

March 8, 2001

Magalie R. Salas, Secretary

- Federal Communications Commission
445 12<sup>th</sup> Street, SW
Room TW-B204
Washington, D.C. 20554

#### RE: Ex Parte Presentation

In the Matter of Motorola, Inc.; Motorola SMR, Inc.; Motorola Communications and Electronics, Inc., Application for Consent to Assign 900 MHz SMR Licenses to FCI 900, Inc., DA 00-2352

In the Matter of Automatic and Manual Roaming Obligations Pertaining to Commercial Mobile Radio Services, WT Docket No. 00-193

In the Matter of Revision of the Commission's Rules To Ensure Compatibility With Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102

Dear Ms. Salas:

On February 9, 2001, Southern Communications Services, Inc. ("Southern") filed a written <code>ex parte</code> presentation in the above-referenced proceeding, DA 00-2352, concerning 58 pending applications to assign 900 MHz Specialized Mobile Radio ("SMR") licenses from Motorola, Inc. ("Motorola") and certain of its subsidiaries to FCI 900, Inc., a wholly-owned subsidiary of Nextel Communications, Inc. (hereinafter collectively referred to as "Nextel"). This <code>ex parte</code> letter and attached documents respond to Southern's February 9 presentation (hereinafter the "Southern Presentation"), and demonstrate that the Commercial Mobile Radio Services ("CMRS") marketplace is the relevant marketplace for analyzing Nextel's acquisition of SMR licenses for use in its iDEN digital network.\frac{1}{2}

#### Introduction

In its presentation, Southern urges the Federal Communications Commission ("Commission") to deny the subject pending assignments, or to condition them on

<sup>&</sup>lt;sup>1</sup> Many of the issues discussed herein also address arguments Southern has raised with respect to the ongoing rulemaking in WT Docket No. 00-193 concerning automatic roaming in the CMRS industry as well as Nextel's pending waiver request in CC Docket No. 94-102 concerning implementing Phase II Enhanced 91 1 ("E911") services. Pursuant to Section 1.1 206 of the Rules of the Federal Communications Commission, Nextel is filing this *ex parte* presentation and two copies in each of the above-referenced proceedings.

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requiring Nextel to provide nationwide roaming for Southern's "cellular" customers.<sup>2</sup> Southern incorrectly asserts that the relevant market for evaluating the competitive impact of the proposed assignments is a narrowly defined trunked dispatch market. It argues that 800 MHz and 900 MHz SMR spectrum is the only spectrum capable of supporting the provision of trunked dispatch services, and that an SMR licensee would have to make a "sizeable investment" to use other CMRS spectrum to provide such services.

Southern's position ignores the Commission's current spectrum policies and regulatory framework for commercial wireless communications services. Although SMR spectrum initially was used primarily to provide two-way analog dispatch services, the Commission's rules neither require that it continue to be used for dispatch-only service, nor do they preclude the use of more than 200 MHz of other CMRS spectrum for providing dispatch services – either alone or in combination with other wireless communications services. In fact, the Commission's current CMRS regulatory framework, which is designed to create broad-based wireless competition, encourages all CMRS carriers to deploy competitive wireless services – whether dispatch or interconnected voice, short messaging or data – that put the spectrum to its highest and best use. By assigning CMRS licenses via competitive bidding, the Commission has assured that such licensees will put the commercial spectrum to its highest and best use, thereby eliminating the need to impose regulatory limitations on the services auction winners can provide.<sup>3</sup>

As a result, the Commission has encouraged CMRS licensees to expand their service offerings, make flexible use of the spectrum in response to consumer needs and put the spectrum to new and advanced uses -- not necessarily the "highest and best dispatch use" or the "highest and best interconnected cellular use" or even the "highest and best data use." Rather, licensees are encouraged to put the spectrum to its highest and best commercial wireless use - whatever the marketplace determines that use or uses to be - regardless of the services previously provided on that spectrum. There is no public interest benefit in the Commission preserving any specific market or service at the expense of the greater economic good created

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<sup>&</sup>lt;sup>2</sup> Southern uses Motorola's 6:1 iDEN technology, which is similar to Nextel's 3:1 iDEN technology. Southern provides its subscribers an integrated package of "cellular", dispatch (both one-to-one and group call), short messaging, and data communications services all on a single handset. Southern, like Nextel, competes with cellular and Personal Communications Services ("PCS") providers in the larger CMRS marketplace. See www.southernco.com/annualreports/ar99, where Southern lists as its main competition "Specialized mobile radio providers, personal communications system and cellular carriers, and paging companies."

<sup>&</sup>lt;sup>3</sup> Using competitive bidding to assign spectrum licenses is predicated on the proposition that winning bidders will, by dint of the competitive bidding process, put the spectrum to its highest and best use in order to earn a return on their investment in the spectrum. That use varies case-by-case depending on the cost of the spectrum resource, technology choices, competitive offerings and customer demand.

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by increasing broad-based CMRS competition.<sup>4</sup> Thus, Southern's attempt to restrict the Commission's marketplace analysis based on narrow historical spectrum uses – particularly when Southern itself has enhanced its own use of "SMR dispatch" spectrum to broaden its consumer appeal and compete with cellular and PCS offerings -- distorts the Commission's spectrum policy goals and ignores the reality of the robustly competitive CMRS marketplace that has been created as a result of the Commission's insightful CMRS spectrum management policies.

Additionally, Southern's narrow marketplace analysis creates a regulatory disparity by treating certain CMRS spectrum transactions differently from others, based on nothing more than the location of the frequencies in the CMRS spectrum bands. The mere fact that Nextel provides its competitive CMRS services on 800 MHz and 900 MHz SMR spectrum should not, under today's CMRS regulatory scheme (which includes a 45 MHz CMRS spectrum cap), result in Nextel's acquisition of spectrum being treated differently (and more rigorously) than an acquisition by Sprint PCS or AT&T Wireless ("AT&T"). While Verizon Wireless ("Verizon"), for example, has used mergers and acquisitions to obtain 10, 20 or even 30 MHz blocks of CMRS spectrum in various markets with little more than a comparison of its spectrum position to the overall spectrum cap, Nextel continues to encounter significant scrutiny - such as that applied to this transaction - when acquiring an additional .25 MHz to 1 MHz of non-contiguous spectrum in various markets. Such disparate treatment creates an uneven playing field and injects the very regulatory disparity that is prohibited by the Omnibus Budget Reconciliation Act of 1993 ("1993 Budget Act").5

In support of its narrow marketplace analysis, Southern offers an affidavit prepared by economists Michael G. Bauman and Stephen E. Siwek of the Washington D.C.-based consulting firm Economists Incorporated ("EI") (hereinafter the "El Presentation"). In the following pages, Nextel rebuts Southern's assertions, and provides an economic analysis of the proposed assignments prepared by Dr. Gregory L. Rosston, Deputy Director of the Stanford Institute for Economic Policy Research at Stanford University (hereinafter "Rosston Report" at Attachment 1). Dr. Rosston responds directly to the assertions made in the El Presentation pointing out numerous factual inaccuracies and analytical missteps contained therein. Dr. Rosston concludes that the only relevant market for competitive analysis of the

<sup>4</sup> In re Applications of Pittencrieff Communications, Inc. and Nextel Communications, Inc. For Consent to Transfer Control of Pittencrieff Communications, Inc. and its Subsidiaries, Memorandum Opinion and Order, 13 FCC Rcd 8935 (1997)("PCI Order") at ¶ 76 ("[The Commission] will not preserve markets for their own sake, without regard to the considerations in other markets and overall economic efficiency.")

<sup>&</sup>lt;sup>5</sup> Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, 107 Stat. 312 (1993). Pursuant to the 1993 Budget Act, the Commission is required to treat all similarly situated CMRS carriers in a similar manner.

<sup>&</sup>lt;sup>6</sup> Nextel cannot cite to pages in the Southern Presentation because it was not paginated.

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proposed transactions is the overall CMRS market; that the CMRS market is intensively competitive; that Nextel's past and ongoing spectrum acquisitions enable it to become more efficient, to achieve economies of scale, and to introduce unprecedented competitive innovations in the CMRS marketplace stimulating farreaching competitive responses from other CMRS carriers in a virtuous cycle of lower prices and expanded services for wireless consumers.<sup>7</sup>

Dr. Rosston points out that Nextel controls only a fraction of the total 209.1 MHz of spectrum available for CMRS and CMRS-like services and has the fifth most spectrum in many markets behind Verizon Wireless ("Verizon"), Sprint PCS, AT&T and Cingular Wireless ("Cingular"), and in some markets has less spectrum than Voicestream Wireless ("Voicestream") as well. Despite this, Southern's competitive analysis would allow all of these CMRS competitors (assuming spectrum cap compliance) to acquire the subject Motorola licenses and use them to provide exactly the same services Nextel intends to offer – even though each of them has much more spectrum than Nextel. As Dr. Rosston concludes, spectrum restrictions on the fifth or sixth largest competitor in a market that do not apply to any of the top four or five providers are unheard of in competition policy.<sup>8</sup>

Additionally, the Wireless Telecommunications Bureau ("Bureau") should be aware at the outset that the conclusions in the El Presentation regarding the relevant market for evaluating the proposed transactions herein are largely inconsistent with conclusions El previously submitted to the Commission. In an analysis prepared by its President, Bruce W. Owen, formerly the Chief Economist of the Antitrust Division of the Department of Justice, and Mark W. Frankena, a Principal at the firm, El promoted outright repeal of the 45 MHz CMRS spectrum cap, recommending instead that the Commission adopt a "safe harbor" for all CMRS spectrum transactions under 45 MHz. Therein, El recommended — in sharp contrast to its position in this proceeding — that the Commission review on a case-by-case basis only those transactions that would result in an entity having more

<sup>&</sup>lt;sup>7</sup> As Dr. Rosston notes, Nextel's increased efficiency may be one reason for Southern's opposition to the subject transaction. To the extent Nextel becomes more efficient, its competitors must work harder to compete against a lower cost, higher value offering. Antitrust authorities generally are skeptical of opposition to acquisitions lodged by horizontal competitors because any exercise of market power by the acquirer in the form of increased prices creates a market opportunity benefiting the complaining competitor. Moreover, as Dr. Rosston explains, the proposed acquisitions would still leave Nextel well behind the spectrum positions of its CMRS competitors offering integrated voice, messaging and data communications services. See Rosston Report at pp. 6, 13.

<sup>8</sup> *Id.* at pp. 2, 4.

<sup>&</sup>lt;sup>9</sup> See "An Economic Evaluation of the Federal Communications Commission's Commercial Mobile Radio Services Spectrum Cap," attached to the January 25, 1999 comments of AT&T Wireless Services in WT Docket 98-205.

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than 45 MHz of CMRS spectrum in a particular market. For example, in supporting the AT&T filing, EI stated:

"As a general matter, consumers are not made worse off when one firm is larger or more efficient than others. Indeed, the reverse often is true. Firms with lower costs tend to charge lower prices. The Supreme Court has made it clear that the purpose of the antitrust laws is to protect competition, not competitors. Competition policy seeks a level playing field, not equal-sized players." (Page 13)

"Some companies are more efficient than others. They have lower costs and offer services that cater better to consumers' preferences. For example, they may offer innovative services and integrated bundles of services, attractive pricing plans, and responsive customer service. Consumers benefit from allowing these more efficient companies to acquire assets that would otherwise be used by less efficient companies." (Page 17)

Given that the instant assignments would give Nextel from 0.25 MHz to 1 MHz of additional spectrum in approximately 20 of the Major Trading Areas in the US, with its total spectrum position in any one of them remaining below 25 MHz – at least 20 MHz below the current CMRS spectrum cap -- El's economic analysis in support of eliminating the CMRS spectrum cap cannot be reconciled with its opposition to the proposed transactions in this proceeding.

Furthermore, as a threshold matter herein, the disconnect between Southern's substantive arguments and the relief it requests warrants dismissal of Southern's opposition. Southern argues that the subject transactions should be denied because approving them would give Nextel a more dominant position in the trunked dispatch market. Yet in the same breath, Southern proposes that the assignments be approved only on the condition that Nextel provide cellular roaming — not dispatch roaming — to Southern's customers, even though it is competition in the narrow trunked dispatch market that Southern alleges would be harmed by permitting the assignments. In other words, even though Southern's anti-assignment competitive argument alleges a negative competitive impact on the dispatch market, it would happily abandon that position in return for Commission-mandated nationwide cellular r o a m i n g for its customers — perhaps because Southern's self-proclaimed "main competition" includes "personal communications system and cellular carriers." 10

<sup>10</sup> www.southernco.com/annualreports/ar99.

Southern's dispatch market arguments are a "red herring" intended to mislead the Commission into conditioning the proposed assignments on requiring Nextel to give nationwide cellular roaming access to Southern's cellular subscribers. The bottom line: Southern is desperately trying to achieve in the instant proceeding what it apparently fears it cannot achieve "on the merits" in the Commission's ongoing rulemaking in WT Docket No. 00-1 93 concerning whether to impose automatic roaming obligations on CMRS licensees. That is the proceeding in which Southern's roaming concerns and its associated competitive allegations should be addressed. Accordingly, the Commission should dismiss Southern's opposition herein and expeditiously grant the pending assignment applications.

#### Southern's Affirmative Case Regarding the Relevant Marketplace is Meritless

As demonstrated herein and in the attached analysis of Dr. Rosston, Southern's entire case is based on an arbitrary, artificial and erroneous definition of the relevant marketplace for evaluating the potential competitive impact of the subject assignments.

#### 7. CMRS Operators Provide Trunked Dispatch Services

Southern asserts that "trunked dispatch is not assimilated into interconnected mobile voice market," that SMR is the only service capable of dispatch and interconnected voice service in the same handset, that CMRS providers don't offer trunked dispatch service, and finally, that iDEN is not interoperable with CMRS services and that their functions are not comparable. These alleged "facts" ignore both Commission findings and marketplace reality.

