

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

In the Matter of Applications of)
AVISTA CORPORATION) FCC File Nos. 0004076538, 0004076539,
) 0004076544
To Modify Licenses for Automated Maritime)
Telecommunications System Stations WQKP817,)
WQKP819, and WQKP820)

ORDER ON RECONSIDERATION

Adopted: April 19, 2013

Released: April 19, 2013

By the Deputy Chief, Mobility Division, Wireless Telecommunications Bureau:

1. Introduction. We have before us two petitions for reconsideration, one filed by Spokane Television, Inc. (Spokane TV)1 and one filed by Warren Havens and associated entities (Havens Petitioners).2 The petitions seek reconsideration of an Order of the Wireless Telecommunications Bureau’s Mobility Division (Division) substantially granting the above-captioned applications filed by Avista Corporation (Avista) to modify the licenses for Automated Maritime Telecommunications System (AMTS) Stations WQKP817, WQKP819, and WQKP820 by adding transmitter locations in Idaho, Montana, and Washington.3 For reasons discussed below, we deny both petitions.

2. Background. AMTS stations are authorized on the condition that they not cause harmful interference to existing television stations.4 Because of the proximity of AMTS frequencies to television channels 10 and 13, an applicant proposing to locate an AMTS station within 105 miles of a Channel 13 television station or within 80 miles of a Channel 10 television station must submit a plan to limit interference to television reception5 and “an engineering study clearly showing the means of avoiding interference with television reception within the Grade B contour.”6 The Commission did not prescribe a methodology for the engineering study, but did conduct a study (the “Eckert Report”)7 that applicants could use as a model.8 If there are at least one hundred residences within both the proposed AMTS

1 Spokane Television, Inc., Petition for Reconsideration (filed Feb. 13, 2012) (Petition). Avista Corporation (Avista) filed an Opposition to Petition for Reconsideration on February 27, 2012, and Spokane TV filed a Reply to Opposition to Petition for Reconsideration (Reply) on March 8, 2012.

2 Skybridge Spectrum Foundation, Environmental LLC, Verde Systems LLC, Intelligent Transportation & Monitoring Wireless LLC, Telesaurus Holdings GB LLC, V2G LLC, and Warren Havens, Petition for Partial Reconsideration (filed Feb. 13, 2012) (Havens Petition).

3 Avista Corporation, Order, 27 FCC Rcd 263 (WTB MD 2012) (Order). Spokane TV has requested that we stay the Order pending disposition of its Petition. See Petition at 1 n.2. The stay request is dismissed as moot.

4 See 47 C.F.R. § 80.215(h).

5 See 47 C.F.R. § 80.215(h)(2).

6 See 47 C.F.R. § 80.475(a)(1).

7 FCC/OST Technical Memorandum 82-5, “Guidance for Evaluating the Potential for Interference to TV from Stations of Inland Waterways Communications Systems” (July 1982).

8 Amendment of the Commission’s Rules Concerning Maritime Communications, Fourth Report and Order and Third Further Notice of Proposed Rule Making, PR Docket No. 92-257, 15 FCC Rcd 22585, 22608-09 ¶¶ 45-48 (2000) (citing Amendment of Parts 2, 81 and 83 of the Commission’s Rules to Allocate Spectrum for an Automated (continued....))

station's predicted interference contour and the television station's Grade B contour, the AMTS applicant must also (1) show that its proposed site is the only suitable location, (2) develop a plan to control any interference its operations cause within the Grade B contour, and (3) agree to make any necessary adjustments to affected television receivers to eliminate such interference.⁹

3. Because it proposed to add AMTS transmitter sites at locations within 105 miles of Spokane TV's Channel 13 Digital Television (DTV) Station KXLY-TV, Avista submitted an interference analysis and an interference mitigation plan with the applications.¹⁰ Spokane TV filed a petition to deny asserting that Avista's interference analyses were flawed methodologically and Avista's interference mitigation plan was inadequate.¹¹

4. In light of the fact, as noted in the *Order*, that "[t]here is no standard method for predicting interference to DTV stations on Channel 13 from the type of operation proposed by Avista,"¹² Commission staff undertook its own technical analysis of predicted interference from Avista's proposed stations to reception of Station KXLY. The AMTS rules refer to a television station's Grade B contour, which was used to define the service area of an analog television station. With the conversion to DTV, the Commission developed the noise limited service contour (NLSC) to approximate the same probability of service as the analog Grade B contour.¹³ Consequently, the Division defined Station KXLY's service area by reference to its NLSC.¹⁴

5. As explained in the *Order*, the staff analysis employed a widely-used commercial software program, V-Soft Probe version 4,¹⁵ that utilizes the Longley-Rice irregular terrain propagation

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Inland Waterways Communications System (IWCS) along the Mississippi River and Connecting Waterways, *Report and Order*, GEN Docket No. 80-1, 84 FCC 2d 875, 900 ¶ 93 (1981)).

