

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

| | | |
|---|---|---------------------|
| In the Matter of |) | |
| |) | |
| Association of American Railroads Request |) | WT Docket No. 14-98 |
| for Waiver to Permit Signal Boosters with |) | |
| Increased Power on Certain 450 MHz Band |) | |
| Railroad Frequencies |) | |

REPLY COMMENTS OF THE ASSOCIATION OF AMERICAN RAILROADS

The Association of American Railroads (“AAR”)¹ hereby submits these Reply Comments in the above-captioned proceeding.² The AAR seeks a waiver of Sections 90.261(f) and 90.219(d)(3) of the rules of the Federal Communications Commission (“Commission”) to allow railroads to use signal boosters on certain railroad frequencies in the 450 MHz band, at up to 30 watts effective radiated power (“ERP”), to ensure the ability of fronts and rears of trains to communicate in areas of challenging topography.³

MRFAC, Inc. (“MRFAC”) was the only party to file comments in this proceeding, and it generally supports the AAR’s Request.⁴ MRFAC, however, appears to be concerned about the potential for interference if the proposed signal boosters are used in non-remote areas and in rail

¹ The AAR is a voluntary, non-profit membership organization whose freight railroad members operate 82 percent of the line-haul mileage, employ 95 percent of the workers, and account for 97 percent of the freight revenues of all railroads in the United States. More information on the AAR is available at its website, <https://www.aar.org/Pages/Home.aspx>.

² See *Wireless Telecommunications Bureau Seeks Comment on Association of American Railroads Request for Waiver to Permit Signal Boosters with Increased Power on Certain 450 MHz Band Railroad Frequencies*, Public Notice, DA 14-918 (rel. June 27, 2014) (“Public Notice”).

³ AAR, Request for Waiver, WT Docket No. 14-98 (filed June 13, 2014) (“Request”). The specific frequencies are identified in the Public Notice. See Public Notice at 1 n.3; see also 47 C.F.R. § 90.35(b)(2)(iv). The AAR is the mandatory certified frequency coordinator for these frequencies.

⁴ See Comments of MRFAC, WT Docket No. 14-98, at 1 (filed July 28, 2014) (“MRFAC Comments”) (“Subject to the understandings set forth below, MRFAC is pleased to support the Request.”). MRFAC is a private land mobile radio frequency coordinator.

yards and terminal areas, and asks that the Commission adopt corresponding conditions.⁵ As explained below, there is no need to adopt MRFAC's proposed conditions (including the exclusion of rail yards and terminal areas from the scope of the waiver). The proposed waiver is highly unlikely to cause harmful interference to co-channel or adjacent channel operators whether or not signal boosters are operated in remote areas or in rail yards or terminal areas. Accordingly, the Commission should grant the waiver, as requested, without MRFAC's proposed conditions.

Specifically, MRFAC acknowledges that the proposed signal booster use is unlikely to cause interference in most areas because "the frequencies in question are all railroad-exclusive."⁶ Nonetheless, MRFAC appears to be concerned that allowing signal boosters to operate in non-remote areas and in rail yards or terminal areas may interfere with operations on channels that are adjacent to the railroad frequencies.⁷

Any such concern is unfounded. As stated in the Request, the primary potential victim frequencies, regardless of geographic location, are railroad frequencies, and the railroads have a strong interest in minimizing interference on these channels.⁸ In that vein, railroads use only the channels located near the center of the railroad frequencies for communications between the fronts and rears of trains. Accordingly, signal boosters would not be operating in the channels at the border of the railroad frequencies (452/457.900 and 452/457.96875 MHz), which appears to

⁵ See *id.* at 3 ("This waiver is limited to track-side devices where, due to (1) remote, rugged terrain and (2) long train length, normal end-of-train communication cannot be otherwise achieved."), at 2 ("MRFAC does not envision the waiver extending to railroad yards or terminal areas, nor does the Request suggest that the waiver should be so extended."). To the extent that MRFAC is requesting that the waiver not apply to the remote control of locomotives in rail yards and terminal areas, pursuant to 47 C.F.R. § 90.35(c)(59), the AAR confirms that it is not seeking authority to operate signal boosters for that purpose.

