Federal Communications Commission
Washington, D.C. 20554

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DA 19-555

Alan Tilles, Esq.
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RE: **Massachusetts Bay Transportation Authority (MBTA), Call Signs WRAN721 and WRAN723**

Dear Mr. Tilles:

The Mobility Division (Division) of the Wireless Telecommunications Bureau (Bureau) hereby grants MBTA's modification applications for permanent authority to operate 228 positive train control (PTC) wireless radio base stations under Automated Maritime Telecommunications System (AMTS) licenses WRAN721 and WRAN723.[1] Today's action enables MBTA to deploy a Congressionally-mandated PTC safety system on its commuter rail network, serving the greater Boston, Massachusetts metropolitan area.[2] This grant of permanent operating authority is subject to certain conditions adopted below.

BACKGROUND

Positive Train Control. The Rail Safety Improvement Act of 2008, as amended by the Positive Train Control Enforcement and Implementation Act of 2015 (together, the Rail Safety Act), required MBTA and most U.S. freight and commuter railroads to install and operate interoperable PTC systems by December 31, 2018.[3] As the Rail Safety Act permits, 37 of the 41 railroads required to implement PTC, including MBTA, requested that the Federal Railroad Administration (FRA)[4] grant them up to a 2-year extension, until December 31, 2020, to implement PTC.[5] As of December 31, 2018, four railroads reported that they had implemented an FRA-certified and interoperable PTC system on all of their required main lines.[6] Once implemented, PTC systems are designed to reduce the risk of human-error rail

[1] ULS File Nos. 0008224153 (filed May 25, 2018, amended July 3 and Oct. 4, 2018, and April 22, 2019) (WRAN721) and 0008224212 (filed May 25, 2018, amended July 3, July 23, and Oct. 4, 2018, and April 22, 2019) (WRAN723) (collectively, the License Modification Applications).

[2] *See* Public Interest Statement, License Modification Applications (filed April 22, 2019) (Public Interest Statement).

[3] Rail Safety Improvement Act of 2008, Pub. L. No. 110-432, § 104, 122 Stat. 4848, 4857 (2008), amended by the Positive Train Control Enforcement and Implementation Act of 2015, Pub. L. No. 114-73, § 1302, 129 Stat. 568, 576 (2015).

[4] The FRA is responsible for approving each railroad's PTC system—including design, testing, and implementation—and for ensuring compliance with the Rail Safety Act and FRA regulations implementing that statute. *See* FRA, *Positive Train Control (PTC) Information (R&D)*, https://www.fra.dot.gov/Page/P0152 (last visited April 9, 2019) (information regarding FRA's oversight of PTC implementation).

[5] *See* U.S. Department of Transportation, *Statement on Positive Train Control Implementation*, (Dec. 31, 2018), https://www.transportation.gov/briefing-room/statement-positive-train-control-implementation.

[6] The four rails are: Port Authority Trans-Hudson, North County Transit District, Portland & Western Railroad, and the Southern California Regional Rail Authority. *Id*.

accidents, by "prevent[ing] train-to-train collisions, over-speed derailments, incursions into established work zone limits, and the movement of a train through a switch left in the wrong position."[7] The U.S. rail industry has chosen to implement PTC using radio spectrum that creates wireless networks with the capacity to enable real-time information sharing between trains, rail wayside devices, and "back office" applications, regarding train movement authorities, speed restrictions, train position and speed, and the state of signal and switch devices.

