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December 13, 1999

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Ms. Magalie Roman Salas, Secretary
Federal Communications Commission
The Portals, TW-A 325
445 12th Street, S.W.
Washington, D.C. 20554

Re: Ex Parte Notification – WT Docket No. 99-168

Dear Ms. Salas:

This letter and attachment are being filed on behalf of SBC Wireless, Inc. ("SBCW"). SBCW is responding to an Ex Parte dated December 6, 1999, filed by Motorola in the above-referenced docket. The attachment addresses issues raised by Motorola, and alternative solutions to the allocation of spectrum that would better serve the interest of the public.

Please feel free to contact me should you have any concerns or questions regarding the procedural aspects of this filing. The persons to be contacted regarding the technical issues raised in the attachment are David Deas, (512) 372-5836, and Roger Thompson, (512) 372-5810. Mr. Deas and Mr. Thompson are employees of Technology Resources, Inc., an affiliate of SBCW.

Yours very truly,

CAROL L. TACKER

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attachment

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Ex Parte Presentation in
WT Docket No. 99-168

ATTACHMENT

RE: WT Docket No. 99-168 Ex Parte by SBC Wireless, Inc.(Response to Motorola Ex Parte)

SBC Wireless Inc. ("SBCW") has reviewed the Motorola ex-parte submission to the Commission. This responds to the potential mobile-to-mobile interference problem identified by Motorola. SBCW proposes, herein, modifications to the Motorola proposal that are technically viable and are in the best interest of the public.

Motorola identified a potential interference problem between the bands for Public Safety and the proposed CMRS bands. Motorola attributes this potential problem to mobile-to-mobile interference at the band edge located at 776MHz. Motorola suggests that the CRMS mobile transmitter's absolute coupled power must be less than –75 dBm at the Public Safety channel edge (i.e., 775.99375 MHz).

The current CMRS rules require licensees to attenuate the power to the lesser of the transmitter power (P) by at least 43 + $\log_{10}(P)$ watts or 80 decibels. The Motorola proposal suggests that no CMRS operator at 776 MHz, adjacent to the Public Safety band, could attenuate their mobile transmitter to an acceptable level (i.e., -75 dBm + coupling losses) and still render the majority of the CMRS band usable.

In its filing, Motorola suggests that one possible alternative that would limit the interference into the critical Public Safety band could be achieved by changing the direction of transmit and receive for both the CMRS and Public Safety bands. Motorola proposes such a change would eliminate the potential interference of a Public Safety mobile receiver with that of a CMRS mobile transmitter at 776MHz. Consequently, the potential interference problem now moves to the CMRS mobile receiver at this same band edge.

In the spirit of cooperation and based upon the importance of secure and reliable performance of future Public Safety mobile radio systems in this band, SBCW agrees with Motorola that changing the direction of transmission for both Public Safety and potential CMRS users would be in the public's best interest.

Since the interference at 776 MHz is now being introduced by a Public Safety mobile transmitter into a CMRS mobile receive spectrum band, an analysis was conducted to ascertain the feasibility of operating a CMRS system under these conditions.

If the following technical considerations are adhered to, such analysis suggests that acceptable performance of a CMRS mobile is possible and practical.

Figure 1 depicts a proposed band plan which is consistent with Motorola's suggestion to reverse transmit and receive directions.

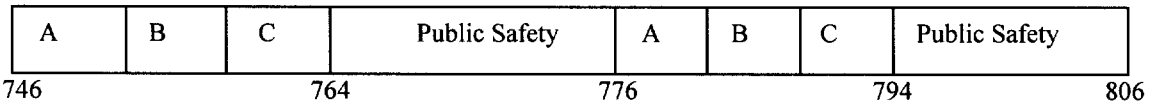

Figure 1

Bands A, B, and C are 6 MHz channels totaling 36 MHz. The remaining 24 MHz is currently allocated to Public Safety. Per Motorola's recommendation, Mobile Transmit / Base Station Receive will encompass the 746 to 776 MHz portion of the allocation. Conversely the Mobile Receive / Base Station Transmit will encompass the 776 to 806 MHz portion of spectrum. Since the directions of transmissions are now changed, the potential interference comes from Public Safety mobiles in 6.25KHz channels just below 776 MHz.

Because CMRS mobile receive and Public Safety transmit have been reversed, potential interference to Public Safety mobiles has been eliminated. Potential interference from CMRS Base Station transmitters

can economically be addressed, should it become a problem, by coordinated placement and use of modern technologies at the Public Safety base stations.

The allocation of 6 MHz wide CMRS channels allows for several positive factors not all of which are targeted at technical isolation of interfering Public Safety mobiles.

The rationale for 6MHz channels include:

1. Elimination of wasted guard band making more UHF spectrum available for auction.
2. Should PMRS band managers wish to participate in the auction such a plan band would not restrict their opportunity to participate.
3. Creation of a third license over the two proposed licenses creates a better opportunity for competitive bidding and potentially higher proceeds from an auction.
4. By proposing 6 MHz channels, proponents of W-CDMA, 3XRTT, and EDGE can realistically use one are more of the 2 x 6MHz bands to deploy IMT-2000 compliant services. Additionally such an allocation in no way disadvantages potential bidders for fixed wireless applications.
5. A 6.25 kHz Public Safety mobile transmitting just below 776 Mhz must meet an adjacent channel coupled power (ACCP) requirement of from –60 to –75 dBc across the CMRS band from 776-794 MHz (FCC 90.543). While this does not guarantee the "A" band CMRS operator the –75dBm solicited by Motorola, it is clearly within the specifications outlined by the FCC for cellular and broadband PCS services. In those rare occasions where the Public Safety and CMRS mobiles operating simultaneously in very close proximity occur, the Public Safety user's service will not be affected, rather only the CMRS service is affected. Analysis suggests that with the 6MHz wide channel and the packet data nature of the service, even a W-CDMA mobile receiver would be impacted only slightly, if at all. This is due to the coupling loss between the mobiles and IF filter rejection in the CMRS receiver. Through close coordination with the Public Safety network operator, Public Safety channels could be assigned in this adjacent band as a last choice to further minimize potential interference problems.

In conclusion, SBCW recommends that the FCC accept Motorola's proposal to reverse the direction of transmission and accept the band plan depicted in Figure 1. Acceptance will ensure interference protection for Public Safety, increase the number of auctionable bands through elimination of unnecessary guard bands, and will allow, additionally, for all IMT-2000 compliant mobile radio technologies.