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Wor	king Party 1:	Land Mobile and Fixed Services	
1.	1.11	Issue related to: Related to Railway radiocommunication Systems between Train and Trackside (RSTT) within existing mobile service allocations No comments.	
2.	1.12	Issue related to: Related to Intelligent Transport Systems (ITS) within existing mobile service allocations No comments.	
3.	1.14	between Train and Trackside (RSTT) within existing mobile service allocations No comments. Issue related to: Related to Intelligent Transport Systems (ITS) within existing mobile service allocations	

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4.	1.15	Issue related to: Related to identification of frequency bands for land-mobile and fixed services applications No comments.	
Worl	king Party 2:	Broadband Applications in the Mobile Service	
5.	1.13	Issue related to: Related to identification of frequency bands for the future development of International Mobile Telecommunications (IMT) MEASAT supports globally or regionally harmonized identification of frequency bands for IMT, subject to feasibility of sharing and compatibility	
		with incumbent services. Within the frequency ranges studied by the ITU-R, MEASAT has filed for the bands 24.65-25.25 GHz, 27-27.5 GHz, 37.5-43.5 GHz, 45.5-50.2 GHz, 50.4-51.4 GHz, 66-76 GHz and 81-86 GHz. Particularly, MEASAT has concerns in the Ka-band (27-27.5 GHz) and Q/V-bands (37.5-42.5 GHz, 47.2-50.2 GHz, 50.4-51.4 GHz) as the upcoming MEASAT-3d satellite to be launched at 91.5E in Q1 2021 carries payload in these bands. The 27-27.5 GHz is also currently being used by MEASAT-5 satellite to provide broadband service.	
		Based on the ITU-R studies, the allocation to IMT would severely constrain future development of satellite services in the Ka-band. Hence, it would be critical that the band 27-27.5 GHz remains exclusively allocated to FSS.	
		For the Q/V-bands (37.5-42.5 GHz, 47.2-50.2, 50.4-51.4GHz) based on the ITU-R studies, in the case of deployment of FSS earth stations at specified locations, when the required separation distance can be maintained between a location of a FSS earth station with a known position and a deployment area of IMT stations, sharing between IMT and the FSS is feasible.	
		Based on the above, MEASAT seeks MCMC's consideration to ensure that the band 27-27.5 GHz be exclusively allocated to FSS in consideration of the operational MEASAT-5 and planned MEASAT-3d satellites. MEASAT also seeks MCMC support to facilitate the sharing between FSS earth stations and IMT in the Q/V-bands in Malaysia.	
		With regard to the Malaysian view, a) That supports identification of the terrestrial component of IMT in the bands: • 24.25-27.5 GHz - MEASAT seeks MCMC's consideration to ensure that the band 27-27.5 GHz be exclusively allocated to FSS. MEASAT supports identification for IMT in the band 24.25-27.0 GHz (Method A2 Alternative 2). In addition, MEASAT supports:	

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		 a. Option 1 under Condition A2d relating to measures related to transmitting earth stations in FSS (Earthto-space) at known locations in the bands 24.65-25.25 GHz and 27-27.5 GHz; b. Option 3 under Condition A2e relating to protection measures for ISS and FSS (Earth-to-space) receiving space stations; c. Option 3 or 4 under Condition A2g relating to protection measures for multiple services 37-40.5 GHz - MEASAT believes there is sufficient amount of spectrum being considered for IMT in the bands 24.25-27.0 GHz, 42.5-43.5 GHz and 66-71 GHz. MEASAT supports Method C1, no change to the Radio Regulations. 40.5-42.5 GHz - MEASAT supports the Malaysian view. In addition, MEASAT supports Method D2, condition D2a Option 1. 42.5-43.5 GHz - MEASAT supports the Malaysian view. In addition, MEASAT supports Method E2, subject to Option 2 under Condition E2a, Option 3 or 4 under Condition E2c and Option 1 under Condition E2d. 47.2-50.2 GHz - MEASAT believes there is sufficient amount of spectrum being considered for IMT in the bands 24.25-27.0 GHz, 42.5-43.5 GHz and 66-71 GHz. MEASAT supports Method F1, no change to the Radio Regulations. 50.4-52.6 GHz - MEASAT believes there is sufficient amount of spectrum being considered for IMT in the bands 24.25-27.0 GHz, 42.5-43.5 GHz and 66-71 GHz. MEASAT supports Method H1, no change to the Radio Regulations. 66-71 GHz - MEASAT supports the Malaysian view that supports Method H1, no change to the Radio Regulations. 66-71 GHz - MEASAT supports the Malaysian view that supports identification for IMT in the band 66 - 71 GHz which has potential for global harmonization for future 5G and IMT-2020 use. MEASAT supports Method J2, either alternative 1 or 2. b) That will not oppose identification of IMT in the following bands: 	
		 45.5-47 GHz – MEASAT supports no change to the Radio Regulations as there were no studies conducted in TG5/1. 47-47.2 GHz - MEASAT believes there is sufficient amount of spectrum being considered for IMT in the bands 24.25-27.0 GHz, 42.5-43.5 GHz and 66-71 GHz and there is limited interest for IMT at 50 GHz. MEASAT supports no change to the Radio Regulations. 71-76 GHz - MEASAT supports the Malaysian view. If proposed identification, MEASAT supports Method K2, alternative 1 or 2. 	

