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| **World Radiocommunication Conference (WRC-15) Geneva, 2–27 November 2015** |  |
| **INTERNATIONAL TELECOMMUNICATION UNION** |  |
|  |  |
| PLENARY MEETING | **Addendum 16 to Document 8-E** |
|  | **9 October 2015** |
|  | **Original: Russian** |
|  | |
| Regional Commonwealth in the field of Communications Common Proposals | |
| Proposals for the work of the conference | |
|  | |
| Agenda ítem 1.16 | |

1.16 To consider regulatory provisions and spectrum allocations to enable possible new Automatic Identification System (AIS) technology applications and possible new applications to improve maritime radiocommunication in accordance with Resolution **360** **(WRC‑12)**;

Resolution **360 (WRC‑12)**: Consideration of regulatory provisions and spectrum allocations for enhanced Automatic Identification System technology applications and for enhanced maritime radiocommunication

Introduction

The RCC Administrations consider that it is possible to identify radiofrequency bands (channels) for the purpose of introducing new Automatic Identification System (AIS) technologies and new applications to improve maritime radiocommunications in accordance with Resolution 360 (WRC‑12), but the band must be identified within existing maritime mobile service (MMS) and MSS allocations, with due regard to ensuring compatibility with existing radio services.

As regards Issue A (improvement of Automatic Identification System technology), the RCC Administrations consider that the identification of new channels 2027 (161.950 MHz) and 2028 (162.000 MHz) is feasible within the MMS for AIS-ASM (AIS distress non-related functions). Protection of the channels AIS1, AIS2, ASM1 and ASM2 from the interference that may be generated when using channels 2078, 2079, 2019 and 2020, by limiting the transmission power of ships’ radio stations in these channels, is preferable to a total prohibition of transmission, which may be applied only in extreme cases by a decision of the administration concerned.

As regards Issue B (new applications for the maritime radiocommunication – terrestrial components, the RCC Administrations consider that it is possible to use a combination of all or some of VHF channels 24, 25, 26, 84, 85 and 86, allotted by WRC-12 to MMS for digital technologies, for the terrestrial component of the VHF band data transmission system (VDES). It is possible to combine channels in order to increase data transmission speeds for the terrestrial component of VDES.

As regards Issue C, new allocations for the MMSS in RR Appendix 18 frequency bands, i.e. 156‑162.05 MHz, are not supported, as the frequency bands already allocated to the MSS (except 148.0‑150.05 MHz (Earth-to-space)) are sufficient for AIS applications using artificial earth satellites and new applications to improve maritime radiocommunications in accordance with Resolution **360 (WRC‑12).**

**Proposals**

*Issue A (improvement of Automatic Identification System technology)*

MOD RCC/8A16/1

APPENDIX 18 (REV.WRC‑15)

Table of transmitting frequencies in the  
VHF maritime mobile band

(See Article 52)

NOTE A – For assistance in understanding the Table, see Notes *a)* to *z)* below.     (WRC‑15)

NOTE B – The Table below defines the channel numbering for maritime VHF communications based on 25 kHz channel spacing and use of several duplex channels. The channel numbering and the conversion of two-frequency channels for single-frequency operation shall be in accordance with Recommendation ITU‑R M.1084‑4 Annex 4, Tables 1 and 3. The Table below also describes the harmonized channels where the digital technologies defined in the most recent version of Recommendation ITU‑R M.1842 could be deployed.     (WRC‑15)

