

## ***WAC Informal Working Group (IWG)-1***

Modifications to NTIA's Proposal on  
Agenda Item 1.9

Preparation for ITU Radiocommunication Conferences

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

**Agenda Item 1.9:** to revise frequencies and channeling 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;

---

<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*

- 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 digitally modulated emissions 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.

Deleted: digital data transmissions

**Proposal:**

**MOD** USA/AI 1.9/1

Formatted: Normal, Tabs: 36 pt, Left + 67.5 pt, Left + 113.4 pt, Left + 255.15 pt, Left + 297.7 pt, Left + 439.45 pt, Left

APPENDIX 17 (REV.WRC-12)

Deleted: 03

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

(See Article 52)

**PART A – Table of subdivided bands** (WRC-12)

Deleted: 03

*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.

<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**

Band (MHz)	4	6	8	12	16	18/19	22	25/26
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) hh)</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

**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)	4 146	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>  <i>2 f.</i> <i>3 kHz</i>	<b>6 225.4</b> to <b>6 231.4</b>  <i>3 f.</i> <i>3 kHz</i>	<b>8 295.4</b> to <b>8 298.4</b>  <i>2 f.</i> <i>3 kHz</i>	<b>12 354.4</b> to <b>12 366.4</b>  <i>5 f.</i> <i>3 kHz</i>	<b>16 529.4</b> to <b>16 547.4</b>  <i>7 f.</i> <i>3 kHz</i>	<b>18 826.4</b> to <b>18 844.4</b>  <i>7 f.</i> <i>3 kHz</i>	<b>22 160.4</b> to <b>22 178.4</b>  <i>7 f.</i> <i>3 kHz</i>	<b>25 101.4</b> to <b>25 119.4</b>  <i>7 f.</i> <i>3 kHz</i>
Limits (kHz)	4 152	6 233	8 300	12 368	16 549	18 846	22 180	25 121
<u>Frequencies assignable to ship stations for data transmission <i>p) ee)</i></u>								
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>								
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 <i>d) p) aa) bb) cc)</i></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>

- Formatted: Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around
- Formatted: Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around
- Formatted: Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around
- Formatted: Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around
- Deleted: 4 154 .  
to .  
4 170 .  
... [1]
- Deleted: 6 235 .  
to .  
... [2]
- Deleted: 8 302 .  
to .  
... [3]
- Deleted: 12 370 .  
to .  
... [4]
- Deleted: 16 551 .  
to .  
... [5]
- Deleted: 18 848 .  
to .  
... [6]
- Deleted: 22 182 .  
to .  
... [7]
- Deleted: 25 123 .  
to .  
... [8]
- Deleted: Frequencies assignable to ship stations for wide-band telegraphy, ... [9]
- Formatted ... [10]
- Formatted: Font: Italic ... [11]
- Formatted Table ... [12]
- Deleted: 6 261.3 .  
to .  
... [13]
- Deleted: 8 340.3 .  
to .  
... [14]
- Deleted: 12 420.3 .  
to .  
... [15]
- Deleted: 16 617.3 .  
to .  
... [16]
- Deleted: 22 240.3 .  
to .  
... [17]
- Formatted ... [18]
- Formatted ... [19]

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)</i>	4 176 to 4 178 <i>5 f.</i> 0.5 kHz	6 266.5 to 6 268.5 <i>5 f.</i> 0.5 kHz						
Limits (kHz)	4 178.25	6 268.75	8 341.75	12 421.75	16 618.75	18 870	22 241.75	25 161.25
Frequencies assignable to ship stations for data transmission <i>d) p) aa) bb) cc)</i>								
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

- Formatted: Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around
- Formatted: Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around
- Deleted: 2.5...81.5...18... [20]
- Deleted: 75.5...2 [21]
- Deleted: m) p)
- Formatted: Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around
- Formatted [22]

**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
Frequencies assignable to ship stations for data transmission <i>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 assignable to ship stations for data transmission <i>d) p) aa) bb) cc)</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
Frequencies assignable to ship stations for data transmission <i>m) p)</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
Frequencies assignable to ship stations for data transmission <i>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
Frequencies assignable to ship stations for data transmission <i>p) m)</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