First, trunked dispatch service is simply one component of the integrated services offered by Nextel, Southern, and Pacific Wireless as well as a functionality increasingly offered by other CMRS providers. Nextel's Direct Connect® dispatch feature not only differentiates its particular CMRS service offering but is being copied and emulated as wireless customers demand its "assimilation" in interconnected CMRS offerings. Evidence of this assimilation is the fact that 85% of all new Nextel subscribers are former cellular users, and just under one-half of all Nextel airtime is attributable to Direct Connect® – *i.e.*, dispatch – minutes. Moreover, 27% of all analog dispatch churn would not be attributable to "competition from Cellular/PCS/Nextel" if dispatch users were not substituting interconnected mobile service (or a package of interconnected mobile service and dispatch service) for stand-alone dispatch service. Additionally, the Commission has concluded that dispatch and interconnected services are "assimilated" in

<sup>&</sup>lt;sup>11</sup> See State of the SMR Industry: Nextel and Dispatch Communications, The Strategis Group, September 2000 (hereinafter "September 2000 Strategis Group Report") at p. 49.

<sup>&</sup>lt;sup>12</sup> Id. at page 28 (only ten percent of analog dispatch churn is generated by competition from other SMR services).

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today's wireless communications marketplace, finding that "Nextel's Direct Connect services option itself may be seen as providing more than trunked dispatch, because to some degree it is a substitute for mobile voice features such as speed dialing and conference calling." 13

Second, it is simply untrue that SMR is the only service capable of dispatch and interconnected voice in the same handset. As the Commission has recognized on numerous occasions, there is no legal hurdle to CMRS carriers' introduction of dispatch and interconnected voice services in the same handset. All CMRS carriers, whether cellular, PCS or SMR, have the legal authority to deploy dispatch services on their licensed spectrum, and from a technology standpoint there is nothing unique to the 800 or 900 MHz SMR spectrum that makes it the "only service capable of dispatch and interconnected voice in the same handset." If Southern's position were accurate, Motorola could not have developed and sold a 1.5 GHz iDEN product in Japan.

In fact, OmniExpress, a joint venture between Qualcomm (the inventor of and a leading vendor of CDMA wireless technology) and Descartes Systems Group offers an integrated wireless dispatch and route optimization solution that includes mobile terminals within the vehicle, a communications network to connect drivers to dispatchers and dispatch and route optimization that promotes the efficient use of fleet assets.<sup>18</sup> In July 1999 Sprint PCS purchased OmniExpress for \$400

<sup>&</sup>lt;sup>13</sup> Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, *Fifth Report*, *15* FCC Rcd 17660, at p. 70 (2000) ("Fifth Report on Competition")(emphasis added).

<sup>14</sup> See, e.g., PCI Order at ¶ 54; In re Various Subsidiaries and Affiliates of Geotek Communications, Inc. Debtor-in-Possession, and Wilmington Trust Company or Hughes Electronics Corporation, and In re Applications of Wilmington Trust Company or Hughes Electronics Corporation, and FCI 900, Inc. For Consent to Assignment of 900 MHz Specialized Mobile Radio Licenses, Memorandum Opinion and Order, DA 00-89, released January 14, 2000 ("Geotek Order") at ¶¶ 35-36.

<sup>&</sup>lt;sup>15</sup> In re Eligibility for the Specialized Mobile Radio Services and Radio Services in the 220-222 MHz Land Mobile Band and Use of Radio Dispatch Communications, Report and Order, 10 FCC Rcd 6280 (1995).

<sup>&</sup>lt;sup>16</sup> See Rosston Report at p. 16; see also PCI Order; Geotek Order.

<sup>&</sup>lt;sup>17</sup> See, e.g., Press Release, "Motorola Announces Commercial Availability of iDEN Enhancement," June 17, 1996, www.motorola.com.

<sup>&</sup>lt;sup>18</sup> Press Release, Qualcomm, **Solution by Descartes and Qualcomm Improves Communication and Smoothes Logistics for Private Fleets, Less-Than -Truckload Carriers and Metropolitan Fleets** (June 15, 2000); <u>www.qualcomm.com</u>.

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million, <sup>19</sup> and Qualcomm has already obtained the trademark rights to "QChat." QChat is the button located on the side of Qualcomm phones that will connect one user to all of the other users in a particular calling group. <sup>20</sup> Qualcomm CDMA mobile units are used extensively by PCS subscribers operating on 1.9 GHz PCS frequencies today. The QChat capability, therefore, will be available to PCS subscribers and will likely be offered in CDMA networks regardless of whether they are denominated as PCS, cellular or SMR by dint of their original spectrum position. <sup>21</sup>

Southern is mistaken when it asserts that "CMRS providers don't offer trunked dispatch service." As the Commission first made clear in 1994, any SMR licensee interconnected to the Public Switched Telephone Network is a CMRS provider; thus, there are CMRS providers offering trunked dispatch services. Not only does Southern ignore that it and Nextel are just two such CMRS providers currently offering trunked dispatch services, it also ignores the potential for additional CMRS providers to offer dispatch services. In assessing the competitive impact of the proposed assignments on the relevant marketplace, the Commission must consider not only current service providers, but also any and all potential new providers of such services.<sup>23</sup> As discussed above, additional CMRS providers are

<sup>19</sup> Press Release, Qualcomm, **Sprint Signs Agreement Valued at Approximately \$400 Million with Qualcomm for the Purchase of CDMA Digital Handsets** (July 20, 1999); www.qualcomm.com.

<sup>&</sup>lt;sup>20</sup> Press Release, Qualcomm, **Secure Wireless Handsets for Civilian Use** (January 2001); www.gualcomm.com.

<sup>21</sup> Southern's assertions about the limitations of technology ignore the technological developments that are defining today's wireless marketplace. Had Fleet Call, Inc. (Nextel's forerunner) had the same beliefs in 1989 that Southern has now, there might be no competitive integrated wireless mobile telephone and dispatch CMRS alternative in the 800 MHz SMR band. When Fleet Call began its quest to provide a competitive alternative to cellular, there was no equipment available for the provision of a cellular-like service, and there was no widespread interest in providing it on the 800 MHz SMR channels. Southern's narrow view of the wireless marketplace ignores the fact that Motorola has already developed and sold an iDEN product that operates on 1.5 GHz spectrum in Japan. See, e.g., Press Release, "Motorola Announces Commercial Availability of iDEN Enhancement," June 17, 1996, <a href="www.motorola.com">www.motorola.com</a>. If 1.5 GHz iDEN, why not 1.9 GHz iDEN? Or if 800/900 MHz iDEN, why not 800 MHz/1.9 GHz dual band iDEN? Or a dual band, dual mode product? Southern has many competitive alternatives; it simply wants one that gets it a nationwide footprint virtually for free.

<sup>&</sup>lt;sup>22</sup> In re Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services, Second Report and Order, 9 FCC Rcd 1411 (1 994)("[SMR] licensees who provide interconnected service will be classified as CMRS providers, while those who do not will be classified as PMRS providers.")

<sup>&</sup>lt;sup>23</sup> See, e.g., PCI Order at ¶ 13 ("Second, we identify current and potential participants in each relevant market...").

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likely to begin offering trunked dispatch as QChat is launched in various PCS networks. The Commission cannot discount the potential for additional dispatch offerings by other cellular and PCS providers as well as the likelihood that other handset and network vendors will follow the leads of Motorola and Qualcomm in developing integrated mobile handsets providing a suite of wireless services including both dispatch and interconnected service.

Southern further discounts the current provision of CMRS services that are tailored to compete directly with the trunked dispatch services of Nextel and Southern, e.g., free mobile-to-mobile calling plans. A number of CMRS competitors are now offering free or low-rate mobile-to-mobile calling plans in an effort to recreate the "fleet" calling capabilities of dispatch services. <sup>24</sup> By lowering (or eliminating) the fee for interconnected phone calls among mobile users on their systems, these providers are attempting to capture the customer previously interested in the lower-cost dispatch service Nextel and Southern offer on their iDEN networks. These plans already are providing significant additional competition to the dispatch services offered by Nextel. <sup>25</sup>

Given all of the above, Southern's statements that iDEN is not "interoperable with CMRS services" and that its "functions are not comparable" are baseless. The iDEN technology supports CMRS services; *i.e.*, interconnected, for-profit services offered to the public, and it uses a cellular-like network architecture (multiple low-power sites offering frequency reuse) just like other CMRS systems whether licensed initially on PCS or cellular frequencies. IDEN is not a "trunked dispatch service;" it is much more. In fact, Motorola describes its iDEN technology as follows:

"iDEN (Integrated Digital Enhanced Network) is a fullydigital integrated wireless system for the 800 megahertz frequency band (and 1.5 gigahertz band in Japan) that integrates full-duplex telephone interconnect, instant conferencing for group and private calling, alphanumeric paging with guaranteed message delivery and one-touch call back, and data/fax communications services for mobile applications. iDEN technology is based on a variety of time-proven RF technologies developed by Motorola to provide a fully integrated wireless digital network."26

<sup>&</sup>lt;sup>24</sup> See the advertisements of Cingular, Verizon, AT&T, Voicestream and Nextel at Attachment 2.

<sup>&</sup>lt;sup>25</sup> See Rosston Report at p. 11.

<sup>&</sup>lt;sup>26</sup> http://www.motorola.com/LMPS/iDEN/press/release09.htm (emphasis added)

The reality is that iDEN was designed as a CMRS technology platform enabling providers without contiguous, exclusive-use spectrum to provide services such as digital cellular, text and numeric messaging, Caller ID, voicemail, one-touch dialing, three-way calling and dispatch services in direct competition with other CMRS providers. The iDEN functionality is not only "comparable" to CMRS services using other technology platforms such as CDMA, TDMA or GSM, in many cases it is identical, e.g., voicemail, call waiting, interconnected voice service. The fact that iDEN offers an additional service to the typical CMRS integrated service offering does not in any way take it out of the CMRS marketplace. On the contrary, iDEN has significantly improved and enhanced the CMRS market, as the Commission's CMRS policies were intended.

Southern's assertion that iDEN is "not interoperable with CMRS services" is further contradicted by the fact that Motorola offers an iDEN/GSM dual mode phone that Nextel supplies its customers today, permitting seamless roaming between Nextel's 800 MHz U.S. network and 900 MHz GSM networks in dozens of countries worldwide. Nothing prevents Southern from offering this same service; indeed, nothing prevents Southern from developing with Motorola a dual band 800 MHz/1.9 GHz handset and network infrastructure, <sup>27</sup> just as Nextel and Motorola are today developing dual band 800 MHz/900 MHz iDEN infrastructure to enable Nextel to integrate this spectrum to provide additional capacity and bandwidth for future advanced services and customer demands. <sup>28</sup> Southern's arguments that iDEN and other CMRS services are not compatible ignores technical reality in an effort by Southern to obtain additional coverage without making any significant investment in spectrum or infrastructure/network development.

## 2. Nextel Competes With CMRS Carriers Offering Cellular, Dispatch and Data Services

To deploy its CMRS iDEN service, Nextel has assembled over the past decade a nationwide commercial wireless iDEN network regulated by the Commission as a CMRS service and recognized by the public, its competitors and communications experts as part of the competitive mix that includes Verizon, AT&T, Cingular, Sprint PCS, Voicestream and other smaller local providers of substitutable commercial services.<sup>29</sup> Nextel's recent acquisition of the chain of "Let's Talk Cellular" stores to enhance its retail distribution and service network is

<sup>&</sup>lt;sup>27</sup> This is one of the paths Nextel would have pursued had it obtained 1.9 GHz licenses in the recent C and F Block PCS reauction.

<sup>&</sup>lt;sup>28</sup> Nextel intends to begin rolling out its 800/900 MHz iDEN product in the summer of 2002 as described in its Petition for Waiver in DA 01-1 21.

<sup>&</sup>lt;sup>29</sup> See, e.g., Fifth Report on Competition; Lynette Luna, Group Calling is Weapon in Wireless Wars, Radio Comm. Rept., June 28, 1999, at p.20.

further evidence of Nextel's position as a CMRS competitor.<sup>30</sup> The competitive impact of the subject acquisition must be evaluated in the context of its impact on competition in the overall CMRS marketplace – the marketplace within which Nextel is aggressively competing.

Nextel has aggregated through acquisitions, mergers, channel swaps and Commission auctions an average of 20 MHz of non-contiguous spectrum throughout the Nation providing coverage to 178 of the top 200 markets where nearly 200 million people live or work. <sup>31</sup> Since 1987, Nextel (then Fleet Call) has been acquiring this spectrum to enable it to launch a competitive CMRS service that, as The Strategis Group concluded, "evoked a profound response from AT&T Wireless and other cellular operators." <sup>32</sup> These carriers introduced no-roaming and free long distance rate packages in response to Nextel's market entry. <sup>33</sup> As a result, wireless consumers are, in many cases, no longer paying the roaming and long distance fees that "had generated considerable revenue since the inception of the wireless industry." <sup>34</sup> Even though Nextel holds less spectrum than many of its competitors, it has consistently introduced vigorous competition fostering additional digital wireless choices in the marketplace, lower prices, increased service quality, and responsive competitors who have reacted to Nextel's entry with procompetitive pricing and service options of their own.

Nextel serves a subscriber base of approximately seven million units. To put this in competitive perspective, Verizon has 27.5 million subscribers on its nationwide wireless system, <sup>35</sup> Cingular just signed up its 20 millionth subscriber on its nationwide network, <sup>36</sup> AT&T has approximately 15 million subscribers on its nationwide network, <sup>37</sup> Sprint PCS has approximately 10 million subscribers, <sup>38</sup> and Voicestream had nearly 4 million subscribers at year-end 2000. <sup>39</sup>

<sup>&</sup>lt;sup>30</sup> Press Release, "Let's Talk Cellular & Wireless Announces Deal With Nextel," February 6, **2001.** 

<sup>&</sup>lt;sup>31</sup> This includes pending assignments before the Commission.

<sup>&</sup>lt;sup>32</sup> September 2000 Strategis Report at p. 54.

