CTIA
Building The Wireless Future™
Cellular Telecommunications & Internet Association

January 29, 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 29, 2003, Diane Cornell, Vice President for Regulatory Policy, the Cellular Telecommunications & Internet Association, Don Brittingham, Director for Spectrum Policy, Verizon Wireless, and Mary Jo Manning, Wiley, Rein & Fielding, met with Commissioner Michael Copps and his Legal Advisor, Alexis Johns, to discuss interference issues related to the pending Mobile Satellite Service/Ancillary Terrestrial Component proceeding. Specifically, the parties discussed the attached presentation.

Pursuant to Section 1.1206(b)(2) of the Commission's rules, this letter is being filed electronically. If you have any questions concerning this submission, please contact the undersigned.

Sincerely,

Diane Cornell

Diane Cornell

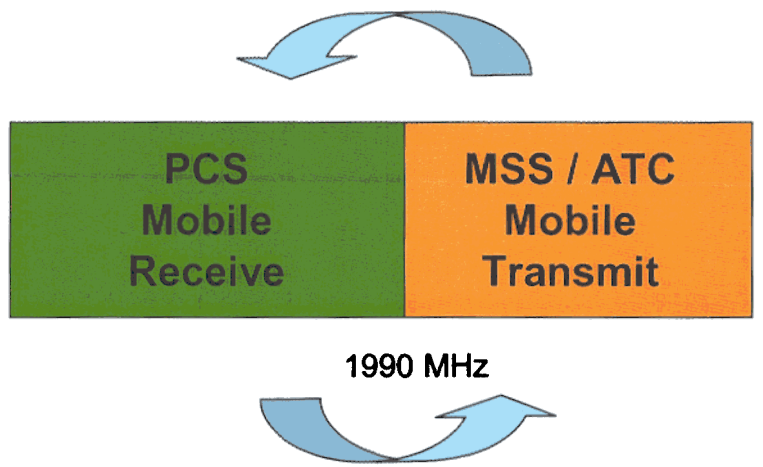
cc: Commissioner Copps
Paul Margie
Alexis Johns

Interference Between MSS/ATC and PCS

IB Docket No. 01-185
ET Docket No. 95-18
ET Docket No. 00-258
Ex Parte Meeting
January 29, 2003

Interference Between MSS/ATC And PCS Near 1990 MHz

MSS/ATC operations close to 1990 MHz will result in harmful interference into/from PCS.



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

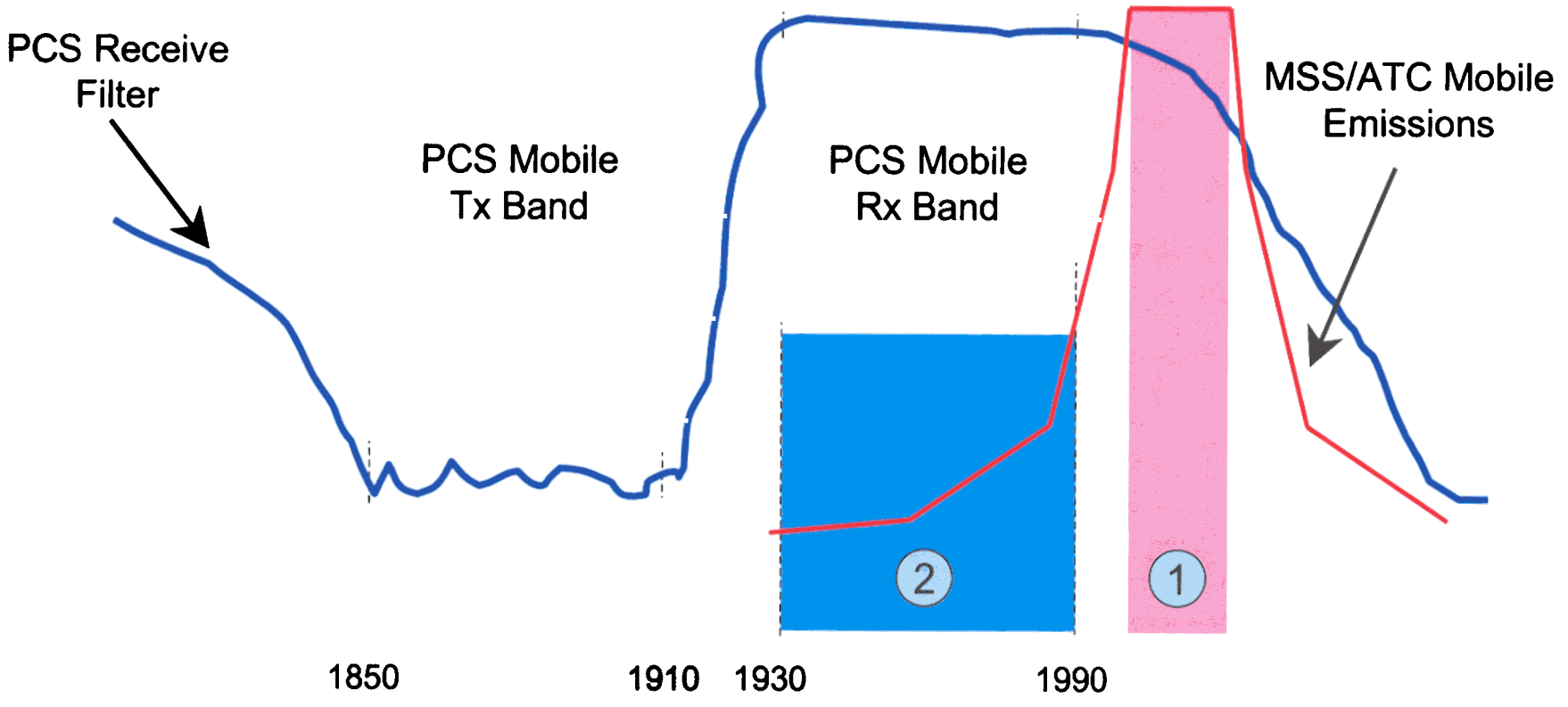
  PCS base station transmitters will interfere into ATC base station receivers.

