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BY ELECTRONIC FILING

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

Re: WT Docket No. 02-55
Ex Parte Presentation

Dear Ms. Dortch:

In a letter filed in this proceeding on May 6, 2003, Motorola, Inc. ("Motorola") discusses the status of its efforts to improve the performance of its 800 MHz public safety radios.¹ Nextel Communications, Inc. ("Nextel") hereby provides its comments thereto.

Motorola suggests that recent advances in receiver technology *plus* higher public safety on-street signal strength *plus* updated "Best Practices" may make it possible to alleviate most Commercial Mobile Radio Service ("CMRS") – public safety interference in the 800 MHz band. Motorola's suggestion is based on four assumptions: (1) that less than three percent of all public safety systems are experiencing interference; (2) the Consensus Plan for Realigning the 800 MHz band represents an agreement by the public safety community to strengthen on-street public safety signal strength; (3) assuming increased signal strength, equipping public safety with improved receivers in those relatively few areas experiencing interference is a viable option for alleviating 800 MHz interference; and (4) public safety and CMRS licensees can predict areas that are likely to experience interference and can then deploy these technical measures to resolve the problem. Having reviewed the facts, conclusions, and suggestions in the May 6th letter, we believe that these underlying assumptions do not withstand scrutiny.

First, Motorola premises its suggestion on the belief that public safety interference is not a widespread problem; *i.e.*, that it occurs infrequently and can therefore be managed on a case-by-case basis. Motorola significantly understates the extent of public safety interference experienced and reported during the past few years. Ten percent of all public safety agencies licensed at 800 MHz have reported experiencing interference

¹ Letter from Steve Sharkey, Motorola, to Edmond Thomas, Chief, Office of Engineering and Technology, FCC, WT Docket No. 02-55 (May 6, 2003) ("Motorola May 6 Letter"). Unless otherwise noted, all comments and *ex parte* presentations cited herein were filed in WT Docket No. 02-55.

resulting from the lawful operations of Nextel and/or other low-power, low-site commercial cellular operators – nearly three times the number Motorola cited. Many of these cases involve multiple interference incidents throughout a public safety licensee’s coverage area, often impacting the most populous areas of the country. Further, the CMRS – public safety interference problem is getting worse with the increasingly dense build out of fundamentally incompatible cellular and public safety systems at 800 MHz. Through April 30 of this year, public safety agencies have reported interference at 117 locations involving 51 different public safety agencies, in contrast to the five “unique customer issues” Motorola reported. If this trend continues, public safety agencies will experience interference at more than 350 locations this year – the highest single yearly total to date.

Second, Motorola avers that its proposed public safety receiver improvements require more robust public safety signal strength to work effectively. Motorola claims that public safety agencies have agreed under the Consensus Plan to boost public safety signal strength, thus making it possible to implement these receiver performance enhancements. The Consensus Plan, however, contains no such agreement, and Motorola’s presumed increase in public safety signal strength would impose enormous costs and burdens on public safety agencies.

Third, even assuming increased public safety signal strength, the proposed receiver advances are themselves preliminary, and *at best* potentially solve only half the problem. The described receiver advances are designed to reduce intermodulation interference in public safety receivers; they do not reduce interference caused by CMRS out-of-band emissions (“OOBE”). Such interference, which Nextel estimates is involved in about 50 percent of 800 MHz interference incidents, can be addressed effectively only by realigning the 800 MHz band to separate public safety and cellular operations – thereby making possible OOBE filtering solutions.

Fourth, Motorola’s suggested approach for addressing 800 MHz band interference relies heavily on a revised Best Practices regime to coordinate public safety and CMRS operations and predict where interference will occur. This reactive “fixed point” approach attempts to resolve interference at specific sites rather than eliminating its causes, thereby putting at risk the lives and safety of our nation’s first-responders. In addition, interference prediction is not a reliable process given the inherently dynamic nature of CMRS systems. Moreover, the operating restrictions inherent in best practices impose large financial and operational costs on licensees; such restrictions cannot be sustained over the long term and will inevitably compromise public safety communications.

In a previous proceeding concerning whether to permit cellular and public safety communications systems to operate on adjacent channels in the 700 MHz band, Motorola strongly emphasized that technical solutions are insufficient to prevent CMRS – public safety interference when public safety and cellular systems operate on adjacent channels – as they do at 800 MHz today. Motorola stated that “attempting to layer a cellular architecture with numerous and unpredictable points of interference on top of a

fundamentally dissimilar public safety system that requires operational certainty would be *virtually impossible*.”² This, however, is the *status quo* at 800 MHz and will continue to frustrate public safety’s ability to provide reliable communications until the 800 MHz band is realigned to separate dissimilar and incompatible public safety and cellular communications systems.

Nextel has dedicated substantial resources and efforts over the past four years toward resolving CMRS – public safety interference in the 800 MHz band. One option Nextel initially investigated was similar to the approach suggested in Motorola’s May 6 letter – improving public safety receivers and increasing public safety signal strength without realigning the band. Such an approach, after all, would have imposed few burdens on Nextel, since it does not involve relocating incumbent licensees or require Nextel to modify its facilities. Public safety agencies, however, strongly opposed this approach because they lack the means to implement extensive and very costly retrofitting of public safety systems. Motorola, for its part, advised Nextel (and has consistently advised the Commission) that increasing public safety signal strength involves numerous financial, technical, practical, and operational obstacles and that no significant improvements are possible in Motorola’s “world class” public safety mobile and portable handsets.³

The Consensus Plan, in contrast, will remedy 800 MHz interference without imposing such costs and burdens on public safety or private wireless incumbents.⁴ The Consensus Plan accounts for the financial and operational realities of public safety communications and would resolve interference with minimal disruption. It recognizes that band realignment is necessary to address the fundamental cause of CMRS – public safety interference – an outdated band plan that permits inherently incompatible system architectures to operate on mixed, interleaved, and adjacent channels. The Consensus Plan offers a funding mechanism for its proposed interference remedy. The Consensus Plan addresses the need to provide additional spectrum to public safety systems, as well as providing a complete solution to the forthcoming interference problem of interleaved high-site and low-site technologies in the 900 MHz band.

The public safety receiver enhancements described in Motorola’s letter are by no means a panacea for 800 MHz interference; they could, however, provide an important *supplement* to virtually eliminate the possibility of post-realignment interference, as

² Comments of Motorola in WT Docket No. 99-168, at 6 (Jan. 18, 2000) (emphasis added) (“Motorola 700 MHz Comments”).

³ See Motorola FCC Briefing, “Wireless Enabled Homeland Security,” at 22 (May 15, 2002) (“Motorola Homeland Security Briefing”), attached to *Ex Parte* Letter from Steve Sharkey, Motorola, to Marlene Dortch, Secretary, FCC (May 21, 2002).

⁴ See Reply Comments of the Consensus Parties (Aug. 7, 2002) (“Consensus Plan”). The Consensus Parties have clarified and amended the Consensus Plan in subsequent filings with the Commission. See Consensus Comments of the Consensus Parties (Sep. 23, 2002); Supplemental Comments of the Consensus Parties (Dec. 24, 2002) (“Consensus Plan Supplemental Comments”); Reply Comments of the Consensus Parties (Feb. 25, 2003) (“Consensus Plan Reply Comments”).

recommended and contemplated by the Consensus Plan. The Consensus Plan specifically calls for improved public safety receiver performance given the technical opportunities created by a post-realignment separation of high-site public safety systems from cellular operations. Realigning the 800 MHz band consistent with the Consensus Plan will reduce the probability of CMRS – public safety interference from all sources by an average of 99 percent for the new NPSPAC channels and an average of 88 percent for the channels between 854.0125 and 858.9875 MHz – the closest channel to the cellular block to which public safety operations would be retuned.

The Commission initially directed the industry to investigate claims of CMRS – public safety interference beginning in April 2000. This process resulted in all affected parties producing a “Best Practices Guide” for short-term mitigation of public safety interference, pending a permanent solution. The Best Practices Guide was presented to the Commission in January 2001. Despite these efforts, the incidents of interference continued to increase. In March 2002, the Commission adopted the Notice of Proposed Rulemaking (“*NPRM*”) that initiated this proceeding. The Commission has had three rounds of public comment concerning CMRS – public safety interference and created an extensive record of potential solutions. During these three years, however, the threat of disrupted critical communications continues to jeopardize the lives and safety of police, fire and rescue first-responders and the public they protect. Continued delay in adopting and implementing an effective solution in this proceeding will only perpetuate this risk. Therefore, the Commission must act expeditiously to remedy the increasingly serious problem of 800 MHz interference by adopting the Consensus Plan.

I. INTERFERENCE TO PUBLIC SAFETY IS A NATIONAL PROBLEM

The CMRS – public safety interference problem is neither “relatively small” nor “limited” in scope.⁵ CMRS – public safety interference is a severe, widespread, and rapidly growing problem that continues to jeopardize emergency first responders across the U.S. and requires a comprehensive national solution.

According to Motorola, 59 out of approximately 2,139 public safety systems in the U.S. (approximately 2.75%) have experienced interference since the beginning of 2000.⁶ In contrast, Nextel’s own records, investigation, and analysis indicates that there are only 1,580 distinct public safety systems currently operating in the U.S.,⁷ and that at least 155 of these operators (approximately 10%) have reported interference to their

⁵ Motorola May 6 Letter at 1, 4, 13.

⁶ *Id.* at 1.

⁷ Nextel’s calculation of the number of public safety systems operating in the U.S. is based on its review of the Commission’s Universal Licensing System (“ULS”) database. In its analysis, Nextel accounted for the fact that a significant percentage of public safety systems operate a single system on multiple call signs.

systems since January 2000.⁸ Many of these 155 public safety systems have suffered multiple incidents of interference; during this period, these operators in the aggregate have experienced interference at 703 different locations.⁹ CMRS – public safety interference has occurred in at least 28 of the largest 35 metropolitan areas in the U.S., and Nextel conservatively estimates that this interference has affected about 400,000 public safety radios during this time frame and remains an ongoing risk for many of their users.¹⁰

Incidents of CMRS – public safety interference are growing rapidly around the country. Of the 155 public safety agencies affected by interference, 13 experienced interference in 2000, 46 were affected in 2001, 74 suffered interference in 2002 and 51 agencies experienced interference through April 30, 2003.¹¹ Consistent with this pattern, interference occurred at 56 locations during 2000, at 200 locations in 2001, at 330 locations in 2002, and at 117 locations through April 30, 2003.¹² At the current rate of more than one interference report per day, interference will be reported at more than 350 new locations during 2003. This rise in interference reports is alarming, and the trend shows no signs of abating, despite the fact that all commercial and non-commercial systems involved are operating in full compliance with the Commission’s rules and the limits set forth in their licenses.

Without Consensus Plan realignment, CMRS – public safety interference will likely be further exacerbated by the Commission’s decision last year to eliminate, after a five-year transition period, the requirement that cellular carriers continue to provide analog service.¹³ Most cellular A-block licensees have designed their networks so that existing analog facilities transmit in frequencies adjacent to the 869 MHz band edge. Once the analog requirement sunsets, most if not all carriers will discontinue analog

⁸ See Appendix A, “New Public Safety Agency Reports of Interference.” Over the past several years, Nextel has been integrally involved in efforts to mitigate CMRS – public safety interference. During this process, Nextel has developed a proven methodology for recording and tracking reports of interference received from public safety agencies throughout the U.S. as part of its ongoing mitigation activities. Nextel’s records are a reliable source of data on the incidence of CMRS – public safety interference.

⁹ See Appendix B, “CMRS – Public Safety Interference Cases Reported by Public Safety Agencies.”

¹⁰ The Commission should bear in mind that real-world interference incidents during this period could well exceed Nextel’s figures, since not all public safety interference incidents are reported to Nextel or otherwise recorded in an accessible database.

¹¹ The total of per year reports by individual agencies exceeds 155 because some agencies have reported new interference incidents in multiple years. This further demonstrates that describing public safety interference by “unique customer issues” minimizes the extent of the interference problem.

¹² See Appendix B.

¹³ See *In the Matter of Year 2000 Biennial Regulatory Review – Amendment of Part 22 of the Commission’s Rules to Modify or Eliminate Outdated Rules Affecting the Cellular Radiotelephone Service and other Commercial Mobile Radio Services*, Report and Order, 17 FCC Rcd 18401 (2002).

service and shift to digital operations throughout their licensed spectrum. To the extent these carriers implement Code Division Multiple Access (“CDMA”) operations at and just above 869 MHz, it will be particularly difficult to mitigate public safety interference as CDMA cellular system operators cannot implement reduced power levels and individual channel use restrictions – best practices techniques used by Nextel, analog and other digital cellular operators today to temporarily mitigate interference.

In the Commission’s 700 MHz Guard Band proceeding, Motorola argued repeatedly for the Commission to establish a 700 MHz band plan that avoids the serious CMRS – public safety interference plaguing the 800 MHz environment. In one letter, Motorola referred to “*numerous* occurrences of interference in the 800 MHz SMR band as well as in the 866-869 MHz public safety band.”¹⁴ Again alluding to the 800 MHz band, Motorola stated in comments that “[t]here is *widespread* confirmation of existing interference in other bands.”¹⁵ It elaborated on this point in another filing, stating that “there are a *growing number* of instances – in Arizona, Anne Arundel County, Maryland, and elsewhere – of interference from cellular systems to Public Safety operations at 800 MHz, where cellular systems operate without guard bands immediately adjacent to Public Safety systems.”¹⁶ Importantly, Motorola’s earlier, accurate descriptions of the severity of 800 MHz interference are three years old; since that time CMRS – public safety interference in the 800 MHz band has grown more severe, as demonstrated herein.

