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

In the Matter of	)	
	)	
Permitting Remote Pickup Broadcast Auxiliary Stations to Utilize Modern Digital Technologies	)	WT Docket No. 15-36
	)	
Petition for Rulemaking Regarding Amendment of Part 74, Subpart D of the Commission's Rules	)	RM-11648
	)	
Petition for Rulemaking Regarding Amendment of the Part 74, Subpart D Remote Pickup (RPU) Rules	)	RM-11649
	)	
Request for Temporary Waiver of Section 74.462 of the Commission's Rules to Permit Licensee of Remote Pickup Broadcast Auxiliary Stations to Utilize Digital Radio Telephony and Data Emissions	)	

NOTICE OF PROPOSED RULEMAKING AND ORDER

Adopted: February 13, 2015 **Released: February 18, 2015**

Comment Date: (30 days after publication in the Federal Register)
Reply Comment Date: (45 days after publication in the Federal Register)

By the Commission:

I. INTRODUCTION

1. In this *Notice of Proposed Rulemaking and Order*, we seek comment on proposals to eliminate outdated rules in an effort to promote the use of modern technologies for Part 74 Remote Pickup (RPU) stations, clarify the application of current rules, and deny a related waiver request. An RPU station is a type of Broadcast Auxiliary Station (BAS). BASs make it possible for television and radio stations and networks to transmit program material from the sites of breaking news stories or other live events to television studios for inclusion in broadcast programs, to transmit programming material from studios to broadcasting transmitters for delivery to consumers' televisions and radios, and to transmit programs between broadcast stations.[1] RPUs can be used to transmit material from the scene of an event back to the broadcast studio or production center, communicate concerning the production or technical support of a remote program, and support activities associated with the Emergency Alert System.[2]

[1] *See* Revisions to Broadcast Auxiliary Service Rules in Part 74 and Conforming Technical Rules for Broadcast Auxiliary Service, Cable Television Relay Service and Fixed Services in Parts 74, 78 and 101 of the Commission's Rules, ET Docket No. 01-75, *Notice of Proposed Rulemaking*, 16 FCC Rcd 10556, 10557 ¶ 1 (2001).

[2] *See* 47 C.F.R. § 74.431.

2. The proposals in this *Notice of Proposed Rulemaking* would eliminate outdated barriers to the use of modern, digital transmission technologies[3] and allow broadcasters to use the frequencies in question more efficiently. In this *Notice of Proposed Rulemaking* we also explain why we believe no rule change is needed to provide applicants for RPU channels greater flexibility in interpreting center frequency assignments. In addition, we deny as premature a request from the Society of Broadcast Engineers (SBE), on behalf of Part 74 licensees, to allow Part 74 licensees to use digital emissions in the VHF and UHF bands while this rulemaking is pending.

II. BACKGROUND

3. RPU stations may be authorized to operate within the 25.67-26.48 MHz band (HF RPU Band), the 152.855-154 MHz, 157.45-161.575 MHz, 161.625-161.775 MHz bands (collectively, VHF RPU Band) and the 450-451 MHz and 455-456 MHz bands (collectively, UHF RPU Band).[4] These frequencies are also either available for assignment in the Part 90 Private Land Mobile Radio Service (PLMRS) or are near frequencies available for PLMRS use.[5] When the Commission established the current RPU service rules in 2002, its goal was to harmonize the RPU technical standards with the Part 90 rules so that broadcasters could use radios developed for Part 90 PLMRS use for RPU use, particularly for dispatch and operational traffic.[6] At the same time, the Commission recognized that Part 90 narrowband radios may not be suitable for transmitting audio program feeds, which require greater bandwidth to support high audio quality with no delay.[7] Accordingly, the Commission allowed broadcasters to stack multiple RPU channel segments to create wider channels.[8] Under the current rules, the VHF RPU and UHF RPU Bands are divided into segments with designated channel centers, but broadcasters may combine multiple segments to form wider RPU channels so long as they comply with the applicable bandwidth and emission requirements.[9] Broadcasters using RPU stations to transmit program material have primary use of the wider channels.[10]

4. The Engineers for the Integrity of Broadcast Auxiliary Services Spectrum (EIBASS) and the Society for Broadcast Engineers (SBE) have separately identified two obstacles that they argue have prevented broadcasters from using PLMRS equipment for RPU use in the VHF RPU and UHF RPU Bands. The first obstacle concerns a mismatch between PLMRS equipment and the channel centers for RPU stations specified in the Commission's rules. For analog equipment, the 25 kilohertz channel centers listed for RPU stations in the Commission's rules cannot be programmed into analog Part 90

[3] The output signal generated from digital transmission equipment is commonly known as digital emissions.

[4] *See* 47 C.F.R. § 74.402(a)-(d).

[5] *See* 47 C.F.R. § 90.35.

[6] *See* Revisions to Broadcast Auxiliary Service Rules in Part 74and Conforming Technical Rules for Broadcast Auxiliary Service, Cable Television Relay Service and Fixed Services in Part 74, 78 and 101 of the Commission's Rules, ET Docket No. 01-75, *Report and Order*, 17 FCC Rcd 22979, 23021-23022 ¶¶ 111-112 (2002) ("*2002 BAS Report and Order*").

