January 21, 2020

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554


Dear Ms. Dortch:

Over two months ago the Department of Defense ("Department" or "DoD") submitted a letter to the Commission, going outside of the regular IRAC process, that urged the FCC to not use the standard of harmful interference as set forth in the Commission’s rules and instead apply its preferred metric, 1 dB C/N0. The Department’s letter contained no data, no analysis, and no basis for its conclusion other than the Department of Transportation’s Report ("ABC Study"), which has been before the Commission since April 2018. Given that the Department’s letter added nothing to the record, and certainly not the specific technical information that the Commission called on all parties to submit when it first put the Ligado Applications out for comment in April 2016, and that the evidence cited by the Department has been in the record over 500 days, it is disappointing that the Commission has not moved forward to adopt an order that puts this vital 40 megahertz of mid-band spectrum to work in propelling our Nation forward on 5G.

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1 Comments Sought on Ligado’s Modification Applications, Public Notice, 31 FCC Rcd 3802, 3809 (Apr. 22, 2016) ("We request that such commenters supply specific relevant technical information about affected GPS receivers (e.g., receiver category, receiver bandwidth) and their performance or functioning (e.g., break lock, loss of tracking, specific effects on location and timing accuracy) . . .").
We submit this letter to flag certain salient facts about the Department’s position that reinforce that the record demonstrates the Commission should move forward with a decision.

1. **In 2010, the DOD reached an MOU with NTIA Stating GPS Devices Merited Protection Only When Operating in Their Allocated Spectrum.**

As described in a July 2018 filing, the Department and NTIA entered into a Memorandum of Understanding in 2010 to set out their common understanding on spectrum issues and GPS. In that MOU, the Department agreed that GPS devices are entitled to protection only when they are operating within their allocated spectrum. To state the obverse: Ten years ago the Department agreed with NTIA that *GPS devices* are *not entitled to protection when operating outside their designated spectrum*. Yet that is *exactly* what the Department letter now demands — the FCC reject Ligado’s applications because the DOT Study shows that the proposed operating levels would cause a 1 dB change in the noise floor in *devices operating in Ligado’s spectrum*. It has been established beyond debate that the proposed operating levels will not cause any impact to GPS devices operating in their allocated spectrum. But that is not good enough for the Department. Instead, they now object, notwithstanding the 2010 MOU with NTIA, that GPS devices should be protected when they are operating outside their designated spectrum.

It is the height of unreasoned decision-making and is arbitrary and capricious for the Commission to rely on statements from a party that are contrary to formal positions of such party. This say-anything-to-win approach cannot be squared with the requirements of the Administrative Procedures Act and due process.


The record has been clear since April 2018 that the Air Force conducted tests on whether the operating levels proposed in the pending Applications had any impact on military GPS receivers almost four years ago in *April of 2016*. Specifically, the ABC Study contains this statement:

> GPS/GNSS receiver testing, led by the OST-R/Volpe Center, was conducted at the U.S. Army Research Laboratory (ARL) at the White Sands Missile Range (WSMR) facility in New Mexico in April of 2016 with 80 civil GPS and GNSS receivers tested, as

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shown in Figure ES-1. *The Air Force GPS Directorate conducted testing of military GPS receivers the week prior to the civil receivers being tested.*

It offends every notion of due process embedded in the Administrative Procedures Act for a party to not submit information relevant to a fact-finder’s inquiry on a timely basis, especially when the FCC specifically asked for such information in April 2016. That fundamental notion applies with special force to the present circumstance where it has been clear to every party, including the Department, that the agency is working to bring this proceeding to a close and has drafted a final order on the pending Applications. In light of the fact that the Air Force has had test results since April of 2016, and the Commission has been aware of that fact since at least April 2018, only one conclusion can be reached: the results of the April 2016 testing do not show that the military GPS devices experienced harmful interference from the proposed operation levels since otherwise they would have been submitted long ago. The only other conclusion — that the Department deliberately sat on this information and is raising it at the very last minute to sidetrack the process — is not fathomable under a system guided by the APA and due process.

