

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

In the Matter of)
)
NATIONAL SCIENCE AND TECHNOLOGY)
NETWORK, INC.)
)
Application for Authorization of a Trunked) FCC File No. 0000693489
System in the 470-512 MHz Band)
)
Application to Modify License for Trunked) FCC File No. 0002920691
System in the 470-512 MHz Band)

ORDER ON FURTHER RECONSIDERATION

Adopted: March 23, 2009

Released: March 24, 2009

By the Chief, Mobility Division, Wireless Telecommunications Bureau:

1. Introduction. In an October 19, 2007 Order on Reconsideration,1 we granted a petition filed by Mobile Relay Associates (MRA) for reconsideration of a January 31, 2007 Order,2 and dismissed the above-captioned applications of National Science and Technology Network, Inc. (NSTN). On November 5, 2007, NSTN filed a petition for further reconsideration3 and request for stay,4 of the Order on Reconsideration. For the reasons discussed below, we deny the petition for reconsideration and the request for stay.

2. Background. NSTN's applications requested authority to operate a trunked radio system on 12.5 kHz "offset" channels in the 470-512 MHz band. NSTN proposed to operate with a 12.5 kHz channel bandwidth. MRA, which operates on channels with center frequencies 12.5 kHz removed from NSTN's proposed center frequencies, objected to NSTN's proposed operations. MRA asserted that NSTN was obliged under Section 90.187(b)(2) of the Commission's Rules5 to obtain consent from licensees, including MRA, operating on center frequencies 12.5 kHz or less removed from NSTN's proposed frequencies; and that NSTN's proposed operations did not provide interference protection to MRA's operations, as required by the Land Mobile Communications Council (LMCC) procedures for evaluating adjacent channel interference in the 470-512 MHz band using the interference criteria of TIA/EIA/TSB-88 (TSB-88).6

1 National Science and Technology Network, Inc., Order on Reconsideration, 22 FCC Rcd 18644 (WTB MD 2007) (Order on Reconsideration).

2 National Science and Technology Network, Inc., Order, 22 FCC Rcd 1953 (WTB MD 2007) (Order).

3 Petition for Reconsideration (filed Nov. 5, 2007) (PFR). MRA filed an opposition on November 14, 2007 (Opposition). NSTN filed a reply on November 19, 2007 (Reply).

4 Request for Stay (filed Nov. 5, 2007) (Stay Request). MRA filed an opposition on November 9, 2007.

5 47 C.F.R. § 90.187(b)(2).

6 See Filing Freeze to be Lifted for Applications under Part 90 for 12.5 kHz Offset Channels in the 421-430 and 470-512 MHz Bands, Public Notice, 13 FCC Rcd 5942, 5942 (WTB 1997) (citing Letter from Larry A. Miller, President, LMCC, to Daniel B. Phythyon, Esq., Acting Chief, Wireless Telecommunications Bureau (Sept. 10, 1997) (LMCC Consensus)). In 1997, the Commission directed the certified frequency coordinators for the private land mobile radio services to reach a consensus on the applicable coordination procedures for the 12.5 kHz "offset" channels in the 470-

3. The *Order* concluded that where, as here, the applicant proposes to operate with a 12.5 kHz bandwidth, Section 90.187(b)(2) requires consent only from licensees with assigned frequencies 7.5 kHz or less removed from NSTN's proposed frequencies, and thus did not apply in the present case.⁷ The *Order* also concluded that TSB-88 was not applicable because there was no spectral overlap between any existing stations and NSTN's proposed operations.⁸ NSTN was granted a license under Call Sign WQGI981.

4. The *Order on Reconsideration* affirmed that Section 90.187(b) did not require NSTN to obtain MRA's consent.⁹ It also concluded, however, that there in fact was spectral overlap between NSTN's proposed operations and licensees operating on 25 kHz channels on center frequencies 12.5 kHz removed from NSTN's proposed 12.5 kHz channels.¹⁰ The *Order on Reconsideration* explained that the *Order's* conclusion to the contrary was the result of a mathematical error.¹¹ Because both the TSB-88 analysis submitted by MRA and our own engineering study showed interference exceeding the acceptable five percent reduction of the calculated service area reliability for each NSTN frequency, we reversed the *Order* and dismissed NSTN's applications.¹²

5. *Discussion.* We conclude that the *Order on Reconsideration* correctly found that there is spectral overlap between NSTN's proposed operations on 12.5 kHz bandwidth channels (with an occupied bandwidth of 11.25 kHz) and existing stations operating on 25 kHz channels (with an occupied bandwidth of 20 kHz) on center frequencies 12.5 kHz removed.¹³ NSTN asserts that there is no spectral overlap because 12.5 kHz and 25 kHz channels do not actually occupy, respectively, 11.25 kHz and 20 kHz.¹⁴ Rather, according to NSTN, 12.5 kHz and 25 kHz channel stations modulate approximately plus or minus 2.5 kHz and 5 kHz, respectively, from the center frequency, and beyond that range the applicable emission mask requires the power level to be severely attenuated.¹⁵ NSTN is incorrect. The necessary bandwidth is reflected in the emission mask,¹⁶ rather than in some smaller number for which NSTN provides no support or authority. By the same token, there would be spectral overlap from NSTN's proposed operations on