[7] *2002 BAS Report and Order*, 17 FCC Rcd at 23022 n.219.

[8] *2002 BAS Report and Order*, 17 FCC Rcd at 23022-23023 ¶ 114.

[9] In the VHF RPU Band, the segments are 7.5 kilohertz wide, and broadcasters may combine up to four segments to form a channel of up to 30 kilohertz. *See* 47 C.F.R. § 74.402(b). In the UHF RPU Band, the narrowest segments are 6.25 kilohertz wide, and up to eight segments may be combined to form a channel up to 50 kilohertz wide. *See* 47 C.F.R. § 74.402(b). In addition, there are designated UHF 25 kilohertz and 50 kilohertz segments which may be combined to form channels of up to 50 kilohertz and 100 kilohertz, respectively. *See* 47 C.F.R. § 74.402(c), (d).

[10] *See* 47 C.F.R. § 74.402(c), (d).

PLMRS equipment used by broadcasters.[11] If a broadcaster attempted to combine four 6.25 kilohertz segments to form a 25 kilohertz RPU channel, the center frequency of the resultant channel would be offset from the RPU channel centers specified in the Commission's rules.[12] Under this scenario, the only way to create an RPU channel with a center frequency that is specified in the Commission's rules is to request an odd number of RPU segments (*i.e.*, request an extra segment).[13] Furthermore, while digital equipment can tune to the nearest Hertz,[14] many, if not most, analog radios now in use cannot program frequencies with that degree of accuracy.[15]

5. SBE and EIBASS both ask the Commission to fix the RPU center frequency problem, but each proposes a different solution. SBE proposes adding narrative language to Section 74.402 of the Commission's rules further dividing the RPU bands into 3.125 kilohertz segments for the UHF RPU Band and 3.75 kilohertz segments for the VHF RPU Band.[16] EIBASS proposes adopting a revised table of frequency assignments in Section 74.402 of the Commission's rules that is modeled after the tables in Sections 90.20 and 90.35 of the rules.[17] SBE and EIBASS assert that the changes will encourage BAS licensees to convert analog RPU systems to digital voice technologies at VHF frequencies and above; allow BAS licensees greater flexibility in their operations; encourage BAS licensees to use the minimum necessary bandwidth for RPU facilities; enable BAS licensees to use commercially available, off-the-shelf (COTS) Part 90 digital radios for Part 74 RPU operations, at a significant cost benefit; and effectuate the policy adopted by the Commission in the *2002 BAS Report and Order* to enable broadcasters to use PLMRS equipment for RPU operations, which has been stymied by an anomaly in how RPU segments are "stacked" under the current rules to create RPU channels.[18] To effectuate these changes both EIBASS and SBE recommend that the Commission revise Sections 74.402 and 74.462 of the Commission's Rules as detailed below.[19]

6. SBE also raises a different but related issue. Specifically, SBE believes there is no current need for new RPU stations with a 100 kilohertz bandwidth.[20] It therefore proposes that no new

[11] *See* Engineers for the Integrity of Broadcast Auxiliary Services Spectrum Petition for Rulemaking to amend Part 74, Subpart D, of the Commission's Remote Pickup (RPU) rules, RM-11649 (filed Nov. 7, 2011) ("EIBASS Petition") at 2-4.

[12] EIBASS provides the following example: If a broadcaster wished to combine the 6.25 kHz RPU segments at 455.48750 MHz, 455.49375 MHz, 455.50000 MHz, and 455.50625 MHz into a 25 kilohertz RPU channel, the center frequency of the combined segments would be 455.496875 MHz, which is halfway between 455.49375 MHz and 455.5 MHz. However, this center frequency is offset from the RPU center frequencies specified in Section 74.402. EIBASS Petition at 4.

[13] EIBASS Petition at 4; ; Society of Broadcast Engineers Petition for Rulemaking to Modify Sections 74.402 and 74.462 of the Commission's Rules, RM-11648, (filed Nov. 7, 2011) ("SBE Petition") at 5-6. For example, if a broadcaster wanted a 25 kilohertz UHF RPU channel, the applicant would request five 6.25 kilohertz segments (a total of 31.25 kHz), which would result in the RPU channel center at a frequency contained in Section 74.402. *See* EIBASS Petition at 4.

[14] SBE refers to frequencies with six decimal places after the period. SBE Petition at 5. Since, to use an example, 455.496875 MHz equals 455,496,875 Hertz, the degree of specificity involved is programming to the nearest Hertz.

[15] EIBASS Petition at 4; SBE Petition at 5.

[16] SBE Petition, Attachment A.

[17] EIBASS Petition, Figure 3.

[18] EIBASS Petition at 1-2; SBE Petition at 1-3.

[19] EIBASS Petition at 9-10; SBE Petition at 3-4.

[20] SBE Petition at 6.