Nextel’s evidence of the widespread and growing nature of CMRS – public safety interference at 800 MHz is consistent with other parties’ filings in this proceeding. Numerous commenters have described CMRS – public safety interference as a pervasive, nationwide problem,¹⁷ and public safety agencies in a multitude of cities, counties, and states have described the effects of this interference within their own coverage areas.¹⁸ The record also shows that business and industrial land transportation (“B/ILT”) licensees and high-site SMR systems have experienced interference from CMRS operations.¹⁹ As discussed further below, Motorola’s May 6 letter does not acknowledge

¹⁴ Letter from Leigh Chinitz, Motorola, to Magalie Roman Salas, Secretary, FCC, WT Docket No. 99-168, at 3 (Dec. 2, 1999) (emphasis added).

¹⁵ Motorola 700 MHz Comments at 10.

¹⁶ Letter from Robert Pettit, Counsel for Motorola, to Magalie Roman Salas, Secretary, FCC, WT Docket No. 99-168, Attachment at 2 (Jan. 31, 2000) (emphasis added) (“Motorola Jan. 2000 *Ex Parte* Letter”).

¹⁷ For a partial list of commenters describing *the national scope* of CMRS – public safety interference, *see* Appendix C.

¹⁸ For a partial list of commenters describing the scope of CMRS – public safety interference *within their jurisdictions*, *see* Appendix C.

¹⁹ *See, e.g.*, Comments of Private Wireless Coalition at 11 (May 6, 2002) (stating that “[p]ublic safety equipment is almost identical to B/ILT equipment, and results in the same kinds of interference for B/ILT users”); Comments of Consolidated Edison Co. of New York at 4 (Feb. 10, 2003) (stating that it has found “documented instances” of interference “at approximately 30 locations,” and that it “expects to

such interference, failing to account for the situation facing these operators and offering them no solution. In contrast, the Consensus Plan will virtually eliminate interference to *all* non-cellular licensees in the 800 MHz band, including funding the relocation costs for all public safety licensees as well as for all private wireless systems required to move under the Plan.

II. REALIGNMENT IS ESSENTIAL TO REMEDYING 800 MHz BAND INTERFERENCE

Motorola should be commended for its efforts to improve public safety receiver performance. These improvements can help provide additional protection against any remaining interference in a *realigned* 800 MHz band. The Commission, however, should reject any suggestion that technical measures and Best Practices alone can remedy CMRS – public safety interference in the 800 MHz band. Motorola has previously recognized in this proceeding that realigning the 800 MHz band is an important step to resolving 800 MHz interference, stating that “rebanding helps to provide mitigation opportunities” and even offering its own realignment proposal to separate public safety and CMRS systems into separate channel blocks at 800 MHz.²⁰

Realignment will substantially (if not completely) eliminate intermodulation (“IM”) interference for 800 MHz licensees by virtue of three factors: (1) moving NPSPAC systems out from between Nextel and the cellular carriers will significantly reduce IM “hits” on these NPSPAC channels from Nextel and cellular operators individually, as well as in combination from co-located CMRS base stations; (2) the de-interleaving of Nextel and non-cellular operations will immediately reduce the number of IM “hits” below 861 MHz; and (3) relocating Nextel’s operations out of the new non-cellular block will provide Nextel greater ability in establishing its frequency reuse plans to avoid IM “hits” on the relatively fewer susceptible non-cellular channels below 861 MHz. Realignment also makes it possible to eliminate OOB-related interference to public safety systems, which will be operating below 814/859 MHz after realignment.²¹ Realignment eliminates OOB-related interference by separating non-cellular and cellularized systems and enabling cellular licensees (Nextel and Cellular A and B-Block carriers) to incorporate narrower filters on their base-mobile transmissions.

These dramatic improvements in the RF environment of the 800 MHz band can only be achieved by realigning the band as proposed in the Consensus Plan. Realignment

discover more locations during its ongoing drive testing activity.”). *See also* Comments of SRGPE Joint Commenters at iii (May 6, 2002); Reply Comments of Motient at 2-3 (Aug. 7, 2002).

²⁰ *Ex Parte* Presentation of Motorola, “Public Safety 800 MHz Interference,” at 14 (Sep. 19, 2002) (“Motorola September *Ex Parte*”), attached to *Ex Parte* Letter from Steve Sharkey, Motorola, to Marlene Dortch, Secretary, FCC (Sep. 20, 2002); Reply Comments of Motorola, at 9-14 (Aug. 7, 2002) (“Motorola August Reply”).

²¹ Realignment will also substantially reduce IM and OOB-related interference in the new guard band spectrum at 814-816/859-861 MHz.

will set the stage for developing tighter front-end filters for public safety receivers, which could virtually eliminate any remaining potential for CMRS – public safety interference. Until now, the interleaving of non-cellularized and cellularized architectures across the entire 806–824/851–869 MHz bands has prevented Motorola and other manufacturers from designing public safety receivers that will “hear” only public safety transmissions and filter out other systems’ signals within this spectrum. As a result of these design constraints, public safety receivers “respond to” not only the desired transmissions from public safety communicators, but any strong B/ILT, SMR, and CMRS transmissions as well.

By consolidating non-cellularized systems into the 806-816/851-861 MHz channel block, the Consensus Plan will enable manufacturers to develop public safety radios that no longer have to “listen” or respond to the whole Land Mobile Radio band.²² With much narrower front-end filters, public safety receivers would enjoy tighter roll-off and a greatly reduced probability of IM interference. Motorola’s efforts to enhance public safety receiver performance can be an important supplement, but not a substitute, to band realignment.

The tunable varactor filters Motorola describes in its May 6 letter for dual band 700/800 MHz receivers, for example, are an important development in this direction. These units today are susceptible to radio energy from not only Nextel and the cellular A-Block licensees, but the cellular B-Block licensees as well. The tunable filter would activate when the public safety unit is operating on the current NPSPAC channels and would operate to filter out the undesired energy from the Cellular A and B Blocks, but would be ineffective in filtering Nextel’s adjacent channel operations below 866 MHz, which could still result in IM in the receiver front end.²³ This tunable capability, therefore, falls short of providing a solution as long as the NPSPAC channels remain interleaved between Nextel’s assignments and the cellular channel assignments.

Post-realignment, however, the addition of tunable varactor filters for the dual-band units is consistent with Consensus Plan’s proposal for the Commission to adopt new receiver standards for dual band equipment. Once all public safety operations are relocated below 861 MHz, the tunable filter will effectively filter out all RF energy from commercial operations above 861 MHz – both Nextel and cellular licensee operations. This will eliminate the small remaining possibility of IM within these dual band receivers originating from CMRS sources. In other words, placing all desired operations (public safety) in a discrete channel block is the essential predicate for a useful tunable filter enhancement for Motorola’s dual band receiver units.

²² Typical public safety receivers today respond to strong undesired signals on channels well into the cellular A-band allocation at 869–881.5 MHz.

²³ Alternatively, the tunable filter could filter out Nextel’s operations, but would leave the receiver open to cellular A and B-induced IM.

III. ABSENT REALIGNMENT, TECHNICAL RECEIVER ADVANCES WILL NOT, BY THEMSELVES, REMEDY CMRS – PUBLIC SAFETY INTERFERENCE

As noted above, the increasingly serious problem of CMRS – public safety interference in the 800 MHz band cannot be addressed simply through “best practices and new technical solutions.”²⁴ Motorola mischaracterizes the Consensus Plan and mistakenly assumes that public safety systems will significantly increase public safety signal strength in the 800 MHz band, an undertaking that would impose enormous costs on public safety agencies and radically alter public safety system designs. The potential public safety receiver enhancements described in Motorola’s May 6 letter are themselves preliminary, requiring significantly more testing and development, and, even if and when such enhancements are implemented, they would do nothing to reduce OOB without band realignment. In addition, Motorola’s suggested reliance on coordination among public safety and CMRS operators would indefinitely embroil all parties in costly and inevitably fruitless efforts to coordinate their operations – particularly when multiple CMRS systems are involved. Motorola’s proposed public safety receiver enhancements are a welcome supplementary measure, but they are no substitute for 800 MHz realignment, as discussed in detail below.

A. The Technical Measures Described in Motorola’s May 6 Letter Would Require Public Safety Licensees to Implement Very Costly Signal Strength Increases that Would Radically Change Public Safety System Designs

Motorola’s reliance on improved receiver performance to remedy 800 MHz interference suffers from a fatal flaw: it would require public safety systems to significantly increase signal strength, thereby imposing enormous costs and burdens on public safety agencies. Upgrading public safety systems and incorporating receiver upgrades would far exceed the cost of relocating public safety licensees under the Consensus Plan, yet Motorola does not even suggest a means for funding such an undertaking.

Enhancing public safety receivers through the use of switchable attenuators will only be effective if the desired public safety signal reaches a sufficient strength such that the attenuator does not reduce the desired signal below operational requirements.²⁵ Unfortunately, public safety signals often are not sufficiently strong because today’s public safety systems are based on a “noise-limited” design. In other words, public safety

²⁴ Motorola May 6 Letter at 1.

²⁵ Switchable attenuators are used in many cellular handsets today and are designed to reduce high undesired signal strengths to lower levels. The attenuator reduces, however, both the desired and any undesired signals; therefore, the desired signal must be sufficiently robust that post-attenuation communications are still possible.

receivers are “expected to function properly with weak signals.”²⁶ Public safety licensees have long used noise-limited systems because they are well suited to their communications needs – covering a large service area – while avoiding the substantial costs of building and maintaining base stations throughout their coverage areas. Under the traditional public safety system design, most public safety agencies deploy one or at most a few high-antenna site base stations without any frequency reuse, thereby holding infrastructure costs to a minimum. With such noise-limited high-site, high-power architectures, public safety systems are designed to operate at low signal levels until the desired signal cannot be distinguished from the background thermal noise in the receiver.²⁷ As a result, in the “outer” regions of a public safety coverage area, a public safety licensee’s signal strength is likely to be substantially weaker than the undesired CMRS signals, which are transmitted from multiple base stations throughout the CMRS licensee’s cellularized service contour. This problem, the “near-far” effect, can also occur anywhere in public safety service areas due to signal fading or shadowing caused by buildings, foliage, topographic features and numerous other causes. Public safety radios are consequently susceptible to interference from normal CMRS operations – a vulnerability that is much more dramatic if the two systems are operating on interleaved and adjacent channels as in the 800 MHz band.

The approach suggested in Motorola’s May 6 letter would require a fundamental change in public safety system designs. To achieve the signal strengths necessary to make Motorola’s planned receiver enhancements effective, public safety licensees would be required to construct a substantial number of additional base stations. For example, as Motorola itself has indicated, “a public safety licensee operating a 10 site system may need to expand its system to 33 sites to achieve a –95 dBm signal throughout its existing coverage area.”²⁸ In this scenario, rather than relying on cost-efficient systems that meet their communications needs and budget realities, public safety operators would be forced to shift to costly, infrastructure-intensive networks that do not match their current and likely future resource levels. Taken to its logical conclusion, Motorola’s recommended policy would compel public safety operators to execute an unwanted and radical shift to interference-limited operations.

Notwithstanding the above, Motorola itself has previously pointed out the exorbitant cost and complexity of deploying additional public safety base stations to increase signal strength. Motorola has stated that to reach –98 dBm/–95 dBm signal strength, public safety and private wireless licensees would be required “to make

²⁶ *Improving Public Safety Communications in the 800 MHz Band; Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels*, Notice of Proposed Rulemaking, 17 FCC Rcd 4873, ¶ 11 (2002) (“*NPRM*”).

²⁷ See Reply Comments of Nextel Communications, Inc., at 44 (Aug. 7, 2002).

²⁸ Comments of Motorola, at 11 (Feb. 10, 2003) (“*Motorola February Comments*”). Motorola incorrectly asserts that the Consensus Plan requires public safety operators to maintain signal strength of at least –98 dBm for existing systems and –95 dBm for new deployments.

significant investments,”²⁹ requiring the acquisition of additional land and capital and increased maintenance activity.³⁰ According to Motorola, “customers often encounter practical difficulties implementing additional sites even where funding is available. Given esthetic concerns and local regulations, it is a challenge today to obtain zoning approvals for new sites.”³¹ Motorola’s May 6 letter even acknowledges the difficulties of increasing public safety signal strength, stating that “it is often not a straightforward proposition” and that the deployment of additional base stations “can be difficult because of cost, tower construction and site leasing needs.”³²

In addition, as Motorola has discussed in prior filings, the construction of more base stations requires that a public safety operator either have access to additional frequencies or convert its network to simulcast operations.³³ Without access to sufficient frequencies, a public safety licensee that deploys additional facilities in a standard multi-site system could cause harmful co-channel interference to public safety operations in adjacent geographic areas. Given the current shortage of spectrum facing the public safety community, most public safety operators would shift to simulcasting, enabling them to re-use frequencies at multiple sites within a service area. As Motorola has pointed out, however, a shift to simulcast operations is a significant modification, requiring the relocation of some facilities and tight control over all base stations so that all such sites transmit the same signal, at the same time, at the same deviation, and at the same frequency.³⁴ Complicating this issue is the fact that some older public safety systems may not be upgradeable to simulcast operations. Motorola’s May 6 letter fails to even suggest a mechanism to address the substantial costs, operational burdens and complexities involved in increasing public safety signal strength.

B. The Consensus Plan Is Not an Agreement to Significantly Increase Public Safety Signal Strength

Motorola states that the Consensus Plan parties have reached a “significant agreement on increased signal strength.”³⁵ The Consensus Plan requires no such commitment. Rather, the Consensus Plan provides that if public safety or other non-cellular licensees experience interference *in the realigned band* – which will be an infrequent occurrence – the public safety operator’s signal strength at the interference area determines whether the CMRS licensee(s) are obligated to take mitigative action, or

²⁹ *Id.*

³⁰ *Id.*; see also Motorola September *Ex Parte* at 6.

³¹ Motorola February Comments at 13.

³² Motorola May 6 Letter at 5.

³³ Motorola February Comments at 13.