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		81-86 GHz - MEASAT supports the Malaysian view. If proposed identification, MEASAT supports Method L2, alternative 1 or 2.
		c) That supports no change to the Radio Regulations in the band 31.8-33.4 GHz - MEASAT supports the Malaysian view.
6.	1.16	Issue related to: Related to wireless access systems, including radio local area networks (WAS/RLAN) in the frequency bands between 5 150 MHz and 5 925 MHz
		For the 5 150-5 250 MHz frequency band, MEASAT noted the Malaysian view to supports the revision to Resolution 229 (Rev.WRC-12) to enable outdoor WAS/RLAN operations with associated conditions to protect the incumbent services.
		For the 5 250-5 350 MHz, 5 350-5 470 MHz and 5 850-5 925 MHz frequency bands, MEASAT is in favour of the of the Malaysian view to support no change to the Radio Regulations.
		For the 5 725-5 850 MHz frequency band, MEASAT noted the Malaysian view to support regional primary mobile service allocation for Region 1 in the band to accommodate WAS/RLAN use, subject to WAS/RLAN restricted for indoor operation with e.i.r.p. limits up to 200 mW including associated mitigation techniques and together with the revision of Resolution 229 (Rev.WRC-12).
		Further to the recent APG19-5 meeting, MEASAT supports the APT views for no change in the band 5 850-5 925 MHz. MEASAT also noted APT support to allocate the 5 725-5 850 MHz band to the mobile service on a primary basis in Regions 3. MEASAT supports this allocation to accommodate WAS/RLAN use restricted to indoor operation with e.i.r.p. limits including associated mitigation techniques and together with the revision of Resolution 229 (Rev.WRC-12).
7.	9.1 (Issue	Issue related to: International Mobile Telecommunications (IMT) in the frequency bands 1 885-2 025 MHz and 2 110-2 200 MHz
	9.1.1)	MEASAT is in favour of the Malaysian view that the scope of WRC-19 agenda item 9.1, issue 9.1.1 is limited to the study of possible technical and operational measures to ensure coexistence and compatibility between the terrestrial component of IMT and the satellite component of IMT in the 1 980-2 010 MHz and 2 170-2 200 MHz frequency bands deployed in different countries, in accordance with Resolution 212 (Rev. WRC-15). Regulatory measures or any changes to the Radio Regulations are outside the scope of this issue.

ANNEX1 MEASAT response to MCMC PC on WRC-19

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		MEASAT also concurs with the Malaysian view that bilateral/multilateral discussions between different administrations provide greater operational flexibility while ensuring coexistence between the two components of IMT deployed in different countries.
8.	9.1 (Issue 9.1.5)	Issue related to: Wireless access systems (WAS) including radio local area networks (RLANs) subject to Resolution 229 (Rev.WRC-12) No comments.
9.	9.1 (Issue 9.1.8)	Issue related to: Machine-type communication infrastructures No comments.

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Wor	Working Party 3: Satellite Services				
10.	1.4	Issue related to: Related to broadcasting satellite service in the planned bands MEASAT supports the relaxation/removal of certain limitations so as to allow for a better and more efficient overall use of the AP30 bands, taking into account the protection of existing operation services and applying the appropriate regulatory measures to ensure their protection. Hence, MEASAT is in favour of the Malaysian view of having the flexibility provided by the deletion of some limitations of Annex 7 to Radio Regulations Appendix 30 taking into account that protection and priority of frequency assignments in Region 3 List will be ensured by application of relevant new ITU-R Resolutions proposed under this agenda item.			
11.	1.5	Issue related to: Earth stations in motion (ESIM) in the Ka-band MEASAT supports the establishment of provisions for maritime, aeronautical and land ESIM operations within GSO FSS networks in the bands 17.7-19.7GHz and 27.5-29.5GHz, subject to technical and regulatory protection mechanisms for existing FSS operations and other allocated services. MEASAT supports Method B in the CPM Report, to add a new footnote in RR Article 5 and a reference to a new WRC Resolution providing the conditions for the operation of ESIM and protection of the services to which the frequency bands are allocated. MEASAT supports the Malaysian view that, - deployment of ESIM in 17.7-19.7 GHz (space-to-Earth) and 27.5- 29.5 GHz (Earth-to-space) frequency bands will enable expansion of fixed satellite service type of applications in providing broadband services; - operation of ESIM, which complies with the mandated operational limits as stated in the new ITU-R Resolution should not release the relevant administrations and operators from their obligation to ensure protection of the existing services operating in 17.7-19.7 GHz and 27.5-29.5 GHz frequency bands; MEASAT noted that, for the different types of ESIM, the ITU-R studies concluded that - In the 17.7-19.7 GHz band, there would be potential interference from transmitting stations of terrestrial services to ESIM receivers. - In the 27.5-29.5 GHz band, the ITU-R studies concluded that there would be potential interference to receiving stations of terrestrial services from ESIM transmitters.			

