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April 14, 2015

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

Re: WT Docket 13-59
Supplement to Petition For Reconsideration, Cornerstone SMR, Inc. et. al

Dear Ms. Dortch:

Cornerstone SMR, Inc. and Comtran Associates, Inc. hereby supplement their Petition For Reconsideration filed in the above captioned matter on April 13, 2015 to include a Certificate of Service that was omitted from the earlier filed document. In an abundance of caution, the entire Petition For Reconsideration with the omitted Certificate follows.

If there are any questions regarding this matter, please direct them to undersigned counsel.

Very truly yours,

Robert H. Schwaninger

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	WT Docket 13-59
PTC-220, LLC, Request for Waiver to Facilitate Deployment of Positive Train Control Systems	)	File Nos. 0005631265, 0005631266, 0005631269, 0005631270, 0005631271, 0005631272, 0005631282, 0005631284, 0005631286, 0005631289, 0006225216

To: Chief, Mobility Division, Wireless Telecommunications Bureau

PETITION FOR RECONSIDERATION

Cornerstone SMR, Inc. And Comtran Associates, Inc. ("Petitioners"), by and through counsel, hereby file this Petition For Reconsideration to the Bureau's *Memorandum Opinion and Order*, DA 15-332, released March 13, 2015, in the above docketed matter ("MO&O"). Petitioners are licensees of myriad 220-222 MHz licenses throughout the United States and have invested considerable resources in constructing networks to serve the public. They hold a number of areawide licensees which, of course, have rail yards and various rail hubs located within their authorized operating areas. Accordingly, Petitioners have obvious interests in assuring that the operation of PTC systems do not create interference to Petitioners' operations on channels that they acquired via purchase and/or auction.

Petitioners believe that the Bureau's careful approach to PTC-220, LLC's ("PTC-220") waiver request is warranted and Petitioners further state that as to those issues addressed by the Bureau, the Bureau's approach to protect non-PTC-220 operations is appreciated. However, Petitioners herein request that on reconsideration the Bureau should examined some of the aspects of its decision to see if additional protections are necessary and reasonable.

I. Concerns With Mobile Operations

As an initial matter, Petitioners note that little consideration of mobile operations was provided under the Bureau's decision. Although fixed operations pose a threat to non-PTC-220 systems which may be ameliorated via careful frequency coordination and sufficient notification, there is insufficient protection from interference caused by mobile operations on locomotives. The Bureau's decision does not make clear what technical criteria will guide a PTC-220 operator in the deployment of mobile units and what notification requirements are necessary to assure that mobile units do not produce spurious or out-of-band or adjacent channel interference to non-PTC-220 operations. This consideration is critical due to the nature of rail operations.

If, for example, a locomotive is operating in a manner that produces interference to licensed, commercial operations, that locomotive could move from licensed area to licensed area, down a set of tracks without ever being capable of identification while it continues from state to state creating problems for licensee after licensee. Petitioners have spoken to other 220-222 MHz licensees operating throughout the Country, and more than one (as has Cornerstone) experienced interference from non-fixed sources which were suspected to be locomotives moving through the area. Although Petitioners appreciate the Bureau's decision when it states, "[w]e emphasize that should interference to other licensees' operations occur despite these safeguards, PTC-220 will be required to promptly remedy such interference at its own expense"[1] there exists the practical problem of identifying with sufficient certainty mobile sources of interference which PTC-220 would be willing to address and remedy. Petitioners doubt that PTC-220 would take much action based on supposition, even if such supposition was likely true.

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[1] MO&O at ¶ 10.

The more likely scenario would be that unless the interference was constant and confined to an area near, say, a rail yard, it would be quite difficult to detect with certainty and complaints could be rebuffed by PTC-220. Accordingly, the Bureau's decision places the burden of proof on non-PTC-220 licensees to chase down locomotives moving through the licensee's area causing interference in a race to catch the errant transmitter before it rolls over the horizon into another licensee's operating area. This very real threat is not an attractive proposition for non-PTC-220 licensees.

Petitioners respectfully request that if the Bureau deems upon reconsideration that its grant of the PTC-220 waiver remains appropriate, the Bureau should consider what steps or technical criteria for operation should be required to provide greater assurances to adversely affected licensees. One possible limitation which could address licensees' continuing concerns is to state that the waiver will not apply to long-haul operations and that operation of PTC-220 equipped locomotives must be within a single area, i.e. short line and commuter rail that serves a specific geographic area such as single city or county. In that manner an interfering operation can be located, identified and remedied. Combined with enhanced requirements regarding filtering and emission masks[2], the Bureau can greatly limit the threat of harmful interference from PTC-220 equipped locomotives.

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[2] PTC-220 claims that radios under development will have emission levels closer to -35 dBm at the center of an adjacent 5 kHz channel, MO&O at ¶ 21. Since the Congressional mandate has been extended, it is logical to await deploying these systems until the improved mobile units become available.

