

**ATTACHMENT 2**  
**to FCC Public Notice DA 10-1408**

**Draft Proposals formulated and approved within the National  
Telecommunications and Information Administration:**

**Document WAC/068(28.07.10)**

Ms. Mindel De La Torre  
Chief of the International Bureau  
Federal Communications Commission  
445 12<sup>th</sup> Street SW  
Washington, DC 20554

Dear Ms. De La Torre:

The National Telecommunications and Information Administration (NTIA) on behalf of the Executive Branch agencies, approves the release of two draft Executive Branch proposals for WRC-12 agenda items 1.6 (Resolution 950) and 1.10.

For agenda item 1.6 (Resolution 950), NTIA proposes to modify No. 5.565 to update the list of use of 275 – 3 000 GHz by the passive services. NTIA also proposes a mobile-satellite service (Earth-to-space) allocation for Appendix 18 Channels 75 and 76 to improve satellite detection of the Automatic Identification System under agenda item 1.10.

NTIA considered the Federal agencies' input toward the development of U.S. proposals for WRC-12. NTIA forwards this package for your consideration and review by your WRC-12 Advisory Committee. Dr. Darlene Drazenovich is the primary contact from my staff.

Sincerely,

*(Original Signed February 25, 2010)*

Karl B. Nebbia  
Associate Administrator  
Office of Spectrum Management

**UNITED STATES OF AMERICA**  
**DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE**

**Agenda Item 1.6:** *to review No. 5.565 of the Radio Regulations in order to update the spectrum use by the passive services between 275 GHz and 3 000 GHz, in accordance with Resolution 950 (Rev.WRC 07), and to consider possible procedures for free-space optical-links, taking into account the results of ITU R studies, in accordance with Resolution 955 (WRC 07)*

**Background Information:** Agenda item 1.6 addresses two distinct issues. The content of this proposal addresses only the updating of No. 5.565 in accordance with Resolution 950 (Rev. WRC-07).

The Table of Frequency Allocations establishes allocations at frequencies between 9 kHz and 275 GHz. No allocations currently exist above 275 GHz, although an entry in the Table for the range 275-1 000 GHz contains a reference to No. 5.565.

Resolution 950 (Rev. WRC-07) calls for a re-examination of the frequency bands contained in No. 5.565 with a view to updating this footnote, including advice on the applications suitable for the range 275-3 000 GHz. Passive services such as the Earth exploration-satellite service (EESS), space research service (SRS), and radio astronomy service (RAS) already utilize portions of the 275-3 000 GHz range for scientific observation. Some of these operations measure spectral line and continuum emissions from space while others measure atmospheric and climate-related natural emissions from the Earth and its atmosphere. Resolution 950 (Rev. WRC-07) resolves to review No. 5.565 to update the information on spectrum use in the frequency range 275-3 000 GHz by the passive services, but specifically excludes allocations in this range.

ITU-R studies of current and projected scientific needs for passive use of the frequency range 275-3 000 GHz resulted in new recommendations and reports. These studies revealed a need to update No. 5.565 through the addition of some new bands of interest and the deletion of some existing bands. Technical factors strongly influence use of the range 275-3 000 GHz. First, the Earth's atmosphere absorbs signals at these frequencies, especially in the range 1 000-3 000 GHz where the atmosphere is nearly opaque. Second, antenna beamwidths are extremely narrow at such high frequencies.

Interference from non-geostationary satellites into terrestrial stations is highly unlikely due to the above factors and the speed of the spacecraft relative to Earth. With regard to geostationary satellites, coordination would resolve the potential interference from the unlikely scenario of transmissions with maximum antenna coupling and minimum propagation loss. As a result, passive and active services can share frequencies above 1 000 GHz without constraints.

**Proposal:**

**ARTICLE 5**  
**Frequency allocations**

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

**MOD** USA/AI 1.6/1

**5.565** A number of frequency bands in the frequency band range 275-1 000 GHz may be used by administrations for experimentation with, and development of, various active and passive services applications. In this band-frequency range 275-1 000 GHz a need has been identified for the following frequency bands for measurements by spectral line measurements for passive services:

- radio astronomy service: 275-323 GHz, 327-371 GHz, 388-424 GHz, 426-442 GHz, 453-510 GHz, 623-711 GHz, 795-909 GHz and 926-945 GHz;

- Earth exploration-satellite service (passive) and space research service (passive): 275-277286 GHz, 294296-306 GHz, 316313-334356 GHz, 342-349 GHz, 363361-365 GHz, 371369-389392 GHz, 397-399 GHz, 409-411 GHz, 416-434 GHz, 442439-444467 GHz, 496477-506502 GHz, 523-527 GHz, 546538-568581 GHz, 624611-629630 GHz, 634-654 GHz, 659657-664692 GHz, 684-692 GHz, 713-718 GHz, 730729-732733 GHz, 750-754 GHz, 771-776 GHz, 823-846 GHz, 851850-853854 GHz, 857-862 GHz, 866-882 GHz, 905-928 GHz, and 951-956 GHz, 968-973 GHz and 985-990 GHz.

In the frequency range 1 000-3 000 GHz, passive services may use any band segment for ground- and space-based experimentation without constraints on any other services operating in this range.

Future research in this largely unexplored spectral region may yield additional spectral lines and continuum bands of interest to the passive services. Administrations are urged to take all practicable steps to protect these passive services from harmful interference until the date when the allocation Table is established in the above-mentioned 275-3 000 GHz frequency range band.

**Reasons:** Based on the studies performed, the list of EESS and SRS bands of interest in the range 275-1 000 GHz need to be updated in No. 5.565. ITU-R studies have shown that unconstrained sharing between passive and active services in the frequency range 1 000-3 000 GHz is feasible; therefore passive services should have use of any band segment in this frequency range for experimentation.

**SUP** USA/AI 1.6/2

**RESOLUTION 950 (Rev. WRC-07)**  
**Consideration of the use of the frequencies**  
**between 275 and 3 000 GHz**

**Reasons:** Required studies have been completed. The resolution is no longer needed.

**UNITED STATES OF AMERICA**  
**DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE**

**Agenda Item 1.10:** to examine the frequency allocation requirements with regard to operation of safety systems for ships and ports and associated regulatory provisions, in accordance with Resolution **357 (WRC-07)**

**Background Information:** Modifying the Radio Regulations to reflect the satellite monitoring of Automatic Identification System (AIS) equipped vessels is critical to search and rescue, safety of navigation, and the safe movement and tracking of vessels. This proposal specifically adds a mobile-satellite service (MSS) (Earth-to-space) allocation to 156.775 MHz and 156.825 MHz (Appendix **18**, Channels 75 and 76) for improved AIS satellite detection using message 27.

This proposal satisfies the International Maritime Organization (IMO) Resolution MSC 74(69), which requires that AIS improve the safety of navigation by assisting in the efficient navigation of ships, protection of the environment, and operation of Vessel Traffic Services (VTS). Improved satellite detection of AIS will satisfy IMO functional requirements for collision avoidance, obtaining information about a ship and its cargo, and providing ship-to-shore traffic management. The ITU-R completed studies to identify VHF channels in Appendix **18** for improved AIS satellite detection and recently updated Recommendation ITU-R M.1371-3, “Technical characteristics for an automatic identification system using time division multiple access in the VHF maritime mobile band,” to reflect specialized message 27 for long-range AIS broadcast messages of AIS Class A equipped vessels.

This proposed MSS (Earth-to-space) allocation for satellite AIS is compatible with the existing navigation-related communications of the frequencies as designated in Appendix **18**, note *n*). ITU-R Report M.[SAT-AIS], “Improved satellite detection of AIS,” and the recently updated ITU-R Recommendation M.1371-3, confirm the compatibility and show that the transmission of new AIS message 27 contains navigational information including position, speed over ground, course over ground, navigational status. The proposed MSS (Earth-to-space) frequencies (channels 75 and 76) are for navigation and serve as guard-bands for channel 16 - the safety and distress frequency. Precautions to avoid harmful interference to channel 16 are achievable by prohibiting message 27 transmissions within 40 nautical miles of coast stations. Therefore, the new proposed footnote *r*) is fully compliant with footnote *n*) in Appendix **18**.

**Proposal:**

ARTICLE 5

**Section IV – Table of Frequency Allocations**

(See No. 2.1)

**MOD** USA/AI 1.10/1

148-223 MHz

Allocation to services		
Region 1	Region 2	Region 3
156.7625-156.8375	MARITIME MOBILE (distress and calling) 5.111 5.226 <u>ADD 5.XYZ</u>	

**Reasons:** Proposed changes reflect the allocation of 156.7625-156.8375 MHz to the required services in Article 5 to support maritime safety and vessel tracking requirements.

**ADD** USA/AI 1.10/2

**5.XYZ** *Additional allocation:* the bands 156.775 MHz and 156.825 MHz are also allocated to the Mobile-Satellite Service (Earth-to-space) for the reception of automatic identification system (AIS) emissions, using solely message 27 as specified in Recommendation ITU-R M.1371, from stations operating in the maritime-mobile service (see Appendix 18).

**Reasons:** Proposed changes reflect the allocation of 156.775MHz and 156.825 MHz to the required services in Article 5 to support maritime safety and vessel tracking requirements.

