

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

In the Matter of	)	
	)	
WAYNE COUNTY SHERIFF DEPARTMENT	)	FCC File No. 0003061539
	)	
Request for Waiver of Section 90.20(d)(54) of the	)	
Commission's Rules	)	

**ORDER**

**Adopted: July 19, 2012**

**Released: July 20, 2012**

By the Chief, Policy and Licensing Division, Public Safety and Homeland Security Bureau:

**I. INTRODUCTION**

1. The Wayne County Sheriff Department, Indiana (the Department) has filed an application and a request for waiver seeking authorization to use frequency 173.210 MHz for analog voice operations.<sup>1</sup> Specifically, the Department requests a waiver of Section 90.20(d)(54) of the Commission's rules<sup>2</sup> (limitation 54) to operate at 20 kilohertz bandwidth on frequency 173.210 MHz, which has a bandwidth limitation of 3 kilohertz and is not available for analog voice operations.<sup>3</sup> For the reasons discussed below, we grant the waiver request subject to certain conditions herein and hold the application in abeyance for up to 60 days pending an amendment.

**II. BACKGROUND**

2. The Department currently operates in the VHF band under call signs WQGS538 and KBJ645.<sup>4</sup> The Department states that "[c]urrent VHF portable radios must provide the flexibility of direct communications from officers who are outside of their vehicles"<sup>5</sup> and that "[v]ehicular repeaters are the only method of accomplishing this critical communications."<sup>6</sup> To fulfill this need, the Department "purchased VHF high-band simplex mobile repeater units in support of hand-held communications for the officers."<sup>7</sup>

<sup>1</sup> File No. 0003061539 and associated files, filed June 6, 2008: Waiver – Timely Action Requested (Waiver Request) and letter from Paul M. Strittmatter, Sheriff, and Jim Daggy, Captain/Enforcement Commander, Wayne County, Indiana, to Federal Communications Commission (dated May 16, 2007).

<sup>2</sup> 47 C.F.R. § 90.20(d)(54).

<sup>3</sup> See Waiver Request at 1. Frequency 173.210 MHz is shared between the Public Safety and Industrial/Business Pools. See 47 C.F.R. §§ 90.20(c)(3), 90.20(d)(34), 90.35(b)(3).

<sup>4</sup> Station WQGS538 has base station operation on frequency 151.220 MHz and low-powered portable mobile operation on frequency 159.045 MHz. Station KBJ645 has base station operations on frequencies 155.130, 155.370, and 155.580 MHz; and mobile operation (both high-powered vehicular and low-powered portable) on frequencies 154.830, 154.890, 155.130, and 155.475 MHz.

<sup>5</sup> Waiver Request at 1.

<sup>6</sup> *Id.*

<sup>7</sup> Letter at 1.

3. Specifically, the Department seeks to license Synthesized Vehicular Repeater (SVR) equipment manufactured by Pyramid Communications, Inc. (Pyramid)<sup>8</sup> for use on frequency 173.210 MHz with an effective radiated power (ERP) of one watt.<sup>9</sup> The Department seeks to use “an emission designator of 20K0F3E to allow the operation of a vehicular repeater which must interface and be compatible with existing VHF high band fixed and mobile radios which operate with that emission.”<sup>10</sup> It states that “[i]f a narrowband emission is used for frequency 173.210 MHz, the audio ... will be distorted and in some cases unintelligible [and] ... [c]ould result in the loss of life for Police officers.”<sup>11</sup> The Department notes that “[t]hese are low power units and require only several hundred feet of coverage from the patrol cars.”<sup>12</sup> The Department proposes a circular area of operation with a 24-kilometer radius that extends beyond the borders of the county. However, the Department notes that “the mobile units will not travel outside the county.”<sup>13</sup>

4. The Department requests a frequency in the 173.2-173.4 MHz band rather than in the 150-160 MHz band on the grounds that “interference ... can occur between the mobile radio and SVR operating within the same VHF band.”<sup>14</sup> To avoid such interference, the Department’s consultant notes that “the manufacturer has recommended ... a separation of at least 10 MHz between the mobile [transmit frequency] and SVR frequency while using these units in band.”<sup>15</sup> The Department contends that “[t]here are no co-channel users that will be impacted.”<sup>16</sup>

