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

In the Matter of	)	
	)	
Metrom Rail, LLC's Request for Waiver of	)	ET Docket No. 18-284
Section 15.519(a) and 15.519(c) of the	)	
Commission's Rules	)	

ORDER

Adopted: October 9, 2020 **Released: October 9, 2020**

By the Acting Chief, Office of Engineering and Technology:

I. INTRODUCTION

1. By this action, we grant a request by Metrom Rail, LLC (Metrom) to waive Sections 15.519(a) and 15.519(c) of our rules[1] to allow for the certification and operation of ultrawideband (UWB) devices that will be used to enhance the safety and reliability of transit rail operations. Specifically, we are waiving the requirement that devices must be handheld while operating and are allowing Metrom's directional antenna system to employ an additional 6 dB of gain to produce an EIRP of up to -35.3 dBm/MHz. Metrom's operations under this wavier are limited to the 3.248-4.990 GHz frequency range.

II. BACKGROUND

2. Metrom has designed a UWB-based positive train control (PTC) system,[2] marketed as the AURA system, to operate on an unlicensed basis. It is designed to prevent collisions between trains, over-speed derailments, unauthorized train movement in work zones, and to minimize human error.[3] The system is designed to be used as fixed wireless infrastructure but would operate under the handheld UWB device rules. The AURA system is based on a modular approach.[4] The wayside modules include UWB anchors which determine operational characteristics such as train speed, position, directions, and track ID by interacting with UWB equipment on-board rail cars to collect information necessary for train spacing and control functions.[5] The Metrom system will employ modules with two different antenna types. One module uses an omnidirectional antenna and does not require a waiver, and the other uses a directional

[1] *Request by Metrom Rail LLC for Waiver of Section 15.519(a) and 15.519(c) of the Commission's Rules*, ET Docket No. 18-284 (filed Sep. 4, 2018) (Metrom Waiver Request). *See also* 47 CFR §§ 15.519(a) and 15.519(c).

[2] The term "positive train control" is used to describe systems that are integrated command, control, communications, and information systems for controlling train movements with safety, security, precision, and efficiency. U.S. Department of Transportation, Federal Railroad Administration, *Positive Train Control (PTC) Information (R&D)* (Nov. 13, 2019), https://railroads.dot.gov/train-control/ptc/positive-train-control-ptc-information-rd.

[3] Metrom Waiver Request at 1.

[4] *Id.* at 5. This design will permit transit authorities to deploy Metrom's technology in a targeted manner by adding modules when and where needed.

[5] *Id*.

antenna and requires a waiver to operate because it will operate at a higher radiated power than our rules permit.[6]

3. Metrom filed its waiver request on September 4, 2018. In it, Metrom describes how a waiver would enable its AURA system to be deployed in public transit railways to promote the safety of passengers and personnel in a cost-effective manner.[7] It further states that it has designed and tested different combinations of its architecture in different markets to meet each transit agency's specific needs and that there have been no reported instances of its system causing harmful interference to any authorized radio systems.[8] It has focused its deployment plans on three metropolitan areas: Boston, Los Angeles, and New York City.[9]

4. The first rule Metrom seeks a waiver of is Section 15.519(a), which contains provisions for handheld UWB devices.[10] Section 15.519(a) requires that devices operating under the provisions of this section be relatively small, primarily handheld while being operated, and may not employ a fixed infrastructure.[11] In addition, Section 15.519(a)(2) prohibits the use of antennas mounted on outdoor infrastructure.[12] The second rule Metrom seeks a waiver of is Section 15.519(c), which restricts radiated emissions from handheld devices in the 3100–10600 MHz band to an equivalent isotropically radiated power (EIRP) of -41.3 dBm/MHz.[13] Metrom requests a waiver of this section to operate wayside modules in the 3272–5014 MHz portion of this band using directional antennas and a power level of 6 dB above the limit.[14]

5. We issued a public notice seeking comment on Metrom's waiver request, which resulted in six comments and three reply comments.[15]

III. DISCUSSION

6. We are authorized to grant a waiver under Section 1.3 of the Commission's rules if the petitioner demonstrates good cause for such action.[16] Good cause, in turn, may be found and a waiver

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[6] *Id*. at 16.

[7] *Id.* at 2.

[8] *Id*.

[9] *Id.* at 14.

[10] 47 CFR § 15.519.

[11] 47 CFR § 15.519(a).