**MOD** USA/AI 1.10/3

APPENDIX 18 (Rev. WRC-~~1207~~)  
**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 *q*) below. (WRC-07)

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, but also allows the use of 12.5 kHz channel spacing. The channel numbering for 12.5 kHz channels 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. (WRC-07)

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	
60	<i>m), o)</i>	156.025	160.625			X	x
01	<i>m), o)</i>	156.050	160.650			X	x
61	<i>m), o)</i>	156.075	160.675		x	X	x
02	<i>m), o)</i>	156.100	160.700		x	X	x
62	<i>m), o)</i>	156.125	160.725		x	X	x
03	<i>m), o)</i>	156.150	160.750		x	X	x
63	<i>m), o)</i>	156.175	160.775		x	X	x
04	<i>m), o)</i>	156.200	160.800		x	X	x
64	<i>m), o)</i>	156.225	160.825		x	X	x
05	<i>m), o)</i>	156.250	160.850		x	X	x
65	<i>m), o)</i>	156.275	160.875		x	X	x
06	<i>f)</i>	156.300		X			
66	<i>m), o)</i>	156.325	160.925			X	x
07	<i>m), o)</i>	156.350	160.950			X	x
67	<i>h)</i>	156.375	156.375	X	x		
08		156.400		X			
68		156.425	156.425		x		
09	<i>i)</i>	156.450	156.450	X	x		
69		156.475	156.475	X	x		
10	<i>h), q )</i>	156.500	156.500	X	x		
70	<i>f), j)</i>	156.525	156.525	Digital selective calling for distress, safety and calling			
11	<i>q )</i>	156.550	156.550		x		
71		156.575	156.575		x		
12		156.600	156.600		x		
72	<i>i)</i>	156.625		X			
13	<i>k)</i>	156.650	156.650	X	x		
73	<i>h), i)</i>	156.675	156.675	X	x		
14		156.700	156.700		x		
74		156.725	156.725		x		

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	<i>g)</i>	156.750	156.750	X	x		
75	<i>n) r)</i>	156.775	156.775		x		
16	<i>f)</i>	156.800	156.800	DISTRESS, SAFETY AND CALLING			
76	<i>n) r)</i>	156.825	156.825		x		
17	<i>g)</i>	156.850	156.850	X	x		
77		156.875		X			
18	<i>m)</i>	156.900	161.500		x	X	x
78	<i>m)</i>	156.925	161.525			X	x
19	<i>m)</i>	156.950	161.550			X	x
79	<i>m)</i>	156.975	161.575			X	x
20	<i>m)</i>	157.000	161.600			X	x
80	<i>m)</i>	157.025	161.625			X	x
21	<i>m)</i>	157.050	161.650			X	x

81	<i>m)</i>	157.075	161.675			X	x
22	<i>m)</i>	157.100	161.700		x	X	x
82	<i>m), o)</i>	157.125	161.725		x	X	x
23	<i>m), o)</i>	157.150	161.750		x	X	x
83	<i>m), o)</i>	157.175	161.775		x	X	x
24	<i>m), o)</i>	157.200	161.800		x	X	x
84	<i>m), o)</i>	157.225	161.825		x	X	x
25	<i>m), o)</i>	157.250	161.850		x	X	x
85	<i>m), o)</i>	157.275	161.875		x	X	x
26	<i>m), o)</i>	157.300	161.900		x	X	x
86	<i>m), o)</i>	157.325	161.925		x	X	x
27		157.350	161.950			X	x
87		157.375	157.375		x		
28		157.400	162.000			X	x
88		157.425	157.425		x		
AIS 1	<i>f), l), p)</i>	161.975	161.975				
AIS 2	<i>f), l), p)</i>	162.025	162.025				

**Reasons:** Proposed changes reflect the allocation of 156.775 MHz and 156.875 MHz to the required services in RR Appendix 18 to support maritime safety and vessel tracking requirements.

#### Notes referring to the Table

##### *General notes*

**ADD** USA/AI 1.10/4

**r)** Channels 75 and 76 are allocated to the mobile-satellite service (Earth-to-space) for the transmission of AIS message 27 from ships as defined in Recommendation ITU-R M.1371.

**Reasons:** Proposed footnote reflects the allocation of 156.775 MHz and 156.875 MHz to the required services in Appendix 18 to support maritime safety and vessel tracking requirements.



**Document WAC/069(28.07.10)**

Ms. Mindel De La Torre  
Chief of the International Bureau  
Federal Communications Commission  
445 12<sup>th</sup> Street SW  
Washington, DC 20554

Dear Ms. De La Torre:

The National Telecommunications and Information Administration (NTIA) on behalf of the Executive Branch agencies, approves the release of a draft Executive Branch proposal for WRC-12 agenda item 1.9. NTIA proposes modifications to Appendix 17 of the *Radio Regulations*, along with other changes, that would provide HF frequencies for new digital technologies in the maritime mobile service.

NTIA considered the Federal agencies' input toward the development of U.S. proposals for WRC-12. NTIA forwards this package for consideration and review by your WRC-12 Advisory Committee. Dr. Darlene Drazenovich is the primary contact from my staff.

Sincerely,

*(Original Signed March 17, 2010)*

Karl B. Nebbia  
Associate Administrator  
Office of Spectrum Management

**UNITED STATES OF AMERICA**  
**DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE**

**Agenda Item 1.9:** to revise frequencies and channelling arrangements of Appendix **17** to the Radio Regulations, in accordance with Resolution **351 (Rev.WRC-07)**, in order to implement new digital technologies for the maritime mobile service

**Background Information:** The introduction of new data exchange technologies<sup>1</sup> in the HF maritime mobile service is providing an alternative to narrow-band direct printing (NBDP) technology. According to the International Maritime Organization, current NBDP applications include maritime safety information (MSI) broadcasts, ship reporting, weather forecasts and business communications (e.g. fishing fleets). Since alternative data communication technologies for these functions are available, NBDP equipment use is in rapid decline. However, NBDP telegraphy remains essential for distress communications in the polar regions (sea area A4) where geostationary satellites cannot provide coverage and other terrestrial means of communication are unreliable.

The global maritime community intends to improve efficiency and flexibility in the HF maritime mobile service spectrum by designating certain assignable frequencies in Appendix **17** to data transmissions using new data exchange technologies. This proposal would:

- 1) significantly reduce the number of NBDP frequencies to those actually used for NBDP telegraphy and the GMDSS/NBDP core frequencies (Appendix **15**);
- 2) allow for the use of the current NBDP bands for digital data transmissions, subject to not claiming protection from nor causing harmful interference to other stations in the maritime mobile service using NBDP technology until December 31, 2014;
- 3) make new digital data transmissions primary in the current NBDP bands effective January 1, 2015, though stations could use NBDP technology subject to not claiming protection from nor causing harmful interference to stations in the maritime mobile service using digital data transmissions;
- 4) re-designate the frequencies currently assignable to stations using facsimile, wide-band telegraphy and Morse telegraphy A1A/A1B to stations using data transmission without a transition period;
- 5) neither specify nor limit the bandwidth of new digital transmissions;
- 6) allow stations using wide-band telegraphy or Morse telegraphy A1A/A1B to continue on their currently assigned frequencies subject to not claiming protection from nor causing harmful interference to stations in the maritime mobile service using digital data transmissions;
- 7) not modify Appendix **25** radiotelephony bands, but would allow for the use of digital data transmissions in the radiotelephony bands in accordance with the Appendix **25** allotment plan; and
- 8) provide some flexibility to administrations in portions of the bands 4 MHz, 6 MHz and 8 MHz to assign new simplex radiotelephony frequencies in accordance with No. **52.177**, subject to not claiming protection from stations in the maritime mobile service using digital data transmissions.

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<sup>1</sup> See Recommendation ITU-R M.1798 *Characteristics of HF radio equipment for the exchange of digital data and electronic mail in the maritime mobile service*

**Proposal:**

**MOD** USA/AI 1.9/1

APPENDIX 17 (Rev.WRC-0312)

**Frequencies and channelling arrangements in the high-frequency bands for the maritime mobile service**

(See Article 52)

**PART A – Table of subdivided bands** (WRC-0312)

In the Table, where appropriate<sup>1</sup>, the assignable frequencies in a given band for each usage are:

- indicated by the lowest and highest frequency, in heavy type, assigned in that band;
- regularly spaced, the number of assignable frequencies (*f.*) and the spacing in kHz being indicated in italics.

**Table of frequencies (kHz) to be used in the band between 4 000 kHz and 27 500 kHz allocated exclusively to the maritime mobile service**

<b>Band (MHz)</b>	<b>4</b>	<b>6</b>	<b>8</b>	<b>12</b>	<b>16</b>	<b>18/19</b>	<b>22</b>	<b>25/26</b>
Limits (kHz)	4 063	6 200	8 195	12 230	16 360	18 780	22 000	25 070
Frequencies assignable to ship stations for oceanographic data transmission <i>c)</i>	<b>4 063.3</b> to <b>4 064.8</b>  <i>6 f.</i> <i>0.3 kHz</i>							
Limits (kHz)	4 065	6 200	8 195	12 230	16 360	18 780	22 000	25 070
Frequencies assignable to ship stations for telephony, duplex operation <i>a) i) <u>hh</u></i>	<b>4 066.4</b> to <b>4 144.4</b>  <i>27 f.</i> <i>3 kHz</i>	<b>6 201.4</b> to <b>6 222.4</b>  <i>8 f.</i> <i>3 kHz</i>	<b>8 196.4</b> to <b>8 292.4</b>  <i>33 f.</i> <i>3 kHz</i>	<b>12 231.4</b> to <b>12 351.4</b>  <i>41 f.</i> <i>3 kHz</i>	<b>16 361.4</b> to <b>16 526.4</b>  <i>56 f.</i> <i>3 kHz</i>	<b>18 781.4</b> to <b>18 823.4</b>  <i>15 f.</i> <i>3 kHz</i>	<b>22 001.4</b> to <b>22 157.4</b>  <i>53 f.</i> <i>3 kHz</i>	<b>25 071.4</b> to <b>25 098.4</b>  <i>10 f.</i> <i>3 kHz</i>
Limits (kHz)	4 146	6 224	8 294	12 353	16 528	18 825	22 159	25 100

<sup>1</sup> Within the non-shaded boxes.