³⁴ *Id.*

³⁵ Motorola May 6 Letter at 3.

whether the public safety agency's signal strength is too weak to expect reliable communications. Public safety systems will in no way be required to rebuild their systems to increase signal strength. To drive the point home, one of the Consensus Parties' filings stated that the

Consensus Parties explicitly clarify that it is not their intent to drive public safety systems to implement interference-limited system architectures. To the contrary, the Consensus Parties intend the non-cellular block to be [a] "safe harbor" for the continued use of noise-limited systems by public safety and private radio licensees. The interference protection standards proposed herein balance the interests of all parties and provide specific guidance for system design parameters entitled to enhanced interference protection.³⁶

The post-realignment interference protection standards proposed in the Consensus Plan "recognize[] the need to more carefully plan and implement future 800 MHz systems, but at the same time ensure that existing systems would not need to undergo retrofitting, such as adding sites, to qualify for protection from co-channel, adjacent-channel, intermodulation and OOB-based interference in a post-realignment environment."³⁷

As a threshold matter, the Consensus Plan realignment of the 800 MHz band will eliminate the great majority of CMRS – public safety interference. The Consensus Plan realignment will reduce the probability of interference to public safety licensees operating on the new NPSAC channels by an average of 99 percent, and reduce interference to public safety licensees (and private wireless licensees) operating at 809-814/854-859 MHz by an average of 88 percent. Given these impressive reductions in the probability of non-cellular licensees experiencing interference as a result of realignment alone, the Consensus Plan does not require public safety licensees to increase signal strength. Public safety systems will not be undertaking the signal strength increases contemplated by Motorola's reliance on switchable attenuators as a means of addressing 800 MHz interference, making this suggested technical solution infeasible.

³⁶ Consensus Plan Supplemental Comments at 43 n.77.

³⁷ Consensus Plan Reply Comments at 21. *See also id.* at 19-20 ("First and foremost, it should be made clear that no existing incumbent licensee will need to change its existing, constructed system in any way (except for potential frequency changes pursuant to realignment) in order to be protected from CMRS – public safety interference, as discussed further below. The –98 dBm threshold signal strength for existing non-cellular systems reflects two underlying principles: (1) if a non-cellular block licensee has sufficient signal at the interference location to meet its performance objectives (e.g. 20 dB C/I+N for an analog voice system), then CMRS operators would be required to correct the interference; and (2) no CMRS operator should be held accountable for the coverage inadequacies of a non-cellular operator.").

C. Motorola's Claims Regarding Improving Public Safety Receivers Are Tentative and Conflict with Its Prior Statements

Motorola acknowledges the pitfalls and drawbacks to its proposed public safety receiver enhancements, including the use of switchable attenuators and tunable varactors. While it asserts that it has made progress in overcoming these problems, it provides insufficient supporting data to make an independent assessment of this progress. In fact, Motorola makes clear that its letter is limited to “currently available information on the status of [its] efforts” and warns that it still “is in the process of testing the solutions described” in its letter.³⁸

It should also be noted that in comments filed in this proceeding *just three months ago*, Motorola stated that while it “generally supports the adoption of appropriate receiver performance criteria, it is inappropriate to focus on receiver performance as the principal means of providing interference protection for 800 MHz users.”³⁹ In May 2002, Motorola told the Commission “public safety radios today are already world class receivers.”⁴⁰ In a February 2002 presentation to CTIA, Motorola flatly stated that use of a “switchable attenuator is not the solution,” that “pre-selector filtering is not an IM solution,” and that it is “impractical to retrofit existing portables/mobiles to improve IM.”⁴¹

D. The Receiver Solution Will, *At Best*, Solve Only Half the Problem

Motorola's May 6 letter identifies three types of CMRS – public safety interference: “intermodulation interference, interference from out-of-band emissions, and receiver overload interference.”⁴² Yet the receiver performance enhancements described in Motorola's letter only address the first type, IM interference. They do nothing to reduce OOB. Realigning the band to relocate all interference-limited systems above 861 MHz allows these systems to install filters on their base station transmitters that will roll-off OOB in the 859-861 MHz guard band. This will *eliminate* OOB to public safety (and private wireless) licensees relocated below 859 MHz; in fact, these filters begin to roll-off immediately, thus providing improved protection from OOB to non-public safety guard band licensees as well. As long as the current interleaved and adjacent channel licensing of noise-limited and interference-limited systems remains in place, such filtering is impossible and public safety (and private wireless) licensees will remain exposed to cellular and iDEN® OOB – a contributing factor in nearly 50 percent

³⁸ Motorola May 6 Letter at 2, 8.

³⁹ Motorola February Comments at iv.

⁴⁰ Motorola Homeland Security Briefing at 22.

⁴¹ Gary Grube, Corporate Vice President and Chief Technology Officer, Commercial, Government and Industrial Solutions Sector, Motorola, “Public Safety System Design Considerations,” CTIA Briefing, at 6-7, 21 (Feb. 8, 2002).

⁴² Motorola May 6 Letter at 2.

of CMRS – interference incidents. Accordingly, any effective plan in this proceeding must remedy OOB-related interference. Motorola’s approach fails this test.

E. The Commission Should Not Rely on Best Practices for a Permanent Solution to 800 MHz Interference

Motorola’s suggested approach for addressing interference in the 800 MHz band also relies heavily on what it has labeled “Forward Looking Best Practices” – that is, “coordination between public safety and CMRS operators to identify areas where interference is likely, so that the problem can be addressed before it happens.”⁴³ Motorola further states that this requires “procedures for predicting interference,” and suggests that the Consensus Parties have recommended such procedures.⁴⁴

The Consensus Parties have not recommended any sort of mechanism for “predicting” interference events. Indeed, a primary purpose of the Consensus Plan is to replace the current Best Practices regime with a band plan and complementary technical rules that eliminate the need to address CMRS – public safety interference on a case-by-case basis, either in a predictive or reactive manner.⁴⁵ Moreover, CMRS systems are inherently dynamic, and, as Motorola itself has recognized, “interference is often the result of multiple conditions and causes.”⁴⁶ It is therefore impossible to predict the occurrence of CMRS – public safety interference with any precision or reliability. In the real world Motorola’s suggested “Forward-looking Best Practices” would inevitably emerge as one more variant of case-by-case, after-the-fact mitigation.

Furthermore, as Nextel and public safety licensees have learned first-hand, a case-by-case approach imposes significant operational and financial burdens on licensees and is not sustainable for the long term. Since reports of 800 MHz interference first arose four years ago, Nextel, other CMRS licensees, and public safety operators have used a variety of case-by-case interference mitigation techniques, contained in the “Best Practices Guide,” to manage 800 MHz interference until a long-term solution is adopted.⁴⁷ Best Practices were never intended, however, to be a permanent solution.⁴⁸

⁴³ *Id.* at 1-2.

⁴⁴ *Id.* at 12-13.

⁴⁵ The Consensus Plan does, however, suggest revised Best Practices to provide a template for remedying post-realignment interference.

⁴⁶ Comments of Motorola, at 16 (May 6, 2002) (“Motorola May Comments”).

⁴⁷ See *Wireless Telecommunications Bureau Announces Best Practices Guide for Avoiding Interference Between Public Safety and Commercial Wireless 800 MHz Communications Systems*, FCC News Release (Feb. 9, 2001).

⁴⁸ The Best Practices Guide, at 11, recognizes that technical measures to mitigate 800 MHz interference “will typically result in sub-optimal use of the licensed spectrum of either the public safety licensee, the CMRS operator, or both. Frequency swaps that enable each party to fully utilize its licensed channels serve the public interest by promoting spectrum efficiency and the widespread availability of both public safety communications and commercial wireless services.”

Given the severity and growth of CMRS – public safety in the 800 MHz band, it has become clear that case-by-case, “Best Practices” type interference management is not a viable long-term solution. This “fixed point” approach based on a specific site is inherently reactive and remains unacceptable in the public safety context, where any given interference incident can jeopardize the lives of citizens and emergency personnel. As Motorola recognizes, “[d]ropped calls can be a life threatening issue for users of mission critical private systems.”⁴⁹

It also is unsustainable from a commercial operations perspective. With interference continuing to emerge in new locations around the country, strict reliance on the Best Practices Guide requires active management of thousands of RF sites nationwide, leading to chronic and draining expenditures of capital and personnel hours.⁵⁰ Motorola understands this potential harm, having stated in this proceeding that case-by-case interference resolutions “divert carrier resources that could otherwise be used to enhance service to their customers.”⁵¹

Over time, case-by-case mitigation constrains the development of Land Mobile Radio operations at 800 MHz and severely compromises the spectrum efficiency of both CMRS providers and public safety systems. Long-term reliance on case-by-case measures requires that significant amounts of 800 MHz spectrum lie fallow, contrary to basic spectrum management principles. In particular, continued reliance on case-by-case measures disrupts frequency reuse patterns and channel availability for all CMRS carriers, including Nextel; it requires frequency use restrictions that cannot be maintained over the long-term without unacceptable losses in capacity, coverage, and service quality ultimately resulting in higher consumer prices.

Motorola summed it up well in the Commission’s 700 MHz Guard Band proceeding: “the number of interference zones created by a subscriber-based system with a cellular architecture [to a public safety system using adjacent channels in the same geographic area] cannot be effectively managed through frequency coordination and operational coordination.”⁵² Fundamentally, such a case-by-case approach fails to

⁴⁹ Motorola May Comments at 10. The *PSWAC Final Report* emphasized the time-urgent nature of public safety communications. It stated that “[s]ystems must provide immediate and reliable communications when lives are at stake and time is critical,” and added that, in the event public safety operations are disrupted, “assistance can be delayed and response efforts can be inefficient, which ultimately jeopardizes lives, both those of the officers and the public at large.” *Final Report of the Public Safety Wireless Advisory Committee to the Federal Communications Commission, Reed E. Hundt, Chairman, and the National Telecommunications and Information Administration, Larry Irving, Assistant Secretary of Commerce for Communications and Information*, WT Docket No. 96-86, ¶¶ 1.4, 1.5 (Sep. 11, 1996) (“*PSWAC Final Report*”).

⁵⁰ Nextel’s efforts at case-by-case mitigation have required a substantial financial commitment. Nextel has modified its facilities and installed new equipment at numerous locations around the country, and has dedicated personnel exclusively to the task of interference mitigation at these sites.

⁵¹ Motorola May Comments at 2.

⁵² Motorola 700 MHz Comments at 6.

remedy the underlying cause of CMRS – public safety interference: the operation of incompatible public safety and CMRS wireless systems on interleaved and mixed 800 MHz channels. Rather than settle for case-by-case, after-the-fact palliatives, the Commission should seek a comprehensive, proactive solution that preemptively addresses interference to public safety systems.

F. The Suggested Receiver Enhancements Have Other Limitations

Motorola states that a field upgrade kit for the switchable attenuator enhancement “could be developed for *some* radios,”⁵³ suggesting that this enhancement would either be unavailable for other Motorola radios or more difficult to install in them. In its May 6 letter, Motorola does not commit to make this enhancement available for any of the more than two million public safety mobile and portable units in use today. Similarly, tunable varactor filters are an improvement only for Motorola’s 700/800 MHz dual-band radios, which represent a very small fraction of public safety radios in use today.

Motorola’s May 6 letter also says nothing about interference to B/ILT and H-SMR systems. As described in Section II, a number of private wireless licensees in this proceeding have expressed concern about this interference. The Consensus Plan would benefit these licensees by increasing their level of interference protection in a realigned band. In contrast, Motorola’s suggested approach does not address the situation facing these private radio operators.

IV. THE CONSENSUS PLAN OFFERS OTHER SIGNIFICANT BENEFITS

Motorola’s May 6 submission does not address public safety operators’ urgent need for more spectrum, a need that has only grown more acute in the wake of the September 11 terrorist attacks.⁵⁴ While previous filings from Motorola have highlighted this spectrum shortage,⁵⁵ Motorola’s suggested technical solution to 800 MHz interference would offer no additional spectrum to public safety operators. In contrast, the Consensus Plan will provide additional, near term spectrum for public safety communications in the 700 and 800 MHz bands, plus the added benefit of greater interference protection.⁵⁶

While Motorola has previously recognized the threat of interference to high-site systems licensed at 900 MHz,⁵⁷ its May 6 letter does nothing to address this interference.

⁵³ Motorola May 6 Letter at 7 (emphasis added).

⁵⁴ See, e.g., *PSWAC Final Report* ¶ 2.2.1.

⁵⁵ See, e.g., Motorola May Comments at 4.

⁵⁶ See, e.g., Consensus Plan at 26-27; Consensus Plan Supplemental Comments at 3; Reply Comments of Nextel Communication, Inc., ET Docket No. 00-258, at 7-10 (Apr. 28, 2003).

⁵⁷ See, e.g., Motorola August Reply at 18-19.

As Nextel has previously described, B/ILT and H-SMR licensees in the 900 MHz band currently operate on channels that are interleaved with frequencies licensed to Nextel for use in low-site, low-power cellularized systems.⁵⁸ If this interleaved mix of noise-limited and interference-limited systems is permitted to develop fully over the next several years, Land Mobile Radio operators in the 900 MHz band are likely to experience the same substantial interference problems currently plaguing 800 MHz users. The Consensus Plan will effectively preempt the development of interference in the 900 MHz band, a goal that is integral to this proceeding. Under the Consensus Plan, Nextel will surrender its existing licensed 900 MHz channels to accommodate new private wireless systems as well as 800 MHz B/ILT and H-SMR incumbents that voluntarily elect to relocate to the 900 MHz band. This, in turn, will create additional spectrum for public safety. The move of Nextel's cellularized technology out of the 900 MHz band will prevent the prolonged interleaving of high-site and low-site systems at 900 MHz and will create a nearly 10 MHz contiguous block for B/ILT and H-SMR licensing in that band.⁵⁹

V. CONCLUSION

Nextel welcomes efforts by Motorola to improve public safety receiver performance. Such improvements can help address the small amount of potential interference that will remain after realignment of the 800 MHz band as proposed in the Consensus Plan. Without realignment, however, such measures are not a viable option for remedying the serious levels of CMRS – public safety interference at 800 MHz. The Commission must act expeditiously to remedy this increasingly serious problem by adopting the Consensus Plan. Interference to public safety systems is placing the lives of first responders and others at risk, and this risk will only increase if adoption and implementation of an effective remedy to the problem is delayed.

