From: Richard Peal

To: Nimesh Sangani
Date: October 28, 2021

Subject: Additional Information Request

Message:

In response to Reference Number 65377 with the following question:

"Please describe in detail the deployment system being used for the antennas on the spacecraft, as well
as any additional information on the reliability of the deployment system."

Our response:

The antennas are wrapped around the satellite and fixed in place by a 0.25mm diameter nylon wire. The nylon wire is connected to a heating resistor. When the satellite is ejected from the deployer, physical kill-switches are released which starts a countdown timer. After the timer has elapsed, the heater is activated, cutting the nylon wire allowing the antennas to fully deploy. The heater system power is physically cut off by the kill-switches during launch, so the heater cannot accidentally deploy before being ejected from the deployer pod. Vibration tests have been performed multiple times to ensure that the nylon wire can sustain the rigors of launch. This deployment system has considerable flight legacy and has been used successfully on other satellites, including SMOG-P, ATL-1, Alba´s UNICORNs, FossaSat, and others.

Thank you.