**Table of frequencies (kHz) to be used in the band between 4 000 kHz and 27 500 kHz  
allocated exclusively to the maritime mobile service (continued )**

<b>Band (MHz)</b>	<b>4</b>	<b>6</b>	<b>8</b>	<b>12</b>	<b>16</b>	<b>18/19</b>	<b>22</b>	<b>25/26</b>
Limits (kHz)	4 146	6 224	8 294	12 353	16 528	18 825	22 159	25 100
Frequencies assignable to ship stations and coast stations for telephony, simplex operation <i>a) hh)</i>	<b>4 147.4</b> to <b>4 150.4</b>	<b>6 225.4</b> to <b>6 231.4</b>	<b>8 295.4</b> to <b>8 298.4</b>	<b>12 354.4</b> to <b>12 366.4</b>	<b>16 529.4</b> to <b>16 547.4</b>	<b>18 826.4</b> to <b>18 844.4</b>	<b>22 160.4</b> to <b>22 178.4</b>	<b>25 101.4</b> to <b>25 119.4</b>
	<i>2 f.</i> 3 kHz	<i>3 f.</i> 3 kHz	<i>2 f.</i> 3 kHz	<i>5 f.</i> 3 kHz	<i>7 f.</i> 3 kHz	<i>7 f.</i> 3 kHz	<i>7 f.</i> 3 kHz	<i>7 f.</i> 3 kHz
Limits (kHz)	4 152	6 233	8 300	12 368	16 549	18 846	22 180	25 121
Frequencies assignable to ship stations for wide-band telegraphy, facsimile and special transmission systems <u>Frequencies assignable to ship stations for data transmission p) ee)</u>	<del>4 154</del> to <del>4 170</del>	<del>6 235</del> to <del>6 259</del>	<del>8 302</del> to <del>8 338</del>	<del>12 370</del> to <del>12 418</del>	<del>16 551</del> to <del>16 615</del>	<del>18 848</del> to <del>18 868</del>	<del>22 182</del> to <del>22 238</del>	<del>25 123</del> to <del>25 159</del>
	<i>5 f.</i> 4 kHz	<i>7 f.</i> 4 kHz	<i>10 f.</i> 4 kHz	<i>13 f.</i> 4 kHz	<i>17 f.</i> 4 kHz	<i>6 f.</i> 4 kHz	<i>15 f.</i> 4 kHz	<i>10 f.</i> 4 kHz
Limits (kHz)	4 172	6 261	8 340	12 420	16 617	18 870	22 240	25 161.25
Frequencies assignable to ship stations for oceanographic data transmission <i>c) p)</i>		<del>6 261.3</del> to <del>6 262.5</del>	<del>8 340.3</del> to <del>8 341.5</del>	<del>12 420.3</del> to <del>12 421.5</del>	<del>16 617.3</del> to <del>16 618.5</del>		<del>22 240.3</del> to <del>22 241.5</del>	
		<i>5 f.</i> 0.3 kHz	<i>5 f.</i> 0.3 kHz	<i>5 f.</i> 0.3 kHz	<i>5 f.</i> 0.3 kHz		<i>5 f.</i> 0.3 kHz	
Limits (kHz)	4 172	6 262.75	8 341.75	12 421.75	16 618.75	18 870	22 241.75	25 161.25
<u>Frequencies assignable to ship stations for data transmission d) p) aa) bb) cc)</u>								
Limits (kHz)	<u>4 175.25</u>	<u>6 266.25</u>	<u>8 341.75</u>	<u>12 421.75</u>	<u>16 618.75</u>	<u>18 870</u>	<u>22 241.75</u>	<u>25 161.25</u>
Frequencies (paired) assignable to ship stations for narrow-band direct-printing (NBDP) telegraphy and data transmission systems at speeds not exceeding 100 Bd for FSK and 200 Bd for PSK <i>d) j) m) p)</i>	<del>4 172.56</del> to <del>4 181.578</del>	<del>6 2636.5</del> to <del>6 275.568.5</del>						
	<del>185 f.</del> 0.5 kHz	<del>25 f.</del> 0.5 kHz						
Limits (kHz)	<u>4 178.25</u>	<u>6 268.75</u>	<u>8 341.75</u>	<u>12 421.75</u>	<u>16 618.75</u>	<u>18 870</u>	<u>22 241.75</u>	<u>25 161.25</u>
<u>Frequencies assignable to ship stations for data transmission d) p) aa) bb) cc)</u>								

Limits (kHz)	4 181.75	6 275.75	8 341.75	12 421.75	16 618.75	18 870	22 241.75	25 161.25
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**Table of frequencies (kHz) to be used in the band between 4 000 kHz and 27 500 kHz allocated exclusively to the maritime mobile service (continued)**

Band (MHz)	4	6	8	12	16	18/19	22	25/26
Limits (kHz)	4 181.75	6 275.75	8 341.75	12 421.75	16 618.75	18 870	22 241.75	25 161.25
Calling frequencies assignable to ship stations for A1A or A1B Morse telegraphy. Frequencies assignable to ship stations for data transmission <i>g) p) m)</i>								
Limits (kHz)	4 186.75	6 280.75	8 341.75	12 421.75	16 618.75	18 870	22 241.75	25 161.25
Frequencies (paired) assignable to ship stations for NBDP telegraphy and data transmission systems at speeds not exceeding 100 Bd for FSK and 200 Bd for PSK. Frequencies assignable to ship stations for data transmission <i>d) m) p) aa) bb) cc)</i>		<del>6 281</del> to <del>6 284.5</del>  <i>8 f.</i> <i>0.5 kHz</i>						
Limits (kHz)	4 186.75	6 284.75	8 341.75	12 421.75	16 618.75	18 870	22 241.75	25 161.25
Working frequencies assignable to ship stations for A1A or A1B Morse telegraphy. Frequencies assignable to ship stations for data transmission <i>m) p)</i>	<del>4 187</del> to <del>4 202</del>  <i>31 f.</i> <i>0.5 kHz</i>	<del>6 285</del> to <del>6 300</del>  <i>31 f.</i> <i>0.5 kHz</i>	<del>8 342</del> to <del>8 365.5</del>  <i>48 f.</i> <i>0.5 kHz</i>	<del>12 422</del> to <del>12 476.5</del>  <i>110 f.</i> <i>0.5 kHz</i>	<del>16 619</del> to <del>16 683</del>  <i>129 f.</i> <i>0.5 kHz</i>		<del>22 242</del> to <del>22 279</del>  <i>75 f.</i> <i>0.5 kHz</i>	<del>25 161.5</del> to <del>25 171</del>  <i>20 f.</i> <i>0.5 kHz</i>
Limits (kHz)	4 202.25	6 300.25	8 365.75	12 476.75	16 683.25	18 870	22 279.25	25 171.25
Calling frequencies assignable to ship stations for A1A or A1B Morse telegraphy. Frequencies assignable to ship stations for data transmission <i>g) p) m)</i>								
Limits (kHz)	4 202.25	6 300.25	8 370.75	12 476.75	16 683.25	18 870	22 284.25	25 172.75
Working frequencies assignable to ship stations for A1A or A1B Morse telegraphy. Frequencies assignable to ship stations for data transmission <i>e) f) p) m)</i>			<del>8 371</del> to <del>8 376</del>  <i>11 f.</i> <i>0.5 kHz</i>					

Limits (kHz)	4 202.25	6 300.25	8 376.25	12 476.75	16 683.25	18 870	22 284.25	25 172.75
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**Table of frequencies (kHz) to be used in the band between 4 000 kHz and 27 500 kHz  
allocated exclusively to the maritime mobile service (continued))**

<b>Band (MHz)</b>	<b>4</b>	<b>6</b>	<b>8</b>	<b>12</b>	<b>16</b>	<b>18/19</b>	<b>22</b>	<b>25/26</b>
Limits (kHz)	4 202.25	6 300.25	8 376.25	12 476.75	16 683.25	18 870	22 284.25	25 172.75
Frequencies (paired) assignable to ship stations for NBDP telegraphy and data transmission systems at speeds not exceeding 100 bauds for FSK and 200 bauds for PSK <i>d) j) - m) p)</i>			<b>8 376.5</b> to <b>8 396.78.5</b>  <i>40.5 f.</i> <i>0.5 kHz</i>	<del>12 477</del> to <del>12 549.5</del>  <i>146 f.</i> <i>0.5 kHz</i>	<del>16 683.5</del> to <del>16 733.5</del>  <i>101 f.</i> <i>0.5 kHz</i>	<del>18 870.5</del> to <del>18 892.5</del>  <i>45 f.</i> <i>0.5 kHz</i>	<del>22 284.5</del> to <del>22 351.5</del>  <i>135 f.</i> <i>0.5 kHz</i>	<del>25 173</del> to <del>25 192.5</del>  <i>40 f.</i> <i>0.5 kHz</i>
Limits (kHz)	<u>4 202.25</u>	<u>6 300.25</u>	<u>8 378.75</u>	<u>12 476.75</u>	<u>16 683.25</u>	<u>18 870</u>	<u>22 284.25</u>	<u>25 172.75</u>
Frequencies assignable to ship stations for data transmission <i>d) p) aa) bb) cc)</i>								
Limits (kHz)	<u>4 202.25</u>	<u>6 300.25</u>	<u>8 396.25</u>	<u>12 517.25</u>	<u>16 693.25</u>	<u>18 892.75</u>	<u>22 351.75</u>	<u>25 192.75</u>
Frequencies (paired) assignable to ship stations for NBDP telegraphy and data transmission systems at speeds not exceeding 100 bauds for FSK and 200 bauds for PSK <i>d) j)</i>				<u>12 517.5</u> to <u>12 522</u>  <i>10 f.</i> <i>0.5 kHz</i>	<u>16 693.5</u> to <u>16 696.5</u>  <i>7 f.</i> <i>0.5 kHz</i>			
Limits (kHz)	<u>4 202.25</u>	<u>6 300.25</u>	<u>8 396.25</u>	<u>12 522.25</u>	<u>16 696.75</u>	<u>18 892.75</u>	<u>22 351.75</u>	<u>25 192.75</u>
Frequencies assignable to ship stations for data transmission <i>d) p) aa) bb) cc)</i>								
Limits (kHz)	4 202.25	6 300.25	8 396.25	12 549.75	16 733.75	18 892.75	22 351.75	25 192.75
Calling frequencies assignable to ship stations for A1A or A1B Morse telegraphy; Frequencies assignable to ship stations for data transmission <i>m) p)</i>								
Limits (kHz)	4 202.25	6 300.25	8 396.25	12 554.75	16 738.75	18 892.75	22 351.75	25 192.75
Frequencies (paired) assignable to ship stations for NBDP telegraphy and data transmission systems at speeds not exceeding 100 bauds for FSK and				<del>12 555</del> to <del>12 559.5</del>  <i>10 f.</i> <i>0.5 kHz</i>	<del>16 739</del> to <del>16 784.5</del>  <i>92 f.</i> <i>0.5 kHz</i>			

