Cell C.</p> <p>Cell C supports the decision of ICASA to closely watch the activities happening in 446-446.2 MHz on Analogue and Digital PMR6 to make any further decisions given developments in Europe and the strong case for largely maintaining the status quo and taking a longer-term outlook.</p>
<p>1518 MHz to 1525 MHz (amended by 5 December 2022 erratum)</p>	<ul style="list-style-type: none"> • MOBILE-SATELLITE (space-to Earth) • IMT Satellite component (The band 1518-1559 MHz is identified for satellite component of IMT) 		<p>The RFSAP shall be effective on the date of issue and follow the Standard Application Procedures</p>	<p>The RFSAP makes References 1518 MHz to 1525 MHz band but was titled 138-144Mhz, Cell C notes the correction by the published Erratum. Cell C understands that this RFSAP applies to the 1518 MHz to 1525 MHz band and Cell C notes the following: ICASA conducted a feasibility study concerning the 1518 - 1525 MHz (band1) for Fixed, Mobile, and Mobile-Satellite services as mandated by the Frequency Band Migration Regulation and Plan contained in the IMT Roadmap 2019. Cell C acknowledges ICASA's decision which is consistent with the ITU allocations for the 1518 - 1525 MHz band within Region 1. Cell C welcomes ICASA's pronouncement that there should be no harmful interference to IMT satellite systems by users using single frequency links in this band. Cell C supports and agree that a feasibility study needs to be conducted to implement the requirements of the existing</p>

RFSAP x 7	Current use	Future Use	Migration Timeline and Licensing process	Cell C Comments
				<p>1518 MHz to 1525 MHz RFSAP 2019. The conclusion by ICASA to encourage a mixed use of the band between Fixed, Mobile, and Mobile-Satellite services whilst ensuring that there is no harmful interference to any future IMT Satellite Systems is supported by Cell C. Cell C recommends that the principles for preparation, consultation, and finalisation of the RFSAP's be followed.</p>