

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

In the Matter of	)	
	)	
City of Alexandria, Virginia	)	WT Docket No. 02-55
and Sprint Nextel Corporation	)	
	)	
Mediation No. TAM-50057	)	

**MEMORANDUM OPINION AND ORDER**

**Adopted: March 26, 2010**

**Released: March 26, 2010**

By the Deputy Chief, Public Safety and Homeland Security Bureau:

**I. INTRODUCTION**

1. In this *Memorandum Opinion and Order*, we address a specific 800 MHz rebanding issue referred to us for early resolution from a mediation between the City of Alexandria, Virginia (Alexandria or the City) and Sprint Nextel Corporation (Sprint) (collectively, the Parties) that is currently before the 800 MHz Transition Administrator (TA). The TA has requested that we resolve a dispute between the City and Sprint concerning (1) whether Sprint must provide Alexandria’s fire department with “zone doubled” portable and mobile radios during the period that its system is being rebanded, and (2) if so, whether Sprint may satisfy this requirement by providing “loaner” radios that would be returned to Sprint after the City’s system is rebanded. Based on our review of the record referred to us by the TA-appointed mediator (TA Mediator or Mediator) and the Parties’ Statements of Position, we conclude that the City is entitled to receive zone doubled radios, and that Sprint may fulfill this obligation by providing loaner radios so long as the radios fully support the City’s zone doubling requirements.

**II. BACKGROUND**

2. The City’s 800 MHz system consists of four fixed sites and 1668 subscriber units.<sup>1</sup> In accordance with the *800 MHz Report and Order* and subsequent orders in this docket<sup>2</sup>, Sprint and Alexandria executed a Frequency Reconfiguration Agreement (FRA) on May 9, 2008.<sup>3</sup> On June 1, 2009, the city submitted a Change Notice requesting that the work specified in the FRA and

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<sup>1</sup> Statement of Facts of Alexandria, Virginia, filed November 9, 2009 (Alexandria Statement). 800 MHz Transmission Administrator’s Transmittal of Record and Request for Confidential Treatment, TAM-50057 (filed November 12, 2009) (TA Record), Revised Appendix, Tab 1.

<sup>2</sup> See *Improving Public Safety Communications in the 800 MHz Band*, WT Docket 02-55, *Report and Order*, *Fifth Report and Order*, *Fourth Memorandum Opinion and Order*, and *Order*, 19 FCC Rcd 14969, 15021-45, 15069 ¶¶ 88-141, 189 (2004) (*800 MHz Report and Order*); *Supplemental Order and Order on Reconsideration*, 19 FCC Rcd 25120 (2004); *Memorandum Opinion and Order*, 20 FCC Rcd 16015 (2005); *Second Memorandum Opinion and Order*, 22 FCC Rcd 10467 (2007); *Third Memorandum Opinion and Order*, 22 FCC Rcd 17209 (2007).

<sup>3</sup> Frequency Reconfiguration Agreement dated May 9, 2008 (FRA), TA Record, Revised Appendix, Tab 9.

Planning Funding Agreement (PFA) be modified to provide for the replacement of 167 portable radios and 64 mobile radios used by the City fire department with radios containing sufficient internal memory capacity to accommodate zone doubling, *i.e.*, radios that maintain functional and operational comparability during rebanding.<sup>4</sup>

3. When negotiations over the Change Notice were unsuccessful, the issues were submitted to mediation, where the Parties reached a stalemate.<sup>5</sup> Thereafter, as recommended by the TA Mediator, and at the request of the Parties, the Public Safety and Homeland Security Bureau (Bureau) directed the TA Mediator to forward the compiled record of the case to it for *de novo* review.<sup>6</sup> At the Bureau's direction, the Parties provided a Joint Statement of Stipulated Facts, individual Statements of Fact, individual Statements of Position and individual Replies to Statements of Position. Our *de novo* review is limited to the zone doubling and loaner radio issues only. Such other disputes as the Parties may have shall be addressed in mediation.<sup>7</sup>