MBTA. MBTA is the nation's fifth busiest commuter rail system operating over nearly 400 route miles with 40 million annual riders.[8] Its lines extend from Boston south to Providence, Rhode Island, north to Newburyport, Massachusetts, and west to Worcester, Massachusetts.[9] MBTA hosts Amtrak and five freight railroads on portions of its track.[10] Tenant locomotives will use MBTA's PTC radio system while traversing MBTA territory.[11] On August 23, 2018, the FRA awarded MBTA up to $20,000,000 to support PTC implementation.[12] On December 19, 2018, the FRA granted MBTA's request for an alternative schedule to fully implement PTC by December 31, 2020.[13]

MBTA Spectrum Authorizations. On September 20, 2017, PTC-220, LLC (PTC-220, a consortium of the nation's seven Class 1 freight railroads) and MBTA filed an application to assign, by partition and disaggregation, spectrum to MBTA from three AMTS licenses WQYQ749, WQZI889, and WQZR416 held by PTC-220.[14] On December 1, 2017, the Division consented to the assignment.[15] And on January 17, 2018, MBTA consummated its acquisition of AMTS licenses WRAN721, WRAN722, and WRAN723 resulting from the partition and disaggregation of spectrum from the three PTC-220 licenses.[16]

PTC System Testing. On November 20, 2017, MBTA requested special temporary authority (STA) to test and operate PTC base stations using the frequencies ultimately licensed under WRAN721,

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[7] 49 U.S.C. § 20157(i)(5).

[8] *See* Public Interest Statement at 1.

[9] *Id*.

[10] *Id.* at 2.

[11] *Id*.

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

[13] *Id.* at 4.

[14] *Wireless Telecommunications Bureau Assignment of License Authorization Applications, Transfer of Control of Licensee Applications, and De Facto Transfer Lease Applications, and Designated Entity Reportable Eligibility Event Applications Accepted for Filing*, Public Notice (WTB Sept. 27, 2017), 2017 WL 4316368; ULS File No. 0007876260 (filed Sept. 20, 2017).

[15] *Wireless Telecommunications Bureau Assignment of License Authorization Applications, Transfer of Control of Licensee Applications, De Facto Transfer Lease Applications and Spectrum Manager Lease Notifications, Designated Entity Reportable Eligibility Event Applications, and Designated Entity Annual Reports Action,* Public Notice (WTB Dec. 6, 2017), 2017 WL 6048595; ULS File No. 0007876260.

[16] *Wireless Telecommunications Bureau Assignment of License Authorization Applications, Transfer of Control of Licensee Applications, De Facto Transfer Lease Applications and Spectrum Manager Lease Notifications, Designated Entity Reportable Eligibility Event Applications, and Designated Entity Annual Reports Action,* Public Notice (WTB Jan. 24, 2018), 2018 WL 551938; ULS File No. 0008041928 (filed 12/26/2017) (notice of consummation).

WRAN722, and WRAN723.[17] On December 20, 2017, the Division granted MBTA's request, issuing STA call signs WRAL291, WRAL292, and WRAL293.[18]

MBTA began widespread PTC system testing in January 2018.[19] MBTA has commenced FRA Revenue Service Demonstration (RSD) testing, an advanced form of testing that occurs while trains operate in regular service, on four of its lines: (1) Stoughton Line, between Canton and Stoughton, Massachusetts, since November 12, 2018; (2) New Hampshire Main Line, between Winchester and Lowell, Massachusetts, since February 4, 2019; (3) Fairmount Line, entirely within Boston, since March 12, 2019; and (4) Middleborough Line, between Boston and Lakeville, Massachusetts, since March 16, 2019.[20] MBTA states that PTC base stations on these lines are fully constructed and operational and that it has not received any reports of interference associated with its PTC operations.[21] MBTA states that it will gradually test and make operational base stations on its other lines by December 31, 2020.[22]

License Modification Applications. Although AMTS geographic licensees generally are authorized to place base stations anywhere within their licensed geographic service areas, section 80.215(h)(2) of the Commission's rules requires individual licensing of AMTS base stations located less than 169 kilometers (105 miles) from a channel 13 TV station, or less than 129 kilometers (80 miles) from a channel 10 TV station.[23] On May 25, 2018, MBTA filed two License Modification Applications requesting permanent authority to operate 228 PTC base stations because of their proximity to certain channel 10 and 13 TV stations.[24]

