

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Amendment of Section 15.255 of the)	ET Docket No. 21-264
Commission's Rules)	
)	

**COMMENTS OF THE
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION**

The National Telecommunications and Information Administration (NTIA), on behalf of the National Oceanic and Atmospheric Administration (NOAA), and with the support of the National Aeronautics and Space Administration (NASA) and the U.S. Department of the Navy, hereby submits comments in response to the Commission's Notice of Proposed Rulemaking (NPRM) in the above-captioned docket requesting further study of the proposed operation of unlicensed field disturbance sensor (FDS) devices (*e.g.*, radars) in that portion of the band (*i.e.*, 57-59.3 GHz) where NOAA's Passive Earth-Exploration Satellite Service (EESS) sensors and satellites operate on a primary basis.¹ We respectfully request that the Commission, as a precaution, await the results of such study before adopting rules for the 57-59.3 GHz portion of the band.

We appreciate the Commission's commitment to protecting Passive EESS in its laudable effort to enable advanced radar sensors in the 57-64 GHz band.² NOAA operates Passive EESS sensors on multiple satellites in the 57-59.3 GHz band, and also relies on partner agency satellite sensors operating in the same band. NOAA uses the 57-59.3 GHz band of spectrum for oxygen

¹ *Amendment of Section 12.255 of the Commission's Rules*, ET Docket No. 21-264, Notice of Proposed Rulemaking (rel. Jul. 14, 2021) (NPRM).

² *See* NPRM ¶¶ 7, 39, 42-43.

(O₂) temperature profiling due to O₂ absorption properties. Measurements made in this band are vital inputs to NOAA weather and environmental models – and, thus, vital to the success of NOAA’s weather prediction and severe storm warning mission.

Although the NPRM explains that a number of proposed operational limits are intended to protect EESS users and are based, at least in part, on certain actions the Commission has taken in the 57-64 GHz band in the past, NOAA’s concerns here relate primarily to the actual deployment density of the proposed FDS devices, which could have a strong effect on Passive EESS sensors and are not directly considered in the NPRM. Accordingly, as a precaution, study of FDS device deployment parameters and more fulsome technical characteristics are needed – with a particular focus on the effect of deployment density on Passive EESS operations. This further study would allow for validation of the NPRM’s assumptions that the proposed FDS devices would not cause harmful interference.

For the foregoing reasons, NTIA respectfully requests that the Commission further study the effect of FDS technical characteristics and deployment densities on Passive EESS sensors before adopting rules for the 57-59.3 GHz portion of the band.

Respectfully submitted,



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