⁹ See 47 C.F.R. § 80.215(h)(3).

¹⁰ See "Analysis of the Potential for Interference to Television Reception Associated with AVISTA Utilities' 217 MHz Band Private Land Mobile Radio System" and "Plan for Mitigating Interference," attached to the applications. At the request of Commission staff, Avista supplemented its showing with a separate analysis of the interference potential of each of its proposed transmitter locations. Spokane TV then filed a supplement to its petition to deny. Avista filed a reply, and, at the invitation of the staff, Spokane TV filed a further supplement to its petition to deny.

¹¹ Spokane TV specifically argued, among other things, that Avista's initial reliance on the Eckert Report as an interference prediction model was misplaced because the Eckert Report is designed to measure AMTS interference to analog television stations rather than DTV stations, that Avista should have procured independent laboratory testing to determine the susceptibility of DTV receivers to interference from AMTS stations, that Avista's calculations were not based on the correct DTV service contour, and that Avista failed to consider a number of other factors bearing on potential interference to DTV reception. See *Order*, 27 FCC Rcd at 265 ¶ 5 & nn. 17, 18.

¹² *Id.* at 265 ¶ 5.

¹³ See, e.g., Review of the Commission's Part 95 Personal Radio Services Rules, *Notice of Proposed Rule Making and Memorandum Opinion and Order on Reconsideration*, WT Docket No. 10-119, 25 FCC Rcd 7651, 7676 ¶ 65 (2010); Study of Digital Television Field Strength Standards and Testing Procedures, *Report To Congress: The Satellite Home Viewer Extension and Reauthorization Act of 2004*, ET Docket No. 05-182, 20 FCC Rcd 19504, 19507 ¶ 3 (2005). 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, *Notice of Proposed Rule Making and Further Notice of Proposed Rule Making*, ET Docket No. 10-152, 25 FCC Rcd 10474, 10485 ¶ 25 (2010).

¹⁴ See *Order*, 27 FCC Rcd at 266 ¶ 7.

¹⁵ V-Soft Probe 4™, <http://www.v-soft.com/probe/index.htm>.

model¹⁶ and provides integrated mapping and U.S. Census-based population counting.¹⁷ Interference to reception of Station KXLY was predicted to occur where the desired-to-undesired (D/U) signal ratio was below -33 dB.¹⁸ Under this analysis, interference to populated areas was predicted at four of Avista's proposed sites. The *Order* concluded that Avista's proposed site at Ritzville, Washington "pose[d] an unacceptable potential for interference to television reception that would not be adequately addressed by Avista's plan to control interference."¹⁹ With respect to the other three sites, the staff analysis predicted interference to approximately fifty households in each location and the Division concluded that the potential for interference was manageable on the condition that Avista augment its interference mitigation plan by undertaking specified outreach activities to ensure that viewers are aware of the potential for interference and the available remedies.²⁰ The applications were granted as so conditioned for these three sites, and were granted without condition for the other proposed sites except Ritzville.

6. *Discussion.* Spokane TV first argues that the *Order* was arbitrary, capricious, and an abuse of discretion, and that a notice-and-comment rulemaking proceeding should first have been conducted to consider the issues raised by Avista's applications.²¹ Acceptance of this position would result in a *de facto* freeze on applications for AMTS facilities within 105 miles of a Channel 13 DTV station or 80 miles of a Channel 10 DTV station until the Commission completes a rulemaking proceeding regarding AMTS-to-DTV interference, but Spokane TV presents no evidence that this was the Commission's intent when it implemented the DTV transition.²² Indeed, the Commission specifically stated that "Section 80.475(a) of the rules governs how AMTS licensees must protect TV broadcast stations. . . . AMTS applicants must protect broadcast television stations with existing authorizations to operate on TV channels 10 and 13, whether the broadcast television station is providing analog or digital

¹⁶ See Technical Note 101, "Transmission Loss Predictions for Tropospheric Communication Circuits Volumes I and II" (Jan. 1967), accessible at <http://www.its.bldrdoc.gov/pub/ntia-rpt/tn101/>.