RPU stations proposing a 100 kilohertz bandwidth be authorized absent a showing of need in individual cases.[21] SBE believes that existing 100 kilohertz RPU stations should be grandfathered.[22]

7. SBE and EIBASS point out a second obstacle to using PLMRS equipment for RPU purposes, specifically the lack of authorization in the rules for use of specific digital technologies. SBE and EIBASS identify Time Division Multiple Access (TDMA), Next Generation Digital Network (NXDN), ANSI/TIA-102A (Project 25), Trans-European Trunked Radio (TETRA), Digital Private Mobile Radio (dPMR), and Digital Mobile Radio (DMR) as digital technologies used in PLMRS radios that could be suitable for RPU use.[23] Section 74.462 of the Commission's rules "requires that the 'equipment shall be operated in accordance with emissions specifications included in the grant of the certification and as prescribed in . . . this section"[24] and lists the authorized emissions for RPU stations.[25] The only emissions currently authorized by the rule, however, are all analog emissions.[26] No digital emissions are included in the list of authorized emissions.

8. To remedy this problem, both SBE and EIBASS ask that Section 74.462 of the Commission's rules be amended to state that any form of digital modulation may be used by RPU stations so long as the broadcaster complies with the applicable emission mask and bandwidth emission requirements.[27] SBE points out that such an approach would be consistent with the rules governing Low Power Auxiliary Stations.[28] EIBASS proposes additional rule changes to facilitate the use of digital radios by RPU stations. Specifically, EIBASS asks the Commission amend Section 74.463 of the Commission's rules[29] to add a mention of digital modulation,[30] and Section 74.482 of the Commission's rules[31] to allow RPU station identification using digital modulation.[32]

9. In addition to the rule changes that it proposes, SBE also seeks a temporary waiver of Section 74.462 of the Commission's Rules to permit RPU broadcasters to use FCC certified narrowband VHF and UHF RPU equipment, such as digital TDMA technology or NXDN technology equipment, in the VHF and UHF RPU Bands while the *Notice of Proposed Rulemaking* is pending.[33] SBE argues that prohibiting RPU licensees from using digital emissions in the VHF and UHF RPU Bands is inequitable, unduly burdens RPU licensees, and is otherwise contrary to the public interest because the application of the rule prevents RPU licensees from transitioning to more spectrum efficient technology.[34] SBE further

---

[21] SBE Petition at 6-7.

[22] SBE Petition at 6.

[23] SBE Petition at 2; EIBASS Petition at 7-10.

[24] 47 C.F.R. § 74.462(a).

[25] 47 C.F.R. § 74.462. *See* EIBASS Petition at 7.

[26] 47 C.F.R. § 74.462(b). The emissions authorized by the rule are A1A, A1B, A1D, A1E, A2A, A2B, A2D, A2E, A3E, F1A, F1B, F1D, F1E, F2A, F2B, F2D, F2E, F3E, and F9E. *Id.* In the HF and VHF bands, emissions A3E, F1E, F3E, and F9E are authorized, and the other listed analog emissions may be authorized upon a showing of need. *See* 47 C.F.R. § 74.462(b) n.2.

[27] SBE Petition at 3-4; EIBASS Petition at 9.

[28] SBE Petition at 4, *citing* 47 C.F.R. § 74.861(e)(3).

[29] 47 C.F.R. § 74.463.

[30] EIBASS Petition at 8.

[31] 47 C.F.R. § 74.482.

[32] EIBASS Petition at 10-12.

[33] Request for Temporary Waiver, Society of Broadcast Engineers, Incorporated (filed on Nov. 7, 2011) (Waiver Request).

[34] Waiver Request at 6.

argues that application of the rule is contrary to the Commission's policy, as enunciated in the *2002 BAS Report and Order*, that conformed the VHF RPU and UHF RPU Bands plans to the VHF and UHF PLMRS band plans specifically to enable RPU licensees to use COTS equipment used by PLMRS licensees in the Part 90 service, which according to SBE, is currently available for use by RPU licensees.[35] SBE asks that the Commission temporarily waive the prohibition against using digital emissions until it acts on SBE's and EIBASS's petitions for rulemaking.[36] SBE indicates that it would accept incorporation of a non-interference condition in the grant of the waiver request.[37]

10. The Petitions were put out for comment.[38] EIBASS,[39] Icom America, Inc. and Icom, Inc.,[40] SBE,[41] and the National Association of Broadcasters[42] all filed comments in support of the Petitions and the Waiver Request. After the comment cycle closed, Kenwood USA Corporation[43] and Motorola Solutions, Inc.[44] filed comments, which we will treat as *ex parte* filings, supporting both the EIBASS and SBE Petitions. As discussed below, we first conclude that our existing rules regarding RPU center frequencies accommodate proposals to stack an even number of segments and address the inability of certain analog equipment to specify the center frequency with the level of precision set forth in the Commission's rules. Next, we seek comment on rule changes that would facilitate the use of digital technologies by RPU stations. We propose to eliminate the opportunity to apply for new 100 kilohertz RPU stations, while grandfathering existing 100 kilohertz RPU stations. Finally, we deny SBE's request for a blanket waiver to allow digital emissions pending the outcome of this rulemaking.

