

Before the  
Federal Communications Commission  
Washington, D.C. 20554

In the Matter of )  
 )  
Expanding the Economic and Innovation )  
Opportunities of Spectrum Through Incentive ) GN Docket No. 12-268  
Auctions )

ORDER

Adopted: September 11, 2017

Released: September 13, 2017

By the Chief, Office of Engineering and Technology and the Chief, Wireless Telecommunications Bureau:

1. By this Order, we modify the Table of Frequency Allocations (Allocations Table) in Part 2 of the Commission’s rules, as well as four Part 27 rules, to make them correspond to the results of the broadcast television incentive auction (incentive auction).<sup>1</sup>

2. In the 2014 *Incentive Auction R&O*, the Commission adopted rules to implement the incentive auction to allow spectrum that is used for broadcast television under a broadcasting service allocation to be repurposed for new services and applications under fixed and mobile services allocations.<sup>2</sup> Under the auction design, the Commission provided that varying amounts of spectrum within the 512-698 MHz range could potentially be repurposed for such use as a result of the incentive auction. As part of the *Incentive Auction R&O*, the Commission amended the Allocations Table to add entries for primary non-Federal fixed and mobile services in the 512-608 MHz (UHF TV channels 21-36) and 614-698 MHz (UHF TV channels 38-51) bands, as well as corresponding cross-references to the Miscellaneous Wireless Communications Services, Part 27, in the “FCC Rule Part(s)” column of the Allocations Table.<sup>3</sup> Recognizing that the particular amount of television broadcast spectrum that would ultimately be repurposed would not be known until the incentive auction concluded, the Commission adopted specific 600 MHz band plan scenarios that would correspond to a range of different auction results.<sup>4</sup> It further delegated authority to the Chief of the Office of Engineering and Technology to take such actions as are necessary to modify the Allocations Table to reflect the outcome of the incentive auction.<sup>5</sup> As part of this pre-auction process, the Commission also modified certain of the Part 27 rules to include generic references to the frequencies that could be assigned to new wireless services depending on the outcome of the incentive auction.<sup>6</sup>

<sup>1</sup> The incentive auction was designated as Auction 1000. Further information on the auction is available on the FCC’s auctions website, <https://www.fcc.gov/wireless/auction-1000>.

<sup>2</sup> *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, GN Docket No. 12-268, Report and Order, 29 FCC Rcd 6567 (2014) (*Incentive Auction R&O*).

<sup>3</sup> *Id.* at 6706, para. 319, 6914 (Allocations Table).

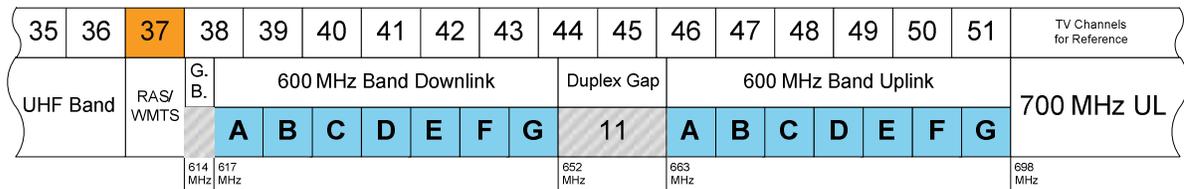
<sup>4</sup> *Id.* at 6585-6595, paras. 45-67.

<sup>5</sup> *Id.* at 6707, para. 321.

<sup>6</sup> *Id.* at 6816-18, App. A (§§ 27.1, 27.5, 27.6, and 27.11).

3. The April 13, 2017 *Closing and Channel Reassignment Public Notice* announced the completion of the reverse and forward auctions and the channel reassignments and reallocations made in the repacking process, including the specific 600 MHz band plan effectuated by the auction and repacking process.<sup>7</sup> Under this band plan (the 600 MHz Band Plan), TV broadcasting spectrum associated with Channels 38-51 (614-698 MHz) was repurposed to include 70 megahertz of licensed spectrum (seven paired five megahertz channel blocks) for 600 MHz service wireless licensees that will operate under Part 27 of the rules.<sup>8</sup> The 600 MHz Band Plan is comprised of: (1) the 600 MHz band licensed for the 600 MHz service wireless licensees (which includes a downlink (617-652 MHz) band and an uplink (663-698 MHz) band); (2) the 600 MHz duplex gap (652-663 MHz) between these bands; and (3) the 600 MHz guard band (614-617 MHz) between Channel 37 (608-614 MHz), which is presently being used by the Wireless Medical Telemetry Service and the Radio Astronomy Service, and the 600 MHz band downlink band (617-652 MHz).<sup>9</sup> The April 13, 2017 release date of the *Closing and Channel Reassignment Public Notice* also triggered the start of the 39-month post-auction transition period, which will end on July 13, 2020.<sup>10</sup> Figure 1 shows the 600 MHz Band Plan.