<del>200 bauds for PSK Frequencies assignable to ship stations for data transmission aa) bb) cc) d) m) p)</del>								
Limits (kHz)	4 202.25	6 300.25	8 396.25	12 559.75	16 784.75	18 892.75	22 351.75	25 192.75

**Table of frequencies (kHz) to be used in the band between 4 000 kHz and 27 500 kHz  
allocated exclusively to the maritime mobile service (continued)**

Limits (kHz)	4 202.25	6 300.25	8 396.25	12 559.75	16 784.75	18 892.75	22 351.75	25 192.75
<del>Frequencies (non paired) assignable to ship stations for NBDP telegraphy and data transmission systems at speeds not exceeding 100 Bd for FSK and 200 Bd for PSK and for A1A or A1B Morse telegraphy (working) b) p) dd) m)</del>	<del>4 202.5 to 4 207  10 f. 0.5 kHz</del>	<del>6 300.5 to 6 311.5  23 f. 0.5 kHz</del>	<del>8 396.5 to 8 414  36 f. 0.5 kHz</del>	<del>12 560 to 12 576.5  34 f. 0.5 kHz</del>	<del>16 785 to 16 804  39 f. 0.5 kHz</del>	<del>18 893 to 18 898  11 f. 0.5 kHz</del>	<del>22 352 to 22 374  45 f. 0.5 kHz</del>	<del>25 193 to 25 208  31 f. 0.5 kHz</del>
Limits (kHz)	4 207.25	6 311.75	8 414.25	12 576.75	16 804.25	18 898.25	22 374.25	25 208.25
Frequencies assignable to ship stations for digital selective calling k) l)	4 207.5 to 4 209  4 f. 0.5 kHz	6 312 to 6 313.5  4 f. 0.5 kHz	8 414.5 to 8 416  4 f. 0.5 kHz	12 577 to 12 578.5  4 f. 0.5 kHz	16 804.5 to 16 806  4 f. 0.5 kHz	18 898.5 to 18 899.5  3 f. 0.5 kHz	22 374.5 to 22 375.5  3 f. 0.5 kHz	25 208.5 to 25 209.5  3 f. 0.5 kHz
Limits (kHz)	4 209.25	6 313.75	8 416.25	12 578.75	16 806.25	18 899.75	22 375.75	25 210
Limits (kHz)	4 209.25	6 313.75	8 416.25	12 578.75	16 806.25	19 680.25	22 375.75	26 100.25
<del>Frequencies assignable to coast stations for data transmission n) o) p) aa) bb) cc)</del>								
Limits (kHz)	4 213.75	6 317.75	8 416.25	12 619.75	16 816.75	19 703.25	22 443.75	26 120.75
Frequencies (paired) assignable to coast stations for NBDP and data transmission systems, at speeds not exceeding 100 Bd for FSK and 200 Bd for PSK d) n) o) p)	4 209.514 to 4 219.515  204 f. 0.5 kHz	6 3148 to 6 330.519.5  34 f. 0.5 kHz	8 416.5 to 8 436.518.5  405 f. 0.5 kHz	12.579620 to 12.6566.5 12 624 1569 f. 0.5 kHz	16 806.517 to 16 902.5 16 819.5 1936 f. 0.5 kHz	19 680.5 to 19 703  46 f. 0.5 kHz	22 376 to 22 443.5  136 f. 0.5 kHz	26 100.5 to 26 120.5  41 f. 0.5 kHz
Limits (kHz)	4 215.75	6 319.75	8 418.75	12 624.25	16 819.75	19 703.25	22 443.75	26 120.75
<del>Frequencies assignable to coast stations for data transmission d) p) aa) bb) cc)</del>								

Limits (kHz)	4 219.25	6 330.75	8 436.25	12 656.75	16 902.75	19 703.25	22 443.75	26 120.75
Frequencies assignable to coast stations for digital selective calling <i>l)</i>	<b>4 219.5</b> to <b>4 220.5</b>  <i>3 f.</i> <i>0.5 kHz</i>	<b>6 331</b> to <b>6 332</b>  <i>3 f.</i> <i>0.5 kHz</i>	<b>8 436.5</b> to <b>8 437.5</b>  <i>3 f.</i> <i>0.5 kHz</i>	<b>12 657</b> to <b>12 658</b>  <i>3 f.</i> <i>0.5 kHz</i>	<b>16 903</b> to <b>16 904</b>  <i>3 f.</i> <i>0.5 kHz</i>	<b>19 703.5</b> to <b>19 704.5</b>  <i>3 f.</i> <i>0.5 kHz</i>	<b>22 444</b> to <b>22 445</b>  <i>3 f.</i> <i>0.5 kHz</i>	<b>26 121</b> to <b>26 122</b>  <i>3 f.</i> <i>0.5 kHz</i>
Limits (kHz)	4 221	6 332.5	8 438	12 658.5	16 904.5	19 705	22 445.5	26 122.5

**Table of frequencies (kHz) to be used in the band between 4 000 kHz and 27 500 kHz allocated exclusively to the maritime mobile service (*end*)**

Band (MHz)	4	6	8	12	16	18/19	22	25/26
Limits (kHz)	4 221	6 332.5	8 438	12 658.5	16 904.5	19 705	22 445.5	26 122.5
Frequencies assignable to coast stations for wide-band <del>and A1A or A1B Morse telegraphy,</del> facsimile, special and data transmission systems and direct-printing telegraphy systems <i>m) p) ee) ff)</i>								
Limits (kHz)	4 351	6 501	8 707	13 077	17 242	19 755	22 696	26 145
Frequencies assignable to coast stations for telephony, duplex operation <i>a) hh)</i>	<b>4 352.4</b> to <b>4 436.4</b>  <i>29 f.</i> <i>3 kHz</i>	<b>6 502.4</b> to <b>6 523.4</b>  <i>8 f.</i> <i>3 kHz</i>	<b>8 708.4</b> to <b>8 813.4</b>  <i>36 f.</i> <i>3 kHz</i>	<b>13 078.4</b> to <b>13 198.4</b>  <i>41 f.</i> <i>3 kHz</i>	<b>17 243.4</b> to <b>17 408.4</b>  <i>56 f.</i> <i>3 kHz</i>	<b>19 756.4</b> to <b>19 798.4</b>  <i>15 f.</i> <i>3 kHz</i>	<b>22 697.4</b> to <b>22 853.4</b>  <i>53 f.</i> <i>3 kHz</i>	<b>26 146.4</b> to <b>26 173.4</b>  <i>10 f.</i> <i>3 kHz</i>
Limits (kHz)	4 438	6 525	8 815	13 200	17 410	19 800	22 855	26 175



**NOC** USA/AI 1.9/2

Note *a*)

**Reasons:** Maintains the frequency bands dedicated for the radiotelephony simplex operation.

**SUP** USA/AI 1.9/3

Note *b*)

**Reasons:** After the entry into force date of 1 January 2015, Section III, Part B this note will no longer be required.

**NOC** USA/AI 1.9/4

Note *c*) and *d*).

**Reasons:** Maintains frequencies for transmission of oceanographic data and paired frequencies for NBDP.

**SUP** USA/AI 1.9/5

Note *e*)

**Reasons:** Maintains frequencies for ship stations using A1A Morse telegraphy not travelling faster than 40 Bd

**SUP** USA/AI 1.9/6

Note *f*)

**Reasons:** Part B, Section V is proposed for suppression.

**SUP** USA/AI 1.9/7

Note *g*)

**Reasons:** Part B, Section IV is proposed for suppression.

**NOC** USA/AI 1.9/8

Note *i*) to *l*)

**Reasons:** Maintains paired frequencies for digital selective calling.

**MOD** USA/AI 1.9/9

Note *m*) Frequencies from these frequency bands may also be used for A1A or A1B Morse telegraphy (~~working~~) (see Part B, Section II).subject to not claiming protection from other stations, using digital technologies, in the maritime mobile service.

**Reasons:** Assigns additional frequencies for A1A or A1B Morse telegraphy subject to protection of the maritime mobile service using new digital technologies.

**NOC** USA/AI 1.9/10

Note *n*) and *o*)

**Reasons:** No change is proposed to frequencies used for maritime safety information (MSI) and Navigational Telex (NAVTEX).

**MOD** USA/AI 1.9/11

Note *p*) These sub-bands, except the frequencies referred to in Notes *i*), *j*), *n*) and *o*), may be used for digital technologies for maritime mobile service (e.g. as described in Recommendation ITU-R M.1798)~~the initial testing and the possible future introduction within the maritime mobile service of new digital technologies. Stations using these sub-bands for this purpose shall not cause harmful interference to, and shall not claim protection from, other stations operating in accordance with Article 5. No.15.8 applies ).~~

**Reasons:** Implements the channels for new digital technologies in the frequency bands designated for wide-band telegraphy, and facsimile without transition a period.

