

Before the  
Federal Communications Commission  
Washington, DC 20554

In the Matter of	)	
	)	
Air-Tel, LLC	)	File Nos.: EB-SED-17-00024053
	)	NAL/Acct. No.: 201832100031
	)	FRN: 0020520946

**FORFEITURE ORDER**

**Adopted: May 20, 2021**

**Released: May 21, 2021**

By the Commission: Acting Chairwoman Rosenworcel issuing a statement.

**TABLE OF CONTENTS**

Heading	Paragraph #
I. INTRODUCTION .....	1
II. BACKGROUND .....	2
III. DISCUSSION.....	8
A. Air-Tel Engaged in Unauthorized Operations with Unauthorized Equipment.....	9
B. The Amount of the Forfeiture Is Appropriate.....	14
1. Lack of Familiarity with the Rules Does Not Warrant Cancelling a Forfeiture .....	16
2. Air-Tel Has Failed to Provide Any Other Reason for Decreasing or Canceling the Forfeiture .....	18
3. Air Tel’s Claim of Inability to Pay Is Unsubstantiated and Outweighed by the Egregiousness of the Violations .....	22
IV. ORDERING CLAUSES.....	25

**I. INTRODUCTION**

1. On September 14, 2018, the Commission issued a Notice of Apparent Liability for Forfeiture (*Notice*) proposing to fine Air-Tel, LLC (Air-Tel or Company) \$327,290 for operating an unauthorized wireless data transmission service in a radiolocation service spectrum band and for intentionally altering the settings of wireless equipment to support both this unauthorized service and operation outside the authorized frequency bands allowed for the equipment.<sup>1</sup> After reviewing the Company’s response to the *Notice*,<sup>2</sup> we find no reason to cancel, withdraw, or reduce the proposed penalty and impose a penalty of \$327,290 against Air-Tel.

**II. BACKGROUND**

2. *Legal Background.* Section 301 of the Communications Act of 1934, as amended (the Act) and section 1.903(a) of the Commission’s rules prohibit the use or operation of any apparatus for the transmission of energy or communications or signals by radio except under, and in accordance with, a Commission-granted authorization.<sup>3</sup> A “Radiolocation Service” license authorized under subpart F of part

<sup>1</sup> *IOU Acquisitions, Inc.; Air-Tel, LLC*, Notice of Apparent Liability for Forfeiture, 33 FCC Rcd 8919 (2018).

<sup>2</sup> *Air-Tel, LLC*, Response to Notice of Apparent Liability (filed Oct. 15, 2018) (on file in EB-SED-17-00024053) (Notice Response).

90 of the Commission's rules permits operation of "stations to determine distance, direction, speed, or position by means of radiolocation devices, for purposes other than navigation."<sup>4</sup> Radiolocation Service is a subset of radiodetermination, and is typically a radar service that relies on the propagation properties of radio waves to determine the position of an object for non-navigation purposes,<sup>5</sup> "such as doppler radar to provide weather information to broadcast viewers."<sup>6</sup>

3. The Global Positioning System (GPS) service is technologically distinct from both radiodetermination and Radiolocation Service. GPS relies on satellite communications to determine the location of an object and Commission regulations allow GPS to be used for navigation purposes.<sup>7</sup> A GPS tracking service is simply the transmission of data, specifically, the location information determined by GPS.<sup>8</sup> Because radiodetermination and radiolocation do not rely on satellite communications, they are considered technologically distinct services from GPS.

4. The Act and the Commission's rules set forth requirements for radio frequency devices to obtain equipment authorization and to be operated in a manner consistent with the authorization. Section 302(b) of the Act mandates that "[n]o person shall . . . use devices [] which fail to comply with regulations promulgated pursuant to this section."<sup>9</sup> In the context of Private Land Mobile Radio services, section 90.203 of the Commission's rules requires that "each transmitter utilized for operation under this part . . . must be of a type which has been certified for use under this part."<sup>10</sup> Radiolocation Service licensees are required to use "radiolocation devices" under section 90.103 of the Commission's rules.<sup>11</sup>

5. *Factual Background.* Air-Tel is a Colorado-based company licensed to provide Radiolocation Service under subpart F of part 90 of the Commission's rules, holding Radiolocation Service license WQLX454 for frequencies 3300-3600 MHz since July 1, 2016.<sup>12</sup> Although Air-Tel holds a Radiolocation Service license, the Company instead provided a GPS vehicle tracking service that transmitted GPS coordinates of mobile stations to land stations using equipment certified for use as wireless data transmission equipment.<sup>13</sup> The Company states that its GPS vehicle tracking service also

(Continued from previous page) \_\_\_\_\_

<sup>3</sup> 47 U.S.C. § 301; 47 CFR § 1.903(a).

<sup>4</sup> 47 CFR § 90.103; *accord id.* § 90.101; *see also Notice*, 33 FCC Rcd at 8919-20, paras. 2-3.

<sup>5</sup> 47 CFR § 2.1(c); *see also id.* § 90.7 (defining Radiodetermination as "[t]he determination of position, or the obtaining of information relating to position, by means of the propagation of radio waves."); *Notice*, 33 FCC Rcd at 8919-20, paras. 2-3.

<sup>6</sup> *Facilitating Shared Use in the 3.1-3.55 GHz Band*, Notice of Proposed Rulemaking, 34 FCC Rcd 12662, 12664, para. 5 (2019).

<sup>7</sup> *Review of the Commission's Part 95 Personal Radio Services Rules et al.*, Notice of Proposed Rule Making and Memorandum Opinion and Order on Reconsideration, 25 FCC Rcd 7651, 7666, para. 39 n.79 (2010) ("GPS is a satellite-based navigation and positioning system . . ."); *Globalstar LLC*, Order and Authorization, 21 FCC Rcd 398, 405, para. 20 (2006) ("The Commission adopted these emission limits to prevent interference with reception of signals from radionavigation satellites in the 1559-1610 MHz band.").

<sup>8</sup> *Cf. Amendment of Parts 2, 15, 80, 90, 97, and 101 of the Commission's Rules Regarding Implementation of the Final Acts of the World Radiocommunication Conference (Geneva, 2012) (WRC-12), Other Allocation Issues, and Related Rule Updates*, Report and Order, 32 FCC Rcd 2703, 2714, para. 30 & n.72 (2017); *see also Notice*, 33 FCC Rcd at 8925-26, para. 14.