5. The Department states that “Wayne County is an economically disadvantaged area, the population base is small, and funds are not available to purchase radios in another band.”<sup>17</sup> The Department states that it “elected to go with VHF simplex mobile repeaters for our application because it would be compatible with all of our existing VHF hand-held radios.”<sup>18</sup> The Department argues that it “has no reasonable alternative than to seek the waiver ... due to the investment in the existing system and

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<sup>8</sup> See Letter from Gary A. Green, Tech Electronics & Communications, to Thomas Eng, Federal Communications Commission at 1 (dated Apr. 1, 2009) (Green Letter). Pyramid’s SVR equipment is certified for 16 kHz and 11 kHz bandwidth operation in the 150-174 MHz band in the Commission’s Equipment Authorization database. See FCCID LRUSVR-200VB. We note that Pyramid has filed a separate Petition for Rulemaking requesting that the Commission consider rule changes to facilitate the use of vehicular repeater units in the VHF band by Public Safety licensees. See Modification of Sections 90.20(d)(34) and 90.265 of the Commission’s Rules to Facilitate the Use of Vehicular Repeater Units, RM-11635, Petition for Rule Making, filed by Pyramid Communications, Inc. (filed Aug. 16, 2011). In its petition, Pyramid identifies certain frequencies in the 170 MHz band that it contends would be suitable for vehicular repeater use, but the identified frequencies do not include frequency 173.210 MHz. In this order, we do not consider, address, or prejudge the issues raised in Pyramid’s petition, but limit our analysis and base our decision solely on the facts presented in the Department’s waiver request.

<sup>9</sup> See FCC File No. 0003061539.

<sup>10</sup> Waiver Request at 1. The emission designator “20K0F3E” has a bandwidth of 20 kHz and indicates a frequency modulated signal carrying analog voice information. See 47 C.F.R. §§ 2.201, 2.202, 90.207.

<sup>11</sup> Waiver Request at 1. Frequency 173.210 MHz has a bandwidth limitation of 3 kHz. See 47 C.F.R. § 90.20(d)(54).

<sup>12</sup> Letter at 1.

<sup>13</sup> See File No. 0003061539, attached Letter (unsigned) to Federal Communications Commission (dated Jan. 12, 2006).

<sup>14</sup> *Id.* at 1.

<sup>15</sup> *Id.* at 2.

<sup>16</sup> Waiver Request at 1. See also File No. 0003061539, attached ComStudy plot.

<sup>17</sup> Waiver Request at 1.

<sup>18</sup> See Letter at 1.

the replacement costs which exceeds the budget of the county.”<sup>19</sup> The Department seeks to avert a solution involving another band such as UHF because “it would require the purchase of fifty new UHF radios and repeaters at considerable cost,” and “[t]he officers would then be required to carry a second hand-held radio while on duty.”<sup>20</sup> The Department maintains that “our current VHF radio system is 100% interoperable with all other agencies within and surrounding Wayne County Indiana.”<sup>21</sup> The Department states that “[t]he grant of this waiver is in the [p]ublic interest and would not frustrate the intent of the current rules.”<sup>22</sup>

6. A grant to use an “F3E” emission designator for analog-modulated voice operations<sup>23</sup> on frequency 173.210 MHz would require waivers of two other technical limitations besides limitation 54. First, the Department would require a waiver of limitation 36, which only allows digital modulation and data, telemetry, and telecommand information on this frequency.<sup>24</sup> Second, the Department would require a waiver of limitation 34<sup>25</sup> because the Department would conduct neither remote control nor telemetry operations on the frequency, but rather voice operations. Accordingly, the Department requires a waiver of limitations 34, 36, and 54.

