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African Telecommunications Union (ATU)

APM19-3 - SUMMARY OF AFRICAN PRELIMINARY POSITIONS FOR RA & WRC-19



APM19-3

Summary of African Preliminary Positions for RA & WRC-19

Chapter 1: Land mobile and fixed services

Agenda Item	African preliminary position
	Method C which entails a new WRC resolution to provide a regulatory
	framework to guide the harmonization process, with references to the
AI 1.11	Recommendation ITU R M.[RSTT_FRQ] for possible global and/or regional
Railway Radiocommunication Systems (RSS).	harmonization of frequency arrangements for RSTT to provide flexibility.
	This method provides support for global or regional harmonization of
	frequency bands for use by (RSTT) within the existing mobile service
	allocation so that no additional constraints are imposed on services to
	which these frequency bands are already allocated.
	Method C which entails a new WRC Resolution to encourage
	administrations to use globally and regionally harmonized frequency bands
AI 1.12	for ITS applications by referring to the most recent version of
Intelligent Transport Systems (ITS).	Recommendation ITU-R M.[ITS_FRQ. Suppress Resolution 237 (WRC-15).
	This method provides a regulatory framework for worldwide or regional
	harmonization for ITS applications through a new WRC Resolution and the
	most recent version of Recommendation ITU-R M.[ITS_FRQ].

- 2 -WRC-19-IRWSP-18/6-E

AI 1.14 High-Altitude Platform Stations (HAPS).	 Method B1/B2 which provides for the designation of certain fixed service bands for HAPS, in accordance with Resolution 160 (WRC-15) with options: Method B1 – an amended footnote for a worldwide identification of 27.9 - 28.2GHz and 31-31.3GHz, and an updated Resolution 122 to facilitate the use for HAPS in 47.2 - 47.5 GHz and 47.9-48.2 GHz. Method B2 – Add new designation(s) for HAPS in bands (38 - 39.5 GHz) already allocated to the FS with a primary status on a worldwide basis
Al 1.15 Land-mobile and fixed service applications in 275-450 GHz.	Method C, which suggests modifying RR No. 5.565 for use by fixed service land mobile service applications in portions of the 275-450 GHz band, while considering the evolving guidance of ITU-R Recommendations and Reports. Studies that evaluated the entire 275-450 GHz range show that sharing is feasible between applications in the land mobile/fixed service, and applications in the Earth exploration-satellite service (passive)/radio astronomy service in the particular frequency bands: 275-296 GHz, 306-313 GHz, 320-330 GHz and 356-450GHz.

Chapter 2: Broadband applications in the mobile service

Agenda Item	African preliminary position
AI 1.13 Additional spectrum identification for IMT between 24.25 and 86 GHz.	 A) For the band 24.25-27.5 GHz (Band A): Method A2, Alternative 2, Condition A2a: Option 1 which entails the following: Allocating the band 24.25-25.25 GHz to the mobile service (except aeronautical mobile) on a primary basis in Regions 1 and 2. Identifying, globally, the band 24.25-27.5 GHz for IMT by a new footnote. Revising Resolution 750 (WRC-15), Table 1-1, to include the following IMT unwanted emission limits for the 23.6 to 24.0 GHz frequency band to protect EESS(passive): BS: -32 to -37 dBW/200 MHz UE: -28 to -30 dBW/200 MHz The following conditions and options with respect to other services: Condition A2b: Option 3 – no condition necessary Condition A2c: Option 4 – no condition necessary Condition A2e: Option 9 – no condition necessary Condition A2f: Option 3 – no condition necessary Condition A2f: Option 4 – no condition necessary B) For the band 31.8-33.4 GHz (Band B): Method B1 (No Change)