Figure 1: 600 MHz Band Plan<sup>11</sup>



4. Based on the results of the incentive auction, we hereby modify the Allocations Table. Specifically, we delete the primary fixed and mobile service allocations and Part 27 cross reference from the 512-608 MHz band and return the band to its pre-auction allocation status. We also revise the entries for the 614-698 MHz band by deleting the primary broadcasting service allocation and removing the Part 73 cross reference to account for post-auction fixed and mobile use by 600 MHz service wireless licensees that will operate under Part 27 of the rules and new footnote NG33. This change reflects use of these frequencies for broadcasting during and after the 39-month post-auction transition period as discussed below.<sup>12</sup> In addition, we revise the text of three non-Federal Government footnotes (NG5,

<sup>7</sup> *Incentive Auction Closing and Channel Reassignment Public Notice*, AU Docket No. 14-252 GN Docket No. 12-268, WT Docket No. 12-269, and MB Docket No. 16-306, Public Notice, 32 FCC Rcd 2786 (2017) (*Closing and Channel Reassignment Public Notice*).

<sup>8</sup> *Id.* at 2793, para.15. See 47 CFR §§ 27.4 (defining the “600 MHz service” as a radiocommunication service licensed for the 600 MHz band frequencies specified in Section 27.5(l) of the Part 27 rules) and 27.5(l) (defining the “600 MHz band”).

<sup>9</sup> *Closing and Channel Reassignment Public Notice*, 32 FCC Rcd at 2793, paras. 15-16.

<sup>10</sup> 47 CFR § 27.4 (defining “post-auction transition period” as the 39-month period commencing upon the public release of the *Closing and Channel Reassignment Public Notice*); *Closing and Channel Reassignment Public Notice*, 32 FCC Rcd at 2789, para. 1, 2807, para. 68. By no later than the end of this transition period, all television stations assigned to new channels must complete construction of their post-auction channel facilities, notify viewers of their impending channel move, commence operation on their post-auction channel, and cease operation on their pre-auction channel. *Id.* at 2807, para. 68.

<sup>11</sup> See *The Incentive Auction Task Force and Media Bureau Announce Procedures for Low Power Television, Television Translator and Replacement Translator Stations During the Post-Incentive Auction Transition*, Public Notice, DA 17-442 at 10, para. 23 (rel. May 12, 2017); see also *Incentive Auction Closing and Channel Reassignment Public Notice*, 32 FCC Rcd at 2793, para. 15.

<sup>12</sup> See *infra* para. 5.

NG14, and NG149) that provide for limited flexible use of the television broadcast bands, including the 614-698 MHz band, by providing a cross reference to new footnote NG33.<sup>13</sup>

5. To fully account for the various licensed services and unlicensed devices that will operate in the 614-698 MHz band during and after the transition, we add new footnote NG33 to the Allocations Table.<sup>14</sup> Pursuant to the Commission's direction, the footnote authorizes operations of: (1) full power and Class A television stations on a primary basis in the 614-698 MHz band (i.e., TV channels 38-51) until such stations terminate operations on their pre-auction channels,<sup>15</sup> (2) licensed low power television (LPTV) and TV translator station operations on a secondary basis<sup>16</sup> in the 614-698 MHz band under Part 74 Subpart G,<sup>17</sup> (3) licensed fixed broadcast auxiliary service (BAS) operations (which include TV

