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| Summary:  |
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| Proposals: |
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DRAFT CEPT BRIEF ON AGENDA ITEM 1.9.1

1.9 to consider based on the results of ITU-R studies:

1.9.1 Regulatory actions within the frequency band 156-162.05 MHz for autonomous maritime radio devices to protect the GMDSS and automatic identifications system (AIS), in accordance with Resolution 362 (WRC-15).

# ISSUE

Resolution 362 (WRC-15) invites WRC-19, based on the results of ITU-R studies, to take regulatory actions to prevent unregulated operation of autonomous maritime radio devices to enhance safety of navigation and to ensure the integrity of AIS and of GMDSS which is the only system for distress, urgency, safety and routine communication for general shipping.

Resolution 362 (WRC-15), invites ITU-R to conduct studies, in time for WRC-19, to determine the spectrum requirements within the frequency band 156-162.05 MHz for autonomous maritime radio devices, taking into account the protection of services to which the frequency band is currently allocated.

# Preliminary CEPT position

CEPT is of the view that the operation of autonomous maritime radio devices needs to be harmonized and regulated.

CEPT is of the view that the operation of autonomous maritime radio devices shall not reduce the integrity of AIS and of GMDSS.

CEPT supports the identification of spectrum for autonomous maritime radio devices within the frequency band 156-162.05 MHz.

# Background

Applications with autonomous maritime radio devices are reflecting a new development in recent time. Due to the rapid technical progress and cost-effective production, more and more of such applications in the maritime environment are created and used in the field.

In the maritime mobile service as defined in No. 1.28 the autonomous radio devices are not listed and are therefore not supposed to be operated in this service at this time.

The term autonomous maritime radio device (AMRD) is not part of the ITU terminology database and needs clarification for a wider audience. In particular, this term may not be understood in IMO and a common definition or agreement may be helpful.

ITU-R Working Party 5B concluded on the following definition:

An AMRD is a mobile station; operating at sea and transmitting independently of a ship station or a coast station. Two groups of AMRDs are identified:

1. AMRDs that enhance the safety of navigation,
2. AMRDs that do not enhance the safety of navigation.

# List of relevant documents

ITU-Documentation (Recommendations, Reports, other)

* Annex 5 to the Working Party 5B Chairman’s Report: Proposed work plan for WRC-19 AI 1.9.1,
R15-WP5B-C-0305!N05!MSW-E
* Annex 22 to the Working Party 5B Chairman’s Report: Working document towards a preliminary draft new Report ITU-R M.[AMRD], R15-WP5B-C-0305!N22!MSW-E
* Annex 23 to the Working Party 5B Chairman’s Report: Working document towards a preliminary draft new Report ITU-R M.[NEW\_MARNUM] - Autonomous maritime radio devices, R15-WP5B-C-0305!N23!MSW-E
* Annex 3 to the Working Party 5B Chairman’s Report: Working document towards draft CPM text on WRC-19 AI 1.9.1, R15-WP5B-C-0305!N03!MSW-E
* Results of the Questionnaire on the distribution and the applications of autonomous maritime radio devices, R15-WP5B-C-0244!!MSW-E
* Recommendation ITU-R M.493-14 - Digital selective-calling system for use in the maritime mobile service
* Recommendation ITU-R M.585-7 - Assignment and use of identities in the maritime mobile service
* Recommendation ITU-R M.1371-5 - Technical characteristics for an automatic identification system using time division multiple access in the VHF maritime mobile frequency band
* Report ITU-R M.2231-1 - Use of Appendix 18 to the Radio Regulations for the maritime mobile service
* Report ITU-R M.2285-0 - Maritime survivor locating systems and devices (man overboard systems) – An overview of systems and their mode of operation