Engineering Report. LTK Engineering Services (LTK) performed an interference study for MBTA titled "TV Interference Analysis of MBTA AMTS Band PTC Transmitters," dated February 20, 2018 (Engineering Report).[25] The Engineering Report addresses the potential number of channel 10 and 13 over-the-air (OTA) TV households that could be affected by operation of MBTA's PTC base stations and is discussed below.[26]

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[17] ULS File Nos. 0008005329 (WRAL291), 0008005330 (WRAL292), and 0008005331 (WRAL293) (filed Nov. 20, 2017 and amended Dec. 8 and Dec. 19, 2017).

[18] ULS File Nos. 0008005329 (WRAL291), 0008005330 (WRAL292), and 0008005331 (WRAL293). MBTA requested renewal of these STAs to continue testing its PTC system during the pendency of its Modification Applications and the Division subsequently renewed the MBTA STAs, most recently on May 8, 2019. ULS File Nos. 0008628127 (WRAL291), 0008628128 (WRAL292), and 0008628129 (WRAL293); *see also* Public Interest Statement at 5.

[19] Public Interest Statement at 3.

[20] *Id*.

[21] *Id*.

[22] *Id*. at 4.

[23] *See* 47 CFR § 80.215(h)(2); *see also* 47 CFR § 80.475(a)(1). Further, under the Commission's rules, AMTS base stations are authorized "subject to the condition that no harmful interference will be caused to television reception except that TV services authorized subsequent to the filing of the AMTS station application will not be protected." 47 CFR § 80.215(h).

[24] License Modification Applications; *see also* 47 CFR § 80.215(h)(2); 47 CFR § 80.475(a)(1).

[25] LTK, TV Interference Analysis of MBTA AMTS Band PTC Transmitters, dated February 20, 2018, ULS File Nos. 0008224153 and 0008224212 (filed May 25, 2018).

[26] Engineering Report at 3, 23-30, and 37-38.

Interference Mitigation Plan. Pursuant to section 80.215(h)(2),[27] MBTA's Public Interest Statement includes a plan to limit potential interference from operation of its PTC base stations to OTA TV reception and to remedy interference if any should occur (Interference Mitigation Plan).[28] MBTA also filed a certification by Guy Chertock, an LTK engineer responsible for MBTA's PTC implementation, confirming MBTA's commitment to the Interference Mitigation Plan.[29]

Broadcaster Notifications. As required by section 80.475(a)(2),[30] MBTA has provided written notice of the filing of its License Modification Applications to five potentially affected broadcast stations.[31] No broadcast station or other party has filed a comment on, or opposed, MBTA's License Modification Applications.

DISCUSSION

We have carefully reviewed the License Modification Applications, the Engineering Report, the Interference Mitigation Plan, and all other filings in the record before us and find that the public interest in rail safety will be served by granting MBTA permanent authority to operate the 228 proposed PTC base stations at transmitter output power levels ranging from 2 to 10 watts.[32]

Interference Analysis. The Engineering Report addresses the potential for interference from MBTA's operation of the 228 proposed PTC base stations to OTA channel 10 and 13 receivers as required by section 80.215(h)(2).[33] The report identifies three channel 10 TV stations located less than 129 kilometers (80 miles) from one or more of the 228 base stations: WTNH-DT, New Haven, Connecticut; WHTX-LD, Hartford, Connecticut; and WWDP-DT, Norwell, Massachusetts.[34]

Channel 10 Broadcast Stations. LTK states that consistent with OET-74 Supplement A,[35] channel 10 stations WTNH-DT, WHTX-LD, and WWDP-DT have not been included in its "analysis due to a lack of criteria to assess the potential interference from station operating in the AMTS band."[36]

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[27] 47 CFR § 80.215(h)(2).

[28] Public Interest Statement at 5.