¹⁷ See *Order*, 27 FCC Rcd at 266 ¶ 6. Potential viewers of Station KXLY were assumed to have a properly-oriented receiving antenna with performance characteristics consistent with DTV planning factors, and the proposed Avista stations were treated as NTSC TV stations operating at 217.25 MHz. *Id.* Spokane TV argues that the *Order* failed to set forth key assumptions underlying that analysis, leaving its engineers unable to replicate the results. See Petition at 8. We agree with Spokane TV that the Division's analysis should be transparent, and that it would have been preferable for the *Order* to explain that the staff analysis used year 2000 Census data, -81 dBm (36 dBu) as the minimum desired signal level, interpolated grid points in calculating desired and undesired signal strength values, a terrain data extraction increment of 0.1 kilometer, the NED 3-Second US Terrain Database, and a study grid increment of 1 kilometer aligned by the Station KXLY contour; and did not apply a receive antenna cross-polarization factor. We conclude, however, that the failure to do so does not change the outcome of the analysis or otherwise undermine the Division's holdings, and thus constitutes at most harmless error. See, e.g., Dish Operating L.L.C., *Memorandum Opinion and Order*, 27 FCC Rcd 5923, 5928 n.34 (IB 2012).

¹⁸ See *Order*, 27 FCC Rcd at 266 ¶ 6. As discussed in the *Order*, the D/U ratio for upper-adjacent channel NTSC interference into DTV is -48 dB, see 47 C.F.R. § 73.623(c)(2), but the effective occupied bandwidth of the Avista operations appears to be greater than that of a conventional NTSC visual carrier, so a more conservative D/U ratio of -33 dB was deemed appropriate. See *Order*, 27 FCC Rcd at 266 n.22 (citing LoJack Corporation, *Declaratory Ruling and Order*, WT Docket No. 06-142, 26 FCC Rcd 12991, 12999 ¶ 18 (PSHSB 2011) (*LoJack Order*) (noting that the D/U threshold ratio for lower adjacent DTV signals into a DTV receiver has been measured to be about -33 dB)).

¹⁹ See *Order*, 27 FCC Rcd at 267 ¶ 11.

²⁰ *Id.* at 267-68 ¶¶ 9, 12.

²¹ See Petition at 3-9; see also Reply at 1-7.

²² Similarly, the Public Safety and Homeland Security Bureau declined to defer until the completion of a relevant rulemaking proceeding action on a request for waiver of the rules governing stolen vehicle recovery systems, which have interference protection requirements with respect to TV Channel 7 analogous to the AMTS rules regarding Channels 10 and 13, see 47 C.F.R. § 90.20(e)(6)(viii)-(ix). See *LoJack Order*, 26 FCC Rcd at 12999 ¶ 18.

service.”²³ As noted above, the AMTS rules do not specify a method for predicting interference from AMTS stations to television reception – analog or digital. Consequently, consistent with Commission precedent, the Division defined Station KXLY’s service area by reference to its NLSC.²⁴ Contrary to Spokane TV’s assertions, the Division did not adopt a new rule in this proceeding; rather, it applied the existing rules to the instant applications.²⁵ Moreover, it is well established that an agency has broad discretion in choosing to proceed via adjudication or rulemaking as it thinks best.²⁶

7. Next, Spokane TV argues²⁷ that the fact that Commission staff undertook its own technical analysis demonstrates that Avista did not “clearly show[] the means of avoiding interference with television reception,”²⁸ so the applications should have been dismissed as defective pursuant to Section 1.934 of the Rules.²⁹ The staff analysis did not supplant Avista’s showings, however, but merely served as a tool to assist the Division in assessing the sufficiency of those showings. Given that Avista was the first AMTS licensee to provide an interference analysis and mitigation plan for DTV rather than analog television stations, it was prudent for the Division to require augmentation of Avista’s initial interference analysis and utilize a staff analysis as measures to better enable it to assess the reliability of Avista’s technical analysis and the adequacy of its interference mitigation plan. The Commission and its Bureaus commonly undertake their own analyses of technical issues to supplement their review of materials submitted by applicants.³⁰ In addition, we note that Section 1.934 authorizes, but does not

