

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

In the Matter of	)	
	)	
MARATHON COUNTY SHERIFF'S	)	FCC File No. 0001391357
DEPARTMENT	)	
Request for Waiver of Section 101.81 of the	)	
Federal Communications Commission	)	
Rules		

**ORDER**

**Adopted: February 27, 2004**

**Released: March 4, 2004**

By the Chief, Public Safety and Critical Infrastructure Division, Wireless Telecommunications Bureau:

**I. INTRODUCTION**

1. The Marathon County Sheriff's Department (Marathon) has filed an application<sup>1</sup> to modify its license for Fixed Microwave Service (FMS) Station WNEW985, Marathon County, Wisconsin operating in the 2 GHz band. In connection with the application, Marathon requests a waiver of the Commission's Rules that would otherwise result in the reauthorization of the subject license on a secondary basis.<sup>2</sup> For the reasons set forth below, we grant Marathon's request to retain primary status for its proposed modifications to the facilities of Station WNEW985.

**II. BACKGROUND**

2. The Commission has reallocated portions of the 2 GHz band from FMS to emerging technology (ET) services, including the personal communications services.<sup>3</sup> To this end, the Commission has adopted certain transition rules.<sup>4</sup> In doing so, the Commission balanced the needs of incumbent FMS licensees to continue to operate their systems with the need to conserve vacant 2 GHz spectrum for use by ET licensees, to provide ET licensees with a stable environment in which to plan and implement new services, and to prevent ET licensees from bearing any additional costs of relocating FMS licensees.<sup>5</sup>

<sup>1</sup> See FCC File No. 0001391357 (filed Aug. 8, 2003).

<sup>2</sup> See *id.* at Request for Rule Waiver: Primary Status in the 2.1 GHz Band (Waiver Request). Marathon requests a waiver of Section 101.81 of the Commission's Rules, 47 C.F.R. § 101.81, regarding primary status in the 2.1 GHz band. *Id.* Marathon petitions to maintain primary status. *Id.*

<sup>3</sup> See Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies, *First Report and Order and Third Notice of Proposed Rule Making*, 7 FCC Rcd 6886 (1992) (*ET First Report and Order*).

<sup>4</sup> 47 C.F.R. §§ 101.69-101.81. The rules are intended to re-accommodate the FMS licensees in a manner that would be most advantageous for the incumbent users, least disruptive to the public, and most conducive to the introduction of new services. See *ET First Report and Order*, 7 FCC Rcd at 6886-87 ¶ 5.

<sup>5</sup> *ET First Report and Order*, 7 FCC Rcd at 6886 ¶ 5, 6891 ¶ 30; Amendment to the Commission's Rules Regarding a Plan for Sharing the Costs of Microwave Relocation, *First Report and Order and Further Notice of Proposed Rule Making*, 11 FCC Rcd 8825, 8867-69 ¶¶ 86-88 (1996) (*Cost Sharing First Report and Order*).

Thus, rather than immediately clearing the 2 GHz band of the incumbent FMS users, we permit the incumbents to continue to occupy the band on a co-primary basis with the ET licensees for a significant period of time, by the end of which the incumbents are to relocate to other spectrum.<sup>6</sup> ET licensees have the option, however, of requiring the FMS incumbents to relocate sooner if they pay the additional costs caused by the earlier relocation.<sup>7</sup> In addition, we authorize new FMS stations, extensions of existing FMS systems, and major modifications of existing FMS stations only on a secondary basis to ET systems.<sup>8</sup> Most minor modifications of FMS stations are also authorized on a secondary basis unless the licensee can demonstrate that it needs primary status and that the modifications will not add to the relocation costs to be paid by the ET licensee.<sup>9</sup> The result is that while incumbent FMS licensees are able to continue operating their systems with primary status - as those systems currently exist - any expansions and most modifications to the systems result in secondary status.