[29] *See* Certification of Guy Chertock, P.E., ULS File Nos. 0008224153 and 0008224212 (filed May 25, 2018), (Chertock Certification).

[30] *See* 47 CFR § 80.475(a)(2).

[31] Certificate of Service, ULS File Nos. 0008224153 and 0008224212 (filed May 25, 2018); Certificate of Service, ULS File Nos. 0008224153 and 0008224212 (filed April 22, 2019).

[32] *See* Engineering Report at 17 (Table 6).

[33] *See* Engineering Report.

[34] *See* 47 CFR § 80.475(a)(1); Engineering Report at 2.

[35] Longley-Rice Methodology for Predicting Inter-Service Interference to Broadcast Television from Mobile Wireless Broadband Services in the UHF Band, Supplement A – Guidance for Predicting Inter-Service Interference to Broadcast Television in the VHF Band from Positive Train Control (PTC) Systems, OET Bulletin No. 74, Supplement A at 5 (2017), https://transition.fcc.gov/oet/info/documents/bulletins/oet74/OET74a-PTC.pdf (OET-74 Supplement A).

[36] Engineering Report at 2 and 7.

Likewise, consistent with OET-74 Supplement A, LTK states that two of the channel 10 stations, WTNH-DT and WWDP-DT, "are highly unlikely to receive harmful interference from PTC operation."[37] LTK notes that the third channel 10 station, WHTX-LD, was not considered in the analysis "due to its remote geographic location relative to MBTA PTC area of operations and a small service contour."[38] The Engineering Report confirms MBTA's responsibility for avoiding interference to viewers of all three stations and states that if interference is caused by MBTA operations, MBTA will cure it at its own expense.[39] We agree that LTK properly excluded channel 10 stations WTNH-DT, WHTX-LD, and WWDP-DT from its interference analysis for the reasons it states. We emphasize that if MBTA's PTC operations were to interfere with OTA reception of any of these channel 10 stations, MBTA must remediate such interference as required by section 80.215(h)(4) and the interference mitigation conditions adopted below.[40]

Channel 13 Broadcast Stations. The Engineering Report identifies two channel 13 TV stations located less than 169 kilometers (105 miles) from one or more of the 228 proposed base stations: channel 13 WPRI-TV, Providence, Rhode Island, which is scheduled to transition to channel 7 no later than August 2, 2019; and channel 22 WGBY-TV, Springfield, Massachusetts, which is scheduled to transition to channel 13 no later than August 2, 2019.[41]

Using EDX SignalPro 8.4 software, USGS terrain and clutter databases, and the total population database from the U.S. 2010 Census, LTK applied the Longley-Rice radio propagation model[42] to predict the number of channel 13 television households that potentially could be affected by operation of MBTA's proposed PTC base stations.[43] Consistent with OET-74 and OET-74 Supplement A, LTK calculated the number of potentially affected channel 13 households using a threshold desired/undesired (D/U) signal value of -33 dB.[44]

The Engineering Report uses a matrix of square tiles (half a kilometer per side) for stations WPRI-TV and WGBY-TV to identify the areas with insufficient D/U signal inside each television station's service area and the number of potential households that could be affected by the proposed PTC operations.[45] Below, we analyze the Engineering Report's results applying section 80.215(h)(3), which

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[37] *Id*. *See also* OET-74 Supplement A at 5.

[38] Engineering Report at 7.

[39] *See id*.

[40] 47 CFR § 80.215(h)(4).

[41] Engineering Report at 2. The Commission granted WPRI-TV a channel 7 construction permit on July 26, 2017, LMS File No. 0000028410, and granted WGBY-TV a channel 13 construction permit on September 27, 2017, LMS File No. 0000025429. *See also* WPRI-TV Transition Plan Progress Report, LMS file no. 0000070362 (submitted April 8, 2019); WGBY-TV Transition Plan Progress Report, LMS File No. 0000068774 (submitted April 1, 2019).

