™CTIA
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Cellular Telecommunications & Internet Association

January 15, 2003

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
12th Street Lobby, TW-A325
Washington, DC 20554

Re: ***Ex Parte* Presentation**
IB Docket No. 01-185; ET Docket No. 95-18; ET Docket No. 00-258

Dear Ms. Dortch:

On January 14, 2003, the Cellular Telecommunications & Internet Association ("CTIA") represented by Diane Cornell, Vice President for Regulatory Policy, and Doug Brandon, Vice President External Affairs and Law, AT&T Wireless Services, Inc., and Don Brittingham, Director of Spectrum Policy, Verizon Wireless, met Jennifer Manner, Senior Counsel to Commissioner Abernathy, and John Branscome, Acting Legal Advisor to Commissioner Abernathy, to discuss interference issues related to the pending Mobile Satellite Service/Ancillary Terrestrial Component proceedings. Specifically, the parties discussed the attached presentation.

Pursuant to Section 1.1206 of the Commission's Rules, an original and one copy of this letter is being filed with your office. If you have any questions concerning this submission, please contact the undersigned.

Sincerely,

Diane J. Cornell

Diane J. Cornell

cc: Jennifer Manner
John Branscome

Safety—Your most important call

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Interference Between ATC/MSS and PCS In the 1990-2025 MHz Band

IB Docket No. 01-185
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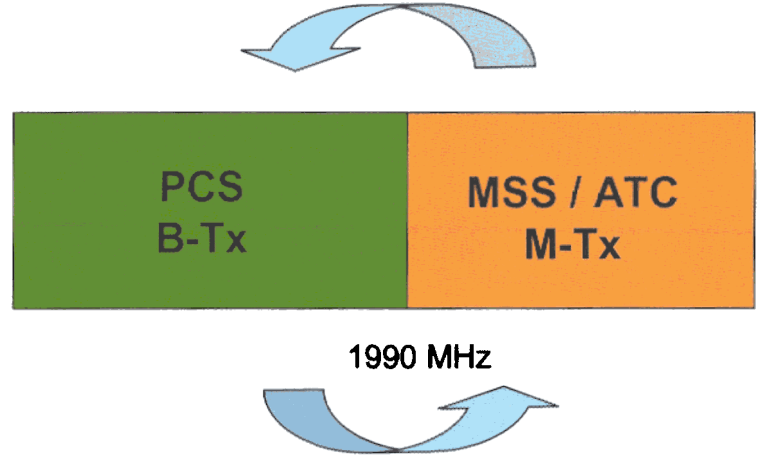
Industry Ex Parte Meeting