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	MEASAT is of the view that the ITU-R studies has developed the new Resolution [A15] (WRC-19) to facilitate establishment of proformaritime, aeronautical and land ESIM operations within GSO networks in the bands 17.7-19.7GHz and 27.5-29.5GHz, subject obligations of administrations and the ESIM associated operator mitigate the potential interference.		
		Also, regardless of platform, ESIM are operated within the envelope of earth stations in the fixed satellite service (with respect to Option 1/2 for ξ 1.1.1 of Draft New Resolution [A15] (WRC-2019)) and ESIM shall not cause more interference and shall not claim more protection than was coordinated when using typical earth stations in this satellite network (with respect to Option 2 for ξ 1.1.1 of Draft New Resolution [A15] (WRC-2019)). MEASAT further notes that compliance with the requirements would not release a notifying administration from its obligation not to cause unacceptable interference to any stations in the terrestrial service in accordance with the Radio Regulations.	
		 Maritime ESIM MEASAT is in favour of the Malaysian view that this could be addressed with minimum distance of 60-70 km from the low-water mark as officially recognized by the coastal State. MEASAT is of the view that the minimum distance should be carefully considered to protect incumbent services and also to enable expansion of fixed satellite service type of applications in providing broadband services. Additionally, the maximum e.i.r.p spectral density towards the territory of any coastal State should be considered to protect the stations in the mobile and fixed service, as described in ξ 1.2 in Annex 2 of the Draft New Resolution [A15] (WRC-2019) in the CPM Report. 	
		 Aeronautical ESIM MEASAT believes that pfd limit is sufficient to protect existing FSS operations and other allocated services. MEASAT further believes that an altitude limit for A-ESIM is unnecessary given the pfd requirement and would unnecessarily limit aircraft connectivity to a worst-case altitude at which aircraft regularly operate and require broadband connectivity. Land ESIM 	
		To address concerns in the 18 GHz band, there are power flux density limits in RR Article 21 to protect terrestrial services from FSS space station emissions in the band 17.7-19.7 GHz and provided that these limits are unchanged, the interference environment with respect to receiving mobile and fixed service stations would be unchanged.	

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		 To address concerns in the 28 GHz, band, ITU-R studies considers two methodologies, one where the specific locations of the MS base-stations, or FS, stations are known, and the other where these locations are unknown but contained within a known region. See Annex 5 to the Working Party 4A Chairman's Report for the Preliminary Draft New Report ITU-R S.[LESIM-FS].^{1 2 3} MEASAT believes that, the FS and FSS use in the 18 GHz band and potentially identified 5G deployment in the 28 GHz will be sufficiently protected by the existing Radio Regulations and methodologies developed by the ITU-R studies, respectively. These will be finalized through the draft new Resolution [A15] (WRC-19) at the conference. At the same time, MEASAT opposes to the identification of the 28 GHz band for 5G because (a) this band is being used extensively by regional satellite and most importantly, the future MEASAT-3d to provide broadband connectivity to Malaysians in the urban and rural areas (b)the 28 GHz is not among the WRC-19 Agenda Item 1.13 candidate bands and hence is unlikely to be internationally harmonized; and (c) there is plenty of other spectrum for 5G, including >33 GHz being considered under Al 1.13. Therefore, MEASAT would like to seek consideration to review the Malaysian view for possible consideration to land ESIM.
		Further to the recent APG19-5 meeting, MEASAT noted that there will not be a PACP on this issue. There will be further discussion with regard the draft new Resolution [A15] (WRC-19) at the Conference, to facilitate establishment of provisions for maritime, aeronautical and land ESIM operations within GSO FSS networks in the bands 17.7-19.7GHz and 27.5-29.5GHz, subject to obligations of administrations and the ESIM associated operator to mitigate the potential interference. MEASAT would like to seek MCMC consideration to support the establishment of provisions for maritime, aeronautical as well as land ESIM operations within GSO FSS networks in the bands 17.7-19.7GHz and 27.5-29.5GHz based on the above discussed MEASAT views.

¹ Annex 1 provides a methodology to estimate the ESD levels of L-ESIM and to ensure compliance with coordination distance limits and power flux density limits with respect to FS stations. Annex 1 can be used when the specific characteristics and the location of the FS terminal receiver are unknown, but the region that surrounds them is known.

² Annex 2 provides a methodology that may be used to estimate the ESD levels of L-ESIM and to ensure compliance with the permissible interference limits of the FS station. Annex 2 may be used when the characteristics of the FS receiver station and its geographical location are known.

³ Annex 3 provides a methodology to estimate the time duration of interference events produced by L-ESIM taking into consideration the speed and the path of the vehicle. Annex 3 can be used when it is necessary to limit long durations of interference events.