II. Co-channel Interference

The Bureau re-adopted a 30-day notification requirement[3] and coupled that with 38 dBu field strength limit[4] to protect co-channel operations to Economic Area licensed operations. Although the Bureau's efforts are laudable, the requirements fall short of what is necessary to protect co-channel licensees and shifts an additional burden onto the EA licensees. A notification requirement is just that, notice. But notice without analysis to demonstrate why the Association of American Railroads or PTC-220 deem that the proposed operation will not cause harmful interference to the EA licensee renders that notice incomplete.

Under the Bureau's guidelines, an EA licensee receiving such notice is put to the task of determining for itself whether the PTC-220 operations are appropriate. This requires RF engineering and propagation analysis to make such a determination. Levying such costs on EA licensees is simply not equitable. It requires EA licensees to not only pay for their use of the spectrum via auction, then pay to protect that same spectrum from encroaching PTC-220 operations. The burden to demonstrate that the likelihood of interference has been fully mitigated should be on PTC-220, not the EA licensee.

Attached hereto as Exhibit A is a sample of such notice. Although it provides some of the technical information required for notice, there is no demonstration of any effort to determine whether the proposed operation will cause interference. Additionally, there is little or no information regarding the type of equipment to be employed, whether directional antennas are to be used, and

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[3] *PTC-220 2009 Waiver Order* at 8545 ¶ 19, MO&O at ¶ 19.

[4] *Id.*

what "research"[5] AAR relied upon to make its assumption that existing stations would not be affected. Cornerstone is entitled to know what data AAR is using in making its claims of future, innocent operations and how that data was applied to result in AAR's general conclusion.[6] Cornerstone has requested additional technical information from AAR but no reply has been forthcoming.

Petitioners deem it material to discover what emission designator will the equipment employ, what will be the anticipated mobile loading so that the level of potential interference can be appreciated and analyzed, and other relevant data. In sum, Petitioners aver that more information should accompany future notifications and that the burden to demonstrate that interference will not be caused remain on PTC-220 and/or AAR.

Petitioners respectfully request that notice from AAR should include such information as is reasonably required to demonstrate that interference to EA licensees shall not be caused by the proposed facilities and that the proposed facilities are, indeed, compliant with the FCC rules, as waived.

III. Coordination Requirements

As stated above, the notification requirement is not sufficient for non-PTC 220 licensees to make a determination regarding potential interference. When coupled with the conditional waiver of Section 90.723(f) the threat to commercial licensees is increased. PTC-220's stated reason for

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[5] AAR letter at second paragraph.

[6] The expressed "Height" of the proposed antenna is not expressed as AGL or HAAT, therefore, the proposed stations may, in fact, violate the Bureau's height restrictions. The notification does not state otherwise.

grant of the conditional waiver is to assist PTC-220 in avoiding extended deployment delays.[7] Petitioners respectfully aver that PTC-220's reasoning does not arise to the standards for grant of a waiver. Deployment delays caused by a licensee's adherence to good rf engineering practices to protect the viability of authorized facilities should not be deemed a basis for waiver. That PTC-220 would have some administrative challenges in meeting the Section 90.723(f) obligations is neither regrettable nor a basis for waiver. All large telecommunications projects have administrative challenges and PTC-220 has cited no similar instance where the Commission has waived protection in favor of a single licensee's expedience.

Petitioners note that although PTC-220 cites its desire to speed deployment, the Bureau did not provide a basis for grant of this conditional waiver that resonates under Section 1.925. That the Bureau believes that application of Section 90.723(f) may not be necessary to protect co- and adjacent channel licensees, such a finding alone would not justify waiver. There are myriad Commission rules which may not be always necessary to apply, but continue to be applied to assure general fidelity to the obligations of the agency, to protect legitimate, authorized operations.[8] Upon reconsideration, the Bureau may consider whether PTC-220 has shown a sufficient basis for the Bureau's conditional waiver of Section 90.173(f) or whether, upon greater reflection, the 220-222 MHz community would be better served by requiring coordination, even if it increases PTC-220's administrative burden. At the least, the Bureau should wish to state why PTC-220's administrative burden is so unique as compared to all other operators to justify grant of the conditional waiver.

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[7] MO&O at ¶ 35.

[8] This is particularly true in this instance where PTC-220 anticipates some high power operations, though why such high power would be needed is unknown since most 220 MHz band technology works well at lower power levels.

IV. Future Operations.

By grant of the PTC-220 waiver, the Bureau has created additional burdens for other 220 MHz licensees. Rather than being able to deploy additional facilities within the geographic confines of an EA without regard to co-and adjacent channel operators so long as one is not producing too much signal strength across an EA border, now 220-222 MHz band operators must take into account the presence of train tracks, hubs and rail yards which may all be the location of interfering operations. The flexibility of construction and deployment which was a portion of what was purchased at auction by 220 MHz band licensees has been severely reduced by the Bureau's decision, requiring licensees to cooperate, self-coordinate, notify, and await action by PTC-220. This was not part of the auction bargain.