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512 MHz frequency band. See Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them and Examination of Exclusivity and Frequency Assignment Policies of the Private Land Mobile Services, *Second Report and Order*, PR Docket No. 92-235, 12 FCC Rcd 14307, 14330-31 ¶ 43 (1997) (*Refarming Second R&O*). The LMCC Consensus provides that an application shall not be certified if an incumbent or the applicant has unacceptable interference of more than five percent reduction of the calculated service area reliability. See LMCC Consensus, Attachment at 2.

⁷ See *Order*, 22 FCC Rcd 1954 ¶ 6.

⁸ *Id.* at 1954 n.10.

⁹ See *Order on Reconsideration*, 22 FCC Rcd at 18646-47 ¶ 7.

¹⁰ *Id.* at 18646 ¶ 6.

¹¹ *Id.* at 18646 n.25.

¹² *Id.* at 18646 ¶ 6, 18647-48 ¶ 9.

¹³ See, e.g., National Science and Technology Network, Inc., *Order on Reconsideration*, 23 FCC Rcd 5723, 5724-25 ¶ 4 (WTB MD 2008), *review pending*. We also note that the *Order on Reconsideration* found overlap between NSTN's operations and stations other than MRA's. See *Order on Reconsideration*, 22 FCC Rcd at 18646 ¶ 6. We therefore reject NSTN's suggestion that at most the license should have been modified to delete only five of the ten licensed channels, because the other five channels do not overlap any channels licensed to MRA. See PFR at 4-5, 9.

¹⁴ See PFR at 6, 7, 12.

¹⁵ See *id.* at 6, 7.

¹⁶ See 47 C.F.R. § 2.201(a). Moreover, the necessary bandwidth "is not the only characteristic of an emission to be considered in evaluating the interference that may be caused by that emission." 47 C.F.R. § 2.202(d).

6.25 kHz offset channels (with an occupied bandwidth of 6 kHz) on center frequencies 12.5 kHz removed from 25 kHz channels (with an occupied bandwidth of 20 kHz). Therefore, contrary to NSTN's claim, modifying its license by changing the bandwidth to 6.25 kHz would not resolve the matter.¹⁷

6. NSTN also argues that its proposed operations should not be deemed to overlap MRA's spectrum because Section 90.187(b)(2) affords protection only to stations with center frequencies 7.5 kHz or less removed from a proposed 12.5 kHz station.¹⁸ We note, however, that the Section 90.187(b)(2) definition of "affected licensee" expressly relates only to analyzing applications under Section 90.187, which sets forth the standards for determining whether a 150-174 MHz or 421-512 MHz band applicant will be required to monitor the proposed frequency.¹⁹ This is a separate requirement from TSB-88, which is used to determine whether an applicant for 12.5 kHz "offset" channels in the 470-512 MHz band will cause impermissible interference.²⁰ Applications to which both Section 90.187 and TSB-88 apply must satisfy both standards. The *Order on Reconsideration* thus correctly concluded that NSTN was required to satisfy the interference protection criteria of TSB-88.

7. Next, NSTN argues that TSB-88 is not a standard that frequency coordinators must follow when there is spectral overlap, but merely "a protocol for the design of radio systems."²¹ We agree with MRA that the Commission in fact directed the frequency coordinators to agree on a standard procedure for coordinating 12.5 kHz "offset" channels in the 470-512 MHz frequency band, and that TSB-88 reflects the agreed-upon standard.²² NSTN is more than ten years too late to challenge the outcome of this rulemaking proceeding.²³ NSTN also contends that TSB-88 should apply only to simplex operations, and not to trunked duplex operations.²⁴ We conclude that the three megahertz separation between the base and mobile frequencies in a duplex system does not render TSB-88 inapplicable, because the TSB-88 analysis compares only the base station frequencies of the existing and proposed operations.²⁵

8. NSTN also argues that the *Order on Reconsideration* is not in the public interest and conflicts with the Commission's rules²⁶ requiring 25 kHz private land mobile radio licensees to transition to more efficient equipment by 2013.²⁷ We disagree. While the Commission has mandated migration to more efficient technology, it has not intended to disadvantage the incumbent licensees still operating on

¹⁷ See PFR at 4, 8.

¹⁸ See *id.* at 4, 9.

¹⁹ See 47 C.F.R. § 90.187(b)(2). Such monitoring is not required if the applicant has exclusive use of the frequency, or obtains written consent from all "affected licensees," as defined in Section 90.187. See 47 C.F.R. § 90.187(b)(1), (2).