- Formatted Table
- Formatted: Not Highlight
- Formatted: Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around
- Formatted [23]
- Deleted: Calling frequencies at [24]
- Deleted: 6 281 [25]
- Deleted: Frequencies (paired) [26]
- Deleted: Working frequencies [27]
- Formatted [28]
- Formatted Table
- Deleted: 4 187 [29]
- Deleted: 8 342 [30]
- Deleted: 16 619 [31]
- Deleted: 25 161.5 [32]
- Deleted: 31 f. [33]
- Deleted: 110 f. [34]
- Deleted: 75 f. [35]
- Formatted [36]
- Deleted: Calling frequencies at [37]
- Formatted [38]
- Deleted: g)
- Formatted [39]
- Deleted: 8 371 [40]
- Deleted: Working frequencies [41]
- Formatted [42]
- Deleted: e) f
- Formatted [43]

**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)	4 202.25	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)</i>			8 376.5 to 8 378.5 <i>5 f.</i> 0.5 kHz					
Limits (kHz)	4 202.25	6 300.25	8 378.75	12 476.75	16 683.25	18 870	22 284.25	25 172.75
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	12 517.25	16 693.25	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 200 bauds for PSK <i>d) j)</i>				12 517.5 to 12 522 <i>10 f.</i> 0.5 kHz	16 693.5 to 16 696.5 <i>7 f.</i> 0.5 kHz			
Limits (kHz)	4 202.25	6 300.25	8 396.25	12 522.25	16 696.75	18 892.75	22 351.75	25 192.75
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
Frequencies assignable to ship stations for data transmission <i>qu) 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 assignable to ship stations for data transmission <i>aa) bb) cc)</i> <i>d) p)</i>								
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

Formatted: Res\_title, Space Before: 0 pt

Formatted Table

Deleted: 12 477 .  
to  
12 549.5 .  
146 f.  
0.5 kHz

Deleted: 16 683.5 .  
to  
16 733.5 .  
101 f.  
0.5 kHz

Deleted: 18 870.5 .  
to  
18 892.5 .  
45 f.  
0.5 kHz

Deleted: 22 284.5 .  
to  
22 351.5 .  
135 f.  
0.5 kHz

Deleted: 25 173 .  
to  
... [44]

Deleted: 96

Deleted: 40

Deleted: m) p)

Formatted Table

Deleted:

Formatted: Font: Italic

Formatted: Font: Italic

Deleted: Calling frequencies at ... [45]

Formatted ... [46]

Formatted Table

Deleted: )

Formatted: Font: Italic

Formatted: Font: Italic

Formatted ... [47]

Formatted ... [48]

Deleted: 12 555 . ... [49]

Deleted: 16 739 . ... [50]

Formatted ... [51]

Deleted: Frequencies (paired) ... [52]

Formatted ... [53]

Deleted: m)