<sup>9</sup> 47 U.S.C. § 302a(b).

<sup>10</sup> 47 CFR § 90.203(a).

<sup>11</sup> 47 CFR § 90.103(a).

<sup>12</sup> The Commission issued the WQLX454 license on May 18, 2010 to Sage and Company, LLC, and the license was assigned to Air-Tel on July 1, 2016. *See* Universal Licensing System (ULS) Call Sign WQLX454 (granted May 18, 2010); ULS File No. 0007307197 (granted June 17, 2016). The *Notice* includes a more complete discussion of the facts and history of this case and is incorporated herein by reference. *See generally Notice*.

included “wireless services,” “IP voice services,” and an “enhanced web portal that provides access to tracking information.”<sup>14</sup> To provide the GPS vehicle tracking service, Air-Tel used equipment that was neither authorized for operation as Radiolocation Service equipment nor authorized for operation in the 3300-3600 MHz band, ignoring regulatory warnings in the equipment user manuals.<sup>15</sup> Air-Tel provided the GPS vehicle tracking service in the 3300-3600 MHz band until September 24, 2017.<sup>16</sup>

6. On September 14, 2018, the Commission issued the *Notice* proposing a \$327,290 forfeiture against Air-Tel, finding that the Company’s operation of a GPS vehicle tracking service in the 3300-3600 MHz band apparently constituted a wireless data transmission service that was not authorized under its Radiolocation Service license. The *Notice* also determined that Air-Tel apparently operated equipment that was not authorized to operate on frequencies allocated to the Radiolocation Service. Accordingly, the *Notice* found the Company apparently liable for its apparent willful and repeated violations of: (a) section 301 of the Act and section 1.903(a) of the Commission’s rules by apparently conducting unauthorized operations of an unauthorized wireless data transmission service from July 1, 2016, the date on which its licenses were obtained, until September 24, 2017;<sup>17</sup> and (b) section 302 of the Act and sections 90.103 and 90.203 of the Commission’s rules by operating unauthorized equipment to effectuate such unauthorized operation during the same period of time.<sup>18</sup> The *Notice* also proposed a significant upward adjustment on the total base forfeiture as a result of the Company’s long record of repeated and continuous violations and its deliberate use of unauthorized equipment.<sup>19</sup>

7. On October 15, 2018, Air-Tel filed a response to the *Notice*.<sup>20</sup> The Company makes a number of arguments as to why the *Notice* should be canceled, but fails to explain how the GPS vehicle tracking service can be classified as a Radiolocation Service and legally operated in the frequency band designated for Radiolocation Services using noncompliant equipment.<sup>21</sup>

(Continued from previous page)

<sup>13</sup> See *Notice*, 33 FCC Rcd at 8921-22, para. 5.

<sup>14</sup> See *Notice*, 33 FCC Rcd at 8921, para. 5.

<sup>15</sup> See *Notice*, 33 FCC Rcd at 8922, para. 6. Air-Tel used Cambium equipment certified for 3652.5-3697.5 MHz (FCC ID Z8H89FT0028). The test reports for the Cambium equipment stated that certification was being sought under subpart Z of part 90 of the Commission’s rules for “Wireless Broadband Services in the 3650-3700 MHz Band.” At some points during the period for which the violations are assessed, the Company used Redline equipment (FCC ID QC8-AN80IE) instead of the Cambium equipment. The Redline equipment was granted certification for 3650-3700 MHz. The Redline equipment is described as a “broadband wireless transceiver device” in the certification grant, and the test report submitted with the equipment stated certification was being sought in accordance with “FCC Part 90 Subpart Z Wireless Broadband Services in the 3650-3700 MHz Band.” *Id.* at 8922, para. 6 n.17. Both equipment manufacturers included regulatory warnings about choosing the appropriate regions and/or countries in their user manuals. The Cambium equipment manual stated, “PMP 450 equipment shipped to the United States is locked to a Country Code setting of ‘United States.’ Units shipped to regions other than the United States must be configured with the corresponding Country Code to comply with local regulatory requirements.” The Redline equipment manual stated that the regional code “is incorporated into the options key. This feature enforces compliance to regional regulatory statutes.” *Id.* at 8928, para. 20 n.70.

<sup>16</sup> See *Notice*, 33 FCC Rcd at 8921-22, para. 5; Notice Response at 4.

<sup>17</sup> 47 U.S.C. § 301; 47 CFR § 1.903(a).

<sup>18</sup> 47 U.S.C. § 302a(b); 47 CFR §§ 90.103, 90.203. The *Notice* also proposed a \$207,290 forfeiture against IOU Acquisitions, Inc. for substantially similar violations. We address the claims made by IOU Acquisitions, Inc. in a companion forfeiture order against that company.

<sup>19</sup> *Notice*, 33 FCC Rcd at 8931-32, paras. 27-30.

<sup>20</sup> Notice Response.

<sup>21</sup> Notice Response at 2.

### III. DISCUSSION

8. In this Forfeiture Order, we find that Air-Tel violated the Act and the Commission's rules by providing an unauthorized service in the 3300-3600 MHz band and operating equipment in a manner inconsistent with the equipment's authorization. The Commission proposed a forfeiture in this case in accordance with section 503(b) of the Act,<sup>22</sup> section 1.80 of the Commission's rules,<sup>23</sup> and the Commission's *Forfeiture Policy Statement*.<sup>24</sup> When we assess forfeitures, section 503(b)(2)(E) requires that we take into account the "nature, circumstances, extent, and gravity of the violation and, with respect to the violator, the degree of culpability, any history of prior offenses, ability to pay, and such other matters as justice may require."<sup>25</sup> We have fully considered Air-Tel's response to the *Notice*, which includes a variety of legal and factual arguments, but we find none of them persuasive. We therefore impose the \$327,290 forfeiture proposed in the *Notice*.

#### A. Air-Tel Engaged in Unauthorized Operations with Unauthorized Equipment

9. The core factual findings of the *Notice*—that Air-Tel performed unauthorized GPS-tracking operations in the 3300-3600 MHz band using unauthorized equipment—are undisputed. Specifically, the *Notice* found that Air-Tel's GPS vehicle tracking service apparently constituted a wireless data transmission service not authorized under its Radiolocation Service license.<sup>26</sup> The *Notice* also found Air-Tel apparently altered and operated equipment that was not authorized to operate on frequencies allocated to the Radiolocation Service.<sup>27</sup> Based on these findings, the *Notice* concluded that Air-Tel was apparently liable for its apparent willful and repeated violation of sections 301 and 302(b) of the Act and sections 1.903(a), 90.103, and 90.203 of the Commission's rules.<sup>28</sup> Air-Tel does not dispute that it offered a GPS vehicle tracking service or that the equipment it used was not authorized for use as a Radiolocation Service in the 3300-3600 MHz band.