[42] *See* Longley-Rice Methodology for Evaluating TV Service Coverage and Interference, OET Bulletin No. 69 (2004), https://transition.fcc.gov/Bureaus/Engineering_Technology/.../oet69/oet69.pdf (OET-69); Longley-Rice Methodology for Predicting Inter-Service Interference to Broadcast Television from Mobile Wireless Broadband Services in the UHF Band, OET Bulletin No. 74 (2015), https://www.fcc.gov/bureaus/oet/info/documents/bulletins/oet74/OET74.pdf (OET-74).

[43] *See* Engineering Report at 3, 23-30, and 37-38.

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

[45] *Id*. at 3 and 14.

provides different criteria for licensing of AMTS base stations potentially affecting fewer than 100 households each and those potentially affecting 100 or more households each.[46]

Station WPRI-TV (transitioning from channel 13 to channel 7)

LTK predicts that MBTA's operation of 228 proposed base stations would have the cumulative potential to affect 57,153 WPRI-TV households before interference mitigation measures.[47] LTK predicts that after application of interference mitigating notch filters,[48] the potentially affected number of households would drop to 261.[49]

Authorization of 147 Base Stations (potentially affecting fewer than 100 households each). Section 80.215(h)(3) provides for approval of an AMTS base station where fewer than 100 households are within the interference contour of the base station and a station's analog Grade B contour (here, LTK used the noise limited service contour (NLSC) for station WPRI-TV to approximate the same probability of service as the analog Grade B contour).[50] LTK predicts that operation of 110 proposed base stations has no potential to affect any WPRI-TV channel 13 household,[51] and that operation of 37 base stations each have the potential to affect less than 100 WPRI-TV channel 13 households.[52] Because none of these 147 base stations has the potential to impact more than 99 households, we hereby grant MBTA permanent authority to operate these stations for PTC deployment pursuant to section 80.215(h)(3),[53] subject to the interference mitigation conditions adopted below.

Authorization of 81 Base Stations (potentially affecting 100 or more households each). LTK predicts that operation of MBTA's remaining 81 base stations has the potential to impact from 101 to 2,610 WPRI-TV channel 13 households each.[54] After implementation of -25 dB notch filters, LTK predicts that MBTA's PTC operations would have the potential to affect just 261 WPRI-TV households.[55]

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[46] 47 CFR § 80.215(h)(3).

[47] Engineering Report at 3 and 22-30.

[48] A notch (band reject) filter attenuates one frequency band and passes both a lower and a higher frequency band.

[49] Engineering Report at 3 and 22-30.

[50] 47 CFR § 80.215(h)(3). Historically, the Commission analyzed the potential for interference according to a TV station's analog Grade B predicted contour. To account for the conversion to digital television, the Commission developed the NLSC to approximate the same probability of service as the analog Grade B contour. The NLSC is defined using the F(50,90) field strength contour, the area in which at least fifty percent of the locations can be expected to receive a signal that exceeds a specified field strength value at least ninety percent of the time. *See Establishment of a Model for Predicting Digital Broadcast Television Field Strength Received at Individual Locations*, ET Docket Nos. 06-94 and 10-152, Notice of Proposed Rule Making and Further Notice of Proposed Rule Making, 25 FCC Rcd 10474, 10485, para. 25 (2010). *See also Avista Corporation*, Order, 27 FCC Rcd 263, 266-67, paras. 6-7 (WTB MD 2012) (Longley-Rice propagation model and NLSC used to predict potential interference to DTV station by AMTS licensee), *subsequent history omitted*.

[51] *See* Engineering Report at 23-30.

[52] *See id*.

[53] 47 CFR § 80.215(h)(3).

[54] Engineering Report at 3 and 22-30.

[55] *Id*.