Formatted Table

**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
Frequencies (non paired) assignable to ship stations for data transmission systems <i>b) p) dd) m)</i>								
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 <i>k) l)</i>	<b>4 207.5</b> to <b>4 209</b> <i>4 f.</i> <i>0.5 kHz</i>	<b>6 312</b> to <b>6 313.5</b> <i>4 f.</i> <i>0.5 kHz</i>	<b>8 414.5</b> to <b>8 416</b> <i>4 f.</i> <i>0.5 kHz</i>	<b>12 577</b> to <b>12 578.5</b> <i>4 f.</i> <i>0.5 kHz</i>	<b>16 804.5</b> to <b>16 806</b> <i>4 f.</i> <i>0.5 kHz</i>	<b>18 898.5</b> to <b>18 899.5</b> <i>3 f.</i> <i>0.5 kHz</i>	<b>22 374.5</b> to <b>22 375.5</b> <i>3 f.</i> <i>0.5 kHz</i>	<b>25 208.5</b> to <b>25 209.5</b> <i>3 f.</i> <i>0.5 kHz</i>
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
Frequencies assignable to coast stations for data transmission <i>n) o) p) aa) bb) cc)</i>								
Limits (kHz)	<u>4 213.75</u>	<u>6 317.75</u>	<u>8 416.25</u>	<u>12 619.75</u>	<u>16 816.75</u>	<u>19 703.25</u>	<u>22 443.75</u>	<u>26 120.75</u>
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 <i>d)</i>	<b>4 214</b> to <b>4 215.5</b> <i>4 f.</i> <i>0.5 kHz</i>	<b>6 318</b> to <b>6 319.5</b> <i>4 f.</i> <i>0.5 kHz</i>	<b>8 416.5</b> to <b>8 418.5</b> <i>5 f.</i> <i>0.5 kHz</i>	<b>12 620</b> to <b>12 624</b> <i>9 f.</i> <i>0.5 kHz</i>	<b>16 817</b> to <b>16 819.5</b> <i>6 f.</i> <i>0.5 kHz</i>			
Limits (kHz)	<u>4 215.75</u>	<u>6 319.75</u>	<u>8 418.75</u>	<u>12 624.25</u>	<u>16 819.75</u>	<u>19 703.25</u>	<u>22 443.75</u>	<u>26 120.75</u>
Frequencies assignable to coast stations for data transmission <i>d) p) aa) bb) cc)</i>								
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

**Formatted:** Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around

**Formatted Table**

**Deleted:** 4 202.5 to 4 207...10 f. . . . . [54]  
*0.5 kHz*

**Deleted:** 8 396.5 to 8 414...36 f. . . . . [55]  
*0.5 kHz*

**Deleted:** 16 785 to 16 804 . . . . . [56]  
*39 f.*  
*0.5 kHz*

**Deleted:** 22 352 to 22 374...45 f. . . . . [57]  
*0.5 kHz*

**Deleted:** 23 f. . . . . [58]  
*0.5 kHz*

**Deleted:** 34 f. . . . . [59]  
*0.5 kHz*

**Deleted:** 11 f. . . . . [60]  
*0.5 kHz*

**Deleted:** 31 f. . . . . [61]  
*0.5 kHz*

**Deleted:** NBDP telegraphy and...at speeds not exceeding 100 Bd for FSK and 200 Bd for PSK and for A1A or A1B Morse telegraphy (working) . . . . . [62]

**Formatted** . . . . . [63]

**Formatted:** Font: Italic

**Deleted:** 19 680.5 to 19 703 . . . . . [64]  
*46 f.*  
*0.5 kHz*

**Deleted:** 09.5...19...20... . . . . . [65]

**Deleted:** ...579...12 656.5 . . . . . [66]

**Deleted:** 06.5...16 902.5...193 . . . . . [67]

**Deleted:** 30...3... . . . . . [68]

**Deleted:** 40

**Deleted:** 156

**Deleted:** n) o) p)

**Formatted:** Font: Italic

**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)**

<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)	4 221	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, 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>	<b>6 502.4</b> to <b>6 523.4</b>	<b>8 708.4</b> to <b>8 813.4</b>	<b>13 078.4</b> to <b>13 198.4</b>	<b>17 243.4</b> to <b>17 408.4</b>	<b>19 756.4</b> to <b>19 798.4</b>	<b>22 697.4</b> to <b>22 853.4</b>	<b>26 146.4</b> to <b>26 173.4</b>
	<i>29 f.</i> <i>3 kHz</i>	<i>8 f.</i> <i>3 kHz</i>	<i>36 f.</i> <i>3 kHz</i>	<i>41 f.</i> <i>3 kHz</i>	<i>56 f.</i> <i>3 kHz</i>	<i>15 f.</i> <i>3 kHz</i>	<i>53 f.</i> <i>3 kHz</i>	<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

Deleted: and A1A or A1B Morse telegraphy

**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 subject to not claiming protection from other stations, 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.

**Formatted:** Font: 12 pt, Not Highlight

**Deleted:** (working) (see Part B, Section II)

**Deleted:** .

**Formatted:** Font: 12 pt, Not Highlight

**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 for maritime mobile service (e.g. as described in Recommendation ITU-R M.1798).