7. On April 15, 2009, the Public Safety and Homeland Security Bureau (Bureau) placed the Department’s request on public notice.<sup>26</sup> The Bureau sought comment on the waiver request in light of the Commission’s January 1, 2013 narrowbanding deadline in the 150-174 MHz and 421-512 MHz bands, which requires land mobile radio systems in those bands to migrate to 12.5 kilohertz bandwidth channels or the equivalent efficiency.<sup>27</sup> The Department proposes a 20 kilohertz bandwidth emission, which would be prohibited as of January 1, 2013, unless the Department meets the 12.5 kilohertz narrowbanding standard.<sup>28</sup> The Bureau sought comment on whether a waiver grant should be conditioned on the Department migrating from 20 kilohertz to 12.5 kilohertz bandwidth or equivalent efficiency on frequency 173.210 MHz by January 1, 2013.<sup>29</sup> The Commission received one comment on this issue from the Enterprise Wireless Alliance (EWA).<sup>30</sup> While EWA takes no position on the merits of the waiver request, it urges the Commission to condition any waiver grant on the Department meeting the narrowbanding requirement by January 1, 2013.<sup>31</sup>

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<sup>19</sup> Waiver Request at 1.

<sup>20</sup> Letter at 1.

<sup>21</sup> *Id.*

<sup>22</sup> Waiver Request at 1.

<sup>23</sup> The “F” symbol indicates frequency modulation; the “3” symbol indicates analog modulation, and the “E” symbol indicates voice operations. See 47 C.F.R. § 90.207.

<sup>24</sup> See 47 C.F.R. § 90.20(d)(36).

<sup>25</sup> 47 C.F.R. § 90.20(d)(34). “This frequency is available on a shared basis with the Industrial/Business Pool for remote control and telemetry operations.” *Id.*

<sup>26</sup> See Public Safety and Homeland Security Bureau Seeks Comment on Request for Waiver Filed by the Wayne County Sheriff’s Department, Indiana to Permit Wideband, Analog Voice Operations on a Narrowband Telemetry Frequency, *Public Notice*, 24 FCC Rcd 4593 (PSHSB 2009) (*Public Notice*).

<sup>27</sup> *Id.*, 24 FCC Rcd at 4595.

<sup>28</sup> See File No. File No. 0003061539; 47 C.F.R. §§ 90.209(b)(5) note 3; 90.203(j)(3).

<sup>29</sup> *Public Notice* at 4595.

<sup>30</sup> See Comments of Enterprise Wireless Alliance, filed May 6, 2009, at 3.

<sup>31</sup> *Id.*

### III. DISCUSSION

8. To obtain a waiver of the Commission's rules, a petitioner must demonstrate either that: (i) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the present case, and that a grant of the waiver would be in the public interest;<sup>32</sup> or (ii) in view of 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.<sup>33</sup> An applicant seeking a waiver faces a high hurdle and must plead with particularity the facts and circumstances that warrant a waiver.<sup>34</sup>

9. The Department argues that under the second prong of the waiver standard, it faces unique or unusual factual circumstances because it "is an economically disadvantaged area, the population base is small, and funds are not available to purchase radios in another band."<sup>35</sup> The Department also argues that failure to obtain a waiver would be unduly burdensome because a solution involving another band would require it to purchase new radios at considerable cost, and that in light of this prospect and existing sunk costs it has no reasonable alternative than to seek the instant waiver.<sup>36</sup> We note that while financial hardship may constitute a factor in our determination of whether a waiver is appropriate, it is not the sole determinative factor in a waiver analysis.<sup>37</sup>

10. We also consider whether the applicant has any reasonable alternative. The Department asserts that 10 megahertz frequency spacing is required between the mobile and SVR frequencies.<sup>38</sup> Our independent analysis of Pyramid Communications' equipment revealed that optional filters could reduce the required frequency spacing down to two megahertz.<sup>39</sup> Thus, we examined whether the Department could use a Public Safety Pool frequency in the 150-160 MHz band that permits wideband, analog voice operation. The Department provided a VHF frequency search containing a list of all Public Safety Pool VHF frequencies and incumbent licensees located within 100 kilometers of the Department's center point coordinates.<sup>40</sup> Our independent analysis of the frequency search revealed no available frequency that is spaced more than two megahertz from the Department's licensed mobile frequencies.<sup>41</sup> Thus, we find that no other reasonable alternatives are available to the Department. We therefore conclude that the Department satisfies the second prong of the waiver standard.