### III. DISCUSSION

#### A. Standard of Review

4. The Commission's orders in this docket assign Alexandria the burden of proving that the funding it has requested is reasonable, prudent, and the "minimum necessary to provide facilities comparable to those presently in use" (Minimum Cost Standard).<sup>8</sup> The Commission has clarified that the term "minimum necessary cost" does not mean the absolute lowest cost under any circumstances, but the "minimum cost necessary to accomplish rebanding in a reasonable, prudent, and timely manner."<sup>9</sup> The Minimum Cost Standard thus takes into account not only cost, but all of the objectives of the proceeding, including completing the rebanding process in a timely and efficient manner, minimizing the burden that rebanding imposes on public safety licensees, and facilitating a seamless transition that preserves public safety's ability to operate during the transition.<sup>10</sup> Sprint's burden is to demonstrate that it is providing the rebanding licensee with "comparable facilities" on the new channels at the conclusion of the rebanding process.<sup>11</sup> In addition, Sprint must provide the means to ensure a smooth transition, *i.e.*, that the

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<sup>4</sup> See City of Alexandria, Virginia Change Notice Form dated June 1, 2009 (Change Notice), TA Record, Revised Appendix, Tab 10.

<sup>5</sup> Notice of Commencement of Mediation dated October 28, 2009, TA Record, Revised Appendix, Tab 3.

<sup>6</sup> Scheduling Order dated October 30, 2009 (Scheduling Order), TA Record, Revised Appendix, Tab 4.

<sup>7</sup> The Bureau did not require the TA Mediator to submit a Recommended Resolution on the zone-doubling issue. See *id.* at 1.

<sup>8</sup> *800 MHz Report and Order*, 19 FCC Rcd at 15074 ¶ 198; *800 MHz Supplemental Order*, 19 FCC Rcd at 25152 ¶ 71 (2004).

<sup>9</sup> *Improving Public Safety Communications in the 800 MHz Band*, WT Docket 02-55, *Memorandum Opinion and Order*, 22 FCC Rcd 9818, 9820 ¶ 6 (2007) (*Rebanding Cost Clarification Order*).

<sup>10</sup> *Id.* at 9820 ¶¶ 6, 8.

<sup>11</sup> The standards for comparable facilities are: (1) equivalent channel capacity; (2) equivalent signaling capability, baud rate and access time; (3) coextensive geographic coverage; and (4) comparable operating costs. *800 MHz Report & Order*, 19 FCC Rcd at 15077 ¶ 201. See also Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band, *Second Report and Order*, 12 FCC Rcd 19079, 19112-13 ¶¶ 89-95 (1997) (defining comparable facilities in the context of Economic Area licensees' relocation of incumbent site-based SMR licensees).

licensee has the ability to maintain its operations without interruption during the retuning process.<sup>12</sup>

## **B. Issues in Dispute**

### **1. Zone Doubled Radios**

5. *Background.* Alexandria's existing fire department radios are programmed with multiple "zones," *i.e.*, pre-set collections of channels to be selected by the user depending on the location and specific nature of the emergency. This zone grouping of channels enables the City's firefighters to communicate in pre-selected "talk groups" dedicated to particular services or groups of individuals, *e.g.*, an Emergency Medical Service (EMS) talk group, or a battalion chief's talk group. Some of the talk groups are for use by Alexandria personnel, while others enable communication with personnel from neighboring jurisdictions in the National Capital Region (NCR) under regional interoperability arrangements.<sup>13</sup>

6. The "zone doubling" issue arises because, during the rebanding process, Alexandria will need to ensure that its firefighters have uninterrupted access to all existing zones and talk groups, regardless of whether the zones and talk groups use pre-rebanding channels or post-rebanding channels. Zone doubling is one method of accomplishing this, in which the firefighters use portable and mobile radios that are programmed with both pre-rebanding and post-rebanding channels, so that the radio user can select any zone or talk group channel under either configuration. However, if the zone doubling approach is used, Alexandria will be unable to use some of its existing radios that lack sufficient memory capacity for simultaneous programming of the old and new channels. Thus, these radios would have to be replaced with radios that have greater memory capacity to support zone doubled programming.