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<sup>13</sup> Specifically, licensees of full power, Class A television, LPTV, and TV translator stations operating in the 614-698 MHz band are authorized to provide the following services until the conclusion of the post-auction transition period (i.e., July 13, 2020): Per footnote NG5, TV broadcast licensees and permittees are permitted to use subcarriers on a secondary basis for both broadcast and non-broadcast purposes. Per footnote NG14, TV broadcast stations may use a portion of the television vertical blanking interval for the transmission of telecommunications signals, on the condition that harmful interference will not be caused to the reception of primary services, and that such telecommunications services must accept any interference caused by primary services operating in these bands. Per footnote 149, the 614-698 MHz band is also allocated to the fixed service to permit subscription television operations in accordance with 47 CFR part 73. After July 13, 2020, only LPTV and TV translator stations will operate in the band, and thus these footnotes will be applicable only to those stations.

<sup>14</sup> See Section 27.1310 of the Commission's rules, 47 CFR § 27.1310 (setting forth procedures for operations under Part 27 of the rules during the transition); Sections 15.236, 15.707, 15.713, 47 CFR §§ 15.236, 15.707, 15.713 (setting forth procedures for operations under Part 15 of the rules during and after the transition); Section 73.3700, 47 CFR § 73.3700 (setting forth procedures for operations under Part 73 of the rules during and after the transition); Sections 74.602, 74.802, and 74.870, 47 CFR §§ 74.602, 74.802, 74.870 (setting forth procedures for operations under Part 74 during and after the transition). See also *Expanding the Economic and Innovative Opportunities of Spectrum Through Incentive Auctions*, Third Report and Order and First Order on Reconsideration, 30 FCC Rcd 12049 (2015); *Amendment of Part 15 of the Commission's Rules for Unlicensed Operations in the Television Bands, Repurposed 600 MHz Band, 600 MHz Guard Bands and Duplex Gap, and Channel 37*, GN Docket No. 12-268 and ET Docket No. 14-165, Report and Order, 30 FCC Rcd 9551 (2015) (*Part 15 R&O*).

<sup>15</sup> As defined in Section 73.3700(a)(15) of the Commission's rules, a "transitioning station" means a reassigned station, UHF-to-VHF station, High-VHF-to-Low-VHF station, license relinquishment station, or a channel sharee or sharer station. These transitioning station types are defined in Section 73.3700(a)(3)-(4), (6)-(7), (12), and (17). As set forth in Section 73.3700(b)(4)(i)-(iii), the licensee of a license relinquishment station must comply with the notification and cancellation procedures in Section 73.1750, and terminate operations on its pre-auction channel within three months of the date that the licensee receives its incentive payment; the licensee of a channel sharee station and the licensee of a license relinquishment station that has indicated an intent to enter into a post-auction channel sharing agreement must comply with the notification and cancellation procedures in Section 73.1750 and terminate operations on its pre-auction channel within six months of the date that the licensee receives its incentive payment; and all reassigned stations, UHF-to-VHF stations, and High-VHF-to-Low-VHF stations must cease operating on their pre-auction channel once such station begins operating on its post-auction channel or by the deadline specified in its construction permit for its post-auction channel, whichever occurs earlier, and in no event later than July 13, 2020. 47 CFR §§ 73.3700(a)(3)-(4), (6)-(7), (12), (15), and (17); (b)(4)(i)-(iii).

<sup>16</sup> Under the Commission's rules, stations of a secondary service shall not cause harmful interference to and cannot claim protection from stations of primary services to which frequencies are already assigned or to which frequencies may be assigned at a later date; and can claim protection from stations of the same or other secondary service(s) to which frequencies may be assigned at a later date. 47 CFR § 2.105(c)(2)(i)-(iii).

<sup>17</sup> Specifically, during the post-auction transition period, LPTV and TV translator stations may continue to operate on frequencies in the 614-698 MHz band until a 600 MHz service wireless licensee operating in the 600 MHz band (comprised of a downlink band at 617-652 MHz and an uplink band at 663-698 MHz) commences operation or conducts first field application (FFA) testing, provided that the 600 MHz service wireless licensee has notified the stations in advance that their continued operations are likely to cause harmful interference to the 600 MHz service wireless licensee's operations. LPTV and TV translators also may continue to operate in the 600 MHz band after

(continued....)