| Channel designator | Notes | Transmitting frequencies  (MHz) | | Inter-ship | Port operations  and ship movement | | Public correspondence |
| --- | --- | --- | --- | --- | --- | --- | --- |
| From ship stations | From coast stations | Single frequency | Two frequency |
| 15 | *g)* | 156.750 | 156.750 | x | x |  |  |
| 75 | *n), s)* | 156.775 | 156.775 |  | x |  |  |
| 16 | *f)* | 156.800 | 156.800 | DISTRESS, SAFETY AND CALLING | | | |
| 76 | *n), s)* | 156.825 | 156.825 |  | x |  |  |
| 17 | *g)* | 156.850 | 156.850 | x | x |  |  |
| 77 |  | 156.875 |  | x |  |  |  |
| 18 | *m)* | 156.900 | 161.500 |  | x | x | x |
| 78 | *t), u), v)* | 156.925 | 161.525 |  | x | x | x |
| 1078 |  | 156.925 | 156.925 |  | x |  |  |
| 2078 | *t), u), v)* | 161.525 | 161.525 |  | x |  |  |
| 19 | *t), u), v)* | 156.950 | 161.550 |  | x | x | x |
| 1019 |  | 156.950 | 156.950 |  | x |  |  |
| 2019 | *t), u), v)* | 161.550 | 161.550 |  | x |  |  |
| 79 | *t), u), v)* | 156.975 | 161.575 |  | x | x | x |
| 1079 |  | 156.975 | 156.975 |  | x |  |  |
| 2079 | *t), u), v)* | 161.575 | 161.575 |  | x |  |  |
| 20 | *t), u), v)* | 157.000 | 161.600 |  | x | x | x |
| 1020 |  | 157.000 | 157.000 |  | x |  |  |
| 2020 | *t), u), v)* | 161.600 | 161.600 |  | x |  |  |
| 80 | *w), y)* | 157.025 | 161.625 |  | x | x | x |
| 21 | *w), y)* | 157.050 | 161.650 |  | x | x | x |
| 81 | *w), y)* | 157.075 | 161.675 |  | x | x | x |
| 22 | *w), y)* | 157.100 | 161.700 |  | x | x | x |
| 82 | *w), x), y)* | 157.125 | 161.725 |  | x | x | x |
| 23 | *w), x), y)* | 157.150 | 161.750 |  | x | x | x |
| 83 | *w), x), y)* | 157.175 | 161.775 |  | x | x | x |
| 24 | *w), ww), x), y)* | 157.200 | 161.800 |  | x | x | x |
| 84 | *w), ww), x), y)* | 157.225 | 161.825 |  | x | x | x |
| 25 | *w), ww), x), y)* | 157.250 | 161.850 |  | x | x | x |
| 85 | *w), ww), x), y)* | 157.275 | 161.875 |  | x | x | x |
| 26 | *w), ww), x), y)* | 157.300 | 161.900 |  | x | x | x |
| 86 | *w), ww), x), y)* | 157.325 | 161.925 |  | x | x | x |
| 27 | *z)* | 157.350 | 161.950 |  |  | x | x |
| 1027 | *z) l* | 157.350 | 157.350 |  | x |  |  |
| 2027  ASM1 | *z)* | 161.950 | 161.950 |  |  |  |  |
| 87 | *z)* | 157.375 | 157.375 |  | x |  |  |
| 28 | *z)* | 157.400 | 162.000 |  |  | x | x |
| 1028 | *z) l* | 157.400 | 157.400 |  | x |  |  |
| 2028  ASM2 | *z)* | 162.000 | 162.000 |  |  |  |  |
| 88 | *z)* | 157.425 | 157.425 |  | x |  |  |
| AIS 1 | *f), l), p)* | 161.975 | 161.975 |  |  |  |  |
| AIS 2 | *f), l), p)* | 162.025 | 162.025 |  |  |  |  |

**Reasons:** Introduction of provisions for the identification of channels ASM1 and ASM2 and regulatory protection from interference of channels AIS1, AIS2, ASM1 and ASM2.

**Notes referring to the Table**

*General notes*

NOC RCC/8A16/2

*a)* Administrations may designate frequencies in the inter-ship, port operations and ship movement services for use by light aircraft and helicopters to communicate with ships or participating coast stations in predominantly maritime support operations under the conditions specified in Nos. **51.69**, **51.73**, **51.74**, **51.75**, **51.76**, **51.77** and **51.78**. However, the use of the channels which are shared with public correspondence shall be subject to prior agreement between interested and affected administrations.

*b)* The channels of the present Appendix, with the exception of channels 06, 13, 15, 16, 17, 70, 75 and 76, may also be used for high-speed data and facsimile transmissions, subject to special arrangement between interested and affected administrations.