7. At the time the Parties executed the FRA in May 2008, Alexandria had not decided to request that Sprint provide zone doubled radios, and in fact indicated a preference for an alternative approach that would enable it to retain its existing radios during the transition but would require a second "touch" of the radios to remove old conventional channels and program in new conventional channels.<sup>14</sup> Thus, the FRA did not provide funding for the zone doubling option.<sup>15</sup> Alexandria noted, however, that its final decision would depend on future guidance from the NCR.<sup>16</sup> After the FRA was executed, the Metropolitan Washington Council of Governments (COG) and the NCR Regional Rebanding Coordinator issued reports

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<sup>12</sup> City of Houston Texas Public Works Department and Sprint Nextel, *Memorandum Opinion and Order*, 24 FCC Rcd 4655, 4659 (2009), ¶ 16 (*Houston Order*).

<sup>13</sup> The NCR consists of the following jurisdictions: City of Fairfax, Virginia; City of Alexandria, Virginia; City of Arlington, Virginia; City of Manassas, Virginia; Prince William County, Virginia; Fauquier County, Virginia; Loudoun County, Virginia; District of Columbia; Montgomery County, Maryland; Frederick County, Maryland; Prince Georges County, Maryland; Metropolitan Washington Airports Authority; and University of Maryland. The NCR jurisdictions have long-standing interoperability agreements with one another and are coordinating their retuning efforts.

<sup>14</sup> As part of rebanding, Alexandria's radios will be equipped with software that automatically will recognize when the trunked infrastructure is activated on the post-rebanding channels. The radio user will employ those channels going forward. Installation of this software requires physical access to the radio and is known in the industry as a "touch." The automatic recognition of new channels, however, does not occur for the conventional channels in the radio. They must be changed to the post-rebanding channels by further modification of the software in each radio, a process which requires a second "touch."

<sup>15</sup> Joint Statement at 2.

<sup>16</sup> FRA at 14.

recommending that all police and fire radios in the National Capital Region be zone-doubled, so that pre- and post- reconfiguration conventional channels would be simultaneously maintained in the radios during the retuning process.<sup>17</sup> The recommendation was intended to ensure that NCR users would have regional interoperability channels available at all times during the rebanding transition of the NCR jurisdictions. In reliance on the reports' recommendations, Alexandria initiated the instant Change Notice requesting zone doubling of its radios.<sup>18</sup>

8. *Parties' Positions.* Alexandria maintains it will not accept anything other than full zone doubling, *i.e.*, all of its radios must have the "old" and "new" zones and talk groups operational during rebanding.<sup>19</sup> It seeks replacement radios because most of Alexandria's radios lack sufficient memory capacity to accommodate the pre- and post- reconfiguration channels simultaneously. Although Alexandria could "free up" sufficient memory in its radios to accommodate zone doubling by deleting talk groups, it rejects this option, claiming that the talk groups are essential to its operations.

9. Following submission of the Change Notice, and, as a result of negotiations between the Parties, Sprint has agreed to support zone doubling for Alexandria's portable radio units but continues to contend that zone doubling is unnecessary for the city's mobile (*i.e.*, vehicle-mounted) units. With respect to portables, Sprint acknowledges that firefighters in an emergency situation may need instantaneous access to both sets of channels to deal with a "Mayday" situation.<sup>20</sup> Sprint argues, however, that it should not be required to provide zone doubling in Alexandria's mobile radios, because:

In contrast, mobile units are at the periphery of a fire incident and these users can take a moment to think and plan for use of the correct fireground channel. For mobiles, a different configuration is feasible with a reasonable amount of mobile user knowledge and training.<sup>21</sup>

