

Frequency Band (MHz)	Existing Allocation in NRFP 2010 (Applications)	Proposed Utilization/ Applications	Notes on migration/ usage
	MOBILE-SATELLITE (space-to-earth)  Earth exploration satellite  Mobile except aeronautical mobile  Fixed  (Mobile satellite services)		
	(1535 – 1559 MHz) MOBILE-SATELLITE (space-to-earth)		No migration planned (refer to 4.10.22)
1668 – 1675	(1668 – 1668.4 MHz) MOBILE SATELLITE (earth-to-space) RADIO ASTRONOMY SPACE RESEARCH (passive)	(refer to 4.10.23)	No change (refer to 4.10.23)
	(1668.4 – 1670 MHz) METEOROLOGICAL AIDS MOBILE SATELLITE (earth-to-space) RADIO ASTRONOMY	(refer to 4.10.23)	No change (refer to 4.10.23)
	(1670 – 1675 MHz) METEOROLOGICAL AIDS MOBILE MOBILE SATELLITE (earth-to-space)	(refer to 4.10.23)	No Change (refer to 4.10.23)
1710 – 1785 paired with 1805- 1880	FIXED  MOBILE		No out-migration planned  Spectrum re-farming

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	(GSM1800 band)		when deemed required may be carried out based upon defined process (refer to <b>Error! Reference source not found.</b> )
1880 – 1900	FIXED MOBILE (Cordless DECT phone)	FWA (SADC FAP proposed common sub-allocation/ utilization)  Alternate allocation to BWA (fixed and mobile)	Currently under use by Telkom in a WLL configuration. Can be allocated for FWA  Alternate allocation to BWA (fixed and mobile) (refer to 4.10.24)
1920 – 1980 paired with 2110 – 2170	FIXED MOBILE (Current 3G band)		No migration planned  Spectrum re-farming when deemed required may be carried out based upon defined process (refer to <b>Error! Reference source not found.</b> )
1980 – 2010 paired with 2170-2200	FIXED MOBILE-SATELLITE (Earth-to-space) (Fixed Links (DF), IMT (Satellite))	Fixed Links (DF), BFWA ( OR Reserve for MSS	Migrate in Fixed links (DF) from other bands; consider for BFWA (Submission proposal to reserve for MSS and migrate out terrestrial links) (refer to 4.10.25)
2025 – 2110 paired with 2200 – 2285	FIXED (Fixed links)	Fixed Links (DF) BFWA (New ICASA proposal)	Fixed links – currently under-utilized.  Migrate in Fixed links (DF) from other bands  Potential to allocate for BFWA – but only where there is no interference problem with PTP links.

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			(refer to 4.10.26)
2110 – 2170	FIXED MOBILE (Current 3G band)		No migration planned Spectrum re-farming when deemed required may be carried out based upon defined process (refer to <b>Error! Reference source not found.</b> )
2290 – 2300	FIXED MOBILE	BFWA (as per SADC FAP proposed common sub-allocation/ utilization)  Alternative – change allocation to BWA (applies to 2285-2300 MHz)	Band currently unused; can be allocated for BFWA as per SADC FAP proposed common sub-allocation/ utilization (refer to 4.10.27)
2300 – 2450	FIXED MOBILE Amateur (Fixed links (2307 – 2387 MHz) paired with (2401 – 2481 MHz)  Several outside broadcasting links  ISM band (2400 – 2483.5 MHz))	IMT (Terrestrial) 2300 – 2400 MHz as per SADC FAP proposed common sub-allocation/ utilization	Migrate existing fixed links above 3 GHz  Potential migration of outside-broadcasting links in line with the Broadcast Plan.  Otherwise no change (refer to 4.10.28)
2500 – 2690	2500-2520 MHz FIXED MOBILE except aeronautical mobile  2520-2655 MHz FIXED	BFWA	Currently being used by Sentech (2500 – 2550 MHz) and WBS (2550 – 2565 MHz). 125 MHz available for assignment  Align with the on-going

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	MOBILE except aeronautical mobile Radio astronomy 2655-2690 MHz FIXED MOBILE except aeronautical mobile Radio astronomy	Mobile IMT (as per SADC FAP proposed common sub-allocation/ utilization)	efforts within the 800 MHz band as defined in Notice 911 of 2011 Government Gazette 34872 as amended or replaced (refer to 4.10.29)
3400 – 3600	FIXED MOBILE except aeronautical mobile	BFWA Mobile IMT (as per SADC FAP proposed common sub-allocation/ utilization)	Band needs harmonizing in SADC for IMT; channelling plan to be developed Study on potential issues including sharing and the allocation to amateur (refer to 4.10.30)
3600 – 4200	FIXED FIXED-SATELLITE (space-to-earth) (Satellite (VSAT, downlink), Terrestrial backhaul)	(3600-4200 MHz) Fixed services (PTP) (3600-4200 MHz) Fixed-satellite (space-to-Earth) (PTP/VSAT/SNG)  as per SADC FAP proposed common sub-allocation/ utilization	No change. (refer to 4.10.31)
5150 – 5350	(5150 – 5250 MHz) AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE-SERVICE (Earth-to-space) Mobile except	Wireless Access Systems / RLAN As per SADC FAP proposed common sub-allocation/ utilization	License exempt; Wireless Access Systems / Radio Local Access Network (WAS & RLAN) indoor use only. as per Notice 184 of 2011 Government Gazette 34172