<sup>&</sup>lt;sup>33</sup> *Id.* 

<sup>&</sup>lt;sup>34</sup> *Id.* 

<sup>&</sup>lt;sup>35</sup> Press Release, "Verizon Communications Posts Strong Results For Fourth Quarter and 2000," February 1, 2001, at <a href="www.verizonwireless.com">www.verizonwireless.com</a>.

<sup>&</sup>lt;sup>36</sup> Press Release, "CINGULAR WIRELESS TOPS 20 MILLION WIRELESS VOICE CUSTOMERS," February 21, 2001, at www.cingular.com.

<sup>&</sup>lt;sup>37</sup> Press Release, "AT&T Wireless Completes Purchase of Dobson Communications Preferred Stock," February 9, 2001, at <u>www.att.com.</u>

<sup>&</sup>lt;sup>38</sup> See http://www3.sprint.com/sprint/ir/ai/kos.html.

Thus, Nextel has deployed its network to compete not only with Southern, but also to compete aggressively with CMRS providers operating in the cellular and PCS bands – just as Southern is doing. As demonstrated in Table I of Dr. Rosston's analysis, these CMBS carriers have significantly more spectrum than Nextel in most of the major markets. For example, in New York City, AT&T and Verizon each hold 45 MHz while Nextel holds 19.9 MHz. The proposed transaction will add in most markets less than 1 MHz of additional spectrum to Nextel's spectrum position – a competitively insignificant addition in the context of Verizon's, AT&T's and the others major CMRS carriers' spectrum holdings. Even if Nextel were to acquire all of the available non-contiguous commercial 800 and 900 MHz spectrum, its holdings would still fall short of the 45 MHz CMRS spectrum cap, as well as the holdings of most of its competitors in the major high demand markets. In short, Nextel's acquisition of Motorola's 900 MHz spectrum will not inhibit competition; on the contrary, it will enable Nextel to more successfully compete with its CMRS competitors, thereby benefiting consumers.

#### 3. Southern Has Had Numerous Opportunities to Acquire Additional Spectrum

In its Presentation, Southern implies that Nextel has had an unfair advantage in the 800 MHz SMR auctions due to its acquisition of 800 MHz spectrum in the secondary marketplace prior to the auctions. Southern conveniently fails to mention, however, that every channel Nextel acquired prior to the auctions – dating back as far as April 1987 (the date on which Fleet Call, Inc. was incorporated) – was equally available to Southern. Had Southern been interested in constructing and deploying a wide-area digital SMR network beyond the footprint of its utility companies' coverage areas, it could have taken advantage of the very same marketplace opportunities (as well as opportunities presented in Commission spectrum auctions).

<sup>&</sup>lt;sup>39</sup> Press Release, "VoiceStream Wireless Announces 2000 Financial Results," February 14, 2001, at <a href="https://www.voicestream.com">www.voicestream.com</a>.

<sup>&</sup>lt;sup>40</sup> Rosston Report at Table I.

<sup>&</sup>lt;sup>41</sup> Nextel's 19.9 MHz of spectrum, moreover, is non-contiguous while Verizon and AT&T each holds blocks of contiguous spectrum within their 45 MHz holdings.

<sup>&</sup>lt;sup>42</sup> Southern asserts that Nextel's achievement of industry's highest average revenue per unit ("ARPU") is not a sign of service superiority, but the result of some improper competitive behavior. Southern's assertion is belied by the fact that Nextel's ARPU is the <u>CMRS</u> industry's highest, thus surpassing the ARPU of companies such as AT&T and Verizon, both of which have, in some cases, twice the spectrum and subscribers as Nextel. Nextel's ARPU is the result of its aggressive competitive position in the market, its advanced features and functionalities and its business user-oriented customer base that uses a larger number of minutes each month than a typical consumer-oriented user.

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Southern continues to disagree that its limited spectrum position is, in part, a result of its own business decision to rely on its advantaged public utility status to acquire at no cost 800 MHz spectrum then-set aside by the Commission for internal private communications systems and convert it to for-profit commercial use status (even while this spectrum was not available to competing commercial providers). In its defense, Southern claims it recently spent \$50 million dollars in Auction No. 34 for 800 MHz General Category channels "and has made numerous efforts to acquire more [spectrum]."

First, according to Southern's own admission, 95% of its 800 MHz spectrum is made up of licenses in the 800 MHz Business and Industrial/Land Transportation ("B/ILT") pools – licenses that were not available to Nextel and other commercial entities after 1995 (and are still not available to them for initial commercial licensing). After May of 1997, for example, two years after the prohibition on licensing B/ILT frequencies to commercial entities, Southern was granted 2,388 Business frequencies and 6,582 ILT frequencies for use in its commercial iDEN system.

Second, Nextel does not dispute that Southern spent more than \$50 million in the General Category auction. However, for a carrier saying it needs to offer expanded geographic coverage, Southern's outlay is less than one-fifth Nextel's investment of over \$230 million to acquire 1,053 licenses (as compared to Southern's 89 licenses) in the same auction. Similarly, in the lower 80 SMR auction, Southern spent just \$817,000 to acquire 90 licenses, while Nextel spent over \$27 million to acquire just over 2,500 licenses. More importantly, this limited investment in auctioned spectrum has been focused primarily within its existing footprint. In the three 800 MHz SMR auctions, Southern bid for and obtained licenses in only two areas outside the Southeastern United States – Indianapolis and Oklahoma City.

As it did in these Commission spectrum auctions, Southern appears to have squandered opportunities in the secondary spectrum marketplace. Southern contends that it actively sought to buy Chadmoore's licenses, as well as Geotek's

<sup>&</sup>lt;sup>43</sup> Prior to April 1995, the Commission permitted 800 MHz eligibles to access channels outside their respective pools under certain specified conditions. For example, an SMR applicant could access available spectrum in the ILT pool if the SMR applicant could establish that its system was fully loaded, and no SMR channels were available in the area. See 90.621(e). 47 C.F.R. Section 90.621(e)(1994). In April 1995, however, the Bureau froze all intercategory sharing applications, pending the outcome of the Commission's proceeding establishing new licensing rules for the 800 MHz SMR service. See Order, DA 95-741, 10 FCC Rcd 7350 (1995)("Freeze Order"); *affirmed* Memorandum Opinion and Order, DA 95-I 669, 11 FCC Rcd 1452 (1995)("Freeze Memorandum Opinion and Order").

<sup>&</sup>lt;sup>44</sup> See Reply Comments of Nextel Communications, Inc., submitted December 11, 1998, in DA *00-2206.* 

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licenses from the Geotek bankruptcy trustee, and that it expressed interest in the subject 900 MHz Motorola licenses, thus implying that it cannot compete with Nextel to acquire spectrum. Similar to the Commission's auction process, a competitive secondary marketplace typically ensures that assets are sold to the "highest bidder," *i.e.*, the competitor that places the highest value on the licenses. These particular secondary market transactions were open to all potential buyers. Although Nextel has no knowledge of the details of Southern's alleged interest in pursuing these transactions, Nextel's offers appear to have been more attractive and economically beneficial to each seller than Southern's "expressed interest" and "attempts" to buy spectrum. Nextel has been bested by other buyers in various spectrum transactions over the years, and in light of Southern's economic position, its decision not to outbid Nextel for spectrum is solely a strategic one. Thus, Southern's position has no regulatory value.

Finally, Southern makes no attempt to defend its failure to participate in the 1.9 GHz PCS C and F Block reauction. Southern is a wholly owned subsidiary of one of the world's leading electric utilities enjoying a guaranteed rate of return in its exclusive service areas. <sup>45</sup> If Southern truly needs a larger geographic footprint for its utility personnel, as it has claimed, and for its commercial customers, there was no reason that Southern could not have and should not have bid for that spectrum. In fact, if Southern had participated and obtained a near nationwide footprint, rather than the spectrum going to Verizon, AT&T and other incumbents, consumers could be better off because Southern would be an additional facilities-based provider offering a competing nationwide suite of wireless communications services. Southern's disinterest in the C and F Block auction, and its very limited interest in the 700 MHz Guard Band auction, demonstrates that while it is willing to seek competitive advantage through regulatory disparity, it has no stomach for taking the investment risks necessary in today's intensely competitive commercial wireless marketplace.

#### 4. Ample Opportunities Exist for the Provision of Dispatch Services

Assuming *arguendo* that Southern is correct and there is a "trunked dispatch market" that is relevant to the analysis of the proposed assignments, approval is warranted. There is ample spectrum available for the provision of dispatch services, to the extent consumers demand them, whether provided on 220 MHz, 450-470 MHz, 800 and 900 MHz, the cellular and PCS allocations, and prospectively the 700 MHz Guard Band and commercial allocations. As Nextel showed in its February 22, 2001 e x p a r t e letter to Ms. Lauren Kravetz of the Wireless Telecommunications Bureau, 46 220 MHz operators are currently providing dispatch

<sup>&</sup>lt;sup>45</sup> Press Release, "Allen Franklin to become CEO; A.W. 'Bill' Dahlberg announces retirement," <a href="www.southernco.com">www.southernco.com</a> ("Southern Company is ... one of the largest producers of electricity in the United States and one of the world's largest independent power producers.")

<sup>&</sup>lt;sup>46</sup> Letter to Lauren Kravetz from Laura Holloway, dated February 22, 2001, in DA 00-2352.

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services. There are hundreds of licensees on the 450-470 MHz spectrum authorized to provide commercial dispatch services either directly or via community repeaters. Dispatch services are likely to emerge on the recently auctioned 700 MHz Guard Band spectrum, and on cellular and PCS spectrum. Qualcomm's QChat product, as well as the mobile-to-mobile rate plans currently offered by any number of CMRS carriers, will continue to provide significant competition to dispatch services. This is more fully addressed in Dr. Rosston's Declaration.

Southern's assertions about technology and the provision of dispatch services assume a technological status quo, ignoring that there are significant technological improvements occurring every day, provided a carrier is willing to pay for them. The Commission's marketplace analysis cannot assume a static technological landscape. The competitiveness of the industry, as detailed in the Commission's Fifth Report on Competition and in Nextel's February 5, 2001 filing in WT Docket No. 00-1 93, also submitted in this proceeding, forces carriers to consider expanding their products and services regardless of the spectrum on which they provide service. All CMRS carriers now must offer not just mobile telephone or just trunked dispatch service, but a full menu of mobile telephone, group calling and advanced data capabilities in order to remain competitive in the CMRS marketplace. This is a fact of today's marketplace – as Congress intended in the 1993 Budget Act -- whether the provider is on 800 or 900 MHz SMR spectrum, 800 or 900 MHz Business or Industrial/Land Transportation spectrum, 800 MHz cellular spectrum, or 1.9 GHz PCS spectrum.

# Conditioning Approval of the Motorola Assignments on Providing Roaming to Southern's Customers Is Not Warranted

Nextel has fully addressed Southern's assertions regarding roaming on the Nextel system in WT Docket No. 00-193, and Nextel has included its roaming reply comments in this proceeding. As explained by Dr. Rosston, whether or not Southern has a roaming agreement in place with Nextel is wholly irrelevant to the competitive analysis of the proposed transaction.<sup>47</sup> Mandating a roaming obligation on Nextel – while all other CMRS carriers are free to choose to enter into only those roaming agreements that make economic sense for their operations and their customers – would not address any of the concerns alleged by Southern in this proceeding. On the contrary, it would hinder a single CMRS competitor that otherwise has injected significant competition into the CMRS marketplace.

Nextel and Southern currently are in the midst of discussions regarding manual and automatic roaming on iDEN networks. Nextel continues to believe, based on discussions with Motorola, that manual roaming (as Nextel understands manual roaming and as it historically has been accomplished on AMPS cellular systems) is not possible on iDEN networks. Thus, Nextel and Southern are

<sup>&</sup>lt;sup>47</sup> Rosston Report at pp. 18-20.

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discussing whether a mutually beneficial roaming arrangement can be accomplished without negatively impacting customers on either system. Nextel is awaiting a mutually beneficial, technically achievable roaming proposal from Southern that includes concrete financial arrangements.

As explained by Dr. Rosston, imposing a roaming obligation as a condition to granting the proposed assignments would do nothing to address any of Southern's alleged problems. The request for a roaming condition is nothing more than an attempt to gain a commercial advantage in the CMRS marketplace through the regulatory process. Additionally, while imposing a roaming mandate would do nothing to address the alleged "competitive" issues raised by Southern, it could have an adverse impact on overall CMRS competition as Southern would be disincented to invest in new infrastructure and service buildout, and Nextel's ability to upgrade its own services could be adversely impacted. Thus, while the Commission has in the past placed conditions on mergers and license assignments, those conditions are intended to enhance competition; not adversely affect competition. Southern's proposed condition (i.e., an automatic roaming mandate on only Nextel) seeks to protect its own operations from competition at the expense of overall competition in the CMRS marketplace.

<sup>&</sup>lt;sup>48</sup> *Id.* at p.20.

<sup>&</sup>lt;sup>49</sup> *id.* at pp. 19-20.

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#### Conclusion

For the reasons discussed herein and in the attached Declaration of Dr. Rosston, Nextel respectfully requests that the Commission conclude that Nextel competes in the CMRS marketplace, that its acquisition of SMR spectrum must be considered in light of the positive competitive impacts the overall CMRS will result in that marketplace, and assignments of Motorola's 900 MHz licenses be expeditiously approved.

Sincerely

Robert S. Foosaner

Senior Vice President, Government Affairs

Adul S. Horan

cc: Thomas J. Sugrue

James D. Schlichting

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David Furth

Lauren Kravetz

Dan Grosh

Monica Desai

Susan Singer

John Branscomb

Michael Rosenthal, Southern Communications Services (via U.S. Mail)

Mary Brooner, Motorola, Inc.