[12] 47 CFR § 15.519(a)(2).

[13] 47 CFR § 15.519(c).

[14] Metrom Waiver Request at 16.

[15] *Office of Engineering and Seeks Comment on Metrom Rail LLC Request for Waiver of Part 15 Ultra-Wideband Rules for a Positive Control System*, Public Notice, 33 FCC Rcd 8802, DA 18-973 (Sept. 20, 2018). In addition, Cisco Systems and Hewlett Packard Enterprise submitted an *ex parte* letter advising the Commission against considering Metrom's and other parties' pending UWB waiver requests on an ad hoc basis. Letter from Mary L. Brown, Senior Director Government Affairs, Cisco Systems, Inc. and Chuck Lukaszewski, Vice President Wireless Strategy, Hewlett Packard Enterprise Company, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 18-284 et al., at 6 (filed Nov. 13, 2019) (Cisco/HPE *Ex Parte*).

[16] 47 CFR § 1.3. *See also ICO Global Communications (Holdings) Limited v. FCC*, 428 F.3d 264 (D.C. Cir. 2005); *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164 (D.C. Cir. 1990); *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969).

granted "where particular facts would make strict compliance inconsistent with the public interest."[17] To make this public interest determination, the waiver cannot undermine the purposes of the rule, and there must be a stronger public interest benefit in granting the waiver than in applying the rule.[18] Comments in support of the waiver were filed by Adaptive Motion Group, iTrack LLC, MIT-IBM Watson AI Lab, Dataspeed Inc., Proterra Inc., and Georgia Tech Research Institute.[19]

7. We find that granting Metrom's requested waiver promises to deliver strong public interest benefits. As Metrom states in its waiver request, the higher emission level of -35.3 dBm EIRP would increase range, reduce deployment costs, and will not increase the potential for causing harmful interference to authorized users.[20] Because the AURA system relies on relatively low-cost unlicensed UWB devices, it will enable its PTC technology to be implemented significantly faster and at lower cost than other solutions. For example, modernizing the New York City subway signal system using current technology is estimated by the city to take from 40 to 50 years at a cost of tens of billions of dollars, while use of the AURA system could reduce both the installation time and cost.[21] As noted by Metrom, a UWB-based network has the potential to provide precise and accurate locations for subway cars within centimeters. UWB sensors can also be placed in work trains and on personnel to increase safety for track workers and contractors working near passenger trains.[22]

8. Metrom, in response to requests from FCC staff, has provided additional documentation showing how it has designed its system to withstand interference from the licensed services in the band without affecting the robustness and reliability of its service.[23] This is significant because unlicensed operations must accept interference that may be caused by the operation of an authorized radio station, by another intentional or unintentional radiator, by industrial, scientific and medical (ISM) equipment or by an incidental radiator.[24] To mitigate against brief instances of harmful interference, Metrom has built redundancies into its systems. These include independent ranging attempts by the radios, train communication with multiple anchors simultaneously,[25] separate data communication networks for radios

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[17] *Northeast Cellular*, 897 F.2d at 1166; *see also ICO Global Communications*, 428 F.3d at 269 (quoting *Northeast Cellular*); *WAIT Radio*, 418 F.2d at 1157-59.

[18] *See, e.g.*, *WAIT Radio*, 418 F.2d at 1157 (stating that even though the overall objectives of a general rule have been adjudged to be in the public interest, it is possible that application of the rule to a specific case may not serve the public interest if an applicant's proposal does not undermine the public interest policy served by the rule); *Northeast Cellular*, 897 F.2d at 1166 (stating that in granting a waiver, an agency must explain why deviation from the general rule better serves the public interest than would strict adherence to the rule).

[19] Adaptive Motion Group Comments at 1-2; iTrack Comments at 1; MIT-IBM Watson AI Lab Comments at 1 ("…will make real time monitoring of trains more accurate and reliable which will lead to fewer deaths and injuries to passengers and less property damage."); Dataspeed Comments at 1-2; Proterra Comments at 1-2 ("…safety systems such as the one Metrom is requesting to be allowed will save the cities money…and offer greater efficiencies such as more trains that can operate more closely or more often."). *See also* Letter from Brian M. Beck, Research Engineer, Georgia Tech Research Institute, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 18-284, at 1 (filed Nov. 14, 2018) ("…find[ing] Metrom's use case convincing…").

[20] Metrom Waiver Request at 17.