C)	For the band 37-40.5 GHz (Band C):
,	1. Method C2, Alternative 2 Condition C2a: Option 4 which entails the
	following:
	 Identifying of the band 37-40.5 GHz to terrestrial component of IMT.
	 No condition necessary with respect to EESS in the lower adjacent
	band:
	2. The following conditions and options with respect to other services:
	Condition C2b: Option 6
	Condition C2c: Option 3
	Condition C2d: Option 2
	Condition C2e: Option 3
D)	For the band 40.5-42.5 GHz (Band D):
	1. Method D2, Alternative 2, which entails upgrading the mobile allocation to
	a primary service in the Table of Frequency allocations and identifying the
	frequency band for IMT by a new footnote in the frequency band 40.5-42.5
	GHz.
	2. The following conditions and options with respect to other services:
	 Condition D2a: Option 5 – no condition necessary Condition D2b: Option 2 – no condition passages
	 Condition D2b: Option 3 - no condition necessary Condition D2c: Option 2 - no condition necessary
	- Condition Dzc. Option 5 – no condition necessary
E)	For the band 42.5- 43.5 GHz (Band E):
	1. Method E2, Alternative 2, which entails identifying the 42.5-43.5 GHz to
	terrestrial component of IMT.
	2. Take the following conditions and options :
	 Condition E2a: Option 7 – no condition necessary
	Condition E2b: Option 3 – no condition necessary
	 Condition E2c: Option 4 – no condition necessary
F)	For the band 45.5- 47.0 GHz (Band F):
	To be developed.
G)	For the band 47- 47.2 GHz (Band G):
•	To be developed.
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H)	For the band 47.2- 50.2 GHz (Band H):
	1. Wethod H2, Alternative 2, which entails identifying the 47.2-50.2 GHz
	The following conditions and entions:
	 Condition H2a: Ontion 2 – Percention 750 (Perce M/PC 10) in Table 1.1
	\bullet condition rize. Option 2 - resolution 750 (rev. Wrc-19) in Table 1-1, taking into account RR No. 5 3/0.1
	 Condition H2h: Ontion 8 – no condition necessary
	 Condition H2c: Option 3 – no condition necessary
	 Condition H2d: Option 5 - no condition necessary

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	N	For the band 50 4 , 52 6 GHz (Band I):
	"	1 Method 12 Alternative 2 which entails identification to terrestrial
		component of IMT in 50.4-52.6 GHz (in the mobile service)
		2 The following conditions and ontions:
		 Condition 12a: Ontion 2 – Resolution 750 (Rev. WRC-19) in Table 1-1
		taking into account RR No. 5 340.1
		 Condition 12b: Ontion 7 – no condition necessary
		 Condition 125: Option 7 - no condition necessary Condition 12c: Option 4 - no condition necessary
	J)	For the band 66 - 71 GHz (Band J):
		3. Support Method J2, Alternative 2, which entails identifying identification
		to terrestrial component of IMT in 66-71 GHz (in the mobile service).
		4. The following conditions and options:
		Condition J2a: Option 1
		 take into account the latest technical characteristics of IMT and
		MGWS/WAS
		 to invite ITU-R to develop Recommendations and Reports that
		will assist administrations in ensuring that applications and
		services in the band 66-71 GHz can utilize the band efficiently
		including the development of appropriate sharing protocols
		between INT and NGWS/WAS where heeded
		Condition J2D: Option 1 – Revise RK No. 5.553 to remove the 66-71 GHz
		requency band from that footnote.
		• Condition J2c: Option 3 – no condition necessary.
	к)	For the band 71- 76 GHz (Band K):
		To be developed.
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	L)	For the band 81- 86 GHz (Band L):
		To be developed.
	A)	For the band 5150- 5250 MHz (Band A)
		Support Method A1 (NOC) or Method A3: consideration of this agenda in
		respect of the two Methods would continue at sub-regional and WG2 level with
		a view to achieve consensus.
	B)	For the band 5250- 5350 MHz (Band B)
AI 1.16		Method B (No Change)
Wireless access systems,	C)	For the band 5350- 5470 MHz (Band C)
including radio local area	•,	Method C (No Change)
networks (WAS/RLAN), in		
frequency bands between	D)	For the band 5725- 5850 MHz (Band D)
5 150 MHz and 5 925 MHz.	,	Method D (No Change) while continuing the consideration of Method D2 at
		sub-regional and WG2 levels.
	E)	For the band 5850- 5925 MHz (Band E)
		Method E1 (No Change)