10. Sprint acknowledges that, if Alexandria's mobile radios are not zone doubled, there will be a period during which mobile radios that have been retuned will be unable to communicate on conventional channels with mobile radios that have yet to be retuned. Sprint suggests that this incompatibility can be mitigated by managing the retuning of Alexandria's Mobile radios so that the period of incompatibility is minimized and by managing use of the radios so that non-retuned radios communicate only with other non-retuned radios and *vice-versa*. Additionally, Sprint contends that equipment management difficulties will be limited given Alexandria's relatively small complement of mobile radios coupled with the fact that all of its portables will be zone doubled.<sup>22</sup> Furthermore, Sprint notes that all fire personnel – including

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<sup>17</sup> An earlier COG report tentatively concluded that zone doubling would not be necessary. Statement of Position of the City of Alexandria, Virginia dated December 4, 2009 (Alexandria SOP), at 1-4.

<sup>18</sup> Alexandria Statement at 4-5, referencing Exhibit 16, National Capital Region Conventional Channel Rebanding Plan, dated June 19, 2008, and Exhibit 17, Report and Recommendation: Regarding the Rebanding of 800 MHz Conventional Fire, Rescue and EMS Talkaround Channels in the National Capital Region, From the NCR's Regional Rebanding Coordinator to the NCR's Regional Rebanding Executive Committee, dated July 9, 2008.

<sup>19</sup> Alexandria Statement, Exhibit 10 at 74.

<sup>20</sup> Statement of Facts of Nextel Communications, Inc. dated November 9, 2009 (Sprint Statement), TA Record, Revised Appendix, Tab 2 at 6; and Alexandria SOP at 7.

<sup>21</sup> Sprint Statement at 6.

<sup>22</sup> *Id.* at 10.

those in vehicles with a mobile radio – will have a zone doubled portable radio with them, which can be used whenever a mobile cannot communicate on the appropriate conventional channels.<sup>23</sup>

11. Alexandria responds that Sprint’s estimates of retuning time are overly optimistic. Alexandria also argues that managing radios in the manner that Sprint proposes is fraught with logistical difficulties, which will be compounded by the fact that Alexandria’s radios must interoperate on conventional channels with the radios of other NCR jurisdictions.<sup>24</sup> Sprint questions whether Alexandria interoperates so frequently with other NCR jurisdictions that having a brief period of incompatibility with one or more of the other jurisdictions would have a significant public safety consequence.<sup>25</sup> Alexandria submits, however, that regardless of past experience with interoperability, it must remain fully prepared for the possibility of a mass disaster affecting the greater Washington, D.C. area that would require much greater reliance on interoperable communications.<sup>26</sup>

12. Finally, in response to Sprint’s argument that portable radios could substitute for un-retuned mobile radios, Alexandria observes that portable radios have lower power and less efficient antennas. Thus, Alexandria argues, portables would not be suitable under weak signal conditions, *e.g.*, for communicating with a fire fighter below grade, inside a building.<sup>27</sup> Alexandria also cites guidance from the National Fire Protection Association to the effect that fire command posts should use mobile radios whenever possible.<sup>28</sup>

13. *Decision.* We find in favor of Alexandria on this issue. Even viewing the facts in the light most favorable to Sprint, the record indicates that unless Alexandria is supplied with zone-doubled mobile radios, the potential exists for communications problems to occur in certain fire emergency situations during the rebanding transition.<sup>29</sup> The record reflects that Alexandria has evaluated all of the “workarounds” suggested by Sprint and has reasonably determined that they involve logistical problems that could interfere with Alexandria’s ability to respond to fire incidents in its own jurisdiction and to interoperate with neighboring NCR jurisdictions.<sup>30</sup>

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<sup>23</sup> *Id.* at 12.

<sup>24</sup> Alexandria Statement, Exhibit 9, at 38.

<sup>25</sup> Sprint Statement at 16-18; and Statement of Position of Nextel Communications, Inc. (Sprint SOP), at 6-7.

<sup>26</sup> Alexandria Statement, Exhibit 9, at 37.

<sup>27</sup> *Id.* at 31.

<sup>28</sup> Alexandria Statement, Exhibit 18, at 99-100.