studio-transmitter link (STL), TV relay, and TV translator relay station operations) on a secondary basis in the 614-698 MHz band under Part 74 Subpart F,<sup>18</sup> (4) licensed wireless microphone and other low power auxiliary station (LPAS) operations and wireless assist video device (WAVD) operations on a secondary basis under Part 74 Subpart H, (5) unlicensed wireless microphone operations under Part 15 on a non-interference basis,<sup>19</sup> on frequencies in the 614-698 MHz band,<sup>20</sup> and (6) unlicensed white space device operations under Part 15 on a non-interference basis on frequencies in the 614-698 MHz band.<sup>21</sup>

(Continued from previous page)

the end of the post-auction transition period until such time as a 600 MHz service wireless licensee commences operation or conducts FFA testing and has provided the requisite notification set forth in § 73.3700(g)(4)(i)-(v). See 47 CFR § 73.3700(g)(4)(i)-(v). See also *Incentive Auction R&O*, 29 FCC Rcd at 6841-42, paras. 668-71, 6840 n.1863 (subsequent history omitted); *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, GN Docket No. 12-268, Report and Order, 30 FCC Rcd 12025, 12028-29, 12034-12035, paras. 7, 19-20 (2015) (defining the term “commence operations” and creating a limited exception for FAA testing) (*Commencing Operations R&O*). Finally, LPTV and TV translator stations must cease operations in the 600 MHz guard band (614-617 MHz) and the 600 MHz duplex gap (652-663 MHz) no later than the end of the post-auction transition period (i.e., July 13, 2020). 47 CFR § 73.3700(g)(4)(v); see also *Incentive Auction R&O*, 29 FCC Rcd at 6840, para. 669.

<sup>18</sup> Specifically, BAS operations may continue in the 614-698 MHz band on a secondary basis until the end of the post-auction transition (i.e., July 13, 2020), unless they must cease operations at an earlier date because a 600 MHz service wireless licensee commences operation or conducts FFA testing and has provided such stations the requisite notification. 47 CFR § 74.602(h)(5)(i)-(iii), (6); see also *Incentive Auction R&O*, 29 FCC Rcd at 6841-42, paras. 674-676.

<sup>19</sup> As a general condition of operation, Part 15 devices may not cause harmful interference to authorized services, must accept interference that may be caused by the operation of an authorized radio station, another intentional or unintentional radiator, industrial, scientific, and medical (ISM) equipment, or an incidental radiator, and, if causing harmful interference, must cease operation upon notification by the Commission. See 47 C.F.R. § 15.5(b) and (c).

<sup>20</sup> Specifically, until the end of the post-auction transition period (i.e., July 13, 2020), LPAS and WAVDs may be operated on a secondary basis with respect to the incumbent broadcast licensee operations before they transition out of the 614-698 MHz band and with respect to the 600 MHz service wireless licensees’ operations in the 600 MHz band, and unlicensed wireless microphones may operate on a non-interference basis to other incumbent broadcast or 600 MHz service wireless licensees’ operations in the 614-698 MHz band, under the applicable technical and operations rules. 47 CFR §§ 74.802(a)(1), (f); § 74.870(i); § 15.236(c)(1)-(2). Further, LPAS, WAVD, and unlicensed wireless microphone operations are required to cease on frequencies in areas where 600 MHz service wireless licensees commence operations or conduct FFA testing. 47 CFR §§ 74.802(f), 74.870(i), 15.236(c)(2); see also *Part 15 R&O*, 30 FCC Rcd at 9630-31, para. 192, 9659, para. 263; *Commencing Operations R&O*, 30 FCC Rcd 12025. After the end of the transition period (i.e., after July 13, 2020), LPAS operations are permitted only on specified frequencies in the 600 MHz duplex gap (specifically 653-657 MHz), unlicensed wireless microphones operations are permitted only on specified frequencies in the 600 MHz guard band (specifically 614-616 MHz) and the 600 MHz duplex gap (specifically 657-663 MHz), and WAVD operations must cease in the 614-698 MHz band. 47 CFR §§ 74.802(a)(2) and (f), 15.236(c)(3)-(5), 74.870(c)(1)-(2) and (i).