²³ See *Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service, Seventh Report and Order and Eighth Further Notice of Proposed Rule Making*, MB Docket No. 87-268, 22 FCC Rcd 15581, 15595 ¶ 33 (2007) (footnote omitted). Spokane TV’s reliance on a 1989 Common Carrier Bureau decision as precedent for dismissing the Avista applications is unpersuasive. See Reply at 4 n.17 (citing *Cellular Applications for Unserved Areas in MSAs/NECMAs, Order*, 4 FCC Rcd 3636 (CCB 1989) (*MSA/NECMA Order*)). In that 1989 decision, the applications were dismissed because, unlike here, the Commission had not yet “establish[ed] procedures for accepting, processing, and selecting [such] applications.” See *MSA/NECMA Order*, 4 FCC Rcd at 3636 ¶ 3.

²⁴ See, e.g., *KXAN, Inc., Memorandum Opinion and Order*, 25 FCC Rcd 3307, 3312, ¶ 8 n.32 (MB 2010) (using the NLSC in place of the Grade B contour for purposes of the cable network non-duplication and syndicated program exclusivity rules); *Lenfest Broadcasting, LLC, Memorandum Opinion and Order*, 19 FCC Rcd 8970, 8974, ¶ 7 & n.27 (MB 2004) (using the NLSC in place of the Grade B contour for purposes of the market modification rules).

²⁵ Spokane TV argues that, at minimum, the Division should have conditioned its grant of the applications on the outcome of any rulemaking proceeding regarding AMTS-to-DTV interference. See Petition at 4, 11; Reply at 4, 10. We believe that such a condition would have been premature. See *Time Warner Inc., Memorandum Opinion and Order*, 12 FCC Rcd 15300, 15306 ¶ 17 (CSB 1997), *recon. dismissed, Memorandum Opinion and Order*, 15 FCC Rcd 7383 (CSB 2000). In the event that the Commission undertakes such a rulemaking proceeding, it can then consider whether to terminate, modify, or grandfather in whole or in part any incumbent operations not in compliance with any criteria adopted in that proceeding.

²⁶ See, e.g., *SEC v. Chenery Corp.*, 332 U.S. 194, 202-03 (1947) (“[T]he choice made between proceeding by general rule or by individual, ad hoc litigation is one that lies primarily in the informed discretion of the administrative agency”); *SBC Communications, Inc. v. FCC*, 138 F.3d 410, 421 (D.C. Cir. 1998) (“Inherent in an agency’s ability to choose adjudication rather than rulemaking, ... is the option to make policy choices in small steps, and only as a case obliges it to”).

²⁷ See Petition at 9-10.

²⁸ See 47 C.F.R. § 80.475(a)(1).

²⁹ 47 C.F.R. § 1.934.

³⁰ Samuel Moses PR, *Second Order on Further Reconsideration*, 24 FCC Rcd 8857, 8866 n.75 (WTB 2012) (“It is common practice for Commission staff to conduct an independent analysis to resolve interference issues.”); see, e.g., *Deutsche Telekom AG, T-Mobile USA, Inc., and MetroPCS Communications, Inc., Memorandum Opinion and Order and Declaratory Ruling*, 28 FCC Rcd 2322, 2341 ¶ 55 (WTB/IB 2013); *National Science and Technology Network, Inc., Order on Reconsideration and Order Proposing Modification*, 27 FCC Rcd 12332, 12335 ¶ 9 (WTB (continued....))

require, the dismissal of an incomplete application if the defect can be remedied.³¹

8. In addition, Spokane TV asserts that the Division ignored relevant arguments in its earlier pleadings.³² With respect to the argument that the Division should have used Station KXLY's 36 dBu service contour, which defines the area in which adjacent-channel fixed TV Band Devices may not operate,³³ the *Order* explained why the staff chose to use the station's NLSC and why it predicted interference to occur where the D/U signal ratio was below -33 dB.³⁴ Regarding the argument that potential interference from Avista's mobile units should have been considered, we note that the rules on AMTS interference to television stations address interference only from base stations,³⁵ so it was not incumbent upon Avista or the Division to address concerns about interference from mobiles. Spokane TV also argues that the Division also should have addressed its specific concerns about Avista's interference mitigation plan. The *Order* recognized that Spokane TV viewed Avista's interference mitigation plan as "insufficient because it could be construed as unduly limiting the remedial actions Avista is offering to undertake to address instances of actual interference," and the Division clarified that it "underst[oo]d Avista's commitment as broader than Spokane TV's close parsing of . . . [Avista's mitigation interference plan] might have it, and as representing that Avista agrees, without limitation, to make whatever adjustments to affected TV receivers may be needed to eliminate interference caused by its operations."³⁶ Having construed Avista's pledge as essentially agreeing to do whatever may be needed to avoid and cure any interference to reception of Station KXLY, it was not necessary to discuss each potential method of doing so.³⁷

