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

In the matter of	)	
	)	
Mississippi State University	)	WT Docket No. 02-55
	)	
and	)	Mediation No. TAM-32234
	)	
Nextel Communications, Inc.	)	

ORDER REOPENING THE RECORD

Adopted: July 26, 2012 **Released: July 26, 2012**

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

I. INTRODUCTION

1. Before us is a case referred to us for *de novo* review from Wave 3 Stage 2 mediation by the 800 MHz Transition Administrator, LLC (TA).[1] This case involves a dispute between Mississippi State University (Licensee or MSU) and Nextel Communications, Inc. (Sprint)[2] (collectively the Parties) concerning the appropriate method of rebanding MSU's system.

2. In this *Order Reopening the Record*, we address, *inter alia*, Sprint's proposal to reduce the deviation of the Licensee's 3-Site Scan radios from 5 kHz to 4 kHz to enable the radios to comply with the Commission**'**s technical rules for the NPSPAC band (the "radio realignment solution").[3] Based on our *de novo* review of the mediation record, the Recommended Resolution submitted by the TA-appointed mediator (TA Mediator or Mediator), and the Parties' position statements,[4] we direct the TA Mediator to reopen the record to adduce additional evidence on the feasibility of the radio realignment solution.

II. BACKGROUND

3. The *800 MHz Report and Order* and subsequent orders in this docket require Sprint to negotiate a FRA with each 800 MHz licensee that is subject to rebanding.[5] The FRA must provide for retuning of the licensee's system to its replacement channel assignments at Sprint's expense, including

[1] Recommended Resolution, TAM-32234 (filed June 11, 2012) (RR).

[2] For purposes of uniformity in *de novo* review decisions, we refer to Nextel Communications, Inc. herein as its parent, Sprint Nextel Corp. (Sprint).

[3] Proposed Resolution Memorandum of Nextel Communications, Inc., dated May 3, 2012, at 12, Appendix A-7 (Sprint PRM).

[4] Statement of Position of Nextel Communications, Inc., dated June 25, 2012 (Sprint SOP); Statement of Position of Mississippi State University, dated June 25, 2012 (MSU SOP).

[5] Improving Public Safety Communications in the 800 MHz Band, *Report and Order, Fifth Report and Order, Fourth Memorandum Opinion and Order, and Order*, 19 FCC Rcd 14969, 15075-77 ¶ 201 (2004) (*800 MHz Report and Order*); Improving Public Safety Communications in the 800 MHz Band, *Supplemental Order and Order on Reconsideration*, 19 FCC Rcd 25120 (2004) (*800 MHz Supplemental Order*); Improving Public Safety Communications in the 800 MHz Band, *Memorandum Opinion and Order*, 20 FCC Rcd 16015 (2005).

the expense of retuning or replacing the licensee's radio units as required.[6] Sprint must provide the rebanding licensee with "comparable facilities"[7] on the new channel(s), and must provide for a seamless transition to enable licensee operations to continue without interruption during the retuning process.[8]

4. In the instant case, the Parties dispute the method of rebanding MSU's system that will best meet the Commission's comparable facilities standard. The dispute revolves around how adequately to provide functionality equivalent to MSU's existing 3-Site Scan system post-rebanding. Three-Site-Scan "allows the user to create a subscriber based 'multisite roaming' system without transmitter sites [. . .] being networked together."[9] Although Harris Corporation (Harris), the manufacturer of MSU's radios, has long stopped manufacturing 3-Site Scan legacy radios,[10] MSU insists that it retain 3-Site Scan functionality post-rebanding, or, at least, functionality that "closely mimic[s]" 3-Site Scan.[11] To maintain 3-Site Scan functionality, the Parties have advanced three alternative rebanding methodologies.

5. First, Sprint proposes that the Licensee move to the Interleaved band and retain its current system (the "interleaved solution").[12] This proposal requires Sprint to replace MSU's existing NPSPAC capable radios with comparable models capable of operating on the new NPSPAC channels. It also requires users of MSU's 3-Site Scan radios to equip themselves with two radios, one for the 3-Site Scan system, the other for communicating with NPSPAC interoperability partners.

