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VIA ELECTRONIC FILING

April 19, 2012

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Notice of *Ex Parte* Presentation
FCC File No. SAT-MOD-20101118-00239; IB Docket No. 11-109

Dear Ms. Dortch:

On April 17, 2012, Jeffrey Carlisle, Executive Vice President – Regulatory Affairs and Public Policy of LightSquared LLC; Geoff Stearn, Vice President – Spectrum Development of LightSquared LLC; Ed Thomas, Senior Advisor of Hogan Lovells; and James Barker and the undersigned of Latham & Watkins LLP, outside counsel to LightSquared, met with the staff identified below of the International Bureau. The attached presentation formed the basis for the discussion.

Please contact me with any questions.

Respectfully submitted,

/s/ John P. Janka
John P. Janka

Enclosure

cc: Mindel De La Torre
Gardner Foster
Karl Kensinger
Robert Nelson
Roderick Porter
Mark Young

LightSquared and GPS: Summary of Findings

April 17, 2012

LightSquared

The NPEF Testing Did Not Comply with the NTIA Request

NTIA Request

1. EXCOM to develop joint testing plan with LightSquared
2. Confirm validity of prior measurements collected by TWG
3. Provide NTIA and federal agencies necessary data to determine what, if any, operating restrictions are necessary to mitigate remaining interference for Cellular and GLN receivers
4. Second Phase of testing to focus on High Precision and Timing
5. Reach resolution on any remaining federal agency concerns with respect to Cellular and GLN receivers
6. Retest of minimum number of devices from TWG test necessary to prove statistically that the earlier tests were valid
7. Retest of the 10 devices that were shown by the TWG testing to be more susceptible to the lower 10 MHz scenario

NPEF Action

1. NPEF Ignored key inputs made by LightSquared
2. NPEF did not test representative sample of TWG General Location devices
3. NPEF data were presented at summary level; NPEF/EXCOM provided biased recommendations to NTIA not supported by an objective view of the data
4. EXCOM refused to participate or plan for High Precision testing
5. EXCOM and NPEF process was structured in order to achieve a predetermined outcome negative to LightSquared
6. NPEF did not attempt to identify or test a representative sample of General Location devices from the TWG testing
7. NPEF did not seek to retest all 10 devices; only two devices were re-tested

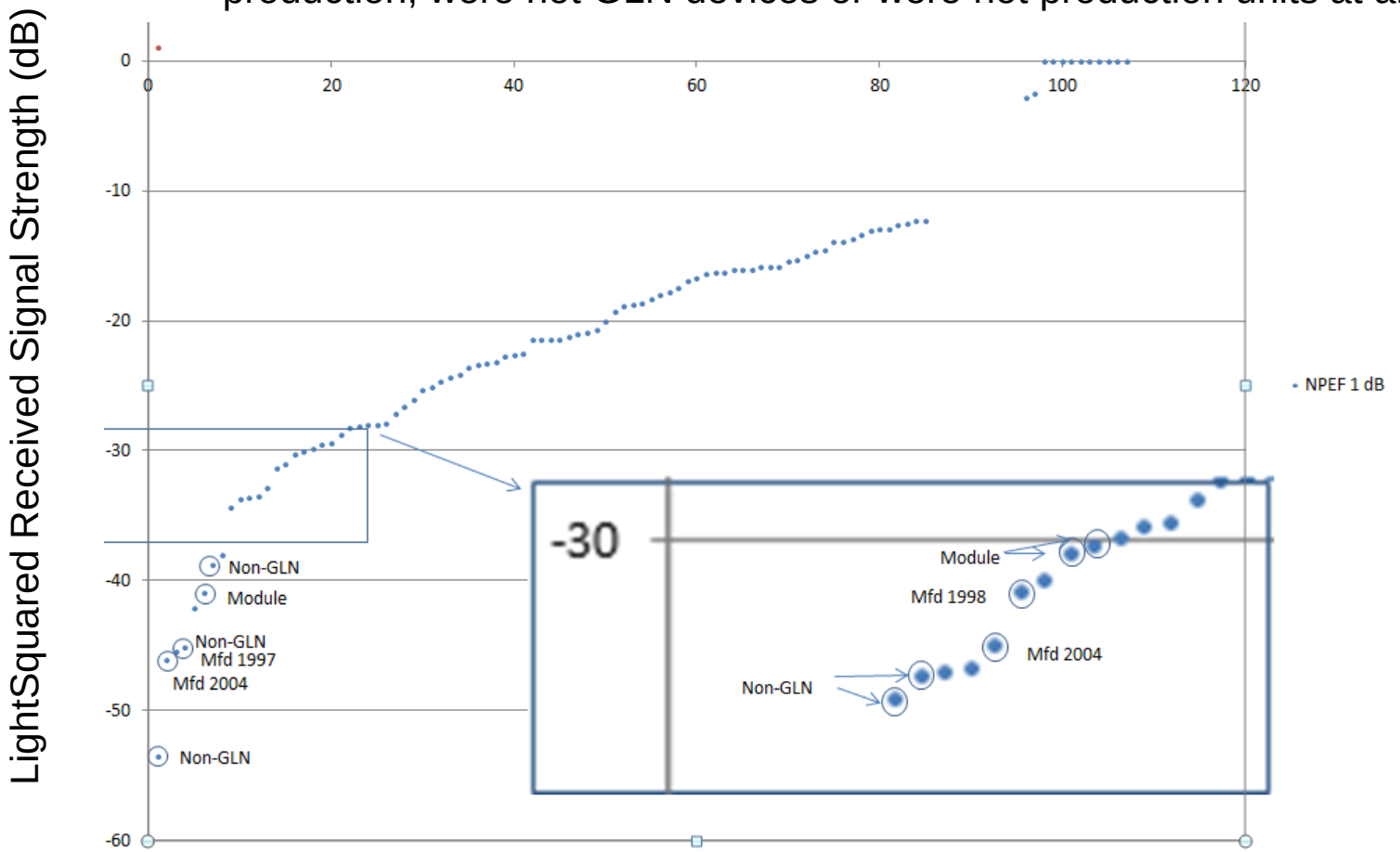
Instead of Improving upon the TWG work, NPEF Testing Was a Step Backwards

