



PUBLIC NOTICE

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**PUBLIC SAFETY AND HOMELAND SECURITY BUREAU SEEKS COMMENT ON
PYRAMID COMMUNICATIONS INC.'S PETITION FOR RULEMAKING TO FACILITATE
THE USE OF VEHICULAR REPEATER UNITS BY PUBLIC SAFETY LICENSEES IN THE
VHF BAND**

RM-11635

Comment Date: November 4, 2011

Reply Comment Date: November 18, 2011

On June 27, 2010, Pyramid Communications, Inc. (Pyramid) filed a petition for rulemaking¹ requesting that the Commission consider rule changes to facilitate the use of vehicular repeater units, also known as vehicular repeater systems (VRS), in the VHF band by Public Safety licensees. Pyramid states that it is “a designer and manufacturer of wireless data and voice transmission equipment.”² VRS units are “portable transmitters designed to extend coverage of radio systems to the inside of buildings by repeating transmissions received from portable radios to distant repeaters.”³ Pyramid filed the petition rulemaking because it “is concerned with the lack of VHF spectrum available for VRS use.”⁴

Pyramid notes that “an overwhelming number of buildings lack Bi-Directional Amplifiers (‘BDAs’) or similar technology to ensure that a firefighter or police officer inside a building is able to communicate back to the dispatch center, or even to first responders just outside a building, in a crisis.”⁵ Furthermore, Pyramid claims that “VRS units provide vital extended radio coverage inside of such buildings, and serve to protect life, safety and property of both public safety officers and local citizens.”⁶

¹ Modification of Sections 90.20(d)(24) [sic] and 90.65 [sic] of the Commission’s Rules to Facilitate the Use of Vehicular Repeater Units, Petition for Rule Making of the Pyramid Communications, Inc. (filed June 27, 2011) (Initial Petition); Modification of Sections 90.20(d)(34) and 90.265 of the Commission’s Rules to Facilitate the Use of Vehicular Repeater Units, Petition for Rule Making of the Pyramid Communications, Inc. (amended Aug. 16, 2011) (Amended Petition); Petition to Supplement of Pyramid Communications (filed Aug. 16, 2011).

² Amended Petition at 1.

³ *Id.* at 8.

⁴ Amended Petition at 1.

⁵ *Id.* at 2.

⁶ *Id.* at 1-2.

In this regard, Pyramid states that “[w]hen first responders go into the building, the firefighter or officer communicates to the VRS unit on a frequency which is not affiliated with the agency’s main trunked radio system. The VRS unit then transmits that communication to the main repeater site on the agency’s main frequencies, using existing mobile radios which are also mounted in the vehicle.”⁷ Consequently, according to Pyramid, the VRS unit “utilizes a separate radio frequency in the short distance between the user in the building and the vehicle outside.”⁸

Pyramid contends that “[i]n order to perform that re-transmission of the signal from one frequency to another, current filter technology requires a separation of at least 2-5 MHz from every frequency in the mobile radio.”⁹ Pyramid argues that “[t]he need for specific VRS spectrum is particularly acute in the VHF band, where there is virtually no allocated spectrum ... which is: (1) sufficiently distant from the 150-159 MHz public safety frequencies; and (2) not already saturated with existing base/mobile operations.”¹⁰

Pyramid identifies two specific VHF allocations for communication between portable radios and VRS units. First, Pyramid “requests that the Commission amend Section 90.265(c) of the Commission’s Rules,” which “allocates certain 170, 171, and 172 MHz frequencies for Forest Firefighting and Conservation use.”¹¹ Pyramid asserts that “lifting of the forest fire only limitation can result in an additional nine frequencies which could be used for VRS operations not only to fight forest fires, but also building fires.”¹² Pyramid states that it “if there remains a concern about potential interference [from police users to firefighters], Pyramid would not oppose a limitation on these specific Forestry Conservation frequencies to restrict VRS use to firefighters.”¹³

Second, Pyramid identifies frequencies in the 173 MHz band for fixed non-voice operations that are shared between the Public Safety and Industrial/Business Pools.¹⁴ Pyramid argues that the Land Mobile Communications Council has developed frequency coordination standards by which radio systems can be coordinated on adjacent frequencies where bandwidths overlap.”¹⁵ Pyramid states, “[o]n this basis, Pyramid believes that the time is appropriate for removing the thirty year old restriction on voice operation, allowing for low power VRS operation on 173.2375, 173.2625, 173.2875, 173.3125, 173.3375, and 173.3625 MHz.”¹⁶

⁷ Amended Petition at 2.

⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.* at 4.

¹¹ *Id.* See 47 C.F.R. § 90.265(c).

¹² Amended Petition at 4.

¹³ *Id.* at 5.

¹⁴ See *id.* at 6-7. The frequencies are 173.2375, 173.2625, 173.2875, 173.3125, 173.3375, and 173.3625 MHz.

¹⁵ Amended Petition at 6-7.

¹⁶ *Id.* at 7.