6. Second, MSU proposes deploying an Integrated Multisite Controller (IMC) switch to mimic 3-Site Scan functionality (the "IMC solution"), but which Sprint claims represents an impermissible upgrade.[13]

7. Third, Sprint proposes to reduce the deviation on MSU's 3-Site Scan enabled radios from 5 kHz to 4 kHz allowing them to operate on both the "new" NPSPAC and Interleaved channels, and provide replacement radios for MSU's remaining subscriber inventory (the "radio realignment solution").[14] MSU and Harris claim that the Commission's rules would require a new equipment certification including a demonstration of compliance with the Commission's emission mask, frequency

[6] *800 MHz Report and Order*, 19 FCC Rcd at 14977 ¶ 11.

[7] "Comparable facilities are those that will provide the same level of service as the incumbent's existing facilities, with transition to the new facilities as transparent as possible to the end user. Specifically, (1) equivalent channel capacity; (2) equivalent signaling capability, baud rate and access time; (3) coextensive geographic coverage; and (4) operating costs." *Id.* at 15077 ¶ 201 (footnotes omitted).

[8] *Id.* at 14986 ¶ 26.

[9] Proposed Resolution Memorandum of Mississippi State University, dated May 10, 2012, at 2 (MSU PRM). MSU estimates that fifty percent of its radio inventory is capable of 3-Site Scan and that roughly 200 radios are enabled to use 3-Site Scan functionality at any one time. These radios include four different models: MDX and MDR mobile radios and PCS and 300P portable radios. *See* MSU PRM at 5.

[10] *See* MSU PRM at Exhibit 3, Letter from Steve Smith, Project Manager, Harris Corp., to Ralph Nobles, P.E., MSU (dated May 10, 2012) (Harris Letter) ("Harris no longer manufacturers or sells any of the EDACS 3-Site Scan legacy radios used by [MSU].").

[11] MSU PRM at 17.

[12] RR at 5.

[13] RR at 5-6. Sprint claims that, an "IMC solution facilitates true roaming functionality as well as wide-area call processing that does not exist today on MSU's system." Sprint PRM at 34.

[14] RR at 7.

stability and other technical rules.[15]

8. Sprint disagrees. To support its claim that radio realignment will not require recertification of the Licensee's radios, Sprint argues that the radio realignment proposal will not alter "the design, circuitry or construction of the radios" and merely requires "a software adjustment [. . .] within the scope of its already existing certification."[16] Supporting its assertion, Sprint cites to a 1988 Commission *Memorandum Opinion and Order on Reconsideration* that "specifically authorized the grandfathering of existing end user radio equipment *if the deviation were reduced* to allow operation on the NPSPAC band."[17] Sprint also relies on a more recent statement by the Public Safety and Homeland Security Bureau (Bureau) approving a rebanding methodology that involved reducing the deviation on four analog FM voice channels. There, the Bureau noted that "[t]he Commission's rules do not directly limit the deviation of 800 MHz land mobile transmitters, but do specify an 'emission mask' to which the transmitter output waveform must conform."[18] At most, Sprint submits that adjusting the radio deviation represents a permissive change under the Commission's certification rules.[19]

9. MSU, however, claims that retuning the radios to operate in the new NPSPAC frequency band (806-809 MHz and 851-854 MHz) and adjusting the deviation "are outside the bounds of the existing type acceptance / certification grants for these radios."[20] At a minimum, outside counsel to Harris suggests that radio realignment represents a Class II permissive change, requiring testing to "[demonstrate] compliance with the [Commission's] emission mask requirements (Section 90.210 of its rules) and with its frequency stability requirements (Section 90.213 of its rules) [. . .]."[21] Harris's outside counsel cautions that the Licensee's legacy radios may not demonstrate compliance with current Commission requirements regarding, for example, RF exposure limits.[22] Moreover, without providing specific details, Harris estimates that either recertification or the testing required under the permissive change rules requires "multiple months and costs in the six-figure range."[23]

10. The TA Mediator recommends that the Commission find that the radio realignment solution provides the Licensee with comparable facilities.[24] The TA Mediator deems reasonable Sprint's assertion that recertification is unnecessary because the realignment "would not result in 'a change in the design, circuitry or construction' of the radios [. . .]."[25] However, the TA Mediator left final determination of the issue of recertification to the Commission, making the following

[15] MSU PRM at 37; Harris Letter at 2.

[16] Sprint PRM at 6-7.

[17] Sprint SOP at 7, emphasis in original, citing Development and Implementation of a Public Safety National Plan and Amendment of Part 90 to Establish Service Rules and Technical Standards for Use of the 821–824/866–869 MHz Bands by the Public Safety Services, *Memorandum Opinion and Order on Reconsideration*, GEN Docket No. 87–112, 3 FCC Rcd 5391, 5397 ¶ 57 (1988).

