

Cascade Two Way Radio

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May 3rd, 2002

Federal Communications Commission
Office of the Secretary
Mr. William F. Caton
445 12th Street S.W., Room TW-A325
Washington, D.C. 20554

Dear Mr. Caton,

We respectfully submit these comments in reference to the FCC Notice of Proposed Rule Making, released March 15th, 2002 related to Docket No. 02-55. We are a licensee in the Business Radio Service at 800 MHz and operate under call sign WNZI692.

General Comments

The suggested changes to the 800 MHz band incorporated in the NEXTEL 'White Paper' and restated in the instant NPRM are clearly excessive and unrealistic. The initial NEXTEL plan and the suggested approaches in the NPRM are quite radical and are not representative of the information presented by Motorola as a part of their "Best Practices Guide" and the related "Technical Appendix". Rather than adopting a measured, analytical approach to resolution of the significant problems public safety agencies are suffering, NEXTEL has proposed solving problems that they are largely responsible for through the application of the most far reach plan imaginable- a complete restructuring of the 800 MHz band. This approach would amount to a forced removal of existing non-public safety, non-ESMR licensees at great cost to the affected licensees.

The more reasonable plan proposed by NAM/MRFAC more closely meets the realities of current spectrum assignments at 800 MHz and does not relegate Industrial/Land Transportation, and Business Radio Service licensees to secondary status. Significantly, both plans ignore those large portions of the United States that lie adjacent to the Canadian and Mexican borders. This omission will require a distinctly different approach in these border areas.

While we have concerns that NEXTEL may well have encroached into our protected contour with their ESMR operations, we are not aware of any service impacting interference to our operations. We are however, aware of public safety users and analog SMR operators in the area who are suffering from the interference problems described in the NPRM.

Border Regions

Many of the business, industrial, and land transportation licensees in the greater Seattle area are located in Region 5 of the US-Canada border area. As a result, without agreement with Canada, the plans proposed by both NEXTEL and NAM/MRFAC are unrealistic for this area and simply do not offer a practical solution for United States-Canada border areas. Treaty modifications or other special agreements would be required with Industry Canada should either plan be given further consideration.

Interference Issues

Resolution of NEXTEL-created interference should be the sole responsibility of NEXTEL. Despite the undeniable public benefit present in a prompt resolution or the problems affecting public safety operations, the swiftest solution would be an immediate reduction in NEXTEL radiated power levels (inaccurately characterized in both the NPRM and the NEXTEL White Paper as 'low power' operations in spite of the very high effective radiated power levels of the involved NEXTEL facilities), local or regional spectrum replanning flexibility and replacement (at NEXTEL expense) of existing public safety radios with higher specification products.

Should these attempts at resolution prove ineffective, NEXTEL should cease operation at the affected locations until ultimate resolution is possible. There is history of licensees who are responsible for interference being relocated onto entirely new channel assignments. The availability and use by NEXTEL of NEXTEL 700 MHz and 900 MHz channels assignments should not be overlooked as an option for relocation of NEXTEL facilities.

Local spectrum replanning would require adoption of a more flexible channel 'swap' and spectrum lease approach by the commission. The ability to make use of Canadian primary 800 MHz channels on a secondary basis, with a proper power flux density showing (as allowed on the Canadian primary channels at 900 MHz), would be important in US-Canada border areas.

Lowering NEXTEL effective radiated power levels and up-tilting NEXTEL antenna patterns would have minimal effect on NEXTEL service, bringing the systems into better balance between path uplink and downlink power budgets, and greatly reduce the impact on public safety operations. Testing performed by NEXTEL has demonstrated that modest reductions in ERP (on the order of 3-6 db) has an enormous benefit in terms of interference reduction to public safety operations.

Relocation of NEXTEL operations to 700 MHz or 900 MHz spectrum assignments held by NEXTEL should also be given serious consideration by the Commission. NEXTEL has considerable 900 MHz and 700 MHz spectrum holdings in the markets most affected by their 800 MHz operations. The sole manufacturer of handsets for operation on NEXTEL systems, Motorola, has developed and demonstrated a product fully capable of operation on 900 MHz spectrum. NEXTEL clearly has the financial ability to migrate their own users to dual mode 800/900 MHz handsets, with far less economic and

operational impact on public safety, business, industrial, land transportation, and traditional SMR operations. They could also make use of the spectrum available for their operations at 700 MHz in areas where that spectrum is unencumbered by broadcasters or the uncertainties present in the border regions.

Economic Impact: General

The economic disruption from relocating Boeing, Federal Express, and other similar large users of private radio systems are significant and should not be overlooked in the current weak economic conditions. Additionally, many smaller businesses (such as ours) depend heavily on spectrum at 800 MHz. Relocation of these entities would be unnecessarily disruptive and would have a significant impact on the cost of performing our primary business activities- costs that can be ill afforded in a ‘soft’ economy.

