Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Part 90 of the Commission's Rules	)	WP Docket No. 07-100

REPLY COMMENTS OF THE UTILITIES TECHNOLOGY COUNCIL

The Utilities Technology Council ("UTC") hereby submits the following reply comments in response to the Commission's *Sixth Report and Order and Seventh Further Notice of Proposed Rulemaking* in the above-referenced proceeding.[1] UTC supports comments on the record that request the Commission to permit licensees and lessees in the 4.9 GHz band (4940-4990 MHz) to engage in aeronautical mobile operations, and to adopt rules that would promote interstate coordination of operations. UTC agrees with these comments that aeronautical mobile operations would promote the effective use of the 4.9 GHz band without risking interference. UTC also agrees with comments supporting interstate coordination, which will enable entities such as utilities with multi-state service territories to be able to effectively utilize the 4.9 GHz band.

UTC has been an active participant throughout this proceeding, and its utility members have an interest in using the 4.9 GHz band to support their private internal communications systems, which in turn are used to support the safe, reliable and secure delivery of essential electric, gas and water services to the public at large. In the *Sixth R&O and Further NPRM*, the

[1] *Amendment of Part 90 of the Commission's Rules*, Sixth Report and Order and Seventh Further Notice of Proposed Rulemaking, WP Docket No. 07-100, (rel. Oct. 2, 2020)(*Sixth R&O and Seventh FNPRM*").

Commission stated that it seeks to expand access to the band by providing the opportunity to lease 4.9 GHz band spectrum to commercial entities, critical infrastructure industry, including electric utilities, and other stakeholders.[2] Further, the Commission recognized that the spectrum is well suited for utility applications, such as smart-grid; and that utility access to the band could help to build a broader equipment ecosystem that would benefit public safety as well as other users of the band.[3] UTC seeks to promote opportunities for utilities to be able to expand effective use of the band, including to use the band for smart grid and other utility applications.

As the Commission has recognized, the 4.9 GHz band has been underutilized, in part because of underlying problems with coordination of systems and the scarcity of equipment designed for use in the band. These underlying problems can be traced back to loose licensing processes that led to interference between systems. They also were rooted in the relatively small market among equipment manufacturers producing equipment for use in the band. As the Commission considers rules to promote expanded use of the band, it should strengthen coordination processes and encourage the development of additional equipment for use in the band by utilities and others.

One way that the Commission could encourage expanded use of the band would be to eliminate the restriction on aeronautical operations in section 90.1205(c) of the Commission's Rules. As Florida Power and Light observes, not only would eliminating this restriction promote expanded use of the band, but it would also remove administrative inefficiencies that have been caused by numerous waivers that the Commission has had to grant over the years.[4] The Commission itself has recognized that unmanned aircraft systems ("UAS") is an emerging use

[2] *Sixth R&O and Further NPRM* at ¶1.
[3] *Id. at* ¶14. *See also Id.* at Statement of Chairman Pai, 51.
[4] Comments of Florida Power & Light in WP Docket 07-100 at 2 (filed Jan. 13, 2021).

case, which could expand the use of the 4.9 GHz band. Florida Power and Light explained that access to the 4.9 GHz band would enable it to deploy "drone in a box" technology to conduct daily, automated checks of power lines, solar panels, and other infrastructure, thereby allowing it to efficiently conduct inspections (including in areas employees cannot see from the ground or access following a storm), identify potential or existing problems, increase employee safety, and reduce the number of outages or outage time experienced by customers.[5]

UTC supports the comments of Florida Power and Light and others who support allowing UAS and manned aeronautical operations in the 4.9 GHz band. UTC agrees that the restriction on aeronautical operations creates an artificial limitation that is contrary to the Commission's stated goal of increased usage in the band.[6] UTC agrees that aeronautical operations can be permitted without causing interference to other operations in the band.[7] Moreover, this would provide a more secure band for payload information communicated from unmanned aerial systems (UAS, commonly referred to as "drones") to ground-based utility and public safety personnel.[8] Accordingly, UTC urges the Commission to eliminate the restriction on aeronautical mobile operations in the band, consistent with the comments on the record in this proceeding.

Another way that the Commission can promote expanded use of the 4.9 GHz band would be to ensure interstate coordination of operations. As Nokia observed, certain critical infrastructure providers (such as railroads and utilities) and carriers could span multiple states, and therefore it will be important to encourage cross-jurisdictional cooperation, whether between

[5] Maureen Kenyon, TC Palm, "'Drone in a Box' Technology Provides Florida Power & Light Easier Way to Assess Infrastructure," https://bit.ly/37qCRRf (Feb. 19, 2020).
[6] Comments of the American Association of State Highway and Transportation Officials in WP Docket No. 07-100 at 5 (filed Jan. 12, 2021).
[7] Comments of the National Public Safety Telecommunications Council in WP 07-100 at 21 (filed. Jan. 13, 2021).
[8] Id.

states or on a regional basis.[9] Specifically, the Commission should lay a foundation of technical requirements for jurisdiction boundary coordination, such as specific technical requirements (e.g., field strength at the border) or the requirement to use outside frequency coordination within a specified distance from the border.[10] UTC echoes these comments in supporting the need for coordination mechanisms that would provide cross-border interference protection, particularly for utilities and other licensees whose operations would extend beyond state borders. Without cross-border coordination mechanisms, the Commission would risk creating interference which would discourage expanded use of the spectrum, particularly by larger entities such as utilities with multi-state operations.

Respectfully,

Utilities Technology Council

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[9] Comments of Nokia in WP Docket No. 07-100 at 3 (filed Jan. 13, 2021).
[10] Comments of New York State Division of Homeland Security and Emergency Services in WP Docket No. 07-100 at 5 (filed Jan. 13, 2021).