[18] *See* County of Genesee, New York and Sprint Nextel Corp., WT Docket 02-55, *Memorandum Opinion and Order*, 26 FCC Rcd 12722, 12777 ¶ 15 (PSHSB 2011).

[19] Sprint PRM at 45, n. 49.

[20] MSU PRM at 37.

[21] *Id.* at Exhibit 3 Letter from George Wheeler, Holland Knight to Mr. Steve Smith, Project Manager, Harris Corp. (dated May 9, 2012) at 2.

[22] *Id.*

[23] Harris Letter at 1-2.

[24] RR at 21.

[25] *Id.* at 22.

recommendation:

> If the Commission concludes that recertification is not required, the TA Mediator recommends that the Commission direct the Parties to implement the radio realignment solution. However, absent a Commission determination regarding the need for recertification, the TA Mediator recommends that [Sprint] be required to either (1) include in the FRA a warranty that implementation of the radio realignment solution would not require recertification; (2) fund the reasonable costs of recertification; or (3) fund the reasonable costs of implementing the IMC solution.[26]

The TA Mediator states that "neither Party has submitted adequate support- such as technical specifications and citations to relevant Commission decisions – to enable the TA Mediator to reach a conclusion regarding this matter."[27]

11. On June 25, 2012, Sprint filed its Statement of Position (SOP) addressing the TA's recommendation. Sprint continues to insist that the changes it proposes can be implemented without requiring recertification. Sprint notes that transmitter deviation is not a parameter that the Commission specifically certifies and again cites the Commission order establishing the NPSPAC band in which the Commission grandfathered equipment if the deviation were reduced.[28] Nonetheless, Sprint observes that the Commission is best suited to determine whether recertification is required or whether a limited grandfathering or waiver is a preferable approach.[29]

12. In its SOP, MSU insists that Harris "believes that recertification is necessary."[30] MSU states that "it is unaware of any engineering record filed by Nextel which provides credible support for [the TA's assumption that Sprint's proposal appears reasonable]"[31] MSU asserts that "[i]n the absence of any evidence to contradict the information entered in the record by Harris, the Commission has no credible basis to authorize use of Class I permissive change procedures or to "waive" its equipment modification and/or certification requirements or to permit the realignment to be accomplished without a determination of the NPSPAC interference consequences."[32] MSU notes that "Harris previously explained in the May 9, 2012 letter that the Commission should not waive its equipment certification rules because of the significant adverse interference risks for future harmonized uses of NPSPAC frequencies."[33] In the event operations of the modified radios cause interference to NPSPAC frequencies, MSU argues, "there is the additional risk that the University's radio operations would be disrupted or even shut down to discontinue causing such interference."[34] All but a few of these consequences, MSU argues "cannot be adequately addressed after the fact under the terms of a proposed Nextel 'warranty' in the FRA."[35]

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[26] *Id.*

[27] *Id*.

[28] Sprint SOP at 6-7.

[29] *Id*.

[30] MSU SOP at 3.

[31] *Id*. at 4.

[32] *Id*.

[33] *Id*. at 5.

[34] *Id*.

[35] *Id*. Additionally, MSU argues that "proceeding without a Commission determination puts the University, as a licensee, at risk of being found to be operating in violation of the Commission's Rules and the validity of its

(continued....)

III. DECISION

13. Sprint and MSU essentially ask the Bureau to find whether MSU's legacy radios can be adjusted through software-based "alignment procedures" to lower the deviation to meet the Emission Mask requirements, consistent with the radios' existing certification. MSU argues that, at a minimum, a new test report showing compliance with all the current rules, including compliance with RF Exposure limits, is required.

14. The record suggests that Sprint's proposal may be reasonable and that the radios may be rendered rule-compliant through software changes under our Permissive Change Policies. There is, however, insufficient record evidence to reach a final determination on the reasonableness of Sprint's proposal under the comparable facilities standard.