Under section 80.215(h)(3)(i)-(iii), we may approve an AMTS base station where 100 or more households could be affected provided that the applicant: (1) shows that the proposed site is the only suitable location (at the application stage, it is sufficient to establish that the site is especially well-suited to provide the proposed service); (2) develops a plan to control any interference caused to TV reception from its operations; and (3) agrees to make adjustments to TV receivers to eliminate interference caused by its operations.[56]

We have reviewed the record and find that MBTA has satisfied the three requirements of section 80.215(h)(3)(i)-(iii) for the 81 base stations. First, MBTA certifies that each base station location is especially well-suited to provide the proposed PTC service.[57] MBTA explains that its "ability to relocate base stations to reduce potential interference is constrained by the PTC system design requirements and the topography of the MBTA rail lines."[58] MBTA further explains that to achieve reliable radio coverage, its PTC base stations must be sited near MBTA interlockings and signal equipment houses and close to the MBTA right of way.[59]

Regarding the second and third requirements of section 80.215(h)(3), MBTA has developed a plan to control interference caused to reception of channel 13 (including free installation of notch filters), which LTK predicts will eliminate potential interference to all but 261 WPRI-TV households.[60] MBTA has committed to taking additional measures to remedy interference if necessary.[61] Accordingly, we find that MBTA has satisfied the requirements of section 80.215(h)(3)(i)-(iii) and hereby grant it permanent authority to operate the 81 PTC base stations, subject to the interference mitigation conditions adopted below.

Finally, as noted above, WPRI-TV is scheduled to transition from channel 13 to channel 7 no later than August 2, 2019.[62] Once its transition to channel 7 is effected, section 80.215(h)'s channel 13 protection requirements will no longer apply, and we do not expect MBTA's PTC operations to impact WPRI-TV's channel 7 viewers. However, as noted above, station WGBY-TV Springfield, Massachusetts, is scheduled to transition from channel 22 to channel 13 no later than August 2, 2019,[63] and we must address the potential for MBTA's base station operations to impact its channel 13 viewers.

Station WGBY-TV (transitioning from channel 22 to channel 13)

LTK states that after WGBY-TV transitions to channel 13, 32 MBTA base stations would be located less than 169 kilometers (105 miles) from the station and would have the cumulative potential to affect 15,536 WGBY-TV households before interference mitigation measures.[64] LTK predicts that after

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[56] 47 CFR § 80.215(h)(3)(i)-(iii).

[57] Public Interest Statement at 3.

[58] *Id*.

[59] *Id*.

[60] *See id*. at 5; Engineering Report at 3 and 23-30.

[61] Public Interest Statement at 5.

[62] *See* WPRI-TV Transition Plan Progress Report, LMS file no. 0000070362 (submitted April 8, 2019); WGBY-TV Transition Plan Progress Report, LMS File No. 0000068774 (submitted April 1, 2019).

[63] *Id*.

[64] Engineering Report at 3, 22, and 37-38.

application of interference mitigating notch filters, the potentially affected number of households would drop to just 28 households.[65]

Authorization of 10 Base Stations (potentially affecting fewer than 100 households each). LTK used the NLSC[66] of station WGBY-TV to predict that, after its transition to channel 13 is completed, operation of five proposed base stations would have no potential to affect any WGBY-TV households, and that operation of five other base stations would have the potential to affect fewer than 100 WGBY-TV households each.[67] Because none of the 10 base stations has the potential to impact more than 99 households, we hereby grant MBTA permanent authority to operate these stations for PTC deployment pursuant to section 80.215(h)(3),[68] subject to the interference mitigation conditions adopted below.

Authorization of 22 Base Stations (potentially affecting 100 or more households each). LTK predicts that after station WGBY-TV transitions to channel 13, operation of 22 proposed base stations would have the potential to impact from 106 to 2,610 WGBY-TV households each.[69] After implementation of a -25 dB notch filter, LTK predicts that PTC operations would have the potential to impact just 28 WGBY-TV households.[70] After review of the record, we find that MBTA has satisfied the requirements of section 80.215(h)(3)(i)-(iii) for authorization of base stations which may affect 100 or more WGBY-TV households (following the station's transition to channel 13),[71] and hereby grant it permanent authority to operate the 32 base stations, subject to the interference mitigation conditions adopted below.

