

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

In the Matter of
STATE OF ALASKA
Request For Waiver of Section 90.20(c)(3) of the
Commission's Rules
File No. 0007652388

ORDER

Adopted: November 30, 2017

Released: November 30, 2017

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

I. INTRODUCTION

1. In this Order we grant a request by the State of Alaska (Alaska) for a waiver of Section 90.20(c)(3) of the Commission's rules to operate a new VHF base station on four channels using non-standard channel centers.

II. BACKGROUND

2. Alaska operates a wide area VHF public safety trunked radio system known as the Alaska Land Mobile Radio System (ALMR) which serves local, state and federal agencies throughout the State of Alaska using a single shared infrastructure. Users of the ALMR system share repeaters, RF sites, towers, and dispatch centers.

3. The ALMR system operates using Project 25 technology and pairs approximately 1.5 megahertz of spectrum from the Public Safety Pool (150 MHz band) with an equal amount of spectrum from the Federal Government (138-144 MHz band) to create 110 channel pairs (12.5 kHz bandwidth). Channels from the Public Safety Pool are used in the ALMR system for base station transmissions and channels from the Federal Government band are used for mobile station transmissions.

4. When it originally designed its ALMR system, Alaska noted that it had some difficulty pairing Public Safety Pool spectrum with spectrum from the Federal Government because channels in the Public Safety Pool from the 150 MHz band are assigned using channel centers spaced every 7.5 kHz whereas the channels from the Federal Government from the 138-144 MHz band are assigned using

1 See ULS application number 0007652388, filed February 7, 2017 (Alaska Application). See also Letter from John Lynn, Jr, Communications Engineer, State of Alaska, Department of Administration, Enterprise Technology Services to Federal Communications Commission (May 11, 2017) (attached to Alaska Application) (Waiver Request).

2 Waiver Request at 1. See also State of Alaska, Request for Waiver of Sections 2.102(c), 2.103(a), 90.20, and 90.173(c) of the Commission's Rules, Memorandum Opinion and Order, 18 FCC Rcd 16315, 16318, para. 4 (WTB 2003) (ALMR MO&O).

3 ALMR MO&O at 16318, para. 4.

4 Id. at 16319, para. 5.

5 Id.

channel centers spaced every 12.5 kHz.⁶ Therefore, in May 2002, Alaska sought a waiver of section 90.20(c)(3) of the Commission's rules so it could re-channelize the Public Safety Pool by using a 12.5 kHz rather than a 7.5 kHz channel spacing.⁷ By re-channelizing Public Safety Pool channels, Alaska stated it could maximize the number of paired channels available to it for use in the ALMR system.⁸

5. In August 2003, the Wireless Telecommunications Bureau granted Alaska a waiver of Section 90.20(c)(3) so it could operate certain Public Pool channels at its ALMR base stations using channel centers which are offset 2.5 kHz above or below the standard channel centers listed in the Commission's rules.⁹ By offsetting certain channels, Alaska is able to achieve the 12.5 kHz separation between channel centers it seeks.¹⁰ In granting the waiver requests, however, the Wireless Telecommunications Bureau stated that its decision applied only to the applications before it at that time.¹¹ It noted that future applications for the ALMR system "must also request waivers of the Commission's Rules, as necessary."¹²

6. On February 7, 2017, Alaska filed an application to add a base station to the ALMR system located in Delta Junction, Alaska.¹³ According to Alaska, users operating mobile units near Delta Junction are experiencing coverage issues because a ridge which runs through the town shields it from the nearest ALMR base station.¹⁴ Alaska states that "poor coverage has become an issue" so it seeks to "mitigate" the situation by adding a new base station in Delta Junction.¹⁵

7. Therefore, Alaska seeks to license five Public Safety Pool channels at its proposed new base station in Delta Junction, Alaska. It seeks a waiver of Section 90.20(c)(3) of the Commission's rules so it can operate four of the five channels with center frequencies which are offset 2.5 kHz above or below the standard channel centers listed in Section 90.20(c)(3).¹⁶ The channels Alaska seeks to license at Delta Junction, Alaska are listed in Attachment A.