What is further vexing is that there is no obvious means of a work-around when licensees' future plans are jeopardized by the existence of PTC-220 operations. The Bureau has articulated no deadline for PTC-220 to remedy such situations. The Bureau has not identified what information an EA licensee would need to provide AAR or PTC-220 to cause either to take action in accommodating future build-outs of 220-222 MHz band networks. The Bureau has not stated what effect a response to a PTC-220 notification claiming that a proposed construction of a PTC-220 station will cause interference to an existing or planned 220 MHz band station might have. Certainly, the Bureau did not intend to preclude licensed operators from constructing additional non-PTC-220 facilities to serve the public. But did the Bureau consider that its decision might be a recipe for ongoing and repetitive competition (and likely litigation) for use of the affected spectrum?

Petitioners respectfully request that the Bureau make it quite clear upon reconsideration that PTC-220 is solely responsible for accommodating not only the present use of the spectrum, but

network operators build-out schedules by either being required to retune the PTC-220 system at the offending location or removing the PTC-220 facilities altogether if no suitable, alternative spectrum can be found to operate the PTC system at that location.

V. Conclusion

Cornerstone wishes to thank the Bureau for its arduous work in considering its decision to the PTC-220 waiver request. It is beyond question that the Bureau focused on the continued viability and economic opportunities reasonably expected by existing 220-222 MHz licensees. However, Petitioners respectfully aver that some additional work is required upon reconsideration for the Bureau to reach its goal in granting the waiver to accommodate PTC-220's request while carefully balancing the legitimate concerns of 220-222 MHz licensees which have invested heavily in deploying networks, which fully intend to continue to expand operations to serve the public, and which are entitled to be fully protected from PTC-220's proposed operations.

Respectfully submitted,
CORNERSTONE SMR, INC.
COMTRAN ASSOCIATES, INC.

By_____
Robert H. Schwaninger

Dated: April 13, 2015

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EXHIBIT A

James Reimer
Frequency Coordination Office
Transportation Technology Center, Inc.
PO Box 11130 • Pueblo, Colorado 81001
Ph. 719-584-0578

ASSOCIATION OF AMERICAN RAILROADS

March 5, 2015

Call Sign: WPCY293

Mark Duff
Cornerstone SMR, Inc.
4620 N State Rd. 7
Lauderdale Lakes, FL 33319
Phone: 866-290-8185
Email: markduff@cornerstonesmr.com

RE: Notice of Nearby Operations at 221-222 MHz pursuant to Anticipated FCC Waiver

Dear Mark Duff:

On behalf of FCC licensee PTC-220, LLC, we hereby notify you that PTC-220 intends to deploy one or more transmitters operating in the 221-222 MHz band that exceed the power and/or antenna height limits contained in the FCC rules. PTC-220 anticipates that the FCC will issue a special rule waiver in the coming days that will permit such operation. The waiver's purpose is to facilitate the deployment of positive train control ("PTC"), a railroad safety system mandated by Congress. The waiver request was originally submitted on February 1, 2013, and was subject to the FCC's notice and comment period.[21] We will provide you with more information on the waiver once it has been formally released.

Based on our research, *we do not believe you have any existing stations that would be affected by PTC-220's planned station.* You are receiving this notice because the forthcoming waiver order will require us to provide advance notice to licensees with licensed areas falling within a 20 km radius of, and licensed on frequencies within 200 kHz of, PTC-220's waiver-authorized stations. We are initiating this notice prior to the release of the waiver order because of the urgent nature of completing PTC in the greater Los Angeles area. Assuming the waiver is granted as expected, operations may commence before the end of March 2015.

[21] Request of PTC-220, LLC for Waivers of Sections 90.729(b) and 90.723(f) of the Commission's Rules, WT Docket No. 13-59 (Feb. 1, 2013). A copy of the request may be viewed at: http://apps.fcc.gov/ecfs/document/view?id=7022132733.

The location and operating parameters of the planned PTC-220 station are as follows:

Site ID	Center Frequency	Latitude	Longitude	Power (ERP)	Height
2802000135	221.8625	34-19-45.2 N	118-36-05.6 W	8 (W)	24 m
2340040450	221.4125	33-27-56.2 N	117-40-49.2 W	63 (W)	15 m

While no response on your part is required, please feel free to contact us with any questions regarding this station deployment. In particular, we encourage you to contact us – either now or anytime in the future – if you have specific plans to construct new stations in your licensed area that could potentially impact, or be impacted by, the PTC-220 station. We will coordinate with you regarding your future build-out(s) to avoid adverse impact to your operations or to PTC-220's waiver-authorized operations.

Sincerely,

James Reimer
AAR Frequency Coordination Office

CERTIFICATE OF SERVICE

I, Robert H. Schwaninger, certify that a copy of the foregoing Petition For Reconsideration was sent electronically to the following person on April 14, 2015:

Michele C. Farquhar
michele.farquhar@hoganlovells.com

Robert H. Schwaninger