<sup>21</sup> Until the end of the post-auction transition period (i.e., July 13, 2020), unlicensed white space devices may be operated in the 614-698 MHz band on a non-interference basis with respect both to broadcast licensee and 600 MHz service wireless licensee operations (subject to the respective applicable interference protection requirements) in the 614-698 MHz band. Further, both during the post-auction transition period and at any time thereafter, white space devices may operate in the 600 MHz band (i.e., 617-652 MHz and 663-698 MHz) except in those areas where 600 MHz service wireless licensees commence operations or conduct FFA testing and have provided the requisite notice to a white space database administrator. 47 CFR §§ 15.707(a)(1) and (5), 15.713(b)(2)(iv); see also *Incentive Auction R&O*, 29 FCC Rcd at 6843-43, para. 677 (white space devices can continue to operate under Part 15 rules in the spectrum that remains allocated and assigned for broadcast television following the incentive auction), 29 FCC Rcd at 6843-44, para. 680 (in order to preclude white space device operations in areas where a 600 MHz service licensee commences its operations, a 600 MHz service wireless licensee can notify any white space database when and where it intends to commence operations). After the end of the transition period, white space devices also may operate on specific frequencies in the 600 MHz duplex gap (specifically 657-663 MHz). 47 CFR § 15.707(a)(4).

6. Based on the results of the incentive auction, we also modify four rules in Part 27. We revise Section 27.1(b)(14) to replace a generic reference to the 470-698 MHz UHF band with a specific reference to “617-652 MHz and 663-698 MHz,” to follow the 600 MHz Band Plan and be consistent with the way the rule is structured. We also modify Section 27.5, which lists available frequencies, channel blocks, and geographic areas of licensing, by revising paragraph (l) to state that the 600 MHz Band (for the 600 MHz service<sup>22</sup>) consists of seven pairs of 5 megahertz channel blocks available for assignment on a Partial Economic Area basis, and to identify the frequencies associated with blocks A through G. Section 27.6 specifies the Partial Economic Areas for each of the frequency bands and channel blocks listed in Section 27.5. We revise the text of 27.6(l) to reference additional details recently provided by the Wireless Telecommunications Bureau about licensing in the 600 MHz band by Partial Economic Areas.<sup>23</sup> Lastly, we revise Section 27.11(k) to specify the 600 MHz Band (i.e., the 617-652 MHz downlink band and 663-698 MHz uplink band) and to add a cross-reference to the frequency blocks specified in Section 27.5(l).

7. We conclude that there is good cause for not employing the prior notice and comment procedure specified in the Administrative Procedure Act (APA) in this case.<sup>24</sup> The rule modifications here implement the Commission’s prior rulemaking decisions issued following notice-and-comment procedures in the incentive auction proceeding with respect to the 600 MHz Band and the end date of the post-auction transition period. These specific frequency bands and dates were not known until the close of the incentive auction on April 13, 2017 with the release of the *Closing and Channel Reassignment Public Notice*.<sup>25</sup> In implementing these rule revisions, we have no discretion to deviate from the auction results and the Commission’s prior rulemaking decisions. Under these circumstances, we find that notice and comment under Section 553 of the APA, 5 U.S.C. § 553, would be unnecessary.<sup>26</sup>

8. We take this action to modify the Allocations Table and to make conforming amendments to the rules under authority expressly delegated by the Commission in the *Incentive Auction R&O*<sup>27</sup> and the authority delegated in Part 0 of the Commission’s rules.<sup>28</sup> The specific edits to the Allocations Table and service rules described herein are contained in the attached Appendix.

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<sup>22</sup> See 47 CFR § 27.4 (defining the “600 MHz service” as a radiocommunication service licensed for the frequencies specified in Section 27.5(l) of the Commission’s Part 27 rules for Wireless Communications Services).

<sup>23</sup> See *Wireless Telecommunications Bureau Provides Details about Partial Economic Areas*, Public Notice, GN Docket No. 12-268, DA 14-759, released June 2, 2015 (available at <https://www.fcc.gov/document/wtb-provides-details-about-partial-economic-areas>). For the map of “FCC Partial Economic Area (PEA) Boundaries,” see [https://apps.fcc.gov/edocs\\_public/attachmatch/DA-14-759A4.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DA-14-759A4.pdf).