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

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

# Actions to be taken

* Finalize the evaluation of the result of the Circular letter 5/LCCE/64 on autonomous maritime radio devices WRC-19 agenda item 1.9.1 - Questionnaire on the distribution and the applications of autonomous maritime radio devices, 5/LCCE/64. The different applications should be compiled, taking into account the used technology. There might be decisions necessary in which way an application may be used, e. g. is a fishnet buoy an application for the fishermen to find their fishnets or is it an application for collision avoidance?
* Finalize the categorization in two groups: Group 1: AMRDs which should be operated on frequencies of the current App. 18, 2 Group 2: AMRDS which should not be operated on frequencies of the current App. 18.
* Studies on numbering/identification need to be done.
* Contribute to PDN Report ITU-R M.[NEW MARNUM].
* For the 2nd group studies of spectrum requirement of needs to be done: Is a DSC channel needed? Are two AIS channels needed? How much spectrum is needed for voice telephony or other technology?
* Contribute to PDN Report ITU-R M.[AMRD].
* Based on the result of spectrum requirements for the 2nd group, channels in the “gaps” of App. 18 should be identified for an ECP.

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

## European Union (date of proposal)

## Regional telecommunication organisations

APT (22 July 2017)

APT members support the ITU-R studies on the spectrum needs, technical and operational characteristics, categorization, identifications of AMRDs and its applications, as well as the studies in relation to regulatory actions within the frequency band 156-162.05 MHz while ensuring the protection of the GMDSS and AIS, in accordance with Resolution 362 (WRC-15).

APT members are of the view that:

- AMRDs which enhance the safety of navigation should be regulated for the use of frequencies and identities of the maritime mobile service;

- AMRDs which do not enhance the safety of navigation, regulation of the use of frequencies, and technical and operational characteristics, should benefit both the user of devices as well as maritime safety. Identification of additional spectrum within the frequency band 156-162.05 MHz and a new numbering scheme which is different from those in the existing maritime mobile service should be considered;

- Search and rescue aircraft system operating in maritime frequencies must be protected.

ATU (date of proposal)

Arab Group (20 April 2017)

* Support the development of regulatory frameworks for autonomous maritime radio devices (AMRD) for the purpose of protecting the Global maritime distress and safety services (GMDSS) and the Automatic Identification System (AIS).

CITEL (December 2017)

The United States supports the ITU-R studies prescribed in Resolution 362 (WRC-15) and these studies should also take into account the protection of the GMDSS and AIS.

RCC (September 2017)

The RCC Administrations consider it reasonable to identify categories (types), technical and operational characteristics of autonomous maritime radio devices in order to develop regulatory actions in the frequency band 156−162.05 MHz for the autonomous maritime radio devices to protect GMDSS and AIS.

## International organisations

IATA (date of proposal)

ICAO (April 2017)

To ensure that any change to the regulatory provisions and spectrum allocations resulting from this agenda item do not adversely impact aviation systems, including the capability of search and rescue aircraft to effectively communicate with vessels during disaster relief operations.

IMO (September 2017)

1. The integrity of AIS and the Global Maritime Distress and Safety System (GMDSS) should be protected;
2. autonomous maritime radio devices which enhance the safety of navigation should be regulated for the use of frequencies and identities of the maritime mobile service; and
3. for autonomous maritime radio devices which do not enhance to the safety of navigation, regulation of the use of frequencies, and technical and operational characteristics, should benefit both the user of devices as well as maritime safety. An additional spectrum allocation within the frequency band 156-162.05 MHz and a new numbering scheme which is different from those in the existing maritime mobile service should be considered.

SFCG (date of proposal)

NATO (27 June 2017)

This NATO military assessment summary is a common military assessment of the NATO Nations on the potential impacts and benefits of Agenda Item 1.9.1. It does not constitute a common position of the NATO Nations.

The protection of GMDSS or AIS from autonomous maritime radio devices could be beneficial to military ship operations.

WMO and EUMETNET (January 2017)

The World Meteorological Organization has no position (interest) on AI 1.9.1 (January 2017 meeting of WMO Steering-Group on Radio-Frequency Coordination (SG-RFC)).

## Regional organisations

ESA November 2016

TBD

Eurocontrol (date of proposal)

## OTHER INTERNATIONAL AND REGIONAL ORGANISATIONS

EBU (date of proposal)

GSMA (date of proposal)

CRAF (December 2016)

CRAF supports the protection of existing RAS allocations in the 150.05-153.0 MHz band. No changes should be made to the RR unless acceptable sharing and compatibility criteria are developed with the RAS.