MSS / ATC Interference Into PCS

- MSS/ATC operations close to 1990 MHz will result in harmful interference into PCS
- Out-of-band emissions from MSS/ATC mobile transmitters will cause harmful interference to PCS mobile receivers.
  - Emissions up to the FCC limit (-13 dBm/MHz, §24.238) will result in harmful interference when PCS and MSS/ATC phones are hundreds of meters apart.
  - Industry standard requires much stricter limit – e.g., -81 dBm/MHz.
- PCS mobile receivers will not be able to sufficiently reject in-band MSS/ATC emissions without adequate separation.

  20 MHz separation is required to separate PCS and MSS/ATC, based on current mobile receiver design.

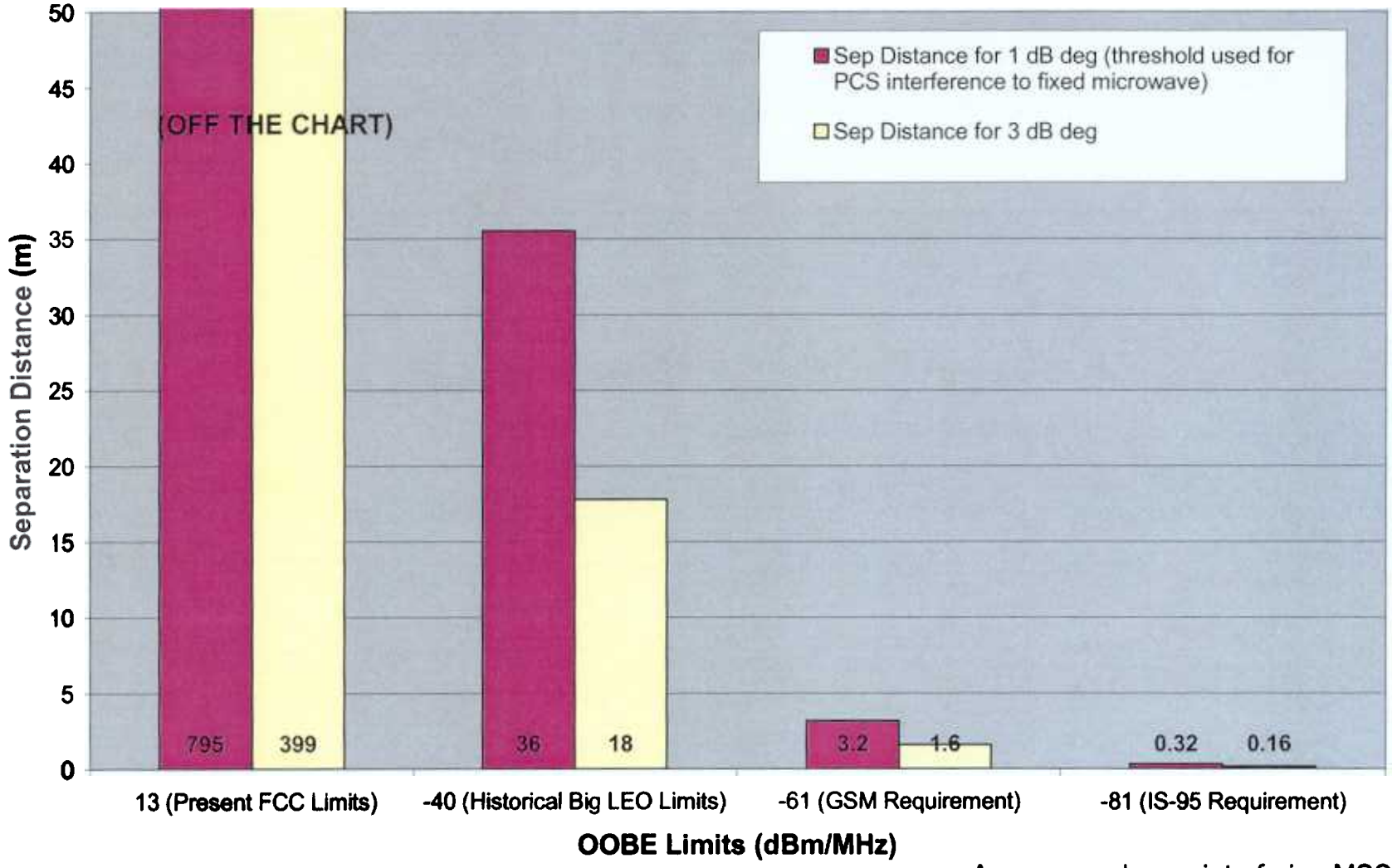
MSS / ATC Interference Into PCS



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.

Interference Distance Between MSS/ATC Mobile Transmitters and PCS Mobile Receivers as a Function of OOBE Limits on MSS/ATC Mobiles*