3. Marathon requests a waiver of Section 101.81 of the Commission's rules so it can maintain primary status in the 2 GHz band.<sup>10</sup> Marathon acts as a central dispatch for all agencies within the County, the largest county in the state, and dispatches police, fire and ambulance services.<sup>11</sup> Marathon seeks waiver for its proposed modification, which would transfer Marathon's equipment from a water tower designated for demolition by the Village of Athens (Athens) to a new water tower in Athens.<sup>12</sup> Marathon submits that it is compelled to make the change in question because Athens has decided to tear down its existing water tower and construct a new water tower on which the Marathon would install the radio equipment which had been previously installed on Athens' old water tower.<sup>13</sup>

4. Marathon submits that there is no suitable structure within 200 feet of the old water tower on which Marathon could install its radio equipment.<sup>14</sup> Marathon adds that the decision by Athens to tear down its existing water tower and construct a new water tower is outside of the control of Marathon and is a decision which solely rests within Athens' authority and discretion.<sup>15</sup> Marathon contends that installation of the equipment on Athens' water tower is essential to maintaining radio communication between central dispatch and the western part of Marathon County.<sup>16</sup> In addition to normal radio

<sup>6</sup> 47 C.F.R. §§ 101.69(b), 101.79(a). *See also ET First Report and Order*, 7 FCC Rcd at 6886 ¶ 5.

<sup>7</sup> *See* 47 C.F.R. §§ 101.69(a), 101.71-101.77.

<sup>8</sup> *See* 47 C.F.R. § 101.81. Secondary operations may not cause interference to operations authorized on a primary basis (e.g., the new ET licensees) and they are not protected from interference from primary operations. *See Cost Sharing and First Report and Order*, 11 FCC Rcd at 8869 ¶ 89. Thus, an incumbent operating under a secondary authorization must cease operations if it poses an interference problem to an ET licensee. *Id.*

<sup>9</sup> *See* 47 C.F.R. § 101.81. Section 101.81 also identifies a variety of technical changes that do not result in secondary status. These technical changes are (a) decreases in power, (b) minor changes in antenna height, (c) minor location changes up to two seconds, (d) any data correction which does not involve a change in the location of an existing facility, (e) reductions in authorized bandwidth, (f) minor changes in structure height, (g) changes in ground elevation that do not affect centerline height, and (h) minor equipment changes. *See* 47 C.F.R. § 101.81(a)-(h); *Cost Sharing First Report and Order*, 11 FCC Rcd at 8868.

<sup>10</sup> *See* Waiver Request.

<sup>11</sup> *Id.*

<sup>12</sup> *Id.* The coordinates for the old water tower/transmit site are 45-02-03.8 N, 90-04-34.4 W. The proposed coordinates for the new water tower/transmit site are 45-01-08.2 N, 90-04-04.6 W. The proposed change in location is 1.141 miles (6024.48 feet).

<sup>13</sup> *Id.*

<sup>14</sup> *Id.*

<sup>15</sup> *Id.*

<sup>16</sup> *Id.*

communications, law enforcement and other personnel use portable radios or walkie talkies that would not be able to communicate with central dispatch without the equipment on Athens' water tower.<sup>17</sup> Thus, such is critical and essential for emergency and public safety communications in the western part of Marathon County.<sup>18</sup>

5. In support of its waiver request, Marathon submits that the only affected path authorized under Station WNEW985 runs from Athens to Rib Mountain, Wisconsin and that both locations are in Marathon County, Wisconsin.<sup>19</sup> Further, the purposed modification which would transfer the equipment from the old water tower to the new water tower would not add to the relocation cost of existing ET licensees.<sup>20</sup> In contrast, Marathon contends, there would be substantial financial impact to the County taxpayers if Marathon would not retain primary status and subsequently be forced to replace its current authorized path.<sup>21</sup> The only change being made is the relocation of the equipment because of the decision of Athens to tear down its existing water tower and construct a new tower.<sup>22</sup> Additionally, Marathon submitted a supplement purporting to show that its proposed change has been coordinated with affected parties or their designated coordination agents and that no unresolved interference issues exist.<sup>23</sup> Therefore, Marathon submits, waiving Section 101.81 to allow it to maintain primary status would be in the public interest because of the public safety and public necessity factors.<sup>24</sup>