*c)* The channels of the present Appendix, with the exception of channels 06, 13, 15, 16, 17, 70, 75 and 76, may be used for direct-printing telegraphy and data transmission, subject to special arrangement between interested and affected administrations.     (WRC‑12)

*d)* The frequencies in this table may also be used for radiocommunications on inland waterways in accordance with the conditions specified in No. **5.226**.

*e)* Administrations may apply 12.5 kHz channel interleaving on a non-interference basis to 25 kHz channels, in accordance with the most recent version of Recommendation ITU‑R M.1084, provided:

– it shall not affect the 25 kHz channels of the present Appendix maritime mobile distress and safety, automatic identification system (AIS), and data exchange frequencies, especially the channels 06, 13, 15, 16, 17, 70, AIS 1 and AIS 2, nor the technical characteristics set forth in Recommendation ITU‑R M.489‑2 for those channels;

– implementation of 12.5 kHz channel interleaving and consequential national requirements shall be subject to coordination with affected administrations.     (WRC‑12)

*Specific notes*

NOC RCC/8A16/3

*f)* The frequencies 156.300 MHz (channel 06), 156.525 MHz (channel 70), 156.800 MHz (channel 16), 161.975 MHz (AIS 1) and 162.025 MHz (AIS 2) may also be used by aircraft stations for the purpose of search and rescue operations and other safety-related communication.     (WRC‑07)

*g)* Channels 15 and 17 may also be used for on‑board communications provided the effective radiated power does not exceed 1 W, and subject to the national regulations of the administration concerned when these channels are used in its territorial waters.

*h)* Within the European Maritime Area and in Canada, these frequencies (channels 10, 67, 73) may also be used, if so required, by the individual administrations concerned, for communication between ship stations, aircraft stations and participating land stations engaged in coordinated search and rescue and anti-pollution operations in local areas, under the conditions specified in Nos. **51.69**, **51.73**, **51.74**, **51.75**, **51.76**, **51.77** and **51.78**.

*i)* The preferred first three frequencies for the purpose indicated in Note *a)* are 156.450 MHz (channel 09), 156.625 MHz (channel 72) and 156.675 MHz (channel 73).

*j)* Channel 70 is to be used exclusively for digital selective calling for distress, safety and calling.

*k)* Channel 13 is designated for use on a worldwide basis as a navigation safety communication channel, primarily for intership navigation safety communications. It may also be used for the ship movement and port operations service subject to the national regulations of the administrations concerned.

*l)* These channels (AIS 1 and AIS 2) are used for an automatic identification system (AIS) capable of providing worldwide operation, unless other frequencies are designated on a regional basis for this purpose. Such use should be in accordance with the most recent version of Recommendation ITU‑R M.1371.     (WRC‑07)

*m)* These channels may be operated as single frequency channels, subject to coordination with affected administrations.     (WRC‑07)

*n)* With the exception of AIS, the use of these channels (75 and 76) should be restricted to navigation-related communications only and all precautions should be taken to avoid harmful interference to channel 16, by limiting the output power to 1 W.     (WRC‑12)

*o)* (SUP - WRC‑12)

*p)* Additionally, AIS 1 and AIS 2 may be used by the mobile-satellite service (Earth-to-space) for the reception of AIS transmissions from ships.     (WRC‑07)

*q)* When using these channels (10 and 11), all precautions should be taken to avoid harmful interference to channel 70.     (WRC‑07)

*r)* In the maritime mobile service, this frequency is reserved for experimental use for future applications or systems (e.g. new AIS applications, man over board systems, etc.). If authorized by administrations for experimental use, the operation shall not cause harmful interference to, or claim protection from, stations operating in the fixed and mobile services.     (WRC‑12)

*s)* Channels 75 and 76 are also allocated to the mobile-satellite service (Earth-to-space) for the reception of long-range AIS broadcast messages from ships (Message 27; see the most recent version of Recommendation ITU‑R M.1371).     (WRC‑12)

MOD RCC/8A16/4

*t)* In Regions 1 and 3, the existing duplex channels 78, 19, 79 and 20 can continue to be assigned. These channels may be operated as single-frequency channels, subject to coordination with affected administrations. Administrations should take appropriate actions including limiting output power to 1 W and, where necessary, not allowing channels 2078, 2019, 2079 and 2020 to transmit from ships, to prevent blocking of the reception of the channels AIS1, AIS2, ASM1 and ASM2.    (WRC‑15)

**Reasons:** The split of the channels 78, 19, 79, 20 and the use of the upper legs of these channels for transmission from ships could block the AIS and ASM equipment. Therefore it is proposed that in order to prevent blocking of reception of AIS and ASM transmissions from other stations, all possible measures be taken, including limiting output power and, in extreme cases, prohibiting transmission from ships.