III. ORDER – RPU CENTER FREQUENCIES

11. As described above, EIBASS and SBE identify two issues relating to the designation of center frequencies for RPU stations: 1) the fact that when an applicant combines an even number of channels, the center frequency for the combined channels will fall in between frequencies listed in the Commission's rules; and 2) the inability of analog equipment to specify the center frequency with the level of precision set forth in the Commission's rules. With the clarification and guidance provided below, we conclude that no rule changes are necessary to address either of these issues.

12. We find that existing Section 74.402 of the Commission's rules addresses the first issue. In its preamble, that rule provides, "When an even number of channels are stacked in those sections [where] stacking is permitted, channel assignments may be made for the frequency halfway between those listed."[45] Thus, to use EIBASS' example, a broadcaster wishing to combine the 6.25 kilohertz segments centered 455.48750 MHz, 455.49375 MHz, 455.50000 MHz, and 455.50625 MHz into a 25 kilohertz RPU channel could specify 455.496875 MHz as the center frequency of the combined segments

[35] Waiver Request at 2-5.

[36] Waiver Request at 6.

[37] Waiver Request at 6.

[38] Public Notice, Consumer & Governmental Affairs Bureau Reference Information Center Petitions for Rulemakings Filed, Report No. 2943 (CGB rel. Dec. 21, 2011).

[39] Comments of EIBASS (filed Jan. 20, 2012).

[40] Comments of Icom America, Inc. and Icom, Inc. (filed Jan. 17, 2012).

[41] Comments of the Society of Broadcast Engineers, Incorporated (filed Jan. 19, 2012).

[42] Comments of the National Association of Broadcasters (filed Jan. 20, 2012).

[43] Comments of Kenwood USA Corporation (filed July 11, 2012)

[44] Letter from Chuck Powers, Director, Engineering & Technology Policy, Government Affairs, Motorola Solutions, Inc. to Marlene H. Dortch, Secretary, Federal Communications Commission (filed Nov. 12, 2013).

[45] *See* 47 C.F.R. § 74.402.

because it is halfway between 455.49375 MHz and 455.5 MHz.[46] Consistent with Section 74.402, the current process of the Wireless Telecommunications Bureau has been to require applicants to stack the minimum number of segments necessary to accommodate the applicant's bandwidth needs. Applications that stack an odd number of segments must specify a center frequency consistent with the center of the segments listed in Section 74.402, and applications that stack an even number of segments must specify a center frequency that falls in between the channel centers listed in Section 74.402.[47] The Wireless Telecommunications Bureau will continue to process applications specifying an even number of segments consistent with this interpretation of Section 74.402.

13. With respect to the inability of analog equipment to precisely specify frequencies to six decimal places, no transmitter can operate on a specific frequency with absolute precision. The BAS rules recognize this limitation by establishing permissible frequency tolerances for RPU equipment.[48] In the VHF RPU Band, the tightest applicable frequency stability requirement is one part per million, which translates into an acceptable deviation of approximately 150 Hertz on those frequencies.[49] For the UHF RPU Band, the tightest applicable frequency stability requirement is .5 parts per million, which translates into an acceptable deviation of approximately 225 Hertz on those frequencies.[50] We note that the channel centers listed in the rules specify some frequencies in the UHF RPU Band to the nearest 10 Hertz, and neither EIBASS nor SBE has claimed that analog equipment cannot program those frequencies.[51] So long as licensees comply with the applicable emission masks[52] as measured from the center frequency specified in the authorization, and the licensee programs the center frequency as closely to the specified center frequency as the equipment will allow, we would view a licensee as being in compliance with the center frequency requirements of Section 74.402 of the Commission's rules for the VHF RPU Band and UHF RPU Band.

IV. NOTICE OF PROPOSED RULEMAKING

A. RPU Digital Emissions and Modulation Requirements

14. We propose to change our rules to allow broadcasters to use modern digital technologies such as TDMA and NXDN for RPU operations. We believe it would be in the public interest to give broadcasters the opportunity to use the same digital technologies for RPU stations as those used by Part 90 PLMRS licensees. The Commission's intent in 2002 was to harmonize the RPU technical standards with the Part 90 rules so that broadcasters could use radios developed for Part 90 PLMRS use, particularly for dispatch and operational traffic.[53] By allowing broadcasters to use the same digital technologies for RPU stations as those used by PLMRS licensees, we would further that goal and allow broadcasters to use equipment and technologies developed for PLMRS. We seek comment on the costs and benefits and advantages or disadvantages of allowing broadcasters to use the digital technology of their choice in the VHF and UHF RPU Bands.

15. SBE and EIBASS each propose that we amend Section 74.462 of the Commission's rules to permit RPU stations to use any digital emissions that meets the applicable emissions mask and

---

[46] *See* EIBASS Petition at 4.

[47] *See* EIBASS Petition at Figure 2.

[48] *See* 47 C.F.R. §§ 74.464, 90.213.

