|  |  |  |
| --- | --- | --- |
| APTlogogreen3 | ASIA-PACIFIC TELECOMMUNITY | **Document:**  |
| **The 2nd Meeting of the APT Conference Preparatory Group for WRC-19 (APG19-2)** | **APG19-2/OUT-17** |
| 17 – 21 July 2017, Bali, Republic of Indonesia | **21 July 2017** |

Working Party 5

**PRELIMINARY VIEWs on WRC-19 agenda item 1.9.1**

**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)****;*

Resolution **362 (WRC‑15)** – *Autonomous maritime radio devices operating in the frequency band 156-162.05 MHz*

**1. Background**

**1.1 Introduction**

There are some kinds of autonomous maritime radio devices using automatic identification system (AIS) technology or digital selective calling (DSC) technology, or transmitting synthetic voice messages, or with a combination of those technologies. Their number is expected to increase. Some of these devices are not for the purpose of enhancing the safety of navigation or the purpose of communication between coast stations and ship stations, or between ship stations, or between associated on-board communication stations, or survival craft stations and emergency position-indicating radio beacon stations, but are consuming the spectrum and identities assigned for maritime mobile service.

In the maritime mobile service, as defined in RR No. **1.28**, autonomous maritime radio devices (AMRD) are not listed and are therefore not formally recognised as a station operating under the maritime mobile service. And the term AMRD is also not part of the Database of ITU Terms and Definitions. There are general requirements to categorize and regulate the usage of autonomous maritime radio devices.

The purpose of this agenda item is to address unregulated operation of AMRDs in order to enhance safety of navigation through established maritime communications. The studies contain several steps, including the definition of autonomous maritime radio devices (AMRD), the compilation of existing AMRDs, the description of technology, the categorizing and the evaluation. The target of the studies is to regulate the operation of these kinds of devices by addressing the issues of necessary spectrum allotment and the numbering systems, to ensure the integrity of GMDSS and AIS.

**1.2 Progress of ITU-R studies**

During the 18th session of ITU-R Working Party 5B meeting, the working document towards Preliminary Draft New Report ITU-R M.[AMRD] was further improved. The following definition of AMRDs was concluded.

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:

Group A - AMRDs that enhance the safety of navigation,

Group B - AMRDs that do not enhance the safety of navigation (AMRDs which deliver signals or information which do not concern the vessel can distract or mislead the navigator and degrade the safety of navigation).

The working document also provided a compilation of consolidated information of the existing applications of AMRD which could be found on the worldwide market, based on the proposals from input contributions and the analysis results of the administrations’ response to the Questionnaire (5/LCCE/64). Additionally, the working document demonstrated the effect of AMRD on AIS for safety of navigation and search and rescue activities, the spectrum consideration for Group B AMRD using AIS technology, as well as the operational and provisional actions to the both group in consideration.

For the time being, the following two options on spectrum issue are in consideration:

* ITU RR App. 18, Ch. 2006
* the center gap of ITU RR App.18 channeling, band 160.975-161.475 MHz;

but further study is required.

The working document towards Preliminary Draft New Report ITU-R M.[NEW\_MARNUM] was also updated taking into account the proposals from Committee International Radio-Maritime (CIRM).

Taking into account the above interim outcomes of studies, the meeting agreed that the revisions to the Recommendation ITU-R M.585-7 and ITU-R M.1371-5 are necessary and foreseen.

The draft CPM text was updated, mainly on the background part. The workplan of this agenda item was revised.

**1.3 List of relevant ITU-R Reports/Recommendations**

* Recommendation ITU-R M.585-7: *Assignment and use of identities in the maritime mobile service; or the revised version*;
* Recommendation ITU-R M.1371-5: *Technical characteristics for an automatic identification system using time-division multiple access in the VHF maritime mobile band; or the revised version*;
* Recommendation ITU-R M.493-14: *Digital selective-calling system for use in the maritime mobile service*
* Preliminary draft new Report ITU-R M. [AMRD]: *Autonomous maritime radio devices*;
* Preliminary draft new Report ITU-R M. [NEW\_MARNUM]: *New numbering scheme for maritime identities*

**2. Documents**

**2.1 Input Documents**

APG19-2/INP-12(KOR), APG19-2/INP-24(NZL), APG19-2/INP-32 (AUS), APG19-2/INP-43(INS), APG19-2/INP-48(VTN), APG19-2/INP-53(CHN), APG19-2/INP-59(J), APG19-2/INP-70(THA).