MOD RCC/8A16/5

*u)* In Region 2, these channels may be operated as single-frequency channels, subject to coordination with affected administrations. Administrations should take appropriate actions including limiting output power to 1 W and, where necessary, not allowing channels 2078, 2019, 2079 and 2020 to transmit from ships, to prevent blocking of the reception of the channels AIS1, AIS2, ASM1 and ASM2    (WRC‑15)

**Reasons:** The split of the channels 78, 19, 79, 20 and the use of the upper legs of these channels for transmission from ships could block the AIS and ASM equipment. Therefore it is proposed that in order to prevent blocking of reception of AIS and ASM transmissions from other stations, all possible measures be taken, including limiting output power and, in extreme cases, prohibiting transmission from ships.

MOD RCC/8A16/6

*v)* After 1 January 2017, in the Netherlands, these channels may continue to be operated as duplex frequency channels, subject to coordination with affected administrations. Administrations should take appropriate actions including limiting output power to 1 W and, where necessary, not allowing channels 2078, 2019, 2079 and 2020 to transmit from ships, to prevent blocking of reception of the channels AIS1, AIS2, ASM1 and ASM2.     (WRC‑15)

**Reasons:** The split of the channels 78, 19, 79, 20 and the use of the upper legs of these channels for transmission from ships could block the AIS and ASM equipment. Therefore it is proposed that in order to prevent blocking of reception of AIS and ASM transmissions from other stations, all possible measures be taken, including limiting output power and, in extreme cases, prohibiting transmission from ships.

NOC RCC/8A16/7

*Notes w, ww, x) and y*

*w)* In Regions 1 and 3:

Until 1 January 2017, the frequency bands 157.025-157.325 MHz and 161.625-161.925 MHz (corresponding to channels: 80, 21, 81, 22, 82, 23, 83, 24, 84, 25, 85, 26, 86) may be used for new technologies, subject to coordination with affected administrations. Stations using these channels or frequency bands for new technologies shall not cause harmful interference to, or claim protection from, other stations operating in accordance with Article **5**.

From 1 January 2017, the frequency bands 157.025‑157.325 MHz and 161.625-161.925 MHz (corresponding to channels: 80, 21, 81, 22, 82, 23, 83, 24, 84, 25, 85, 26, 86) are identified for the utilization of the digital systems described in the most recent version of Recommendation ITU‑R M.1842. These frequency bands could also be used for analogue modulation described in the most recent version of Recommendation ITU‑R M.1084 by an administration that wishes to do so, subject to not claiming protection from other stations in the maritime mobile service using digitally modulated emissions and subject to coordination with affected administrations.     (WRC‑12)

*ww)* In Region 2, the frequency bands 157.200-157.325 and 161.800-161.925 MHz (corresponding to channels: 24, 84, 25, 85, 26 and 86) are designated for digitally modulated emissions in accordance with the most recent version of Recommendation ITU‑R M.1842.     (WRC‑12)

*x)* From 1 January 2017, in Angola, Botswana, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Democratic Republic of the Congo, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe, the frequency bands 157.125-157.325 and 161.725-161.925 MHz (corresponding to channels: 82, 23, 83, 24, 84, 25, 85, 26 and 86) are designated for digitally modulated emissions.

From 1 January 2017, in China, the frequency bands 157.150-157.325 and 161.750-161.925 MHz (corresponding to channels: 23, 83, 24, 84, 25, 85, 26 and 86) are designated for digitally modulated emissions.     (WRC‑12)

*y)* These channels may be operated as single or duplex frequency channels, subject to coordination with affected administrations.     (WRC‑12)

MOD RCC/8A16/8

*z)* Until January 2019 these channels may be used for possible testing of future AIS applications without causing harmful interference to, or claiming protection from, existing applications and stations operating in the fixed and mobile services.