[49] *See* 47 C.F.R. § 90.213(a) n.5.

[50] *See* 47 C.F.R. § 90.213(a) n.7.

[51] *See* 47 C.F.R. §74.402(b)(4). There are five decimal places after the period for certain frequencies specified in that rule.

[52] *See* 47 C.F.R. §§ 74.462, 90.210.

[53] *2002 BAS Report and Order*, 17 FCC Rcd at 23021-23022 ¶¶ 111-112.

bandwidth limitations.[54] We seek comment on amending Section 74.462 in that fashion. We note that while SBE and EIBASS focus on the VHF and UHF RPU Bands, the proposed rule change would also allow digital emissions in the HF RPU Band. We seek comment on whether it is appropriate to also allow digital emissions in the HF RPU Band. We also seek comment on alternative means of amending our rules to reach the same result requested by EIBASS and SBE. Further, we seek comment on amending Section 74.462 to specify a maximum authorized bandwidth of 50 kilohertz in the 450.03125-450.61875 MHz and 455.03125-455.061875 MHz bands, as opposed to the maximum authorized bandwidth of 25 kilohertz currently in the rule. This change would make Section 74.462 consistent with Section 74.402(b) of the Commission's rules, which allows up to eight 6.25 kilohertz segments to be stacked for a total RPU channel bandwidth of 50 kilohertz.[55] We seek comment on the costs and benefits and advantages or disadvantages of the various proposed approaches.

16. We also seek comment on EIBASS's request that we amend Section 74.463 of the Commission's rules to explicitly add the phrase "digital modulation."[56] We seek comment on the proposed rule language contained in Attachment A, and its attendant costs and benefits, and on any alternatives and their associated costs and benefits.

17. In addition, we seek comment on what changes to our station identification requirements are needed to accommodate digital RPU operations. EIBASS recommends that we amend the station identification requirements in Section 74.482 of the Commission's rules to cover all forms of commercially available digital land mobile radios, using language that is broad enough to cover new forms of digital signals as they are developed.[57] Although EIBASS specifically recommends that we adopt a method of identifying stations that uses a watermark ID, such as the protocol adopted in the Advanced Television Systems Committee (ATSC) A/82 Data Return Link (DRL) standard,[58] it stresses that is more important that we adopt the same protocol for both RPU BAS and PLMRS stations.[59] In 2010, the Commission sought comment on amending the PLMRS rules to allow station identification in the 150-170 MHz and 450-470 MHz bands in digital format.[60] The proposed rule language in that proceeding would allow PLMRS stations to digitally transmit their call signs, subject to the requirement that the licensees provide the Commission with the means to decode the digital transmission.[61] Adopting the same station identification rules for both RPU BAS and PLMRS stations, EIBASS argues, would enable RPU broadcasters to purchase COTS two-way radios whose transmissions could be universally decoded to identify interfering transmitters.[62] Should we adopt the requirements proposed by the Commission in 2010 for PLMRS stations, or should the Commission adopt a specific standard, such as the A/82 DRL standard? Commenters should provide information on the costs and benefits and advantages or disadvantages of the different approaches.

---

[54] *See* EIBASS Petition at 9; SBE Petition at 3. We note that applicants would still be required to state all emissions they propose to use in their applications. *See* EIBASS Petition at 9.

[55] *See* 47 C.F.R. § 74.402(b).

[56] EIBASS Petition at 8.

[57] EIBASS Petition at 10-12.

[58] EIBASS explains that this technique overlays a pre-defined and simple digital protocol to an incoming digital electronic news gathering (ENG) signal that identifies the transmission regardless of the many permutations of digital modulation, payload encryption, symbol rate, bit rate, or the various amounts of forward error correct (FEC) that might be deployed. EIBASS Petition at 11.

[59] EIBASS Petition at 11-12.

[60] *See* Amendment of Part 90 of the Commission's Rules, WP Docket No. 07-100, *Second Report and Order and Second Further Notice of Proposed Rulemaking*, 25 FCC Rcd 2479, 2498 ¶ 45 (2010).

[61] *Id*. at 2520.

[62] EIBASS Petition at 11-12.

B. 100 Kilohertz RPU Channels

18. Consistent with SBE's request, we propose to modify Section 74.402 to eliminate a licensee's ability to create 100 kilohertz RPU channels in the future. Given the relatively small amount of spectrum available for RPU operations, and that the 100 kilohertz channels overlap the narrower channels, a license specifying 100 kilohertz bandwidth can make it difficult for other broadcasters to obtain spectrum for narrowband RPU operations, which are much more prevalent than 100 kilohertz operations. We note that in the past 4 years, the Wireless Telecommunications Bureau has received only 1 application requesting authorization for a 100 kilohertz bandwidth RPU channel. Accordingly, there appears to be little need for licenses with 100 kilohertz channels. If we eliminate the ability to create these channels, applicants would still be able to apply via a waiver of the rules to use 100 kilohertz channels. We emphasize that we are not proposing to change the rights of existing licensees with 100 kilohertz bandwidth RPU channels. Instead, we propose to grandfather existing licensees with 100 kilohertz RPU channel authorizations. These licensees will be permitted to renew their authorizations indefinitely and will be allowed to make modifications to their existing authorization without affecting their grandfathered status. We seek comment on these proposals, as well as their associated costs and benefits.

