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VIA EXPERIMENTAL LICENSING SYSTEM

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Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
45 L Street NE
Washington, DC 20554
ATTN: Office of Engineering and Technology

Re: Reply of Comcast Corporation, Informal Ojection; ELS File No. 0856-EX-CR-2025

Dear Ms. Dortch:

Comcast Corporation (“Comcast”) and potentially tens of thousands of its customers have been exposed to harmful interference for over a year due to transmissions from FalconION, Inc. (“FalconION”). As described in Comcast’s informal objection to FalconION’s application for renewal of its experimental license WM2XHW (the “Experimental License”), the harmful interference caused by FalconION’s experimental transmissions has disrupted the broadband internet and cable television services upon which Comcast consumers rely, notwithstanding Comcast’s efforts to shield them.¹

Allowing FalconION to renew its experimental license without a specific plan to address these issues would conflict with the core purpose of the Federal Communications Commission’s (“FCC” or “Commission”) mandate to consider the public interest—including the impact on consumers, incumbent users, and the environment—when exercising its general authority over licensing wireless spectrum. It would also be at odds with the purpose of the FCC’s experimental licensing regime, which allows for limited authorization to determine if new services can proceed without deleterious impacts to other users. FalconION’s experiments clearly have not met this standard. Moreover, because the function of the experimental license is to determine whether novel uses cause harmful effects, experimental licensees have no renewal expectations and serve only to conduct temporary testing for product development²—in stark contrast with Comcast’s authorized incumbent services, which for years have provided Comcast customers with reliable access to broadband, cable television, and VoIP services (which includes E911 calling). For these and the reasons discussed below, the Commission should deny FalconION’s

¹ See Letter from Michael Lazarus, Telecommunications Law Professionals PLLC, Counsel to Comcast Corporation, to Marlene H. Dortch, Secretary, FCC, Informal Objection; ELS File No. 0856-EX-CR-2025, at 2 (Dec. 5, 2025) (“Comcast Informal Objection”).

² The Commission’s rules only provide that “[a] license *may* be renewed for an additional term not exceeding 5 years, *upon an adequate showing* of need to complete the experiment.” 47 C.F.R. § 5.71(a)(2) (emphasis added); see also *id.* § 5.3 (defining the scope of experiments permitted under Part 5, which does not contemplate permanent authorized operations).

application for renewal, in order to protect consumers and the public interest. Alternatively, at a minimum, the Commission should grant renewal of FalconION's experimental license only under the condition that FalconION eliminate the Experimental License's interference with and disruption of Comcast's operations and services.

I. FalconION Has Not Fully Cooperated with Comcast.

Contrary to FalconION's assertions in its response to Comcast's informal objection, FalconION has not worked cooperatively with Comcast to resolve the harmful interference caused by its experiments. FalconION's claim that they are "ready, willing, and able to find a productive solution" is belied by FalconION's actions (mostly *inaction* to date) and even by the text of FalconION's response, which argues that Comcast alone should take action to resolve the interference concerns.³ FalconION briskly asserts that Comcast should update customer equipment to resolve the harmful interference that FalconION is causing, which places the onus entirely on Comcast to resolve the situation in East Graham. This response also ignores the fact that ingress from FalconION's transmissions is occurring in many cases through customer-purchased third-party equipment. FalconION has not offered workable solutions to modify its operations, limit the geographic scope of its experiment, or mitigate the harmful interference concerns.⁴ This does not demonstrate productive, cooperative conduct.

Moreover, FalconION's response does not acknowledge the immense cost and customer inconvenience of replacing equipment for tens of thousands of customers. The only solution proposed by FalconION requires significant capital expenditures not just by Comcast but by its customers as well, since it is likely that some of the interference is occurring with customer-purchased equipment. But Comcast already spends significant resources to maintain its cable plant, and FalconION has not proposed any cost-sharing or other solutions to meet its proposed additional burden. Indeed, while FalconION touts its engagement with Comcast, this engagement came to an abrupt end when Comcast sought to discuss sharing the financial and technical burden of resolving these interference issues.

That is unfortunate, as it is FalconION's obligation to show that its experimental use cases are in the public interest, not the other way around, consistent with "the fundamental principle that experiments must be designed to avoid harmful interference to existing services."⁵ FalconION inverts the burden, effectively demanding that both Comcast and its customers subsidize FalconION's time-limited and experimental use case by making significant alterations to both cable plant and customer-provided equipment. And even if Comcast and its customers were somehow obligated to shoulder the obligation of fixing the problems caused by FalconION's experiments with high-frequency stock trading, the company's suggestion that Comcast and its customers replace or upgrade impacted customer equipment does not guarantee an end to the

³ Letter from David O'Neil, Rini O'Neil, PC, Counsel to FalconION, to Marlene H. Dortch, Secretary, FCC, Response to Informal Objection; ELS File No. 0856-EX-CR-2025, at 2-3 (Dec. 15, 2025).