I

- 5 -WRC-19-IRWSP-18/6-E

AI 9.1-1 Implementation of IMT in 1885 - 2025 MHz and 2110 - 2200 MHz.	To be developed.
AI 9.1-5 Impacts of referencing Recommendations ITU-R M.1638-1 and ITU R M.1849-1 in Nos. 5.447F and 5.450A of the Radio Regulations.	The No Change approach
AI 9.1-8 Implementation of narrowband and broadband machine-type communication infrastructures from the spectrum perspective.	The No Change approach

Chapter 3: Satellite services

Agenda Item	African preliminary position		
AI 1.4	1. <u>Method C</u> , which include the new Resolution [B14-PRIORITY] (WRC-19) which was proposed by African countries to give priority to Administrations with very bad reference situation in the Appendix 30, 30A (below -10 dB) to submit their filings for a period of 90 days, should WRC-19 approve the removal of the limitations.		
Review of Annex 7 to Appendix 30.	 Support, as a matter of principle, the removal of limits in Annex 7 if the countries with very bad reference situation are given first opportunity to improve their allotted satellite networks in Appendix 30. Support the study of each limitation under Annex 7 to Appendix 30; these studies seek to explore ways of allowing better utilization of the orbit spectrum resource. 		
AI 1.5 Earth stations in motion 17.7 19.7 GHz and 27.5- 29.5 GHz.	<u>Method B</u> , which includes addition of a new footnote in Article 5 of the Radio Regulations with reference to a new Resolution which will define operational and regulatory conditions for ESIMs including pfd mask to protect terrestrial services in the band 27.5-29.5 GHz from aircraft ESIM, and an offshore separation distance to protect terrestrial services from maritime ESIM		
Al 1.6 Non-GSO FSS satellite systems in 37.5-39.5 GHz and 39.5-42.5 GHz.	 Method A, while continuing to further examine other Methods and their implementation (editor's note: Method A presents a regulatory and technical implementation to modify RR Article 22 to include a regulatory framework to enable non-GSO systems based upon a maximum allowable per cent increase in GSO unavailability specified in the short-term and long-term performance objectives of the GSO links). Support the studies under Resolution 159 (WRC-15) which aim at developing a regulatory framework for new non-GSO FSS satellite systems, while protecting GSO FSS systems in the frequency bands above 30 GHz. 		

- 6 -WRC-19-IRWSP-18/6-E

AI 9.1-2	
Compatibility of IMT and BSS (sound) in the frequency band 1 452-1 492 MHz in Regions 1 and 3.	To be developed.
AI 9.1-3	
New non-Geo-satellite orbit systems in 4/6GHz bands allocated FSS.	Take No Change and to continue to advocate this position including at CPM19-2.
AI 9.1-9	Support, as a matter of principle, an allocation of the frequency band 51.4-52.4
Spectrum needs and possible allocation of the frequency band 51.4-52.4 GHz to the FSS (E-to-s).	GHz to the fixed-satellite service (Earth to space), limited to FSS gateway links for geostationary orbit use while protecting currently allocated services in the same frequency band and in adjacent bands as proposed in the draft CPM text.