Sincerely,

/s/ Robert S. Foosaner

Robert S. Foosaner

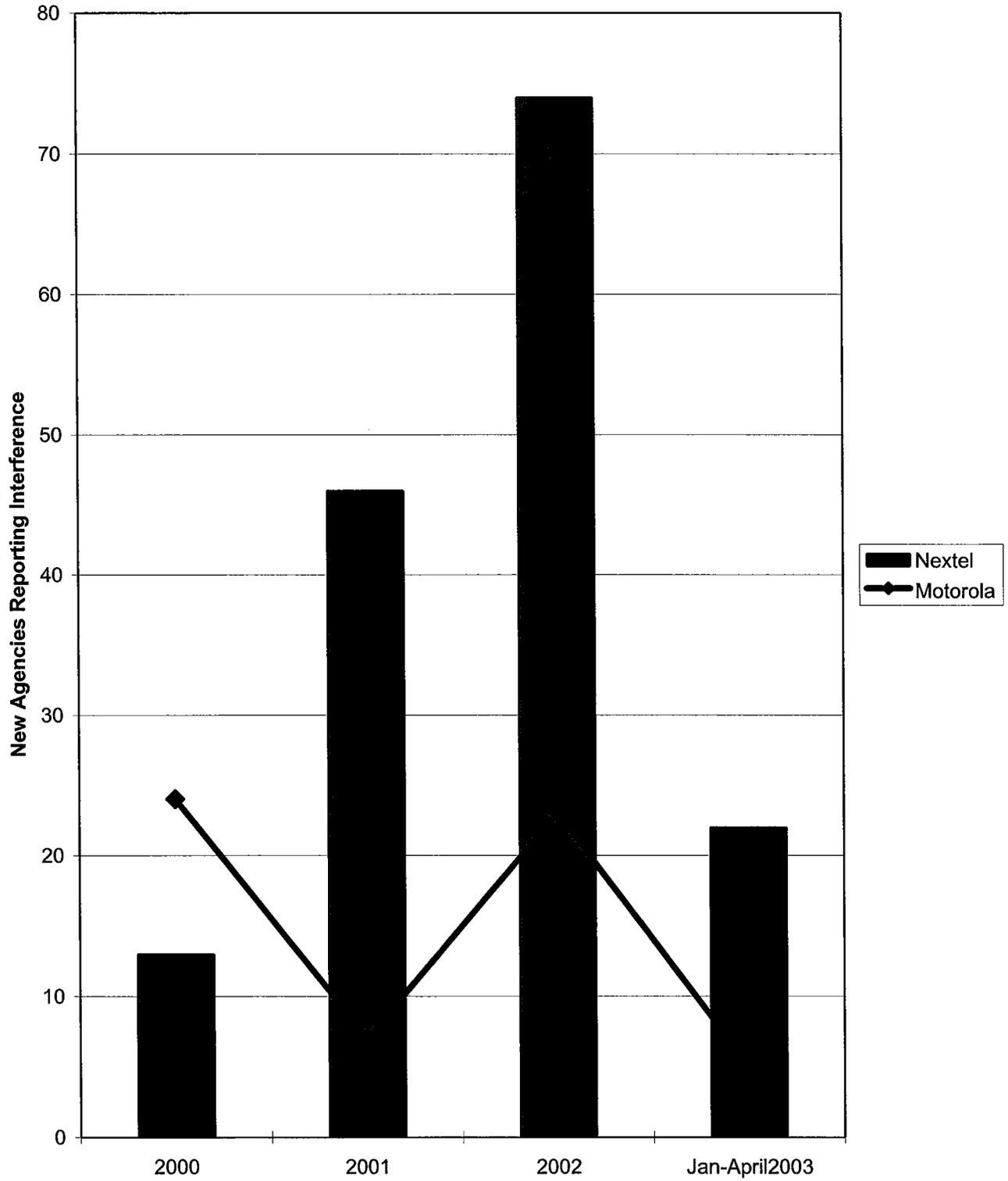
Senior Vice President and Chief Regulatory Officer

cc: John Muleta
Edmond Thomas

⁵⁸ See, e.g., Reply Comments of Nextel Communications, Inc. and Nextel Partners Inc., at 25-27 (Feb. 25, 2003).

⁵⁹ This will almost double the amount of spectrum available to private wireless users at 900 MHz for noise-limited, non-cellularized system technologies that economically and effectively meet many of their mobile communications requirements.

New Public Safety Agency Reports of Interference



**APPENDIX B
CMRS-PUBLIC SAFETY INTERFERENCE CASES REPORTED BY PUBLIC SAFETY AGENCIES**

| Year | Agency | Agency Abbreviation | State | Location of Interference |
|-------------|------------------------------------|----------------------------|--------------|--|
| 2003 | Calif Dept of Corrections | CDC | CA | Inside Prison |
| 2003 | Los Angeles | LAX | CA | PD Parking Lot |
| 2003 | OCTA | OCT | CA | I605 & CA22 |
| 2003 | OCTA | OCT | CA | I405 & Bruckhurst |
| 2003 | OCTA | OCT | CA | I405 & Bristol |
| 2003 | OCTA | OCT | CA | I405 & Harbor |
| 2003 | OCTA | OCT | CA | I405 & Westminster |
| 2003 | Illinois State Police | ILL | IL | Parking Lot, Matteson PD |
| 2003 | Will County | WIL | IL | Crete Municipal Bldg |
| 2003 | Glendale | GLN | AZ | Myrtle + 62nd Ave near Glendale + 59th Ave |
| 2003 | Glendale | GLN | AZ | Union Hills + 67th Ave |
| 2003 | Essex County Sheriff | ESS | NJ | Newark 4 |
| 2003 | Orange County/Garden Grove PD + FD | ORN | CA | General area around intersection of Westminster & Harbor Blvd and on North side of Westminster directly across from Nextel site. |
| 2003 | Victorville FD | VIC | CA | along Jasmione Rd and at Hesperia intersection |
| 2003 | Victorville FD | VIC | CA | along Mariposa Rd behind site, I-15 + Bear Valley |
| 2003 | Westminster | WMR | CO | W prkg lot of 9110 Yates + in-bldg, near 92nd + Sheriden |
| 2003 | MECA | MEC | IN | Broadripple Monon Trail |
| 2003 | MECA | MEC | IN | Franklin Rd. & 46th St. |
| 2003 | Nevada DOT | NVP | NV | on-ramp near H + Bonanza |
| 2003 | Huron County | HUR | MI | Halfway Corners |
| 2003 | Sacramento County | SCM | CA | Marconi + Fair Oaks |
| 2003 | Sacramento County / Metro Fire | SCM | CA | Fair Oaks + Wayside Ln, Carmichael |
| 2003 | Orange County | ORN | CA | Imperial + Associate |
| 2003 | Costa Mesa PD | CSM | CA | Corner of Fairview Rd and Baker Street. In and around shopping centers on East side of Fairview. |
| 2003 | El Paso | ELP | TX | 4600 Barney, voice-N |
| 2003 | El Paso | ELP | TX | 4601 Barney, MDT |
| 2003 | El Paso | ELP | TX | 4602 Barney, AVL |
| 2003 | El Paso | ELP | TX | Rushing + Fairbanks |
| 2003 | King County | KNG | WA | SW of 320th + I5, Park n' Ride in Federal Way |
| 2003 | New Jersey State Police | NJS | NJ | Muhlenburg Hosp. |
| 2003 | Lake County | LAK | IL | Everett Rd. |
| 2003 | Lake County | LAK | IL | Everett Rd. |
| 2003 | Mass. State Police | MSP | MA | 95 north bound starts after exit 7, get's bad at 8, and a little continuing towards 9. Mechanic Street area, Foxboro |
| 2003 | Mass. State Police | MSP | MA | area around Canton Police Station Washington Street and Revere Street |
| 2003 | Mass. State Police | MSP | MA | Brown Circle, Revere |

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| <u>Year</u> | <u>Agency</u> | <u>Agency Abbreviation</u> | <u>State</u> | <u>Location of Interference</u> |
|-------------|--------------------------------|----------------------------|--------------|---|
| 2003 | Mass. State Police | MSP | MA | Downtown Framingham on Concord St (rt 126) |
| 2003 | Mass. State Police | MSP | MA | Downtown Framingham on Concord St (rt 126) between bank, common, and railroad tracks |
| 2003 | Mass. State Police | MSP | MA | Mass Turnpike between the I-90 tunnel extension and the Prudential Tunnel. North of MA-0190 |
| 2003 | Mass. State Police | MSP | MA | Mass Turnpike between the I-90 tunnel extension and the Prudential Tunnel. West of MA-0190 |
| 2003 | Mass. State Police | MSP | MA | natick wellesley line stop lights near Lee Automotive and Wellesley Motor Inn |
| 2003 | Mass. State Police | MSP | MA | RT 1 near Benny's and Kai Lua north of RT 1, 1a and 120 intersection, North Attleboro |
| 2003 | Mass. State Police | MSP | MA | RT 135 and RT 20, Northboro |
| 2003 | Mass. State Police | MSP | MA | RT 146 Sutton near old Drive-In |
| 2003 | Mass. State Police | MSP | MA | RT 20 area around The LampLighter II, Milbury |
| 2003 | Mass. State Police | MSP | MA | rt 20/ 30 Comm Ave Bright Ave split, Brookline |
| 2003 | Mass. State Police | MSP | MA | RT 9 east and west bound lanes, east of Prospect St, Framingham |
| 2003 | Mass. State Police | MSP | MA | Rt. 1 , Danvers, near Home Depot |
| 2003 | Mass. State Police | MSP | MA | Rt.1 Saugus, near 99 Restaurant |
| 2003 | Mass. State Police | MSP | MA | Walpole RT 27 & RT 1 High Plain Street |
| 2003 | Northwest Central Dispatch | NWC | IL | Hoffman Estates |
| 2003 | Northwest Central Dispatch | NWC | IL | Schaumburg |
| 2003 | Michigan State Police | MIC | MI | Macomb (I-75&I-696), |
| 2003 | New Jersey State Police | NJS | NJ | Shiloh |
| 2003 | Harris County | HAR | TX | Multiple locations |
| 2003 | Sacramento County / Metro Fire | SCM | CA | Marconi + Eastern |
| 2003 | San Francisco (City + County) | SFX | CA | 115 Sansome Street |
| 2003 | San Francisco (City + County) | SFX | CA | 1385 Mission Street |
| 2003 | San Francisco (City + County) | SFX | CA | 244 Kearny Street |
| 2003 | San Francisco (City + County) | SFX | CA | 311 California Street |
| 2003 | San Francisco (City + County) | SFX | CA | 410 Townsend Street |
| 2003 | San Francisco (City + County) | SFX | CA | 425 Washington Street |
| 2003 | San Francisco (City + County) | SFX | CA | 501 Geary Street |
| 2003 | San Francisco (City + County) | SFX | CA | 735 Market Street |
| 2003 | San Francisco (City + County) | SFX | CA | 890 Taraval Street |
| 2003 | San Francisco (City + County) | SFX | CA | 901 Market Street |
| 2003 | Hanover County | HAN | VA | intersection of US-301 and I-295 north of Mechancsville, VA. |
| 2003 | Trenton, City of | TRT | NJ | Comm Office, Labor & Industry Bldg. |
| 2003 | SNACC / Henderson | SNC | NV | Skyline |
| 2003 | Colonie PD | COL | NY | Albany Shaker Rd. |
| 2003 | Colonie PD | COL | NY | Sand Creek Rd. |

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|-------------|--------------------------------|----------------------------|--------------|--|
| 2003 | Colorado, State of | CSP | CO | Gun club Road site, (Gun Club + Smoky Hill) uplink IF |
| 2003 | City of Irving | IRV | TX | Shady Grove and Irving Boulevard |
| 2003 | DART | DAR | TX | Parker Station |
| 2003 | San Francisco (City + County) | SFX | CA | 900 Palou Street |
| 2003 | Napa Co / City of Saint Helena | NAP | CA | MDT |
| 2003 | Sacramento / PD | SAC | CA | Falsom + Bicentennial |
| 2003 | Sacramento / PD | SAC | CA | Oates + Bradshaw |
| 2003 | Sacramento County / Metro Fire | SCM | CA | Falsom + Bicentennial |
| 2003 | Sacramento County / Metro Fire | SCM | CA | Oates + Bradshaw |
| 2003 | Border Patrol | BRD | WA | Sumas, 160 MHz |
| 2003 | Miami-Dade County | MDC | FL | Turnpike & Coral Way |
| 2003 | Shawnee City | SHA | OK | City Hall |
| 2003 | Fresno | FRS | CA | King's Canyon |
| 2003 | Orange County | ORN | CA | CA22 + Beach, 7900 Garden Grove, Westminster |
| 2003 | Florence County | FLO | SC | Marion |
| 2003 | City of Orlando | ORL | FL | Curry Ford |
| 2003 | City of Orlando | ORL | FL | Lake Adair |
| 2003 | City of Orlando | ORL | FL | Lake Sue |
| 2003 | Greenwich PD | GRE | CT | Belle Haven |
| 2003 | Mass. State Police | MSP | MA | I-90 connector @Portals Exit Ramp |
| 2003 | New York State Police | NYS | NY | Ocean Hills, Brooklyn |
| 2003 | Akron, City of | AKR | OH | Downtown |
| 2003 | El Paso | ELP | TX | Montwood + Lk Omega Dr, 200' E, voice E |
| 2003 | Miami-Dade County | MDC | FL | 1825 Olympia heights |
| 2003 | Rockland County | ROC | GA | Flat Shoals & GA20 |
| 2003 | Rockland County | ROC | GA | Honey Creek & GA20 |
| 2003 | Honolulu (PD) | HON | HI | Kalihi: Mokauea St and Kahai St |
| 2003 | King County / Valley Comm | KNG | WA | 15 Ave SW + S 312 St, Federal Way |
| 2003 | King County / Valley Comm | KNG | WA | 2699 SW Dash Pt Rd, Federal Way |
| 2003 | King County / Valley Comm | KNG | WA | 33399 21st Ave SW, Federal Way |
| 2003 | King County / Valley Comm | KNG | WA | between 20th Ave S and 25th AV s along S 320th St, Federal Way |
| 2003 | King County / Valley Comm | KNG | WA | S 312th St + 1 Ave S, Federal Way |
| 2003 | King County / Valley Comm | KNG | WA | S 320 St + Pacific Hwy S, Federal Way |
| 2003 | King County / Valley Comm | KNG | WA | SE 256th St and 104 Ave SE, Kent |
| 2003 | King County / Valley Comm | KNG | WA | State Route 18 and C St SW, Auburn |