**ADD** USA/AI 1.9/12

Note *aa*) Until 1 January 2015, these bands may be used by narrow-band direct printing applications. The use of these bands by digital data transmission applications is subject to prior agreement between interested and affected administrations to ensure there will be no interference with the narrow-band direct printing applications.

**Reasons:** Allows for transition period for frequencies employing NBDP to transmission of new digital technologies subject to not causing interference into NBDP.

**ADD** USA/AI 1.9/13

Note *bb*) After 1 January 2015, these bands may be used by narrow-band direct printing applications by the administrations, subject to not claiming protection from other stations, using digital data transmissions, in the maritime mobile service.

**Reasons:** Allows for continued use of NBDP after transition date subject to not claiming protection from the maritime mobile service.

**ADD** USA/AI 1.9/14

Note cc) After 1 January 2015, the administrations who make assignments to stations using digital data transmissions are encouraged to effect coordination with potentially affected administrations.

**Reasons:** Removes the use of single channel NBDP after 1 January 2015 to allow the introduction of new HF data exchange technologies into the maritime mobile service.

**ADD** USA/AI 1.9/15

Note dd) These bands may be used by narrow-band direct printing applications by the administrations, subject to not claiming protection from other stations, using digital data transmissions, in the maritime mobile service.

**Reasons:** Removes the use of single channel NBDP after 1 January 2015 to allow the introduction of new HF data exchange technologies into the maritime mobile service.

**ADD** USA/AI 1.9/16

Note ee) Frequencies from these bands may be used for wide-band telegraphy, facsimile, A1A Morse telegraphy and special data transmission on condition that harmful interference is not caused to and protection is not claimed from stations, using digital data transmissions, in the maritime mobile service.

**Reasons:** Removes the use of single channel NBDP after 1 January 2015 to allow the introduction of new HF data exchange technologies into the maritime mobile service.

**ADD** USA/AI 1.9/17

Note ff) The bands 4 345 – 4 351 kHz, 6 495 – 6 501 kHz, 8 701 – 8 707 kHz may be used for simplex (single-sideband) telephone operation (regularly spaced by 3 kHz), in accordance with provision No. 52.177, subject to not claiming protection from other stations, using digital data transmissions, in the maritime mobile service.

**Reasons:** Removes the use of single channel NBDP after 1 January 2015 to allow the introduction of new HF data exchange technologies into the maritime mobile service.

**ADD** USA/AI 1.9/18

Note gg) When assigning frequencies on the bands 4 202.25 – 4 207.25 kHz, 6 300.25 – 6 311.75 kHz, 8 396.25 – 8 414.25 kHz, 12 559.75 – 12 576.75 kHz and 16 784.75 – 16 804.25 kHz, administrations shall take all necessary precautions to not cause interference on the DSC distress frequencies 4 207.5 kHz, 6 312 kHz, 8 414.5 kHz, 12.577 kHz and 16 804.5 kHz.

**Reasons:** Provides protection for DSC distress frequencies.

**ADD** USA/AI 1.9/19

Note hh) The bands 4 066.4 – 4 150.4 kHz, 4 352.4 – 4 436.4 kHz, 6 201.4 – 6 231.4 kHz, 6 502.4 – 6 523.4 kHz, 8 196.4 – 8 298.4 kHz, 8 708.4 – 8 813.4 kHz, 12 231.4 – 12 366.4 kHz, 13 078.4 – 13 198.4 kHz, 16 361.4 – 16 574.4 kHz, 17 243.4 – 17 408.4 kHz, 18 781.4 – 18 844.4 kHz, 19 756.4 – 19 798.4 kHz, 22 001.4 – 22 178.4 kHz, 22 697.4 – 22 853.4 kHz, 25 071.4 – 25 119.4

kHz, 26 146.4 – 26 173.4 kHz may be used, in accordance with Appendix 25 allotment plan, for digital data transmissions on condition that harmful interference is not caused to and protection is not claimed from other stations, using radiotelephony operations, in the maritime mobile service.

**Reasons:** Allows additional use for digital data transmissions in the RR Appendix 25 bands.

## **PART B – Channelling arrangements** (WRC-0712)

### **Section II – Narrow-band direct-printing telegraphy (paired frequencies)**

**MOD** USA/AI 1.9/20

TABLE 17a

#### **Table of frequencies for two-frequency operation by coast stations (kHz)**

**Reasons:** Providing a table number will help distinguish this table from new the table (17b) that comes into force after January 1, 2015.

**NOC** USA/AI 1.9/21

Channel No.	4 MHz band <sup>1</sup>		6 MHz band <sup>3</sup>		8 MHz band <sup>4</sup>	
	Transmit	Receive	Transmit	Receive	Transmit	Receive

**Reasons:** There are no proposed changes to the table (17a).

**ADD** USA/AI 1.9/22

TABLE 17b (WRC-12)  
Table of frequencies for two-frequency operation by coast stations (kHz)

<u>Channel No.</u>	<u>4 MHz band <sup>1</sup></u>		<u>6 MHz band</u>		<u>8 MHz band</u>	
	<u>Transmit</u>	<u>Receive</u>	<u>Transmit</u>	<u>Receive</u>	<u>Transmit</u>	<u>Receive</u>
<u>1</u>					<u>8 376.5 <sup>2</sup></u>	<u>8 376.5 <sup>2</sup></u>
<u>2</u>					<u>8 417</u>	<u>8 377</u>
<u>3</u>					<u>8 417.5</u>	<u>8 377.5</u>
<u>4</u>					<u>8 418</u>	<u>8 378</u>
<u>5</u>					<u>8 418.5</u>	<u>8 378.5</u>
<u>6</u>						
<u>7</u>						
<u>8</u>	<u>4 214</u>	<u>4 176</u>	<u>6 318</u>	<u>6 266.5</u>		
<u>9</u>	<u>4 214.5</u>	<u>4 176.5</u>	<u>6 318.5</u>	<u>6 267</u>		
<u>10</u>	<u>4 215</u>	<u>4 177</u>	<u>6 319</u>	<u>6 267.5</u>		
<u>11</u>	<u>4 177.5 <sup>2</sup></u>	<u>4 177.5 <sup>2</sup></u>	<u>6 268 <sup>2</sup></u>	<u>6 268 <sup>2</sup></u>		
<u>12</u>	<u>4 215.5</u>	<u>4 178</u>	<u>6 319.5</u>	<u>6 268.5</u>		
<u>13</u>						

<sup>1</sup> Ship stations may use the coast station receiving frequencies for transmitting A1A or A1B Morse telegraphy (working), with the exception of channel No. 11 (see Appendix 15).

<sup>2</sup> For the conditions of use of this frequency, see Article 31.

TABLE 17b (end)

<u>Channel No.</u>	<u>12 MHz band</u>		<u>16 MHz band</u>	
	<u>Transmit</u>	<u>Receive</u>	<u>Transmit</u>	<u>Receive</u>
<u>21</u>			<u>16 817</u>	<u>16 693.5</u>
<u>22</u>			<u>16 817.5</u>	<u>16 694</u>
<u>23</u>			<u>16 818</u>	<u>16 694.5</u>
<u>24</u>			<u>16 695 <sup>2</sup></u>	<u>16 695 <sup>2</sup></u>
<u>25</u>			<u>16 818.5</u>	<u>16 695.5</u>
<u>26</u>			<u>16 819</u>	<u>16 696</u>
<u>27</u>			<u>16 819.5</u>	<u>16 696.5</u>
<u>82</u>	<u>12 620</u>	<u>12 517.5</u>		
<u>83</u>	<u>12 620.5</u>	<u>12 518</u>		
<u>84</u>	<u>12 621</u>	<u>12 518.5</u>		
<u>85</u>	<u>12 621.5</u>	<u>12 519</u>		
<u>86</u>	<u>12 622</u>	<u>12 519.5</u>		
<u>87</u>	<u>12 520 <sup>2</sup></u>	<u>12 520 <sup>2</sup></u>		
<u>88</u>	<u>12 622.5</u>	<u>12 520.5</u>		
<u>89</u>	<u>12 623</u>	<u>12 521</u>		
<u>90</u>	<u>12 623.5</u>	<u>12 521.5</u>		
<u>91</u>	<u>12 624</u>	<u>12 522</u>		

**Reasons:** New Table 17b allows for introduction of new HF data exchange technologies into the maritime mobile service. Numbering for the other table (17a) in Section II Part B helps distinguish between the two tables in Appendix 17.

**SUP** USA/AI 1.9/23

**Section III – Narrow-band direct-printing telegraphy  
(non-paired frequencies)**

**Reasons:** After the entry into force date of 1 January 2015, this section will no longer be needed and will be suppressed. Article 59 references the new Resolution XYZ.NBDP, which abrogates this suppression.

**SUP** USA/AI 1.9/24

**Section IV – Morse telegraphy (calling)**

**Reasons:** Removes the use of Morse telegraphy to allow the introduction of new HF data exchange technologies into the maritime mobile service.

**SUP** USA/AI 1.9/25

**Section V – Morse telegraphy (working)**

**Reasons:** Removes the use of Morse telegraphy to allow the introduction of new HF data exchange technologies into the maritime mobile service.