⁴ See Comcast Informal Objection at 3 (explaining that FalconION's sites in East Graham, Washington and Orland Park, Illinois are causing harmful interference to Comcast customers).

⁵ *Radio Experimentation and Market Trials—Streamlining Rules*, 78 Fed. Reg. 25,138, 25,140 (2013).

disruption. FalconION's high-powered, frequency-hopping transmissions may *still* find ingress points in other households in the market resulting in continuing harmful interference for Comcast customers.

II. FalconION Has a Public Interest Obligation to Avoid Harmful Effects, Even to Devices that are Not “Authorized” Users.

The touchstone of the Communications Act is that radio operations be conducted in the public interest. Allowing FalconION's conduct to continue—especially without requiring *any* incremental steps to mitigate harmful interference—contravenes the Communication Act's clear requirements related to serving the public interest and regulating the external effects of RF operations. The tradeoff here could not be starker: the public interest clearly is not served by degrading and/or depriving thousands of customers of broadband internet and other cable services access in favor of experiments to enable high-frequency trading that benefit only a small number of private financial entities.

The text of the Communications Act makes the FCC's obligation to consider the public interest in regulating FalconION's experimental transmissions clear. The Commission may only grant radio licenses where “the public interest, convenience, and necessity will be served” by doing so.⁶ The Act also requires the Commission, again “as public convenience, interest, or necessity requires,” to “[r]egulate the kind of apparatus to be used with respect to its *external effects* and the purity and sharpness of the emissions from each station and from the apparatus therein[.]”⁷ Moreover, the Commission must make “reasonable regulations” related to devices that intentionally transmit RF energy, those that incidentally transmit RF energy, and electronic equipment that might be susceptible to interference from such devices, also in accordance with the public interest.⁸

The Commission's steps to carry out these statutory directives have spanned far beyond minimizing interference between radio “stations.” Critically, the term “external effects” used in Section 303(e) of the Communications Act encompasses all manner of environmental effects beyond harmful interference to entities seeking to transmit radio communications. Nothing in Section 303(e) suggests that “external effects” should be limited to transmissions by other “stations.” The Commission itself has emphasized the breadth of the “external effects” covered by Section 303(e). For example, the agency has referred to national security harms, which do *not* require interference between licensed stations, as “external effects” under Section 303(e).⁹ Further, as the Commission has explained, most recently in the Bad Labs Order, Section 302a of the Communications Act “provides additional authority to make reasonable regulations

⁶ 47 U.S.C. § 309(a).

⁷ *Id.* § 303(e) (emphasis added).

⁸ *Id.* § 302a(a)(1).

⁹ *Protecting Against Nat'l Sec. Threats to the Commc'ns Supply Chain Through the Equip. Authorization Program*, 37 FCC Rcd 13493, ¶ 41 (2022).

governing RF devices, ‘consistent with the public interest, convenience, and necessity’ thus giving the Commission broad authority to implement other statutory responsibilities.”¹⁰

The Commission has also cited these provisions alongside its statutory obligations under the National Environmental Policy Act (“NEPA”) to consider the environmental effects of RF radiation and exposure in licensing RF transmission.¹¹ The FCC’s rules implementing NEPA apply to “all Commission actions that may or will have a significant impact on the quality of the human environment.”¹² Ultimately, the Commission has a myriad of overlapping statutory and public interest obligations requiring it to consider and mitigate the harmful effects of RF transmissions to the environment and consumers. The public interest plainly favors eliminating the harmful interference from FalconION’s experimental operations to protect consumer access to high-speed broadband.

III. FalconION is Impeding Access to Broadband Services.

The Communications Act also requires the Commission to “make available ... wire and radio communication service” on a nationwide basis, “promoting safety of life and property,” and “the national defense.”¹³ FalconION’s interfering operations directly endanger the safety of life and property by impeding access to broadband Internet services, which could also potentially impact the ability of Comcast customers to access VoIP, E911, and other emergency services.