⁶ See MRFAC Comments at 2.

⁷ See *id.* at 2-3.

⁸ See Request at 5.

be MRFAC's concern.⁹ Moreover, railroads would use only single-channel, Class A boosters, greatly reducing out-of-band emissions to adjacent frequencies.¹⁰ For these reasons, it is highly unlikely that the boosters—even at the full 30 watts ERP—will cause interference to adjacent channel operators.¹¹ To the extent that there is any unexpected interference, however, the railroads and the AAR would resolve those issues through coordination.

As stated in the Request, in most cases the signal boosters would be used in remote areas with rugged terrain, which further reduces any potential for interference to other operators.¹² In some cases, the intervening terrain barriers that railroads seek to overcome are present in non-remote areas, including within rail yards and terminal areas. For instance, rail yards and terminal areas can contain hills, overpasses, and other obstacles that obstruct communications between the fronts and rears of trains. Accordingly, because the need to operate signal boosters can occur in remote and non-remote areas, including rail yards and terminal areas (and given the unlikely possibility of any interference to adjacent channel operators), the Commission should not limit the scope of the waiver based on geographic location, as MRFAC appears to suggest.¹³ Doing so would undermine the waiver's purpose of ensuring safe and reliable train operations.

⁹ See MRFAC Comments at 2-3.

¹⁰ See 47 C.F.R. § 90.7 (explaining that a Class A booster is a narrowband booster which “amplifies only those discrete frequencies intended to be retransmitted”).

¹¹ The AAR also notes that in many cases it will not be necessary to transmit at the highest power level.

¹² See, e.g., Request at 5 (“[S]ignal boosters . . . are usually used in remote areas.”) (emphasis added). MRFAC appears to have misunderstood the scope of the AAR's Request. See MRFAC Comments at 2 (“[A]s MRFAC understands it the boosters themselves would be located track-side in remote areas and rugged terrain.”).

¹³ The proposed condition is also vague and overbroad. For example, in addition to the proposed limitations discussed above, MRFAC suggests restricting the scope of the waiver to areas where communications “cannot otherwise be achieved.” Such a condition would be far too restrictive and could prohibit, if narrowly construed, the use of signal boosters in cases in which train operators could in theory (even if not practical) select different routes or use shorter trains. Moreover, the AAR notes that the waiver request, as proposed, is limited to areas where communications between the fronts and rears of train are unsatisfactory due to distance or intervening terrain barriers, and no further condition or limitation is necessary or appropriate. See Request at 1, 7.

For the reasons discussed above and in the AAR's Request, the Commission should grant a waiver of Sections 90.261(f) and 90.219(d)(3) of its rules to allow railroads to operate signal boosters, at up to 30 watts ERP, on certain frequencies in the 450 MHz band.

Respectfully submitted,

/s/Michele Farquhar

Louis P. Warchot
Senior Vice President—Law
and General Counsel

Timothy J. Strafford
Assistant General Counsel

Association of American Railroads
425 Third Street, SW Suite 1000
Washington, DC 20024
(202) 639-2502

Michele C. Farquhar
Tony Lin
Wesley B. Platt
Hogan Lovells US LLP
555 Thirteenth Street, NW
Washington, DC 20004
Phone: (202) 637-5663

*Counsel to the Association of American
Railroads*

August 12, 2014

CERTIFICATE OF SERVICE

I, Wesley Platt, hereby certify that on August 12, 2014, a true and correct copy of these Reply Comments was sent via U.S. Mail, first class postage prepaid, to the following:

Scot Stone *
Wireless Telecommunication Bureau
Federal Communications Commission
445 12th St. SW
Washington, DC 20554
Scot.Stone@fcc.gov

Rodney Conway *
Wireless Telecommunications Bureau
Federal Communications Commission
445 12th St. SW
Washington, DC 20554
Rodney.Conway@fcc.gov

William K. Keane
Duane Morris LLP
505 9th Street NW, Suite 1000
Washington, DC 20004-2166

* via e-mail

/s/ Wesley Platt
Wesley Platt