²⁰ See Ralph A. Haller, *Letter*, 23 FCC Rcd 4714, 4715 (WTB/PSHSB 2008).

²¹ See PFR at 9.

²² See Opposition at 7-8 (citing *Refarming Second R&O*, 12 FCC Rcd at 14331 ¶ 43).

²³ See 47 U.S.C. § 405.

²⁴ See PFR at 10.

²⁵ Numerous decisions apply TSB-88 to trunked duplex operations. See, e.g., *University of Southern California, Order*, 19 FCC Rcd 23155 (WTB PSCID 2004).

²⁶ See 47 C.F.R. § 90.209(b)(5) n.3; Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended; Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies, *Second Report and Order and Second Further Notice of Proposed Rule Making and Order*, WT Docket No. 99-87, RM-9332, 18 FCC Rcd 3034, 3038 ¶ 12 (2003).

²⁷ See PRF at 2-3, 12; Reply at 2.

25 kHz channels.²⁸ The narrowbanding mandate is thus not grounds to reduce 25 kHz licensees' privileges prior to the mandatory migration date.²⁹ NSTN also argues that it is inequitable to rescind the license grant after it constructed the station in reliance on the grant.³⁰ We note, however, that NSTN put the station into operation on August 6, 2007,³¹ while MRA filed its petition for reconsideration of the *Order* on March 2, 2007. Thus, NSTN had notice of MRA's petition, and proceeded at its own risk.³²

9. Lastly, NSTN requests that we stay the the *Order on Reconsideration* and reinstate NSTN's license "pending the resolution of all administrative and legal appeals."³³ A stay can be granted only if the following four-prong conjunctive test is met: (i) NSTN is likely to prevail on the merits; (ii) NSTN will suffer irreparable harm, absent a stay; (iii) other interested parties will not be harmed if the stay is granted; and (iv) the public interest would favor a grant of the stay.³⁴ In light of our resolution of NSTN's petition for further reconsideration, we have already found that NSTN is not likely to prevail on the merits of its claim. Accordingly, we need not inquire further into the other factors necessary for a grant of a stay.³⁵ For this reason, we deny NSTN's stay request.

10. In summary, the *Order on Reconsideration* was correct in finding that there is spectral overlap between NSTN's proposed operations and existing stations, and that a TSB-88 analysis was therefore required. The *Order on Reconsideration* correctly concluded that the coordination of NSTN's applications with respect to the subject frequencies was defective. We therefore deny NSTN's petition for reconsideration, and request for stay, of the *Order on Reconsideration*.

11. Accordingly, IT IS ORDERED, pursuant to Sections 4(i), 303(i), and 405 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(i), 405, and Section 1.106 of the Commission's Rules, 47 C.F.R. § 1.106, that the Petition for Reconsideration filed on November 5, 2007 by National Science and Technology Network, Inc., IS DENIED.

12. IT IS FURTHER ORDERED that the Request for Stay filed by National Science and Technology Network, Inc. on November 5, 2007 IS DENIED.

²⁸ In fact, to allow such incumbent licensees increased flexibility in their migration, the Commission extended the deadline for the acceptance of new applications for new operations using 25 kHz channels, and for modification of operations that expand the authorized contour of such stations, from January 13, 2004 to January 1, 2011. See Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended; Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies, *Third Memorandum Opinion and Order, Third Further Notice of Proposed Rule Making and Order*, WT Docket No. 99-87, RM-9332, 19 FCC Rcd 25045, 25046 ¶ 2 (2004).

²⁹ See Association of American Railroads, *Order*, 22 FCC Rcd 1304, 1308-09 ¶ 9 (WTB MD 2007) (denying request for waiver that would grant railroads exclusive access to spectrum shared with other industries in order to facilitate the railroads' transition to 12.5 kHz operations).

³⁰ See PFR at 5.

³¹ See FCC File No. 0003131163 (filed Aug. 6, 2007).

³² See, e.g., Applications for Station WKVE, Semora, North Carolina, *Memorandum Opinion and Order and Notice of Apparent Liability*, 18 FCC Rcd 23411, 23415 ¶ 7 (2003).

³³ Stay Request at 2.

³⁴ See *Virginia Petroleum Jobbers Assn v. FPC*, 259 F.2d 921 (D.C. Cir. 1958); *Washington Metropolitan Area Transit Commission v. Holiday Tours, Inc.*, 559 F.2d 841, 843 (D.C. Cir. 1977).

³⁵ See Powell Meredith Communications Company, *Memorandum Opinion and Order*, 19 FCC Rcd 12672, 12675-76 ¶ 8 (2004) (upholding denial of motion for stay of auction where movant had not shown it would prevail on the merits).

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

FEDERAL COMMUNICATIONS COMMISSION

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