V. ORDER - WAIVER REQUEST

19. As noted above, SBE also seeks a temporary waiver of Section 74.462 of the Commission's Rules to permit broadcasters to use FCC-certified narrowband VHF and UHF RPU equipment, such as TDMA technology or NXDN technology, in the VHF and UHF RPU Bands while the rulemaking is pending.[63] The Commission's rules provide that waivers will be granted if the petitioner shows that: (i) the underlying purpose of the rules(s) would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public interest; or (ii) in view of the unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.[64]

20. We decline to grant a blanket waiver of Section 74.462 to permit use of digital emissions in the VHF and UHF RPU Bands while this rulemaking is pending. While we agree with SBE that it appears to be in the public interest to empower RPU broadcasters to use digital technologies, the instant rulemaking is designed to provide an opportunity for meaningful comment on this assessment and on important details about the implementation of such digital operations. For example, it is not clear based on the current record how broadcasters using digital equipment will comply with the station identification requirement. If we were to grant a general waiver, broadcasters might use any type of digital RPU equipment, some or all of which might be incompatible with the requirements that the Commission ultimately adopts. Therefore, until the Commission has established rules for implementation of digital technologies in the VHF and UHF, and perhaps HF RPU Bands, we do not find it to be in the public interest to grant broadcasters a general waiver to do so. Under these circumstances, we believe the better course of action is to proceed through the rulemaking process and establish rules that all broadcasters can rely on going forward. Our denial of SBE's request for a general waiver does not preclude a broadcaster from invoking the Commission's waiver rules in a specific case in order to request appropriate individualized relief. Such cases will be considered on an *ad hoc* basis.[65]

---

[63] Waiver Request.

[64] 47 C.F.R. § 1.925(b)(3).

[65] *See* 47 C.F.R. § 1.925(b)(3). The Broadband Division of the Wireless Telecommunications Bureau has granted one waiver to allow operation of digital RPU equipment. *See* CBS Television Stations, Inc., *Letter*, 29 FCC Rcd 4900 (WTB BD 2014).

VI. PROCEDURAL MATTERS

A. *Ex Parte* Rules – Permit-But-Disclose

21. Pursuant to Section 1.1200(a) of the Commission's rules,[66] this *Notice of Proposed Rulemaking and Order* shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.[67] Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (*e.g.*, .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

B. Comment Period and Procedures

22. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document.

23. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: http://fjallfoss.fcc.gov/ecfs2/.

- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

  Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

  - All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.

[66] 47 C.F.R. § 1.1200(a)

[67] 47 C.F.R. §§ 1.1200 *et seq.*

- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.

- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington DC 20554.

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

C. Initial Regulatory Flexibility Analysis

24. As required by the Regulatory Flexibility Act of 1980 (RFA),[68] the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules proposed in the *Notice of Proposed Rulemaking*. The analysis is found in Appendix B. We request written public comment on the analysis. Comments must be filed in accordance with the same deadlines as comments filed in response to the *NRPM* and must have a separate and distinct heading designating them as responses to the IRFA. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of this *NPRM*, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.

D. Paperwork Reduction Analysis

25. This document does not contain proposed information collection(s) subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, therefore, it 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, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4).

E. Further Information

26. For further information, contact Nancy M. Zaczek of the Wireless Telecommunications Bureau, Broadband Division, at 202-418-0274 or Nancy.Zaczek@fcc.gov.

VII. ORDERING CLAUSES

27. Accordingly, IT IS ORDERED, pursuant to Sections 4and 303 of the Communications Act of 1934, 47 U.S.C. §§ 154, 303, and Section 1.411 of the Commission's Rules, 47 C.F.R. § 1.411, that this *Notice of Proposed Rulemaking* is hereby ADOPTED.

28. IT IS FURTHER ORDERED, pursuant to Sections 4 and 303 of the Communications Act of 1934, 47 U.S.C. §§ 154, 303, and Section 1.407 of the Commission's Rules, 47 C.F.R. § 1.407, that the petitions for rulemaking filed by the Engineers for the Integrity of Broadcast Auxiliary Services on October 7, 2011 and by Society of Broadcast Engineers, Incorporated on November 7, 2011 ARE GRANTED to the extent indicated herein and are otherwise DENIED.

29. For the reasons stated above, IT IS FURTHER ORDERED, pursuant to Section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), and Section 1.925(b)(3) of the Commission's Rules, 47 C.F.R. § 1.925(b)(3), that the waiver request filed by the Society for Broadcast Engineers on November 7, 2011 IS DENIED.

30. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this *Notice of Proposed*

[68] *See* 5 U.S.C. § 603.

Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

Proposed Rule

For the reasons discussed in the preamble, the Federal Communications Commission proposes to amend 47 C.F.R part 74 as follows:

Part 74 – EXPERIMENTAL RADIO, AUXILIARY, SPECIAL BROADCAST AND OTHER PROGRAM DISTRIBUTION SERVICES

1. The authority citation for part 74 continues to read as follows:

AUTHORITY: 47 U.S.C. 154, 303, 307, 336(f), 336(h) and 554.

2. Revise § 74.402 by amending the introductory text in paragraph (d) to read as follows:

§ 74.402 Frequency assignment.

* * * * *

(d) Up to two of the following 50 kHz segments may be stacked to form a channel which may be assigned for use by broadcast remote pickup stations using any emission contained within the resultant channel in accordance with the provisions of §74.462. Users committed to 100 kHz bandwidths and transmitting program material will have primary use of these channels. After **[insert effective date of rule]**, initial authorizations with 100 kHz bandwidth will not be issued.

* * * * *

3. Revise § 74.462 by amending paragraphs (a) and (b) to read as follows:

§ 74.462. Authorized bandwidth and emissions.

(a) Each authorization for a new remote pickup broadcast station or system shall require the use of certificated equipment and such equipment shall be operated in accordance with emission specifications included in the grant of certification and as prescribed in paragraphs (b), (c), and (d) of this section. Any form of modulation may be used.

(b) The maximum authorized bandwidth of emissions corresponding to the types of emissions specified below, and the maximum authorized frequency deviation in the case of frequency or phase modulated emission, shall be as follows:

Frequencies	Maximum Authorized bandwidth (kHz)	Maximum Frequency deviation (kHz)[1]
MHz:		
25.87 to 26.03	40	10
26.07 to 26.47	20	5
152.8625 to 153.3575 [2]	30/60	5/10
160.860 to 161.400	60	10
161.625 to 161.775	30	5
166.25 and 170.15[3]	12.5	2.5
450.00625 to 450.99375	25	5
455.00625 to 455.99375	25	5
450.03125 to 450.61875	50	
455.03125 to 455.61875	50	5
450.6375 to 450.8625		
455.6375 to 455.8625	50	10
450.900, 450.950		
455.900, 455.950[4]	100	35

[1] Applies where F1A, F1B, F1D, F1E, F2A, F2B, F2D, F2E, F3E, or F9E emissions are used.

[2] New or modified licenses for use of the frequencies will not be granted to utilize transmitters on board aircraft, or to use a bandwidth in excess of 30 kHz and maximum deviation exceeding 5 kHz.

[3] For stations licensed or applied for before April 16, 2003, the sum of the bandwidth of emission and tolerance on frequencies 166.25 MHz or 170.15 MHz shall not exceed 25 kHz, and such operation may continue until January 1, 2005. For new stations licensed or applied for on or after April 16, 2003, the sum of the bandwidth of emission and tolerance on these frequencies shall not exceed 12.5 kHz. For all remote pickup broadcast stations, the sum of the bandwidth of emission and tolerance on these frequencies shall not exceed 12.5 kHz on or after January 1, 2005.

[4] After **[insert effective date of rule]**, new authorizations with 100 kHz bandwidth will not be issued.

* * * * *

2. Revise § 74.463 by amending paragraph (c) to read as follows:

§ 74.463. Modulation Requirements.

* * * * *

(c) If frequency modulation or digital modulation is employed, the emission shall conform to the requirements specified in §74.462.

3. Revise § 74.782 by adding a new paragraph (f) to read as follows:

§ 74.482. Station Identification.

* * * * *

(f) Stations that normally employ digital signals for the transmission of data, text, control codes, or digitized voice, may also be identified by digital transmission of the call sign. A licensee that identifies its call sign in this manner must provide the Commission, upon request, information sufficient to decode the digital transmission and ascertain the call sign transmitted.

Appendix B

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),[1] the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in this *Notice of Proposed Rulemaking (NPRM)*. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines specified in the *NPRM* for comments. The Commission will send a copy of this *NPRM*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).[2] In addition, the *NPRM* and IRFA (or summaries thereof) will be published in the Federal Register.[3]

A. Need for, and Objectives of, the Proposed Rules

2. In this *Notice of Proposed Rulemaking*, we propose to amend our rules to allow broadcasters to use any type of digital equipment. In addition, permitting digital emissions in the RPU bands may also require us to amend Sections 74.402, 74.462, and 74.482 of the Commission's rules. These changes are supported by the commenters and will give RPU licensees the flexibility to choose from a wide variety of "off-the-shelf" digital equipment, which will, in turn, encourage RPU licensees to convert to digital systems and increase spectrum efficiency.

B. Legal Basis

3. The proposed action is authorized pursuant to sections 4 and 303 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154, 303, and Section 1.411 of the Commission's rules, 47 C.F.R. § 1.411.

C. Description and Estimate of the Number of Small Entities To Which the Proposed Rules Will Apply

4. The RFA directs agencies to provide a description of, and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules and policies, if adopted.[4] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[5] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[6] A "small business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.[7]

---

[1] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996, (SBREFA) Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[2] *See* 5 U.S.C. § 603(a).