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|-------------|-------------------------------------|----------------------------|--------------|---------------------------------|
| 2003 | King County / Valley Comm / Tukwila | KNG | WA | S. 124th St along Pacific Hwy S |
| 2003 | Poughkeepsie PD | POU | NY | Vassar College |
| 2003 | Franklin FD | FRA | OH | Springboro |
| 2003 | Aurora Police Dept. | AUR | IL | US 34 & IL59 |
| 2003 | Michigan State Police | MIC | MI | Detroit Zoo |
| 2003 | Chester County | CHS | PA | Landenburg |
| 2003 | Mass. State Police | MSP | MA | Copeland Circle |
| 2003 | Mass. State Police | MSP | MA | Railroad Ave., Revere |
| 2003 | Chester County | CHS | PA | Phoenixville |
| 2003 | King County / Seattle | KNG | WA | ITAC's at West Precinct |
| 2003 | Cambridge FD | CAM | MA | Concord Ave. |
| 2003 | Orange County DEC | ORA | NY | Dispatch Center |
| 2002 | Cupertino Union Sch Dist | CUP | CA | Cupertino Union Sch Dist |
| 2002 | Miami-Dade County | MDC | FL | North Miami Springs |
| 2002 | Miami-Dade County | MDC | FL | 112 st. & 142 avenue |
| 2002 | Elmsford PD | ELM | NY | Greenburgh North |
| 2002 | Elmsford PD | ELM | NY | RT. 9A |
| 2002 | Essex County Sheriff | ESS | NJ | E. Orange Exit 145 GSP |
| 2002 | New Jersey State Police | NJS | NJ | Clark MP136.5 GSP |
| 2002 | New Jersey State Police | NJS | NJ | Clifton Exit 153 GSP |
| 2002 | New Jersey State Police | NJS | NJ | Cranford MP138.5 GSP |
| 2002 | New Jersey State Police | NJS | NJ | E. Orange Exit 145 GSP |
| 2002 | New Jersey State Police | NJS | NJ | Interchange 11 NJTP Woodbridge |
| 2002 | New Jersey State Police | NJS | NJ | Interchange 13 NJTP Linden |
| 2002 | New Jersey State Police | NJS | NJ | Irvington MP143 GSP |
| 2002 | New Jersey State Police | NJS | NJ | Islen MP134.9 GSP |
| 2002 | New Jersey State Police | NJS | NJ | Montvale Service Area GSP |
| 2002 | New Jersey State Police | NJS | NJ | Nutley GSP |
| 2002 | New Jersey State Police | NJS | NJ | Union MP140 GSP |
| 2002 | New Jersey State Police | NJS | NJ | Union Toll Plaza MP142 GSP |
| 2002 | Miami-Dade County | MDC | FL | US1 & Napper Creek |
| 2002 | Miami-Dade County | MDC | FL | Kendell Lakes Mall |
| 2002 | Palm Beach County | PBC | FL | Lantana A/P |
| 2002 | Miami-Dade County | MDC | FL | America's Gateway |
| 2002 | Will County | WIL | IL | 425 W. Division, Lockport |

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|-------------|-------------------------------|----------------------------|--------------|---|
| 2002 | Will County | WIL | IL | Hadley School/Indian Oaks |
| 2002 | San Francisco (City + County) | SFX | CA | 1515 19th Ave |
| 2002 | Jefferson Parrish | JEF | LA | Fire Department |
| 2002 | Oakland | OAK | CA | 98th + E: MDT |
| 2002 | Miami-Dade County | MDC | FL | 82 nd Av & 21st Street NW |
| 2002 | Miami-Dade County | MDC | FL | Baptist Hospital |
| 2002 | Miami-Dade County | MDC | FL | College Park Towers |
| 2002 | Miami-Dade County | MDC | FL | Turnpike Kendall |
| 2002 | NYC Housing Auth. | NYH | NY | Bay View Houses |
| 2002 | Mass. State Police | MSP | MA | Dorchester, Morrissey Blvd. |
| 2002 | Mass. State Police | MSP | MA | Matapan |
| 2002 | Mass. State Police | MSP | MA | Salem |
| 2002 | Tift County | TIF | GA | Tift County site |
| 2002 | Clermont County Sheriff | CLE | OH | Batavia SR222 |
| 2002 | Maricopa County / Scottsdale | MAR | AZ | all over east side of PHX |
| 2002 | Oakland | OAK | CA | 13971 Skyline |
| 2002 | Oakland | OAK | CA | 1600 Adeline |
| 2002 | Oakland | OAK | CA | 2000 23rd Ave |
| 2002 | Oakland | OAK | CA | 23 Ave & E 20 th St |
| 2002 | Oakland | OAK | CA | 40 Market |
| 2002 | Oakland | OAK | CA | 438 41st St |
| 2002 | Oakland | OAK | CA | 5683 Cabot |
| 2002 | Oakland | OAK | CA | 5800 Canning |
| 2002 | Oakland | OAK | CA | 618 Beacon St |
| 2002 | Oakland | OAK | CA | 6400 Moraga |
| 2002 | Oakland | OAK | CA | Highland Hospital |
| 2002 | Oakland | OAK | CA | in rear of jail (455 7th Street) |
| 2002 | Oakland | OAK | CA | Montclar village |
| 2002 | Oakland | OAK | CA | Skyline @ Grassvalley |
| 2002 | Oakland | OAK | CA | Sumitt Medical (350 Hawthorne or 450 30th Street) |
| 2002 | Oakland | OAK | CA | Will Rogers Hotel, 271 13th St |
| 2002 | Placer Co | PLC | CA | HB Fuller / 10500 Industrial Ave (CA-46) |
| 2002 | Placer Co | PLC | CA | Piattie Rest / 300s Douglas Blvd (CA-47) |
| 2002 | Roseville (FD) | ROS | CA | HB Fuller / 10500 Industrial Ave (CA-46) |
| 2002 | Roseville (FD) | ROS | CA | Piattie Rest / 300s Douglas Blvd (CA-47) |

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| <u>Year</u> | <u>Agency</u> | <u>Agency Abbreviation</u> | <u>State</u> | <u>Location of Interference</u> |
|-------------|--------------------------------|----------------------------|--------------|------------------------------------|
| 2002 | Sacramento County | SCM | CA | Sunrise + Old Auburn |
| 2002 | Port Washington PD | PWA | NY | Port Wash. Train Sta. |
| 2002 | Upper Uwchlan PD | UUW | PA | PA Rt. 100 |
| 2002 | Manatee County | MAN | FL | Trailer Estates |
| 2002 | Honolulu (PD) | HON | HI | Enchanted Lakes |
| 2002 | Honolulu (PD) | HON | HI | Kano Trucking |
| 2002 | Honolulu (PD) | HON | HI | The 3 tunnels-LikeLike/Pali and H3 |
| 2002 | Honolulu (PD) | HON | HI | Wahiawa |
| 2002 | Honolulu (PD) | HON | HI | Waikele shopping Center |
| 2002 | Honolulu (PD) | HON | HI | Westpac Golf Course |
| 2002 | MECA | MEC | IN | Fall Creek |
| 2002 | Chester County | CHS | PA | Summit House Condos |
| 2002 | California Park Svc | CPS | CA | Palm Desert area, Toro Peak |
| 2002 | High Point | HIP | NC | Oak hollow |
| 2002 | Old Westbury PD | OWB | NY | Pines & GlenCove Rd. |
| 2002 | NYC DoITT | NYD | NY | NYCEDC Bldg. 110 William St. |
| 2002 | Santa Clara | SCA | CA | Back Beat: Homestead + Lawrence |
| 2002 | Lakewood | LKW | CO | Kipling + Jewel |
| 2002 | Lakewood | LKW | CO | Mississippi + Wadsworth -2 |
| 2002 | Palm Beach County | PBC | FL | Blue Lake |
| 2002 | Cobb County | COB | GA | Macland Rd & Lost Mountain Rd. |
| 2002 | Manatee County | MAN | FL | Fire Island |
| 2002 | Oakland | OAK | CA | 76th + Int'l |
| 2002 | New Jersey State Police | NJS | NJ | 7th & Kaigns Ave., Camden |
| 2002 | New Jersey State Police | NJS | NJ | Eighth & Harrison, Frenchtown |
| 2002 | New Jersey State Police | NJS | NJ | I-295 & Jessup Rd. |
| 2002 | Essex County Sheriff | ESS | NJ | McCarter Hgwy. |
| 2002 | Essex County Sheriff | ESS | NJ | State Route 21/Belleville |
| 2002 | Alameda County | ALA | CA | Durant Sq / Int'l + Bristol -2 |
| 2002 | Sacramento County / Metro Fire | SCM | CA | 591 Watt & Fair Oaks / PS-CA-043 |
| 2002 | Sacramento County / Metro Fire | SCM | CA | 4915 Watt Avenue / PS-CA-044 |
| 2002 | Essex County Sheriff | ESS | NJ | Broad St., Newark |
| 2002 | Essex County Sheriff | ESS | NJ | Market St., Newark |
| 2002 | Newport News | NNV | VA | Roanoke & 39th |
| 2002 | Miami-Dade County | MDC | FL | West Miami Railroad |

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| Year | Agency | Agency Abbreviation | State | Location of Interference |
|-------------|---------------------------------|----------------------------|--------------|---|
| 2002 | Michigan State Police | MIC | MI | US Rt. 131 & I-196 (#4) |
| 2002 | Michigan State Police | MIC | MI | US Rt. 131 & Leonard St.(#3) |
| 2002 | Michigan State Police | MIC | MI | US Rt. 131 & W. Fulton St."S-Curve" (#5) |
| 2002 | Michigan State Police | MIC | MI | US Rt. 131& 6 Mile Rd.(#1) |
| 2002 | Michigan State Police | MIC | MI | US Rt. 131& Wealthy St.(#6) |
| 2002 | Michigan State Police | MIC | MI | US Rt.131 & West River Dr.(#2) |
| 2002 | Dearborn Heights PD | DEA | MI | Michigan & Gully |
| 2002 | Dearborn Heights PD | DEA | MI | Outer Dr. |
| 2002 | Dearborn Heights PD | DEA | MI | Southfield & Oakwood |
| 2002 | Alameda County | ALA | CA | 498 Bristol Blvd and E 14th St - San Leandro -1 |
| 2002 | New Jersey State Police | NJS | NJ | Carteret |
| 2002 | New Jersey State Police | NJS | NJ | NJTP MP83 New Brunswick |
| 2002 | King County / EPSCA | KNG | WA | 102 + Main |
| 2002 | King County / EPSCA | KNG | WA | 18200 - 17800 Ballinger Way |
| 2002 | King County / EPSCA | KNG | WA | 19235 51st Ave NE |
| 2002 | King County / EPSCA | KNG | WA | 22070 17th Ave SE |
| 2002 | King County / EPSCA | KNG | WA | 224th + 29th |
| 2002 | King County / EPSCA | KNG | WA | 2500 228th St SE |
| 2002 | King County / EPSCA / Bothel PD | KNG | WA | 17171 Bothell Way |
| 2002 | Palm Beach County | PBC | FL | 6th Ave South & Congress |
| 2002 | NYC DoITT | NYD | NY | Bowling Green |
| 2002 | Portland | PDX | OR | SE MLK + SE Main |
| 2002 | Oakland | OAK | CA | Mtn + Redwood |
| 2002 | Mammoth Ski Rescue | MAM | CA | Mammoth |
| 2002 | Lake County | LAK | IL | Chevy Chase GC |
| 2002 | WA DOT | WDT | WA | Kent Maint Station |
| 2002 | Hawaii County | HAW | HI | Kulani Cone |
| 2002 | New Jersey State Police | NJS | NJ | Joyce Kilmer Service Area NJTP |
| 2002 | New Jersey State Police | NJS | NJ | NJTP MP92 Sewaren |
| 2002 | New Jersey State Police | NJS | NJ | NJTP MP97 |
| 2002 | SFO | SFO | CA | 450 MHz conv system |
| 2002 | Alameda County | ALA | CA | 1401 Factor Ave, San Leandro -2 |
| 2002 | Alameda County | ALA | CA | 32100 Alvarado Niles Rd, Union City |
| 2002 | NYC DoITT | NYD | NY | Pelham Gardens |
| 2002 | SUNY Albany PD | SUN | NY | Campus/Inside ES & T Bldg. |

