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|  | | CPG15(15)0XX Annex IV-16 |
| Norway, Bergen, 14th - 18th September 2015 | | |  |
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CEPT BRIEF ON AGENDA ITEM 1.15

1.15 to consider spectrum demands for on-board communication stations in the maritime mobile service in accordance with Resolution 358 (WRC-12).

# ISSUE

Resolution 358 (WRC-12) invites WRC-15 to consider, based on the results of ITU-R studies, the need to possibly identify additional UHF channels within the bands already allocated to the maritime mobile service for on-board communication stations.

Resolution 358 (WRC-12), invites ITU-R to conduct studies, in time for WRC-15, to determine the spectrum requirements and potential frequency bands for on-board communication stations, taking into account the protection of services to which the frequency band is currently allocated.

# CEPT position

CEPT does not support the identification of additional spectrum for on-board communications in UHF.

CEPT supports more efficient usage of the existing frequencies, such as 12.5 and 6.25 kHz bandwidth for all the channels identified in the RR for on-board communications.

CEPT supports the use of Continuous Tone Coded Squelch Systems (CTCSS) or Digital Coded Squelch (DCS).

CEPT supports amendments to No. 5.287.

# Background

The use of UHF frequencies for on board communications is considered very important. Without these communications, critical functions of the ship in restricted waters could not effectively take place. These functions include Anchoring, Berthing, control of Fire Fighting/Damage control parties, security patrols, terrorism threats etc. Whilst these are of significant concern to those operating the ship the consequences of failure affect not only the seafarer but have significant implication for the immediate environment the ship is operating in.

CEPT developed a questionnaire which was circulated to its Member States. A summary of the results can be found in PTC(13)INFO18. These results indicate that in several areas communication by UHF of a ship were either prevented on some channels by traffic from other vessels or shore operations or were severely interfered. The results further indicate that in some geographic areas frequencies for on board communications are congested.

Only six frequencies, in the bands between 450 and 470 MHz, are currently identified in No. 5.287 for on-board communication stations using 25 kHz channels spacing. These frequencies are 457.525 MHz, 457.550 MHz, 457.575 MHz, 467.525 MHz, 467.550 MHz and 467.575 MHz. Where needed, equipment designed for 12.5 and 6.25 kHz channel spacing using digital technologies may be introduced for on-board communications.

The use of these frequencies in territorial waters may be subject to the national regulations of the administration concerned. The characteristics of the equipment used shall conform to those specified in the revised Recommendation ITU-R M.1174.

With the implementation of new technologies, a more efficient usage of the existing spectrum is possible which is assumed to be sufficient to cover the maritime needs for on-board communications for the foreseeable future. Therefore no new frequency bands are supported by CEPT for on board communication. For efficient usage it is proposed to introduce the possibility of using digital modulation and to encourage the use of continuous tone coded squelch systems (CTCSS) and digital coded squelch (DCS) as a way to mitigate the impression of congestion to the user.

CEPT advocates that information is provided to mariners on what UHF frequencies are available for on board communications in every Member State having contiguous sea areas under their jurisdiction. It should be noted that several Administrations actively use these frequencies for land mobile communications. In accordance with 5.286AA the bands 450-470 MHz is identified for use by Administrations wishing to implement IMT.

# List of relevant documents

ITU-Documentation (Recommendations, Reports, other):

* CPM Report on Agenda item 1.15
* CPG PTC(13) INFO 18\_Summary of replies of a Questionnaire on AI 1.15

CEPT and/or ECC Documentation (Decisions, Recommendations, Reports):

EU Documentation (Directives, Decisions, Recommendations, other), if applicable:

# Actions to be taken

None

# Relevant information from outside CEPT (examples of these are below)

## European Union (date of proposal)

## Regional telecommunication organisations:

APT ( 27 July – 1 August 2015)

APT’s Views:

The APT Members support the single method to satisfy the Agenda item 1.15 of the CPM Report to the WRC-15.

The APT Members support the incorporation in the Radio Regulations of provisions to enable more effective use of the existing allocation for on-board communication stations in the maritime mobile service.

The APT Members consider that the application of efficient spectrum utilization methods, such as 12.5 kHz and/or 6.25 kHz channel spacing, and use of digital modulation techniques are sufficient to avoid the possible congestion of on-board communication channels, in which case the technical characteristics of on-board communication equipment with differing channel spacing, and the channel numbering, must be in conformity with Recommendation ITU-R M.1174-3.

It is proposed that RR No. 5.287 be amended accordingly and that Resolution 358 (WRC-12) be abrogated, in accordance with the single Method in the CPM Report.

ATU (20 - 24 July 2015)

SADC

Position: Only one method has been identified to satisfy this agenda item.

SADC supports additional spectrum allocations within 450 – 470 MHz for on board communications stations provided the additional spectrum allocations are justified through ongoing studies and provide protection to the existing services in the proposed frequency bands.

EACO preliminary position

EACO supports the only Method proposed in CPM text which is a no change.

ASMG (Arab Spectrum Management Group) (22 – 27 August 2015)

Support the only CPM Method.

ACP: MOD RR 5.287

CITEL ( 17 – 21 August 2015)

View:

Method A (Single CPM Method)

MOD No. 5.287 to permit additional channeling in the same band segment already envisaged in the RR, as well as digital technology, to facilitate more efficient spectrum use.

SUP Resolution 358 (WRC-12)

RCC ( April 2015 )

The RCC Administrations recognise the importance of on-board communications to the safe ship operations (alarm and fire warnings, mooring operations and passenger traffic control) and suppose the possible congestion of frequencies for on-board communications in some geographic areas of the world.

The RCC Administrations do not support the additional frequency allocation to meet on-board communications due to intensive usage of UHF band by the other services and applications and also since the demand in additional frequencies for on-board communication has not been proved by the study.

The RCC Administrations support the incorporation to the Radio Regulations of the provisions which allow more effective usage of the existing allocation to on-board communications stations in the maritime mobile service without identification of new frequency bands.

The RCC Administrations believe that the application of methods for more efficient spectrum usage such as channel spacing 12.5 kHz and (or) 6.25 kHz, use of digital modulation methods is sufficient to avoid possible channel congestion for on-board communications. In addition, operational conditions, technical characteristics of on-board communication equipment with different channel spacing and channel numbering shall comply with Recommendation ITU-R M.1174.

Complies with Method A of the CPM Report.

## International organisations

IATA (date of proposal)

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ICAO ( July 2015)

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IMO ( June 2015)

Draft IMO position

IMO supports measures which would make more efficient use of the frequency band available for on-board systems and would welcome an international solution for the identification of the channels in provision No.5.287 of the Radio Regulations.

NATO ( June 2015)

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WMO and EUMETNET (date of proposal)

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## OTHER INTERNATIONAL AND REGIONAL ORGANISATIONS

EBU

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ESA (date of proposal)

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Eurocontrol (date of proposal)

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GSMA (date of proposal)

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