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12.	1.6	Issue related to: NGSO above 30 GHz	
		MEASAT supports the establishment of regulatory and procedural conditions to accommodate non-GSO FSS satellite systems in the frequency bands 37.5-39.5 GHz (space-to-Earth), 39.5-42.5 GHz (space-to-Earth), 47.2-50.2 GHz (Earth-to-space) and 50.4-51.4 GHz (Earth-to-space). This is subject to protection to GSO satellite networks in FSS, MSS and BSS, and also to stations of other existing services in the same and adjacent frequency bands.	
		Under Issue 1, there remains no consensus on epfd limits to ensure protection to GSO satellite networks in the FSS/MSS/BSS. MEASAT supports Method B in the CPM Report, that is to carry forward the studies to ensure the protection of GSO satellite networks under WRC-19 agenda item 1.6 to a new WRC-23 agenda item towards the development of epfd limits. MEASAT is in favour of the Malaysian view that development of regulatory framework for non-GSO fixed satellite service satellite systems that may operate in 37.5-39.5 GHz (space-to-Earth), 39.5-42.5 GHz (space-to-Earth), 47.2-50.2 GHz (Earth to-space) and 50.4-51.4 GHz (Earth-to-space) frequency bands should ensure protection of existing services to which these bands are allocated.	
		Under Issue 2, MEASAT is of the view that modifications to Resolution 750 (Rev.WRC-15) for GSO networks are not within the scope of this Agenda Item that is required to study the technical operational issues and regulatory provisions on non-GSO FSS systems. MEASAT is in favour of the Malaysian view that supports Option A in the CPM Report, to consider revision of limits only for non-GSO systems as modifications to Resolution 750 (WRC-15) .	
		Further to the recent APG19-5 meeting, MEASAT noted that there will not be a PACP on this issue. MEASAT to further study this issue and may propose its view to MCMC for submission to the Conference. At this stage, considering that studies have not been completed, MEASAT supports to carry forward the studies to ensure the protection of GSO satellite networks under WRC-19 agenda item 1.6 to a new WRC-23 agenda item towards the development of epfd limits.	
13.	7	A	Issue related to: Bringing into use of frequency assignments to all non-GSO systems MEASAT supports the ITU-R studies to clarify the BIU of frequency assignments to space stations in non-GSO systems. With respect to bringing into use of frequency assignments to all non-GSO systems, MEASAT believes that a continuous period of at least 90 days in a notified orbital plane of a satellite with the

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			capability of transmitting or receiving the frequency assignments is required. MEASAT further believes that for establishment of a milestone-based approach for the deployment of non-GSO systems, a balance is required between the need to prevent warehousing of the orbital/spectrum resources and the operational requirements related to the deployment of a non-GSO system.
			MEASAT supports a new Resolution to specify the frequency bands and services to which the approach applies, the number of milestones, the milestone period, the required percentage of satellites deployed to satisfy the milestones, and the consequences of failing to meet a milestone (which results in reduction of time between milestones and/or adjustments to the MIFR entry based on a deployment factor).
			Question remains on non-GSO systems that was brought into use with at least one satellite, under current procedures in accordance to the ITU-R Rules of Procedure No. 11.44. Further review would be required on the retroactive application of the milestone-based approached under this Issue.
			MEASAT is in favour of the Malaysian view that supports the requirement for BIU of frequency assignments of non-GSO systems and, through a new ITU-R Resolution, introduction of milestone-based approach for specific services and frequency bands that recognizes that constellations of non-GSO systems may generally take time to be developed and to complete their deployment.
			Further to the recent APG19-5 meeting, MEASAT supports the APT views as summarized in the associated APG19-5 output document.
		В	Issue related to: Coordination arc in the Kaband MEASAT supports the single method under this issue, the use of the coordination arc with a

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			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 $\Delta T/T > 6\%$, on the basis of the following principles:
			 Results of studies show that earth station terminals used in the MSS and FSS in the Ka-band are quite similar. Therefore, it can be considered that the coordination arc that currently trigger coordination between FSS systems in an effective and efficient manner, can be applied to trigger coordination between MSS and FSS systems and MSS systems.
			 Introduction of the coordination arc will reduce the number of administrations identified for coordination, reducing the number of coordination processes and resulting in a reduction of required resources in administrations, operators, Bureau, etc.
			 Administration will always have the possibility to request application of RR No. 9.41 to include additional satellite networks affected, taking into account the ΔT/T > 6% criteria.
			MEASAT is in favour of the Malaysian view that supports the single method in the CPM Report on the use of coordination arc with a value of 8 degrees as coordination criteria to determine if coordination is required between fixed-satellite service and mobile-satellite service systems and between mobile-satellite service systems in the said Ka-band in all three Regions, while keeping the possibility for administrations to request $\Delta T/T$ criteria.
			Further to the recent APG19-5 meeting, MEASAT supports the APT views as

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			summarized in the associated APG19-5 output document to support the single method.
		C1	Issue related to: Alignment of provisions in Article 8 of RR Appendix 30B and RR Article 11
			The concept of the text of paragraph 8.13 of Article 8 of RR Appendix 30B was borrowed/taken from provisions of RR No. 11.43A of RR Article 11. However, in so doing an important element as contained in RR No. 11.43A which referred to any change to the characteristics of an assignment that has been recorded and confirmed as having been brought into use was changed to notified and confirmed as having been brought into use, which is quite different. An assignment may be notified but due to one or other reasons not yet recorded in the MIFR, but the notifying administration might have brought that assignment into use and its date of bringing it into use might have been confirmed. It is also worth mentioning that an assignment may be notified but being returned to its notifying administration on relevant regulatory grounds. That assignment shall not be benefited as being recorded.
			MEASAT is in favour of the Malaysian view that supports the single method in the CPM Report to address the regulatory inconsistency identified by aligning the text of paragraph 8.13 of Article 8 of RR Appendix 30B with that of No. 11.43A of RR Article 11.
			Further to the recent APG19-5 meeting, MEASAT supports the APT views as summarized in the associated APG19-5 output document to support the single method.
		C2	Issue related to: Possibility to submit application for one of the blocks/sub-bands in an explicit submission of one of the blocks/sub-bands under RR Appendix 30B
			It will be helpful for administrations to reach agreement on the shared use of the frequency