**APPENDIX B
CMRS-PUBLIC SAFETY INTERFERENCE CASES REPORTED BY PUBLIC SAFETY AGENCIES**

| <u>Year</u> | <u>Agency</u> | <u>Agency Abbreviation</u> | <u>State</u> | <u>Location of Interference</u> |
|-------------|-------------------------|----------------------------|--------------|---|
| 2002 | Kings Point PD | KIN | NY | PD Base Station |
| 2002 | NYC DoITT | NYD | NY | Throgs Neck 2 |
| 2002 | Nantucket PD | NAN | MA | Nantucket |
| 2002 | MECA | MEC | IN | Speedway |
| 2002 | Shelby Tnshp PD | SHE | MI | Police Dept.Base |
| 2002 | Baltimore County | BAL | MD | Walker & Wilkens Rds. |
| 2002 | New Jersey State Police | NJS | NJ | Garden State Pkwy |
| 2002 | Arlington Police Dept | ARL | TX | Six Flags & Collins |
| 2002 | NYC DoITT | NYD | NY | Madison Square Park |
| 2002 | Palm Beach County | PBC | FL | Forrest Hill & Congress |
| 2002 | OCTA | OCT | CA | I405 + Beach |
| 2002 | OCTA | OCT | CA | I405 + Golden West |
| 2002 | OCTA | OCT | CA | I405 + Magnolia |
| 2002 | OCTA | OCT | CA | I405 + MascArthur |
| 2002 | OCTA | OCT | CA | I405 + SR55 |
| 2002 | OCTA | OCT | CA | I605 from I405 to Katella |
| 2002 | OCTA | OCT | CA | South of I5 N + SR55 |
| 2002 | OCTA | OCT | CA | SR55 + 17th St |
| 2002 | OCTA | OCT | CA | SR55 + Katella |
| 2002 | OCTA | OCT | CA | SR55 + Lincoln |
| 2002 | OCTA | OCT | CA | SR57 + Lambert |
| 2002 | OCTA | OCT | CA | SR91 transition to I5 S |
| 2002 | OCTA | OCT | CA | West of SR91 + SR55 |
| 2002 | NYC DoITT | NYD | NY | Williamsburg Bridge |
| 2002 | Centre County | CEN | PA | Graduate Apts. |
| 2002 | Centre County | CEN | PA | Simpson Chiro. |
| 2002 | Centre County | CEN | PA | Tubbies Bedrooms |
| 2002 | Old Westbury PD | OWB | NY | Glen Cove Rd.@LIE |
| 2002 | Old Westbury PD | OWB | NY | Village Hall |
| 2002 | Alameda County | ALA | CA | 43900 Ice house Ter (Home Depot) / Durham+ I680 |
| 2002 | Sacramento | SAC | CA | Rio Linda + Jesse |
| 2002 | Bloomfield PD | BLO | MI | Bloomfield PD Hdqtrs. |
| 2002 | Miami-Dade County | MDC | FL | Airport |
| 2002 | UCAN | UCN | UT | 102nd S. + Redwood |
| 2002 | UCAN | UCN | UT | 33rd St. + State |

**APPENDIX B
CMRS-PUBLIC SAFETY INTERFERENCE CASES REPORTED BY PUBLIC SAFETY AGENCIES**

| Year | Agency | Agency Abbreviation | State | Location of Interference |
|-------------|------------------------------|----------------------------|--------------|---|
| 2002 | Dekalb County | DEK | GA | 1128 Montreal Road |
| 2002 | Dekalb County | DEK | GA | 2200 Century City Parkway |
| 2002 | Dekalb County | DEK | GA | 2677 Whites Mill Road |
| 2002 | Dekalb County | DEK | GA | 3185 northeast Freeway, Tower 2 |
| 2002 | Dekalb County | DEK | GA | 3437 Evans Road |
| 2002 | Dekalb County | DEK | GA | 4235 Eastside Drive |
| 2002 | Dekalb County | DEK | GA | 4330 Peachtree Road NE, Shelter B |
| 2002 | Dekalb County | DEK | GA | 7719 Covington Hwy |
| 2002 | Sands Point PD | SAP | NY | Police Dept.Base |
| 2002 | Imperial Irrigation District | IIR | CA | Worthington + CA86, N. of IID yard |
| 2002 | San Leandro | SLP | CA | 797 Montague / Alvarado St + Montague / Marina + I880 -1 |
| 2002 | SFO | SFO | CA | Terminal 3 at SFO |
| 2002 | El Paso | ELP | TX | Rojas + Loma Verde, AVL |
| 2002 | El Paso | ELP | TX | Rojas + Loma Verde, MDT |
| 2002 | El Paso | ELP | TX | Rojas + Loma Verde, voice SW |
| 2002 | San Leandro | SLP | CA | 14895 East 14th St / Bank at 150th E. 14th / CA185 + Hesperian -2 |
| 2002 | Baltimore County | BAL | MD | Johnnycake Rd. Ingleside Rd. |
| 2002 | Baltimore County | BAL | MD | Sulphur Spring Rd. |
| 2002 | Oakland | OAK | CA | 1091 Calcot Place |
| 2002 | Oakland | OAK | CA | 146 E. 12TH St |
| 2002 | Oakland | OAK | CA | 3033 Macarthur |
| 2002 | Oakland | OAK | CA | 4230 Park |
| 2002 | Oakland | OAK | CA | 742 45th. Ave. |
| 2002 | Freemont Fire | FFD | CA | Fire House #5 |
| 2002 | Mass. State Police | MSP | MA | Brighton I90 Mr. Tux |
| 2002 | Mass. State Police | MSP | MA | I84 Truck Weigh |
| 2002 | Mass. State Police | MSP | MA | Montrose Ave./Wakefield |
| 2002 | Mass. State Police | MSP | MA | Newton Pol. Sta. |
| 2002 | Mass. State Police | MSP | MA | Rt.1 Saugus |
| 2002 | Fresno | FRS | CA | 5773 E. Shields / in front of Vincent Comm / MDT issue / PS-12 |
| 2002 | North Las Vegas | NLV | NV | 725 Washburn Rd |
| 2002 | New York City Transit | NYT | NY | Cadman Plaza |
| 2002 | New York City Transit | NYT | NY | Fulton&Flatbush |
| 2002 | New York City Transit | NYT | NY | Fulton&Hoyt |
| 2002 | New York City Transit | NYT | NY | Fulton&Smith |

**APPENDIX B
CMRS-PUBLIC SAFETY INTERFERENCE CASES REPORTED BY PUBLIC SAFETY AGENCIES**

| Year | Agency | Agency Abbreviation | State | Location of Interference |
|-------------|-----------------------|----------------------------|--------------|---|
| 2002 | Central AZ Project | CAP | AZ | Bush + Power |
| 2002 | Sacramento County | SCM | CA | Aantelope + I80 / PS-15 |
| 2002 | Sacramento County | SCM | CA | Howe + Arden / PS-14 |
| 2002 | Sacramento County | SCM | CA | Marconi + Fair Oaks |
| 2002 | Sacramento County | SCM | CA | Watt + Elkhorn / PS-13 |
| 2002 | San Diego | SAN | CA | Bird Rock |
| 2002 | Santa Clara | SCA | CA | Back Beat: Homestead + Lawrence |
| 2002 | Santa Clara | SCA | CA | Lafayette + Hogun |
| 2002 | Sacramento | SAC | CA | Arden + Eastern |
| 2002 | Sacramento | SAC | CA | BUS80 between Elvas + E |
| 2002 | Sacramento | SAC | CA | CSUS Stadium, Sacramento |
| 2002 | Sacramento | SAC | CA | Fair Oaks + California |
| 2002 | Sacramento | SAC | CA | Madison + Fair Oaks |
| 2002 | Sacramento | SAC | CA | Marconi + Eastern |
| 2002 | Honolulu (PD) | HON | HI | Ewa |
| 2002 | Oakland | OAK | CA | 5345 Foothill |
| 2002 | Washington DC FD | WDC | DC | Strickland Fire Prot. |
| 2002 | City of Norfolk | NOR | VA | 39th & Killiam |
| 2002 | Kauai County | KAU | HI | Hanalei near PD/FD station |
| 2002 | Kauai County | KAU | HI | Kapaa ballpark near PD mini substation |
| 2002 | Kauai County | KAU | HI | Kapaa Shopping Center, Kuhio + Akoa |
| 2002 | Kauai County | KAU | HI | Waimea Town |
| 2002 | Miami-Dade County | MDC | FL | Palmetto & 165th Street |
| 2002 | Illinois State Police | ILL | IL | I294 & I55 |
| 2002 | McLean, County | MCL | IL | Bloomington |
| 2002 | Victorville FD | VIC | CA | inside mall at Park + Palmdale, I-15 + Palmdale at Park Tower, overlooking Target |
| 2002 | Will County | WIL | IL | 159th & Cedar |
| 2002 | El Paso | ELP | TX | Delta + Alameda, AVL |
| 2002 | El Paso | ELP | TX | Delta + Alameda, MDT |
| 2002 | El Paso | ELP | TX | Delta + Alameda, voice N |
| 2002 | El Paso | ELP | TX | Dyer + Trans Mtn |
| 2002 | El Paso | ELP | TX | Montwood + Dieter / Estrella + Dieter, 100' S, AVL |
| 2002 | El Paso | ELP | TX | Montwood + Dieter / Estrella + Dieter, 100' S, MDT |
| 2002 | El Paso | ELP | TX | Montwood + Dieter / Estrella + Dieter, 100' S, voice-S |
| 2002 | El Paso | ELP | TX | Pullman + Pelicano, Firestation 29 |

**APPENDIX B
CMRS-PUBLIC SAFETY INTERFERENCE CASES REPORTED BY PUBLIC SAFETY AGENCIES**

| Year | Agency | Agency Abbreviation | State | Location of Interference |
|-------------|---------------------------|----------------------------|--------------|-----------------------------------|
| 2002 | El Paso | ELP | TX | Riverside + Alameda, AVL |
| 2002 | El Paso | ELP | TX | Riverside + Alameda, MDT |
| 2002 | El Paso | ELP | TX | Riverside + Alameda, voice-N |
| 2002 | El Paso | ELP | TX | Trawood + Dieter, 100', voice NNW |
| 2002 | Oakland | OAK | CA | 76th + Int'l |
| 2002 | Oakland | OAK | CA | 98th + E |
| 2002 | Santa Clara | SCA | CA | 1990 Walsh |
| 2002 | City of Orlando | ORL | FL | SR50 & Bennet Road |
| 2002 | Will County | WIL | IL | near IL3748 |
| 2002 | Will County | WIL | IL | Homer/Cedar Glen |
| 2002 | Poughkeepsie PD | POU | NY | Montgomery&Market |
| 2002 | King County / Valley Comm | KNG | WA | WA167 + I405, Renton |
| 2002 | WA DOT | WDT | WA | Notner |
| 2002 | Ontario Int'l Airport | ONT | CA | Jurupa + Archibald |
| 2002 | West Hartford | WHA | CT | Dispatch Center |
| 2002 | Westtown PD | WES | PA | Oakbourne |
| 2002 | Will County | WIL | IL | 159th&Bell |
| 2002 | Alameda County | ALA | CA | Redwood Rd area |
| 2002 | Chino PD | CPD | CA | 6100 NE Chino / behind shop. Cen. |
| 2002 | San Diego | SAN | CA | E. SD |
| 2002 | San Diego | SAN | CA | Emerald Gardens |
| 2002 | San Diego | SAN | CA | Genesee Plaza |
| 2002 | San Diego | SAN | CA | Garnet |
| 2002 | San Diego | SAN | CA | College + Mantezuma |
| 2002 | San Diego | SAN | CA | LaJolla / Pool |
| 2002 | Portland | PDX | OR | Montgomery Park |
| 2002 | Horsham Police Dept. | HOR | PA | Carpenter Park |
| 2002 | WA DOT | WDT | WA | I405 + Totem Lake |
| 2002 | WA DOT | WDT | WA | I5 + I90 |
| 2002 | WA DOT | WDT | WA | I5 mile mrkr 83 |
| 2002 | WA DOT | WDT | WA | I5 near Lacey |
| 2002 | Aventura | AVE | FL | Country Club Road |
| 2002 | Lee County | LEE | FL | 3264 Cleveland Avenue |
| 2002 | Lee County | LEE | FL | US41 & Carroll Street |
| 2002 | Lee County | LEE | FL | Golf Culb Drive |

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CMRS-PUBLIC SAFETY INTERFERENCE CASES REPORTED BY PUBLIC SAFETY AGENCIES**

| Year | Agency | Agency Abbreviation | State | Location of Interference |
|-------------|-----------------------|----------------------------|--------------|----------------------------------|
| 2002 | Tarrant County | TAC | TX | South Euless |
| 2002 | Oakland | OAK | CA | 107th + Int'l. Durant Sq / PS-02 |
| 2002 | Oakland | OAK | CA | 150 Hegenburger / PS-01 |
| 2002 | Warren County | WAR | OH | Mason Home Depot |
| 2002 | New York City Transit | NYT | NY | Main St., Flushing |
| 2002 | Portland | PDX | OR | Piedmont |
| 2002 | Portland | PDX | OR | Riverdale |
| 2002 | City of Miami | MIA | FL | 14 AVE NW AND 20 STREET |
| 2002 | City of Miami | MIA | FL | 17 AVE NW AND 117 STREET |
| 2002 | City of Miami | MIA | FL | 1882 Coral Way (27th street) |
| 2002 | City of Miami | MIA | FL | 22 AVE NW AND 22 TERRACE |
| 2002 | City of Miami | MIA | FL | 22 AVE NW AND 42 STREET |
| 2002 | City of Miami | MIA | FL | 22 AVE NW AND 49 STREET |
| 2002 | City of Miami | MIA | FL | 22 AVE NW AND 95 TERR |
| 2002 | City of Miami | MIA | FL | 26 AVE SW AND CORAL WAY |
| 2002 | City of Miami | MIA | FL | 27 AVE NW AND 42 STREET |
| 2002 | City of Miami | MIA | FL | 4 AVE NE 62 STREET -1 |
| 2002 | City of Miami | MIA | FL | 57 AVE NW AND 11 STREET |
| 2002 | City of Miami | MIA | FL | 57 AVE NW AND 7 STREET |
| 2002 | City of Miami | MIA | FL | 600 Brickell Avenue |
| 2002 | City of Miami | MIA | FL | 69 AVE SW AND 4 STREET |
| 2002 | City of Miami | MIA | FL | 83 STREET NW AND N MIAMI AVE |
| 2002 | City of Miami | MIA | FL | Jackson Memorial |
| 2002 | City of Miami | MIA | FL | NE 2nd Ave. & NE 58th St. |
| 2002 | City of Miami | MIA | FL | NE 4th Ave & NE 72nd St. |
| 2002 | City of Miami | MIA | FL | NE 65th & Brickell Ave. |
| 2002 | City of Miami | MIA | FL | NE 71st & Biscayne |
| 2002 | City of Miami | MIA | FL | NW 12th Ave. & NW 11th St. |
| 2002 | City of Miami | MIA | FL | NW 26th Ave. & NW 21st Terr. |
| 2002 | City of Miami | MIA | FL | NW 27th Ave. & NW 2nd St. |
| 2002 | City of Miami | MIA | FL | NW 5th Ave. & NW 54th Street |
| 2002 | City of Miami | MIA | FL | NW 7th Ave. & NW 72nd St. |
| 2002 | City of Miami | MIA | FL | SR836 & Red Road |
| 2002 | City of Miami | MIA | FL | SW 27th Ave. & SW 3rd St. |
| 2002 | City of Miami | MIA | FL | SW9th Ave. & SW 8th St. |