- Noncompliant with the most rudimentary of standards
  - No selection criteria – manufacturer self-selection
  - No market share or sales information for devices tested
  - No device chain of custody or entrance inspection
  - Device testing NOT performed by neutral third party
- No testing of actual device performance or functionality
- Many models were long out of production
- Idaho National Labs and Lincoln Labs reports have not been made public
- LightSquared power levels dramatically overstated

- NPEF/EXCOM/NTIA conclusions are simply unsupportable

Device Selection in NPEF Testing Improperly Skewed the Results

Of the 17 Devices that “failed” the NPEF GLN tests, 12 were either long out of production, were not GLN devices or were not production units at all



1 dB Change in C/N_0 Is Not a Measure of Harmful Interference

- GPS industry's case relies on 1 dB change in C/N_0 as definition of harmful interference
- This does not make sense
  - Variations of more than 1 dB C/N_0 regularly occur in the in GPS band, both on a short-term and long-term basis
  - No correlation between 1 dB change in C/N_0 and degraded device performance has ever been shown
  - FCC itself has declined to use 1 dB change as a measure of harmful interference on prior occasions

NTIA Improperly Invokes ITU-R M. 1903

- ITU-R M.1903 (and the ITU Table) provide protection only for GPS devices that are operating within the GPS band (i.e., it provides only “in-band” protection)
- That recommendation does not address 1 dB C/No as a general protection criterion for all GPS devices
- Moreover, that recommendation assumes the device meets specified technical characteristics and other protection criteria and still is unable to avoid the unwanted, in-band signal
- The assumption of “in band” operations was the driver behind the insistence by the GPS industry on stringent out of band emissions limits for LightSquared – with which LightSquared is in full compliance

A 1 dB Change in C/N_0 from ATC Has Not Been Established

- GPS industry's assertions about a predicted 1 dB change are based on incorrect LightSquared power assumptions
- NTIA did not ascertain whether the tested GPS devices met the technical performance characteristics that underlie ITU-R M. 1903
- NTIA's "pass/fail" test was not based on a measured, actual change in C/N_0 at the GPS receiver due to LightSquared transmissions
  - Rather was based on "observed" changes in GPS signal quality