AI 7	African preliminary position
Issue A Studies relating to the BIU of frequency assignments to non- GSO satellite systems, and consideration of a milestone- based deployment approach for non-GSO FSS satellite systems in certain bands.	 The Only Method, proposed for BIU and milestone approach for deployment of Non-GSO systems: 1. Regarding BIU, APM19-3 may consider maintaining the current 90 days for a Non-GSO satellite to be fully operational 2. ATU members are encouraged to further consider options proposed for milestone approach which will provide a balance between avoiding paper satellites and providing some flexibility to NGSO operator for deployment of the system.
Issue B Application of coordination arc in the Ka-band, to determine coordination requirements between the FSS and other satellite services.	Method B2 , the use of the coordination arc with a value of 8 degrees as coordination criteria, to determine if coordination is required between FSS and MSS systems and between MSS systems in the frequency bands 29.5-30 GHz (Earth-to-space)/19.7-20.2 GHz (space-to-Earth), in all 3 Regions, replacing the existing coordination criteria $\Delta T/T > 6\%$.
Issue C Issues for which consensus was readily achieved in the ITU-R.	Support, as a matter of principle, <u>the methods proposed</u> for each matter under this issue considering that the matters are non-contentious and consensus has already been achieved at the ITU-R WP4A on all matters on how best to resolve them.
Issue D Identification of those specific satellite networks and systems with which coordination needs to be effected under RR Nos. 9.12, 9.12A and 9.13.	<u>Method D2</u> – to include the list of potentially affected networks in CR/C and in addition to give a room for potentially affected Administrations to include additional Satellite networks which might have been omitted in CR/C and publish them in CR/D.

- 7 -WRC-19-IRWSP-18/6-E

Issue E Resolution related to RR Appendix 30B	The Only Method, which proposes the development of a new WRC Resolution to facilitate those Administrations who don't have a frequency assignment in the Appendix 30B and wish to provide an economically viable satellite service to its national territory as initially considered when the allotment Plan was established in 1988.
Issue F Measures to facilitate entering new assignments into the RR Appendix 30B List	<u>Method F1</u> , which proposes to update the coordination, triggers to take into account technological advances and avoid some unnecessary coordination while assuring adequate protection of other satellite networks.
Issue G Updating the reference situation for networks under RR Appendices 30 and 30A when provisional recording is used.	Method G1 , which provides that when a network enters the List of Appendix 30 or 30A, the reference situation of the interfered with the network shall only be updated if-and-when the Bureau is informed that the agreement has been obtained. RR Provision 4.1.18 must be modified to reflect this view.
Issue H Modifications to RR Appendix 4 data elements to be provided for non- geostationary satellite networks/systems	The Only Method, proposed in WP 4A which provides additional items to include in RR Appendix 4 for APIs for frequency assignments to NGSO satellite systems in bands not subject to coordination under Section II of RR Article 9 for facilitating modelling of NGSO.
Issue I Additional RR Appendix 4 data items to be provided for non- geostationary satellite systems with multiple orbital planes	The Only Method, in WP 4A which proposes two additional items in RR Appendix 4 for the provision of information relating to the multiple orbital planes and their relationship with respect to the NGSO satellite system.
Issue J – pfd limit in Section 1, Annex 1 of RR Appendix 30	<u>Method J2</u> which proposes no change to the Radio Regulations since the pfd limit referred to in the first paragraph of Section 1 of Annex 1 to RR Appendix 30 is hard limit that shall not be exceeded in order to protect BSS assignments from interference that may be caused by BSS networks located outside an arc of $\pm 9^{\circ}$ around a wanted BSS network.
Issue K – Difficulties for Part B examinations under § 4.1.12 or 4.2.16 of RR Appendices 30 and 30A and § 6.21 <i>c</i>) of RR Appendix 30B	The Only Method, proposed which intends to make satellite coordination easier and to allow satellites networks opportunity of additional examination that have received unfavourable finding.
Issue L – Update to Appendix 4 data elements required for RR Article 22 epfd verification after revision of Recommendation ITU-R S.1503	<u>The Only Method,</u> proposing changes to RR Appendix 4 which reflects the amendments on Recommendation ITU-R S.1503.
Issue M – Simplified regulatory regime for non-GSO satellite systems with short- duration missions	<u>The adoption of the new WRC Resolution</u> , together with an associated regulatory regime for non-GSO satellite systems with short duration missions as proposed in the draft CPM text.