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			bands if an explicit submission of one of the blocks/sub-bands under RR Appendix 30B is allowed, and hence, the additional text of paragraph 6.1bis of Article 6 of RR Appendix 30B would be beneficial.
			MEASAT is in favour of the Malaysian view that supports the single method in the CPM Report to add another footnote to paragraph 6.1 of RR Appendix 30B to address the issue.
			Further to the recent APG19-5 meeting, MEASAT supports the APT views as summarized in the associated APG19-5 output document to support the single method.
		C3	Issue related to: Clarification of inclusion of territory of an administration under § 6.6 of RR Appendix 30B is not subject to non-response of letters
			It may be critical if the inclusion of the territory of an administration identified under § 6.6 of RR Appendix 30B can result from a formal agreement of this administration and, in no circumstance, results from a non-response to neither the original request for inclusion of its territory nor any subsequent letters from the Radiocommunication Bureau on this matter.
			MEASAT is in favour of the Malaysian view that supports the single method in the CPM Report to add a new provision in Article 6 of Appendix 30B to clearly stipulate that § 6.13 to § 6.15 of Appendix 30B do not apply in the context of requirements associated with § 6.6 of RR Appendix 30B.
			Further to the recent APG19-5 meeting, MEASAT supports the APT views as summarized in the associated APG19-5 output document to support the single method.
		C4	Issue related to: Possibility to submit one notice to be considered entry into List and notification of RR Appendices 30/30A

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			Given that the RR Appendix 4 information required for submission under § 4.1.12 (for Regions 1 and 3) or § 4.2.16 (for Region 2) and § 5.1.1/5.1.2, are identical for entry into the List and Notification, respectively, there are no negative consequences to allowing a single notice to be treated for, and examined in respect of, the relevant provisions of Articles 4 and 5 of RR Appendices 30/30A. Enabling administrations to submit one notice and request in a letter to the Bureau that it should be treated both in respect of entry into the List and notification would simplify the processing and reduce the workload of the Bureau and administrations.
			MEASAT is in favour of the Malaysian view that supports the single method in the CPM Report to modify § 4.1.12 bis and 4.2.16 bis of RR Appendices 30 and 30A to allow administrations to request the Radiocommunication Bureau to have notices submitted under any of these two provisions also examined with respect to § 5.1.1 of RR Appendix 30 and § 5.1.2 of RR Appendix 30A for Notification.
			Further to the recent APG19-5 meeting, MEASAT supports the APT views as summarized in the associated APG19-5 output document to support the single method.
		C5	Issue related to: Reminder to administration to resubmit returned notices Pursuant to RR No. 11.46, the Bureau allows notifying administrations six months to resubmit their notified frequency assignments which were returned due to an unfavourable finding with respect to RR Nos. 11.32, 11.32A or 11.33. Any notification resubmitted beyond six months is considered as a new notification with a new date of receipt and would be subject to cost-recovery fees. Neither RR No. 11.46 nor any other provision in the Radio Regulations requires the Bureau to send a reminder during

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			the six-month period. Addressing this lack of a reminder would be beneficial to administrations.
			MEASAT is in favour of the Malaysian view that supports the single method in the CPM Report to modify the RR No. 11.46 requiring the Radiocommunication Bureau to remind the notifying administration of the 6-month deadline.
			Further to the recent APG19-5 meeting, MEASAT supports the APT views as summarized in the associated APG19-5 output document to support the single method.
		C6	Issue related to: Possibility to submit one notice to be considered for entry into List and notification of RR Appendix 30B
			Normally, at the end of the coordination process under Article 6 of RR Appendix 30B and when a network is about to be implemented, systems are submitted for entry into the List under § 6.17 and for notification under § 8.1 at the same time. Enabling administrations to submit one notice and request in a letter to the Bureau that it should be treated both in respect of entry into the List and notification would simplify the processing and reduce the workload of the Bureau and administrations.
			MEASAT is in favour of the Malaysian view that supports the single method in the CPM Report to modify § 6.17 of RR Appendix 30B to allow one submission to be treated in respect of both provisions - entry into the List under § 6.17 of RR Appendix 30B and for notification under § 8.1 of RR Appendix 30B .
			Further to the recent APG19-5 meeting, MEASAT supports the APT views as summarized in the associated APG19-5 output document to support the single method.
		C7	Issue related to: Possibility of obtaining agreement from affected administrations for a specified period

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			MEASAT is in favour of the Malaysian view that supports the single method in the CPM Report to implement the possibility of obtaining agreement from affected administrations for a specified period to considerably facilitate the tasks of those administrations applying Article 4 of RR Appendices 30 and 30A and Article 6 of RR Appendix 30B, as well as amendment to RR Appendices 30A and 30B to be harmonized among RR Appendices 30, 30A and 30B.
			Further to the recent APG19-5 meeting, MEASAT supports the APT views as summarized in the associated APG19-5 output document to support the single method.
		D	Issue related to: Identification of coordination requirements
			MEASAT supports the alignment of the provisions for the Bureau to publish a list of potentially affected satellite networks and/or systems following the receipt of a coordination request for frequency assignments subject to RR Nos. 9.12, 9.12A and 9.13, rather than a list of affected administrations only. It will be useful as it reduces the administrative workload of identifying the names of specific satellite networks, systems and earth stations with which a new satellite network or system needs to effect coordination.
			At the same time, in the cases of coordination under RR Nos. 9.7, 9.7A and 9.7B, existing procedures is that, following the publication of a coordination request, notifying administrations for the list of satellite networks/systems potentially affected should provide response under No. 9.52 within four-month period to confirm coordination requirement, or otherwise shall be regarded as unaffected. MEASAT believes similar procedures should be applicable in the cases of coordination under RR Nos. 9.12, 9.12A and 9.13.
			MEASAT is in favour of the Malaysian view that supports the method (i.e. Method D1 in the