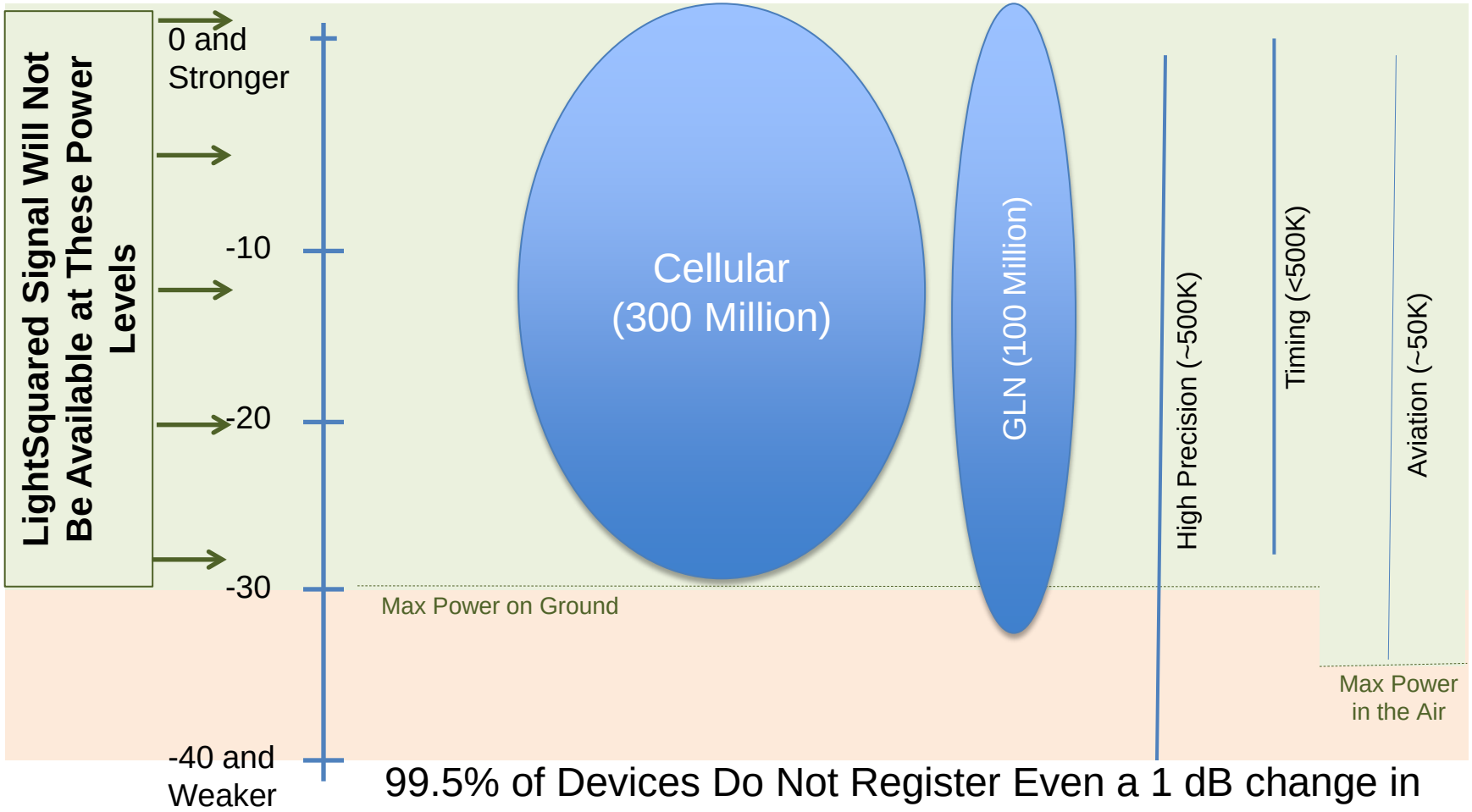
High Precision Device Compatibility

- Because the GPS industry has failed to responsibly design and sell compatible devices, LightSquared has led the effort to demonstrate that high precision devices can be designed that are compatible with its adjacent-band operation
  - No loss of operational performance (accuracy is even improved in some cases)
  - No change to existing form factors is required
  - No change in cost from existing bill of materials is expected
- Testing sponsored by LightSquared and performed by Alcatel Lucent confirms that high precision devices with replaceable antennas can be retrofitted with currently available components
- Major GPS manufacturers, despite having been aware of LightSquared's authorized terrestrial use of the band for years, have chosen to continue to sell incompatible devices and not to implement the solutions identified by LightSquared

Aviation Compatibility

- All certified aviation devices tested under the supervision of the FAA and RTCA have shown they are compatible with LightSquared's operations in all phases of flight
- LightSquared and FAA staff/consultants worked diligently to fully understand the high-altitude use case defined by the FAA and determined that LightSquared's network could be deployed in a fashion that would cause no conflict with existing standards
- At the 11th hour the FAA introduced several new requirements, but did not allow adequate time for those to be fully studied
- Nevertheless, LightSquared has agreed to meet all stated FAA requirements in order to ensure compatibility between its operations and existing (though outdated) FAA equipment standards
- Despite this commitment by LightSquared, and evidence that shows that actual equipment is much more resilient than minimum standards dictate, the FAA refused to conduct any further work and dismissed LightSquared's commitments out of hand

No Meaningful Percentage of Devices Are Even Able to Sense LightSquared's Transmissions



99.5% of Devices Do Not Register Even a 1 dB change in C/N_0 in the Presence of LightSquared's Transmissions

Proposed Commission Action would set a Disastrous Precedent

- Not a single GPS device (with the exception of specialty High Precision devices) has been demonstrated to experience any end-user performance degradation as a result of LightSquared's planned deployment
- The GPS industry is seeking to block LightSquared's deployment even though it agreed to all relevant operating parameters between 2002 and 2009
- The GPS industry is seeking to establish a permanent 85 MHz guard band surrounding the current GNSS allocation
- Granting protection to an entire class of unlicensed, unregulated receivers turns years of regulatory policy and precedent on its head
- Giving superior rights to these types of devices could frustrate future attempts to reallocate spectrum for commercial broadband use