- 8 -WRC-19-IRWSP-18/6-E

Chapter 4: Science services

Agenda Item	African preliminary position
AI 1.2	(a) For the band 399.9 - 400.05 MHz:
In-band power limits for earth	To be developed.
stations in 401-403 MHz and 399.9-400.05 MHz.	(b) For the band 401 - 403 MHz:
AI 1.3	
Meteorological-satellite and Earth exploration-satellite services in 460-470 MHz.	Method A (No Change)
AI 1.7	
Telemetry, tracking and command in the space operation service for non-GSO satellites with short duration missions.	Method A (No Change)

Chapter 5: Maritime, Aeronautical and Amateur services

Agenda Item	African preliminary position
AI 1.1	Method A, which entails an allocation to the amateur service on a primary basis in all the band 50-54 MHz, or part thereof, with appropriate footnotes to
Amateur service in	provide protection to services which already have an allocation in the band –
50-54 MHz in Region 1.	this preliminary position is therefore in principle and is subject to favourable compatibility studies with the incumbent services.
	On Issue A: modernisation of GMDSS
AI 1.8	Method A2, which entails modifications to the provisions of RR to include regulatory provisions for the frequencies to be used for medium frequency (MF) and high frequency (HF) Navigational Data (NAVDAT) systems, in support of GMDSS modernization following related activity in the IMO, to satisfy Issue A.
Global Maritime Distress	
Safety Systems (GMDSS)	On Issue B: introduction of additional GMDSS satellite system
	Method B1, which entails introduction of additional satellite operator in the
	GMDSS, as approved by International Maritime Organization (IMO), in order to
	achieve, redundancy and global coverage in maritime safety services.

- 9 -WRC-19-IRWSP-18/6-E

	Issue A - Autonomous maritime radio devices Group A			
	Method A (which is the only method), which proposes that footnote f) of RR			
AI 1.9-1	Appendix 18 be amended to allow AMRD Group A to operate on frequency channels 156.525 MHz (channel 70), 161.975 MHz (AIS 1) and 162.025 MHz			
Autonomous maritime radio	(AIS 2) that for the operation of AMRD Group A.			
devices operating in the				
frequency band 156-162.05	Issue B - Autonomous maritime radio devices Group B			
MHz	Support, as a matter of principle, that ARMD Group B ¹ devices should not be permitted to use the frequencies which cause any constraints on the existing mobile services.			
AI 1.9-2				
Consideration of regulatory provisions and spectrum allocations to the maritime mobile-satellite service to enable the satellite component of the VHF Data Exchange System and enhanced maritime Radiocommunication.	Support, as a matter of principle, <u>new spectrum allocations</u> to the maritime mobile-satellite service (MMSS) (Earth-to-space and space to Earth), preferably within the frequency bands 156.0125 - 157.4375 MHz and 160.6125 162.0375 MHz of RR Appendix 18, to enable a new VDES satellite component, while ensuring that this component will not degrade the current terrestrial VDES components, ASM and AIS operations and not impose any additional constraints on existing services in these and adjacent frequency bands.			
AI 1.10	No Change to Article 5 of Radio Regulations but rather support regulatory			
	provisions that facilitate the implementation of the Global Aeronautical			
Global Aeronautical Distress	Distress and Safety System (GADSS) in accordance with ICAO's requirements,			
and Safety System (GADSS).	while protecting incumbent services.			
AI 9.1-4	No Change to the Radio Regulations at WRC-19 and consider this matter as a possible agenda item for WRC-23.			
Stations on board sub-	Support, as a matter of principle, the ongoing studies and encourage active			
orbital vehicles	participation in order to positively influence the outcomes of the studies.			