[21] *Id.* at 5.

[22] *Id.* at 4.

[23] Letter from Thomas S. Dombrowsky, Jr., Senior Engineering Advisor, DLA Piper LLP, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 18-284 (filed Oct. 29, 2019) (Metrom Oct. 29, 2019 *Ex Parte*).

[24] 47 CFR § 15.5(b).

[25] Metrom Oct. 29, 2019 *Ex Parte* at 5 (a single interference source is less likely to disable two UWB ranging systems which are separated by at least several hundred feet).

mounted on the front and the rear of the train,[26] dead reckoning (i.e., the ability to determine location based on the last known speed, position and maximum achievable acceleration/braking rates), and a control system that provides movement data which compensates for extended periods of RF interference. To mitigate against instances of stronger harmful interference for prolonged intervals, the system employs high pass and low pass filtering to protect against high-level out-of-band signals.[27] If interference to the radio is severe and persistent, then the system provides appropriate messages to the operator on the vehicle display of the degraded conditions, and in cases of strong signals affecting the receiver's front-end, trains enter a restricted mode of operation until they move out of the high signal area.[28]

9. We also conclude that, with appropriate operational and technical restrictions to prevent harmful interference to authorized services, granting Metrom's request for waiver does not undermine the purpose of the rules, i.e., to prevent harmful interference to authorized services. In adopting rules for handheld UWB devices, the Commission recognized that the greatest concerns of interference in the record were centered on the potential for uncontrolled proliferation of these devices.[29] To address these concerns, the Commission established requirements for handheld devices that include in-band emission limits comparable to those permitted under Section 15.209 of the rules and out-of-band emission limits that are more stringent than those for other types of UWB devices.[30] It also permitted transmissions by handheld UWB devices only when they are in communication with an associated receiver and prohibited the use of handheld devices in fixed infrastructure.[31]

10. Metrom asserts that its devices are functionally equivalent to handheld devices and that their use in fixed infrastructure would not increase the risk of harmful interference.[32] All AURA modules will comply with the out-of-band emission limits for handheld UWB devices, and the modules with omnidirectional antennas will comply with the handheld UWB device in-band emission limit of -41.3 dBm/MHz.[33] Only the modules with directional antennas will exceed the in-band limit, and by only 6 dB. Some modules will be located within tunnels, which will strongly attenuate the signal and limit the potential for interference. The antennas will be mounted close to the ground (12 feet or less), and to maximize communication range, directional antennas will be aimed down the track to provide the strongest possible signal towards a train. The antenna pattern of the directional antenna will keep energy within a tight envelope in both the horizontal and vertical planes. Further, the trackside units transmit for only short durations and only after receiving a signal from an approaching train. These factors will strongly limit the potential for the AURA system to cause harmful interference to authorized systems in

[26] *Id*. at 5 (if the forward UWB ranging radio is inhibited, location data from the rear can fill the brief gaps in ranging data with increased potential uncertainty to cover the possibility of train decoupling).

[27] *Id*. (the antenna gain at frequencies below 3 GHz is approximately 20 dB lower and reduces the likelihood of out-of-band interference).

[28] *Id*. at 5-6.

[29] *Revision of Part 15 of the Commission Rule's Regarding Ultra-Wideband Transmission Systems*, ET Docket No. 98-153, Report and Order, 17 FCC Rcd 7435, 7460, para. 67 (2002) (*2002 UWB R&O*).

[30] *Id.* at 7460, para. 67. Section 15.209 permits Part 15 intentional radiators to operate in most frequency bands, excluding certain designated restricted bands, at relatively low field strength levels. The limit above 960 MHz is 500 microvolts per meter, measured at a distance of 3 meters, which corresponds to an EIRP of -41.3 dBm. 47 CFR § 15.209(a).

[31] *2002 UWB R&O*, 17 FCC Rcd at 7460-7461, paras. 67-68.

[32] Metrom Waiver Request at 12-13.

[33] 47 CFR § 15.519(c). This limit applies within the band 3,100 to 10,600 MHz.

the band, even when operating with an additional 6 dB EIRP. We further address specific interference and other concerns raised by commenters below.