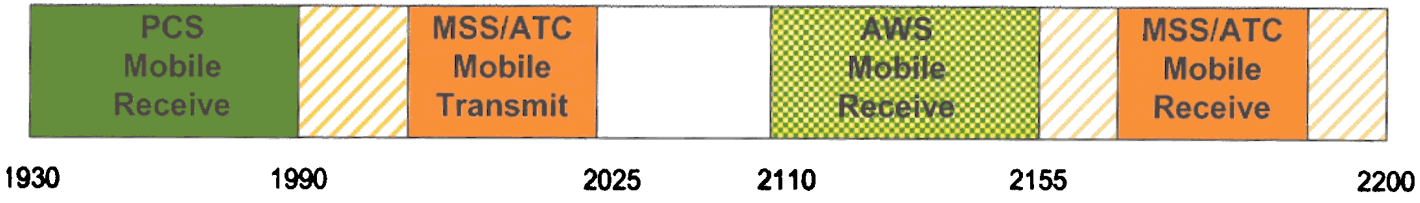
Assumes only one interfering MSS/ATC

3dB Degradation Will Result in *Significant* Losses in Coverage

- If the receiver sensitivity is decreased by 3 dB, the usable signal level will correspondingly be reduced by 3 dB.
- Cell site coverage at required signal levels will decrease by 33%.
- Consumers would experience significantly greater likelihood of not being able to make calls.
- Carriers would have to deploy 50% more sites to have the same quality of service as today, at great cost to consumers.

Solution to Interference Problem

Move MSS Up in Band



- Provide sufficient separation between MSS/ATC and PCS at 1990 MHz.
- Separation not required between AWS and MSS/ATC above 2155 MHz, since both bands are mobile receive.
- ATC/MSS terminals must emit low levels of out-of-band emissions to avoid interference to PCS. A limit of -81 dBm/MHz is consistent with levels prescribed for existing PCS handsets.