<sup>24</sup> See 5 U.S.C. § 553(b)(B) (providing that notice and comment requirement of the Administrative Procedure Act does not apply when agency “for good cause finds . . . that notice and public procedure [for rulemaking action] are impracticable, unnecessary, or contrary to the public interest”).

<sup>25</sup> See, e.g., 47 CFR § 27.4 (defining “post-auction transition period” as the 39-month period commencing upon the public release of the *Closing and Channel Reassignment Public Notice*); *Incentive Auction R&O*, 29 FCC Rcd 6567, para. 47 (setting forth the particular 600 MHz Band Plan that would result if 84 megahertz of spectrum were cleared as a result of the incentive auction).

<sup>26</sup> See 5 U.S.C. § 553(b)(B); *Utility Solid Waste Activities Group v. EPA*, 236 F.3d 749, 755 (D.C. Cir., 2001) (citing *Texaco v. FPC*, 412 F.2d 740, 743 (3d Cir. 1969)).

<sup>27</sup> *Incentive Auction R&O*, 29 FCC Rcd at 6707, para. 321 (delegating to the Chief of the Office of Engineering and Technology the authority to take such actions as are necessary to modify the Allocations Table to be consistent with the outcome of the incentive auction).

<sup>28</sup> 47 CFR §§ 0.31, 0.131, 0.241 and 0.331.

9. Because this Order is being adopted without notice and comment, the Regulatory Flexibility Act<sup>29</sup> does not apply.

10. The rules contained herein have been analyzed with respect to the Paperwork Reduction Act of 1995 and found to contain no new or modified form, information collection, and/or recordkeeping, labeling, disclosure, or record retention requirements, and will not increase or decrease burden hours imposed on the public.<sup>30</sup> In addition, therefore, this Order does not contain any new or modified “information collection burden for small business concerns with fewer than 25 employees,” pursuant to the Small Business Paperwork Relief Act of 2002.<sup>31</sup>

11. The Commission will send a copy of the Order in a report to Congress and the Government Accountability Office pursuant to the Congressional Review Act.<sup>32</sup>

12. Accordingly, IT IS ORDERED that Parts 2 and 27 of the Commission’s Rules, 47 CFR Parts 2 and 27, ARE AMENDED as set forth in the Appendix, effective 30 days after the date of publication in the Federal Register. This action is taken pursuant to authority found in Sections 4(i) and 303 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i) and 303; in Section 553(b)(B) of the Administrative Procedure Act, 5 U.S.C. § 553(b)(B); in Sections 0.31, 0.131, 0.241 and 0.331 of the Commission’s Rules, 47 CFR §§ 0.31, 0.131, 0.241 and 0.331; and in *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, GN Docket No. 12-268, Report and Order, 29 FCC Rcd 6567 (2014).

FEDERAL COMMUNICATIONS COMMISSION

Julius P. Knapp  
Chief, Office of Engineering and Technology

Donald Stockdale  
Chief, Wireless Telecommunications Bureau

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<sup>29</sup> 5 U.S.C. §§ 601, *et seq.*

<sup>30</sup> *See* Pub. L. No. 104-13, 44 U.S.C. §§ 3501, *et seq.*

<sup>31</sup> *See* Pub. L. No. 107-198, 44 U.S.C. § 3506(c)(4).

<sup>32</sup> *See* 5 U.S.C. § 801(a)(1)(A).

**APPENDIX**

**Final Rules**

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR parts 2 and 27 as follows:

**PART 2 – FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS;  
GENERAL RULES AND REGULATIONS**

1. The authority citation for part 2 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 302a, 303, and 336, unless otherwise noted.

2. Section 2.106, the Table of Frequency Allocations, is amended as follows:
  - a. Pages 29 and 30 are revised.
  - b. In the list of Non-Federal Government (NG) Footnotes, footnotes NG5, NG14, and NG149 are revised and footnote NG33 is added.

