



September 2, 2014

Via Electronic Filing

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

Re: Notice of Ex Parte Communication: *Amendment of the Commission's Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, GN Docket No. 12-354

Dear Ms. Dortch:

On August 28, 2014, Milo Medin and I, of Google Inc., met with John Leibovitz, Deputy Chief of the Wireless Telecommunications Bureau, and Julius Knapp, Chief of the Office of Engineering and Technology.

We discussed the impact of SPN-43 radar systems on the operation of LTE and WiFi networks in close proximity to these radars. Google performed testing to address this issue with the cooperation of the United States Department of Defense ("DoD") and Navy. Virginia Polytechnic Institute and State University and Federated Wireless partnered with Google in conducting the tests. The test results show commercial systems can operate effectively at very close distances to the radar operation.

In its meeting with Commission staff, Google explained that it was not necessary to establish large exclusion zones to protect commercial users from harmful interference by the radar. Instead, the Commission should establish interference protection requirements for periods when the radar is in operation and vulnerable to interference from secondary users. Google stressed that the FCC should avoid attempting to protect secondary users, which would constrain innovation.

Google further stated that a spectrum access system ("SAS") could easily develop the capability to protect incumbent radars and the method for doing so is similar to the approach for protecting in-band FSS operation. Google proposed that the FCC adopt interference protection criteria for these radars and the common zones of operation of these radars (such as commonly utilized naval shore facilities and ingress/egress paths) and provide these as SAS requirements, similar to FSS protection criteria. Google pointed out that the DoD participated actively in the coordination of existing ITU protection standards for radar operation, and that these standards can serve as a basis for establishing the protection criteria for these existing naval radars. If SAS providers used this standard to determine interference protection, such protection would be assured without any need for system-specific information about the radars, which may be sensitive or classified. Google expressed its willingness to work with all parties to assure these critical federal systems can operate effectively and securely while maximizing the benefit of the sharable spectrum.

Google Inc. Ex Parte
Dkt. 12-354
September 2, 2014

We also noted that commercial devices are likely to be deployed quickly in this band, provided that Commission rules enable sufficiently widespread operation. There has been rapid growth in chipsets and equipment availability, driven largely by overseas deployment of LTE-TD in this band.

Pursuant to the Commission's rules, this notice is being filed in the above-referenced docket for inclusion in the public record. Please contact me should you have any questions.

Respectfully submitted,

A handwritten signature in cursive script that reads "Preston Marshall".

Dr. Preston Marshall
Principal Systems Architect, Google Access Services
Google Inc.

cc: *Via Electronic Mail*
John Leibovitz
Julius Knapp