

To: Mark Caviezel
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From: Doug Young
Date: August 15, 2018

Subject: Request for Info - File # 0619-EX-ST-2018

Message:

Please address the following issues:

1. Overall, the information provided is minimal and will need to be supplemented substantially.
2. Until a recent supplement to provide a mission description, it appeared that this mission was 3U cubesat. The mission description makes clear that there will be a very large inflatable deployed from the cubesat.
3. The ODAR submission consists of screen captures of DAS outputs with a bubble highlighting the "compliant" findings. However, the inputs to DAS are not clear. For example, it's unclear whether the analysis provided is for the 3U cubesat, the deployed version, or both. More generally, the applicant may wish to follow the "long-form" ODAR format, along the lines of what we typically received for the ELaNa missions. Thinsat might be another example. Note that there is probably a pressure vessel involved for deployment of the inflatable, and we will need some description of that, and analysis of whether it presents an explosion or fragmentation risk.
4. The mission description indicates deployment of the inflatable at a "substantial" interval after deployment from the Spaceflight deployer. The applicant should provide a specific time frame/anticipated altitude for deployment of the inflatable. This is also related to collision risk and it is not clear what the assumed facts were for the analysis of collision risk.
5. Trackability - the object will provide good radar data both pre and post deployment - the inflatable would be trackable by the naked eye. However, as a high area to mass object, there will be substantial uncertainty concerning the object's trajectory, and this may present difficulties for other operators in effectively conducting collision avoidance. The applicant should provide an assessment of the number of predicted conjunctions that could be expected during the mission.
6. The applicant should describe any arrangements with the 18th SPCS with respect to tracking, data sharing (e.g. planned time of deployment of the inflatable).
7. The identified time frames for the experiment are not accurate. It is also unclear that an STA is appropriate. Given the initial orbital altitude, it's not clear that this mission would be completed within an STA time frame.
8. Scope of the radio operations is not clear. Is the purpose solely to provide command signals for the inflatable deployment? Anything else? What is the program of experimentation?
9. Unclear whether we have the right applicant. There seems to be substantial involvement from a Nevada Art museum and an artist. The applicant may simply be an agent or supplier for those entities. With the limited information provided in the application, this cannot be determined.
10. The AP4 SpaceCap is version 7, needs to be the latest version8.
11. Fatal errors need to be corrected in the SpaceCap and all required information should be provided.
12. For the 900 MHz frequency needs the supporting material to demonstrate compatibility.

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 30 days of August 15, 2018 may result in application dismissal pursuant to Section 5.67 and forfeiture of the filing fee pursuant to Section 1.1108.

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