The revisions and additions read as follows:

**§ 2.106 Table of Frequency Allocations.**

\* \* \* \* \*

International Table			United States Table		FCC Rule Part(s)
Region 1 Table	Region 2 Table	Region 3 Table	Federal Table	Non-Federal Table	
456-459 FIXED MOBILE 5.286AA 5.271 5.287 5.288			456-459  5.287 US64 US288	456-460 FIXED LAND MOBILE	Public Mobile (22) Maritime (80) Private Land Mobile (90) MedRadio (95I)
459-460 FIXED MOBILE 5.286AA  5.209 5.271 5.286A 5.286B 5.286C 5.286E	459-460 FIXED MOBILE 5.286AA MOBILE-SATELLITE (Earth-to-space) 5.286A 5.286B 5.286C 5.209	459-460 FIXED MOBILE 5.286AA  5.209 5.271 5.286A 5.286B 5.286C 5.286E	459-460	5.287 US64 US288 NG32 NG112 NG124 NG148	
460-470 FIXED MOBILE 5.286AA Meteorological-satellite (space-to-Earth)			460-470 Meteorological-satellite (space-to-Earth)	460-462.5375 FIXED LAND MOBILE US209 US289 NG124 462.5375-462.7375 LAND MOBILE US289 462.7375-467.5375 FIXED LAND MOBILE 5.287 US73 US209 US288 US289 NG124 467.5375-467.7375 LAND MOBILE 5.287 US288 US289 467.7375-470 FIXED LAND MOBILE US73 US288 US289 NG124	Private Land Mobile (90)   Personal Radio (95)  Maritime (80) Private Land Mobile (90)  Maritime (80) Personal Radio (95)  Maritime (80) Private Land Mobile (90)
5.287 5.288 5.289 5.290			5.287 US73 US209 US288 US289		
470-790 BROADCASTING	470-512 BROADCASTING Fixed Mobile 5.292 5.293 512-608 BROADCASTING 5.297 608-614 RADIO ASTRONOMY Mobile-satellite except aeronautical mobile-satellite (Earth-to-space)	470-585 FIXED MOBILE BROADCASTING 5.291 5.298 585-610 FIXED MOBILE BROADCASTING RADIONAVIGATION 5.149 5.305 5.306 5.307 610-890 FIXED MOBILE 5.313A 5.317A BROADCASTING	470-608   608-614 LAND MOBILE (medical telemetry and medical telecommand) RADIO ASTRONOMY US74  US246	470-512 FIXED LAND MOBILE BROADCASTING NG5 NG14 NG66 NG115 NG149 512-608 BROADCASTING NG5 NG14 NG115 NG149	Public Mobile (22) Broadcast Radio (TV)(73) LPTV, TV Translator/Booster (74G) Low Power Auxiliary (74H) Private Land Mobile (90)  Broadcast Radio (TV)(73) LPTV, TV Translator/Booster (74G) Low Power Auxiliary (74H)  Personal Radio (95)



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NON-FEDERAL GOVERNMENT (NG) FOOTNOTES

\* \* \* \* \*

NG5 In the band 535-1705 kHz, AM broadcast licensees and permittees may use their AM carrier on a secondary basis to transmit signals intended for both broadcast and non-broadcast purposes. In the band 88-108 MHz, FM broadcast licensees and permittees are permitted to use subcarriers on a secondary basis to transmit signals intended for both broadcast and non-broadcast purposes. In the bands 54-72, 76-88, 174-216, 470-608, and 614-698 MHz, TV broadcast licensees and permittees are permitted to use subcarriers on a secondary basis for both broadcast and non-broadcast purposes. Use of the band 614-698 MHz is subject to the provisions specified in NG33.

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NG14 TV broadcast stations authorized to operate in the bands 54-72, 76-88, 174-216, 470-608, and 614-698 MHz may use a portion of the television vertical blanking interval for the transmission of telecommunications signals, on the condition that harmful interference will not be caused to the reception of primary services, and that such telecommunications services must accept any interference caused by primary services operating in these bands. Use of the band 614-698 MHz is subject to the provisions specified in NG33.

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NG33 In the band 614-698 MHz, the following provisions shall apply:

(a) Until July 13, 2020, stations in the broadcasting service and other authorized uses may operate as follows:

(1) Full power and Class A television (TV) stations, i.e., broadcast TV stations, may operate on a co-equal, primary basis with stations in the fixed and mobile services until such stations terminate operations on their pre-auction television channels in accordance with § 73.3700(b)(4).