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Report of Gregory L. Rosston

March 7, 2001

## Report of Gregory L. Rosston

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#### I. Introduction

My name is Gregory L. Rosston. I am Deputy Director of the Stanford Institute for Economic Policy Research at Stanford University. I am also a Lecturer in the Economics Department at Stanford University. I received my Ph.D. and M.A. in economics from Stanford University, and my A.B. with honors in economics from the University of California, Berkeley. My specialties in economics are industrial organization and regulation with an emphasis on telecommunications. I served at the Federal Communications Commission ("Commission" or "FCC") for three and one-half years as the Deputy Chief Economist of the Commission, as the Acting Chief Economist of the Common Carrier Bureau and as a senior economist in the Office of Plans and Policy. In these positions, I had significant involvement with the Commission's spectrum policy and auctionrelated issues. I have been the author or co-author of a number of articles relating to telecommunications competition policy and spectrum policy, including an FCC staff working paper on spectrum policy. I My Ph.D. dissertation studied the effects of FCC policy on the land mobile radio industry. I have also co-edited two books on telecommunications. A copy of my vita is attached as Exhibit A.

I have been asked by Nextel Communications, Inc. ("Nextel") to examine whether its proposed acquisition of 900 MHz spectrum licenses from Motorola is in the public interest and to evaluate the arguments raised by Southern Communications Services, Inc. ("Southern Line") in opposition to this transaction.

### A. Summary of Opinions

Denying the acquisition would harm the public interest by reducing the efficiency of a competitor in the marketplace, thereby harming consumers. A denial would represent a step backwards in spectrum policy and would be a narrow and misguided implementation of competition policy. The Commission should approve the transaction, thereby allowing spectrum to be used where it can provide the highest benefits to the public.

Southern Linc opposes the proposed acquisition using a narrowly defined trunked dispatch market. However, a wide variety of evidence demonstrates that dispatch is not a separate and distinct market, but rather one service that can be and is offered by Commercial Mobile Radio Services ("CMRS") providers. Nextel competes in a broad CMRS market with cellular, PCS, SMR providers and other radio providers. Any CMRS or private provider can provide dispatch services, such as Nextel's Direct Connect@, whether it operates in the cellular, PCS, SMR or other bands. Nextel's proposed acquisition of the Motorola licenses will allow it to better compete in the CMRS market and enhance competition in the delivery of wireless services.

In reaching this conclusion, I found the following to be useful:

<sup>&</sup>lt;sup>1</sup> G.L. Rosston and J. Steinberg "Using Market-Based Spectrum Policy to Promote the Public Interest," <a href="http://www.fcc.gov/Bureaus/Wireless/OPP/econ.html">http://www.fcc.gov/Bureaus/Wireless/OPP/econ.html</a> subsequently published in 50 Fed. Comm. L.J. 1 (1997).

- Southern Linc's opposition to the acquisition would essentially have the Commission mandate the spectrum in question be used for dispatch service only. This is not in the public interest. On the contrary, the public interest is maximized when spectrum policy recognizes that spectrum is fungible and that different services can be provided using many different bands.
- Nextel competes in a broad CMRS market. Southern Linc's arguments would preclude Nextel, the fifth or sixth largest CMRS provider, from acquiring the Motorola spectrum, but would allow any of Nextel's larger CMRS competitors to acquire the Motorola spectrum. There is no basis in antitrust economics for such a prohibition on the fifth largest firm in a market.
- Nextel will use the spectrum to provide more highly valued services than its
  current use, analog dispatch. Nextel's main product is an integrated mobile voice
  and data offering that includes dispatch functionality through the Direct
  Connect@ feature. Cellular and PCS providers are offering consumers similar
  integrated communications packages that include dispatch like features and are
  implementing technology to further enhance such offerings.
- Nextel's efficiency may be an important reason why Southern Linc objects to this transaction. To the extent that Nextel becomes a more efficient competitor, it forces all competitors (including Southern Linc) to compete more vigorously.
- Nextel typically has less spectrum than its cellular and PCS competitors. Nextel's
  acquisition of spectrum is an attempt to achieve some of the same economies of
  operation as its competitors, and should lead to increased competition in the
  CMRS market. Denying the proposed transaction would handicap Nextel's
  ability to compete with its cellular and PCS competitors.
- Many of Southern Linc's arguments that the acquisition is contrary to the public
  interest have been raised in opposition to prior Nextel spectrum acquisitions.
  Restricting output is a hallmark of anticompetitive behavior However, Nextel's
  use of spectrum from these acquisitions shows that it has significantly increased
  the efficient use of "SMR" spectrum and expanded output.
- Integrated services offered by Nextel and other CMRS providers prevent the exercise of market power in the "stand-alone dispatch" market defined by Southern Linc. In addition, consumers have numerous alternatives available for stand-alone dispatch services.
- Notwithstanding its arguments that the transaction would restrict competition, Southern Linc proposes approval for the transaction on the condition of giving it mandated roaming on Nextel's system. The roaming condition is unrelated to any of the alleged competitive issues Southern Linc raises and is therefore irrelevant

to a public interest determination on the proposed transaction. Furthermore, mandated roaming could create other inefficiencies.

The remainder of this declaration is organized as follows: Section II looks at the spectrum policy implications of the proposed acquisition; Section III examines the public interest benefits from the acquisition; Section IV analyzes the competitive effects of the acquisition on the CMRS market; Se&ion V analyzes the competitive effects of the acquisition on stand-alone dispatch service; and Section VI evaluates Southern Linc's roaming proposal.

#### II. Spectrum Policy Implications

## A. Southern Linc's Objections to the Proposed Acquisition

Southern Linc objects to Nextel's proposed acquisition of the Motorola licenses on the grounds that Nextel allegedly has the majority of spectrum that has historically been used for commercial dispatch provision. Southern Linc's analysis is flawed in two important ways. First, the 800 MHz SMR and 900 MHz SMR spectrum highlighted by Southern Linc is being used by Nextel to compete in the CMRS market. Second, dispatch service, such as Nextel's Direct Connect@, can be provided by any CMRS or private provider, and is not restricted to the 800 MHz SMR and 900 MHz SMR bands. Southern Linc ignores other spectrum allocations that are being used or could be used for the provision of dispatch service.

Southern Linc's arguments in opposition to Nextel's acquisition of the Motorola spectrum are essentially arguments that the Commission should mandate that the spectrum in question be used for dispatch service only. To assess this argument, I evaluate the public interest in such restrictions.

#### B. Benefits of a Flexible Spectrum Policy

In evaluating spectrum policy, the Commission is charged with maximizing the public interest. Over the past 10 years, the Commission has moved more toward a flexible approach to spectrum policy. This better allows licensees to meet the demands of consumers. This flexible approach is reflected in the broad service scope for PCS licensees and in other procedures like the removal of the dispatch prohibition on cellular licensees. The Commission has stated that it is important to continue this method of spectrum management to, among other things, "create new opportunities for increasing the communications capacity and efficiency of spectrum use by licensees."

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<sup>&</sup>lt;sup>2</sup> In re Eligibility for the Specialized Mobile Radio Services and Radio Services in the 220-222 MHz Land Mobile Band and Use of Radio Dispatch Communications, Report and Order, 10 FCC Rcd. 6280 (1995)

<sup>&</sup>lt;sup>3</sup> In re Principles for Promoting the Efficient Use of Spectrum by Encouraging the Development of Secondary Markets, Policy Statement, FCC 000-401, rel. Dec. 1, 2000 ("Secondary Markets Policy Statement") at para. 2.

Without this flexible approach to spectrum management, this proceeding would not be necessary because the SMR spectrum would be relegated to providing inefficient analog trunked and non-trunked dispatch services. In response to Nextel's (then Fleet Call) request to enhance the technology and service provided using its SMR licenses, the Commission issued a waiver that allowed Next el, Southern Linc and others to provide higher quality service to the public.<sup>4</sup>

Recently, a group of 37 economists concerned with spectrum policy (including me) submitted comments to the Commission in the secondary market proceeding to encourage the Commission to adopt a more market-based approach to spectrum policy than it has done to date. Among the restrictions we urged the Commission to relax were those restricting the ability of a licensee to choose what service to provide. Restrictions on service provision can have harm consumers because they prevent the low-cost, competitive provision of different services.

Many providers have changed the services they provide on given spectrum to respond to consumer demand. For example, MMDS providers originally provided one-way multichannel video services, but some are now providing two-way highspeed Internet access. Cellular spectrum was originally used for analog voice conversations and it is now being used for a family of digital voice, messaging and data communications services unforeseen when spectrum was initially allocated for cellular use. The Commission originally contemplated that the SMR spectrum would be used for a high-power, limited capacity, dispatch oriented service, but permitted providers to incorporate technological advances and respond to customer demand, so that now the SMR spectrum is used for high-capacity, low power digital voice and data services in competition with cellular and PCS providers.

Southern Linc argues that Nextel should not be allowed to purchase the Motorola spectrum and use it to provide higher value services because Nextel has a large share of SMR spectrum. A significant flaw in Southern Linc's logic is that simply because Sprint PCS has PCS spectrum, not SMR spectrum, it would be allowed to purchase the Motorola spectrum without any corresponding competition problems even though it has about 50% more usable spectrum than Nextel. This is true even though Sprint PCS provides services in the same relevant market, CMRS, as does Nextel. While there may be circumstances where the public interest is served by prohibiting a dominant firm from acquiring a resource, it is nearly impossible to imagine circumstances where the public interest is served by prohibiting the fifth or sixth largest firm (by capacity or subscribers) in a market from acquiring a resource, while allowing any of the top four firms to acquire the same resource and use it for the same purposes.

<sup>&</sup>lt;sup>4</sup> See Fleet Call, Inc., 6 FCC Rcd 1533 (1991)

<sup>&</sup>lt;sup>5</sup> "Comments of 37 Concerned Economists," In the Matter of Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, Feb. 7, 2001.

#### III. Public Interest Benefits from the Proposed Acquisition

### A. Nextel's Use of 800 MHz and 900 MHz Spectrum

Motorola currently uses the 900 MHz spectrum at issue to provide analog dispatch service to nearly 43,000 mobile units. Nextel's acquisition of the licenses will allow the spectrum to provide.more highly valued integrated services.

Nextel has put together its wireless system by spending more than \$5.5 billion over some 15 years of spectrum acquisitions and \$7 billion investment in network infrastructure. The vast majority of these acquisitions have been in the 800 MHz band. Over time, Nextel took conventional and trunked SMR analog dispatch systems and re-deployed the spectrum in its digital iDEN system. Through the conversion to digital technology and the use of a frequency-reuse cellular network architecture rather than inefficient, high-site analog systems, it has been able to increase capacity on these systems significantly.

While the Motorola licenses are in the 900 MHz band, they can benefit Nextel's system in at least two ways. First, Nextel has announced that it is working with Motorola to develop an integrated dual-band iDEN system that will span both the 800 MHz and 900 MHz frequencies. According to Nextel, this technology will be available for initial deployment in mid-2002. With this technology, a user will be able to transparently access frequencies across both bands in a single radio. Second, Nextel can use these channels to relocate other users from 800 MHz channels so that the other users have equivalent service capabilities and Nextel has the benefit of contiguous channels. Either of these solutions will allow Nextel to make efficient use of the spectrum by increasing capacity and by deploying the spectrum to its highest value use.

It is likely that Nextel will be able to use the Motorola spectrum more efficiently than other firms, thereby maximizing the public interest benefits of permitting the transaction. If there are economies of scope in the provision of wireless services, <sup>6</sup> then it is more efficient for a single firm to produce these services, even if different consumers purchase the different services. This might occur because of the need to construct towers, install radios, engage in marketing and customer acquisition, etc. On the demand side, if consumers prefer bundles of services, then it also may be beneficial to allow a single firm to put the package together for consumers. For example, some customers may want wireless voice and data from the same provider so they can use a single wireless device for their mobile communications or so they only have a single point of contact. Both supply and demand side economies of scope can be important sources of efficiency.

Nextel's efficiency may be an important reason why Southern Linc objects to this transaction. To the extent that Nextel becomes more efficient, it becomes more difficult for all competitors (including Southern Linc) to attract customers. They have to compete against a lower cost, higher value service offering. Generally antitrust authorities are

<sup>&</sup>lt;sup>6</sup> Economies of scope mean that it costs less for provision of two services by a single firm than provision of the two services separately by two different firms. Formally, C(A,B) < C(A) + C(B) for A and B in the relevant range.

skeptical of complaints about mergers and acquisitions lodged by horizontal competitors because an exercise of market power will generally lead to an increase in market price benefiting the competitor. However, an increase in efficiency will harm the competitor and lead to complaints that are not in the public interest.

Moreover, the proposed acquisition does not foreclose any partner or vertical supplier for Southern Linc. Southern Linc's customers do not roam onto the existing stand-alone Motorola dispatch systems today. Thus, the acquisition will not foreclose any Southern Linc roaming.

Leaving the Motorola spectrum to inefficient 900 MHz stand-alone analog systems scattered across the country will not provide much competition to Southern Linc. But using it to bolster Nextel's advanced service offerings will benefit consumers and harm competitors by forcing them to invest more in serving consumers.

#### B. Spectrum is a Key Resource for CMRS Competitors

Nextel has used its spectrum to establish a national footprint and become a major competitor in the CMRS market, where it offers an integrated package of mobile interconnect, dispatch, wireless Internet and other services. In the CMRS market, Nextel competes directly with the integrated service offerings of Sprint PCS, AT&T Wireless, Cingular Wireless, Verizon Wireless, VoiceStream and others. Nextel has been an innovative competitor in the CMRS market, offering enhanced dispatch capabilities, billing options (no roaming charges, per second billing), and new features (such as wireless Internet services) that have spurred competitive service offerings from other CMRS providers.

Spectrum is a critical resource for competition in the CMRS market. Nextel is limited in spectrum compared to its main rivals; it has on average about 20 MHz of noncontiguous spectrum in each geographic area, whereas its major competitors have significantly more spectrum. <sup>7</sup> Table 1 shows the total spectrum (in MHz) used by the largest CMRS providers for the major urban areas analyzed by Southern Linc. <sup>8</sup> The table considers 120 MHz of PCS spectrum, 50 MHz of cellular spectrum, 26.5 MHz of 800 MHz SMR spectrum (including 430 SMR and General Category channels and 100 business and industrial/land transportation pool channels), 5 MHz of 900 MHz SMR spectrum, 1.55 MHz of 220 MHz spectrum, and 6 MHz of 700 MHz Guard Band spectrum.

