

To: Victor Gomez
E-Mail: victor.gomez@ga.com
From: Doug Young
Date: March 25, 2022

Subject: Request for Info - File # 1064-EX-CN-2020

Message:

Address the following questions from the FCC's International Bureau/Satellite Division:

1. Please provide greater detail concerning the factors that influenced orbit selection, and specifically address whether the applicant would accept a license that specified a maximum altitude that would ensure passive re-entry of the satellite within 25 years, regardless of whether the drag sail deploys.
2. Please provide any additional supporting data or analysis concerning the reliability of the drag sail and systems that support its deployment. In particular, noting that the analysis provided in the most recent ODAR identifies only one component of the sail deployment mechanism for which a reliability figure is provided, and does not appear to factor into the reliability analysis the risk of small debris strikes or other component failures in the drag sail mechanism, please provide any additional supporting information that may be available. Please include in your analysis a discussion of possible failure modes such as mechanical failures either in structural components or through other failures that prevent completion of deployment functions. Please address the durability of the sail material, both during deployment and in the longer term due to exposure to the space environment. Useful information would include whether there any other sails with the same or comparable materials that have been deployed for periods comparable to those planned for this device. Please provide any updates concerning the deployment of the sail on the STP-3 satellite. Noting also the reference to the ORS-3 Minotaur, please address similarities/dissimilarities between the Minotaur and OTB-3 missions. What altitude did the Minotaur upper stage deploy the sail from? Are the area-to-mass characteristics of the spacecraft comparable? How do the sizes of the sails themselves compare between this spacecraft and the Minotaur upper stage? What was the expected lifetime of the Minotaur prior to dragsail deployment and what was the resulting decrease in orbital lifetime due to the dragsail?
3. Please state the design life of the spacecraft, and whether the information given in the ODAR for bus reliability is for a specific design life.
4. Please indicate whether, either by contractual terms or by operation of federal regulations on acquisition, General Atomics believes it would be indemnified by one or more of its customers for any damage resulting from debris surviving atmospheric re-entry.

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 March 25, 2022 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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Responses to this correspondence must contain the Reference number : 68373