



สำนักงานคณะกรรมการกิจการกระจายเสียง กิจการโทรทัศน์ และกิจการโทรคมนาคมแห่งชาติ
The National Broadcasting and Telecommunications Commission

การประชุมกลุ่มย่อย “ระเบียบวาระที่ 1.2 1.3 1.7 1.15 และ 10”
ภายใต้คณะทำงานเตรียมการประชุมใหญ่
ระดับโลกว่าด้วยวิทยุคมนาคม ค.ศ. 2019 (WRC-19)

พฤษภาคม 2562

สำนักบริหารคลื่นความถี่ (คท.)

สำนักงานคณะกรรมการกิจการกระจายเสียง กิจการโทรทัศน์ และกิจการโทรคมนาคมแห่งชาติ

Draft CPM text Ai 1.2 in-band power limit



Method	399.9-400.05 MHz	401-403 MHz	Termination time for existing use
A	NOC	NOC	-
B	399.9-400.03 e.i.r.p limit 400.03-400.05 no limit	-	2024
C	e.i.r.p limit	-	2024
D	399.9-400.02 e.i.r.p limit 400.02-400.05 no limit	-	2029
E	-	e.i.r.p limit	-
F	-	e.i.r.p limit e.i.r.p. density	-
G		e.i.r.p limit with WRC res	-

Regional group views



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Group	Support study In-band power limit	Ensure protection of existing service	Other views
ASMG	✓	✓	
ATU			
CEPT	✓		
CITEL	✓	✓	
RCC	✓	✓	
APT	✓	✓	transitional arrangements

APG19-4 Preliminary view



For the band 399.9-400.05 MHz

APT members do not support Method A in the Draft CPM Report for this Agenda Item and support the e.i.r.p. limit indicated in Table 4/1.2/3-1 of the Draft CPM Report. APT members are of the view that transitional arrangements are needed to ensure that the existing telecommands for EESS systems, including those systems to be notified before a certain date (e.g. November 22, 2019), may continue to operate [until TBD].

For the band 401-403 MHz

APT members support Method E in the Draft CPM Report for this Agenda Item. APT members are of the view that transitional arrangements are needed to ensure that the existing telecommands for EESS, including those systems to be notified before a certain date (e.g. November 22, 2019), may continue to operate until January 1, 2029.

Thailand preliminary view-APG19-5



Preliminary View

Thailand supports establishing in-band power limits for earth stations in the EESS and MetSat in the frequency band 401-403 MHz and the MSS in the frequency band 399.9-400.05 MHz by adding a new footnote in the Table of Frequency Allocations in RR Article 5, in order to ensure the operation of existing and future systems that usually implement with low or moderate output powers for MSS, EESS and MetSat systems.

Therefore, Thailand supports Method C (399.9-400.05 MHz) for and Method E (401-403 MHz) of the CPM report.

Draft CPM text Ai 1.3 – MetSat/EESS



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Three methods (EESS/MetSat as co primary service)

Method A: NOC

For GSO satellites: **Method B: two mask for GSO satellite**
Option 1:

$$pfd \text{ (dBW/(m}^2 \cdot 4\text{kHz))} = \begin{cases} -162 & 0^\circ \leq \alpha \leq 15^\circ \\ -162 + 0.5(\alpha - 15) & 15^\circ < \alpha < 35^\circ \\ -152 & 35^\circ \leq \alpha \leq 90^\circ \end{cases}$$

Option 2:

$$pfd \text{ (dBW/(m}^2 \cdot 4\text{kHz))} = -156 + 0.033 \times \alpha \quad 0^\circ \leq \alpha \leq 90^\circ$$

Method C: one mask for GSO satellite

Regional group views



Group	Support study upgrading	Priority of MetSat over EESS	Ensure protection of existing service	MetSat and EESS station not claim protection from FS/MS
ASMG	Not support		✓	
ATU				
CEPT	✓	✓	✓	✓
CITEL				✓
RCC	✓	✓	✓	
APT	✓	✓	✓	✓



APG19-4 Preliminary view

APT members support further ITU-R sharing and compatibility studies in accordance with Resolution **766 (WRC-15)**, to conduct and complete in time for WRC-19, the necessary technical, operational and regulatory studies on the possibility to upgrade the secondary allocation of the meteorological-satellite service (space-to-Earth) to primary status and a primary allocation to the Earth exploration-satellite service (space-to-Earth) in the frequency band 460-470 MHz.