11. Although the American Association of State Highway and Transportation Officials coordinated the Department's application,<sup>42</sup> we are concerned that authorizing the Department to operate at the increased bandwidth required to support voice operations could cause co-channel interference to

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<sup>32</sup> 47 C.F.R. § 1.925(b)(3)(i).

<sup>33</sup> 47 C.F.R. § 1.925(b)(3)(ii).

<sup>34</sup> *WAIT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969), *aff'd*, 459 F.2d 1203 (D.C. Cir. 1972), *cert. denied*, 409 U.S. 1027 (1972) (*citing Rio Grande Family Radio Fellowship, Inc. v. FCC*, 406 F.2d 664 (D.C. Cir. 1968)); *Birach Broadcasting Corporation, Memorandum Opinion and Order*, 18 FCC Rcd 1414, 1415 ¶ 6 (2003).

<sup>35</sup> Waiver Request at 1.

<sup>36</sup> *See supra* ¶ 5.

<sup>37</sup> *See Wilderness Valley Telephone Company, Order*, 15 FCC Rcd 11751, 11752-53 ¶ 6 (WTB PSPWD 2000).

<sup>38</sup> *See supra* ¶ 4.

<sup>39</sup> *See* <http://www.pyramidcomm.com/filters.html> (last visited September 9, 2010).

<sup>40</sup> *See* File No. 0003061539, attached ComStudy frequency search (Frequency Search).

<sup>41</sup> *See id.* *See supra* n.4 for the Department's mobile frequencies.

<sup>42</sup> Frequency Coordinator No. 05110312510510835. AASHTO is a Commission-certified frequency coordinator.

nearby incumbent stations,<sup>43</sup> especially given the incompatibility of voice operation with incumbent remote control and telemetry operation. We are also concerned that the increased bandwidth on frequency 173.210 MHz would overlap the bandwidth of adjacent frequencies 173.20375 and 173.225 MHz.<sup>44</sup> To mitigate these concerns, we therefore limit the Department's operation on frequency 173.210 MHz to operation on a secondary, non-interfering basis to all primary stations on frequencies 173.20375, 173.210, and 173.225 MHz that are authorized as of the grant date of the Department's application.<sup>45</sup> We are also concerned that the Department's proposed operating area, which is defined by coordinates with a 24-kilometer radius, would extend coverage beyond the county borders and could introduce unnecessary potential for interference to other incumbent stations. Moreover, the Department has stated that its mobile units will not travel outside the county.<sup>46</sup> To ensure efficient use of spectrum and avoid unnecessary interference to other spectrum users, it is important for a station license to reflect actual operating parameters. Therefore, we instruct the Department to amend its application within 60 days to change the mobile area of operation of Location 1 to the borders of Wayne County, consistent with the mobile area of the Department's Station KBJ645.

12. We also note that the application lists 160 units with station class code "MO."<sup>47</sup> This is the class code for mobile or portable units; vehicular repeaters have a different class code of "MO3" that is not present on the application.<sup>48</sup> Therefore, in the same application amendment, we instruct the Department to specify the quantity of vehicular repeaters using the "MO3" station class code.<sup>49</sup> We will hold the application in abeyance for 60 days after the release of this Order or until the Department amends the application, whichever comes first. If the Department fails to file a satisfactory amendment within 60 days, we will dismiss the application.<sup>50</sup>

13. We agree with EWA that the Department should be obligated under this waiver to meet the January 1, 2013 narrowbanding deadline with respect to operations on frequency 173.210 MHz.<sup>51</sup> The Department's regular VHF licenses are subject to the narrowbanding requirement. Thus, if the Department were to continue to operate at 20 kilohertz bandwidth on frequency 173.210 MHz after the Department has transitioned its other VHF facilities to narrowband operations, communications quality

<sup>43</sup> See, e.g., co-channel Stations KNJB955, KNNQ682, WNAN628, KNNQ687, WNQN453, WNQN362, WNQN366, WPBR643, WPBR644 (Southwest Regional Water District, Hamilton, Ohio), and WPCH648 (Town of Ingalls, Indiana).