January 14, 2003

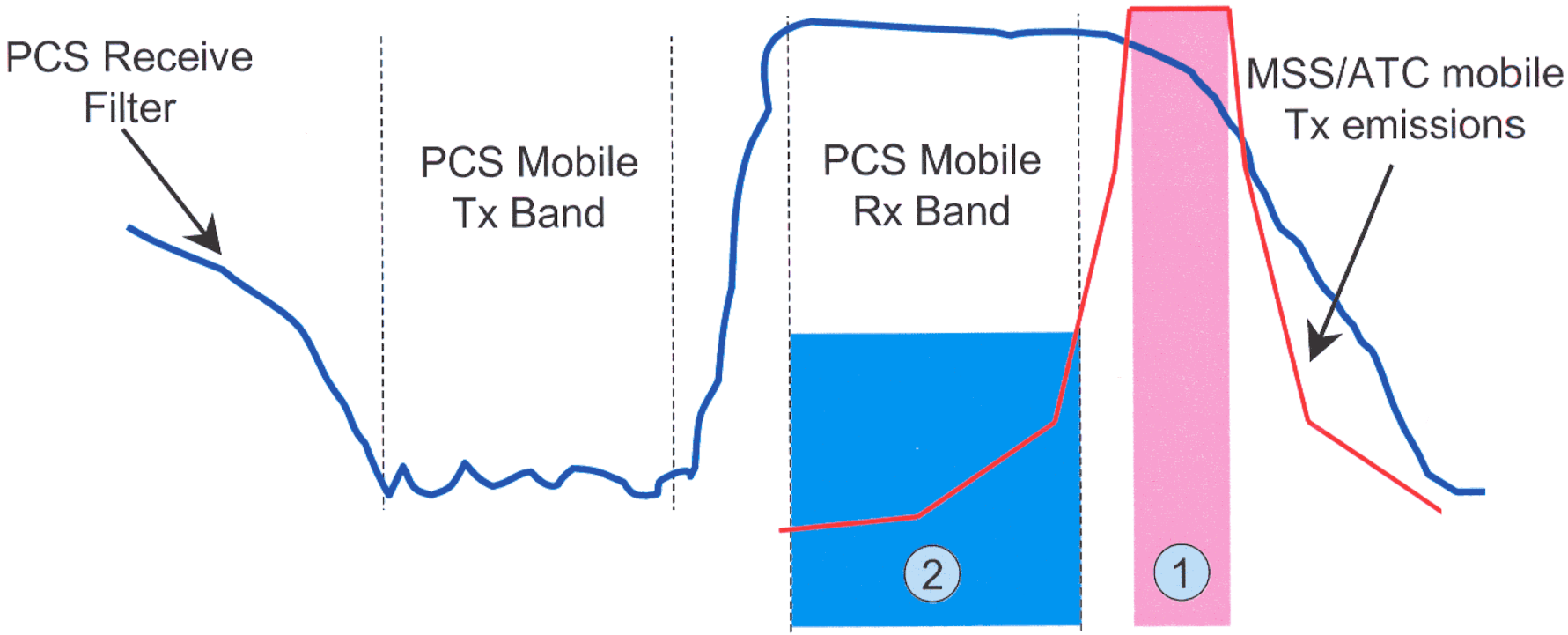
Interference Between MSS / ATC and PCS

- MSS / ATC operations at 1990 MHz will result in interference to/from PCS.



- ATC mobile transmitters will interfere into PCS mobile receivers.
  MSS mobile transmitters will interfere into PCS mobile receivers.
  PCS base station transmitters will interfere into ATC base station receivers.

MSS / ATC Interference Into PCS



1) Interference primarily due to PCS mobile receiver picking up MSS/ATC mobile transmitter main carrier.
2) Interference primarily due to PCS mobile receiver picking up MSS/ATC mobile transmitter out-of-band emissions.

Comparison of out-of-band emissions into PCS Mobile Rx Band

	FCC (ITU Cat A)	European (ITU Cat B)	TIA Rule	TIA Rule	Calculated Tx At ACP Limit	Specimen at PA Limit
Tx Configuration	General	General	CDMA2000	TDMA	CDMA2000	WCDMA
Frequency offset/Band	PCS Rx	PCS Rx	PCS Rx	PCS Rx	10 MHz	10 MHz
Rx noise floor dBm/1.25 MHz	-108	-108	-108	-108	-108	-108
Tx Filtering at offset (dB)	n/a	n/a	n/a	n/a	15	0
Power at offset (dBm/1.25 MHz)	-13	-30	-80	-63.8	-41.6	-33.1
Power transmitted into victim Rx (dBm)	-19	-36	-86	-69.8	-47.6	-39.1
Amount of desense w/o separation (dB)	88.9	71.9	21.9	38.1	60.3	68.8
Meter separation required for 3 dB degradation	333	50.5	0.16	1.0	13.3	35.4

FCC Rules result in 300+ meter separation requirement.

TIA levels provide acceptable protection for PCS band.

Measured devices at 10 MHz offset fall short of out-of-band emissions specifications.

PCS Interference Into ATC

- PCS base stations will interfere into ATC base stations
- ITU Report on "Compatibility between WCDMA 1800 Downlink and GSM 1900 uplink"; Working Party 8F, Document 8/66-E.
  - Report concludes that guard band is required to prevent base-to-base interference.

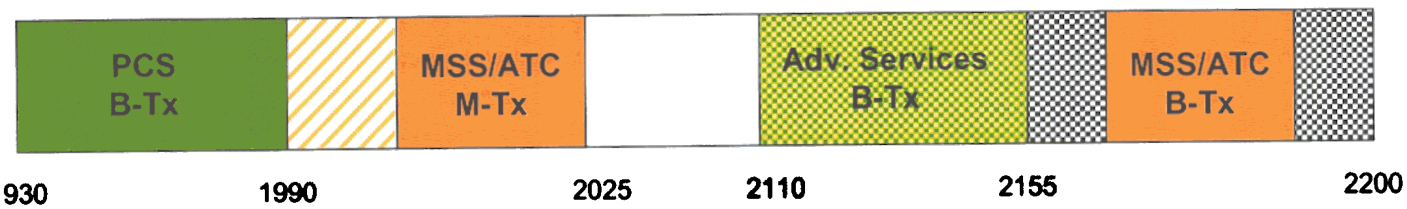
    Deterministic calculations show that as much as 15 MHz may be required.

    Coordination, physical separation of base stations, and other system trade-offs may reduce the required guard band.

    5 MHz guard band may be possible, but not without trade-offs that might be unacceptable to MSS/ATC.

Possible Solution to MSS/ATC/PCS Interference

Move MSS Up in Band



- Provide sufficient guard band between PCS and MSS/ATC at 1990 MHz.
- Guard band not required above 2155 MHz, since both bands are mobile Rx.
- Even with an adequate guard band, ATC/MSS mobiles will need to adhere to stricter emissions limits than those currently in the FCC's rules.