The appropriate measures are necessary to be taken to ensure the protection of existing fixed, mobile, and broadcasting services and not to constraint their future developments in the frequency band 460-470 MHz and in the adjacent bands, and stations of the EESS and MetSat services shall not claim protection from the fixed, mobile, and broadcasting services. APT members also note that the priority of MetSat over EESS should be maintained.

APT members note that further studies are required to address appropriate I/N protection criteria with regard to the PPDR systems. The decision on which Method to adopt will depend on the outcome of those studies. Stations of the EESS and MetSat services shall not cause harmful interference to fixed, mobile, and broadcasting services in 460-470 MHz and adjacent bands. APT members note that further studies are required to address appropriate pfd limits for GSO and non-GSO satellites to ensure this.

Thailand preliminary view-APG19-5



Since the studies contained in the ITU-R Report SA.2429 has determined the pfd limits for both non-GSO and GSO MetSat and EESS satellites in the frequency band 460-470 MHz which will ensure the protection of incumbent primary allocated services in this band and adjacent bands, Malaysia and Thailand support the proposal to upgrade the allocation for MetSat (space-to-Earth) from secondary to primary status and addition of primary allocation for EESS (space-to-Earth) in the frequency band 460-470 MHz, provided that the priority of MetSat over EESS is retained as currently contained in the Radio Regulations and earth stations in the MetSat (space-to-Earth) and EESS (space-to-Earth) shall not cause interference to nor claim protection from stations of the fixed and mobile services.

Therefore, Malaysia and Thailand support Method C of the CPM report

Draft CPM text Ai 1.7



Short duration mission: TT&C

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Method	403-404 MHz (New)	404-405 MHz (New)	137-138 MHz (DL) 148-149.9 MHz (UL) (Existing)
A	NOC	NOC	NOC
B1	✓	-	-
B2	-	✓	-
C	-	-	✓

Regional group views



Group	Support study	Protection existing	Other views
ASMG			
ATU			
CEPT	✓		154-156 MHz 405.9-406 MHz and 406.1-406.2 MHz 150.05-153 MHz and 406.1-410 MHz not feasible
CITEL	✓		Not overlap GMDSS, COSPAS/SARSAT
RCC			
APT	✓	✓	Exclude 156-157.45 MHz, 160.6-160.975 MHz and 161.475-162.05 MHz 406-406.1 MHz GMDSS



APG19-4 Preliminary view

APT Members support to satisfy the additional spectrum requirements by possible new allocations or an upgrade of the existing allocations to the SOS on a primary basis in accordance with Resolution **659 (WRC-15)** if the studies show that sharing and compatibility both in-band and out-of-band, is feasible with existing services and systems and without any constraint to the incumbent services, both in-band as well as adjacent bands.

APT Members do not support the consideration of the following frequency ranges:

Maritime mobile VHF radiocommunication in the frequency ranges 156-157.45 MHz, 160.6-160.975 MHz and 161.475-162.05 MHz, in accordance with RR No. **5.226** and Appendix **18 (Rev. WRC-15)**.

The frequency range 406-406.1 MHz that is dedicated for satellite emergency position-indicating radio beacons, in accordance with Resolution **205 (Rev. WRC-15)**; and

Frequency bands used by Global Maritime Distress and Safety System (GMDSS) included in Appendix **15** of RR.

Thailand preliminary view-APG19-5



Thailand is of the view that protection of existing services is necessary and any new allocations or upgrades of existing allocations to the space operation service should be applied without any constraint to the incumbent services including their current and planned use, both in-band as well as adjacent bands.

Therefore, Thailand support Method B2 of the CPM Report. However, as compatibility studies between AM(R)S systems below 137 MHz and non-GSO satellites with short duration have not yet been completed within ITU-R, the use of the frequency below 137 MHz is not supported