11. We conclude that permitting the use of AURA modules in fixed infrastructure will not lead to an uncontrolled proliferation of these devices. Notwithstanding the request for additional 6 dB gain for the directional antennas, the devices while operating on a train or while employing the wayside infrastructure are functionally equivalent to handheld UWB device. They are relatively small in size, and if they were operational without using the fixed infrastructure they would be permitted under the rules without a waiver.[34] Even with the increased power of 6 dB, the modules will be used only in limited types of locations along railroad rights-of-way, including inside tunnels, and will communicate only over short distances and for short time intervals. This will aide in limiting installation to train safety only and prevent widespread device proliferation, which will result in no increased risk of harmful interference to licensed services even while utilizing the fixed infrastructure. Similarly, the devices will comply with the requirement that they transmit only when in communication with an associated receiver. Thus, their operation will be similar in nature to the short-range, peer-to-peer communication model envisioned by the Commission when it adopted the rules for handheld UWB devices.[35] Lastly, the Commission has authorized a variety of devices under this rule part on a case-by-case basis on the general principle that, for the devices similar to AURA PTC, where it is not practical for the device to actually be held in a person's hand during operation, it is sufficient to show that the operator can exercise control over the device, or the object to which the device is affixed, while the device is operating.[36] Hence, for these reasons, we believe that granting a waiver in this case will not undermine the policy which the introductory text of Section 15.519(a) and Section 15.519(a)(2) is designed to serve, granting the waiver is in the public interest, and this will not result in increased interference potential to the incumbent users of the bands so long as Metrom operates its unlicensed UWB AURA devices in accordance with the operational and technical restrictions listed below.

12. *Aeronautical Safety Systems.* ASRI argued that more information on Metrom's proposed deployment and system parameters was necessary to properly assess any potential impact to aviation safety systems.[37] ASRI requested that Metrom provide information on transmitted signal power levels and characteristics, installation information for fixed transmitting stations, the expected density of multiple fixed and mobile transmitting systems, the proximity to airports and known areas of aircraft operation in the takeoff, initial climb, approach, and landing phases of flight, how long the services deployed under this waiver would be operational, and whether other chipsets/waveforms being considered for use in the AURA PTC System are included in this waiver.[38] Metrom submitted detailed Reply Comments addressing ASRI's filing, and since then ASRI has not indicated any further interference concerns to the Commission.[39] We find that for the reasons discussed above, e.g., the transmitted signal is directed along train tracks rather than upward, as well as the separation distance that would exist between moving trains and airplanes, the AURA system is extremely unlikely to cause harmful interference to aviation safety systems.

[34] Metrom Waiver Request at 11-13.

[35] *2002 UWB R&O*, 17 FCC Rcd at 7460, para. 67.

[36] Federal Communications Commission, Office of Engineering and Technology, Laboratory Division, Ultra-Wideband Devices Frequently Asked Questions at 2 (2020) (393764 D01 UWB FAQ V02).

[37] ASRI Comments at 3.

[38] *Id.*

[39] Letter from Richard Carlson Sr., Chief Operating Officer, Metrom Rail, LLC, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 18-284, at 4-10 (filed Nov. 6, 2018) (Metrom November Reply Comments).

13. *Public Safety Systems*. The National Public Safety Telecommunications Council (NPSTC) expresses concern about interference to public safety systems in the 4.9 GHz band.[40] NPSTC suggests three conditions on Metrom's operations to minimize the likelihood of interference to these operations.[41] Specifically, NPSTC requests that Metrom: 1) maintain a record of the location of its UWB devices deployed for Advanced Train Control; 2) incorporate testing of potential interference as part of its initial deployments in the Boston, Los Angeles, and New York Metropolitan areas, including potential interference to public safety 4.9 GHz operations; and 3) maintain a "stop buzzer" function with a named point of contact and relevant contact information, who can be called immediately to turn off the system should interference be experienced.[42] Metrom states that it would agree to maintain a record of deployed UWB devices to help assess whether any deployed units could be the source of any interference that public safety operations may experience in the future and that it will provide a contact point for discussing issues which might arise in the future.[43] It also states that it has contacted NPSTC to address its concerns as well as to determine locations that warrant particular scrutiny for potential interference to 4.9 GHz public safety operations.[44] Metrom argues that these steps will satisfactorily address the three conditions suggested by NPTSC, and NPTSC has not expressed any further concerns about the requested waiver.[45] We believe that the steps described by Metrom are appropriate to further reduce the likelihood that its system would cause harmful interference to public safety operations.

