

From: Ozgur Ozdemir

To: Nimesh Sangani

Date: January 21, 2021

Subject: Additional Information Request

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Message:

With respect to authorization of operation in the 3700-4200 MHz band included in this coordination, WTB/Mobility Division requests additional information on how the applicant will avoid causing harmful interference to incumbent operators, including FSS earth stations, in this band.

AERPAW Response to FCC:

We looked into the data provided by FCC about the Fixed Satellite Service providers in this area. Based on our analysis, these are fixed earth stations at fixed geo-locations with receive only (no transmit) radios. However, we plan to operate in a rural area (Lake Wheeler area, marked as LW1 in the map) on this specific frequency band which is far away from these fixed earth stations and the closest one is about 5 miles away towards north from this area. The two closest stations located to the north of our LW1 fixed transmitter (35°43'38.2" N, 78°41'45.8" W) are as follows:

Fox Broadcast (35°46'46.5" N, 78°40'28.8" W)

Global Eagle (35°46'14.2" N, 78°40'52.0" W)

Therefore, we believe we can operate in this band without interfering with the existing fixed earth stations of FSS services. A worst case analysis of interference to the FSS earth stations indicate that as long as the AERPAW transmitters are greater than 1400 m from the earth station antenna, the received signals from the AERPAW transmitter will be at or below the thermal noise floor.

If our renewal is approved, we plan to submit a modification to our experimental license to add 3.3-3.55 GHz band. We are planning to prioritize our experiments at 3.45-3.55 GHz band at our Centennial Campus areas which is closer to some of the fixed earth stations to reduce the risk of interference.