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	aeronautical mobile (Wireless Access (short range))		(previously Notice number 944 of 2008 in Government Gazette 31321)
	(5250 – 5255 MHz) SPACE RESEARCH Mobile except aeronautical mobile		No change
	(5255 – 5350 MHz) EARTH EXPLORATION SATELLITE (active)		
5470 – 5725	(5470 – 5570 MHz) MARITIME RADIONAVIGATION Mobile except aeronautical mobile EARTH EXPLORATION SATELLITE (active) SPACE RESEARCH (active) RADIOLOCATION (Maritime radio navigation (radar) and Wireless Access (short range))	Wireless Access Systems / RLAN  As per SADC FAP proposed common sub- allocation/ utilization	No migration planned; as per as per Notice 184 of 2011 Government Gazette 34172 (previously Notice number 944 of 2008 in Government Gazette 31321)  No Change (refer to 4.10.32)
	(5570 – 5650 MHz) MARITIME RADIONAVIGATION Mobile except aeronautical mobile RADIOLOCATION		
	(5650 – 5725 MHz) RADIOLOCATION		

Frequency Band (MHz)	Existing Allocation in NRFP 2010 (Applications)	Proposed Utilization/ Applications	Notes on migration/ usage
	Mobile except aeronautical mobile Amateur Space Research (deep space)		
5725 – 5830	FIXED-SATELLITE (earth-to-space) RADIOLOCATION Amateur (ISM, Amateur, SRD)		No migration for South Africa; maintain for ISM as per Notice 184 of 2011 Government Gazette 34172 (previously Notice number 926 of 2008 in Government Gazette 31290).  No Change
5850 -5925	FIXED FIXED-SATELLITE (earth-to-space) Mobile  (Upper C-band (VSAT, Satellite PTP links), ISM (5725 – 5875 MHz))	(5850-6425 MHz) Fixed-satellite uplinks (PTP/VSAT/SNG)/ temporary Outside broadcast links  (5850-5925 MHz) FIXED links (5725-5875 MHz) ISM as per SADC FAP proposed common sub-allocation/ utilization	No Change  (refer to 4.10.34)
5925 – 6700	FIXED FIXED-SATELLITE (earth-to-space)  (Fixed links/ VSAT, FSS, SNG feeder links)	5925 – 6425 MHz Fixed links 6425 – 7110 MHz Fixed links as per SADC FAP proposed common sub-allocation/ utilization	No Change  (refer to 4.10.35)
10700 – 11700	FIXED FIXED-SATELLITE	as-is	No change Migrate VSAT links into



Frequency Band (MHz)	Existing Allocation in NRFP 2010 (Applications)	Proposed Utilization/ Applications	Notes on migration/ usage
	(space-to-earth)/(earth- to-space)  (Ku-band satellite)		this band  as per SADC FAP proposed common sub- allocation/ utilization  Other allocation remains as-is  (refer to 4.10.36)
12290, 16420		Reserved for safety related calling  as per WRC-03 Res. 352	No Change
15400 – 15700		Radio location service  as per WRC-07 Res. 614	No Change
40000 – above		Allocate for high capacity PTP links	(refer to 4.10.37)

## **4.10 Reasons on proposed migration plan following 1<sup>st</sup> consultation**

### **4.10.1 75.2 – 87.5 MHz**

The band is primarily used by Repeaters (Private, Communal) in several applications such as mining, farming and other small businesses. SABRE 1 had proposed migration of the dual-frequency alarms into this band. It is proposed to:

- Keep the DF/ SF radio links as-is.
- Allocate (81 – 81.625 MHz) BTX paired with (86.375 – 87 MHz) MTX for dual frequency (DF) alarms, and migrate-in DF alarms that may be operating in other bands.

### **Outcome of 1<sup>st</sup> Consultation**

No objection to proposal

### **4.10.2 138 – 144 MHz**

The band is primarily used by Repeaters (Private, Communal) in several applications such as mining, farming and other small businesses along with SF alarms. In addition there is an allocation for remote controlled industrial apparatus (ISM Licence exempt band 141 – 142)<sup>16</sup>.

Within South Africa there has been a significant usage of alarms and this is forecast to continue to grow over the next decade. In this case the current band allocations for SF alarms at 140.5 – 141 MHz as well as at 152.05 – 152.55 MHz will be insufficient to meet this demand. At the same time modern alarm systems are more spectrally efficient, and if users migrate to such systems then it is probable that the current allocation is sufficient to meet South Africa's current and future needs. In order to meet this future need it is proposed to:

- Request proposals to determine whether new / current technologies can provide a mechanism for the users to use the current allocation in a more spectrally efficient manner.
- If this is not possible, consider migrating SF Mobile at 141 – 141.5 MHz out of this band. Timeline for this migration would be Year 5 – Year 7.
- Migrate in SF alarms into the band 141 – 141.5 vacated by SF mobile – allocating a total of 1 MHz for this application in the 140 MHz band. This would be the second step in a two stage process of allocating an SF alarm band. In the first stage all other users who are operating within the 152.05 – 152.55 MHz band allocated for SF alarms would be migrated out to free up spectrum for additional SF alarm assignments (Year 0 – Year 3).

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<sup>16</sup> Government Gazette No. 31290, Notice No. 926 of 2008 as amended.