3. **DoD’s Deputy Chief Information Officer (DCIO) Informed Congressional Staff in 2013 that the Department Had Formally Signed Off on Significant Aspects of Ligado’s Spectrum Plan.**

It has come to our attention that in 2013, Christine M. Condon, who is now the DoD Acting Deputy Chief Information Officer (DCIO) for Resources and Analysis and at the time was the Principal Director within the DoD DCIO, informed the chief of staff of a senior member of Congress that DoD has “no issue with approving the [Ligado] proposal and asks the IRAC to tell the FCC we approve.”

Specifically, Ms. Condon wrote:

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4 *Cf.* 47 C.F.R. § 1.17(a) (requiring persons subject to the rule to not intentionally omit material information); *see also United States v. Georgia-Pacific Co.*, 421 F.2d 92, 100 (9th Cir. 1970) (“[I]t is hardly in the public’s interest for the Government to deal dishonestly or in an unconscientious manner.”).


6 Ms. Condon’s current responsibilities include serving as the DoD CIO focal point for the Planning, Programming, Budgeting and Execution process, Congressional issues, and for administration and management.
As you are aware, LSQ [renamed Ligado] wants FCC approval of the handset spectrum at 1626.5-1660.5 MHz. . . . As DoD understands it, FAA/DoT want testing of the handset prior to approval. DoD (the Military Departments), NASA and DoC did not ask for such testing in their memo to the IRAC -- in fact the IRAC memo (co-signed by DoD, NASA, and DoC) indicates the signatories have no issue with approving the [Ligado] proposal and asks the IRAC to tell the FCC we approve.7

This correspondence means that over six years ago, a high-ranking official in the Department’s Chief Information Office informed senior Congressional staff that DoD had told IRAC that the FCC should approve Ligado’s spectrum plan with respect to the bands at 1627.5-1637.5 MHz and 1646.5-1656.5 MHz (the so-called “handset spectrum”). This statement is stunning since it reveals the irregular, obfuscated process that has plagued this proceeding for many years. It is even more troubling given that since this statement was written, Ligado amended its spectrum plan to reduce the power limits in the “handset spectrum” to -7 dBW — the equivalent of an 80% decrease. And yet despite this view from an official in DoD’s CIO to Congress expressed in 2013, and despite the fact that subsequent to this correspondence the spectrum power levels have been further reduced by 80%, the Secretary of Defense nevertheless sent a letter two months ago opposing Ligado’s spectrum plan.

This continues the pattern in which the Department blithely ignores past commitments on the relevant spectrum, does not reveal or ignores its own tests, and ignores its clear statements to Congress on Ligado’s spectrum plan. The FCC of course is governed by the APA and must engage in reasoned decision-making and cannot act in an arbitrary and capricious manner. To that end, Ligado respectfully requests that the FCC ask the NTIA to submit immediately into the FCC record the memo to the IRAC cited in this email. The Commission must stay keenly focused on grounding its decisions in the facts and the data in the record, including the information discussed herein.

Please direct any questions to the undersigned.

Respectfully submitted,

/s/
Gerard J. Waldron
Counsel for Ligado Networks LLC

Attachment

7 See Attachment A (emphasis added).
-----Original Message-----

From: Condon, Christine M (Chris) SES OSD DOD CIO (US)  
[mailto:christine.m.condon.civ@mail.mil]

Sent: Tuesday, October 15, 2013 5:16 PM

To: 

Subject: LSQ  

I asked our folks for a simple summary of what's going on and here's what I was told:

As you are aware, LSQ wants FCC approval of the handset spectrum at 1626.5-1660.5 MHz. Based on what we (DoD) know, only DOT/FAA has an issue with that request. As DoD understands it, FAA/DoT want testing of the handset prior to approval. DoD (the Military Departments), NASA and DoC did not ask for such testing in their memo to the IRAC -- in fact the IRAC memo (co-signed by DoD, NASA, and DoC) indicates the signatories have no issue with approving the LSQ proposal and asks the IRAC to tell the FCC we approve.

Separately but related, LSQ is working with NOAA to assess if they can share with 1675-1680MHz band by having NOAA relocate their radiosonde's to another band (around 406MHz). If NOAA agrees to do this, DOD would not object.

Finally, we do agree that LSQ's use of the lower 10 MHz, in 1526-1536 MHz, needs to be described in a revised proposal that is given to the PNT ExCom for consideration and possible action, in the near future.

I'm going to call you now to see if I can answer any other specifics you may have.

Thanks,

Chris
Hi Chris-

Just checking in from our discussion Friday.

Chief of Staff

Congressman

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