**APPENDIX B
CMRS-PUBLIC SAFETY INTERFERENCE CASES REPORTED BY PUBLIC SAFETY AGENCIES**

| <u>Year</u> | <u>Agency</u> | <u>Agency Abbreviation</u> | <u>State</u> | <u>Location of Interference</u> |
|-------------|------------------------------|----------------------------|--------------|-----------------------------------|
| 2002 | Cary, Town of | CAR | NC | Downtown |
| 2002 | High Point | HIP | NC | Lindsay & Kivett |
| 2002 | Mass. State Police | MSP | MA | Franklin Park Zoo |
| 2002 | Mass. State Police | MSP | MA | NE Aquarium |
| 2002 | Mass. State Police | MSP | MA | Sturbridge |
| 2002 | Mass. State Police | MSP | MA | Weston Tolls |
| 2002 | Mass. State Police | MSP | MA | Wyoma Square |
| 2002 | Allentown, City of | ALL | PA | 15th & Linden |
| 2002 | Allentown, City of | ALL | PA | Savercool Ave. |
| 2002 | Upper Merion PD | UPM | PA | Home Depot |
| 2002 | Fishkill Police Dept. | FIS | NY | US Rt. 9 & I-84 |
| 2002 | Fresno | FRS | CA | King's Canyon |
| 2002 | Trenton, City of | TRT | NJ | Labor&Industry Bldg |
| 2002 | New Jersey State Police | NJS | NJ | Brooklawn |
| 2002 | High Point | HIP | NC | Oak hollow |
| 2002 | Fairfax County | FAI | VA | Bellehaven |
| 2002 | UCAN | UCN | UT | Deer Valley |
| 2002 | King County / Valley Comm | KNG | WA | S. 160th St + 1st Ave S. to SR509 |
| 2002 | Seattle, Port of | SEA | WA | S. 128th St + 1st Ave S. |
| 2002 | Seattle, Port of | SEA | WA | WA509 + 180th St = 160th + 1st |
| 2002 | CALTRANS | CTN | CA | San Rafael Bride Toll Plaza |
| 2002 | WA DOT | WDT | WA | I5 mile mrkr 127.5, Tacoma |
| 2002 | WA DOT | WDT | WA | Spokane + I5 |
| 2002 | WA DOT | WDT | WA | SR 16 + I5 |
| 2002 | Maricopa County / Scottsdale | MAR | AZ | Galleria |
| 2002 | Alameda County | ALA | CA | Union City BART station |
| 2002 | San Diego | SAN | CA | 4033 33rd St |
| 2001 | WA DOT | WDT | WA | I167 at mile mrkr 20 |
| 2001 | WA DOT | WDT | WA | I5 at mile mrkr 189, Everett |
| 2001 | WA DOT | WDT | WA | I90 + I405, Factoria |
| 2001 | Medley Florida | MED | FL | 58th & 87th Avenue |
| 2001 | Hialeah | HIA | FL | 8200 W. 30th Street |
| 2001 | Miami-Dade County | MDC | FL | Kendell Lakes Mall |
| 2001 | Dekalb County | DEK | GA | 2155 Flat Shoals Road |
| 2001 | Johnson County | JSC | KS | Not available |

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| <u>Year</u> | <u>Agency</u> | <u>Agency Abbreviation</u> | <u>State</u> | <u>Location of Interference</u> |
|-------------|---------------------------|----------------------------|--------------|---------------------------------|
| 2001 | Baltimore County | BAL | MD | Stansbury |
| 2001 | OCTA | OCT | CA | Tustin Road + I5 |
| 2001 | OCTA | OCT | CA | Westminster + Harbor |
| 2001 | Baltimore County | BAL | MD | W. Padonia Rd. |
| 2001 | Martin County Fire/Rescue | MTC | FL | Water Treatment Center |
| 2001 | Fulton County Emergency | FUL | GA | Near hospital |
| 2001 | Aurora Police Dept. | AUR | IL | 7 Stolp Ave. |
| 2001 | Gladstone, City of | GLD | TX | Fire Department |
| 2001 | Denver PD | DEN | CO | Hamden & Dayton (M25) |
| 2001 | Anne Arundel County | AAC | MD | Airport Square |
| 2001 | Anne Arundel County | AAC | MD | Amberfield |
| 2001 | Anne Arundel County | AAC | MD | Annapolis |
| 2001 | Anne Arundel County | AAC | MD | Arnold |
| 2001 | Anne Arundel County | AAC | MD | Bensfield |
| 2001 | Anne Arundel County | AAC | MD | Birdsville |
| 2001 | Anne Arundel County | AAC | MD | Birdsville-Cingular |
| 2001 | Anne Arundel County | AAC | MD | Brooklyn Park |
| 2001 | Anne Arundel County | AAC | MD | Brooklyn Park-Cing |
| 2001 | Anne Arundel County | AAC | MD | BWI |
| 2001 | Anne Arundel County | AAC | MD | BWI-Cingular |
| 2001 | Anne Arundel County | AAC | MD | Cape St. Clair |
| 2001 | Anne Arundel County | AAC | MD | Chapel Gate |
| 2001 | Anne Arundel County | AAC | MD | City Docks |
| 2001 | Anne Arundel County | AAC | MD | Collisions Corner |
| 2001 | Anne Arundel County | AAC | MD | Curtis Bay |
| 2001 | Anne Arundel County | AAC | MD | Davidsonville |
| 2001 | Anne Arundel County | AAC | MD | Dorrs Corner |
| 2001 | Anne Arundel County | AAC | MD | Eastport |
| 2001 | Anne Arundel County | AAC | MD | Edgewater |
| 2001 | Anne Arundel County | AAC | MD | Elvation |
| 2001 | Anne Arundel County | AAC | MD | Fairview |
| 2001 | Anne Arundel County | AAC | MD | Ferndale |
| 2001 | Anne Arundel County | AAC | MD | Ferndale-Cingular |
| 2001 | Anne Arundel County | AAC | MD | Forest Drive |
| 2001 | Anne Arundel County | AAC | MD | Ft. Meade Hts. |

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CMRS-PUBLIC SAFETY INTERFERENCE CASES REPORTED BY PUBLIC SAFETY AGENCIES**

| Year | Agency | Agency Abbreviation | State | Location of Interference |
|-------------|---------------------|----------------------------|--------------|---------------------------------|
| 2001 | Anne Arundel County | AAC | MD | Ft. Smallwood |
| 2001 | Anne Arundel County | AAC | MD | Furnace Bridge |
| 2001 | Anne Arundel County | AAC | MD | Gaylor Meadows |
| 2001 | Anne Arundel County | AAC | MD | Grove Ridge |
| 2001 | Anne Arundel County | AAC | MD | Harmans |
| 2001 | Anne Arundel County | AAC | MD | Harwood |
| 2001 | Anne Arundel County | AAC | MD | Herendale/Marley |
| 2001 | Anne Arundel County | AAC | MD | Jewel |
| 2001 | Anne Arundel County | AAC | MD | Lake Shore |
| 2001 | Anne Arundel County | AAC | MD | Maritime Museum |
| 2001 | Anne Arundel County | AAC | MD | Millersville |
| 2001 | Anne Arundel County | AAC | MD | Mt. Carmel |
| 2001 | Anne Arundel County | AAC | MD | N. Linthicum |
| 2001 | Anne Arundel County | AAC | MD | Odenton |
| 2001 | Anne Arundel County | AAC | MD | Ordinance Rd. |
| 2001 | Anne Arundel County | AAC | MD | Parkway Center |
| 2001 | Anne Arundel County | AAC | MD | Pasadena |
| 2001 | Anne Arundel County | AAC | MD | Priest Bridge |
| 2001 | Anne Arundel County | AAC | MD | Pumphrey-Cingular |
| 2001 | Anne Arundel County | AAC | MD | Racetrack |
| 2001 | Anne Arundel County | AAC | MD | Ridgely |
| 2001 | Anne Arundel County | AAC | MD | Rt. 214 |
| 2001 | Anne Arundel County | AAC | MD | Rutland-Cingular |
| 2001 | Anne Arundel County | AAC | MD | Severna Park |
| 2001 | Anne Arundel County | AAC | MD | South River |
| 2001 | Anne Arundel County | AAC | MD | Speedway/Conaway |
| 2001 | Anne Arundel County | AAC | MD | St. Margarets |
| 2001 | Anne Arundel County | AAC | MD | Staples Corner |
| 2001 | Anne Arundel County | AAC | MD | Stuart Level |
| 2001 | Anne Arundel County | AAC | MD | Sunrise Beach |
| 2001 | Anne Arundel County | AAC | MD | Waugh Chapel |
| 2001 | Manatee County | MAN | FL | Braden Plaza |
| 2001 | SNACC / Henderson | SNC | NV | Horizon + Horizon Ridge |
| 2001 | San Diego | SAN | CA | Talmadge |
| 2001 | MECA | MEC | IN | Augusta/79th&MI |

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| Year | Agency | Agency Abbreviation | State | Location of Interference |
|-------------|-------------------|----------------------------|--------------|---|
| 2001 | MECA | MEC | IN | Broad Ripple/Monon Trail |
| 2001 | MECA | MEC | IN | Eagle Creek/ 38th& High School |
| 2001 | MECA | MEC | IN | Summit House/38th&IL |
| 2001 | Baltimore County | BAL | MD | Holabird |
| 2001 | Baltimore County | BAL | MD | Edgemere |
| 2001 | Baltimore County | BAL | MD | Lilian Holt Ave. |
| 2001 | Baltimore County | BAL | MD | Cockeysville Rd. |
| 2001 | San Diego | SAN | CA | Sunroad Plaza |
| 2001 | San Diego | SAN | CA | TJ River |
| 2001 | San Diego | SAN | CA | Hwy 52 + I5 |
| 2001 | San Diego | SAN | CA | Imperial + 47th St |
| 2001 | Baltimore County | BAL | MD | Glenmar |
| 2001 | Baltimore County | BAL | MD | Perry Hall Rd. |
| 2001 | San Diego | SAN | CA | Garnett + Ingraham |
| 2001 | San Diego | SAN | CA | SE corner of Governor + Genesee |
| 2001 | Arapahoe County | ARP | CO | 19,000 - 20,000 Block E. Smoky Hill on the north side |
| 2001 | Arapahoe County | ARP | CO | 20,400 Block of E. Lehigh Place |
| 2001 | Arapahoe County | ARP | CO | 400 block south Gun Club Road |
| 2001 | Arapahoe County | ARP | CO | 8300 - 8400 E. Yale |
| 2001 | Arapahoe County | ARP | CO | E-470 from Smoky Hill north to Quincy |
| 2001 | Arapahoe County | ARP | CO | Iliff & Yosemite to Quebec |
| 2001 | Arapahoe County | ARP | CO | Low spots on E. Quincy, east of Gun Club Road |
| 2001 | Arapahoe County | ARP | CO | On Parker Road from Mississippi south to Florida |
| 2001 | Arapahoe County | ARP | CO | Smoky Hill near Buckley |
| 2001 | Baltimore County | BAL | MD | Joppa Rd. |
| 2001 | Baltimore County | BAL | MD | Rockdale |
| 2001 | Miami-Dade County | MDC | FL | ProPlayer Stadium (Gate A) |
| 2001 | Miami-Dade County | MDC | FL | ProPlayer Stadium (Gate C) |
| 2001 | Baltimore County | BAL | MD | Oakforest |
| 2001 | SNACC / Henderson | SNC | NV | LV Conv Cen |
| 2001 | BART | BRT | CA | Freemont Station |
| 2001 | Baltimore County | BAL | MD | High Falcon Rd. |
| 2001 | Chandler | CHD | AZ | S. of Fashion Square |
| 2001 | WCCCA | WCC | OR | Bonita |
| 2001 | WCCCA | WCC | OR | E. Beaverton |

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| <u>Year</u> | <u>Agency</u> | <u>Agency Abbreviation</u> | <u>State</u> | <u>Location of Interference</u> |
|-------------|-------------------------------|----------------------------|--------------|------------------------------------|
| 2001 | WCCCA | WCC | OR | River Grove |
| 2001 | WCCCA | WCC | OR | W. Union |
| 2001 | WCCCA | WCC | OR | Beaverton Mall |
| 2001 | WCCCA | WCC | OR | OR-0127 Cedar Mill |
| 2001 | UCAN | UCN | UT | Sandy Mall |
| 2001 | Newport News | NNV | VA | Muller & Jefferson |
| 2001 | Orange County | ORN | CA | Cal State Fullerton baseball field |
| 2001 | Houston International Airport | HIA | TX | Houston Airport |
| 2001 | SNACC / Henderson | SNC | NV | Skyline |
| 2001 | Baltimore County | BAL | MD | Fontana |
| 2001 | Portland | PDX | OR | PDX |
| 2001 | WCCCA | WCC | OR | River Grove |
| 2001 | Cary, Town of | CAR | NC | Fire Department |
| 2001 | Los Angeles | LAX | CA | Kensington |
| 2001 | SNACC / Henderson | SNC | NV | Green Valley |
| 2001 | SNACC / Henderson | SNC | NV | Robindale |
| 2001 | Portland | PDX | OR | airport terminal |
| 2001 | Louisiana State Police | LSP | LA | Westgate |
| 2001 | SNACC / Henderson | SNC | NV | Magic way + Equestrian |
| 2001 | SNACC / Henderson | SNC | NV | SR41 + Equestrian |
| 2001 | Upper Uwchlan PD | UUW | PA | PA Rt. 100 |
| 2001 | Phoenix | PHX | AZ | Bell + 40th St |
| 2001 | Phoenix | PHX | AZ | Buckeye + Central |
| 2001 | Phoenix | PHX | AZ | Camelback + 24th St |
| 2001 | Phoenix | PHX | AZ | Camelback + 48th St |
| 2001 | Phoenix | PHX | AZ | Camelback + 59th Ave |
| 2001 | Phoenix | PHX | AZ | Glendale + 43rd Ave |
| 2001 | Phoenix | PHX | AZ | Indian Sch + 12th St |
| 2001 | Phoenix | PHX | AZ | Indian Sch + 56th St |
| 2001 | Phoenix | PHX | AZ | McDowell + 12th St |
| 2001 | Phoenix | PHX | AZ | Northern + I17 |
| 2001 | Phoenix | PHX | AZ | Southern + Central |
| 2001 | Phoenix | PHX | AZ | Thomas + 40th St |
| 2001 | Phoenix | PHX | AZ | Thomas + 75th Ave |
| 2001 | Phoenix | PHX | AZ | Thomas + AZ51 |

