

From: Paul Caritj

To: Doug Young
Date: February 06, 2024

Subject: Request for Info - File # 2486-EX-ST-2023

Message:

OET/SB Question #1: The SB noted that SpaceX is only authorized to communicate with SpaceX NGSO satellites (S2983/S3018) in the Ka-Band to support NGSO FSS gateway earth stations. Please provide us additional information concerning the purpose of testing and utilization. Will the Ka-band frequencies be used for routing of network traffic and/or telemetry, tracking and command transmissions? Is it anticipated that testing would involve use of Ka-band for the termination of customer traffic on the ESV platforms?

SpaceX Response #1: The purpose of the test is to assess the earth stations' ability to serve as gateways in a maritime environment using test traffic. For the purposes of this experiment, SpaceX seeks to connect earth stations with its first- and second-generation satellite systems (S2983/S3018 and S3069) in the Ka-band. During the test period, the earth station will only receive and transmit test traffic to assess the capability of these earth stations to route and switch NGSO FSS traffic and backhaul local networks in a maritime environment.

OET/SB Question #2: If SpaceX's testing ESV platforms do not meet NGSO FSS gateway Earth stations as defined in the Commission's rule 47 CFR § 25.103, please specify points of satellite communication (spacecraft) that are authorized to communicate with the requested ESV platforms in the 28.6-29.1 GHz and 29.5-30 GHz frequency bands. (NGSO FSS gateway Earth stations are defined: "An earth station or complex of multiple earth station antennas that supports the routing and switching functions of an NGSO FSS system and that does not originate or terminate communication traffic. An NGSO FSS gateway earth station may also be used for telemetry, tracking, and command transmissions and is not for the exclusive use of any customer." (47 eCFR 25.103 - NGSO FSS gateway Earth station).

SpaceX Response #2: As stated above in response to Question 1, the purpose of the test is to assess the earth stations' ability to serve as gateways in a maritime environment using test traffic. To the extent necessary, SpaceX requests authority to conduct this test on both the space-station downlink and the earth-station uplink—including any necessary space-station authority. This experiment does not change any RF characteristics of SpaceX's authorized Gen1 and Gen2 satellites or any other material aspects of SpaceX's Ka-operations.