Pyramid requests the following rule changes:

“Section 90.7 (amended to add) – *Vehicular Repeater Units*. Vehicular Repeater Units are portable transmitters designed to extend coverage of radio systems to the inside of buildings by repeating transmissions received from portable radios to distant repeaters.”¹⁷

“Section 90.20(d)(34) – This frequency is available on a shared basis with the Industrial/Business Pool for remote control and telemetry operations. In the Public Safety Pool, this frequency may also be used for Vehicular Repeater Units.”¹⁸

“Section 90.265(c)(2) – The frequencies 170.425 MHz, 170.475 MHz, 170.575 MHz, 171.425 MHz, 171.575 MHz, 172.225 MHz, and 172.275 MHz will be assigned only to licensees directly responsible for the prevention, detection, and suppression of forest fires. These frequencies are also available to eligible licensees for the use of Vehicular Repeater Units.”¹⁹

“Section 90.265(c)(3) – The frequencies 171.475 MHz and 172.275 MHz will be assigned to licensees directly responsible for the prevention, detection, and suppression of forest fires; or to licensees engaged in forest conservation activities for mobile relay operation only. These frequencies are also available to eligible licensees for the use of Vehicular Repeater Units.”²⁰

We note that the Initial Petition identified four “immediately adjacent frequencies” to the six 173 MHz frequencies for VRS operation.²¹ We seek clarification on whether to consider all ten 173 MHz frequencies for VRS operation.²² We also seek comment on whether other rule changes would be necessary to facilitate VRS in the 173 MHz band, as Pyramid contemplates. Since voice communications typically occupy bandwidths of 20 kHz and 11.25 kHz, would it be necessary to remove limitations 33 and 54 as applicable to these frequencies in the Public Safety Pool Frequency Table?²³ Furthermore, in order to “remove[e] the thirty year old restriction on voice operation,” would it be necessary to modify the list of permitted emission designators in limitation 36?²⁴

¹⁷ Amended Petition at 8.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.* at 9.

²¹ Initial Petition at 7 note 10. The frequencies are 173.20375, 173.210, 173.390, and 173.39625 MHz.

²² One of the four additional frequencies, 173.210 MHz, is the subject of a pending application and waiver request involving VRS. See File No. 0003061539 and associated attachments.

²³ See 47 C.F.R. § 90.20(d)(33), (54). These rules limit the bandwidth to 6 kHz and 3 kHz, respectively, and have other limitations such as maximum frequency deviation.

²⁴ See Amended Petition at 7. See also 47 C.F.R. § 90.20(d)(36). “The maximum power output of the transmitter may not exceed 50 watts for fixed stations and 1 watt for mobile stations. A1A, A1D, A2B, A2D, F1B, F1D, F2D, G1B, G1D, G2B, or G2D emission may be authorized.” *Id.* Pyramid “believes that the 1 watt limitation on Section 90.20(d)(36) may remain.” Amended Petition at 7 note 12.

We seek comment on whether to initiate a rulemaking proceeding to consider Pyramid's recommended rule changes and other rule changes that would be necessary to facilitate the use of VRS by Public Safety licensees in the VHF band. Commenting parties should address the potential costs and benefits of Pyramid's proposal, including: (1) how and in what ways the remote control and telemetry channels are used today; (2) the compatibility of the proposed VRS voice operations with incumbent remote control and telemetry operations; and (3) adjacent channel interference as a result of modifying or removing bandwidth limitations on frequencies in the 173 MHz band.

Interested parties may file statements supporting or opposing the initiation of a rulemaking proceeding on or before **November 4, 2011**.²⁵ Parties may file replies on or before **November 18, 2011**.²⁶ Parties may file statements and replies electronically²⁷ or by paper.

- **Electronic Filing:** Parties may file statements by accessing the ECFS: <http://www.fcc.gov/cgb/ecfs> or the Federal eRulemaking Portal: <http://www.regulations.gov>. Parties should follow the instructions provided on the website for submitting comments. ECFS filers should include their full name, U.S. Postal Service mailing address, and the rulemaking number. Alternatively, parties may submit statements by email. For filing instructions and a sample form, filers should email ecfs@fcc.gov and include the words "get form" in the body of the message.
- **Paper Filing:** Parties who file by paper must file an original and four copies of each filing with the Commission. Parties must also submit an additional copy to the Commission's copy contractor, Best Copy and Printing, Inc. (BCPI), Portals II, 445 12th Street, SW, Room CY-B402, Washington, D.C. 20554, (voice) (202) 488-5300, (fax) (202) 488-5563, (TTY) (202) 488-5562, or fcc@bcpiweb.com. The Commission accepts paper filings sent by hand, or messenger delivery, commercial overnight courier, or first-class or overnight U.S. Postal Service mail (although the Commission continues to experience delays in receiving U.S. Postal Service mail). Address paper filings to: Marlene H. Dortch, Office of the Secretary, Federal Communications Commission, 445 12th Street, SW, Washington, D.C. 20554.
 - Send hand-delivered or messenger-delivered paper filings for the Commission's Secretary to the Commission's contractor, Natek, Inc. at 236 Massachusetts Avenue, NE, Suite 110, Washington, D.C. 20002, Monday through Friday from 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Discard all envelopes before entering the building.
 - Send commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) to 9300 East Hampton Drive, Capitol Heights, M.D. 20743.

²⁵ 47 C.F.R. § 1.405.

²⁶ *Id.*

²⁷ See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998)

- Send U.S. Postal Service first-class, Express, and Priority to 445 12th Street, SW, Washington, D.C. 20554.

Parties may access documents submitted in **RM-11635**, including the Petition, by visiting the Commission's ECFS and inputting **RM-11635** in the "Proceeding" search field. These documents are also available for public inspection and copying during business hours at the FCC Reference Information Center, Portals II, 445 12th St. SW, Room CY-A257, Washington, D.C. 20554. The documents may also be purchased from BCPI. Email fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau, (voice) (202) 418-0530, (TTY) (202)-418-0432 to request materials in formats accessible to people with disabilities, e.g. Braille, large print, electronic files, audio format.

For further information regarding this proceeding contact Thomas Eng, Policy and Licensing Division, Public Safety and Homeland Security Bureau, (voice) (202) 418-0019 or Thomas.Eng@fcc.gov.

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