### III. DISCUSSION

6. Marathon's modification application seeks authorization for several types of changes.<sup>25</sup> Some of these changes are major modifications that will result in secondary status unless Marathon obtains a waiver.<sup>26</sup> Section 101.81 provides that major modifications of 2 GHz band facilities will be authorized on a secondary basis to ET systems.<sup>27</sup> Other changes, however, are minor modifications that will result in secondary status unless Marathon affirmatively justifies primary status and establishes that the modification will not add to the relocation costs of ET licensees. Minor modifications will result in secondary status unless the incumbent affirmatively justifies primary status and establishes that the modification would not add to the relocation costs of ET licensees. Some of the proposed changes,

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<sup>17</sup> *Id.*

<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

<sup>20</sup> *Id.*

<sup>21</sup> *Id.*

<sup>22</sup> *Id.*

<sup>23</sup> See Waiver Request at Supplemental Showing Pursuant to Section 101.103(d) Frequency Coordination Procedures; see 47 C.F.R. § 101.103(d).

<sup>24</sup> *Id.*

<sup>25</sup> In addition to the change in location, Marathon also proposes changes to azimuth, structure height from 429.8 m to 436.1 m; a three meter increase to antenna height from 33.5 m to 36.5m; change in ground elevation from 27.4 m to 36.4 m, which also affects center line height; slight increase in antenna gain from 29.7 dBi to 30.1 dBi, which will result in a minor increase in EIRP, even if the power being input to the antenna is not being altered.

<sup>26</sup> As discussed *infra*, Marathon's proposed modifications include changes, in location of more than six thousand feet and change in azimuth to receive station from 112.6 degrees to 110.2 degrees. These changes constitute major modifications under the Commission's Rules.

<sup>27</sup> See 47 C.F.R. § 101.81.

however, are technical changes that alone do not affect Marathon's ability to maintain primary status.<sup>28</sup>

7. *Major Modifications.* Under the Commission's Rules, licensees may retain primary status if they make "technical" changes in location up to two seconds -- approximately 200 feet, or if they make changes in location of up to five seconds -- approximately 500 to 550 feet.<sup>29</sup> All changes in location greater than five hundred feet are accorded secondary status.<sup>30</sup> Here, Marathon's proposed change in location is approximately 1 mile (6024.48 feet). Additionally, Marathon's associated changes, includes a more than 1 degree change in transmit azimuth, which under the Commission's rules is a major change.<sup>31</sup> Without a waiver of Section 101.81, Marathon's modified license would be granted only on a secondary basis.

8. We may grant a waiver of a rule (a) when the underlying purpose of the rule would not be served by application to the instant case and a grant of the waiver is in the public interest, or (b) when in view of the unique or unusual circumstances of the case, application of the rule would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.<sup>32</sup> Marathon argues that allowing it to maintain, after modification, primary status would serve the public interest. Based on the record before us, we conclude that Marathon has shown that it meets the waiver standard. Therefore, we will grant Marathon's request for waiver of Section 101.81 of the Rules.

9. Under the circumstances presented, we find that application of Section 101.81 would be inequitable and contrary to the public interest.<sup>33</sup> Absent a waiver, Section 101.81 would only permit authorization for Marathon to operate any substantially modified 2 GHz band FMS station on a secondary basis to ET users. Secondary licensees must not cause interference to primary licensees and must accept interference. Consequently, there is a concern that Marathon's public safety and emergency services communications in a large part of the County would be vulnerable to interference. Because Marathon's 2 GHz FMS stations are at the center of a public safety communications network that police, fire, and other emergency services rely on to protect the health, safety and property of residents in Wisconsin's largest county, we are persuaded that imposition of secondary status on communications of this nature would pose a risk of serious adverse consequences to the public.<sup>34</sup> Further, we find it decisionally significant that Marathon's proposed change in location and other associated changes are a direct result of Athens' decision to tear down its existing water tower, a decision that is outside of the control of Marathon.<sup>35</sup>

