



November 13, 2018

Reference #44966

The following is a response to the request from the FCC for clarification on File # 0238-EX-CM-2018 dated November 08, 2018.

The purpose of modification is to provide an additional ground station for the TEMPEST-D cubesat mission. TEMPEST-D is currently using the Wallops VA UHF ground station. Due to other users sharing the Wallops VA ground station and lower than expected link performance it is taking longer than anticipated to download science data from the spacecraft. An additional ground station with lower utilization and a larger aperture is expected to increase the amount of data that can be downloaded during the TEMPEST-D primary mission. Once a license is granted, a test of the link will be conducted to evaluate the performance before moving into an operational phase.

Earth station data :

1 - POLARIZATION INCLUDE:

S = HORIZONTAL AND VERTICAL,
T = RIGHT AND LEFT-HAND CIRCULAR

2-ORIENTATION INCLUDE

ANTENNA AZIMUTH (RAZ) : 0-360 DEGREES
MINIMUM ANGLE OF ELEVATION : 05 DEGREES

3-ANTENNA DIMENSIONS INCLUDE

ANTENNA GAIN (DBI) _____ 43dB _____,
BEAMWIDTH (DEGREE) _____ 1° _____,
AZIMUTHAL RANGE (DEGREE CLOCKWISE FROM TRUE NORTH) _____ 0-360 _____,
THE SITE ELEVATION ABOVE MEAN SEA LEVEL IN METERS _____ 121.495 _____,
THE ANTENNA HEIGHT ABOVE TERRAIN IN METERS _____ 47.7 _____