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

**Deleted:** 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

**ADD** USA/AI 1.9/12

Note *aa*) Until 1 January 2015, these bands may be used by 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.

Deleted: .

**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 affected administrations.

Formatted: Table Legend, Left, Indent: Left: -4.5 pt, First line: 0 pt, Space After: 0 pt, Tabs: -4.5 pt, Left

**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.

Formatted: Table Legend, Indent: Left: 0 pt, Hanging: 28.35 pt, Space After: 0 pt

**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.

Deleted: ¶

**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

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 in the maritime mobile .

Deleted: .

**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

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 in the maritime mobile service .

Formatted: Not Highlight

Formatted: Not Highlight

Formatted: Font: Bold

**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.

- Formatted: Tabs: 58.5 pt, Left + Not at 63 pt
- Formatted: Font: Not Bold
- Formatted: Left, Indent: Left: 0 pt, First line: 0 pt, Tabs: 49.5 pt, Left

**ADD** USA/AI 1.9/19

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 digitally modulated emissions on condition that harmful interference is not caused to and protection is not claimed from other stations in the maritime mobile service using radiotelephony operations. The digitally modulated emissions may be used provided that their occupied bandwidth does not exceed 2 800 Hz, it is situated wholly within one frequency channel and the peak envelope power of coast stations does not exceed 10 kW and the peak envelope power of ship stations does not exceed 1.5 kW for per channel.

**Reasons:** Allows additional use for digitally modulated emission in the RR Appendix 25 bands.

- Formatted: English (U.S.)
- Deleted:
- Formatted: Font: Bold, English (U.S.)
- Formatted: English (U.S.)
- Deleted: 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.¶
- Formatted: Table Legend, Indent: Left: 0 pt, First line: 0 pt, Space After: 0 pt, Tabs: 49.5 pt, Left
- Deleted:
- Deleted: digital data transmissions
- Deleted: 07

**PART B – Channelling arrangements** (WRC-12)

**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)**

- Formatted: Font: Not Bold
- Formatted: Centered

**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	4 MHz band <sup>1</sup>	6 MHz band <sup>3</sup>	8 MHz band <sup>4</sup>
---------	-------------------------	-------------------------	-------------------------

No.	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.

- Formatted: Normal
- Formatted: Font: Not Bold, French (France)
- Formatted: Font: Not Bold, French (France)
- Formatted: Centered, Space Before: 0 pt
- Formatted: Font: Bold
- Formatted: Font: 10 pt
- Formatted: Normal
- Formatted Table
- Formatted: Font: Times New Roman, 12 pt
- Formatted: Font: 12 pt
- Formatted: Not Highlight
- Formatted: Font: Times New Roman, 12 pt, Not Highlight
- Formatted: Font: 12 pt

TABLE 17b (end)

Formatted: Font: Not Bold

<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-12The World Radiocommunication Conference (Geneva, 2012).*considers*

- 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)

Formatted: Font: Not Bold, English (U.S.)

**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.

---

<b>Page 3: [1] Deleted</b>	<b>Author</b> 4 154 to 4 170  <i>5 f.</i> <i>4 kHz</i>
<b>Page 3: [2] Deleted</b>	<b>Author</b> 6 235 to 6 259  <i>7 f.</i> <i>4 kHz</i>
<b>Page 3: [3] Deleted</b>	<b>Author</b> 8 302 to 8 338  <i>10 f.</i> <i>4 kHz</i>
<b>Page 3: [4] Deleted</b>	<b>Author</b> 12 370 to 12 418  <i>13 f.</i> <i>4 kHz</i>
<b>Page 3: [5] Deleted</b>	<b>Author</b> 16 551 to 16 615  <i>17 f.</i> <i>4 kHz</i>
<b>Page 3: [6] Deleted</b>	<b>Author</b> 18 848 to 18 868  <i>6 f.</i> <i>4 kHz</i>
<b>Page 3: [7] Deleted</b>	<b>Author</b> 22 182 to 22 238  <i>15 f.</i> <i>4 kHz</i>
<b>Page 3: [8] Deleted</b>	<b>Author</b>

