Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Wireless Telecommunications Bureau Seeks	)	
Comment on AT&T Request for Waiver to Permit	)	WT Docket No. 13-202
Power Spectral Density Model for 800 MHz Cellular	)	
Operations in Three Florida Markets	)	

INPUT BY THE STATE OF FLORIDA
TO THE AT&T REQUEST FOR WAIVER

1. The State of Florida, Division of Telecommunications, Bureau of Public Safety offers input to the Wireless Telecommunications docket (the WTD) in the above referenced matter. As a licensed user of public safety spectrum, and specific to the area of South Florida referenced in the WTD, we have a direct interest in the outcome of this waiver request. We thank the Federal Communications Commission for this opportunity.

2. After experiencing the efforts that led to rebanding Public Safety 800 MHz radio channels and as we are about to complete our rebanding efforts, <u>we are initially hesitant</u> to fully support the AT&T request for waiver. We do not want a repeat of rebanding.

3. AT&T appears to have researched the potential for near-far interference between noise-limited system (like public safety) and interference-limited systems (like cellular) in their request for waiver[1] to permit power spectral density (PSD) measurements in place of the traditional effective radiated power (ERP) measurements. AT&T's reference to advanced digital broadband modulation (e.g., Long-Term Evolution, or LTE) may invite interest from the FirstNet effort on the outcome of this request for waiver and potential future notice of proposed rulemaking.

4. We agree with AT&T on page 3 & 4 of their request for waiver that "…testing and operations will take place subject to conditions intended to assure that public safety systems operating in adjacent bands will not experience an increased risk of interference." With that, <u>the Commission should establish technical and operational conditions</u> to ensure public safety radio systems are protected from interference in the event AT&T's request for waiver is granted.

5. We applaud AT&T for studying near-far interference scenarios with particular attention to Public Safety; but, <u>remain initially hesitant</u> partly due to their statement on page 6 that "…the study showed there would be no significant effects upon adjacent services" (key phrase – no significant affects). Page 7 states, "The study results demonstrate that the interference environment into Public

[1] AT&T Request for Rule Waiver dated July 22, 2013, accepted by the FCC July 22, 2013.

Safety units from 2X2 MIMO LTE cellular deployments planned by AT&T is not appreciably different from that of existing cellular deployments – and in some cases it is better" (key phrase – not appreciably different). However, we also recognized AT&T's statement later on page 7 that "…the power injected into neighboring receivers either in adjacent areas or co-located sites does not increase but remains the same" (key phrase – does not increase but remains the same); but, immediately goes on to state "…the effect on neighboring and co-located systems – both public safety and cellular services – is minimal."

6. AT&T's Abstract (the Abstract) attached to their request for waiver presented three studies: 1) With regard to intermodulation interference impacts in section 2.1, AT&T states they "…will not cause any additional interference from intermodulation (IM) into Public Safety receivers as compared to existing UMTS or GSM systems."; 2) With regard to sideband interference impacts section 2.2, AT&T states "The tables show a slight increase in interference from Sideband emissions between some scenarios deploying LTE with increased power and less cable loss (Case 4 and Case 5) than existing GSM and UMTS systems as represented by Case 1, 2 and 3. This rise in the interference floor is insignificant in practice and is still well under the 1 dB degradation in the noise floor of the Public Safety mobile receiver."; and 3) With regard to overload interference impacts in section 2.3, AT&T states "…interference is possible close to the cellular base station sites, but LTE deployments did not increase the number of possibilities of such interference above that of existing deployments. … overload interference into Public Safety receivers could be reduced with the use of newer Public Safety receivers with overload limits around- 20 dBm (well within present design even at the current wider front end bandwidths) or the incorporation of front end filtering." The third study gives reason for concern. It infers potential burden on public safety agencies to have newer public safety receivers or to incorporate front end filtering. Section 2.4 of the Abstract concluded "…overload is the controlling interference mechanism" and goes on to state in Section 3 "The study used the operating parameters of Public Safety portable and mobile units which were considered poor by present industry standards."

7. Technical and operational conditions should include: 1) power spectral density testing in coordination with public safety licensees in the South Florida areas; 2) quarterly check-ups with public safety licensees during the first year fully operational; 3) immediately follow up and cooperate with public safety licensees anytime interference is suspected from an AT&T site; and 4) be financially responsible to remedy interference caused by AT&T to public safety radios systems.

8. For any additional information concerning these comments, contact Mr. Carlton Wells of the Bureau of Public Safety of the State of Florida, Division of Telecommunications at (850)-922-7426, email carlton.wells@dms.myflorida.com

Respectfully submitted,

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State of Florida

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Cc: Joint Task Force Board of Directors