10. Because Air-Tel violated the Act and Commission's rules the appropriate method of addressing those violations is an enforcement proceeding. The *Notice* comported with the requirements of section 503 of the Act, and Air-Tel's procedural complaints to the contrary fail to prove otherwise.<sup>29</sup> Specifically, the *Notice* identified the specific provisions of the Act and Commission's rules which Air-

---

<sup>22</sup> 47 U.S.C. § 503(b).

<sup>23</sup> 47 CFR § 1.80.

<sup>24</sup> *The Commission's Forfeiture Policy Statement and Amendment of Section 1.80 of the Rules to Incorporate the Forfeiture Guidelines*, Report and Order, 12 FCC Rcd 17087 (1997) (*Forfeiture Policy Statement*), *recons. denied*, Memorandum Opinion and Order, 15 FCC Rcd 303 (1999).

<sup>25</sup> 47 U.S.C. § 503(b)(2)(E).

<sup>26</sup> *Notice*, 33 FCC Rcd at 8924-27, paras. 11-17. Following the *Notice*, the Commission took steps to relocate authorized radiolocation licensees from the 3.3-3.55 GHz band to allow the 3.45-3.55 GHz band to be used for wireless services, including 5G. See *Facilitating Shared Use in the 3100-3550 MHz Band*, WT Docket No. 19-348, Report and Order and Further Notice of Proposed Rulemaking, 35 FCC Rcd 11078, 11088, para. 27 (2020) (removing the secondary non-federal radiolocation service allocation from the 3.3-3.55 GHz band); *Facilitating Shared Use in the 3100-3550 MHz Band*, WT Docket No. 19-348, Second Report and Order, Order on Reconsideration, Order Proposing Modification, 2021 WL 1086295, at \*6-7, paras. 17-19, \*44-45, paras. 150-53 (2021) (allocating the spectrum for flexible wireless use and establishing timing of relocation for authorized radiolocation licensees).

<sup>27</sup> *Notice*, 33 FCC Rcd at 8927-29, paras. 18-22.

<sup>28</sup> 47 U.S.C. §§ 301, 302a(b); 47 CFR §§ 1.903(a), 90.103, 90.203; *Notice*, 33 FCC Rcd at 8932, para. 33.

<sup>29</sup> *Notice Response* at 5 (arguing that the issue is properly before the Wireless Telecommunications Bureau (WTB)).

Tel apparently violated, the facts supporting such apparent violations, and the dates on which the apparent violations occurred, all as required by section 503 of the Act.<sup>30</sup>

11. Additionally, the *Notice* provided full consideration to Air-Tel's filings with other Bureaus on related topics.<sup>31</sup> Indeed, in the *Notice*, the Commission both acknowledged that WTB had rejected Air-Tel's arguments and directly addressed Air-Tel's arguments that its conduct was permissible.<sup>32</sup> The Commission's response to Air-Tel's position has been, and remains, consistent.<sup>33</sup>

12. In addition, Air-Tel had adequate notice that a GPS vehicle tracking system was not Radiolocation Service. The Commission's rules defining "Radiolocation Service" have been in effect for years, long before Air-Tel acquired its Radiolocation Service license in 2016.<sup>34</sup> Similarly, section 90.103(a) of the Commission's rules, which went into effect in 1979,<sup>35</sup> put Air-Tel on notice that its Radiolocation Service license was strictly "to operate stations to determine distance, direction, speed, or position by means of radiolocation devices."<sup>36</sup> As a licensee, Air-Tel is responsible for having knowledge of, and complying with, the Commission's rules.<sup>37</sup>

---

<sup>30</sup> See 47 U.S.C. § 503(b)(4); *Notice*, 33 FCC Rcd at 8924, paras. 11, 33 (Act and Commission's rules); 8920-22, paras. 4-6 (supporting facts); 8932, para. 30 (dates of violations).

<sup>31</sup> Notice Response at 1; see *Notice*, 33 FCC Rcd at 8923-24, paras. 8-10 (outlining the various filings by Air-Tel, including its Petition for Declaratory Ruling filed with WTB and its Petition for Reconsideration filed with the Commission); 8925, para. 13 (including Air-Tel's arguments about its service citing its LOI Response and its Petition for Declaratory Ruling).

<sup>32</sup> *Notice*, 33 FCC Rcd at 8925, para. 14 (citing *Air-Tel, LLC and IOU Acquisitions, Inc.*, Order, 32 FCC Rcd 10157, 10159, para. 7 (WTB 2017)).

<sup>33</sup> Air-Tel briefly claims that this enforcement action has impinged upon its First Amendment right to file pleadings in related Commission proceedings. See Notice Response at 5. This is specious. Taking enforcement action in no way reduces a company's First Amendment rights to speak before the agency generally or any rights it may otherwise have in related Commission proceedings. In fact, Air-Tel has actively availed itself of its speech rights by filing various administrative appeals to the WTB Orders. On October 30, 2017, Air-Tel and IOU Acquisitions, Inc., filed a Petition for Declaratory Ruling and Waiver with WTB seeking a declaratory ruling that the service they offer constitutes radiolocation under part 90 of the Commission's rules, and therefore may be provided under their licenses. See Petition of Air-Tel, LLC, and IOU Acquisitions, Inc., for Declaratory Ruling and Waiver (filed Oct. 30, 2017) (Petition). The Companies also requested a waiver to permit them to provide that service in the 3500-3550 MHz band using equipment that was not approved for radiolocation operation on those frequencies. *Id.* On December 1, 2017, WTB released an Order finding that: (i) the service does not constitute radiolocation, and (ii) consequently, the request for waiver need not be addressed. *Air-Tel, LLC, IOU Acquisitions, Inc.*, Order, 32 FCC Rcd 10157 (WTB 2017) (*Petition Denial*). On January 2, 2018, Air-Tel filed a Petition for Reconsideration of WTB's *Petition Denial*, and on October 5, 2018, WTB issued a decision denying reconsideration. See Petition of Air-Tel, LLC for Reconsideration of Order Denying Petition for Declaratory Ruling and Waiver (filed Jan. 2, 2018) (*Petition for Recon*); *Air-Tel, LLC Petition for Declaratory Ruling and Waiver*, Order on Reconsideration, 33 FCC Rcd 9772 (WTB 2018) (*Reconsideration Denial*). On November 5, 2018, Air-Tel filed an Application for Review of the October 5, 2018 Order with the Commission, which is addressed in a separate Order. See *Air-Tel, LLC*, Memorandum Opinion and Order, FCC 21-59 (2021).