9. Finally, the Havens Petitioners argue that the *Order* misapplied Section 80.215(h)(3)(i) by placing the burden on Avista to demonstrate that its proposed sites were the only suitable locations, whereas Section 80.215(h)(3)(i) requires merely that Avista demonstrate that its proposed sites are especially well-suited for the proposed service, and calls for Spokane TV to identify suitable alternatives.³⁸ The *Order*, however, expressly recognized that "a petitioner asserting that an AMTS applicant's proposed station location is not the only suitable location must identify an alternative location for the proposed station, whereupon the burden shifts to the applicant to demonstrate that the suggested alternative is not suitable."³⁹ The *Order* then noted that Spokane TV had failed to identify any alternative sites, and it therefore rejected Spokane TV's contention that Avista had not complied with Section 80.215(h)(3)(i).⁴⁰

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MD 2012), *aff'd*, *Order on Further Reconsideration and Order of Modification*, DA 13-541 (WTB MD rel. Mar. 25, 2013).

³¹ See 47 C.F.R. § 1.934(d)(1) ("The Commission *may* dismiss without prejudice an application that it finds to be defective.") (emphasis added).

³² See Petition at 10-11.

³³ See *Unlicensed Operation in the TV Broadcast Band, Second Memorandum Opinion and Order*, ET Dockets Nos. 04-186 & 02-380, 25 FCC Rcd 18861 (2010).

³⁴ See *Order*, 27 FCC Rcd at 266 ¶¶ 6-7.

³⁵ See 47 C.F.R. §§ 80.215(h)(1)-(4), 80.475(a)-(b) (referring exclusively to "coast stations," *i.e.*, base stations).

³⁶ See *Order*, 27 FCC Rcd at 268-69 ¶ 13.

³⁷ As noted in the *Order*, Avista remains obligated to cure any interference to reception of Station KXLY within the station's NLSC. See *id.* at 269 ¶ 14; see also 47 C.F.R. § 80.215(h)(4).

³⁸ See Havens Petition at 2-3.

³⁹ See *Order*, 27 FCC Rcd at 268 ¶ 13.

⁴⁰ *Id.*

10. *Conclusion.* The *Order* was not arbitrary, capricious or an abuse of discretion. The Division did not err in declining to defer action on Avista's applications until the completion of a rulemaking proceeding regarding AMTS-to-DTV interference. In addition, the Division properly utilized a technical analysis prepared by Commission staff in assessing the adequacy of Avista's applications and technical showings, and any failure to provide sufficient data to permit replication of that analysis has been remedied here and was at most harmless error. Further, the Division fully considered all of Spokane TV's arguments. Finally, the Division correctly held that the Avista's applications complied with Section 80.215(h)(3)(i). We therefore deny the petitions for reconsideration filed by Spokane TV and the Havens Petitioners.

11. *Ordering Clauses.* Accordingly, IT IS ORDERED, pursuant to Sections 4(i) and 405 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 405, and Section 1.106 of the Commission's Rules, 47 C.F.R. § 1.106, that the Petition for Reconsideration filed by Spokane Television, Inc., on February 13, 2012 IS DENIED and its request for a stay of the *Order* IS DISMISSED as moot.

12. IT IS FURTHER ORDERED, pursuant to Sections 4(i) and 405 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 405, and Section 1.106 of the Commission's Rules, 47 C.F.R. § 1.106, that Petition for Partial Reconsideration filed by Skybridge Spectrum Foundation, Environmental LLC, Verde Systems LLC, Intelligent Transportation & Monitoring Wireless LLC, Telesaurus Holdings GB LLC, V2G LLC, and Warren Havens on February 13, 2012 IS DENIED.

13. This action is taken under delegated authority pursuant to Sections 0.131 and 0.331 of the Commission's Rules, 47 C.F.R. §§ 0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION

Scot Stone
Deputy Chief, Mobility Division
Wireless Telecommunications Bureau