From 1 January 2019 channels 27 and 28 will be split into four simplex channels (1027, 1028, 2027 and 2028). The upper channels, 2027 and 2028, designated ASM1 and ASM2 respectively, are used for non-navigation ASM (application specific messages), i.e. messages not used for the transmission of information concerning navigation or safety at sea.

Channels 2027 and 2028 are allocated to the maritime mobile service for the reception and transmission of ASM messages from ships and coast stations.       (WRC‑15)

**Reasons**: Identification of two channels allotted for ASM applications.

ADD RCC/8A16/9

*z1)* From 1 January 2019 channels 1027 and 1028 can be used as simplex analogue single‑frequency channels intended for port operations and ship movement. (WRC-15)

**Reasons:** Justification and explanation of the use of lower part of channels 27 and 28 allotted for ASM.

*Issue B (new applications for the maritime radiocommunication – terrestrial component)*

MOD RCC/8A16/10

APPENDIX 18 (REV.WRC‑15)

Table of transmitting frequencies in the  
VHF maritime mobile band

(See Article 52)

NOTE A – For assistance in understanding the Table, see Notes *a)* to *z)* below.     (WRC‑15)

NOTE B – The Table below defines the channel numbering for maritime VHF communications based on 25 kHz channel spacing and use of several duplex channels. The channel numbering and the conversion of two-frequency channels for single-frequency operation shall be in accordance with Recommendation ITU‑R M.1084‑4 Annex 4, Tables 1 and 3. The Table below also describes the harmonized channels where the digital technologies defined in the most recent version of Recommendation ITU‑R M.1842 could be deployed.     (WRC‑15)

| Channel designator | Notes | Transmitting frequencies  (MHz) | | Inter-ship | Port operations  and ship movement | | Public correspondence |
| --- | --- | --- | --- | --- | --- | --- | --- |
| From ship stations | From coast stations | Single frequency | Two frequency |
| 15 | *g)* | 156.750 | 156.750 | x | x |  |  |
| 75 | *n), s)* | 156.775 | 156.775 |  | x |  |  |
| 16 | *f)* | 156.800 | 156.800 | DISTRESS, SAFETY AND CALLING | | | |
| 76 | *n), s)* | 156.825 | 156.825 |  | x |  |  |
| 17 | *g)* | 156.850 | 156.850 | x | x |  |  |
| 77 |  | 156.875 |  | x |  |  |  |
| 18 | *m)* | 156.900 | 161.500 |  | x | x | x |
| 78 | *t), u), v)* | 156.925 | 161.525 |  | x | x | x |
| 1078 |  | 156.925 | 156.925 |  | x |  |  |
| 2078 |  | 161.525 | 161.525 |  | x |  |  |
| 19 | *t), u), v)* | 156.950 | 161.550 |  | x | x | x |
| 1019 |  | 156.950 | 156.950 |  | x |  |  |
| 2019 |  | 161.550 | 161.550 |  | x |  |  |
| 79 | *t), u), v)* | 156.975 | 161.575 |  | x | x | x |
| 1079 |  | 156.975 | 156.975 |  | x |  |  |
| 2079 |  | 161.575 | 161.575 |  | x |  |  |
| 20 | *t), u), v)* | 157.000 | 161.600 |  | x | x | x |
| 1020 |  | 157.000 | 157.000 |  | x |  |  |
| 2020 |  | 161.600 | 161.600 |  | x |  |  |
| 80 | *w), y)* | 157.025 | 161.625 |  | x | x | x |
| 21 | *w), y)* | 157.050 | 161.650 |  | x | x | x |
| 81 | *w), y)* | 157.075 | 161.675 |  | x | x | x |
| 22 | *w), y)* | 157.100 | 161.700 |  | x | x | x |
| 82 | *w), x), y)* | 157.125 | 161.725 |  | x | x | x |
| 23 | *w), x), y)* | 157.150 | 161.750 |  | x | x | x |
| 83 | *w), x), y)* | 157.175 | 161.775 |  | x | x | x |
| 24 | *w), ww), x), y), dddd)* | 157.200 | 161.800 |  | x | x | x |
| 84 | *w), ww), x), y), dddd)* | 157.225 | 161.825 |  | x | x | x |
| 25 | *w), ww), x), y), dddd)* | 157.250 | 161.850 |  | x | x | x |
| 85 | *w), ww), x), y), dddd)* | 157.275 | 161.875 |  | x | x | x |
| 26 | *w), ww), x), y), dddd)* | 157.300 | 161.900 |  | x | x | x |
| 86 | *w), ww), x), y), dddd)* | 157.325 | 161.925 |  | x | x | x |
| 27 | *z)* | 157.350 | 161.950 |  |  | x | x |
| 87 | *z)* | 157.375 | 157.375 |  | x |  |  |
| 28 | *z)* | 157.400 | 162.000 |  |  | x | x |
| 88 | *z)* | 157.425 | 157.425 |  | x |  |  |
| AIS 1 | *f), l), p)* | 161.975 | 161.975 |  |  |  |  |
| AIS 2 | *f), l), p)* | 162.025 | 162.025 |  |  |  |  |