**2.2 Information Documents**

APG19-2/INF-01 (Chairman of APG-19), APG19-2/INF-02 (ICAO), APG19-2/INF-04 (CITEL), APG19-2/INF-05 (RCC), APG19-2/INF-07 (ATU).

**3. Summary of Discussions**

**3.1 Summary of Members’ view**

**3.1.1 Republic of Korea**

Support the ITU-R studies on the spectrum needs, technical and operational characteristics, categorization, identifications of AMRDs while ensuring the protection of the GMDSS and AIS.

**3.1.2 New Zealand**

The term “autonomous maritime radio device” and its intended applications should be properly defined before the studies in relation to regulatory actions within the frequency band 156-162.05 MHz could be considered.

**3.1.3 Australia**

Support protection of GMDSS and automatic identifications system (AIS) frequencies in the band 156-162.05 MHz from transmissions by devices such as autonomous maritime radio devices.

**3.1.4 Indonesia**

Support that activities of WP 5B to consider of an autonomous maritime radio devices operating in the frequency band 156-162.05 MHz, supports that if the operation of autonomous maritime radio devices needs to be harmonized and regulated and operation of autonomous maritime radio devices shall not reduce the integrity of AIS and of GMDSS.

**3.1.5 Viet Nam**

Support studies being undertaken by ITU-R on this issue and is of the view that:

* The integrity of AIS and the Global Maritime Distress and Safety System (GMDSS) must be protected,
* Search and rescue aircraft system operating in maritime frequencies must be protected,
* AMRDs applications should be clearly recognized and classified in order to clarify its impact on maritime safety in general and AIS in particular, as well as to support the consideration on regulatory actions in accordance with Resolution **362 (WRC-15)**,
* AMRDs operation should be harmonized, regulated and should not constrain the frequencies designated for the GMDSS and AIS,
* AMRDs which are related to the safety of navigation should be regulated for the use of frequencies and identities of the maritime mobile service; while AMRDs which are not related 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 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.

**3.1.6 China**

Support the studies in accordance with ITU-R Resolution **362 (WRC-15)**; and is of the preliminary views that:

* The Group A AMRDs which enhance the safety of navigation could be regulated for the use of frequencies and identities of the maritime mobile service;
* The Group B AMRDs which do not enhance the safety of navigation should benefit the user of devices, meanwhile bring no harm to maritime safety. However, an additional spectrum allocation within the frequency band 156-162.05 MHz should be considered;
* Appropriate technical and operational characteristics requirements and new numbering schemes for both groups of AMRDs should be considered.

**3.1.7 Japan**

Support ITU-R studies for the introduction of AMRD. The use of AMRD should not impose undue constraint on existing services operating in the band concerned, therefore this Administration believes that the frequencies channelized in RR Appendix **18** is suitable for AMRD.

**3.1.8 Thailand**

Support studies currently undertaken by ITU-R Working Party 5B. Thailand is of the view that the sharing studies should take into account different applications and technologies in the frequency band 156-162.05 MHz to ensure coexistence between AMRD and incumbent systems including GMDSS and AIS.

* 1. **Key points raised during the meeting**
* The definition of AMRD: the definition is required for clarity, noting the progress of studies of ITU-R WP5B and IMO;
* The categorization of AMRD: two categories of AMRD which enhance or do not enhance the safety of navigation are required to be identified clearly.
* The candidate frequency band identification should ensure the protection of GMDSS and AIS, or protection of the existing services. In this respect, an administration raised the point of view that the frequencies channelized in RR Appendix **18** are suitable for AMRD.

**4. APT Preliminary View(s)**

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 also 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 coexistence with maritime safety devices and applications. 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.

**5. Other Views**

None.

**6. Views from Other Organisations**

**6.1 Views/positions of other regional groups**

* ASMG

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).

* ATU

TBD

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

USA: 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

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.

**6.2 Views/positions of international organizations**

* ICAO

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.

**7. Issues for Consideration at Next APG Meeting**

APT Members are encouraged to contribute to the next APG meeting on the Agenda Item 1.9.1, taking into account the studies of ITU-R WP5B as well as the activities and information of the IMO.

\_\_\_\_\_\_\_\_\_\_\_\_