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			CPM Report) that proposes additional requirements to have (i) a pre-compiled list of potentially affected satellite networks and/or systems, published for information only, and (ii) the definitive list of affected satellite networks or systems to be considered when effecting coordination request under Radio Regulations Nos. 9.12, 9.12A and 9.13.
			Further to the recent APG19-5 meeting, MEASAT supports the APT views as summarized in the associated APG19-5 output document to support the single method.
		Е	Issue related to: Resolution related to RR Appendix 30B
			MEASAT supports the new WRC Resolution to facilitate administrations having no frequency assignments in the Appendix 3 Appendix 30B 0B List to provide an economically viable satellite service to its national territory.
			MEASAT is in favour of the Malaysian view that supports the single method in the CPM Report for establishment of special measures to be applied once with respect to the submission received from an administration having no frequency assignments in the Radio Regulations Appendix 30B List the details of which are to be contained in a WRC Resolution to facilitate the tasks of those administrations to provide an economically viable satellite service to its national territory.
			Further to the recent APG19-5 meeting, MEASAT supports the APT views as summarized in the associated APG19-5 output document to support the single method.
		F	Issue related to: Measures to facilitate entering into Appendix 30B List MEASAT supports the studies to facilitate coordination of networks for newcomers by alleviating difficulties due to the conservative criteria used in RR Appendix 30B and from networks with unrealistic characteristics which

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			are highly sensitive to interference from later submissions. MEASAT is in favour of the Malaysian view that supports updating the coordination triggers to
			take into account technological advances that facilitates coordination of submission of new networks while assuring adequate protection of existing allotment and operational additional systems recorded in the List. Particularly, MEASAT supports Method F3 based on Method F2 in the CPM Report.
			Further to the recent APG19-5 meeting, MEASAT noted that there will not be a PACP on this issue. MEASAT to further study this issue and may propose its view for submission to MCMC to the Conference.
		G	Issue related to: Updating the AP30/30A reference situation MEASAT supports the modification of § 4.1.18 bis of RR Appendices 30 and 30A in such a way that when a network has entered into the List using § 4.1.18, and when the recording of the associated assignment transitions from provisional to definitive while there is still disagreement, the reference situation of the interfered-with network should be updated in consultation with, and only with the agreement of, the affected administration. MEASAT is in favour of the Malaysian view that supports the method (i.e. Method G1 in the CPM Report) where the administration with an interfered-with network, depending on the specific situation of its network, will determine
			whether the reference situation shall be updated. Further to the recent APG19-5 meeting, MEASAT noted that there will not be a PACP on this issue. MEASAT to further study this issue and may propose its view for submission to MCMC to the Conference.

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		Н	Issue related to: Modifications to Radio Regulations Appendix 4 items to be provided for non-GSO systems
			MEASAT supports the single method in the CPM Report to facilitate modelling non-geostationary (non-GSO) satellite systems.
			MEASAT is in favour of the Malaysian view that supports the single method of modifications to RR Appendix 4 as described under the single method under this issue.
			Further to the recent APG19-5 meeting, MEASAT supports the APT views as summarized in the associated APG19-5 output document to support the single method.
		I	Issue related to: Modified regulatory procedure for non-GSO satellite systems with short-duration missions
			MEASAT supports the ITU studies to accommodate nanosatellite and picosatellite missions. However, while many of these non-GSO satellite systems are being developed by academic institutions, amateur satellite organizations, or by developing countries to build their expertise in space capability, there are concerns that the draft new Resolution could be misused.
			MEASAT is in favour of the Malaysian view that supports modification to the Radio Regulations Articles 9 and 11 , including addition of a new WRC Resolution (i.e. Method I2 in the CPM Report). However, to address concerns of misuse, the modifications to Radio Regulations Articles 9 and 11 should be on the basis that the GSO satellite network or system identified as short-duration mission does not exceed three years from the date of bringing into use of the frequency assignments, without any possibility of extension, after which the recorded assignments shall be cancelled. MEASAT also believes it is critical that administration submit a commitment to the Bureau stating that in case unacceptable

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			interference caused by the short-duration mission system is not resolved, it shall undertake to eliminate the interference or reduce it to an acceptable level. This commitment should be considered part of the complete information for the notice and should therefore be included as a new data item under Appendix 4. Further to the recent APG19-5 meeting,
			MEASAT supports the APT views as summarized in the associated APG19-5 output document to support the single method.
		J	Issue related to: Exceedance of PFD for Broadcasting Satellite Service
			MEASAT noted that, based on the Bureau's current practice in the examination on the pfd limit and the associated Rules of Procedure, it is possible to exceed the pfd limit for the BSS networks in the List within the national territory of the notifying administration. However, MEASAT believes that it would be beneficial to provide clarity to the Bureau's current practice and the Rules of Procedure.
			MEASAT is in favour of the Malaysian view that supports the method (i.e. Method J1 in the CPM Report) that allows List assignments to exceed the pfd limit given only within the national territory of the notifying administration under the condition that the assignment does not overlap with the Regions 1 and 3 guardbands as defined in § 3.9 of Annex 5 to RR Appendix 30 and also under the condition that, on the border areas and other territory of another country, this pfd limit is not exceeded.
			Further to the recent APG19-5 meeting, MEASAT noted that there will not be a PACP on this issue. MEASAT to further study this issue and may propose its view for submission to MCMC to the Conference.