<sup>34</sup> As the Company notes in its Petition, these rules have remained essentially the same for at least 30 years. See Petition at 6.

<sup>35</sup> Private Land Mobile Radio Service, Reregulation, Report and Order, 43 Fed. Reg. 54788, 54829 (Nov. 22, 1978) (codifying 47 CFR § 90.103 effective Jan. 2, 1979).

<sup>36</sup> 47 CFR § 90.103(a).

<sup>37</sup> "[L]icensees are expected to be aware of and comply with all the requirements of the Communications Act and the rules thereunder. . . ." *Centennial Radio Corp., Licensee of Station Kapi, Pueblo, Colo. For Forfeiture*, Memorandum Opinion and Order, 15 FCC 2d 817, 817-18, para. 4 (1969); *Forfeiture Policy Statement*, 12 FCC

(continued....)

13. Air-Tel mistakenly claims the *2015 Commission Order* cited in the *Notice* provided the first interpretation of the Commission's radiolocation rules.<sup>38</sup> The citation to the *2015 Commission Order* in the *Notice* was simply used as evidence for the longstanding meaning of the term "radiolocation," which went into effect years earlier.<sup>39</sup> Citation to that order had no bearing on Air-Tel's notice as to its regulatory requirements. We thus reject Air-Tel's arguments that it lacked notice that its GPS vehicle tracking service was not a Radiolocation Service.

**B. The Amount of the Forfeiture Is Appropriate**

14. After considering the relevant statutory factors and the Commission's *Forfeiture Policy Statement*, we find that Air-Tel is liable for a total forfeiture of \$327,290.<sup>40</sup> As explained in the *Notice*, this total results from applying a \$147,290 forfeiture for unauthorized operation on a continuing basis, in addition to a \$180,000 forfeiture for its operation of unauthorized equipment.<sup>41</sup> The \$147,290 forfeiture for unauthorized operation constitutes the daily base forfeiture of \$10,000,<sup>42</sup> upwardly adjusted to the daily statutory maximum of \$19,639, applied from September 16, 2017 to September 24, 2017, and capped at the statutory maximum of \$147,290 for a continuing violation.<sup>43</sup> The \$180,000 forfeiture for unauthorized equipment constitutes a base forfeiture of \$5,000 for each of the twelve unauthorized pieces of Cambium equipment operated by Air-Tel, upwardly adjusted by \$120,000.<sup>44</sup> These upward adjustments are warranted due to Air-Tel's lengthy history of repeated and continuous noncompliance, in addition to the deliberate nature of its violations.<sup>45</sup>

15. We reject Air-Tel's arguments that the proposed forfeiture should be cancelled due to its lack of familiarity with the Commission's rules, its alleged lack of intent to violate the Commission's rules, the fact that its conduct partially took place outside the statute of limitations, the fact that it relied on oral Commission staff opinions in concluding that its Radiolocation Service license authorized its

(Continued from previous page) \_\_\_\_\_

Rcd at 17099, para. 22 ("The Commission expects, and it is each licensee's obligation, to know and comply with all of the Commission's rules.").

<sup>38</sup> Notice Response at 6 (referring to *Amendment of Parts 1, 2, 15, 25, 27, 74, 78, 80, 87, 90, 97, and 101 of the Commission's Rules Regarding Implementation of the Final Acts of the World Radiocommunication Conference (Geneva, 2007) (WRC-07), Other Allocation Issues, and Related Rule Updates*, Report and Order, Order, and Notice of Proposed Rulemaking, 30 FCC Rcd 4183 (2015) (*2015 Commission Order*)).

<sup>39</sup> In any event, by arguing the *2015 Commission Order* first provided notice, Air-Tel admits it was on notice, because that Order preceded the Company's acquisition of the license in 2016.

<sup>40</sup> Any entity that is a "Small Business Concern" as defined in the Small Business Act (Pub. L. 85-536, as amended) may avail itself of rights set forth in that Act, including rights set forth in 15 U.S.C. § 657, "Oversight of Regulatory Enforcement," in addition to other rights set forth herein.

<sup>41</sup> See *Notice*, 33 FCC Rcd at 8931-32, paras. 24-31.

<sup>42</sup> See 47 CFR § 1.80(d); *Notice*, 33 FCC Rcd at 8930, para. 24.

<sup>43</sup> See 47 U.S.C. § 503(b)(2)(D); 47 CFR § 1.80(b)(7); *Notice*, 33 FCC Rcd at 8932, para. 30. This amount reflects inflation adjustments to section 503(b)(2)(D) of the Act, which specifies a \$10,000 base forfeiture for each violation or each day of a continuing violation and a \$75,000 base forfeiture for any single act or failure to act. See 47 CFR § 1.80(b)(9); Amendment of Section 1.80(b) of the Commission's Rules, Adjustment of Civil Monetary Penalties to Reflect Inflation, Order, 33 FCC Rcd 46, Appendix A (EB 2018).

<sup>44</sup> See 47 CFR § 1.80(b); *Notice*, 33 FCC Rcd at 8930-31, 32, paras. 26, 30. The Commission has discretion to depart from these guidelines, taking into account the particular facts of each individual case. *Forfeiture Policy Statement*, 12 FCC Rcd at 17098-99, para. 22 (1997) (noting that "[a]lthough we have adopted the base forfeiture amounts as guidelines to provide a measure of predictability to the forfeiture process, we retain our discretion to depart from the guidelines and issue forfeitures on a case-by-case basis, under our general forfeiture authority contained in Section 503 of the Act").

<sup>45</sup> See *Notice*, 33 FCC Rcd at 8931-32, paras. 27-28.

service, or the fact that it operated without interference or investigation for many years and cured its violations once made aware of them. None of these arguments has merit. Accordingly, we find no basis to cancel the forfeiture.