Interference Mitigation Plan and Conditions

Section 80.215(h)(4) requires AMTS licensees to eliminate interference from their base station operations to viewers' OTA reception of TV channels 10 and 13.[72] MBTA's Interference Mitigation Plan describes and establishes a process for MBTA to comply with section 80.215(h)(4).[73]

MBTA states that it has established a Trouble Desk to receive and investigate any reports of interference from potentially affected broadcast stations.[74] Under its Interference Mitigation Plan, if interference mitigation is required, MBTA will provide free of charge, -25 dB notch filters to affected viewers, which MBTA asserts could eliminate potential interference caused to any affected TV receiver.[75] If MBTA cannot abate interference with a -25 dB notch filter, it will take appropriate steps to mitigate

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[65] *Id*.

[66] *See supra* note 50 (explaining use of NLSC).

[67] *See* Engineering Report at 37-38.

[68] 47 CFR § 80.215(h)(3).

[69] Engineering Report at 3, 22, and 37-38.

[70] *Id*.

[71] *See supra* notes 57-61 and accompanying text (MBTA satisfaction of section 80.215(h)(3)(i)-(iii)'s requirements).

[72] 47 CFR § 80.215(h)(4).

[73] *See* Public Interest Statement at 5; Chertock Certification.

[74] Public Interest Statement at 5.

[75] *See id*.; Chertock Certification; Engineering Report at 20 and 22.

interference "through other means, including a better notch filter, a more directional television receiver antenna, or adjustment of the antenna directivity or power level of the problematic PTC base station."[76]

Although section 80.214(h)(4) provides AMTS licensees up to 90 days to resolve interference issues, MBTA commits to investigating complaints of interference received from consumers or broadcasters within 30 days, and expects to have any interference complaints resolved by providing the necessary filtering to the affected consumer or modifying the technical parameters of the offending base station(s) within 60 days from receipt of an initial complaint.[77] Consistent with that commitment, as a condition of today's grant of permanent authority to operate the 228 PTC base stations, we require MBTA to:

1. Provide each potentially affected broadcaster contact information to report possible interference;[78]

2. Provide a party reporting interference a unique tracking number for each interference report;

3. Investigate any reported interference within 30 calendar days of receiving a report; and

4. Resolve any interference caused by base station operations at its own expense within 60 calendar days of receiving an interference report.[79]

For the reasons stated above, we hereby conditionally grant the License Modification Applications, ULS File Nos. 0008224143 (WRAN721) and 0008224193 (WRAN723).

Action taken pursuant to sections 1, 4(i), and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i), and 303(r), and sections 0.331 and 80.215(h) of the Commission's rules, 47 CFR §§ 0.331 and 80.215(h).

Sincerely,

Roger S. Noel
Chief, Mobility Division
Wireless Telecommunications Bureau

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[76] Public Interest Statement at 5; *see also* Chertock Certification.

[77] Public Interest Statement at 5; *see also* 47 CFR § 80.215(h)(4).

[78] The potentially affected channel 10 broadcasters are WTNH-DT, New Haven, Connecticut, WHTX-LD, Hartford, Connecticut, and WWDP-DT, Norwell, Massachusetts. The potentially affected channel 13 broadcasters are WPRI-TV, Providence, Rhode Island, which is scheduled to transition to channel 7 no later than August 2, 2019, and WGBY-TV, Springfield, Massachusetts, which is scheduled to transition to channel 13 no later than August 2, 2019.

[79] If MBTA were unable to remedy interference, Commission rules would require it to discontinue use of an offending base station. 47 CFR § 80.215(h)(4).