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VIA ELECTRONIC MAIL

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: *Ex parte*, WT Docket No. 02-55, WT Docket No. 02-100

Dear Ms. Dortch:

Anne Arundel County, Maryland (the "County") hereby submits these comments for the Federal Communications Commission's (the "Commission") record in WT Docket No. 02-55. A copy is also provided for WT Docket No. 02-100, concerning the County's wireless siting ordinance.

The County has been an active participant in this important proceeding, which seeks permanent solutions to ongoing interference between commercial mobile radio service ("CMRS") providers and public safety communications systems in the 800 MHz band.¹ Because the County has experienced first-hand CMRS-public safety interference to its mission-critical public safety telecommunications system, the County files these comments to both update the Commission on continuing interference in the County and to clarify its position with respect to implementing an effective permanent solution.

The County's public safety communications system, heavily used by police and law enforcement officials across the County, has experienced harmful interference from CMRS providers for approximately five years. The County has attempted a variety of means to lessen the harmful impact of the interference. For example, the County has contacted the Commission for technical assistance; worked with its equipment vendor Motorola; obtained newer, more interference-resistant public safety receivers; hired an engineering firm to identify problem areas; and worked, albeit with

¹ The County has filed comments in conjunction with other public safety jurisdictions across the country, such as San Diego City and County, the District of Columbia and the City of Philadelphia, among others. See Comments filed by the Public Safety Improvement Coalition, dated May 6, 2002, August 7, 2002 and February 10, 2003.

varying degrees of success, with the CMRS carriers that are contributing to the interference: Nextel, Verizon, and Cingular.

While Nextel contributes to the interference at a majority of sites, Cingular, the Cellular A carrier in the County, also contributes to CMRS-public safety interference at a large number of sites. Verizon, the Cellular B carrier in the County, also contributes at several sites. Co-locations by various combinations of these carriers, which we have encouraged to avoid tower proliferation in the County, have the unintended side effect of making interference resolution more difficult.

In any event, site-by site technical modifications at the impacting CMRS sites are not the most effective or timely way to mitigate interference. First, site-by-site steps are reactive -- often occurring only after interference incidents, which jeopardize County personnel and the public they serve.² Second, site-by-site testing and resolution is time consuming and costly, redirects scarce County (and carrier) resources from primary responsibilities and are, at best, only temporary mitigation measures. For example, minor subsequent changes by CMRS carriers necessary to meet the growing service requirements of our citizens can sometimes eliminate the benefits of other technical measures taken at the sites, requiring yet another round of site-by-site testing and technical modifications. Given the continuing growth of demand for wireless communications services, we suspect that the situation will reach the point that site-by-site technical modifications will no longer be effective.

We may already have reached that point in the County. Expecting commercial carriers to maintain a static environment over the long-term is increasingly unrealistic and unworkable. As the provided data shows, despite the continuing efforts of the CMRS carriers, interference is not being successfully mitigated at every site even though we have been working on some of these sites for years. Those that are temporarily lessened are certainly not permanently resolved.

Creating sufficient separation between the County's 800 MHZ frequencies and the CMRS carriers' frequencies is the best method to permanently resolve the interference we are facing today. The current adjacent and interleaved spectrum environment of the 800 MHZ band including both public safety channels in the middle of the 800 MHZ band and the NPSPAC channels higher in the band adjacent to both Nextel and Cingular, makes it impossible to achieve this separation. Until the spectrum is "de-interleaved" and the disparate technologies used by CMRS carriers and public safety systems are separated, we cannot predict every possible "dead spot" caused by our incompatible systems and our public safety personnel will be at risk.

The Commission must take prompt and decisive action to resolve this ongoing vital issue for public safety operators. One proposal for Commission consideration is the Consensus Parties' plan for realignment, a broad based solution to the problems facing the 800 MHZ band that includes a spectrum realignment component. The Consensus Parties' plan would separate public safety high-site systems and low-site CMRS systems through a band realignment -- thereby reducing substantially the probability of IM products falling on public safety channels. Under this plan, those

² The need to be proactive in avoiding interference before it starts is a principal reason the County adopted the wireless siting ordinance challenged by Cingular and other carriers.

radios that are experiencing interference due to Out of Band Emissions ("OOBE") will be able to achieve the spectral separation necessary for improved operation in urbanized areas.

The Consensus Parties' plan isn't perfect and we have concerns about its possible implementation. These include funding for realignment across the nation, NPSPAC relocation and the current deployment of a Vehicle Repeater System ("VRS"), which currently requires greater separation than the Consensus Parties' plan's realignment of public safety operations would appear to provide. The Consensus Parties' plan, however, presents a spectrum realignment proposal that attacks the heart of the interference problem and proposes a potentially workable solution for the County, if these outstanding issues can be resolved.

The County has taken responsibility to improve its communications system, both its coverage and robustness, to help protect its citizens. Interference mitigation is a benefit of the County's planned improved system. As previously reported, the County has engaged in negotiations with Nextel for an exchange of frequencies that will put the County in a position to build this more robust system. Exchanging frequencies and building such a system, however, will not by itself solve the interference problems we experience today.

The proposed frequency exchange will relocate the County's channels from the interleaved middle portion of the 800 MHz band to slightly lower in the 800 MHz band. We will still be interleaved and nearby to Nextel's operations and are still close to cellular carriers' operations. The exchange, however, will permit the County to increase the number of sites it operates and license its sites at the power levels it requires to operate more robustly. In today's co-channel licensing environment, with non-County licensees on the County's channels as close as 55 miles away, the County's current 800 MHz frequencies will not allow it to expand its existing four-site system to the additional sites necessary to increase its coverage throughout the County. The proposed frequency exchange with Nextel, however, will allow this to occur. The proposed frequency swap will improve our spectrum access and thereby our coverage; by itself, however, it cannot eliminate intermodulation hits on Anne Arundel County channels or limit cellular OOBE sufficiently to eliminate all interference.

The frequency swap is intended only as one step in a broader interference resolution effort. The swap with Nextel gives the County access to channels it can use to improve its public safety radio communications system both in terms of coverage and reliability. While this is a positive step, a permanent interference solution requires de-interleaving the channels used for noise-limited public safety systems from those allocated for high-capacity, low-site cellular systems.

Our *ex parte* filing of July 17, 2003 described that even under a "best case" scenario – including new and improved radio equipment, completion of the frequency swap with Nextel and build out of a new and more robust communications system, as well as continued "Best Practices" and mitigation measures with County CMRS carriers, *intractable interference to our public safety system will remain.*³ This is unacceptable to the County and must be rectified by a comprehensive solution to the interference problems faced by public safety across the Nation.

See the County's *ex parte* filing dated July 17, 2003 in WT Docket 02-100.

Page 4
July 29, 2003

We believe that the Commission has an extensive record in which to make a decision in this vital matter. Further delay risks the lives of our public safety personnel and our citizens. We request that our views be placed in the Commission's docket for consideration in this matter and that the Commission issue a decision as soon as possible.

Should the Commission have any questions or need additional information, please contact the undersigned.

Sincerely,



Linda M. Schuett
County Attorney