<sup>44</sup> Frequency 173.20375 MHz has a bandwidth limit of 6 kHz. See 47 C.F.R. § 90.20(d)(33). The separation between the two frequencies is 6.25 kHz. There is a wider separation of 15 kHz between frequency 173.210 MHz and the other adjacent frequency, 173.225 MHz.

<sup>45</sup> Secondary operations are "radio communications which may not cause interference to operations authorized on a primary basis and which are not protected from interference from those primary operations." 47 C.F.R. § 90.7.

<sup>46</sup> See *supra* para. 3. On File No. 0003061539, Form FCC 601, Schedule D, Location 1, the Department should change Item 4 from "P" to "C" to reflect county wide area of operation, and enter "Wayne County, IN" in Item 3. The Department should delete the coordinates and radius in Items 7, 8, and 18.

<sup>47</sup> See File No. 0003061539.

<sup>48</sup> See Form FCC 601, Schedule H – Instructions at 5.

<sup>49</sup> On File No. 0003061539, Form FCC 601, Schedule H, the Department should complete Items 19-37, as applicable, for the vehicular repeaters. In particular, the Department should enter "1" in Item 20 to use the same mobile area of operation as regular mobile units. Next, the Department should enter "173.210" for the frequency in Item 31, and "MO3" for the station class in Item 32. The Department should specify the quantity of vehicular repeaters in Item 33.

<sup>50</sup> The Department would have the option to reapply for frequency 173.210 MHz consistent with the terms of this Order, in which case the Department should attach a copy of this Order as an exhibit.

<sup>51</sup> 47 C.F.R. § 90.209(b)(5) note 3.



between the two systems could be degraded. Accordingly, we condition the waiver on the Department migrating its operations on frequency 173.210 MHz to 12.5 kilohertz bandwidth or equivalent efficiency by January 1, 2013.

14. We recognize that the public interest supports the Department's goal to ensure that officers are able to communicate with handheld radios outside of their vehicles. However, we advise the Department and the public safety community in general against investing in communications equipment without first ensuring that they can obtain proper authorization to use such equipment, especially if it appears that the equipment cannot operate on available public safety spectrum or would otherwise require a waiver of the Commission's rules.

#### IV. CONCLUSION

15. Because we find that the Department has met the criteria to obtain a waiver of Sections 90.20(d)(34), (36), and (54), we grant the waiver request with the following conditions:

- "Operation on frequency 173.210 MHz is on a secondary, non-interfering basis to all primary stations on frequencies 173.20375, 173.210, and 173.225 MHz that are authorized as of the initial grant date of this station."
- "Beginning January 1, 2013, this station must operate on channels with a bandwidth of 12.5 kHz or less, or with equivalent efficiency, regardless of the emission bandwidths set forth on this license. See Section 90.209(b)(5) of the Commission's Rules."

In addition, we instruct the Department to file an application amendment within 60 days to change the mobile area of operation to county-wide, and to specify the quantity of vehicular repeaters with the "MO3" station class code. We will hold the application in abeyance for 60 days after the release date of this order to allow the Department to file such an application amendment.

#### V. ORDERING CLAUSES

16. Accordingly, WE ORDER that pursuant to Section 4(i) of the Communications Act of 1934, 47 U.S.C. § 154(i), and Section 1.925 of the Commission's rules, 47 C.F.R. § 1.925, the Request for Waiver of Section 90.20(d)(54) of the Commission's rules, 47 C.F.R. § 90.20(d)(54), filed by the Wayne County Sheriff's Department, Indiana, on June 6, 2007, IS GRANTED, as conditioned herein.

17. WE FURTHER ORDER that we SHALL HOLD IN ABEYANCE application File No. 0003061539 for up to 60 days from the release date of this Order to allow Wayne County Sheriff's Department, Indiana to amend application File No. 0003061539 consistent with the instructions in this Order.

18. This action is taken under delegated authority pursuant to Sections 0.191 and 0.392 of the Commission's rules, 47 C.F.R. §§ 0.191, 0.392.

FEDERAL COMMUNICATIONS COMMISSION

Thomas J. Beers  
Chief, Policy and Licensing Division  
Public Safety and Homeland Security Bureau