25 123  
to  
25 159

*10 f.*  
*4 kHz*

**Page 3: [9] Deleted**

**Author**

Frequencies assignable to ship stations for wide-band telegraphy, facsimile and special transmission systems

**Page 3: [10] Formatted**

**Author**

Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin,  
Horizontal: 0 pt, Wrap Around

**Page 3: [11] Formatted**

**Author**

Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin,  
Horizontal: 0 pt, Wrap Around

**Page 3: [12] Formatted**

**Author**

Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin,  
Horizontal: 0 pt, Wrap Around

**Page 3: [13] Deleted**

**Author**

6 261.3  
to  
6 262.5

*5 f.*  
*0.3 kHz*

**Page 3: [14] Deleted**

**Author**

8 340.3  
to  
8 341.5

*5 f.*  
*0.3 kHz*

**Page 3: [15] Deleted**

**Author**

12 420.3  
to  
12 421.5

*5 f.*  
*0.3 kHz*

**Page 3: [16] Deleted**

**Author**

16 617.3  
to  
16 618.5

*5 f.*  
*0.3 kHz*

**Page 3: [17] Deleted**

**Author**

22 240.3  
to

22 241.5

5 f.  
0.3 kHz

Page 3: [18] Formatted	Author
Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around	
Page 3: [19] Formatted	Author
Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around	
Page 4: [20] Deleted	Author
2.5	
Page 4: [20] Deleted	Author
81.5	
Page 4: [20] Deleted	Author
18	
Page 4: [20] Deleted	Author
3	
Page 4: [21] Deleted	Author
75.5	
Page 4: [21] Deleted	Author
2	
Page 4: [22] Formatted	Author
Font: Italic	
Page 4: [22] Formatted	Author
Font: Italic, Not Highlight	
Page 4: [23] Formatted	Author
Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around	
Page 4: [24] Deleted	Author
Calling frequencies assignable to ship stations for A1A or A1B Morse telegraphy	
Page 4: [24] Deleted	Author
g)	
Page 4: [25] Deleted	Author
6 281 to 6 284.5	
8 f. 0.5 kHz	

<b>Page 4: [26] Deleted</b>	<b>Author</b>
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	
<b>Page 4: [26] Deleted</b>	<b>Author</b>
<i>m)</i>	
<b>Page 4: [27] Deleted</b>	<b>Author</b>
Working frequencies assignable to ship stations for A1A or A1B Morse telegraphy <i>e) f)</i>	
<b>Page 4: [28] Formatted</b>	<b>Author</b>
Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around	
<b>Page 4: [29] Deleted</b>	<b>Author</b>
4 187 to 4 202	
<b>Page 4: [29] Deleted</b>	<b>Author</b>
<i>31 f.</i> <i>0.5 kHz</i>	
<b>Page 4: [29] Deleted</b>	<b>Author</b>
6 285 to 6 300	
<b>Page 4: [30] Deleted</b>	<b>Author</b>
8 342 to 8 365.5	
<b>Page 4: [30] Deleted</b>	<b>Author</b>
<i>48 f.</i> <i>0.5 kHz</i>	
<b>Page 4: [30] Deleted</b>	<b>Author</b>
12 422 to 12 476.5	
<b>Page 4: [31] Deleted</b>	<b>Author</b>
16 619 to 16 683	
<b>Page 4: [31] Deleted</b>	<b>Author</b>
<i>129 f.</i> <i>0.5 kHz</i>	
<b>Page 4: [31] Deleted</b>	<b>Author</b>

22 242  
to  
22 279

Page 4: [32] Deleted	Author 25 161.5 to 25 171
Page 4: [32] Deleted	Author 20 f. 0.5 kHz
Page 4: [33] Deleted	Author 31 f. 0.5 kHz
Page 4: [34] Deleted	Author 110 f. 0.5 kHz
Page 4: [35] Deleted	Author 75 f. 0.5 kHz
Page 4: [36] Formatted	Author Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around
Page 4: [37] Deleted	Author Calling frequencies assignable to ship stations for A1A or A1B Morse telegraphy
Page 4: [38] Formatted	Author Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around
Page 4: [39] Formatted	Author Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around
Page 4: [40] Deleted	Author 8 371 to 8 376  11 f. 0.5 kHz
Page 4: [41] Deleted	Author Working frequencies assignable to ship stations for A1A or A1B Morse telegraphy
Page 4: [42] Formatted	Author Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around