<sup>29</sup> For example, during rebanding, an Alexandria fire fighter – even when equipped with a zone-doubled portable radio – would be unaware of whether a responding mobile unit was equipped with pre- or post-rebanding conventional channels. In such a situation, the fire fighter would have to try one channel and, failing a response, try the other – an unacceptable delay for a fire fighter in an IDLH (imminent danger to life or health) situation. *See* Alexandria Reply Statement of Position, Dec. 10, 2009, at 2. With zone doubled mobile radios, however, Alexandria may retain the pre-rebanding conventional channels in use until rebanding is complete region-wide and then enable a system-wide conversion to the post-rebanding conventional channels, removing any ambiguity about the channel a fire fighter must use to initiate a “mayday” call. Moreover, absent zone doubling, a rebanded Alexandria public safety mobile unit responding to an emergency in another jurisdiction would not be, as it is today, interoperable, *i.e.*, without zone doubling it could not communicate with the other jurisdiction’s non-rebanded radios.

<sup>30</sup> Sprint cites to the *Houston Order* for the proposition that Alexandria’s loss of interoperability during rebanding is a “minimal disruption” that Alexandria must tolerate. *See* Sprint SOP at 2, n.2. We find this



14. We also agree with Alexandria that a zone doubled portable radio would not suffice as a substitute for a mobile radio at a fire emergency scene in circumstances where the fire fighter is susceptible to poor reception because the signal is attenuated by buildings or other factors. In such a situation, the “substitute” portable radio would have approximately 10 dB less power, a less efficient antenna,<sup>31</sup> and would be located in a vehicle that could attenuate the incoming and outgoing signals.

15. In evaluating rebanding cost disputes, we do not automatically defer to a licensee’s unsupported claim that the safety of life or property will be impaired unless its cost proposal is approved.<sup>32</sup> Neither, however, do we interpose our judgment over that of experts in the public safety field when a licensee has documented how safety could be compromised absent implementation of a given rebanding proposal. Here, Alexandria has supported its position with recommendations from the National Capital Region and the National Fire Protection Association, and has explained the risk of the options put forth by Sprint. We find Alexandria’s documentation adequate and its explanations credible. We do not find it decisionally significant that Alexandria initially determined that rebanding could be accomplished without zone doubling. That determination was made before the National Capital Region issued its recommendations and before Alexandria had fully evaluated the consequences of portable units at a fire emergency scene being unable to communicate with mobile units.

16. Although Sprint questions how often Alexandria has the occasion to interoperate with other jurisdictions, we do not find this argument persuasive. Alexandria has equipped itself with the capability of interoperating with other jurisdictions and we are unwilling to impair that ability, even temporarily, on the theory that an incident or incidents requiring interoperability might not occur in the interim.

17. In sum, we find that Alexandria has met its burden of showing that its solution for maintaining the integrity of its system during rebanding meets the Minimum Cost Standard and is necessary to ensure a smooth transition from pre-rebanding to post-rebanding frequencies. We emphasize that our decision here is limited to the facts presented in this case and does not constitute a finding that Sprint must support zone doubling in all of the NCR jurisdictions or in other cases. As Sprint points out, some of the other NCR jurisdictions have not employed zone doubling in their rebanding projects. Moreover, the NCR jurisdictions differ from one another in many aspects, including their location, population, the size of their first responder agencies, and the need for their participation should a mass disaster occur in the greater Washington D.C. area. The case before us does not require us to weigh these factors with respect to other jurisdictions, and we decline to do so.

## 2. Loaner vs. Replacement Radios

18. *Parties’ Positions.* The Parties disagree on whether the radios provided to accommodate zone doubling should be permanent replacements retained by Alexandria or “loaners” returned to Sprint after rebanding is completed. Sprint claims, and Alexandria does not

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argument unpersuasive. In *Houston*, the Bureau held that the licensee could forego a third redundant control channel during rebanding of its system because the system could maintain full operability without the redundant channel and the potential for simultaneous failure of both the main and backup control channels was remote. *Houston Order* at 4659-4660 ¶ 17-18. In the present case, however, Alexandria has shown that absent zone doubling, its personnel could experience a loss of interoperability among properly functioning fire mobiles and portables in a specifically identified emergency situation.