**ADD** USA/AI 1.9/26

RESOLUTION XYZ.NBDP (WRC-12)

**Application and abrogation of certain provisions of the Radio Regulations  
as revised by WRC-12**

The World Radiocommunication Conference (Geneva, 2012),

*considering*

- a) that this conference has adopted a partial revision to the Radio Regulations (RR) in accordance with its terms of reference which will enter into force on 1 January 2014;
- b) that some of the provisions, as amended by this conference, need to apply as of a later date;
- c) that as a general rule, new and revised Resolutions and Recommendations enter into force at the time of signing of the Final Acts of a conference;
- d) that as a general rule, Resolutions and Recommendations which a WRC has decided to suppress are abrogated at the time of the signing of the Final Acts of the conference,

*resolves*

- 1 that, as of 1 January 2015, the following provisions of the RR, which are suppressed by this Conference, shall be abrogated: Table 17a of Appendix 17, Section III of Part B of Appendix 17;
- 2 that, as of 1 January 2015, the following provisions, as established by this Conference, shall enter into force: Table 17b of Appendix 17;

**Reasons:** The Resolution XYZ.NBDP allows for provisions in Appendix 17 to enter into force on the agreed date of 1 January, 2015.

**MOD** USA/AI 1.9/27

**ARTICLE 59**

**Entry into force and provisional application  
of the Radio Regulations (WRC-2000)**

59.XX The other provisions of these Regulations, as revised by WRC-12, shall enter into force on 1 January 2014, with the following exceptions: (WRC-12)

59.YY – the revised provisions for which other effective dates of application are stipulated in Resolutions:

XYZ.NBDP (WRC-12)

**Reasons:** This reference to Resolution XYZ.NBDP allows for the transition date for the entry into force of provisions in Appendix 17 and suppress other provisions.

**SUP** USA/AI 1.9/28

RESOLUTION 351 (Rev.WRC-07)

**Review of the frequency and channel arrangements in the HF bands allocated to the maritime mobile service contained in Appendix 17 with a view to improving efficiency through the use of new digital technology by the maritime mobile service**

**Reasons:** All of the work related to this Resolution is complete.

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**Document WAC/070(28.07.10)**

Ms. Mindel De La Torre  
Chief of the International Bureau  
Federal Communications Commission  
445 12<sup>th</sup> Street SW  
Washington, DC 20554

Dear Ms. De La Torre:

The National Telecommunications and Information Administration (NTIA), on behalf of the Executive Branch agencies, approves the release of a draft Executive Branch proposal for WRC-12 agenda item 1.10 (AP 18). NTIA proposes modifications to Appendix 18 (Rev. WRC-07) of the *Radio Regulations*, Table of transmitting frequencies in the VHF maritime mobile band.

NTIA considered the Federal agencies' input toward the development of U.S. proposals for WRC-12. NTIA forwards this package for consideration and review by your WRC-12 Advisory Committee. Dr. Darlene Drazenovich is the primary contact from my staff.

Sincerely,

*(Original Signed April 12, 2010)*

Karl B. Nebbia  
Associate Administrator  
Office of Spectrum Management

**UNITED STATES OF AMERICA**  
**DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE**

**Agenda Item 1.10:** to examine the frequency allocation requirements with regard to operation of safety systems for ships and ports and associated regulatory provisions, in accordance with Resolution **357 (WRC-07)**

**Background Information:**

**Simplex Use of Duplex Channels**

The Radio Regulations Board approved a Rule of Procedure after WRC-07 regarding simplex use in Appendix **18**, effectively implementing this part of the enclosed proposal. WRC-07 revised Appendix **18** to allow simplex use of channels 01, 07, 19, 20, 21, 60, 66, 78, 79, 80, and 81 subject to coordination with affected administrations (Note *m*). However, WRC-07 omitted placing an "x" in the "Single frequency" column against affected channels in Appendix **18**, thereby unintentionally omitting this from the Radio Regulations.

Expansion of optional simplex use of duplex channels (add more "x" designations to duplex channels) in Appendix **18** will provide further benefits to maritime radiocommunications by relieving current congestion in the VHF maritime mobile bands in accordance with Recommendation ITU-R M.1084-4. Report ITU-R M.2010-1, a study on efficiency in the VHF maritime mobile band, concluded that this spectrum efficiency option expands the number of usable communications channels with the minimum of compatibility issues. The analogue VHF radio on board vessels that travel internationally would have access to both the original two-frequency channels and their single-frequency derivatives, thus allowing port operations on two or single frequency channels.

**Channels for E-Navigation (e-Nav)**

Designating in Appendix **18** six channels for E-Navigation (eNAV)\* data exchange responds to the International Maritime Organization's (IMO) E-Navigation initiatives for future VHF data exchange. Technical studies are ongoing within the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) E-Navigation Committee with close coordination between IALA and the ITU-R. Recommendation ITU-R M.1842-1 provides examples of potential VHF E-Navigation systems and recommends the use of Appendix **18** channels for the exchange of data for E-Navigation to support future digital technologies in the maritime mobile service VHF bands. The ITU-R summarizes E-Navigation spectrum requirements in a liaison statement to IALA (5B/417 Annex 28) and proposes continued cooperative efforts between the two maritime organizations. Adding a new Note *s*) to the table of Appendix **18** and to the section "Notes referring to the Table" supports the identification six channels (24, 25, 26, and 27) for potential E-Navigation systems.

**Protection of Channels AIS 1 and AIS 2**

Protecting the Automatic Identification System channels (AIS 1 and AIS 2) from harmful interference would ensure the future safety of maritime mobile radiocommunications for these channels. Report ITU-

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\* eNAV – From IMO: "E-Navigation is the harmonised creation, collection, integration, exchange and presentation of maritime information onboard and ashore by electronic means to enhance berth to berth navigation and related services, for safety and security at sea and protection of the marine environment".

R M.2122 “EMC assessment of shore-based electronic navigation (eNAV) infrastructure and new draft standards for data exchange in the VHF maritime mobile band (156-174 MHz)” describes the susceptibility of AIS 1 and AIS 2 to interference from the adjacent duplex channels. This Report also provides technical guidelines for the electromagnetic compatibility between AIS and systems that use channels 27 and 28. Thus, modifying Note *c*) in the section “Notes referring to the Table” of Appendix 18 is necessary for protecting AIS.

### **Non-Application of Channel Interleaving**

Recommendation ITU-R M.1084-4 describes the advantages of increased spectrum efficiency by channel interleaving 12.5 kHz channels with 25 kHz channels. The current Appendix 18 excludes maritime mobile service safety channels from 12.5 kHz channel interleaving (See Note *e*). By modifying Note *e*) in the section “Notes referring to the Table” of Appendix 18, the non-application of channel interleaving extends to the exclusion of AIS 1 and AIS 2, and the proposed channels for E-Navigation discussed above.

### **Long-Range Detection of AIS**

Recommendation ITU-R M.1371-3 provides technical and operational characteristics for designing systems intended for long-range detection of AIS. Modifying Note *n*) in the section “Notes referring to the Table” of Appendix 18 identifies the use of AIS for long-range detection for channels 75 and 76 and ensures the protection of these channels from harmful interference.

### **Proposal:**

**MOD** USA/AI 1.10/1

## APPENDIX 18 (REV.WRC-0712)

### **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 *q*) below. (WRC-07)

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, ~~but~~ and also allows the simplex use of ~~12.5 kHz channel spacing~~ duplex channels. The channel numbering for ~~12.5 kHz channels and the conversion of two frequency channels for single-frequency operation of duplex channels~~ shall be in accordance with Recommendations ITU-R M.493 and 1084 (Latest versions) ~~4 Annex 4, Tables 1 and 3.~~ (WRC-0712)

**Reasons:** Proposed changes to NOTE B will allow for more flexibility for simplex (single-channel) use of duplex channels.

MOD USA/AI 1.10/2

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	
60	<i>m), o)</i>	156.025	160.625		<u>x</u>	x	x
01	<i>m), o)</i>	156.050	160.650		<u>x</u>	x	x
61	<i>m), o)</i>	156.075	160.675		x	x	x
02	<i>m), o)</i>	156.100	160.700		x	x	x
62	<i>m), o)</i>	156.125	160.725		x	x	x
03	<i>m), o)</i>	156.150	160.750		x	x	x
63	<i>m), o)</i>	156.175	160.775		x	x	x
04	<i>m), o)</i>	156.200	160.800		x	x	x
64	<i>m), o)</i>	156.225	160.825		x	x	x
05	<i>m), o)</i>	156.250	160.850		x	x	x
65	<i>m), o)</i>	156.275	160.875		x	x	x
06	<i>f)</i>	156.300		x			
66	<i>m), o)</i>	156.325	160.925		<u>x</u>	x	x
07	<i>m), o)</i>	156.350	160.950		<u>x</u>	x	x
67	<i>h)</i>	156.375	156.375	x	x		
08		156.400		x			
68		156.425	156.425		x		
09	<i>i)</i>	156.450	156.450	x	x		
69		156.475	156.475	x	x		
10	<i>h), q)</i>	156.500	156.500	x	x		
70	<i>f), j)</i>	156.525	156.525	Digital selective calling for distress, safety and calling			
11	<i>q)</i>	156.550	156.550		x		
71		156.575	156.575		x		
12		156.600	156.600		x		
72	<i>i)</i>	156.625		x			
13	<i>k)</i>	156.650	156.650	x	x		
73	<i>h), i)</i>	156.675	156.675	x	x		
14		156.700	156.700		x		
74		156.725	156.725		x		
15	<i>g)</i>	156.750	156.750	x	x		
75	<i>n)</i>	156.775	156.775		x		