15. As specified in Section 2.907[36] of the Commission's rules, certification attaches only to units that are identical to the sample tested and approved, except for permissive changes authorized pursuant to Section 2.1043 of the rules.[37] Section 2.1043(b) describes the classes of permissive changes that may be made in certificated equipment without requiring a new application for, and grant of, certification.[38] A Class I permissive change includes modifications to the equipment which do not degrade the characteristics reported by the manufacturer and accepted by the Commission,[39] whereas a Class II permissive change includes those modifications which degrade the performance characteristics as reported to the Commission at the time of initial certification."[40] A Class II permissive change requires a filing to the Commission reporting complete information and the results of tests of the characteristics affected by such change.[41]

16. The Commission's Permissive Change Policies describe the software modifications that can be made to non-software defined radio (SDR) already-approved devices.[42] Under those policies, if the frequency band capability of a device is decreased, the change is permitted under a Class I change procedure, provided there are no other changes to the device's parameters.[43] Additional frequencies may be added to an approved device subject to certain conditions (*e.g.*, no hardware changes), however, under a Class II permissive change, a new test report must be submitted for the

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licenses for these radios would be jeopardized." *Id*. Further, MSU claims that "this would create regulatory compliance risks for the entity performing the radio realignment, *i.e.* regulatory fines or other penalties for failure to comply with Section 2.1043(a) or (b) of the Commission's Rules (in the case of the original grantee), or with Section 2.929(b) of the Commission's Rules (in the case of any entity other than the original grantee)." *Id. citing* 47 C.F.R. §§ 2.1403(a-b) and 2.929(b).

[36] 47 C.F.R. § 2.907.

[37] 47 C.F.R. § 2.1403.

[38] 47 C.F.R. § 2.1043(b).

[39] 47 C.F.R. § 2.1043(b)(1).

[40] 47 C.F.R. § 2.1043(b)(2).

[41] *Id*.

[42] Federal Communications Commission, Office of Engineering and Technology, Laboratory Division, Permissive Change Policies dated Jan. 5, 2012 at 5, available at https://apps.fcc.gov/kdb/GetAttachment.html?id=1vrx5RroKWkZWugrWrFihg%3D%3D (last visited July 24, 2012).

[43] *Id*.

new frequencies.[44]

17. Based on the record before us, we find that reducing the deviation of an otherwise rule-compliant radio is a software adjustment that does not constitute a change in the physical circuitry of the radio. Therefore, the radio does not require recertification.[45] MSU's 3-Site Scan radios are certified to operate across the 800 MHz band (806-824 MHz/851-869 MHz). Sprint states that the radios at issue separate the 800 MHz band into three sub-band segments (1) 806-813 MHz, (2) 813-821 MHz, and (3) 821-824 MHz.[46] Sprint proposes reduction of deviation only in the 806-813 MHz segment, such that all frequencies in this segment are aligned to the same level, *i.e.* 4 kHz.[47] This segment includes the new NPSPAC band and a portion of the interleaved band.[48]

18. We cannot determine, however, whether the radio realignment solution satisfies the minimum requirements of the technical rules applicable to the NPSPAC band. Under the Permissive Change rules, modified devices "must still meet the minimum requirements of the applicable rules" and "the grantee shall supply the Commission with complete information and the results of tests of the characteristics affected by such change."[49] Although Sprint suggests that the radio realignment solution could be performed under the permissive change rules using the manufacturer's published procedures, we are not persuaded that just reducing the deviation to 4 kHz would render the radios compliant with the current rules applicable to the NPSPAC band.[50] That said, however, we are limited to the record in deciding this matter and the record contains nothing that allows us to look behind Sprint's assertions. In particular, there is no record evidence that, if the deviation is reduced to 4 kHz that the radios will comply with the emission mask limits in Section 90.210[51] of the Commission's rules or the frequency stability requirements of Section 90.213[52] of the rules. Both of these parameters

[44] *Id*. These conditions include (1) no hardware changes have been made; (2) no increase in the output power rating on new frequencies; (3) the equipment class remains the same; (4) RF exposure changes must be addressed; (5) only the original equipment manufacturer may implement the new frequencies; and (6) there are no other changes to the device that indicate a need for a new FCC ID. *Id*.

[45] Section 2.1403(a) provides that "changes to the basic frequency determining and stabilizing circuitry (including clock and data rates), frequency multiplication stages, basic modulator circuit or maximum power or field strength ratings shall not be performed without application for and authorization for a new grant of certification."

[46] Sprint PRM at note 41.

[47] *Id*.

[48] *Id*.

[49] 47 C.F.R. § 2.1403(b)(2).

