

From: Carlos Riopedre

To: Doug Young

Date: October 05, 2021

Subject: Request for Info - File # 0943-EX-ST-2021

Message:

The initial mass of 5kg is an erroneous value that was carried over from previous analysis. As you see, the small does not have any propellant and so the initial mass is the same as the dry mass.

It is not possible to define a unique area-to-mass for 'Nadir/Ground Station' and 'Nadir/Sun,' as the angle between the velocity vector and the secondary target (Ground Station or Sun) will vary as a function of the orbit, this means that different cross-sectional areas will be obtained depending on the latitude, longitude and altitude when pointing towards those targets, apart from the sun translation movement.

Additionally, the area-to-mass value of the spacecraft in a tumbling configuration is 0.0214 m²/kg (0.09m² with 4.2 kg). This value for the tumbling scenario was previously referred to as the average value in the ODAR report. Background information for Req 4.6-4 (page 17) has been updated accordingly.

New attachments submitted: Updated ODAR report and Updated DAS log.