**1. Lack of Familiarity with the Rules Does Not Warrant Cancelling a Forfeiture**

16. Long-established Commission precedent holds that a company's lack of understanding of the Act and the Commission's rules is neither an excuse for violating them nor a viable defense in a forfeiture proceeding.<sup>46</sup> Air-Tel nevertheless claims that it had a reasonable belief that its GPS vehicle tracking service was authorized and that enforcement action is therefore inappropriate.<sup>47</sup> Specifically, the Company claims that the oral discussions its predecessor-in-interest had with WTB staff, along with information provided on the initial license application concerning the equipment to be used, in combination with the actual grant of the license (and a subsequent license modification application and grant) should insulate the Company from enforcement action.<sup>48</sup> We are unpersuaded. As WTB explained in denying the Company's petition for declaratory relief, the grant of a Radiolocation Service license only provides authorization to provide a Radiolocation Service,<sup>49</sup> and staff conversations are not binding on the agency and cannot grant an authorization to operate outside a licensed parameter.<sup>50</sup> The Company and its predecessors never received an authorization to provide non-radiolocation services under its license.<sup>51</sup> Similarly, the grant of a license does not provide a licensee authority to operate any equipment of its choosing. The Commission's rules explicitly require that equipment used to provide service under part 90 must be certified for its particular use.<sup>52</sup>

---

<sup>46</sup> See *Remel, Inc., & Its Corp. Parent Thermo Fisher Sci., Inc.*, Notice of Apparent Liability for Forfeiture, 28 FCC Rcd 8778, 8782, para. 9 (2013) (forfeiture paid) ("The Commission has consistently held that lack of knowledge or erroneous belief does not warrant a downward adjustment of the forfeiture.").

<sup>47</sup> Notice Response at 6.

<sup>48</sup> See Notice Response at 5-8. Specifically, Air-Tel states that the original license application indicated "Fixed" and "Mobile" as the type of radio service for the license (leaving unchecked the box for "Radiolocation") and specified the digital emission designator "10M0D1D," which was appropriate for GPS location service but not appropriate for traditional radiolocation. *Id.* at 3. Air-Tel states that the original application, which did not seek any rule waiver, was prepared based on conversations held with WTB staff in Gettysburg, and ultimately was approved and issued to the prior licensee. *Id.* Air-Tel states that the prior licensees operated the license for several years in exact accordance with the technical parameters in the original application. *Id.* Air-Tel states that shortly after it acquired the license in 2016, it applied to modify the license by adding additional locations in multiple cities. *Id.* Air-Tel states that the modification application was completed in the same manner as the original application and that WTB granted the modification application as it had earlier granted the original application. *Id.* Air-Tel states that during all this time it continued to operate in accordance with the technical parameters set out in the approved license application. Air-Tel also states that the license was always operated on a completely interference-free, complaint-free basis. *Id.* at 3, 4.

<sup>49</sup> *Petition Denial*, 32 FCC Rcd at 10158-59, paras. 5-6.

<sup>50</sup> *Texas Media Group, Inc.; Trey Broadcast Communications, Inc.*, Memorandum Opinion and Order, 5 FCC Rcd 2851, 2852, para. 8 (1990) ("It is the obligation of interested parties to ascertain facts from official Commission records and files and not rely on statements or informal opinions by the staff."), *aff'd sub nom. Malkan FM Assocs. v. FCC*, 935 F.2d 1313 (D.C. Cir. 1991); *Hinton Telephone Company et al.*, Memorandum Opinion and Order on Reconsideration, 10 FCC Rcd 11625, 11637, para. 42 (1995) ("The Commission has specifically held that parties who rely on staff advice or interpretations do so at their own risk.").

<sup>51</sup> See *Petition Denial*, 32 FCC Rcd at 10159, para. 6 ("Notwithstanding that the licenses were granted for emission designators not ordinarily associated with radiolocation, Petitioners were never granted a waiver of the applicable service rules to permit them to provide non-radiolocation services under part 90 radiolocation licenses.").

<sup>52</sup> 47 CFR § 90.203(a).

17. Finally, we reject Air-Tel's argument that it did not intend to violate the Act and Commission's rules when its engineer "mistakenly" but unlawfully programmed the equipment to operate outside the scope of its authorization.<sup>53</sup> Air-Tel willfully programmed the equipment in a manner inconsistent with the permissible rules,<sup>54</sup> even if mistaken.<sup>55</sup>

**2. Air-Tel Has Failed to Provide Any Other Reason for Decreasing or Canceling the Forfeiture**

18. We reject Air-Tel's remaining arguments to cancel the forfeiture,<sup>56</sup> starting with its suggestion that we are somehow limited by the forfeiture amount in a different case involving a part 90 licensee.<sup>57</sup> The Commission has discretion to increase or decrease a forfeiture based on the unique facts of a case and is not bound by forfeitures in other cases involving different circumstances.<sup>58</sup>

19. The *Notice* found apparent violations within the limitations period and considered Air-Tel's prior history of noncompliance only in concluding that the base forfeiture should be upwardly adjusted. This approach comports with well-established Commission practice.<sup>59</sup> Thus, we also reject the Company's claim that it is being punished for conduct that took place outside the statute of limitations.<sup>60</sup>

20. The Commission has consistently held that parties relying on staff interpretations do so at their own risk.<sup>61</sup> Therefore, we also decline to reduce the forfeiture amount based on allegations that Air-Tel and its predecessor-in-interest allegedly relied on staff opinions in concluding that its Radiolocation

---

<sup>53</sup> Notice Response at 7-8.

<sup>54</sup> Section 312(f)(1) of the Act defines willful as "the conscious and deliberate commission or omission of [any] act, irrespective of any intent to violate" the law. 47 U.S.C. § 312(f)(1). In fact, the legislative history to this section clarifies that this definition of willful applies to both sections 312 and 503(b) of the Act, and the Commission has so interpreted the term in the section 503(b) context. *See, e.g., Application for Review of Southern California Broadcasting Co.*, Memorandum Opinion and Order, 6 FCC Rcd 4387, 4388, para. 5 (1991). That the Company's engineer did not inform the Company's managing member of how the equipment was programmed has no bearing on the fact that the equipment was willfully programmed by the Company in a manner inconsistent with part 90 of the Commission's rules. *See* Notice Response at 7.