**Notes referring to the Table***General notes*

*...*

*Specific notes*

*...*

MOD RCC/8A16/11

*w)* In Regions 1 and 3:

Until 1 January 2017, the frequency bands 157.025-157.325 MHz and 161.625-161.925 MHz (corresponding to channels: 80, 21, 81, 22, 82, 23, 83, 24, 84, 25, 85, 26, 86) may be used for new technologies and for testing and experiments involving the VDES terrestrial component, subject to coordination with affected administrations. Stations using these channels or frequency bands for new technologies shall not cause harmful interference to, or claim protection from, other stations operating in accordance with Article **5**.

From 1 January 2017, the frequency bands 157.025‑157.175 MHz and 161.625-161.775 MHz (corresponding to channels: 80, 21, 81, 22, 82, 23, 83) are identified for the utilization of the digital systems described in the most recent version of Recommendation ITU‑R M.1842. These frequency bands could also be used for analogue modulation described in the most recent version of Recommendation ITU‑R M.1084 by an administration that wishes to do so, subject to not claiming protection from other stations in the maritime mobile service using digitally modulated emissions and subject to coordination with affected administrations.

From 1 January 2017, the frequency bands 157.200‑157.325 MHz and 161.800-161.925 MHz (corresponding to channels: 24, 84, 25, 85, 26 and 86) are identified for the utilization of the terrestrial component of VDES.     (WRC‑15)

ADD RCC/8A16/12

*dddd)* From 1 January 2019 the channels 24, 84, 25 and 85 may be merged in order to form a unique duplex channelwith a bandwidth of 100 kHz in order to operate the VDES terrestrial component. (WRC-15)

**Reasons:** The merger of these channels will permit a better data rate for the VDES terrestrial component.

*Issue C (new applications for the maritime radiocommunication – satellite component)*

Frequency allocations

Section IV – Table of Frequency Allocations  
(See No. 2.1)