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<sup>28</sup> Technical changes will not result in secondary status *Id.*

<sup>29</sup> See 47 C.F.R. § 101.81(c) (incumbent FMS licensees will maintain primary status for minor location changes (up to two seconds); see 47 C.F.R. § 1.929(d)(1)(i) (in the microwave service a change in transmit antenna location is a major modification if greater than five seconds).

<sup>30</sup> See, e.g., Wisconsin Electric Power Company, *Order*, 16 FCC Rcd. 22,440, 22,443 ¶ 9 (WTB PSPWD 2001).

<sup>31</sup> 47 C.F.R. § 101.81(d); See 47 C.F.R. § 1.929(d)(ix) (in the microwave services any change in transmit antenna azimuth greater than 1 degree is a major change). Presumably, this change will allow the new transmitting location to point at the receive site.

<sup>32</sup> See 47 C.F.R. § 1.925.

<sup>33</sup> See 47 C.F.R. § 1.925(b)(3)(ii).

<sup>34</sup> See, e.g., Southwest Central Dispatch, *Order On Reconsideration*, 17 FCC Rcd 15633, 15637 ¶ 11 (WTB PSPWD 2002) (confluence of unusual circumstances and the adverse impact to public safety communications that a disruption of emergency radio communications could create warranted waiver of Section 101.81); Onondaga County Department of Emergency Communications, *Order*, 17 FCC Rcd. 6350, 6353 ¶¶ 7-8 (WTB PSPWD 2001) (unusual circumstances and adverse consequences to public safety warranted waiver of Section 101.81 to permit licensee to retain primary status).

<sup>35</sup> See also, Tucson Electric Power Company, *Order*, 15 FCC Rcd 19118, 19121 ¶ 9 (WTB PSPWD 2000) (petitioner's move from 18 foot monopole to 158 foot tower and associate changes are a result of accommodation of

(continued...)

Additionally, Marathon submits that there are no reasonable alternative sites within 200 feet of the old tower and that it has coordinated its proposed modification with affected parties and no unresolved interference issues exist. We therefore conclude that Marathon has demonstrated that grant of a waiver of the Commission's Rules is warranted.<sup>36</sup>

10. *Other Changes.* Marathon's modification application proposes numerous changes to the technical parameters of Station WNEW985 other than the change in location, including changes to the station's EIRP, ground elevation/centerline height, antenna height, and structure height. Some of these changes are technical changes under Section 101.81, but others are minor modifications. Therefore, regardless of whether we decide that some of these changes should be treated as technical changes, Marathon must make the showing required by Section 101.81 to avoid redesignation to secondary status as a result of these modifications. Moreover, the same showing is necessary to avoid the imposition of secondary status due to the changes in antenna height,<sup>37</sup> structure height,<sup>38</sup> EIRP,<sup>39</sup> and ground elevation,<sup>40</sup> which if not deemed technical changes, would be minor modifications.<sup>41</sup>

11. As noted above, we believe that allowing Marathon to maintain primary status is critical to providing public safety services to the western part of the County. We also find significant that the proposed relocation and associated changes in the technical parameters of Station WNEW985 are the direct result of Athens' decision to tear down Marathon's existing site, a decision outside of Marathon's control. Marathon also stated that it was not adding or upgrading any equipment that would increase the potential relocation costs for a new licensee. Indeed, Marathon states that it is transferring its equipment from the water tower to the new water tower.<sup>42</sup> We find that under these circumstances, Marathon has

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third party's request that it move, rather than actions for its own business purposes); Turlock Irrigation District, *Order on Reconsideration*, ¶ 8 (WTB PSPWD 1999). *Compare*, Illinois Valley Cellular RSA 2, Inc., *Order*, 15 FCC Rcd 14819, 14821 ¶ 6 (1999) (denying request to waive Section 101.81 to accommodate petitioner's voluntary business decision to modify its facilities to handle additional traffic from cell sites and increased subscriber traffic).