<b>Page 4: [43] Formatted</b>	<b>Author</b>
Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around	
<b>Page 5: [44] Deleted</b>	<b>Author</b>
25 173 to 25 192.5  40 f. 0.5 kHz	
<b>Page 5: [45] Deleted</b>	<b>Author</b>
Calling frequencies assignable to ship stations for A1A or A1B Morse telegraphy g	
<b>Page 5: [46] Formatted</b>	<b>Author</b>
Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around	
<b>Page 5: [47] Formatted</b>	<b>Author</b>
Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around	
<b>Page 5: [48] Formatted</b>	<b>Author</b>
Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around	
<b>Page 5: [49] Deleted</b>	<b>Author</b>
12 555 to 12 559.5  10 f. 0.5 kHz	
<b>Page 5: [50] Deleted</b>	<b>Author</b>
16 739 to 16 784.5  92 f. 0.5 kHz	
<b>Page 5: [51] Formatted</b>	<b>Author</b>
Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around	
<b>Page 5: [52] Deleted</b>	<b>Author</b>
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	
<b>Page 5: [53] Formatted</b>	<b>Author</b>
Position: Horizontal: Left, Relative to: Column, Vertical: In line, Relative to: Margin, Horizontal: 0 pt, Wrap Around	
<b>Page 6: [54] Deleted</b>	<b>Author</b>

4 202.5  
to  
4 207

Page 6: [54] Deleted

Author

10 f.  
0.5 kHz

Page 6: [54] Deleted

Author

6 300.5  
to  
6 311.5

Page 6: [55] Deleted

Author

8 396.5  
to  
8 414

Page 6: [55] Deleted

Author

36 f.  
0.5 kHz

Page 6: [55] Deleted

Author

12 560  
to  
12 576.5

Page 6: [56] Deleted

Author

16 785  
to  
16 804

Page 6: [56] Deleted

Author

39 f.  
0.5 kHz

Page 6: [56] Deleted

Author

18 893  
to  
18 898

Page 6: [57] Deleted

Author

22 352  
to  
22 374

Page 6: [57] Deleted

Author

45 f.  
0.5 kHz

Page 6: [57] Deleted

Author

25 193  
to  
25 208

Page 6: [58] Deleted	Author
NBDP telegraphy and	
Page 6: [58] Deleted	Author
at speeds not exceeding 100 Bd for FSK and 200 Bd for PSK and for A1A or A1B Morse telegraphy (working)	
Page 6: [59] Formatted	Author
Not Highlight	
Page 6: [59] Formatted	Author
English (U.S.)	
Page 6: [59] Formatted	Author
English (U.S.)	
Page 6: [60] Deleted	Author
19 680.5 to 19 703	
<i>46 f.</i> <i>0.5 kHz</i>	
Page 6: [60] Deleted	Author
22 376 to 22 443.5	
<i>136 f.</i> <i>0.5 kHz</i>	
Page 6: [60] Deleted	Author
26 100.5 to 26 120.5	
<i>41 f.</i> <i>0.5 kHz</i>	
Page 6: [61] Deleted	Author
09.5	
Page 6: [61] Deleted	Author
19	
Page 6: [61] Deleted	Author
20	
Page 6: [61] Deleted	Author
4	
Page 6: [62] Deleted	Author
Page 6: [62] Deleted	Author

Page 6: [62] Deleted	Author
	12 656.5
Page 6: [63] Deleted	Author
	06.5
Page 6: [63] Deleted	Author
	16 902.5
Page 6: [63] Deleted	Author
	193
Page 6: [64] Deleted	Author
	30
Page 6: [64] Deleted	Author
	3
Page 6: [64] Deleted	Author
	36