Nextel controls only a small fraction of the total CMRS spectrum, and has no more than the fifth most spectrum in any geographic area. For example, Verizon has 45 MHz in 5 of the nine major urban areas in Table 1. AT&T has 30 MHz or more in every one of the 9 areas. Nextel is not close in any market, with a maximum of 23.9 MHz noncontiguous spectrum. Nextel's acquisition of Motorola's 900 MHz licenses is an attempt by Nextel

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<sup>&</sup>lt;sup>7</sup> The lack of non-contiguous spectrum apparently makes some technologies such as wide-band CDMA unavailable.

<sup>&</sup>lt;sup>8</sup> Affidavit of Michael G. Baumann and Stephen E. Siwek, February 8, 2001.

to achieve some of the same economies of operation as its competitors, and should lead to increased competition in the CMRS market.

The participation of Nextel's major competitors in the recent C & F block re-auction (auction no. 35) provides some market evidence that CMRS providers highly value additional spectrum. For example, three companies, Verizon, AT&T Wireless (through its affiliate Alaska Native Wireless), and Cingular (through its affiliate Salmon PCS) all were bidding for the three 10 MHz PCS licenses in New York. Verizon apparently wanted (and won) two of the 10 MHz blocks to complement its 25 MHz cellular license in the area. This gives Verizon a total of 45 MHz. At the same time, AT&T and Cingular each wanted a single 10 MHz license to complement the 10 MHz PCS license each already has in the area; in AT&T's case to add to the 25 MHz cellular license it holds in New York. As a result, the bidding for the New York licenses went over \$2 billion for each of two 10 MHz licenses as each of the three bidders wanted a total of 20 MHz of PCS spectrum. 9

#### C. Public Interest Benefits of Nextel's Prior Spectrum Acquisitions

Many of Southern Linc's arguments that the acquisition is contrary to the public interest have been raised in opposition to prior Nextel spectrum acquisitions. However, Nextel's use of spectrum from these acquisitions shows that it has significantly increased the efficient use of SMR spectrum and expanded output rather than restricted output, which would be a hallmark of anticompetitive behavior. Nextel has taken underutilized spectrum, invested significantly in technology, substantially increased the number of users supported on the spectrum, and given those users enhanced functionality.

Nextel's digital iDEN technology alone-without regard to the efficiencies gained through multiple-site channel re-use-increases spectrum use by a factor of six on Nextel's dispatch service and by a factor of three on its interconnected mobile telephone service. Nextel has also invested substantial money in converting its systems to a low power cellular network architecture to increase capacity further. <sup>10</sup> This increase in efficiency has led to much greater use of the 800 MHz spectrum. Prior to the introduction of digital technology, the entire 800 MHz SMR industry had about two million users. <sup>11</sup> Today, Nextel alone has nearly seven million users <sup>12</sup> and there are almost 1.3 million additional SMR users on these bands outside of Nextel. <sup>13</sup>

<sup>&</sup>lt;sup>9</sup> The third 10 MHz license sold for "only" \$1.5 billion because it was a protected license that only "small" businesses could bid upon. But bidders were rational in their substitution between licenses as "small" businesses received a 25% bidding credit for the non-protected licenses and the difference between the sales price of the protected license and non-protected licenses is explained by the bidding credit and bid increment.

<sup>&</sup>lt;sup>10</sup> According to Nextel, it had 12,700 cell sites nationwide as of Dec. 31, 2000.

<sup>&</sup>lt;sup>11</sup>See Implementation of Section 6002(g) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Communication Mobile Services, First Report 10 FCC Rcd 8844 (1995) at para. 35, citing "The State of the SMR and Digital Mobile Radio" (1994 and 1995) at p. 138, EMCI, Jan. 1995.

The number of subscribers utilizing a given band of spectrum is one measure of output. Output can also be measured by the average minutes of use by subscribers. The available evidence suggests that Nextel subscribers use more minutes and higher quality minutes than do stand-alone dispatch subscribers. Nextel customers average 480 minutes of use per month. Approximately 53% of these minutes are used for interconnected mobile service, on which Nextel uses 3: 1 compression, the remainder, 47%, are used for dispatch services where Nextel uses 6: 1 compression. We can use this difference in compression to convert interconnected minutes of use into their equivalent in terms of dispatchquality minutes. Because interconnected calls use twice the compression as dispatch, the effective number of dispatch quality minutes of me per average Nextel user is (.53x480x2) + (.47x480) = 734 minutes.

Strategis provides some information about the usage behavior for stand-alone dispatch users. <sup>15</sup> They claim that 60% of pure dispatch users make more than 100 calls per week. The typical duration of dispatch calls is very low, presumably much less than a minute, but for this purpose, if we assume that the typical length is one minute and the overall average is 100 minutes, the typical dispatch user would have about 433 dispatch minutes a month. This is less than the 480 minutes reported by Nextel and much less than the 734 quality-adjusted minutes calculated above.

Finally, it is important to consider whether consumers value the increased capacity and quality Nextel has made available for CMRS service. The evidence is that consumers are willing to pay for the increased quality by subscribing in substantially larger numbers. Gale and O'Brien develop a model to analyze the welfare effects of capacity reallocation. <sup>16</sup> They examine a situation where a firm acquires "dual-use" capacity — capacity that can be used to provide either of two services. Their model assumes that the acquiring firm has the ability to raise prices in one market by redirecting capacity to another market. Even under these assumptions (that do not hold here), they find welfare benefits from the shift of capacity to a higher value service. Shifting capacity to a higher value use is exactly what Nextel proposes to do in the current acquisition.

#### Iv. Competitive Effects in the CMRS Market

Southern Linc bases its arguments against the proposed acquisition on a narrowly defined trunked dispatch market. However, a wide variety of evidence demonstrates that dispatch

<sup>&</sup>lt;sup>12</sup> See "Nextel Reports Record Year 2000 Financial Results," rel. Feb 16, 2001, <u>www.nextel.com</u> reporting 6.68 million domestic users as of Dec. 31, 2000.

<sup>&</sup>lt;sup>13</sup> The Strategis Group estimates 1,369,000 analog users on the 800 MHz band in 2000. Nextel has approximately 86,000 analog users on the 800 MHz band. The Strategis Group "The State of the SMR Industry: Nextel and Dispatch Communications" (Strategis Report) Sept. 2000, p. 4.

<sup>&</sup>lt;sup>14</sup> Strategis Report, p. 51.

<sup>15</sup> Strategis Report, p. 66.

<sup>&</sup>lt;sup>16</sup> Gale, I. And O'Brien, D. "The Antitrust Implications of Capacity Reallocation by a Dominant Firm," Journal of Industrial Economics, *forthcoming*.

is not a separate and distinct market, but rather one service that can be offered by CMRS providers, and that Nextel competes in a broad CMRS market with cellular, PCS, SMR providers and other radio providers. Indeed, any CMRS or private provider can provide dispatch services, such as Nextel's Direct Connect@, whether they are operating in the cellular, PCS, SMR or other bands. Nextel's proposed acquisition of the Motorola licenses will allow it to better compete in the CMRS market.

## A. Nextel Competes in a Broad CMRS Market

A first step in analyzing the competitive effects of a merger or acquisition is to define the relevant market. The Department of Justice/Federal Trade Commission Merger Guidelines framework for defining a relevant market focuses on demand substitution, i.e., the ability of consumers to substitute away from products that experience price increases. The focus is on the demand for the products in the marketplace, and not on the underlying technical characteristics of the products.

The guidelines start with a narrowly defined product and ask what would happen if a hypothetical monopolist of that product imposed a "small but significant and non transitory increase in price." If consumers can substitute to other products in such numbers that a price increase would not be profitable for the hypothetical monopolist, then the product group is expanded to include substitute products. The market definition process continues with expanded groups of products until a group of products is identified such that a hypothetical monopolist could profitably impose a hypothetical price increase.

Several features of the DOJ/FTC Guidelines approach are relevant for assessing the competitive effects of Nextel's proposed acquisition of the Motorola licenses. First, the relevant market should be defined based on the services, features and prices available to wireless consumers, and not on whether the spectrum used to provide the service was originally denominated and licensed as SMR, cellular or PCS spectrum. Second, the relevant market definition should account for the technological convergence and the removal of regulatory barriers that have blurred the distinctions between CMRS service providers using different parts of the spectrum. Third, since spectrum capacity is fungible and can be used to provide different services based on consumer demand, spectrum capacity is the appropriate metric for analyzing the CMRS market.

In a variety of proceedings, Congress, the Commission and the DOJ have recognized that all CMRS services are competitive or potentially competitive, and are, therefore, part of the same relevant market. Congress originally created the CMRS category in 1993 to recognize the competition between the different "categories" of mobile service providers and to encourage more competition among them by limiting regulatory disparities in the cellular, PCS and SMR rules and providing a level regulatory playing field. <sup>17</sup> Since then, there has been substantial convergence in the services and features offered by providers

<sup>&</sup>lt;sup>17</sup> Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103 -66, 107 Stat. 312 (1993)

using the cellular, PCS, SMR and other spectrum. The Commission has reported on the significant competition in the CMRS market in its annual wireless competition report."

## B. Nextel's Integrated Mobile Telephone/Dispatch Service

As discussed above, Nextel has built its iDEN network by using spectrum originally denominated as "SMR" and traditionally associated with dispatch services. Today, Nextel's main product is an integrated mobile voice and data offering that includes many functions in addition to dispatch functionality through the Direct Connect@ feature. Nextel competes with other CMRS providers by offering an integrated solution for Workgroup communication that significantly exceeds the functionality of a traditional dispatch service. Product features include one-to-many dispatch messaging, one-to-one private network interconnect, access to the PSTN, instant conferencing, paging, two-way text messaging, voice mail, call forwarding, POP3 compatible mobile e-mail, intemet service, intemet portal, and data applications including enterprise data applications-all accessed from the user's handset. Nextel has added a valuable service by bringing together purchasers and suppliers in certain industries within a single communications network-an initiative known as Nextel Business Networks.

By offering a broad wireless business solution, Nextel has been able to target "white collar" mobile workgroups, which have not been the typical users of traditional dispatch services, <sup>19</sup> as well as traditional dispatch mobile workgroups. Consistent with this targeting, Nextel is bringing to market advanced new features, created through partnerships with application software providers (such as ActSoft, Datatrac, Intermec, Airput and ClickSoftware) and online content providers (such as MSN and Amazon.com). <sup>20</sup> These new features will bring job tracking, scheduling, fleet management, employee timesheet, and specialized content functionality to their users phones. In addition, Nextel is partnering with personal data management application providers (such as Wireless Knowledge and IBM) to bring calendar, contact, and e-mail applications to their phones. <sup>21</sup> Nextel also encourages development of a wide range of next-generation wireless enterprise applications for businesses ranging from medical services to the construction industry through the Nextel Developers Program, which currently consists of more than 200 organizations. <sup>22</sup> Traditional dispatch represents only a fraction of Nextel's current and evolving product functionality.

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<sup>&</sup>lt;sup>18</sup> In the Matter of Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Service, rel. Aug. 18, 2000 ("FCC Fifth Report").

<sup>&</sup>lt;sup>19</sup> Strategis Report, p. 53.

<sup>&</sup>lt;sup>20</sup> Nextel Press Releases, Feb. 5, 2001, Feb 1, 2001, and Sept. 6, 2000.

<sup>&</sup>lt;sup>21</sup> Nextel Press Release, June 16, 2000, Sept. 25, 2000.

<sup>&</sup>lt;sup>22</sup> Nextel Press Release, June 16, 2000.

#### C. Integrated Mobile Telephone/Dispatch Services of Other CMRS Providers

Nextel's integrated package of mobile telephone and dispatch functions has pushed cellular and PCS providers to offer consumers similar integrated communications packages that include dispatchlike features. There are no regulatory or technical constraints preventing cellular or PCS providers from offering dispatch services. These providers can and do offer dispatch functionality in a number of ways. These include free or low-cost mobile-to-mobile or group calling plans, free or low-cost mobile-to-fixed line calling plans, product enhancements such as conference calling and speed dialing, handset features such as Qualcomm's Q-Chat, or network/handset programming features such as Ericsson's TDMA Pro product. These products and features can be used to achieve all of the functionality associated with traditional two-way radio/dispatch services along with mobile "cellular" service.

At present, Sprint, AT&T, Cingular and Verizon all market plans that allow unlimited free wireless-to-wireless communications among defined groups of up to 200, or (in the case of Cingular and Verizon) to all mobile customers in the local area. By using flat-rate pricing, these calling plans have erased one of the characteristics that traditionally defined a dispatch service: flat-rate (as opposed to per-time-unit) pricing. AT&T's "group calling" allows unlimited free calling between mobile units and up to five fixed-lines, thereby providing the base-station functionality that is also characteristic of dispatch services (note that a "mobile" unit could also function as a "base station").

These products are being aggressively developed and marketed by cellular and PCS manufacturers as a replacement for dispatch. AT&T, for example, markets its group calling option as follows: "With the quality, performance, security, and coverage of AT&T Group Calling, there's no longer a need to connect your Workgroup with two-way radios or pagers. .." AT&T describes its group calling feature as "The Next Generation of Workgroup Communications", and states: "You can keep track of your delivery crew, field technicians, sales force, and dispatch personnel... This is ideal for companies with critical operations that are managed from bases, hubs, or offices." 24

Equipment vendors are developing new technologies that would allow CMRS providers other ways to offer dispatch features. For example, Qualcomm is developing its Q-Chat product to provide dispatch capability over cellular and PCS systems. In addition, industry analysts are discussing wireless data as a viable alternative to voice communications. As noted by Strategis, wireless data providers are offering fleet management, automated scheduling and dispatch capabilities to vehicle fleets. Thus, even if Southern Linc were correct and the subject acquisition resulted in an artificial increase in dispatch prices, then additional wireless capacity and technology investment could be redirected to provide dispatch services and counter the artificial increase in dispatch prices. Given the actual and potential competition that Nextel faces from

http://www.attws.com/business/smcorp/explore/plans\_phones/grp\_calling/index.shtml,

<sup>&</sup>lt;sup>24</sup> http://www.attws.com/business/smcorp/explore/plans\_phones/grp\_calling/extend\_wkgrp\_comm.shtml.