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		К	Issue related to: AP30/30A and AP30B Part B examinations
			MEASAT supports the single method in the CPM Report to resolve the inconsistencies in regulatory provisions, clarifying certain existing practices, or increasing transparency in the regulatory process. This avoids overprotection of Network SR based on the characteristics which are outdated and no longer valid while ensuring Network SR is adequately protected.
			MEASAT is in favour of the Malaysian view that supports the single method in the CPM Report under Issue K, that is the addition of one more examination under § 4.1.12 and § 4.2.16 of Radio Regulations Appendices 30 and 30A and § 6.21 c) of Radio Regulations Appendix 30B.
			Further to the recent APG19-5 meeting, MEASAT supports the APT views as summarized in the associated APG19-5 output document to support the single method.
14.	9.1	Issue related to: Compati	ibility between IMT systems and BSS (sound)
	(Issue 9.1.2)	MEASAT is in favour of the	he Malaysian view that supports no change to with the conclusion of the ITU-R studies.
		on upgrading the draft ne	ng (July 2019) was not able to reach a consensus ew Report since further clarifications for system results are required by several administrations
		Resolution 761 (WRC-15) invites ITU-R "to conduct, in time for WRC-19, the appropriate regulatory and technical studies, with a view to ensuring the compatibility of IMT and BSS (sound) in the frequency band 1 452-1 492 MHz in Regions 1 and 3, taking into account IMT and BSS (sound) operational requirements" and "to prepare, inter alia, the regulatory action that could be taken, based on the studies carried out under resolves to invite ITU-R 1 above, in order to facilitate the long-term stability of IMT and BSS (sound) in the frequency band 1 452-1 492 MHz". As the associated studies and draft new Report has not been concluded by the ITU-R study groups, MEASAT supports further studies under this agenda item.	

No.	Agenda Item	Proposed Malaysia (MLA) Views and Positions
		Further to the recent APG19-5 meeting, MEASAT noted that there will not be a PACP on this issue. MEASAT to further study this issue and may propose its view for submission to MCMC to the Conference.
15.	9.1 (Issue 9.1.3)	Issue related to: Review of power limits in Article 21 and Article 22 for non-GSO FSS system, based on recent trend of the system in the C-band MEASAT is in favour of the Malaysian view that supports no change to the existing limits, in line with the conclusion of the ITU-R studies. Further to the recent APG19-5 meeting, MEASAT supports the APT views as summarized in the associated APG19-5 output document to support no change to the Radio Regulations.
16.	9.1 (Issue 9.1.9)	Issue related to: FSS (Earth-to-space) allocation in the band 51.4-52.4 GHz MEASAT noted that Malaysia is currently studying the possibility of allocation to International Mobile Telecommunications (IMT) in the 51.4-52.4 GHz frequency band. According to the ITU-R studies, coexistence between the fixed-satellite and fixed services can be achieved through separation distances between fixed-satellite service earth stations and fixed service stations. As the CPM Report concludes with a recommendation to make an allocation of the frequency band 51.4-52.4 GHz to the fixed-satellite service (Earth-to-space), limited to FSS gateway links for geostationary orbit use with minimum antenna diameter of 4.5m, MEASAT believes the
		coexistence through separation distances can be achieved. Hence, MEASAT seeks consideration for Malaysia to support allocation of the band 51.4-52.4 GHz to fixed-satellite service (Earth-to-space) for FSS gateway links for geostationary orbit use while protecting existing services, in the band and in adjacent bands. Further to the recent APG19-5 meeting, MEASAT supports the APT views as summarized in the associated APG19-5 output document to support the new primary allocation to FSS.
Wor	king Party 4:	Science Services
17.	1.2	Issue related to: limits for earth stations operating in the mobile-satellite service, meteorological-satellite service and Earth exploration-satellite service in the frequency bands 401-403 MHz and 399.9-400.05 MHz No comments.

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18.	1.3	Issue related to: Upgrading of the secondary allocation to the meteorological satellite service (space-to-Earth) to primary status and a possible primary allocation to the Earth exploration-satellite service (space-to-Earth) in the frequency band 460-470 MHz No comments.
19.	1.7	Issue related to: Spectrum need for telemetry, tracking and command in the space operation service for non-geostationary-satellite orbit (non-GSO) satellites with short duration missions No comments.
Worl	king Party 5:	Maritime, Aeronautical and Amateur Services
20.	1.1	Issue related to: Allocation of the frequency band 50-54 MHz to the amateur service in Region 1 No comments.
21.	1.8	Issue related to: Global Maritime Distress Safety Systems (GMDSS) No comments.
22.	1.9.1	Issue related to: Autonomous maritime radio devices (AMRD) to protect the GMDSS and automatic identifications system (AIS) No comments.
23.	1.9.2	Issue related to: New spectrum allocations to the maritime mobile-satellite service to enable a new VHF data exchange system (VDES) No comments.
24.	1.10	Issue related to: Global Aeronautical Distress and Safety System (GADSS) No comments.
25.	9.1	Issue related to: Stations on board sub-orbital vehicles
	(Issue	No comments.
	9.1.4)	
Worl	king Party 6:	General Issues
26.	2	Issue related to: Examination and review of ITU-R Recommendations incorporated by reference