8. In support of its waiver request, Alaska states "[i]t is necessary to use the same frequency step size for both base stations and subscribers so that the radios can calculate and associate the base and mobile frequencies with each other correctly."¹⁷ Alaska notes "[a]ny deviation from this plan would require reprogramming approximately 20,000 mobile radios currently in use on the ALMR system."¹⁸

⁶ See 47 CFR § 90.20(c)(3) (for channel spacing in the 150 MHz band in the Public Safety Pool). See also attachment labeled "WAIVER" to ULS application number 0001036496, filed September 23, 2002 at 24-25, 42 (2002 ALMR Waiver Request) (for a description of Alaska's efforts to pair 150 MHz Public Safety Pool channels with 138-144 MHz Federal Government channels).

⁷ 2002 ALMR Waiver Request at 1, 25, 42. Specifically, Alaska sought to offset thirty-one frequencies by -2.5 kHz at 143 sites across the state and offset thirty frequencies +2.5 kHz at 134 sites across the state. *Id.* at 42.

⁸ *Id.* at 25.

⁹ *ALMR MO&O*, 18 FCC Rcd 16326-27 para. 15.

¹⁰ See 2002 ALMR Waiver Request at 45-49.

¹¹ *ALMR MO&O*, 18 FCC Rcd 16333 para. 26.

¹² *Id.*

¹³ Alaska Application.

¹⁴ Waiver Request at 1.

¹⁵ *Id.*

¹⁶ Alaska seeks to operate on two channels which are offset 2.5 kHz above the standard channel center, two channels which are offset 2.5 kHz below the standard channel center and on one channel with a standard channel center. See Alaska Application. See also 47 CFR § 90.20(c)(3).

¹⁷ Waiver Request at 1.

¹⁸ *Id.*

Therefore, it argues that by operating channels at its proposed new base station in Delta Junction which conform to the rest of the ALMR network “existing [subscriber] radios will be able to use the new base station with no change to their programming.”¹⁹

9. Alaska includes with its application a letter from its frequency coordinator noting that the frequency coordinator considered any “non-standard offsets” as co-channel to the nearest standard channel for purposes of coordination.²⁰ The frequency coordinator states that, because Delta Junction is “a fairly remote area of Alaska,” its frequency search found no other licensees operating on or adjacent to three of the five channels requested.²¹ The frequency coordinator notes that it expects no interference on the other two channels because of a lack of spectral overlap between Alaska and incumbents operating on adjacent channels.²²

III. DISCUSSION

10. 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,²³ 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.²⁴ We conclude Alaska has demonstrated that its request for waiver of Section 90.20(c)(3) to operate offset frequencies at its new base station should be granted under the second prong of the waiver standard.

11. *Offset Frequencies.* In this instance, we find it unduly burdensome to require Alaska to only operate on channels using standard channel centers at its proposed new base station in Delta Junction because, as it explains, base stations in the ALMR system must use the same “step size” between channels at the mobile units in order for the mobile units to properly associate with the system’s base stations. Since mobile units in the ALMR system operate on Federal frequencies using a channel spacing of 12.5 kHz, the new Delta Junction base station must also operate on channels with the same channel spacing in order for the mobile units to recognize it as a base station in the ALMR system.

12. We find Alaska has no reasonable alternative to operating on certain channels which are offset 2.5 kHz above or below the channel centers listed in Section 90.20(c)(3) of the Commission’s rules so it can operate using “the original frequency plan” for the ALMR system at its proposed new base station.²⁵ Without the ability to operate on re-channelized Public Safety Pool channels, Alaska would either need to reprogram the more than 20,000 mobile units in use in its system or forgo adding a base station to its system in Delta Junction, Alaska.²⁶ Therefore we find it contrary to the public interest to deny Alaska’s waiver request in this instance.

13. In making our decision, we find persuasive the fact that Alaska’s frequency coordinator considered incumbents operating on the adjacent-standard channel centers as co-channel to Alaska when it coordinated Alaska’s proposed operation on offset channels.²⁷ Therefore, we conclude that Alaska’s

¹⁹ *Id.*

²⁰ Attachment to Alaska Application labeled “COORDINATOR’S ENGINEERING STATEMENT” (Aug. 31, 2017) (Frequency Coordinator Statement).