**APPENDIX B
CMRS-PUBLIC SAFETY INTERFERENCE CASES REPORTED BY PUBLIC SAFETY AGENCIES**

| <u>Year</u> | <u>Agency</u> | <u>Agency Abbreviation</u> | <u>State</u> | <u>Location of Interference</u> |
|-------------|------------------------|----------------------------|--------------|---|
| 2001 | Phoenix | PHX | AZ | Union Hills + Cave Creek |
| 2001 | Florida Highway Patrol | FHP | FL | SR836 & Red Road |
| 2001 | King County / EPSCA | KNG | WA | I405 + I90, Factoria |
| 2001 | DFW Airport | DFW | TX | DFW Airport |
| 2001 | East Norriton P.D. | ENT | PA | Penns Square |
| 2001 | Los Angeles | LAX | CA | Barnsdall |
| 2001 | Ocean City | OCC | MD | Information unavailable |
| 2001 | Glendale | GLN | AZ | around Arrowhead Hospital |
| 2001 | Chandler | CHD | AZ | at Sundance site |
| 2001 | Tempe | TMP | AZ | Baseline + Priest |
| 2001 | Missouri City Police | MOP | TX | North Gate |
| 2001 | James City County | JCC | VA | 1118 Ironbound Road |
| 2001 | Savannah, City of | SAV | GA | City of Savannah |
| 2001 | Midland, City of | MID | TX | Midland's base station |
| 2001 | Los Angeles County | LAC | CA | Angeles Forrest Hwy + Sierra Hwy |
| 2001 | Los Angeles County | LAC | CA | Castiac Lake |
| 2001 | Los Angeles County | LAC | CA | Fair Oaks + 210 freeway |
| 2001 | Los Angeles County | LAC | CA | I5 + Hwy 14 split |
| 2001 | Denver PD | DEN | CO | 11th & Elizabeth (M12) Cheesman |
| 2001 | Denver PD | DEN | CO | 14th & Market (M19) 16th Street Mall |
| 2001 | Denver PD | DEN | CO | 19th & Sherman (M20) Warwick |
| 2001 | Denver PD | DEN | CO | 1st & University (M9) Cherry Creek |
| 2001 | Denver PD | DEN | CO | 20th & Downing (M23) Downing Hospital |
| 2001 | Denver PD | DEN | CO | 3rd & Vallejo (M16) West Alameda |
| 2001 | Denver PD | DEN | CO | 41st & Colorado (M3) |
| 2001 | Denver PD | DEN | CO | 45th & Peoria (M18) City Bank |
| 2001 | Denver PD | DEN | CO | 48th & Elm (M1) Faith Luthern |
| 2001 | Denver PD | DEN | CO | Alameda & Federal (M15) Rishel |
| 2001 | Denver PD | DEN | CO | Broadway & Larimer (M22) Samarithan House |
| 2001 | Denver PD | DEN | CO | Colfax & Speer (M21) Arts District |
| 2001 | Denver PD | DEN | CO | Colfax & Yosemite (M13) |
| 2001 | Denver PD | DEN | CO | Colorado & Colfax (M7) City Park |
| 2001 | Denver PD | DEN | CO | Dartmouth & Havana (M8) Kennedy Bar site |
| 2001 | Denver PD | DEN | CO | Hamden & Tamarac (M5) Tamarac Sq |
| 2001 | Denver PD | DEN | CO | I225 & Tamarac (M11) Morgan Flats |

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| <u>Year</u> | <u>Agency</u> | <u>Agency Abbreviation</u> | <u>State</u> | <u>Location of Interference</u> |
|-------------|-----------------------|----------------------------|--------------|--|
| 2001 | Denver PD | DEN | CO | I25 & Colfax (M24) Auraria |
| 2001 | Denver PD | DEN | CO | I25 Downing (M10) Gate 1&2 |
| 2001 | Denver PD | DEN | CO | I70 & Chambers (M17) Holiday Inn |
| 2001 | Denver PD | DEN | CO | Leetsdale & Oneida (M4) LtstdMnaco |
| 2001 | Denver PD | DEN | CO | MLK & Monaco (M2) East Denver |
| 2001 | Denver PD | DEN | CO | University & Evans (M14) Denver University |
| 2001 | Denver PD | DEN | CO | Yale & Colorado (M6) University Hills |
| 2001 | Memphis, City of | MEM | TN | 79 S. Flicker Street |
| 2001 | Lakewood | LKW | CO | Morrison + Sheriden |
| 2001 | Maui County | MAU | HI | Kehei Gateway Plaza |
| 2001 | Maui County | MAU | HI | Lahaina Shores Motel |
| 2001 | Queen Annes County | QAC | MD | Outlet Center |
| 2001 | Michigan State Police | MIC | MI | Unspecified location |
| 2001 | Portland | PDX | OR | Montavilla |
| 2001 | Portland | PDX | OR | Parkrose |
| 2001 | Portland | PDX | OR | Unspecified location |
| 2001 | Fayette County | FAY | PA | No information available |
| 2000 | Los Angeles | LAX | CA | S. Sun Valley |
| 2000 | Los Angeles | LAX | CA | 13300 Paxton St, Pacoima |
| 2000 | Los Angeles | LAX | CA | 8333 Glen Oaks |
| 2000 | Los Angeles | LAX | CA | Sunset + Normandy |
| 2000 | Los Angeles | LAX | CA | Washington + Hauser |
| 2000 | Chandler | CHD | AZ | Elliot + AZ101 |
| 2000 | Cherry Hills PD | CHP | CO | Cherry Hills |
| 2000 | Broward County | BRO | FL | Multiple locations |
| 2000 | Clark County | CLK | WA | at Sheriff's precinct |
| 2000 | Chandler | CHD | AZ | at Orbital site |
| 2000 | Port Washington PD | PWA | NY | Port Wash. Train Sta. |
| 2000 | Pinellas County | PIC | FL | Multiple locations |
| 2000 | Orange County, FL | ORC | FL | Orlo Vista |
| 2000 | Orange County | ORN | CA | Colima |
| 2000 | Orange County | ORN | CA | Imperial Hwy |
| 2000 | Orange County | ORN | CA | Brystol |
| 2000 | Orange County | ORN | CA | E. Lake Village |
| 2000 | Orange County | ORN | CA | Esperanza |

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CMRS-PUBLIC SAFETY INTERFERENCE CASES REPORTED BY PUBLIC SAFETY AGENCIES**

| <u>Year</u> | <u>Agency</u> | <u>Agency Abbreviation</u> | <u>State</u> | <u>Location of Interference</u> |
|-------------|--|----------------------------|--------------|-------------------------------------|
| 2000 | Orange County | ORN | CA | McFadden |
| 2000 | Orange County | ORN | CA | Orange Inn |
| 2000 | Orange County | ORN | CA | Pipeline |
| 2000 | Orange County | ORN | CA | Warner / Newland |
| 2000 | Orange County | ORN | CA | 57 + Imperial |
| 2000 | Orange County | ORN | CA | Harbor405 |
| 2000 | Orange County | ORN | CA | Knot + Lincoln in Buena Park |
| 2000 | Orange County | ORN | CA | Newport Ave + 15th St (Costa Mesa?) |
| 2000 | Orange County | ORN | CA | Tustin |
| 2000 | Orange County | ORN | CA | Kutella55 |
| 2000 | Orange County | ORN | CA | OC Aiport |
| 2000 | Orange County | ORN | CA | Westminster |
| 2000 | Orange County | ORN | CA | Bruckhurst + Talbert |
| 2000 | Orange County | ORN | CA | Woodbridge |
| 2000 | Orange County | ORN | CA | Michaelson |
| 2000 | Orange County | ORN | CA | Warner / Jamboree |
| 2000 | Lakewood | LKW | CO | 5th + Wadsworth |
| 2000 | Lakewood | LKW | CO | near CO 0268 |
| 2000 | Lakewood | LKW | CO | Mississippi + Wadsworth -1 |
| 2000 | Lakewood / W. Metro Fire Protection Dist | LKW | CO | Bowles + Kipling |
| 2000 | Westminster | WMR | CO | 92nd + Federal |
| 2000 | San Diego | SAN | CA | Cudahy and Buenos |
| 2000 | WECA | WEC | CA | 60 + Mountain |
| 2000 | WECA | WEC | CA | Bon View |
| 2000 | WECA | WEC | CA | Montclair Plaza |
| 2000 | WECA | WEC | CA | Grove |
| 2000 | WECA | WEC | CA | Ontario |
| 2000 | WECA | WEC | CA | Ontario Convention Cen |
| 2000 | WECA | WEC | CA | Ontario west |
| 2000 | WECA | WEC | CA | Airdrie |
| 2000 | WECA | WEC | CA | Mission Benson |
| 2000 | WECA | WEC | CA | Montclair |
| 2000 | Orange County | ORN | CA | E. Irvine |
| 2000 | Orange County | ORN | CA | Peter's Canyon |
| 2000 | Orange County | ORN | CA | Jeffrey |

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| <u>Year</u> | <u>Agency</u> | <u>Agency Abbreviation</u> | <u>State</u> | <u>Location of Interference</u> |
|-------------|---------------|----------------------------|--------------|---------------------------------|
| 2000 | Tucson | TUC | AZ | Skyline area |
| 2000 | San Diego | SAN | CA | Mission Bay Dr + Garnett |
| 2000 | Orange County | ORN | CA | Barranca |

APPENDIX C

I. Commenters Describing National Scope of CMRS – Public Safety Interference

Comments of APCO, NACo, NLC, and NATOA at 8-9 (May 6, 2002) ((1) stating that “[t]he 800 MHz problem is severe, and extremely dangerous to public safety personnel and the general public,” (2) describing interference problems recently reported by Sacramento County, the Washington State Department of Transportation, the New York City Transit Authority, and the Massachusetts State Police, and (3) noting that APCO’s Project 39 has documented “many more examples, which we strongly believe are just the ‘tip of the iceberg.’”).

Comments of IACP, MCC, NSA, MCSA at 2 (May 6, 2002) (explaining that APCO Project 39 has documented over 70 reported cases of interference throughout the country, and that “[e]ach reported case represents interference around multiple commercial system sites”).

Comments of PSIC at 1 (May 6, 2002) (explaining that the communication systems of PSIC members – consisting of 13 local government members throughout the country – that have been “operational for any extended period” have typically “experienced significant interference from commercial mobile radio service (‘CMRS’) providers in their communities”).

Comments of the New York State Office for Technology at viii (May 6, 2002) (recognizing that realignment of the 800 MHz band would “mitigate against a number of issues that exist both nationally and within New York State[,]” including “interference to public safety systems from cellular-type commercial systems in New York State, as well as elsewhere around the country”).

Reply Comments of the State of California at 1-2 (Oct. 24, 2002) (“The State [of California] is a victim of the interference being caused by Nextel and other cellular providers and is aware of the many instances of interference being experienced by public safety agencies across the country. This interference is a very real factor that is having a significant negative impact on the ability of public safety agencies to operate effectively and safely.”).

II. Commenters Describing Scope of CMRS – Public Safety Interference Within Their Own Jurisdictions

Comments of City of Portland at 2 (May 6, 2002) (noting “pervasive interference problems”).

Comments of Department of Information Technology, Fairfax County, Virginia at 2 (May 6, 2002) (explaining that its 800 MHz systems “are experiencing interference in several known locations with Fairfax County[,]” and that “the severity of the interference ranges from slight to severe”).

Comments of the Chief Technology Officer, Government of the District of Columbia at 2, attached as Att. A to Comments of PSIC (May 6, 2002) (“The District of Columbia has experienced regular interference and result and service degradation from CMRS operators over the course of the system operational existence. Interference has been severe in specification locations of the metropolitan service area.”).

Reply Comments of the City of San Diego at 1 (Aug. 7, 2002) (stating that within San Diego City, “public safety users have identified at least ten (10) locations that have interference caused by Nextel transmitters”).

Comments of New York City at 3 (Sept. 23, 2002) (“New York City’s public safety frequencies are plagued with interleaving and interference problems caused by commercial carriers.”).

Comments of King County Regional Communications Board at 1-2 (Sept. 23, 2002) (“Our trunked radio system has been experiencing an increasing number of interference problems from commercial wireless sites, most often Nextel sites.”).

Comments of Orange County at 1 (Sept. 23, 2002) (“The County’s 800 MHz CCCS [Countywide Coordinated Communications System] continues to receive interference from the wireless communications carriers operating in the 800 MHz band”).

Comments of Snohomish County at 1 (Feb. 10, 2003) (“neighboring public safety radio systems . . . are suffering from numerous instances of harmful interference to their operations”).

Comments of Communications Division, Michigan Department of Information Technology at 2 (Feb. 10, 2003) (explaining that “the continuing problem of cellular and low-site CMRS interference to our public safety system has occupied a great deal of our engineering staff’s time[,]” and that “the continuing proliferation of cellular and low-site CMRS sites across the state is clearly more than we can handle on an individual case basis.”)