<sup>55</sup> *Wagenvoord Broadcasting Co.*, Memorandum Opinion and Order, 35 FCC 2d 361, para. 3 (1972) (holding a licensee responsible for violations of the Commission's rules despite its reliance on the erroneous advice of a consulting engineer); *see also Bear Down Brands, LLC DBA Pure Enrichment*, Notice of Apparent Liability for Forfeiture, 33 FCC Rcd 5449, 5459, para. 28 & n.77 (2018) (forfeiture paid) (collecting cases that administrative oversight, inadvertence, or a lack of familiarity with the Commission's rules do not mitigate the forfeiture amount).

<sup>56</sup> We separately address the Company's alleged inability to pay argument in section III.B.3.

<sup>57</sup> Notice Response at 7 (comparing this case to a case in which the Enforcement Bureau fined part 90 licensee Acumen Communications \$17,000 for causing interference for one day to a public safety channel, *Acumen Communications*, Forfeiture Order, 30 FCC Rcd 6472 (EB 2015)). We note that Acumen subsequently had its licenses revoked by the Enforcement Bureau upon a separate finding that Acumen lacked the character qualifications to be or to remain a Commission licensee. *Acumen Communications*, Order of Revocation, 33 FCC Rcd 4 (EB 2018).

<sup>58</sup> *Continental Broadcasting Co. v. FCC*, 439 F.2d 580, 583 (D.C. Cir. 1971), *cert. denied*, 403 U.S. 905 (1971) (finding the Commission is not bound to treat cases similarly solely because they appear comparable); *see also Forfeiture Policy Statement*, 12 FCC Rcd at 17100, para. 26 (noting "the Commission's discretion to increase or reduce a forfeiture penalty as much as warranted based on the unique facts of each case").

<sup>59</sup> *See Bear Down Brands*, 33 FCC Rcd at 5458, para. 25 & n.73 (collecting cases).

<sup>60</sup> Notice Response at 5.

<sup>61</sup> *Texas Media Group*, 5 FCC Rcd at 2852, para. 8 ("It is the obligation of interested parties to ascertain facts from official Commission records and files and not rely on statements or informal opinions by the staff."); *Hinton Telephone Company*, 10 FCC Rcd at 11637, para. 42 ("The Commission has specifically held that parties who rely on staff advice or interpretations do so at their own risk.").



Service license authorized its GPS tracking service.<sup>62</sup> Although Air-Tel acknowledges that it cannot rely on the staff opinions, it argues that they should be taken into account in considering the amount of the forfeiture.<sup>63</sup> Air-Tel accepted this risk when and if it relied on oral conversations with staff instead of official Commission records, and a reduction in the forfeiture amount is therefore not warranted.

21. The Commission has long held that compliance with the Act and the Commission's rules by a licensee is expected and that coming into compliance in response to a Commission investigation does not warrant lenient enforcement.<sup>64</sup> Air-Tel acknowledged receipt of the Bureau's Letter of Inquiry on April 19, 2017,<sup>65</sup> and ceased the unauthorized operations over four months later on September 24, 2017. Thus, Air-Tel's actions in cooperating in the investigation and shutting down operation do not support a cancellation or reduction in the forfeiture.<sup>66</sup> That the Company was not investigated previously and may not have received complaints also does not warrant a cancellation of the forfeiture as the violations here occurred during the entirety of the time Air-Tel held the license.<sup>67</sup> Therefore, we decline to reduce or cancel the forfeiture due to Air-Tel's arguments that it operated without a complaint, investigation, or interference for many years and that it cured its violations by ceasing the offending operations once it was made aware of them. Finally, the claimed lack of interference also does not support cancelling the forfeiture amount.<sup>68</sup> The Commission assumes a license holder is compliant with its license, the Act, and the Commission's rules—but when the agency receives and investigates a complaint, that assumption no longer holds.<sup>69</sup> Moreover, neither the *Notice* nor this Forfeiture Order includes a sanction for the Company causing harmful interference.

---

<sup>62</sup> Notice Response at 6.

<sup>63</sup> *Id.*

<sup>64</sup> *Viacom Inc. ESPN Inc.*, 30 FCC Rcd 797, 806, para. 23 (2015) (declaring that "... it is well settled precedent that subsequent remedial actions do not excuse or nullify a licensee's violation of a Commission rule."); *Station KGVJ, Inc.*, Memorandum Opinion and Order, 42 FCC 2d 258, 259, para. 6 (1973) (stating that "licensees will not be excused for past violations by reason of subsequent corrective action.") (citations omitted).

<sup>65</sup> E-mail from Eric St. Germain, Managing Member, Air-Tel, LLC, to Jason Koslofsky, Attorney-Advisor, Spectrum Enforcement Division, FCC Enforcement Bureau (Apr. 19, 2017, 13:14 EDT) (on file in EB-SED-17-00024053).

<sup>66</sup> Notice Response at 9. The Commission has declined to reduce forfeitures based on cooperation from a target. *PTT Phone Cards, Inc.*, Forfeiture Order, 30 FCC Rcd 14701, 14705, para. 14 (2015) (*PTT Forfeiture Order*).

<sup>67</sup> Notice Response at 4. *PTT Forfeiture Order*, 33 FCC Rcd at 14705-06, para. 15 (noting that "the violations covered in the *PTT Phone Cards NAL* occurred during the entire period that PTT's operations were subject to Commission oversight, a circumstance which historically has been regarded as having had no history of overall compliance."); see also *Procedures for Reviewing Requests for Relief from State & Local Regulations Pursuant to Section 332(c)(7)(b)(v) of the Commc'ns Act of 1934; Guidelines for Evaluating the Env't Effects of Radiofrequency Radiation*, Second Memorandum Opinion and Order and Notice of Proposed Rulemaking, 12 FCC Rcd 13494, 13557, para. 151 (1997) ("Generally, we presume that licensees are in compliance with our rules unless presented with evidence to the contrary.").

<sup>68</sup> Notice Response at 9; *Liability of Pacific Western Broadcasters, Inc., Radio Station KYNG, Coos Bay, Oreg. for Forfeiture*, Memorandum Opinion and Order, 50 FCC 2d 819, 820, para. 4 (1975) (rejecting a broadcaster's claim that the forfeiture should be downwardly adjusted because its operations at excessive power levels did not cause public harm or complaint, stating that "the Commission not only is concerned with actual interference but is concerned with the potential for interference."); see also *Bureau D'Electronique Appliquee, Inc.*, Forfeiture Order, 20 FCC Rcd 17893, 17898, para. 16 (EB 2005) ("It is well established that the absence of public harm (i.e., the lack of interference caused by operation of Wizard and Falcon units) is not considered a mitigating factor and thus does not warrant a downward adjustment of an assessed forfeiture.").