Economic Impact: Licensee Specific Cost Estimates of 700 MHz Relocation

Assuming that NEXTEL would provide equivalent bandwidth for equivalent bandwidth, two 700 MHz or 900 MHz channels would be required to replace the current 25 KHz assignment that we make use of. The following information is based on the assumption of operation at 900 MHz with two tower sites (our current operational configuration) and two 12.5 KHz channels in operation at each location.

Four 900 MHz Repeaters and related equipment (antennas, duplexers): \$53,000

900 MHz Radios (13) at \$1000/each: \$13,000

Labor/Fees/Installations: \$8,300

Total Estimated Relocation Cost: \$74,300

Should relocation to 700 MHz be the ultimate result of the NPRM, we would be looking at a different situation due to *very* limited product availability. With the exception of expensive ‘dual band’ 700 MHz/800 MHz portable radios from Motorola, no other products for 700 MHz operation are known to be available. Assuming similar costs for infrastructure and mobiles and using the pricing identified for the available Motorola portable radio products, transition costs to 700 MHz are at least:

Four 700 MHz Repeaters and related equipment (antennas, duplexers): \$53,000

700 MHz Motorola XTS Radios (13) at \$3000/each: \$39,000

Labor/Fees/Installations: \$8,300

Total Estimated Relocation Cost: \$100,300

Relocation: Bandwidth

‘Like bandwidth’ for ‘like bandwidth’ should be one of the key requirements of any relocation. This means that the existing 25KHz channel width would require two 12.5 KHz or four 6.25 KHz channels be provided to offer comparable data or digital voice transmission rates to what we currently obtain with our paired 25 KHz channel assignment. This creates even more significant challenges when considering what spectrum resources are available in urbanized or border regions. Moving to narrower channel bandwidths may require increased effective radiated power or added repeater sites to provide similar service areas to what is currently provided by our 800 MHz

repeater system. These impacts also need to be considered when analyzing the various solutions which involve a transition to 12.5 KHz or 6.25 KHz channel bandwidths.

Relocation: Spectrum Availability

There is not sufficient 900 MHz spectrum in the Puget Sound region for relocation of the many 800 MHz systems currently in operation, due in large part to the sharing of half of the available channels with Canada. The large systems operated by companies such as Boeing would likely require twice the number of channels currently used in their systems for comparable levels of service were relocation to the 12.5 KHz wide 900 MHz channels seriously contemplated.

Additionally, there is no ability to make use of 700 MHz spectrum within 140 km of the Canadian border as a result of not having treaty agreements in place with Canada. There are two Canadian television stations, either operating or expecting to start operations on this spectrum, that effectively preclude use of these channels unless a treaty agreement allowed use of 700 MHz spectrum in Region 5 and the Canadian broadcast stations elected to relocate to other spectrum. Use of 700 MHz spectrum is clearly not an option in this market area.

Finally, the VHF and UHF spectrum in the greater Seattle area is very heavily utilized. Canadian operations on VHF and UHF channels are also significant and would prevent relocation of 800 MHz users to spectrum assignments that would be suitable for wide area operations.

Pool Consolidation and Conversion of 900 MHz PLMRS Licenses to CMRS Licenses

The proposal by PCIA to consolidate the Business and Industrial/Land Transportation user-category pools into a single pool with coordination provided through the competitive frequency coordinators is a sensible proposal and we support the consolidation as a part of this Rule Making.

Additionally, allowing for the conversion of 900 MHz Business and Industrial/Land Transportation licenses from PLMRS to CMRS provides additional flexibility in meeting the needs of all spectrum users and makes the provision of services simpler. We view it as unlikely that such conversion will create complications for those urban areas where the NEXTEL issues are most severe since all channels have already been assigned. As a result, no land-rush of CMRS applications is likely.

Conclusion

The NEXTEL proposal as reflected in the instant NPRM is clearly inadvisable from a technical, economic, and regulatory standpoint for licensees in Region 5. Proximity to Canada greatly complicates even the NAM/MRFAC proposal. Finally, the equity issues raised in forcing the relocation of commercial enterprises to solve a problem which results directly from the operations of a third party seems to result in the potential for poorly crafted public policy. We strongly urge the commission to consider placing the burden for interference resolution on the source of the problem and consider the relocation of the offending NEXTEL operations to other NEXTEL-held spectrum. We

suggest that the FCC not force a massive disruption of operations upon public safety, public service and commercial entities.

Sincerely,

Spencer L. Bahner
Owner