²¹ *Id.*

²² *Id.*

²³ 47 CFR § 1.925(b)(3)(i).

²⁴ 47 CFR § 1.925(b)(3)(ii).

²⁵ Waiver Request at 1.

²⁶ *Id.*

²⁷ Frequency Coordinator Statement.

proposal to operate its new base station in Delta Junction, Alaska using four channels offset 2.5 kHz above or below the standard channel centers will have no adverse effect on incumbents operating within the state on the adjacent standard channels.

14. *Future Requests for Offset Channels.* We waive Section 90.20(c)(3) of the Commission's rules so Alaska can, in the future, license additional offset channels for the ALMR system provided it includes with its application a statement from its frequency coordinator certifying that all offset channels were analyzed, for coordination purposes, as co-channel to the nearest standard adjacent channel. In this manner, we allow Alaska to expand operation of the ALMR system without it needing to seek a waiver while still protecting incumbents operating on standard channels from interference. We find it appropriate to allow Alaska to expand operation of the ALMR system as needed based on staff's knowledge that Alaska has operated on offset channels without incident since 2003. Furthermore, the ALMR system has proven to be a successful partnership of federal and non-federal agencies within the State of Alaska serving as many as 106 federal and non-federal agencies throughout the state.²⁸

15. *Mobile-Only Channels.* Finally, we note that Alaska seeks to operate two channels at its proposed new base station which are designated under Commission rules only for mobile use.²⁹ Per section 90.173(h), licensees may operate base stations on channels from the Public Safety Pool which are reserved solely for mobile use provided the base station operates on a secondary, non-interference basis to mobile operations. Consequently, we grant Alaska's request to operate its base station on the two mobile-only channels listed in its application but designate its operation on those channels as secondary to mobile operations. If Alaska seeks to upgrade its status to primary, it would need to seek a waiver of section 90.173(h) and explain why it was unable to identify a Public Safety Pool channel for use at its base station, which channel is designated under Commission rules for base station use. Alaska would face a heavy burden in obtaining a waiver because of the Commission's experience in having to resolve interference complaints arising from a licensee using a mobile-only channel for base station operations.³⁰

IV. ORDERING CLAUSES

16. Accordingly, IT IS ORDERED, pursuant to Sections 4(i) and 303(c) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(c), and Section 1.925 of the Commission's rules, 47 CFR § 1.925, that the waiver request associated with ULS File No. 0007652388 filed by the State of Alaska, IS GRANTED and the associated application SHALL BE PROCESSED accordingly.

²⁸ *Id.*

²⁹ Alaska seeks to operate one mobile-only channel using a standard channel center and on the other mobile-only channel with a channel center offset 2.5 kHz below the standard channel center listed in the Commission's rules. *See* Attachment A. *See also* 47 CFR § 90.20(c)(3).

³⁰ *See, e.g., Union County, Florida, Order Proposing Modification, 30 FCC Rcd 181 (PSHSB 2015).*

17. This action is taken under delegated authority pursuant to Section 155(c) of the Communications Act of 1934, as amended, 47 U.S.C. § 155(c) and Sections 0.191 and 0.392 of the Commission's rules, 47 CFR §§ 0.191, 0.392.

FEDERAL COMMUNICATIONS COMMISSION

Michael J. Wilhelm
Chief, Policy and Licensing Division
Public Safety and Homeland Security Bureau

Attachment A
Channels Requested by State of Alaska for ULS Application No. 0007652388

Frequency	Station Class Code	Offset or Standard Channel	Base or Mobile Under Section 90.20(c)(3)
155.6875 MHz	FB8	+2.5 kHz above 155.6850 MHz	Base or Mobile
154.8875 MHz	FB8	-2.5 kHz below 154.8900 MHz	Mobile-Only
154.7375 MHz	FB8	-2.5 kHz below 154.7400 MHz	Base or Mobile
155.0875 MHz	FB8	+2.5 kHz above 155.0850 MHz	Base or Mobile
155.8500 MHz	FB8	Standard	Mobile-Only