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	
16	<i>f)</i>	156.800	156.800	DISTRESS, SAFETY AND CALLING			
76	<i>n)</i>	156.825	156.825		x		
17	<i>g)</i>	156.850	156.850	x	x		
77		156.875		x			
18	<i>m)</i>	156.900	161.500		x	x	x
78	<i>m)</i>	156.925	161.525		<u>x</u>	x	x
19	<i>m)</i>	156.950	161.550		<u>x</u>	x	x
79	<i>m)</i>	156.975	161.575		<u>x</u>	x	x
20	<i>m)</i>	157.000	161.600		<u>x</u>	x	x
80	<i>m)</i>	157.025	161.625		<u>x</u>	x	x
21	<i>m)</i>	157.050	161.650		<u>x</u>	x	x
81	<i>m)</i>	157.075	161.675		<u>x</u>	x	x
22	<i>m)</i>	157.100	161.700		x	x	x
82	<i>m), o)</i>	157.125	161.725		x	x	x
23	<i>m), o)</i>	157.150	161.750		x	x	x
83	<i>m), o)</i>	157.175	161.775		x	x	x
24	<i>m), <math>\varnothing_{\lambda, S}</math></i>	157.200	161.800		x	x	x
84	<i>m), <math>\varnothing_{\lambda, S}</math></i>	157.225	161.825		x	x	x
25	<i>m), <math>\varnothing_{\lambda, S}</math></i>	157.250	161.850		x	x	x
85	<i>m), <math>\varnothing_{\lambda, S}</math></i>	157.275	161.875		x	x	x
26	<i>m), <math>\varnothing_{\lambda, S}</math></i>	157.300	161.900		x	x	x
86	<i>m), <math>\varnothing_{\lambda, S}</math></i>	157.325	161.925		x	x	x
27	<i>r)</i>	157.350	161.950			x	x
87		157.375	157.375		x		
28	<i>r)</i>	157.400	162.000			x	x
88		157.425	157.425		x		
AIS 1	<i>f), l), p)</i>	161.975	161.975				
AIS 2	<i>f), l), p)</i>	162.025	162.025				

**Reasons:** Proposed changes to the Table will allow for more flexibility for simplex (single-channel) use of duplex channels. Additional notes are added to identify channels for E-Navigation and protection of AIS 1 and AIS 2.

## Notes referring to the Table

### General notes

#### MOD USA/AI 1.10/3

c) The channels of the present Appendix, ~~but preferably channel 28 and~~ 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.

**Reasons:** Proposed change reflects the need to protect AIS 1 and AIS 2 from adjacent band interference from channel 28.

#### MOD USA/AI 1.10/4

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, AIS, and E-Navigation data exchange frequencies, especially the channels 06, 13, 15, 16, 17, ~~and 70,~~ 24, 25, 26, 84, 85, 86, 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-07)

**Reasons:** Proposed changes to Note e) identify AIS and E-Navigation channels as additional channels requiring protection from channel interleaving.

#### MOD USA/AI 1.10/5

n) 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, e.g. by limiting the output power to 1 W or by means of geographical separation. These channels are also used for long range detection of AIS in accordance with recommendation ITU-R M.1371.

**Reasons:** Proposed change protects the channels intended to be used for long-range detection of AIS from harmful interference.

**ADD** USA/AI 1.10/6

r) When using these channels (27 and 28), all precautions should be taken to avoid harmful interference to AIS 1 and AIS 2. (WRC-12)

**Reasons:** Proposed change protects AIS 1 and AIS 2 from harmful interference.

**ADD** USA/AI 1.10/7

s) These channels are designated for the exchange of data for E-Navigation (operations of safety systems for ships and ports) in accordance with Recommendation ITU-R M.1842. (WRC-12)

**Reasons:** Proposed Note s) identifies channels for E-Navigation in Appendix 18.

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**Document WAC/076(28.07.10)**

Ms. Mindel De La Torre  
Chief of the International Bureau  
Federal Communications Commission  
445 12<sup>th</sup> Street SW  
Washington, DC 20554

Dear Ms. De La Torre:

The National Telecommunications and Information Administration (NTIA), on behalf of the Executive Branch agencies, approve the release of a draft Executive Branch proposal for WRC-12 agenda item 1.25. NTIA proposes no change for some of the candidate frequency bands for potential mobile-satellite services allocations.

NTIA considered the Federal agencies' input toward the development of U.S. proposals for WRC-12. NTIA forwards this package for consideration and review by your WRC-12 Advisory Committee. Dr. Darlene Drazenovich is the primary contact from my staff.

Sincerely,

*(Original Signed July 13, 2010)*

Karl B. Nebbia  
Associate Administrator  
Office of Spectrum Management



**UNITED STATES OF AMERICA**  
**DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE**

**Agenda Item 1.25:** *to consider possible additional allocations to the mobile-satellite service, in accordance with Resolution 231 (WRC-07)*

**Background Information:** WRC-12 will consider possible allocations to the mobile-satellite service (MSS), particularly in the 4-16 GHz range, based on the results of ITU-R sharing and compatibility studies and without placing undue constraints on the existing services. The ITU-R studies to date on some of the possible bands indicate difficulties in sharing with existing services. For other possible bands, the ITU-R did not conduct studies. Therefore, this proposal advocates no change in the spectrum allocations listed below due to the results of the ITU-R sharing studies.

**5 150 – 5 250 MHz Band**

Some administrations are considering the band 5 150-5 250 MHz for MSS downlinks. This band is allocated to the aeronautical radionavigation service (ARNS), the fixed-satellite service (FSS) (Earth-to-space) and the mobile (except aeronautical mobile) service on a primary basis. This band is also allocated to the aeronautical mobile service on a primary basis in some countries through No. **5.446C**. The ITU-R has not conducted studies between the MSS and ARNS. The ITU-R identified this ARNS allocation as a candidate band for UAS sense and avoid (S&A) applications. The ITU-R conducted studies between the MSS (geostationary orbit (GSO) spacecraft utilizing multi-beam downlink antennas) and FSS (feeder uplinks to non-GSO MSS systems). The ITU-R studies do not fully quantify the constraints necessary on the proposed MSS downlinks to avoid interference to the FSS (MSS Feeder uplinks) space station receiver, especially if the MSS system uses non-GSO satellites.

Radio local area network (RLAN) systems operate in this band, limited to indoor use and power constraints through Resolution **229 (WRC-03)**. The MSS Earth Stations (MESs) may receive interference from the RLANs in certain circumstances.

**7 055 – 7 250 MHz Band**

Some administrations are considering the band 7 055 – 7 250 MHz for MSS downlinks. The entire band is allocated to the fixed and mobile services. The ITU-R conducted limited studies between the MSS (GSO) and fixed service (FS) indicating sharing difficulties. Studies of non-GSO MSS systems may produce similar results.

Systems in the FS between 7125 – 7250 MHz operate point-to-point microwave data communication links for backbone networks to transport voice, video, and data traffic to support various missions, including air traffic control information. These links are critical for control of aircraft during all phases of flight and under all weather conditions. The point-to-point microwave communication links also interconnect multiple local vessel traffic systems (VTS) radar and radio communications sites important for marine traffic in enclosed waterways.

The sub-band 7 145 – 7 235 MHz band is allocated to the space research service (SRS) (Earth-to-space). ITU-R studies have shown a strong potential for interference into the SRS space stations from MSS satellites unless extraordinary mitigation techniques are applied. Large exclusion zones are needed around SRS earth stations to prevent interference with MESs.

### **8 400 – 8 500 MHz Band**

Some administrations are considering the band 8 400 – 8 500 MHz for MSS uplinks. This band is allocated to the fixed, mobile, and space research (space-to-Earth) services.

The 8 400 – 8 450 MHz sub-band is used for SRS deep space applications. Large exclusion zones (several hundred km over land, longer over water) are needed around SRS earth stations to prevent interference from MESs. The required separation distances would make large areas unavailable for MSS use, despite the relatively low number of SRS earth stations. The MSS satellites could be subject to excessive interference during SRS mission phases when the SRS spacecraft is in the near-Earth environment.

In conjunction with the frequency band 7125 – 7250 MHz, systems operating in this band perform point-to-point microwave data communications links for backbone networks to transport voice, video, and data traffic to support various missions, including air traffic control information. These links are critical for control of aircraft during all phases of flight and under all weather conditions. The point-to-point microwave communications links also interconnect multiple local VTS radar and radio communications sites important for marine traffic in enclosed waterways.

The ITU-R has conducted limited studies between the MSS and FS, which indicate sharing difficulties. As with the 7 055 – 7 250 MHz band, the ITU-R only conducted studies in the 8 400 – 8 500 MHz band for GSO MSS systems and it is likely that studies of non-GSO systems will produce less favorable results.

### **10.5 – 10.6 GHz Band**

Some administrations are considering the band 10.5-10.6 GHz for MSS downlinks. The band is allocated to the fixed and mobile services. In the sub-band 10.5-10.55 GHz, the band is allocated to the radiolocation service on a secondary basis in Region 1 and on a primary basis in Regions 2 and 3. In the sub-band 10.55-10.6 GHz, radiolocation is secondary. The ITU-R has not conducted studies between the MSS and radiolocation.

### **13.25 – 13.4 GHz Band**

Some administrations are considering the band 13.25 – 13.4 GHz for MSS downlinks. The band is allocated to the Earth exploration-satellite service (EESS) (active) and space research service (SRS) (active) on a primary basis. The band is also allocated to the aeronautical radionavigation service on a primary basis, limited to use for Doppler navigation aids through No. **5.497**.

Airborne Doppler navigation systems installed in aircraft for this band (helicopters as well as certain airplanes) perform specialized applications such as continuous determination of ground speed and drift angle information of an aircraft with respect to the ground. The Radio Technical Commission for Aeronautics (RTCA) has developed a standard for this equipment: DO-158 - Minimum Operational Performance Standards (MOPS) – Airborne Doppler Radar Navigation Equipment.

ITU-R studies did not evaluate the effects of the MSS on the EESS and SRS, to include the three types of EESS (active) instruments: scatterometers, altimeters and precipitation radars. MESs will also be susceptible to interference from the EESS (active) and SRS (active) space stations. The ITU-R has not conducted studies between the MSS and the Doppler radars. The ITU-R has also identified this band for potential UAS S&A applications under agenda item 1.3.