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		MEASAT is in favour of the Malaysian view to support merging of Resolutions 27 (Rev.WRC-12) and 28 (Rev.WRC-15) in order to have a single Resolution that refers to incorporation by reference in the Radio Regulations.
27.	4	Issue related to: Possible revision, replacement or abrogation of Resolutions and Recommendations of previous conferences MEASAT supports the Malaysian view to modify or suppress, as appropriate, the Resolutions and Recommendations contained in Volume 3 of the Radio Regulations to ensure Resolutions and Recommendations remain current and relevant.
28.	8	Issue related to: Deletion of country's footnote or country's name from footnotes MEASAT noted that there is no proposal to modify any footnotes where Malaysia's name has been included in footnotes at previous conferences.
29.	9.1 (Issue 9.1.6)	Issue related to: Wireless Power Transmission (WPT) for electric vehicles No comments.
30.	9.1 (Issue 9.1.7)	Issue related to: Methods to assist administrations in managing the unauthorized operation of earth station terminals MEASAT recognize the concerns of administrations affected by unauthorized operation of earth stations terminals and observe that there is a need to find a lasting sustainable solution. In relation to Issue 2a, MEASAT is in favour of the Malaysian view, as Article 18 appropriately addresses the required international regulatory measures. In relation to Issue 2b, MEASAT is in favour of the Malaysian view, that supports 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. Further to the recent APG19-5 meeting, MEASAT supports the APT views as summarized in the associated APG19-5 output.
31.	10	Issue related to: Agenda for the next WRC

No.	Agenda Item	Proposed Malaysia (MLA) Views and Positions
		Agenda Item 2.4 - Possible new spectrum for satellite service in the band 37.5-39.5 GHz in the WRC-2023 cycle
		MEASAT supports the study on the possible new allocations to the fixed-satellite service in the frequency band 37.5-39.5 GHz (Earth-to-space).
		Currently, under WRC-19 Agenda Item 9.1, issue 9.1.9, similar studies have been conducted for the frequency band 51.4-52.4 GHz studies relating to spectrum needs and possible allocation of the frequency band 51.4-52.4 GHz to the fixed-satellite service (Earth-to-space). These studies have shown the possibility of a primary allocation of the 51.4-52.4 GHz frequency band for GSO FSS systems (Earth-to-space) in order to ensure the availability of broadband connections via high-capacity satellites (HTS).
		There are views that, with a positive decision by WRC-19 on issue 9.1.9 and allocation of the frequency band 51.4-52.4 GHz for the FSS (Earth-space, limited to FSS feeder links for geostationary orbit use) the current spectrum requirements of the GSO FSS feeder links (Earth-to-space) can be fully satisfied. While at the recent APG19-5, there was no consensus to develop this item as possible new WRC-23 Agenda Item, MEASAT seeks MCMC support towards possible new WRC-23 Agenda Item on the possible new spectrum for satellite service in the band 37.5-39.5 GHz in the WRC-2023 cycle based on the above views.
		Other Issues - To consider appropriate technical conditions and regulatory actions for identification of bands in the range 6-24 GHz for IMT
		Some of the issues being socialized amongst the mobile industry is the revisit of the C-band for possible allocation to IMT as well as consideration of other satellite spectrum (Note: X-band, C-band, Ku-band and Ka-band) that is currently not being considered under WRC-19 Agenda Item 1.13. MEASAT would like to express concern on these bands, particularly the frequency bands 3800-4200 MHz, 5925/6425-7125 MHz, 7125-8500 MHz, 10.7-11.7 GHz, 14.3/14.5-15.35 GHz as noted in document APG19-5/INF-11. MEASAT seeks MCMC support to oppose to any potential Agenda Items that may affect existing and future satellite services, considering MEASAT's extensive usage in the above-mentioned bands.
		Other Issues - To harmonize the use of the frequency band 12.75-13.25 GHz (Earth-to-space) by earth stations on aircraft communicating with geostationary space stations in the fixed-satellite service globally
		MEASAT wishes to highlight an input paper from Singapore and Papua New Guinea (APG19-5-INP71) relating to harmonization of the frequency band 12.75-13.25 GHz by earth stations on aircraft for the purpose of in-

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		flight connectivity (IFC). Due to the nature of IFC expanding over several ITU-R Regions, the market would benefit from global harmonization. This would decrease the risk of fragmentation and allow the aviation industry and satellite operators to benefit from interoperability of different solutions and economies of scale. The earth stations on aircraft, similar to any other earth stations operating with Appendix 30B frequency assignments, are to be operated within the service area and with the characteristics notified for earth stations of the GSO FSS system (i.e. within the interference envelope established for earth stations of the GSO FSS system). In this regard, MEASAT seeks MCMC support on this issue for inclusion in possible new WRC-23 Agenda Item.