(2) Low power TV (LPTV) and TV translator stations may operate on a secondary basis to stations in the fixed and mobile services and to broadcast TV stations, and fixed TV broadcast auxiliary stations may operate on a secondary basis to LPTV and TV translator stations, unless such stations are required to terminate their operations earlier in accordance with § 73.3700(g)(4) or § 74.602(h)(5)-(6).

(3) Low power auxiliary stations (LPAS), including wireless assist video devices (WAVDs), may operate on a secondary basis to all other authorized stations in accordance with § 74.802(f) and § 74.870(i).

(4) Unlicensed wireless microphones and white space devices (WSDs) may operate on a non-interference basis, unless such devices are required to terminate operations earlier in accordance with § 15.236(c)(2) or § 15.707(a)(1)-(2), (5), respectively.

(b) After July 13, 2020, only the following types of radiofrequency devices that are authorized in paragraph (a) may continue to operate:

(1) LPTV and TV translator stations may operate on a secondary basis to stations in the fixed and mobile services in the sub-bands 617-652 MHz and 663-698 MHz until required to terminate their operations in accordance with § 73.3700(g)(4).

(2) LPAS may operate in the sub-band 653-657 MHz and unlicensed wireless microphones may operate in the sub-bands 614-616 MHz and 657-663 MHz.

(3) WSDs may operate in: (i) the sub-bands 617-652 MHz and 663-698 MHz, except in those areas where their use is prohibited in accordance with §§ 15.707(a)(5) and 15.713(b)(2)(iv), and (ii) the sub-band 657-663 MHz, in accordance with § 15.707(a)(4).

\* \* \* \* \*

NG149 The bands 54-72, 76-88, 174-216, 470-608, and 614-698 MHz are also allocated to the fixed service to permit subscription television operations in accordance with 47 CFR part 73. Use of the band 614-698 MHz is subject to the provisions specified in NG33.

\* \* \* \* \*

## PART 27—MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES

3. The authority citation for part 27 continues to read as follows:

Authority: 47 U.S.C. 154, 301, 302a, 303, 307, 309, 332, 336, 337, 1403, 1404, 1451, and 1452, unless otherwise noted.

4. Section 27.1 is amended by revising paragraph (b) (14) to read as follows:

### **§ 27.1 Basis and purpose.**

\* \* \* \* \*

(14) 617-652 MHz and 663-698 MHz.

5. Section 27.5 is amended by revising paragraph (l) to read as follows:

### **§ 27.5 Frequencies.**

\* \* \* \* \*

(l) 600 MHz band. The 600 MHz band (617-652 MHz and 663-698 MHz) has seven pairs of 5 megahertz channel blocks available for assignment on a Partial Economic Area basis as follows:

Block A: 617-622 MHz and 663-668 MHz;

Block B: 622-627 MHz and 668-673 MHz;

Block C: 627-632 MHz and 673-678 MHz;

Block D: 632-637 MHz and 678-683 MHz;

Block E: 637-642 MHz and 683-688 MHz;

Block F: 642-647 MHz and 688-693 MHz; and

Block G: 647-652 MHz and 693-698 MHz.

6. Section 27.6 is amended by revising paragraph (l) to read as follows:

### **§ 27.6 Service areas.**

\* \* \* \* \*

(l) 600 MHz band. Service areas for the 600 MHz band are based on Partial Economic Areas (PEAs) as defined by Wireless Telecommunications Bureau Provides Details About Partial Economic Areas, Public Notice, 29 FCC Rcd 6491, App. B (2014). The service areas of PEAs that border the U.S. coastline of the Gulf of Mexico extend 12 nautical miles from the U.S. Gulf coastline. The service area of the Gulf of Mexico PEA (PEA 416) that comprises the water area of the Gulf of Mexico extends from 12 nautical miles off the U.S. Gulf coast outward into the Gulf.

7. Section 27.11 is amended by revising paragraph (k) to read as follows:

### **§ 27.11 Initial authorization.**

\* \* \* \* \*

(k) 600 MHz band. Initial authorizations for the 600 MHz band will be based on Partial Economic Areas (PEAs), as specified in § 27.6(1), and, shall be paired channels that each consist of a 5 megahertz channel block in the 600 MHz downlink band (617-652 MHz), paired with a 5 megahertz channel block in the 600 MHz uplink band (663-698 MHz), based on the frequency blocks specified in § 27.5(l).