Other statutory language underscores the Commission’s obligation here. Section 706 requires the FCC to “encourage the deployment on a reasonable and timely basis of advanced telecommunications capability”—in other words, high-speed broadband—“to all Americans.”¹⁴ And the Act mandates that the Commission serve principles of universal service, pursuant to which “[a]ccess to advanced telecommunications and information services should be provided in all regions of the Nation” and “[c]onsumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, ... and advanced telecommunications ... services, that are reasonably comparable to those services provided in urban areas.”¹⁵

¹⁰ *Promoting the Integrity and Security of Telecommunications Certification Bodies, Measurement Facilities, and the Equipment Authorization Program*, 40 FCC Rcd 3616, ¶ 16 & n.52 (2025).

¹¹ See *Proposed Changes in the Commission’s Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields*, 34 FCC Rcd 11687, ¶¶ 6, 165 (2019) (citing Sections 302a and 303, *inter alia*, as the basis for the Commission’s “responsibility to set standards for RF emissions,” which triggers the NEPA obligation) (remanded on other grounds); see also National Environmental Policy Act of 1969, as amended, 42 U.S.C. §§ 4321-4335.

¹² 47 C.F.R. § 1.1303 (emphasis added).

¹³ 47 U.S.C. § 151.

¹⁴ *Id.* § 1302(a).

¹⁵ *Id.* § 254(b)(2)-(3).

In this case, an experimental licensee's operations are causing problematic "external effects" that undermine core policy priorities and statutory responsibilities and, as a result, tens of thousands of Comcast customers, including in rural markets, are at risk of experiencing degraded broadband and other services. The Commission must take these negative impacts into account in assessing Falcon's renewal application.

IV. Comcast Is an Authorized User of the Spectrum Entitled to Interference Protection

Contrary to FalconION's assertions, Comcast is an authorized user. As Comcast has detailed, the Commission has authorized Comcast (and other cable system operators) to operate cable systems at various frequencies between 2 and 25 MHz for several decades.¹⁶ The Commission has long granted cable providers authorized use of these frequencies in their networks to enable broadband and video services. These authorized operations occur pursuant to the ANSI/SCTE Standard, which has been incorporated into the Commission's rules.¹⁷ The Commission has discussed protections for "authorized" services in the context of experimental licenses, noting that "experimental operations are not entitled to exclusive use protected from harmful interference from allocated services, and [experimental radio station] licensees must not cause harmful interference to stations of authorized services, including secondary services."¹⁸ Section 333 of the Communications Act also provides protections for "authorized" services, stating, "[n]o person shall willfully or maliciously interfere with or cause interference to any radio communications of any station licensed or authorized by or under this chapter or operated by the United States Government."¹⁹ The Commission cannot ignore Comcast's history as an authorized user in the 2-25 MHz band for many decades and the various legal protections provided for authorized users when assessing FalconION's application for renewal.

FalconION asserts that the Commission has not taken interference with wired systems into account in licensing decisions in the past. But that is incorrect. As Comcast noted in its informal objection, the FCC has taken unlicensed incumbent operations into account in several prior proceedings.²⁰ But even if there were no precedent on point, it does not follow that the Commission has no obligation to take such interference into account. The fact that FalconION is causing unprecedented harmful interference with wired cable systems does not absolve the company of responsibility. To the contrary: to the extent FalconION is causing significant harmful effects that are unlike those that the Commission has dealt with previously, it is *more*

¹⁶ Comcast Informal Objection at 5.

¹⁷ 47 C.F.R. § 15.38.

¹⁸ *Spectrum Horizons, et al.*, 33 FCC Rcd 2438, ¶ 64 (2018).

¹⁹ 47 U.S.C. § 333. A radio communication is defined as "the transmission by radio of writing, signs, signals, pictures, and sounds of all kinds, including all instrumentalities, facilities, apparatus, and services (among other things, the receipt, forwarding, and delivery of communications) incidental to such transmission."
47 U.S.C. § 153(40).

²⁰ Comcast Informal Objection at 4 n.17.

evidence that the Commission should deny a renewal of FalconION's license and put an end to these harmful experiments or require immediate, long-term mitigation of the interference.²¹

Comcast respectfully requests that the Commission either deny renewal of the application or condition renewal on FalconION devising better means to protect Comcast customers and services.

Best regards,



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²¹ The specific reference in Section 5.84 of the Commission's Rules to the Table of Frequency Allocations, 47 C.F.R. § 5.84, is intended to address the most typical kind of interference caused by experimental licensees, but the fact that the Commission generally does not expect interference as pernicious as that caused by FalconION does not mean the FCC can disregard other harmful external effects of FalconION's experiments. To the contrary, the Communications Act requires the Commission to adopt a broader view of the public interest, as Sections 302a and 303, among others, make clear.