NOC RCC/8A16/13

148-223 MHz

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Allocation to services | | | | |
| Region 1 | Region 2 | | Region 3 | |
| 148-149.9  FIXED  MOBILE except aeronautical mobile (R)  MOBILE-SATELLITE (Earth-to-space) 5.209 | 148-149.9  FIXED  MOBILE  MOBILE-SATELLITE (Earth-to-space) 5.209 | | | |
| 5.218 5.219 5.221 | 5.218 5.219 5.221 | | | |
| 149.9-150.05 MOBILE-SATELLITE (Earth-to-space) 5.209 5.224A  RADIONAVIGATION-SATELLITE 5.224B  5.220 5.222 5.223 | | | | |
| 150.05-153  FIXED  MOBILE except aeronautical mobile  RADIO ASTRONOMY  5.149 | | 150.05-154  FIXED  MOBILE | | |
| 153-154  FIXED  MOBILE except aeronautical mobile (R)  Meteorological aids | | 5.225 | | |
| 154-156.4875  FIXED  MOBILE except aeronautical mobile (R)  5.225A 5.226 | | 154-156.4875  FIXED  MOBILE  5.226 | | 154-156.4875  FIXED  MOBILE  5.225A 5.226 |
| 156.4875-156.5625 MARITIME MOBILE (distress and calling via DSC)  5.111 5.226 5.227 | | | | |
| 156.5625-156.7625  FIXED  MOBILE except aeronautical mobile (R) | | 156.5625-156.7625  FIXED  MOBILE | | |
| 5.226 | | 5.226 | | |
| 156.7625-156.7875  MARITIME MOBILE  Mobile-satellite (Earth-to-space) | 156.7625-156.7875  MARITIME MOBILE  MOBILE-SATELLITE (Earth-to-space) | | 156.7625-156.7875  MARITIME MOBILE  Mobile-satellite (Earth-to-space) | |
| 5.111 5.226 5.228 | 5.111 5.226 5.228 | | 5.111 5.226 5.228 | |
| 156.7875-156.8125 MARITIME MOBILE (distress and calling)  5.111 5.226 | | | | |
| 156.8125-156.8375  MARITIME MOBILE  Mobile-satellite (Earth-to-space) | 156.8125-156.8375  MARITIME MOBILE  MOBILE-SATELLITE (Earth-to-space) | | 156.8125-156.8375  MARITIME MOBILE  Mobile-satellite (Earth-to-space) | |
| 5.111 5.226 5.228 | 5.111 5.226 5.228 | | 5.111 5.226 5.228 | |
| 156.8375-161.9625  FIXED  MOBILE except aeronautical mobile | 156.8375-161.9625  FIXED  MOBILE | | | |
| 5.226 | 5.226 | | | |
| 161.9625-161.9875  FIXED  MOBILE except aeronautical mobile  Mobile-satellite (Earth-to-space) 5.228F | 161.9625-161.9875  AERONAUTICAL MOBILE (OR)  MARITIME MOBILE  MOBILE-SATELITE (Earth-to-space) | | 161.9625-161.9875  MARITIME MOBILE  Aeronautical mobile (OR) 5.228E  Mobile-satellite (Earth-to-space) 5.228F | |
| 5.226 5.228A 5.228B | 5.228C 5.228D | | 5.226 | |
| 161.9875-162.0125  FIXED  MOBILE except aeronautical mobile | 161.9875-162.0125  FIXED  MOBILE | | | |
| 5.226 5.229 | 5.226 | | | |
| 162.0125-162.0375  FIXED  MOBILE except aeronautical mobile  Mobile-satellite (Earth-to-space) 5.228F | 162.0125-162.0375  AERONAUTICAL MOBILE (OR)  MARITIME MOBILE  MOBILE-SATELITE (Earth-to-space) | | 162.0125-162.0375  MARITIME MOBILE  Aeronautical mobile (OR) 5.228E  Mobile-satellite (Earth-to-space) 5.228F | |
| 5.226 5.228A  5.228B 5.229 | 5.228C 5.228D | | 5.226 | |
| 162.0375-174  FIXED  MOBILE except aeronautical mobile | 162.0375-174  FIXED  MOBILE | | | |
| 5.226 5.229 | 5.226 5.230 5.231 5.232 | | | |
| 174-223  BROADCASTING | | 174-216  BROADCASTING  Fixed  Mobile  5.234 | | 174-223  FIXED  MOBILE  BROADCASTING |
|  | | 216-220  FIXED  MARITIME MOBILE  Radiolocation 5.241  5.242 | |  |
| 5.235 5.237 5.243 | |  | | 5.233 5.238 5.240 5.245 |

**Reasons:** New allocations to the MMSS in the RR Appendix 18 frequency bands, i.e. 156‑162.05 MHz, are not supported since the frequency bands already allocated to the MSS (except 148.0‑150.05 MHz (Earth-to-space)) are sufficient for AIS applications using artificial earth satellites and new applications to improve maritime radiocommunications in accordance with Resolution 360 (WRC-12).

SUP RCC/8A16/14

RESOLUTION 360 (WRC‑12)

Consideration of regulatory provisions and spectrum allocations for   
enhanced Automatic Identification System technology applications   
and for enhanced maritime radiocommunication

**Reasons:** It is proposed to suppress Resolution 360 (WRC-12)since it has become superfluous following the completion of the studies and identification of frequencies in order to enhance maritime radiocommunications.

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