<sup>69</sup> *Contemporary Media, Inc. v. FCC*, 214 F.3d 187, 193 (D.C. Cir. 2000) ("The FCC relies heavily on the honesty and probity of its licensees in a regulatory system that is largely self-policing.") (citations omitted).

### 3. Air Tel's Claim of Inability to Pay Is Unsubstantiated and Outweighed by the Egregiousness of the Violations

22. The *Notice* specified that, to make any claim of inability to pay the forfeiture, the Company was required to submit certain documentation.<sup>70</sup> Air-Tel failed to provide the complete financial information required by the *Notice* that would allow us to assess its claim of inability to pay. Notably, Air-Tel's claim is not supported by financial information regarding its owners' ability to pay.<sup>71</sup> Air-Tel has two owners, WHS Commerce, LLC and JG Partners, LTD, for which Air-Tel provided no financial information.<sup>72</sup> Thus, consistent with Commission precedent, Air-Tel has not established its inability to pay the proposed fine.<sup>73</sup>

23. Moreover, even had the Company demonstrated its inability to pay, when weighed against other factors considered in determining the appropriate forfeiture, we find that the forfeiture amount proposed in the *Notice* is appropriate. A violator's "ability to pay" is only one of several factors the Commission must consider when determining an appropriate forfeiture under section 503 of the Act and our forfeiture guidelines.<sup>74</sup> It must also consider "the nature, circumstances, extent, and gravity of the violation and, with respect to the violator, the degree of culpability, any history of prior offenses, . . . and such other matters as justice may require."<sup>75</sup> As discussed in the *Notice*, Air-Tel's violations spanned the entire time it held the Radiolocation Service license, a significant period of noncompliance.<sup>76</sup> Air-Tel's engineer also deliberately ignored regulatory warnings and programmed radio frequency equipment to operate outside of its authorized frequencies.<sup>77</sup> Thus, the nature of the violations at issue here outweigh the claimed inability to pay.<sup>78</sup> Accordingly, we decline to downwardly adjust the proposed forfeiture

---

<sup>70</sup> Specifically, Air-Tel was required to submit (1) federal tax returns for the most recent three-year period; (2) financial statements prepared according to generally accepted accounting practices; or (3) some other reliable and objective documentation that accurately reflects its current financial status. *Notice*, 33 FCC Rcd at 8934, para. 40.

<sup>71</sup> Notice Response at 8. *ABC Fulfillment Services LLC d/b/a HobbyKing USA LLC and HobbyKing.com, and Indubitably, Inc. d/b/a HobbyKing Corp., HobbyKing USA LLC, HobbyKing, and HobbyKing.com*, Forfeiture Order, 35 FCC Rcd 7441, 7451-52, para. 30 (2020) (*HobbyKing*) (rejecting an inability to pay argument on the basis of failure to provide complete financial information).

<sup>72</sup> Letter of Inquiry Response and Attach. from Jonathan M. Grossman, Cozen O'Connor P.C., Counsel to Air-Tel, LLC, to Marlene H. Dortch, Secretary, FCC, Attn: Jason Koslofsky, Spectrum Enforcement Division, FCC Enforcement Bureau, at 2, 8-9 (June 2, 2017) (collectively Air-Tel LOI Response) (on file in EB-SED-17-00024053). Bureau staff had warned Air-Tel that it "should also consider providing financial information regarding its owners, affiliates, or other related companies as their ability to pay may be raised in evaluating Air-Tel's claim." E-mail from Jason Koslofsky, Attorney-Advisor, Spectrum Enforcement Division, FCC Enforcement Bureau, to David Kaufman, Esq., Rini O'Neil, PC, Counsel to Air-Tel, LLC (Feb. 28, 2019, 12:52 PM EST) (on file in EB-SED-17-00024053).

<sup>73</sup> See, e.g., *HobbyKing*, 35 FCC Rcd at 7451-52, para. 30; *A-O Broad. Corp.*, Forfeiture Order, 18 FCC Rcd 27069, 27077, para. 24 (2003) (rejecting inability to pay claim where company did not provide information on lines of credit, liquid assets, or the assets and income of the company's owner).

<sup>74</sup> See, e.g., *Adrian Abramovich, Marketing Strategy Leaders, Inc., and Marketing Leaders, Inc.*, Forfeiture Order, 33 FCC Rcd 4663, 4679, para. 45 (2018) (*Abramovich Forfeiture Order*) (ability to pay is one of several factors to be considered in determining the appropriate forfeiture and can be outweighed by other factors to result in a large forfeiture).

<sup>75</sup> 47 U.S.C. § 503(b)(2)(E).

<sup>76</sup> *Notice*, 33 FCC Rcd at 8931, para. 27.

<sup>77</sup> *Notice*, 33 FCC Rcd at 8931, para. 28.

<sup>78</sup> See, e.g., *Fabrice Polynice, N. Miami, FL*, Forfeiture Order, 33 FCC Rcd 6852, 6861, paras. 22-23 (2018) (nature of violation and history of noncompliance outweighed inability to pay claim); *Purple Communications, Inc.*, Forfeiture Order, 30 FCC Rcd 14892, 14903-904, paras. 32-33 (2015) (acknowledging that "standing alone, Purple's financial documents might support a reduction" but finding after applying the balancing factors no reduction was

(continued....)

notwithstanding Air-Tel's claimed inability to pay request. Rather, we find that factor to be outweighed by the other balancing factors that militate in favor of a large forfeiture.

24. Weighing the relevant statutory factors and our own forfeiture guidelines, we conclude, based upon the evidence before us, that the proposed forfeiture of \$327,290 properly reflects the seriousness, duration, and scope of Air-Tel's violations.