<sup>&</sup>lt;sup>25</sup> Strategis Report, p. 8

cellular and PCS providers, any artificial price increase would be unprofitable and unsustainable, and highly unlikely to be undertaken to begin with.

### D. Competition for Nextel's Integrated Service Offering

Southern Linc fundamentally mischaracterizes Nextel's business model by portraying its products as competing primarily in the dispatch market. The majority of calls on the Nextel network are interconnect, not dispatch. <sup>26</sup> In a TD Marketing Research, Inc. survey of new Nextel customers (commissioned by Nextel), only 19% were previous two-way radio customers, whereas 82% were previous cellular customers. <sup>27</sup> According to the TD Marketing Research study, when new Nextel customers were asked what wireless service providers they had considered, the top four mentions were cellular providers: Sprint PCS, AT&T, Verizon, and CellularOne. <sup>28</sup> Similarly, in a survey of customers who left Nextel, Pacific Marketing Research found that only 2% replaced their Nextel service with two-way radio, whereas 68% replaced their service with cellular/PCS.

The fact that Nextel gains its customers from (and loses them to) cellular/PCS as opposed to dispatch providers is strong evidence that Nextel primarily competes in the broader CMRS market. Among the 68% of customers who replace their service with cellular/PCS almost half say that their new plan has either a special price for mobile-to-mobile or that mobile-to-mobile is free. Contrary to Southern Linc's assertion, consumers are clearly aware of the dispatch feature offerings provided by the cellular and PCS manufacturers.

Southern Linc cites evidence from investment analysts who state that Nextel customers generally do not have alternatives.<sup>30</sup> This is not true in general, and it is certainly not true for the marginal customers that Nextel is gaining from (and losing to) cellular and PCS providers. But, even if Nextel's customers did not have alternatives, that would not be evidence that pure dispatch service is a separate market. In fact, Nextel's service is not pure dispatch and only a fraction of its customers use dispatch only. So conclusions about a pure dispatch market based on evidence from analysts studying a bundled market are flawed at best.

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<sup>&</sup>lt;sup>26</sup> Strategis estimates that 53% of Nextel's airtime minutes are interconnect. According to Nextel, that percentage continues to increase over time.

<sup>&</sup>lt;sup>27</sup> TD Marketing Research, Inc. "Nextel New Customer Welcome Survey" Third Quarter 2000, p. 49. Strategis also reports that the vast majority of Nextel's new customers in the first half of 2000 were former cellular telephone users. Strategis Report, p. 49.

<sup>&</sup>lt;sup>28</sup> TD Marketing Research, Inc. "Nextel New Customer Welcome Survey" Third Quarter 2000, p. 44.

<sup>&</sup>lt;sup>29</sup> These exit interviews were conducted in November 2000. (p.16 of internal Nextel presentation, dated December 15, 2000).

<sup>&</sup>lt;sup>30</sup> Bauman and Siwek Affidavit, pp. 15-17.

Southern Linc discounts the dispatch features provided by cellular and PCS providers because they are limited to 30 users on a one-to-many call. Not only is 30 a large number-with 30 or more users, it would be very possible to set up a private system-but the vast majority of Nextel calls are one-to-one. Strategis reports that only 2% of Nextel's calls are one-to- many. Presumably only a minute number of those calls involve more than 30 users at a time. As a result, cellular and PCS providers offer today dispatch and interconnect features that could meet the needs of at least 98% of Nextel's calls and probably closer to 100%.

Nextel's integrated package of data, interconnected voice and Direct Connect services faces competition from a variety of different services: conventional cellular and PCS, new PCS and cellular service offerings targeted at the same customers, and more traditional dispatch offerings. All of these services provide competitive discipline in the CMRS market so that there is no likelihood of anticompetitive price increases.

## E. Impact of the Proposed Acquisition on the CMRS Market

An analysis of Nextel's share of the CMRS market and market concentration in the major markets analyzed by Southern Linc shows little potential for anticompetitive behavior on Nextel's part. Table 2 shows spectrum holdings, HHIs and changes in HHIs for the CMRS markets in the nine regions analyzed by Southern Linc. Nextel is an important competitor in these markets, but only the fifth or sixth largest in terms of spectrum capacity, with a market share ranging from 9% to 11%.

With 209 MHz of total spectrum available to offer CMRS services in each market, Nextel's proposed acquisition of from 0.25 MHz to 1 MHz from Motorola will have a very small effect on Nextel's share and market concentration. None of the HHIs in these markets following the transfer of licenses from Motorola to Nextel exceed 1,800, and the delta HHIs (i.e. the difference between the pre-transfer HHIs and the post-transfer HHIs) are negligible.

## V. Competitive Effects in the Dispatch Market

As discussed above, a preponderance of evidence demonstrates that the relevant market for analyzing the proposed acquisition is the CMRS market. Southern Linc, however, argues that the relevant market for analyzing the proposed acquisition is trunked dispatch. To address the allegations raised by Southern Linc, in this section I examine competitive effects in Southern Linc's purported relevant market of dispatch service. My analysis demonstrates that there are numerous current alternatives for dispatchonly customers. Accordingly, even using Southern Linc's proffered overly narrow market definition, the Commission should approve the transaction.

<sup>&</sup>lt;sup>31</sup> Comments of Southern Linc, submitted Nov. 20, 2000 in DA 00-2352, In re Motorola, Inc.; Motorola SMR, Inc., and Motorola Communications and Electronics, Inc. Applications for Consent to Assign 900 MHz SMR Licenses to FCI 900, Inc. ("Southern Motorola Comments") at pp. 5-6.

<sup>32</sup> Strategis Report, p. 50.

#### A. Competition from CMRS Providers

As discussed above in section IV.A, CMRS providers can and do offer dispatch features as part of integrated services. Nextel and its CMRS competitors are developing new integrated interconnect, data and dispatch services, rather than investing in the provision of pure stand-alone dispatch service. Southern Linc asserts that firms offering integrated services do not provide competitive pressure for the stand-alone dispatch market. Simply because a company provides additional features does not mean that its products do not compete with more spartan offerings. There are lots of examples where producers develop new products with additional features that compete with standalone products. For example, multi- function printer/fax/copier/scanners provide competition for standalone printers, copiers and scanners. Intel's 386 chips provided significant competition for the older 286 chips. Ignoring the competition from advanced technology and features might lead one to conclude that automobile manufacturers provided no competition for buggy manufacturers.

Nextel is trying to attract, and is attracting, customers who generally have a number of other competitive options. As discussed above, the vast majority of Nextel's new customers in the first half of 2000 previously used cellular telephones. As a result, Nextel has to compete with cellular and PCS providers to acquire customers through features, coverage and price. Another 10% of Nextel's new users were new to wireless and presumably chose between all available options. Only 5% of Nextel's new customers used mobile radio (i.e. dispatch). As discussed below, these customers have choices as well. But even if they did not, since they account for such a small fraction of the new customers, Nextel's pricing plans must be targeted to get the bulk of customers. In other words, these customers are "protected" by the purchasing habits of other customers.

Cellular providers, PCS providers and Nextel all put pressure on analog dispatch providers. Indeed, Strategis reports that 27% of analog dispatch churn results from competition from cellular/PCS/Nextel.<sup>35</sup>

Moreover, nothing prevents consumers from subscribing only to Nextel's Direct Connect@ service. At year end 2000, Nextel had 783,000 mobile units subscribe only to its dispatch service. Direct Connect® is a significant improvement over traditional analog dispatch, because it expands the typical dispatch service area, uses the spectrum more efficiently, provides higher voice quality and provides extra security.

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<sup>&</sup>lt;sup>33</sup> Strategis Report, p. 49.

<sup>&</sup>lt;sup>34</sup> It is well recognized in antitrust analysis that if a producer were unable to discriminate between different types of customers and desires to attract those with alternatives because that group is significantly larger than the group without alternatives, then the small group would be protected from artificially high prices.

<sup>&</sup>lt;sup>35</sup> Strategis Report, p. 28.

#### **B.** Stand-Alone Dispatch Alternatives

Pure dispatch may be a useful service, but Nextel's iDEN service and other integrated services are leading to a diminution in the number of customers demanding dispatchonly services.<sup>36</sup> Nevertheless, there are numerous alternatives for stand-alone dispatch. First, private radio competes with commercial dispatch services, because users have several choices: maintaining a private radio network, contracting for a private network, contracting for service on a private network or subscribing to a commercial service. Virtually all of Motorola's customers would qualify for licenses in the Business Pool or as Business users so that they could use the same spectrum that Southern Linc has incorporated into its SMR service (and ignored in their counting of spectrum available to serve dispatch customers). Second, there are more than 16 million private radio users in the 150 MHz and 450 MHz private radio bands<sup>37</sup> and equipment is easily available for use on those bands. The "refarming" that will take place in these bands over the next few years will increase capacity at the same time the projected number of users is declining. This means that there should be additional capacity available to provide dispatch or other services on the 150 MHz and 450 MHz bands. Third, the 220 MHz band provides some dispatch service, is expected to provide more in the future, and to the extent that there is more demand for dispatch service, the equipment manufacturers and license holders in this band will have greater incentives to provide service more rapidly.

Fourth, the Commission recently auctioned the 700 MHz "Guard Band" spectrum that will provide more opportunities for the provision of dispatch service. Since the Commission's rules for the 700 MHz Guard Band preclude the use of a cellular-like architecture, the guard band spectrum may be used for exactly the type of dispatch service that Southern Linc envisions. Last year, the Commission auctioned licenses for two MHz and four MHz blocks throughout the country. Nextel won a large number of the four MHz licenses, including all of the four MHz licenses in the nine major urban areas analyzed by Southern Linc. However, the Commission requires that at least half of the spectrum be leased to nonaffiliated entities. This means that even though Nextel acquired the license to four MHz in many areas, at least two MHz of that spectrum will be used by nonaffiliated entities. Nextel won none of the two MHz licenses so those are also available for use. That means that a total of at least four MHz will be available to non-Nextel parties in every area. Four MHz is much more than the spectrum at stake in this transaction (a maximum of 1 MHz in any one geographic area).

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<sup>&</sup>lt;sup>36</sup> Strategis estimates that the number of private dispatch users will decrease by 1 million over the next four years. Strategis Report, p. 65.

<sup>&</sup>lt;sup>37</sup> FCC Fifth Report, p. 69.

<sup>&</sup>lt;sup>38</sup> Access Spectrum, Dominion 700, and Pegasus Guard Band won the two MHz licenses in these regions.

<sup>&</sup>lt;sup>39</sup> It should be noted that in many areas, there are incumbent television broadcasters so this spectrum may not be usable right away.

## C. Southern Linc's Analysis Overstates Concentration in the Dispatch Market

Southern Linc bases its competitive analysis of the proposed acquisition on market concentration as measured by channel pairs in the 800 MHz SMR, 900 MHz SMR and 220 MHz bands. This might be an acceptable method for analyzing competitive effects in a regulatory regime where 800 MHz SMR, 900 MHz SMR and 220 MHz spectrum were mandated to be used for dispatch, and where no other spectrum could be used for dispatch services. However, in the current environment where spectrum is fungible and can be redirected to its highest valued use, Southern Linc's methodology does not provide a meaningful or reliable indication of the competitive effects of the acquisition.

Even if we accept Southern Linc's definition of a dispatchonly market, Southern Linc's analysis provides an erroneous description of "concentration." First, Southern Linc significantly over counts Nextel's position in the provision of dispatch service. As discussed above, it is incorrect to exclude from this analysis spectrum capacity held by cellular and PCS providers. If, however, Southern Linc chooses to do that, it should also exclude the spectrum capacity held by Nextel that is used for purposes other than dispatch services (and used for the same purposes as the excluded cellular and PCS spectrum). Since only 47% of Nextel's minutes are dispatch and the compression ratio is 6: 1 for dispatch and 3: 1 for interconnect, then only 0.47/(0.47+2(0.53))=3.1% of Nextel's capacity is used for dispatch and should be included in Southern Linc's concentration analysis.

Southern Linc also excludes the PCS spectrum at 1.9 GHz because it claims those frequencies are not substitutable for the spectrum at 800 and 900 MHz. <sup>40</sup> While it is true that higher frequencies propagate over a somewhat shorter distance than 800 MHz frequencies, they are still substitutable. For example, few would dispute that PCS providers compete with cellular providers who use the 800 MHz band. The propagation characteristics may preclude a PCS operator from using its spectrum for a wide-area single tower system, but that is not the service being provided by Nextel or Southern Linc. Both operate multiple site systems similar to those of 1.9 GHz PCS providers. Yet, Southern Linc includes in its calculations the entire spectrum Nextel uses to operate its iDEN system while excluding all PCS and cellular spectrum. Southern Linc's analysis also excludes several other alternatives for dispatchonly service: the 450 MHz spectrum used for private radio, and the recently auctioned 700 MHz guard band spectrum.

Finally, Southern Linc does not account for Nextel's 800 MHz spectrum holdings correctly. There are a total of 530 channels available in each market: 200 upper band channels, 150 lower band channels, 80 interleaved SMR channels, and 100 Business and Industrial/Land Transportation pool channels. In counting Nextel's usable 800 MHz channels in each market, Southern Linc includes all Nextel's channel holdings, including

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<sup>&</sup>lt;sup>40</sup> Southern Motorola Comments at pp. 6-7.