14. *3.7-4.2 GHz (C-Band) Operations*. NCTA-ACA urge the Commission to require a detailed interference analysis from Metrom to consider how its proposed higher power UWB operations would coexist with FSS receive-only earth stations operating in the 3.7-4.2 GHz C-Band before considering its request for waiver.[46] They are concerned about how Metrom's 6 dB higher power UWB operations would coexist with Fixed Satellite Services (FSS) receive-only earth stations that operate on a primary basis in the 3.7-4.2 GHz band and note that one NCTA member operates an earth station facility located close to a train track.[47] NCTA-ACA also argue that the Commission should not act on the waiver request until it resolves the 3.7-4.2 GHz (C-Band) proceeding.[48] Metrom responds that the C-Band rulemaking has no effect on its waiver request, and that there is no need for a detailed technical analysis on potential harmful interference by the proposed system because it can be readily calculated, and because the potential for harmful interference is minimal.[49] Metrom argues that its system's average transmitted power level is similar to that allowed for Class B unintentional radiators.[50] It also adds that the UWB transmission are not continuous. Instead, the radio transmits short duration packets totaling less than 15 seconds per hour, the transmissions are relevant only for moving trains, and once the train leaves the area, transmissions from both devices will end.[51] In subsequent *ex parte* filings, NCTA-ACA reiterates its request that Metrom be required to file a detailed interference analysis, while Metrom argues that the

[40] NPSTC Reply at 7.

[41] NPSTC Comments at 7.

[42] *Id.* Metrom's advanced train control customers may maintain the stop buzzer functionality and point of contact.

[43] Metrom Dec. 3, 2018 *Ex Parte* at 2.

[44] *Id.*

[45] *Id*. at 2-3.

[46] NCTA-ACA Reply at 3-5.

[47] *Id.*

[48] *Id*. at 5 (referencing GN Docket No 18-122).

[49] Metrom Dec. 3, 2018 *Ex Parte* at 3.

[50] *Id.* at 4.

[51] *Id.*

information it previously submitted into the record is sufficient for the Commission to determine that the AURA system will not cause harmful interference to C-Band downlinks.[52]

15. We conclude that the AURA system is unlikely to cause harmful interference to C-Band downlinks. Several factors mitigate the potential for such interference: The trackside devices with omnidirectional antennas will comply with the Part 15 limits, and the trackside devices operating at 6 dB above the limit use highly directional antennas to direct the signal down train tracks, so it is very unlikely that a signal in excess of the Part 15 limits would be directed into the main lobe of a satellite receive dish. Also, the trackside devices operate only intermittently with a low duty cycle when a train is in the vicinity, further reducing the likelihood of interference. We therefore agree with Metrom that we have sufficient information to act on its waiver request. Finally, NCTA-ACA's request to delay action on Metrom's waiver request pending the outcome of the 3.7-4.2 GHz (C-Band) proceeding is now moot; the Commission adopted a Report and Order in that proceeding in February 2020.[53]

16. *Federal Operations.* To avoid potential interference to federal operations such as the Federal Aviation Administration Aeronautical Mobile Airport Communication System (*AeroMACS*), and as a result of interagency coordination with National Telecommunications and Information Administration (NTIA), we require Metrom to operate in the 3.248-4.990 GHz frequency range to avoid frequency overlap with these federal operations.[54] We also emphasize that the terms of this waiver only allow for the use of Metrom's equipment on specific rail transit systems in Boston, Los Angeles, and New York City. Operation on other systems or in other geographic areas is not permitted. Should Metrom, at a future date, choose to pursue the authority to operate on an expanded basis, we would expect it to identify any reports of harmful interference that it had received during its operations to date, describe how such complaints were resolved, and propose any modifications to their operations or waiver terms that might be necessary to ensure that such situations would be unlikely to occur in the future.

17. *Cisco and Hewlett Packard request.* Cisco Systems and Hewlett Packard Enterprise argue that the Commission should not consider Metrom's and other parties' pending UWB waiver requests on an ad hoc basis, and that evaluating numerous proposed changes to UWB device operating parameters comprehensively rather than through ad-hoc adjudication would enable the Commission to consider requests consistently and better determine the collective impact of the requested changes.[55] We find good cause to grant Metrom's waiver without first resolving the issues Cisco and Hewlett Packard have raised in their letter.[56] Cisco and Hewlett Packard raise general questions of Commission practice and policy that will remain available for our consideration later and in an appropriate context. Metrom's request is narrowly tailored, can be granted without raising the potential for causing harmful interference to authorized services, and can help realize important transit benefit that will service the public interest.