<sup>36</sup> Marathon's argument that the proposed change in location would not add to the relocation cost of existing ET licensees does not influence our decision in this regard as consideration of relocation costs are limited to minor modifications. *See* 47 C.F.R. 101.81; *see, e.g.*, Wisconsin Electric Power Company, *Order*, 16 FCC Rcd. at 22,443 ¶ 10 (effect on relocation costs is a relevant decisional factor only when licensees propose minor modifications, and not when they propose major modifications).

<sup>37</sup> Marathon proposes a three meter increase in antenna height. Minor changes in antenna height that do not exceed three meters is listed among the technical changes provided in Section 101.81 that will be permitted without resulting in secondary status for the incumbent FMS licensee. *See* 47 C.F.R. § 101.81 (b); *See* 47 C.F.R. § 1.929(d)(6), (k) (only changes in antenna height of more than three meters (ten feet) are major changes).

<sup>38</sup> Section 101.81 also provides that minor changes in structure height are technical changes. *See* 47 C.F.R. § 101.81(f) (allows for minor increases or decreases in structure height). While the rule does not specify what changes in antenna structure height are "minor," Marathon seeks an approximately 7 meter increase. In at least one instance an 8 meter increase in structure height was deemed a technical change. *See* Youngstown/Warren MSA Limited Partnership, *Order on Reconsideration*, DA 99-2359 ¶ 4 (WTB PSPWD 1999).

<sup>39</sup> Marathon's proposed increase in antenna gain would effectively increase Marathon's EIRP. While a decrease in power is a technical change under Section 101.81, an increase in EIRP greater than 3 dB is a major change. 47 C.F.R. § 101.81(a); *See* 47 C.F.R. § 1.929(d)(v). The proposed increase in antenna gain, however, would not result in an EIRP increase greater than 3 dB.

<sup>40</sup> Section 101.81 allows changes in ground elevation that do not affect centerline height. *See* 47 C.F.R. § 101.81(g). Marathon's change in ground elevation however would result in a change in centerline height and therefore will result in secondary status unless otherwise justified. *See Cost Sharing First Report and Order*, 11 FCC Rcd at 8868.

<sup>41</sup> *See, e.g.*, Tucson Electric Power Co., *Order*, 15 FCC Rcd at 19120 ¶ 8.

<sup>42</sup> *See* Waiver Request.

demonstrated its need for primary status. We also find, based on the information before us, that granting primary status to Station WNEW985 will not add to the relocation costs of future ET licensees. Accordingly, we find that Marathon has justified maintaining primary status.

#### IV. CONCLUSION

12. We conclude that Marathon has met the requirements of Section 1.925 and 101.81 of the Commission's Rules. Under the circumstances presented we find that waiver of the Commission's rules is warranted for the major modifications that Marathon seeks. Further Marathon has affirmatively justified primary status while seeking Commission approval of minor modifications to its license, and established that the license modifications would not add to the relocation costs of ET licensees.

#### V. ORDERING CLAUSES.

13. Accordingly, IT IS ORDERED that, pursuant to Section 4(i) of the Communications Act of 1934, 47 U.S.C. § 154(i), and Sections 101.69 and 101.81 of the Commission's Rules, 47 C.F.R. §§ 101.69, 101.81, the above-captioned applications to modify Marathon County Sheriffs Department's license to operate Call Sign WNEW985, SHALL BE PROCESSED in accordance with this *Order* and the applicable Commission Rules.

14. 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 and 0.331.

FEDERAL COMMUNICATIONS COMMISSION

D'wana R. Terry  
Chief, Public Safety and Critical Infrastructure Division  
Wireless Telecommunications Bureau