#### IV. ORDERING CLAUSES

25. Accordingly, **IT IS ORDERED** that, pursuant to section 503(b) of the Act,<sup>79</sup> and section 1.80 of the Commission's rules,<sup>80</sup> Air-Tel, LLC **IS LIABLE FOR A MONETARY FORFEITURE** in the amount of three hundred twenty-seven thousand, two hundred and ninety dollars (\$327,290) for willfully and repeatedly violating sections 301 and 302 of the Act<sup>81</sup> and sections 1.903(a), 90.103, and 90.203 of the Commission's rules.<sup>82</sup>

26. Payment of the forfeiture shall be made in the manner provided for in section 1.80 of the Commission's rules within thirty (30) calendar days after the release of this Forfeiture Order.<sup>83</sup> Air-Tel, LLC shall send electronic notification of payment to [EB-SED-Response@fcc.gov](mailto:EB-SED-Response@fcc.gov) on the date said payment is made. If the forfeiture is not paid within the period specified, the case may be referred to the U.S. Department of Justice for enforcement of the forfeiture pursuant to section 504(a) of the Act.<sup>84</sup>

27. Payment of the forfeiture must be made by credit card, ACH (Automated Clearing House) debit from a bank account using the Commission's Fee Filer (the Commission's online payment system),<sup>85</sup> or by wire transfer. The Commission no longer accepts forfeiture payments by check or money order. Below are instructions that payors should follow based on the form of payment selected:<sup>86</sup>

- Payment by wire transfer must be made to ABA Number 021030004, receiving bank TREAS/NYC, and Account Number 27000001. A completed Form 159 must be faxed to the Federal Communications Commission at 202-418-2843 or e-mailed to [RROGWireFaxes@fcc.gov](mailto:RROGWireFaxes@fcc.gov) on the same business day the wire transfer is initiated. Failure to provide all required information in Form 159 may result in payment not being recognized as having been received. When completing FCC Form 159, enter the Account Number in block number 23A (call sign/other ID), enter the letters "FORF" in block number 24A (payment type code), and enter in block number 11 the FRN(s) captioned above (Payor FRN). For additional detail and wire transfer instructions, go to <https://www.fcc.gov/licensing-databases/fees/wire-transfer>.
- Payment by credit card must be made by using the Commission's Fee Filer website at <https://apps.fcc.gov/FeeFiler/login.cfm>. To pay by credit card, log-in using the FRN

(Continued from previous page) \_\_\_\_\_  
warranted); *TV Max, Inc., et al.*, Forfeiture Order, 29 FCC Rcd 8648, 8661, para. 25 (2014) (noting that the Commission "has previously rejected inability to pay claims in cases of repeated or otherwise egregious violations").

<sup>79</sup> 47 U.S.C. § 503(b).

<sup>80</sup> 47 CFR § 1.80.

<sup>81</sup> 47 U.S.C. §§ 301, 302a.

<sup>82</sup> 47 CFR §§ 1.903, 90.103, 90.203.

<sup>83</sup> *Id.*

<sup>84</sup> 47 U.S.C. § 504(a).

<sup>85</sup> Payments made using the Commission's Fee Filer system do not require the submission of an FCC Form 159.

<sup>86</sup> For questions regarding payment procedures, please contact the Financial Operations Group Help Desk by phone at 1-877-480-3201 (option #6), or by e-mail at [ARINQUIRIES@fcc.gov](mailto:ARINQUIRIES@fcc.gov).

captioned above. If payment must be split across FRNs, complete this process for each FRN. Next, select “Pay bills” on the Fee Filer Menu, and select the bill number associated with the NAL Account – the bill number is the NAL Account number with the first two digits excluded – and then choose the “Pay by Credit Card” option. Please note that there is a \$24,999.99 limit on credit card transactions.

- Payment by ACH must be made by using the Commission’s Fee Filer website at <https://apps.fcc.gov/FeeFiler/login.cfm>. To pay by ACH, log in using the FRN captioned above. If payment must be split across FRNs, complete this process for each FRN. Next, select “Pay bills” on the Fee Filer Menu and then select the bill number associated to the NAL Account – the bill number is the NAL Account number with the first two digits excluded – and choose the “Pay from Bank Account” option. Please contact the appropriate financial institution to confirm the correct Routing Number and the correct account number from which payment will be made and verify with that financial institution that the designated account has authorization to accept ACH transactions.

28. Any request for making full payment over time under an installment plan should be sent to: Chief Financial Officer – Financial Operations, Federal Communications Commission, 45 L Street NE, Washington, DC 20554.<sup>87</sup> Questions regarding payment procedures should be directed to the Financial Operations Group Help Desk by telephone, 1-877-480-3201, or by e-mail, [ARINQUIRIES@fcc.gov](mailto:ARINQUIRIES@fcc.gov).

29. **IT IS FURTHER ORDERED** that a copy of this Forfeiture Order shall be sent by first class mail and certified mail, return receipt requested, to Eric St. Germain, Managing Member, Air-Tel, LLC, 2727 Pine Street, Unit #3, Boulder, CO 80302, and to David J. Kaufman, Esq., Rini O’Neil, PC, Counsel to Air-Tel, LLC, 1200 New Hampshire Ave., NW, Suite 600, Washington, D.C. 20036.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch  
Secretary

---

<sup>87</sup> See 47 CFR § 1.1914.

**STATEMENT OF  
ACTING CHAIRWOMAN JESSICA ROSENWORCEL**

Re: *In the Matter of Air-Tel, LLC, Forfeiture Order, File No. EB-SED-17-00024053*

It does not get much airtime, but one of the most important parts of this agency's work on spectrum policy is enforcement. After all, the most dynamic, innovative, and data-driven spectrum policy doesn't amount to much if licensees don't feel compelled to comply with our rules.

That is why we take the action we do today. These cases involve two operators licensed to provide radiolocation, a service that uses radio waves to identify objects, using the 3.3-3.6 GHz band. But instead, they offered a different navigation service and modified their equipment in ways that were not authorized under our rules. As a result, they increased the likelihood of interference to other licensees using the band and following the rules. This failure to honor our policies has a cost and that leads us to the forfeiture decision here. In addition, resolving these matters clears the way for the agency's upcoming efforts to introduce new 5G uses in these airwaves.

Thank you to the Enforcement Bureau for bringing these cases before us, including Mark DeSantis, Rosemary Harold, Christopher Killion, Jason Koslofsky, Shannon Lipp, JoAnn Lucanik, Jeremy Marcus, Elizabeth Mumaw, and Ashley Tyson. Thank you also to Jess Greffenius, Joyce Jones, and Paul Powell from the Wireless Telecommunications Bureau; David Horowitz, Douglas Klein, Linda Oliver, and William Richardson from the Office of General Counsel; Ira Keltz and Tom Struble from the Office of Engineering and Technology; and Virginia Metallo from the Office of Economics and Analytics.