<sup>&</sup>lt;sup>41</sup> Fewer channels are available in the U.S. – Canada and U.S. – Mexico border areas due to allocation of the channels among the two countries. See 47 CFR § 90.619(b).

its holdings of business and industrial/land transportation channe ls. <sup>42</sup> However, Southern Linc's calculation assumes only 430 total channels available in each market rather than the correct total of 530. In addition, Southern Linc uses the results of the 800 MHz overlay auctions rather than the actual channel counts, overstating the number of channels that Nextel controls. This occurs because there are many areas where Nextel has the overlay license, but others have site-specific licenses that the overlay licensee is forced to protect or relocate to equivalent spectrum. <sup>43</sup> In either case, the incumbents need to be counted as they provide service and will have the opportunity to provide service in the long run.

When I redo Southern Linc's analysis to: 1) include only the spectrum that Nextel uses for dispatch calls; 2) include 450 MHz and 700 MHz spectrum; and 3) properly account for 800 MHz spectrum, the results suggest that even within the artificially narrow market definition proposed by Southern Linc, the pre-transfer and post-transfer HHIs are not large enough to conclude that Nextel possesses market power or that the transaction would cause serious concern. Table 3 shows that for the nine major urban areas analyzed by Southern Linc all of the HHIs are less than 800 and the delta HHIs do not exceed 60.

Even these calculations overstate concentration in the dispatch market. First, these calculations do not include any of the bandwidth used by cellular or PCS providers for the provision of dispatcklike services. Adding the spectrum used for "mobile-to-mobile" service would reduce the delta HHIs arising from the transaction. Second, these calculations exclude certain spectrum that can be used for offering dispatch services: 20 MHz of spectrum from 150 – 170 MHz and 12 MHz spectrum from 470 – 5 12 MHz that was reallocated from television channels 14-20 in major cities. Including this spectrum, which can be used for private radio, would reduce market concentration and the delta HHIs arising from the transaction.

Finally, as noted in the DOJ/FTC Merger Guidelines, concentration statistics are only a first step in analyzing the competitive effects of a merger or acquisition. As discussed above, even in the unlikely event that Nextel attempted to charge supra-competitive prices for dispatch services, there are numerous opportunities for competitive entry into the provision of dispatch services, and such entry would thwart any attempted price increase. Because of the many providers and potential providers of dispatch service, there are no competitive concerns with Nextel's proposed acquisition of Motorola's 900 MHz licenses.

While this section has analyzed the competitive effects in a hypothetical dispatch market and shown there are no competitive concerns for dispatch customers, the analysis does not affect my earlier conclusion that the appropriate relevant market includes all CMRS spectrum. All CMRS spectrum can be used to provide dispatch (and interconnect, data,

<sup>&</sup>lt;sup>42</sup> Baumann and Siwek Affidavit, Table EI 2.1

<sup>&</sup>lt;sup>43</sup> In the upper 200 channels, the overlay license winner has the right to relocate the incumbent licensees or to let them remain and protect them from interference. In the lower 80 and 150 general category channels, the auction winner must protect the incumbents and does not have relocation rights.

etc.) just like the spectrum Nextel, Southern and Motorola use, and therefore, all of the spectrum should be included in the same relevant CMRS market to analyze this transaction.

### VI. Roaming Analysis

Southern Linc has stated that instituting a roaming requirement on Nextel alone would mitigate the concerns Southern Linc claims arise from the merger. There are two significant problems with this condition. First, a roaming requirement is not related to the transaction at hand nor to the alleged harms raised by Southern. Second, instituting a roaming requirement on Nextel alone could cause competitive disincentives that would harm consumers. An additional problem is that it would saddle the fifth or sixth largest competitor in the CMRS marketplace with a requirement that no other provider faces. 44

Southern Linc claims that the Motorola transaction would increase concentration in the dispatch market by removing a competitive dispatch provider. As I understand it, Southern Linc's request for roaming would only enable its subscribers to roam onto Nextel's network for interconnected calls. None of Nextel's roaming partners have the ability to roam with dispatch calling features. Nor can Nextel's customers use their dispatch service seamlessly on their partners' systems. In fact, a Nextel customer cannot even roam within the Nextel system for dispatch services. For example, a Nextel customer living in Chattanooga, Tennessee can use his dispatch service in all of Nextel's coverage areas within Tennessee, and he can even use it into portions of Northern Georgia. However, as he travels south in Georgia toward Atlanta, he can no longer use his dispatch service and custom calling groups because he has moved into a different Nextel dispatch system, and the iDEN network on which Nextel provides its services is unable to support this kind of roaming.

If Southern Linc wants to provide a nationwide interconnected service, then there are many possible avenues. It could put together a nationwide system like AT&T Wireless, Sprint PCS, Verizon, Cingular, Nextel, and VoiceStream. It has the option of striking roaming deak with any or all of these or other providers like others have. Although I am not a technical expert on roaming, Southern Linc's claim that Nextel is the only viable roaming partner rings hollow. First, Southern Linc points to Nextel's international roaming arrangements in its petitions, <sup>45</sup> but ignores the fact that Nextel's customers must purchase the i2000 phone, a dual-band, dual-mode phone, to use these foreign systems. This phone works on iDEN systems in the U.S. and on 900 MHz GSM systems abroad. In addition many big PCS and cellular companies routinely sell (and subsidize) dual and tri mode and dual band phones for their customers, enabling operations across 800 MHz and 1.9 GHz frequencies. This is so that their customers can have the roaming advantages they demand in the competitive CMRS marketplace.

<sup>44</sup> In this analysis I do not address network differences or other technical issues associated with roaming.

<sup>&</sup>lt;sup>45</sup> Comments of Southern Linc, filed Jan. 5, 2001 in "In re Automatic and Manual Roaming Obligations Pertaining to Comm. Mobile Services", WT Docket No. 00-193, at pp. 12-13.

Even if the Commission were to institute a roaming rule, it would soon be asked to weigh in on the price for roaming if Southern Linc really had no alternative. Absent price regulation, Nextel would be free to charge whatever price it wanted (if Southern Linc really had no competitive alternative). Presumably Southern Linc would be unhappy with this result and would complain to the Commission (if lawyers fees were less than the expected gain from protesting).

Usually, contracts between companies are the result of negotiation and mutually benefit both parties. In this case, Nextel would gain access to a small area Southern Linc covers, and Southern Linc would gain access to the entire country. As a result, Nextel would want to levy significant roaming charges on Southern Linc's customers and be willing to pay very little for the additional coverage offered by Southern. In addition, each roaming arrangement has fixed costs so that unless the benefits were high, or the costs low, Nextel might not even find it profitable to enter into negotiations. For example, it is my understanding that Nextel's systems are seamlessly compatible with Nextel partners systems. If roaming with Southern Linc requires additional or different configurations, this could cause additional costs that would eliminate the benefits from a roaming agreement with Southern Linc.

Instituting a roaming requirement on Nextel would dampen Southern Linc's (and other providers') incentives to build out their own systems. Southern Linc would have less incentive to aggressively expand its service territory because it could simply rely on Nextel's coverage. In fact, Southern Linc might even have less incentive to fully cover its existing service territory. For example, there might be areas that would not generate enough calls to justify construction of a cell site to remove a dead spot in the system, but would cause enough dissatisfaction among customers to cause them to drop service. Without a roaming requirement, Southern Linc might find it worthwhile to construct. But with a roaming rule, it could rely on Nextel to undertake the money losing expense of providing service to cover the dead spot.

While it is not surprising that Southern Linc would like the FCC to mandate low-cost access to a competitor's network, it is generally understood that such mandates should only occur in situations involving access to "essential facilities." This is because mandated access distorts investment incentives. The usual conditions necessary to consider mandating access are that a monopolist controls a bottleneck facility, that it is difficult or impossible to duplicate the facility, and that there are no alternatives to the facility. While it might cost Southern Linc more money to avoid the use of Nextel's network or to pay for its use in a commercial transaction, mere expense is not sufficient to prove an essential facilities case.

In this case, none of the three conditions hold. Nextel is not a monopolist. It is not difficult or impossible to duplicate the facility. There are alternatives to Nextel's facilities. Nextel has spent more than \$12 billion (\$5.5 billion in spectrum acquisitions

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<sup>&</sup>lt;sup>46</sup> While this may be statically efficient, it would shift the cost burden to Nextel from Southern Linc, possibly above the roaming fees paid, and would reduce the dynamic competition between networks.

and \$7 billion in network buildout) to develop its nationwide network. In a competitive market, it should be allowed to control access to that network. Southern may have to spend money to compete effectively in the CMRS market, but Nextel and all of the other major CMRS providers have spent significant amounts of money to build their networks. Just like the antitrust laws do not require Safeway to let comer grocery stores use its trucks and warehouses, the Commission should not mandate the use of competitive facilities.

A roaming requirement could also affect Nextel's ability to upgrade its service. Coordinating multiple firms to upgrade service is much more difficult than having a single firm make the upgrade decision itself. This is clearly evident in the Commission's refarming docket where coordinated action required the Commission to mandate a transition path.

The proposed roaming requirement does not address any of Southern Linc's alleged problems with the proposed transaction. Rather, it is an attempt to use the current transaction to gain a commercial advantage through the regulatory process. The competitive alternatives available show that such a rule is not necessary. Finally, instituting a roaming rule would create incentives for Southern Linc not to compete as vigorously as it might otherwise. For all of these reasons, the Commission should decline to adopt a roaming rule as a condition for approval of Nextel's acquisition of Motorola's 900 MHz licenses.

### VII. Conclusion

Analysis of the proposed transaction shows that moving the spectrum from use in an analog, high-power dispatch system configuration to Nextel's iDEN service will promote competition in the CMRS market and generate substantial consumer benefits. At the same time there are no real competitive concerns with the transaction. CMRS customers in general will benefit from the enhanced efficiency and ability for a provider to operate efficiently, provide new services and expand output. Dispatch customers will also benefit from the higher quality services, and those who want plain vanilla dispatch services should still have multiple options.

Nextel is only one of many providers in the CMRS marketplace. Southern Linc's argument would allow AT&T Wireless, Verizon, Sprint, or Cingular to acquire the Motorola spectrum and use it to provide exactly the same services as Nextel even though each of them has much more spectrum than Nextel. Restrictions on the fifth or sixth largest player in a market that do not apply to any of the top four or five firms are unheard of in competition policy.

The Commission should adhere to its own statements about the importance of marketplace driven approaches to spectrum policy and allow Nextel to acquire the Motorola spectrum without any roaming or other conditions imposed. In that way, the spectrum will be utilized in the way that maximizes the value of wireless service to the public.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief. Executed on March 7, 2001

Gregory L. Rosston

Table 1

# Largest CMRS Spectrum Licensees (By Capacity) in Major Urban Areas

All Figures in MHz

	40.00 35.00 30.00 30.00 25.00 10.00									
	_									
Detroit	VoiceStream Cingular AT&T Sprint Verizon <b>Nextel</b> Nextwave									
	- 20 50 4 50 <b>6</b> 7									
9	35.00 35.00 30.00 30.00 20.00 20.00 <b>19.83</b>		35.00	30.00	30.00	30.00	25.00	18.75	10.00	10.00
San Francisco	AT&T Verizon MetroPCS Sprint Cingular VoiceStream Nextel	Atlanta	Cingular	AT&T	Metro PCS	VoiceStream	Verizon	Nextel	Alitel	Sprint
	F. Cl Cl A. Cl Cl L		1.	۷,	ω.	4.	5	9	7.	ω.
	65.00 30.00 30.00 25.00 <b>20.70</b> 20.00		45.00	40.00	35.00	30.00	20.20	20.00		
Chicago	Verizon AT&T VoiceStream Cingular Nextel Sprint	Washington	Verizon	AT&T³	Cingular	Sprint	Nextel	VoiceStream		
	1.016.4.00	ı	7.	۷,	რ	4.	5	9		
Se	45.00 45.00 30.00 30.00 <b>21.85</b> 20.00	a	45.00	35.00	30.00	30.00	30.00	22.20		
Los Angeles	AT&T Verizon Cingular Sprint <b>Nextel</b> VoiceStream	Philadelphia	Verizon	Cingular	AT&T	Sprint	VoiceStream	Nextel		
	- 0 6 4 6 6		7	7	က	4.	'n	6.		
	45.00 45.00 30.00 30.00 <b>19.90</b> 10.00		45.00	35.00	30.00	30.00	30.00	23.90		
New York	AT&T Verizon VoiceStream Sprint Nextel <sup>2</sup> Cingular Northcoast	Dallas	AT&T	Cingular	Sprint	Verizon	VoiceStream	Nextel		
	1. 0. 0. 4. 10. 0. V.	Ī	7	7	က	4.	Ŋ.	9		

Note: Includes cellular, PCS, 800 MHz (less public safety), 900 MHz SMR, 220 MHz, and 700 MHz Guard Band spectrum

Source: Updated Attachment 1 to Exhibit B of the Assignment Applications, submitted in an ex parte letter to Lauren Kravets, Feb. 22, 2001; FCC Results of Guard Band Auction; Nextel.

<sup>&</sup>lt;sup>1</sup> Geographic regions are those used in Southern Linc's analysis.

<sup>&</sup>lt;sup>2</sup> Nextel spectrum is not contiguous; cellular and PCS licenses were assigned in blocks of at least 5 MHz (and up to 30 MHz).

<sup>&</sup>lt;sup>3</sup> Includes 10 MHz of PCS spectrum held by Dobson Communications Corp. (DCC).