Chapter 6: General issues

Agenda Item	African preliminary position			
AI 2 Updating of ITU-R				
Recommendations incorporated by reference in the Radio Regulations	To be developed.			
AI 4				
Review of resolutions and recommendations of previous WRCs	To be developed.			

 $^{^{1}}$ AMRD that do not enhance the safety of navigation but do operate in the maritime environment.

- 10 -WRC-19-IRWSP-18/6-E

AI 8 Deletion of country footnotes or country names from footnotes.	 Acknowledge, as a matter of principle, that it is desirable that preparations for AI 8 (footnotes) commence early in order to resolve the potential impact or issues on other administrations; and therefore, Encourage administrations who wish to bring issues under AI 8 to use the ATU preparatory platforms (notably the WGs and APMs) to bring to the attention of other administrations of such issues with a view to identifying and resolving any potential issues that may arise, at an early stage.
Al 9.1-6 Wireless Power Transmission (WPT) for electric vehicles.	Support, as a matter of principle, the on-going sharing and compatibility studies between Wireless Power Transfer (WPT) systems and existing services.
AI 9.1-7 1. Uplink transmissions of terminals of No. 18.1, and 2. Unauthorized operation of earth station terminals.	 Take Option 2 of Issue 2a, which calls for the Development of a new WRC Resolution to introduce additional measures in order to address the issue of unauthorized uplink transmissions of earth station terminals. Support, as a matter of principle and position, the need for additional measures in order to limit uplink transmissions of terminals to those authorized terminals in accordance with No. 18.1, as well as the ITU-R studies on best practices in training and monitoring capabilities, along with ITU developed reports and handbooks as well as capacity building, to assist national administrations in inhibiting the use of unauthorized uplink earth terminals and to enable national administrations to locate and terminate the unauthorized transmissions.
AI 10 WRC-23 Agenda	 APM19-3 recommends ATU member states to: 1. Actively consider possible issues for discussion under this agenda item with a view to resolving any possible arising issues at an early stage: doing so would avoid the past experience whereby AI 10 issues are raised during the concluding stages of WRC thereby presenting significant challenges in the thorough considerations of the issues. 2. Pay extra attention to the proposed agenda on review of the use of UHF band in view of the fact that majority of African countries plan to extensively use the 470 – 694MHz band for broadcasting. Also, in view of the fact DTT broadcasting remains a key service in the majority of the African countries, hence the preservation of this band for unconstrained use of the DTT services.

Radiocommunication Assembly 2019 issues

Based on ITSO's proposal that "Resolution ITU-R 69 be maintained through the next study cycle of ITU-R, with appropriate editorial amendments being made as a result of the outcomes of WTDC-17 and ITU-PP 18".

APM19-3 agreed to:

- 1. support the **proposal in principle** subject to consideration of the actual text of the amendment proposals to the resolution;
- 2. request ITSO to provide to ATU administrations via the ATU Secretariat, an outline of the benefits of retaining the resolution, as well as, modalities for its implementation; and,
- 3. request ITSO to clarify its role and to consider being a party to the resolution.

Statistical Analysis of African Preliminary Positions

Chapter Title	Total elements ²	Elements <u>with</u> African preliminary position	Elements <u>without</u> African preliminary position
Chapter 1: Land mobile and fixed services	4	4	0
Chapter 2: Broadband applications in the mobile service	20	15	5
Chapter 3: Satellite services	19	18	1
Chapter 4: Science services	4	2	2
Chapter 5: Maritime, aeronautical & amateur services	8	8	0
Chapter 6: General issues	43	4	0
Radiocommunication assembly 2019	1	1	0
	60	52	8
	100%	86.7%	13.3%

² NB: Each sub-issues or band under an AI counts, e.g. AI 1.13 has 12 elements because it has 12 bands under consideration.

³ Discounting AIs 2 and 4.