<sup>31</sup> Alexandria Statement, Exhibit 9, at 31.

<sup>32</sup> *Houston Order* at 4660 ¶ 18.

dispute, that there are no technical issues that govern the choice between loaner and replacement radios.<sup>33</sup> Rather, the Parties' dispute turns on which option is more costly. Sprint asserts that loaner radios are the less costly option, making it the appropriate choice under the Minimum Cost Standard. Alexandria, however, contends that the loaner option would actually be more costly to Sprint than providing the City with replacement radios.

19. In support of its contention, Alexandria has developed a cost analysis purporting to show that under the loaner option, radios loaned to the City and would have a heavily depreciated "inventory value" when returned to Sprint. Alexandria also contends that under the replacement option, Sprint would receive a credit from Motorola for each of Alexandria's current radios that is replaced.<sup>34</sup>

20. In response, Sprint contends that Alexandria's cost analysis grossly underestimates the inventory value that loaner radios would have when returned to Sprint.<sup>35</sup> Sprint also states that it receives no such credit from Motorola for the return of old radios that are replaced because Sprint's contract with Motorola for purchase of new radios requires the old radios to be destroyed.<sup>36</sup>

21. *Decision.* We find in favor of Sprint on this issue. Given that there is no dispute between the parties regarding the technical adequacy of loaner radios to support the City's zone doubling needs, we will not substitute our judgment for Sprint's on the issue of relative cost between the loaner and replacement options. We give Alexandria's cost analysis little weight in resolving this issue: because Sprint is the party that will incur the cost, it is logical to assume that Sprint will choose the more cost-effective option.<sup>37</sup> Finally, we find that Alexandria has failed to present any other record support for its claim that replacement radios would be less costly to Sprint than loaner radios. Thus, there is no basis in the record to overcome our presumption in Sprint's favor on this question.

#### IV. ORDERING CLAUSES

22. Accordingly, pursuant to the authority of Sections 0.191 and 0.392 of the Commission's rules, 47 C.F.R. §§ 0.191, 0.392; Section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), and Section 90.677, of the Commission's Rules, 47 C.F.R. § 90.677, IT IS ORDERED that the issues submitted by the Transition Administrator are resolved as discussed above.

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<sup>33</sup> Sprint Statement at 18-19.

<sup>34</sup> Sprint Statement at 19, n.31. *See also* Alexandria Statement, Exhibit 7, at 20 ("...on information and belief, Motorola gives [Sprint] a credit for the returned radio against the purchase price of a new radio").

<sup>35</sup> Sprint submits that the depreciation should be one-half the amount assumed by Alexandria because of the value to Sprint in reusing the radios in other rebanding projects. Sprint Statement at 19, n.31. and Appendix L, at 409. Alexandria concedes that it may have over-estimated depreciation, but not by so much that it should be reduced by fifty percent, as Sprint claims. Sprint Statement, Appendix L, at 404. (Email from James Hobson, Esq. counsel for Alexandria, to Kelly M. Howell, Sprint, and Laura H. Phillips, Esq., counsel for Sprint.)

<sup>36</sup> *See* Sprint Statement at 19, n.31.

<sup>37</sup> In any event, the TA review of the costs provides an additional safeguard that the Minimum Cost Standard is being followed. *See, e.g., 800 MHz Report and Order* at 25150-51, ¶ 70 ("... the presence of the Transition Administrator which serves, *inter alia*, as a watchdog over excess transactional costs and 'goldplating.'").

23. IT IS FURTHER ORDERED that the Transition Administrator shall convene a meeting of the Parties within seven days of the date of this Order for the purpose of negotiating an amended Frequency Reconfiguration Agreement consistent with the resolution of issues set forth herein.

FEDERAL COMMUNICATIONS COMMISSION

David L. Furth  
Deputy Chief  
Public Safety and Homeland Security Bureau