[50] "NPSPAC channels operate with a 12.5 KHz separation between channel centers, whereas the rest of the 800 MHz band operates with 25 KHz channel spacing. As a consequence, there is a greater potential for adjacent channel interference between NPSPAC stations unless the stations' emissions in the adjacent channel are attenuated. The emission masks specified in Section 90.210 of the Commission's rules contain the allowable amount of signal in the adjacent channel and beyond. In order to meet the emission mask requirements, the transmitter deviation must be reduced, typically from 5 KHz to 4 KHz." County of Genesee, New York and Sprint Nextel, Corp., WT Docket No. 02-55, *Order on Reconsideration*, 27 FCC Rcd 4158, 4160 n. 15 (PSHSB 2012).

[51] 47 C.F.R. § 90.210.

[52] 47 C.F.R. § 90.213.

affect the potential of the radios to cause adjacent channel interference. [53]

19. We also acknowledge Harris's statement that, because the original certification of MSU's legacy radios' predates the Commission's current rules governing RF exposure, the adjusted radios may not comply with current RF Exposure standards.[54] Accordingly, in order to reach an informed decision about the feasibility of the radio realignment solution and its satisfaction of the comparable facilities standard, we require supplementation of the record with objective evidence that the realigned 3-Site Scan radios will comply with all technical rules applicable to the NPSPAC band, and with current RF Exposure standards.[55]

20. We are therefore remanding this matter to the TA Mediator for the limited purpose of determining whether the radio realignment solution would satisfy the technical requirements applicable to the NPSPAC band and the Commission's RF Exposure standards. The TA Mediator shall reopen the record to collect information on the radio realignment solution in the following fashion: 1) MSU shall select four radios in good working condition corresponding to the four 3-Site Scan radio models and submit those radios to Sprint within five business days of the release date of this *Order Reopening the Record*; 2) Sprint, at its expense, shall submit the sample radios to a Commission-approved laboratory of its choice within five business days of the receipt of the radios from MSU, to assess the effects of reduced deviation; 3) the deviation of each radio shall be reduced to 4 kHz in the band segment 806-813 MHz and then tested to determine compliance with the rules applicable to the NPSPAC band and the Commission's RF Exposure standards; 4) the laboratory shall then submit the test results to the TA Mediator for entry into the record; and 5) within ten business days of receipt of the test report from the laboratory, the TA Mediator shall file a supplementary Recommended Resolution, attaching the laboratory report.

21. Sprint, at its option, may elect not to implement the testing protocol described above. If it so elects, it shall notify the TA Mediator within 5 business days of the release date of this *Order Reopening the Record,* whereupon the record shall be closed and the radio realignment option will be determined not to provide MSU with comparable facilities. The Bureau then will issue an order on *de novo* review consistent with that determination.

IV. CONCLUSION

22. Considering the stage of these proceedings and the record currently before the Bureau, we find that Sprint's realignment proposal likely could be implemented under the Commission's Permissive Change Policies, but that the deficient record precludes us from making factual findings with respect to MSU's interference concerns. Accordingly, an informed decision on this matter dictates that we reopen the record for the limited purpose of assessing MSU's realigned equipment for compliance with the Commission's technical rules for the NPSPAC band and its RF Exposure standards.

V. ORDERING CLAUSES

23. Accordingly, pursuant to the authority of Sections 0.131 and 0.331 of the Commission's rules, 47 C.F.R. §§ 0.131, 0.331; 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

[53] We recognize Harris's concern that MSU's 3-Site Scan radios may not demonstrate post-rebanding compliance with the applicable rules, including the frequency stability requirements and the stringent NPSPAC emissions mask requirements. *See* Harris Letter at 2.

[54] *Id.*

[55] 47 C.F.R. § 2.1093.

IS ORDERED that the issues submitted by the Transition Administrator are resolved as discussed *supra*.

24. IT IS FURTHER ORDERED, that this matter IS REMANDED to the Transition Administrator Mediator to reopen the record consistent with the directions outlined in paragraph 20 *supra.*

25. IT IS FURTHER ORDERED, that, within five business days of the TA Mediator's filing a supplementary Recommended Resolution, the parties may file supplementary Statements of Position with the Bureau. No further pleadings shall be filed unless specifically authorized.

26. This action is taken under delegated authority pursuant to Sections 0.191(f) and 0.392 of the Commission's rules, 47 C.F.R. §§ 0.191(f) and 0.392.

FEDERAL COMMUNICATIONS COMMISSION

Michael J. Wilhelm
Deputy Chief
Policy and Licensing Division
Public Safety and Homeland Security Bureau