March 25, 2024

ERRATUM - EX PARTE VIA ELECTRONIC FILING AND E-MAIL (nicholas.oros@fcc.gov)

Mr. Nicholas Oros Office of Engineering & Technology Federal Communications Commission 45 L Street, NE Washington, DC 20554

RE: Public Notice: OET Announces Approval of Seven 6 GHz Band Automated

Frequency Coordination Systems for Commercial Operation and Seeks

Comment on C3 Spectra's Proposed AFC System

ET Docket No. 21-352

DA 24-166

Dear Mr. Oros:

The undersigned parties ("Parties") represent licensees of incumbent fixed microwave links in the 6 GHz band ("Band") and seek clarification about certain statements in the Public Notice ("PN") released on February 23, 2024, in ET Docket No. 21-352 (DA 24-166). The Parties have been active participants in this proceeding and the companion docket, ET Docket No. 18-295. The Federal Communications Commission ("FCC") and representatives of unlicensed interests are aware of the very serious concerns the Parties have about interference to primary, licensed, fixed facilities in the Band from secondary, unlicensed devices.¹ Certain issues related to those concerns should have been, but were not, resolved in the Multi-stakeholder Group ("MSG") encouraged by the FCC.² That failure makes it even more critical that all affected parties have a clear understanding of their rights and responsibilities vis-à-vis actions to be taken pursuant to the PN.

¹ These unlicensed devices are authorized under Part 15 of the FCC rules, including Section 15.5, which states, in pertinent part (emphasis added):

⁽b) **Operation** of an intentional, unintentional, or incidental radiator **is subject to the conditions that no harmful interference is caused and that interference must be accepted that may be caused by the operation of an authorized radio station**, by another intentional or unintentional radiator, by industrial, scientific and medical (ISM) equipment, or by an incidental radiator.

⁽c) The operator of a radio frequency device shall be required to cease operating the device upon notification by a Commission representative that the device is causing harmful interference. Operation shall not resume until the condition causing the harmful interference has been corrected.

² See Best Practices and Recommended Procedures for Interference Detection, Reporting, and Resolution to Protect Fixed Microwave Service Receivers in the 6 GHz Band, Final Report of the 6 GHz Multi-stakeholder Group (MSG), ET Docket No. 28-195, Sections 6-9 (filed July 22, 2022).

Reporting of Potential Interference

Section V of the PN references a commitment by AFC system operators to "collaborate with industry groups to formulate procedures for acting on reports of potential interference." It quotes these entities as stating they are working together to establish a centralized means for receiving and addressing interference complaints. That may be the case, but the industry groups with which they are collaborating do not involve the entities that will be the recipients of that potential interference. They are developing a system into which fixed microwave incumbents will be submitting information about potential and actual interference without consulting them. While the FCC has conditioned continued commercial AFC operation on the submission of details about the reporting process to the FCC by April 23, 2024, there is no indication that the system developed will have been reviewed by, much less endorsed by, the parties that will be reporting interference.

Moreover, continued commercial operation by the AFCs is conditioned on their submission to the FCC of the details of the process they have implemented by the April 23, 2024, filing deadline. It does not require even FCC approval of the process, much less concurrence by the affected parties, fixed microwave incumbents, that have no involvement in its development. While the incumbents presumably may file objections or recommend improvement to the process, do AFCs have an obligation to respond? Should the FCC require AFCs to file responses with the Commission so it may evaluate whether to direct them to stop commercial AFC operations and require changes to the process?

Like OET, the Parties appreciate that the AFCs are collaborating to develop a single interference reporting process rather than each developing its own — or not having a defined process at all. However, to avoid the potential result described above, that collaboration should not be limited to AFCs. It should include representatives of the incumbents whose systems are entitled to interference protection under FCC rules. Based on the results of the MSG, the Parties also would welcome active OET involvement in overseeing the development process. Involving all interested parties is most likely to produce a result that is effective and will require minimal ongoing oversight.

Standardized AFC Propagation Models

Notwithstanding the Parties continued concerns about interference from unlicensed operations in the Band, concerns validated in multiple real world test results submitted to the FCC,⁵ the Wireless Innovation Forum ("WInnForum") has played a productive role in establishing standardized specifications for AFC system operations. The Parties, therefore, are disappointed that the FCC rejected AT&T's

³ PN at 9, para. 18.

⁴ They also must coordinate with one another to avoid the conflicting channel assignments that have occurred on CBRS spectrum when SASs do not always share information with one another.

⁵ See, e.g., Letter from Larry Butts, Manager, Telecom Engineering, Southern Company Services, Inc., to Marlene H. Dortch, Secretary, FCC, WT Docket No. 18-295 (filed June 23, 2021) (Test Report Columbus, Georgia); see also, Letter from John Hughes, Director, Network Engineering & Operations, Ameren Services Company, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 18-295 (filed Dec. 14, 2021) (Indoor Unlicensed Devices Field Test Report); Letter from Gregory Kunkle, Counsel to FirstEnergy Corp., to Marlene H. Dortch, Secretary, FCC, WT Docket No. 18-295 (filed Oct. 12, 2022) (6 GHz Additive Interference Study); Letter from Gregory Kunkle, Counsel to FirstEnergy Corp., to Marlene H. Dortch, Secretary, FCC, WT Docket No. 18-295 (filed May 9, 2023) (6 GHz Additive Interference Study - Winter).

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recommendation that WInnForum or another inter-industry organization develop standardized implementations for AFC system propagation models. Instead, the PN allows individual AFC operators to notify the FCC and the public about software modifications that would affect available frequency ranges and maximum power levels used and require OET approval prior to implementing any proposed modifications.

OET has approved the applications of seven entities to operate AFCs and has requested comment on the application of an eighth entity. It not only will be burdensome for the FCC and for fixed microwave incumbents to review and assess changes from seven, or eight, or possibly a larger number of AFCs in the future, but the advantage of standardized specifications is the assurance that all AFCs will predict – and avoid – potential interference identically. If individual changes produce different results, there is an incentive to forum shop for the least protective model. The Parties request clarification of how the public interest is served by the FCC's decision to allow customized software changes by individual AFC operators rather than maintaining the requirement that AFC system parameters be vetted through WInnForum or a comparable inter-industry forum with input from AFC operators and from the fixed microwave user community they are charged with protecting.

Respectfully submitted,

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