**15.43 – 15.63 GHz Band**

Some administrations are considering the 15.43-15.63 GHz band for MSS uplinks. The band is allocated to FSS (Earth-to-space), limited to feederlinks for non-GSO MSS systems through No. **5.511A**. The band is also allocated to ARNS and provision No. **4.10** of the RR applies.

ITU-R studies show co-coverage sharing between the MSS and aircraft landing systems (ALS) and aircraft multipurpose radars (MPR) will be difficult. There is no evidence of FSS use of this band. WRC-12 agenda item 1.21 considers an allocation in the 15.4-15.7 GHz band to the radiolocation service. Preliminary ITU-R studies between MSS and radiolocation indicate a single MES will cause interference into the radar, with additional MESs causing more interference. WRC-12 agenda item 1.3 considers a portion of the 15.4-15.7 GHz band for UAS S&A applications in the existing ARNS allocation or UAS command applications in a new aeronautical mobile-satellite (route) service allocation.

**Proposal:**

**ARTICLE 5**

**Frequency allocations**

**Section IV – Table of Frequency Allocations**

(See No. 2.1)

**NOC** USA/1.25/1

**4 800-5 570 MHz**

<b>Allocation to services</b>		
<b>Region 1</b>	<b>Region 2</b>	<b>Region 3</b>
<b>5 150-5 250</b>	AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE (Earth-to-space) 5.447A MOBILE except aeronautical mobile 5.446A 5.446B 5.446 5.446C 5.447 5.447B 5.447C	

**Reasons:** Studies have shown that compatibility between the MSS and the existing services will be difficult, if not impossible, to achieve, and there are insufficient assurances that the existing services will be able to operate without unacceptable interference from the MSS.

**NOC** USA/1.25/2

**5 570-7 250 MHz**

<b>Allocation to services</b>		
<b>Region 1</b>	<b>Region 2</b>	<b>Region 3</b>
<b>6 700-7 075</b>	FIXED FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.441 MOBILE 5.458 5.458A 5.458B 5.458C	
<b>7 075-7 145</b>	FIXED MOBILE 5.458 5.459	
<b>7 145-7 235</b>	FIXED MOBILE SPACE RESEARCH (Earth-to-space) 5.460 5.458 5.459	
<b>7 235-7 250</b>	FIXED MOBILE 5.458	

**Reasons:** Studies have shown that compatibility between the MSS and the existing services will be difficult, if not impossible, to achieve, and there are insufficient assurances that the existing services will be able to operate without unacceptable interference from the MSS.

**NOC** USA/1.25/3

**7 250-8 500 MHz**

<b>Allocation to services</b>		
<b>Region 1</b>	<b>Region 2</b>	<b>Region 3</b>
<b>8 400-8 500</b>	FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth) 5.465 5.466	

**Reasons:** Studies have shown that compatibility between the MSS and the existing services will be difficult, if not impossible, to achieve, and there are insufficient assurances that the existing services will be able to operate without unacceptable interference from the MSS.

**NOC** USA/1.25/4

**10-11.7 GHz**

<b>Allocation to services</b>		
<b>Region 1</b>	<b>Region 2</b>	<b>Region 3</b>
<b>10.5-10.55</b> FIXED MOBILE Radiolocation	<b>10.5-10.55</b> FIXED MOBILE RADIOLOCATION	
<b>10.55-10.6</b>	FIXED MOBILE except aeronautical mobile Radiolocation	

**Reasons:** Studies have shown that compatibility between the MSS and the existing services will be difficult, if not impossible, to achieve, and there are insufficient assurances that the existing services will be able to operate without unacceptable interference from the MSS.

**NOC**            USA/1.25/5

<b>11.7-14 GHz</b>		
<b>Allocation to services</b>		
<b>Region 1</b>	<b>Region 2</b>	<b>Region 3</b>
<b>13.25-13.4</b>	EARTH EXPLORATION-SATELLITE (active) AERONAUTICAL RADIONAVIGATION 5.497 SPACE RESEARCH (active) 5.498A 5.499	

**Reasons:** Studies have shown that compatibility between the MSS and the existing services will be difficult, if not impossible, to achieve, and there are insufficient assurances that the existing services will be able to operate without unacceptable interference from the MSS.

**NOC**                    USA/1.25/6

<b>15.4-18.4 GHz</b>		
<b>Allocation to services</b>		
<b>Region 1</b>	<b>Region 2</b>	<b>Region 3</b>
<b>15.43-15.63</b>	FIXED-SATELLITE SERVICE (Earth-to-space) 5.511A AERONAUTICAL RADIONAVIGATION 5.511C	

**Reasons:** Studies have shown that compatibility between the MSS and the existing services will be difficult, if not impossible, to achieve, and there are insufficient assurances that the existing services will be able to operate without unacceptable interference from the MSS.

**Document WAC/077(28.07.10)**

Ms. Mindel De La Torre  
Chief of the International Bureau  
Federal Communications Commission  
445 12<sup>th</sup> Street SW  
Washington, DC 20554

Dear Ms. De La Torre:

The National Telecommunications and Information Administration (NTIA), on behalf of the Executive Branch agencies, approve the release of a draft Executive Branch proposal for WRC-12 agenda item 7 (satellite network filings). NTIA proposes to modify Nos. 11.41 and 11.43C.

NTIA considered the Federal agencies' input toward the development of U.S. proposals for WRC-12. NTIA forwards this package for consideration and review by your WRC-12 Advisory Committee. Dr. Darlene Drazenovich is the primary contact from my staff.

Sincerely,

*(Original Signed July 14, 2010)*

Karl B. Nebbia  
Associate Administrator  
Office of Spectrum Management

## UNITED STATES OF AMERICA

### DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE

**Agenda Item 7:** *to consider possible changes in response to Resolution 86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference: “Advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks”, in accordance with Resolution 86 (Rev.WRC-07)*

**Background Information:** The Working Party of the Special Committee on Regulatory and Procedural Matters (SC-WP) is considering the application of Nos. **11.41** and **11.42**, in particular, the case of an interference complaint received within the four month period indicated in No. **11.41**.

The BR’s initial proposal suggested that: “[i]f the interference is not eliminated by the end of the four-month period envisaged for simultaneous operation, the Bureau cancels the “incoming” assignment (i.e. the one recorded under No. **11.41**) and informs the concerned administration accordingly.”

The BR proposal provides excessive control to the administration claiming interference, since there is no requirement to present proof of harmful interference. In the case of actual harmful interference, it may take considerable time to establish the source of interference potentially resulting in automatic cancellation in case of unresolved complaints under the BR and SC-WP proposal.

The SC-WP also considered complaints of interference received after the four-month period. The BR’s initial proposal suggested that: “For complaint received beyond the four month period indicated in No. **11.41**, it requests the administration responsible for the “incoming” assignment (i.e. the one recorded under No. **11.41**) to eliminate the harmful interference immediately under No. **11.42**. The matter is thereafter dealt with in accordance with the procedures set forth in Article **15** of the Radio Regulations.”

In summary, if an interference complaint is received against a new assignment within the first four months of a new assignment and the interference is not eliminated, the BR will cancel the new assignment. If an interference complaint is received after the first four months, the BR will ask the new assignee to eliminate the interference immediately and Article **15** applies.

Also, the BR addressed definitive and provisional recordings of frequency assignments and related articles of the Radio Regulations. An assignment receiving an unfavorable finding for not completing coordination and filing under No.**11.41** is considered as “provisional.” If no interference has occurred between the provisional assignment and any assignment for which was the basis for the unfavorable finding during the four month period, then the provisional is changed to “definitive.” An assignment recorded under No. **11.41**, even if the status changes from provisional to definitive, is still considered by the BR at a lower status to the assignment for which the unfavorable finding was based under No.**11.32A**.

There should be no difference in treatment applied to situations where the interference complaints occur within or outside the four-month period. Therefore, an assignment recorded under No. **11.41** should be equal to the status of the existing assignment which was the basis for the unfavorable findings under No.**11.32A** if coordination with the latter is completed and should not be seen as “always lower.” This could be a disincentive to complete coordination.

This proposal modifies Article 11 of the Radio Regulations to clarify that interference complaints related to Nos. 11.41 and 11.42 should be treated equally following the provisions of Article 15. The status of an assignment initially recorded under No. 11.41 should be equal to the status of the existing assignment which was the basis for the unfavorable findings under No. 11.32A if coordination is later completed with respect to that existing assignment.

**Proposals:**

**ARTICLE 11**

**Notification and recording of frequency assignments<sup>1, 2, 3, 4, 5, 6, 7</sup> (WRC-07)**

**Section II – Examination of notices and recording of frequency assignments in the Master Register**

**MOD** USA/7/1

**11.42** Should harmful interference be caused by an assignment recorded either provisionally or definitively under No. 11.41 to any recorded assignment which was the basis of the unfavourable finding, the station using the frequency assignment recorded under No. 11.41 shall, upon receipt of advice thereof under the provisions of Article 15, immediately eliminate this harmful interference.

**Reasons:** To clarify that the harmful interference situations addressed in No.11.42 should be addressed treated equally following the provisions of Article 15 instead of using a specific procedure applicable only to such situations.

**MOD** USA/7/2

**11.43C** Where the notifying administration resubmits the notice and the Bureau finds that the coordination procedures specified in No. 11.32 have been successfully completed with all administrations whose space or terrestrial radiocommunication stations may be affected, the assignment shall be recorded in the Master Register. The date of receipt by the Bureau of the original notice shall be entered in the appropriate column of the Master Register. The date of receipt by the Bureau of the resubmitted notice shall be entered in the “Remarks” column and any conditions related to initial recording under No. 11.41 shall be removed.

**Reasons:** To ensure the status of an assignment initially recorded under No. 11.41 is equal to the status of the existing assignment which was the basis for the unfavourable findings under No. 11.32A if coordination is later completed with respect to that existing assignment.

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