[3] *See* 5 U.S.C. § 603(a).

[4] 5 U.S.C. § 603(b)(3).

[5] 5 U.S.C. § 601(6).

[6] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

[7] 15 U.S.C. § 632.

5. The proposals in this *NPRM* would affect Broadcast Auxiliary Service ("BAS") RPU licensees. Only licensees of broadcast stations, broadcast networks, and cable networks can hold RPU licenses. Additionally, the proposals affect manufacturers of equipment that supports the BAS Remote Pickup Service. BAS involves a variety of transmitters, generally used to relay broadcast programming to the public (through translator and booster stations) or within the program distribution chain (from a remote news gathering unit to the studio or from the studio to the transmitter). The Commission has not developed a definition of small entities applicable to these licensees. Therefore, the applicable definitions of small entities for each of these services under the Small Business Administration (SBA) rules is as follows: for Remote pickup BAS we will use SIC code 4833 when used by a TV station or 4832 when used by a radio station and for BAS equipment manufacturers, we will use SIC code 3663 (Radio and Television Broadcasting and Communications Equipment) which are classified as small businesses if they employ no more than 750 people.[8]

6. *Radio Broadcasting*. The subject rules and policies potentially will apply to all AM and FM radio broadcasting licensees and potential licensees. A radio broadcasting station is an establishment primarily engaged in broadcasting aural programs by radio to the public. Included in this industry are commercial, religious, educational, and other radio stations. Radio broadcasting stations which primarily are engaged in radio broadcasting and which produce radio program materials are similarly included. However, radio stations that are separate establishments and are primarily engaged in producing radio program material are classified under another NAICS number. The SBA has established a small business size standard for this category, which is: firms having $7 million or less in annual receipts. According to Commission staff review of the BIA Publications, Inc. Master Access Radio Analyzer Database as of August 2, 2013, about 10,811 (97 percent) of 11,162 commercial radio station have revenues of $7 million or less and thus qualify as small entities under the SBA definition. Therefore, the majority of such entities are small entities. We note, however, that many radio stations are affiliated with much larger corporations having much higher revenue. Our estimate, therefore, likely overstates the number of small entities that might be affected by any ultimate changes to the rules and forms.

7. *Television Broadcasting*. This economic census category "comprises establishments primarily engaged in broadcasting images together with sound. These establishments operate television broadcasting studios and facilities for the programming and transmission of programs to the public." The SBA has created the following small business size standard for Television Broadcasting firms: those having $14 million or less in annual receipts. The Commission has estimated the number of licensed commercial television stations to be 1,388. In addition, according to Commission staff review of the BIA Advisory Services, LLC's Media Access Pro Television Database on March 28, 2012, about 950 of an estimated 1,300 commercial television stations (or approximately 73 percent) had revenues of $14 million or less. We therefore estimate that the majority of commercial television broadcasters are small entities.

8. We note, however, that in assessing whether a business concern qualifies as small under the above definition, business (control) affiliations must be included. Our estimate, therefore, likely overstates the number of small entities that might be affected by our action because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies. In addition, an element of the definition of "small business" is that the entity not be dominant in its field of operation. We are unable at this time to define or quantify the criteria that would establish whether a specific television station is dominant in its field of operation. Accordingly, the estimate of small businesses to which rules may apply does not exclude any television station from the definition of a small business on this basis and is therefore possibly over-inclusive to that extent.

[8] *Id*., SIC Code 3663 (NAICS code 33422).

9. In addition, the Commission has estimated the number of licensed noncommercial educational ("NCE") television stations to be 396. These stations are non-profit, and therefore considered to be small entities.

10. There are also 2,414 LPTV stations, including Class A stations, and 4,046 TV translator stations. Given the nature of these services, we will presume that all of these entities qualify as small entities under the above SBA small business size standard.

D. Description of Projected Reporting, Recordkeeping, and other Compliance Requirements

11. This *NPRM* proposes no new reporting or recordkeeping requirements.

E. Steps taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered

12. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.[9]

13. The actions proposed in the *NPRM* would give RPU licensees the flexibility to use off-the-shelf digital equipment, thus reducing their costs. This action will serve the public interest by enabling RPU licensees to use spectrum more efficiently. The rules will therefore open up beneficial economic opportunities to a variety of spectrum users, including small businesses. Because the actions proposed in the *NPRM* will improve beneficial economic opportunities for all businesses, including small businesses, a detailed discussion of alternatives is not required.

14. Generally, the alternative approach would be to maintain the existing rules. Under that approach, however, Remote Pickup Service licensees would not have the opportunity to use digital off-the-shelf equipment.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

15. None.

[9] 5 U.S.C. § 603(c).

Appendix C

List of Commenters

Commenters:

Engineers for the Integrity of Broadcast Auxiliary Services Spectrum ("EIBASS")

Icom America, Inc. and Icom, Inc. (collectively "Icom")

National Association of Broadcasters ("NAB")

Society of Broadcast Engineers, Incorporated ("SBE")

Ex Partes

Kenwood USA Corporation

Motorola Solutions, Inc.