Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Amendment of Parts 15 and 74 of the Rules for Wireless Microphones in the TV Bands, 600 MHz Guard Band, 600 MHz Duplex Gap, and the 941.5-944 MHz, 944-952 MHz, 952.850-956.250 MHz, 956.45-959.85 MHz, 1435-1525 MHz, 6875-6900 MHz and 7100-7125 MHz Bands	)	ET Docket No. 21-115 RM-11821

COMMENTS OF THE
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION

The National Telecommunications and Information Administration (NTIA) hereby submits these comments in response to the Commission's Notice of Proposed Rulemaking in the above-captioned proceeding[1] pursuant to its role as the President's principal adviser on telecommunications policy and its responsibility to present Executive Branch views to the Commission.[2]

NTIA supports the Commission's efforts to improve spectrum efficiency by updating and revising its rules for wireless microphones. Given that the federal government has important frequency assignments in relevant bands, NTIA particularly encourages the Commission to ensure adequate protection from wireless microphones remains in place to preclude harmful interference to critical federal systems. For example, NTIA notes that the 941-944 MHz band is allocated to the Fixed service on a primary basis, shared between federal and non-federal use.

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[1] *Amendment of Parts 15 and 74 of the Rules for Wireless Microphones in the TV Bands, 600 MHz Guard Band, 600 MHz Duplex Gap, and the 941.5-944 MHz, 944-952 MHz, 952.850-956.250 MHz, 956.45-959.85 MHz, 1435-1525 MHz, 6875-6900 MHz and 7100-7125 MHz Bands*, ET Docket No. 21-115, Notice of Proposed Rulemaking, FCC 21-46 (rel. Apr. 22, 2012) (NPRM).

[2] 47 U.S.C. §902(b)(2)(D), (J).

There are six footnotes to the Table of Frequency Allocations, with US84 and US301 relevant to wireless microphones. US84 authorizes low power auxiliary stations (LPAS), the station class for wireless microphones, in 941.5-944 MHz on a secondary basis; and US301 provides a legacy primary allocation to broadcast auxiliary stations in 942-944 licensed as of November 21, 1984. Moreover, a search of the FCC Universal Licensing System (ULS) database for active licenses in the 941.0-943.999 MHz band results in 10 licenses for LPAS and over 700 for Fixed service operations. The LPAS users are broadcasters and large-stadium operators. The two predominant user groups of the fixed service are broadcasters for aural studio-transmitter links and electric utilities in the microwave/industrial business pool. Likewise, NTIA's government master file (GMF) of authorized frequency assignments shows federal agencies have over 200 frequency assignments in the band, with the main uses being point-to-point and point-to-multipoint communications, including Air Force use for remote sensing for data collection of electric energy consumption at bases, Department of Homeland Security use for law enforcement, and U.S. Coast Guard use for fixed service communications.

The Federal Aviation Administration (FAA), Department of Energy (DOE), Department of the Navy and the United States Air Force have expressed concerns about the potential impact from wider use of wireless microphones on critical communications and aeronautical radionavigation safety-of-life systems operated by these and other agencies. We note a number of specific federal uses that would be impacted if wireless microphone interference were to arise:

- The FAA uses the 941.5-944 MHz band for over 80 critical communications data links used to transmit and receive data for the Terminal Doppler Weather Radar (TDWR), a part of Air Traffic Control. The FAA is particularly concerned about harmful interference resulting if amended rules permit an increase in microphone transmitter power.

- The FAA also has critical microwave communications systems operating near 7125 MHz, which could be subject to adjacent-band interference from the proposed use of wireless microphones in the 7100-7125 MHz band.
- DOE operates electrical energy power-generation plants and distribution systems and its Power Marketing Administration uses the 941.5-944 MHz band for communications for critical energy control in the electric power grid.

Finally, NTIA requests specific enforcement vigilance on the importation of wireless microphones in the 960-1164 MHz band. This band is used in some countries for wireless microphones, including in the United Kingdom, but not in the United States. In this band, the FAA operates distance-measuring equipment (DME) in the aeronautical radionavigation service, a safety-of-life service where interference cannot be tolerated. The issue has been discussed in the International Civil Aviation Organization (ICAO), where nations expressed serious concerns about possible harmful interference in the 960-1164 MHz band. Wireless microphones operating in the United States, therefore, should be incapable of operating in the 960-1164 MHz band.

Respectfully submitted,

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August 2, 2021