18. We also emphasize that the terms of the waiver only allow for the use of Metrom's equipment on specific rail transit systems in Boston, Los Angeles, and New York City. Operation on other systems or in other geographic areas is not permitted. Should Metrom, at a future date, choose to

[52] Letter from Ross Lieberman, ACA Connects – America's Communications Association and Neal M. Goldberg, NCTA – The Internet & Television Association, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 18-284, at 2 (filed Apr. 2, 2019); Letter from Richard Carlson Sr., Chief Operating Officer, Metrom Rail, LLC, to Marlene H. Dortch, Secretary, FCC, ET Docket No. 18-284, at 2 (filed Apr. 8, 2019).

[53] *Expanding Flexible Use of the 3.7 to 4.2 GHz Band*, GN Docket No. 18-122, Report and Order and Order of Proposed Modification, 35 FCC Rcd 2343 (2020).

[54] Metrom originally identified the 3.272-5.014 GHz frequency range for its proposed operations. Metrom Waiver Request at 1.

[55] Cisco/HPE *Ex Parte* at 6.

[56] *Id.* at 5-7.

pursue the authority to operate on an expanded basis, we would expect it to identify any reports of harmful interference that it had received during its operations to date, describe how such complaints were resolved, and propose any modifications to their operations or waiver terms that might be necessary to ensure that such situations would be unlikely to occur in the future.

19. *Waiver conditions.* Consistent with the discussion above, we will require Metrom AURA PTC systems operating under this waiver to comply with the following conditions:

1) The devices must be certified by a designated Telecommunication Certification Body.[57]

2) The waiver is limited to the Boston Metropolitan area under the Massachusetts Bay Transportation Authority, New York City under the New York Metropolitan Transportation Authority, and Los Angeles County under the Los Angeles County Metropolitan Transportation Authority only.

3) Metrom and/or the transit agency using the equipment shall keep a record including latitude and longitude of deployed AURA systems.

4) Metrom and/or the transit agency using the equipment shall provide and maintain points of contact and other contact information for reporting any interference.

5) The intentional emissions generated by the AURA system must be completely contained within the 3.248-4.990 GHz frequency range.

6) Total transmission time of each radio must be limited to less than 15 seconds per hour.

7) Trackside devices may operate with an EIRP of up to 6 dB above the limit in Section 15.519(c) (i.e., -35.3 dBm/MHz within the 3.248-4.990 GHz frequency range) when used with a directional antenna.

8) Each AURA system antenna shall transmit directionally down the tracks with the main beam below 30 degrees above the horizon; any transmissions at an elevation 30 degrees or higher above the horizontal shall be reduced at least 6dB from the main beam.

9) The directional antenna must be aimed along the train tracks with no up-tilt.

10) All devices, including those operating above the EIRP limit, must comply with the out-of-band emission limits in Section 15.519(d).

11) Trackside devices shall be mounted no higher than 12 ft above the track surface.

12) Metrom must provide notification to the National Science Foundation (NSF) at cjl@haystack.mit.edu before beginning operations that are within 25 km of the Haystack Observatory (42°36’47” N, 71°29’38” W).

IV. ORDERING CLAUSES

20. Accordingly, by the authority delegated in Sections 0.31 and 0.241 of the Commission’s rules, and pursuant to Section 1.3 of the Commission’s rules, 47 CFR § 1.3, and Sections 4(i), 302, 303(e), and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. Sections 154(i), 302,

[57] Metrom should include a copy of this waiver order with its application for certification.

303(e), and 303(r), IT IS ORDERED that the request for waiver of Sections 15.519(a) and 15.519(c) of the Commission's rules filed by Metrom Rail, LLC IS GRANTED, subject to the conditions listed above.

21. IT IS FURTHER ORDERED that, pursuant to the authority contained in Sections 4(i), 4(j), and 303 of the Communications Act, as amended, 47 U.S.C. §§ 154(i), 154(j) and 303, that should no petitions for reconsideration or applications for review be timely filed, this proceeding IS TERMINATED and ET Docket No. 18-284 IS CLOSED.

22. IT IS FURTHER ORDERED that this action IS EFFECTIVE upon release of this Order.

FEDERAL COMMUNICATIONS COMMISSION

Ronald T. Repasi
Acting Chief, Office of Engineering and Technology