# CMRS Market Concentration in Major Urban Areas

Includes Cellular, PCS, 800 MHz (less public safety), 900 MHz SMR, 220 MHz, and 700 MHz Guard Band spectrum.

	i	.—								
	H	6	'n	7	^	7	'n	ω	S	2
Total Post- Transfer	Ŧ	1,491	1,550	1,720	1,260	1,473	1,502	1,487	1,512	1,205
Total Pre- Transfer	Ē	1,482	1,545	1,718	1,253	1,471	1,496	1,480	1,508	1,203
Total CMRS	209.1		209.1	209.1	209.1	197.1	209.1	209.1	209.1	209.1
Other 900	2.25	1%	2.00	2.75	2.13	1.50 1%	2.50	2.75	2.50	2.50
Other 800	10.35	2%	9.15 4%	9.80 5%	10.80 5%	1.00	6.60 3%	7.80	10.30 5%	0.00
Other 700 MHz <sup>8</sup>	4:00	%	4.00	4.00 2%	4.00	4.00 2%	4.00	4.00	4.00	4.00
220 MHz <sup>7</sup>	11	%	1.55 <i>1%</i>	1.55	1.55	1.55	1.55	1.55	1.55 7%	1.55 <i>1%</i>
Nextel <sup>6</sup>	19.90	10%	21.85 10%	20.70 10%	19.83 9%	18.75 10%	23.90	22.20 11%	20.20 10%	18.75 9%
Southern Linc <sup>5</sup>	0.00	%0	0.00	0.00	0.00	0.00	0.00	0.00	0.00 <i>0</i> %	12.00 <b>6</b> %
Motorola*	1.00	% 5	0.50	0.25 <i>0%</i>	0.75 0%	0.25 <i>0%</i>	0.50	0.75 0%	0.50 <i>0%</i>	0.25 <i>0%</i>
Other PCS <sup>3</sup>	10.00	8	0.00 00.00	00.00	00:00	10.00 5%	0.00	0.00 %0	0.00	10.00 5%
Voice Stream	30.00	8 t	20.00 10%	30.00	20.00 10%	40.00 20%	30.00 14%	30.00 14%	20.00 10%	30.00
Sprint Verizon	45.00	24.4	45.00 22%	65.00 31%	35.00 17%	25.00 13%	30.00 14%	45.00 22%	45.00 22%	25.00 <i>12%</i>
	30.00	?	30.00 14%	20.00 10%	30.00 14%	30.00 15%	30.00 14%	30.00 14%	30.00 14%	10.00 5%
Metro PCS	0.00		0.00 0%	0.00 0%	30.00 14%	0.00	0.00	0.00	0.00 %0	30.00 14%
AT&T² Cingular	10.00		30.00 14%	25.00 12%	20.00 10%	35.00 18%	35.00 17%	35.00 17%	35.00 17%	35.00 17%
AT&T	45.00		45.00 22%	30.00 14%	35.00 17%	30.00 15%	45.00 22%	30.00 14%	40.00 19%	30.00 14%
Region¹	New York Total Spectrum (MHz) As % of Total Spectrum	Los Angeles	odal Specifim (MHz) As % of Total Spectrum Chicago	Total Spectrum (MHz) As % of Total Spectrum San Francisco	Total Spectrum (MHz) As % of Total Spectrum Detroit	Total Spectrum (MHz) As % of Total Spectrum Dallas	Total Spectrum (MHz) As % of Total Spectrum Philadelphia	Total Spectrum (MHz) As % of Total Spectrum Washington	Total Spectrum (MHz) As % of Total Spectrum Atlanta	Total Spectrum (MHz) As % of Total Spectrum

<sup>&</sup>lt;sup>1</sup> Geographic regions are those used in Southem Linc's analysis.

Source for Cellular and PCS spectrum holdings: Nextel.

<sup>&</sup>lt;sup>2</sup> Includes 10 MHz of PCS spectrum in Washington, DC held by Dobson Communications Corp. (DCC).

<sup>&</sup>lt;sup>3</sup> Other PCS spectrum is held by a single licensee in New York (Northcoast), Detroit (Nextwave), and Atlanta (Alltel).

<sup>&</sup>lt;sup>4</sup> Source: Updated Attachment 1 to Exhibit B of the Assignment Applications, submitted in an ex parte letter to Lauren Kravets, Feb. 22, 2001.

Sesumes Southern Linc holds licenses in Atlanta for all 800 MHz channels not held by Nextel.

<sup>&</sup>lt;sup>6</sup> Includes Nextel's 700 MHz Guard Band, 800 MHz and 900 MHz spectrum. Nextel spectrum is not contiguous; cellular and PCS licenses were assigned in blocks of at least 5 MHz (and up to 30 MHz).
Source for 800 and 900 MHz spectrum: Updated Attachment 1 to Exhibit B of the Assignment Applications, submitted in an ex parte letter to Lauren Kravets, Feb. 22, 2001. Source for 700 MHz Guard Band spectrum:

Source: Baumann and Siwek Affidavit, Tables El\_7.1-El\_7.9.

<sup>8</sup> Source: FCC Results of Guard Band Auction. Includes 1 MHz "A" band license, 1 MHz "A" band unaffiliated user, and 2 MHz "B" band unaffiliated user. Assumes unaffiliated users do not hold other spectrum in

<sup>10</sup> Asumes 900 MHz commercial spectrum (200 channels) not held by Nextel or Motorola is held by firms with 60 channels of spectrum (e.g. if 140 channels available after accounting for Nextel and Motorola, assume 9 Assumes spectrum not held by Nextel or Southern Linc is evenly divided among 5 firms who do not hold any other spectrum in the same urban area.

two firms each with 60 channels, one firm with the remainder, 20 channels.)

Table 3

# Dispatch Concentration in Major Urban Areas Excluding PCS and Cellular Spectrum

Total Spectrum includes 220 MHz, 450 MHz, 700 MHz, 800 MHz (less public safety), and 900 MHz (less public safety) but excludes PCS and Cellular band dispatch communicatic

Total

		Southern				Other 700	Other 700 Other 800	Other 900	Spectrum	Total Pre-	Post-	
Region <sup>1</sup>	Motorola	Linc <sup>2</sup>	Nextel <sup>3</sup>	220 MHz	450 MHz <sup>4</sup>	MHz	MHz	MHz	Dispatch	HH		Ï <
New York												
Total Spectrum (MHz)	1.00	0.00	7.50	1.55	20.00	4.00	10.35	7.25	516			
As % of Total Spectrum	2%	%0	15%	3%	39%	%	20%	14%	9	807	777	25
Los Angeles			!	•	<u>.</u>	?		2		ř	<b>t</b>	90
Total Spectrum (MHz)	0.50	0.00	8.10	1.55	20.00	400%	9.15	7.00	503			
As % of Total Spectrum	1%	%0	16%	3%	40%	0.08	18%	14%	2	540	572	33
Chicago							) ) )	<u>.</u>		2	1	7
Total Spectrum (MHz)	0.25	0.00	7.74	1.55	20.00	4.00	9.80	7.75	51.1			
As % of Total Spectrum	%0	%0	15%	3%	39%	%8	19%	15%		515	530	۲. د
San Francisco						1	)	2		) .	8	2
Total Spectrum (MHz)	0.75	0.00	7.48	1.55	20.00	400%	10.80	7.13	51.7			
As % of Total Spectrum	7%	%0	14%	3%	39%	0.08	21%	14%		501	543	42
Detroit							<u>.</u>	<b>?</b>			2	Į.
Total Spectrum (MHz)	0.25	0.00	7.15	1.55	20.00	4.00	1.00	5.75	39.7			
As % of Total Spectrum	7%	%0	18%	4%	20%	10%	3%	14%		657	680	23
Dallas										) )		3
Total Spectrum (MHz)	0.50	0.00	8.73	1.55	20.00	400%	09'9	7.50	48.9			
As % of Total Spectrum	1%	%0	18%	3%	41%	0.08	14%	15%	!	585	622	37
Philadelphia										)	1	5
Total Spectrum (MHz)	0.75	0.00	8.21	1.55	20.00	4.00	7.80	7.75	50.1			
As % of Total Spectrum	7%	%0	16%	3%	40%	%8	16%	15%		540	589	49
Washington										)	) ) )	)
Total Spectrum (MHz)	0.50	0.00	7.59	1.55	20.00	400%	10.30	7.50	51.4			
As % of Total Spectrum	7%	%0	15%	3%	39%	0.08	20%	15%		505	534	20
Atlanta								1 1 1		)	-	2
Total Spectrum (MHz)	0.25	5.64	7.15	1.55	20.00	4.00	0.00	7.50	46.1			
As % of Total Spectrum	1%	12%	16%	3%	43%	%6	22%	16%		742	759	17

<sup>&</sup>lt;sup>1</sup> Geographic regions are those used in Southern Linc's analysis.

See footnotes to Table 2 for description of my analysis of 220 MHz, 700 MHz Guard Band, 800 MHz, and 900 MHz bands. Source: Sources as in Table 2.

<sup>&</sup>lt;sup>2</sup> Excludes the 53% of Southern Linc's 800 MHz spectrum used for interconnect, based on the assumption that Southern Linc has same proportion of interconnect and dispatch calls as Nextel.

<sup>&</sup>lt;sup>3</sup> Includes Nextel's 700 MHz Guard Band, 800 MHz, and 900 MHz spectrum. Excludes the 69% of Nextel's 800 MHz and 900 MHz spectrum used for interconnect.

<sup>&</sup>lt;sup>4</sup> Assumes that spectrum is divided evenly among ten firms who do not hold any other spectrum in the same urban area.

## Exhibit A Gregory L. Rosston

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### **Employment**

Stanford University, Stanford, CA

Deputy Director, Stanford Institute for Economic Policy Research, 1999-Research Fellow, Stanford Institute for Economic Policy Research, 1997-Lecturer in Economics and Public Policy, 1997-

Federal Communications Commission, Washington, DC
Deputy Chief Economist, 1995- 1997
Acting Chief Economist, Common Carrier Bureau, 1996
Senior Economist, Office of Plans and Policy, 1994- 1995

Law and Economics Consulting Group, Berkeley, CA Senior Economist, 1990- 1994

Economists Incorporated, Washington, DC Economist/Research Associate, 1986- 1988

### **Education**

Stanford University, M.A., Ph.D., in Economics, Specialized in the fields of Industrial Organization and Public Finance. 1986, 1994.

University of California, Berkeley, A.B. in Economics with Honors. 1984.

### Papers and Publications

"An Economic Analysis of the Effects of FCC Regulation on Land Mobile Radio," unpublished Ph.D. dissertation, Stanford University. 1994.

"Competition in Local Telecommunications: Implications of Unbundling for Antitrust Policy" in Brock, G., (ed.) <u>Toward a Competitive Telecommunication Industry:</u> <u>Selected Papers from the 1994 Telecommunications Policy Research Conference</u>, LEA Associates, Mahwah, NJ. 1995 (with Harris, R. and Teece, D.).

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"Winners and Losers from the Universal Service Subsidy Battle," Stanford Institute for Economic Policy Research Working Paper No. 99-8, December, 1999. published in Vogelsang, I. and Compaine, B. (ed.s) The Internet Upheaval: Raising Questions, Seeking Answers in Communications Policy, MIT Press: Cambridge 2000 (with Wimmer, B.).

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### Other Professional Activities

Referee for American Economic Review, Rand Journal of Economics, Industrial and Corporate Change, Journal of Industrial Economics, Telecommunication Systems.

FCC Economist Panel Hearing on the Economics of Interconnection, May, 1996. FCC Economist Panel Hearing on the Economics of RBOC Entry under Section 271, July, 1996.

FCC Economist Panel Hearing on Competitive Bidding for Universal Service Provision, March, 1997

Consultant for the World Bank, 1998.

FCC Academic Expert Panel on "A New FCC for the 21st Century," June 1999.

FCC Academic Expert Panel on AT&T—MediaOne Merger, February, 2000.

### **Awards**

Chairman's Distinguished Service Award, FCC, 1997.

University of California, Brad King Award for Young Alumni Service, 1994.

National Performance Review Hammer Award for Reinventing Government, 1994.

Telecommunications Policy Research Conference Graduate Student Paper Competition, 2nd Place, 1994.

John M. Olin Foundation Fellowship, 1989- 1990.

Charles Mills Gayley Fellowship, 1985.

Stanford University Fellowship, 1984- 198 5.

**ATTACHMENT 2** 



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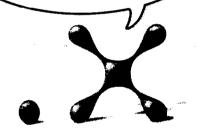
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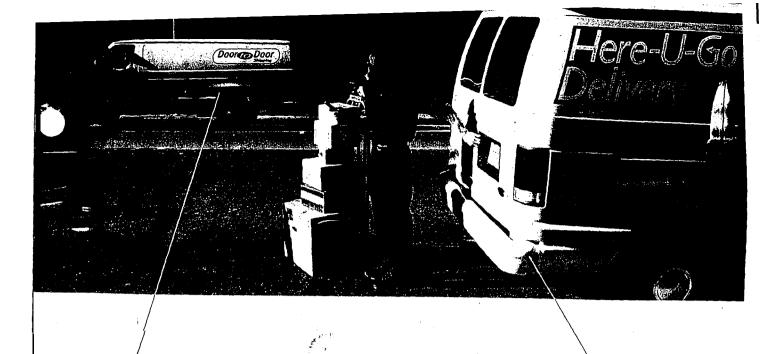
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GSM

Coverage not available in all areas. Map is not a representation of coverage. Anytime minutes quoted above are local airtime (pay no long distance or digital roaming charges) for calls made from the VoiceStream (VS) home digital service area in the states listed above. 1000 snytime, 1000 imilyTime, and 1000 local weekend minutes special offer good until 3/25/01. Two-for-one phone offer refers to a mall-in rebase on purchase of qualifying phone and activation of VS service on qualifying rate plan. Qualifying phones: Encision 786 15/49/99 suggested retail price. 3/25 rebase, 10/25 rebase), Nokia 1990 (39999) suggested retail price; 3/25 rebase, 10/25 rebase), Nokia 1990 (39999) suggested retail price; 3/25 rebase, 10/25 rebase), Nokia 1990 (39999) suggested retail price; 3/25 rebase, 10/25 rebase), Nokia 1990 (39999) suggested retail price; 3/25 rebase, 10/25 rebase), Nokia 1990 (39999) suggested retail price; 3/25 rebase, 10/25 rebase), Nokia 1990 (39999) suggested retail price; 3/25 rebase), Nokia 1990 (3



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way behind schedule.
will be working late again.

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