

COPY

April 4, 2008

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

FILED/ACCEPTED

APR - 4 2008

Federal Communications Commission
Office of the Secretary



Re: Request for Special Temporary Authority to Drift Galaxy 17 to, and Operate the Satellite at, 122.9° W.L.; File No. SAT-STA-20080325-00081
Call Sign: S2715

Dear Ms. Dortch:

At the request of the International Bureau staff, PanAmSat Licensee Corp. ("PanAmSat") hereby supplements the above referenced STA request with the following information:

Orbital Debris Mitigation Plan

PanAmSat is proactive in ensuring safe operation and disposal of this and all spacecraft under its control. The four elements of debris mitigation are addressed below:

Spacecraft Hardware Design

The spacecraft is designed such that no debris will be released during normal operations. PanAmSat has assessed the probability of collision with meteoroids and other small debris (<1 cm diameter) and has taken the following steps to limit the effects of such collisions: (1) critical spacecraft components are located inside the protective body of the spacecraft and properly shielded; and (2) all spacecraft subsystems have redundant components to ensure no single-point failures. The spacecraft does not use any subsystems for end-of-life disposal that are not used for normal operations.

Minimizing Accidental Explosions

PanAmSat has assessed the probability of accidental explosions during and after completion of mission operations. The spacecraft is designed in a manner to minimize the potential for such explosions. Propellant tanks and thrusters are isolated using redundant valves and electrical power systems are shielded in accordance with standard industry practices. At the completion of the mission, and upon disposal of the spacecraft, PanAmSat will ensure the removal of all stored energy on the spacecraft

by depleting all propellant tanks, venting all pressurized systems, isolating the batteries from the spacecraft bus, and turning off all active units.

Safe Flight Profiles

PanAmSat has assessed and limited the probability of the space station becoming a source of debris as a result of collisions with large debris or other operational space stations. Galaxy 17 will not be located at the same orbital location as another satellite or at an orbital location that has an overlapping stationkeeping volume with another satellite.

The proposed orbital location for Galaxy 17 is 122.9° W.L. PanAmSat is not aware of any other FCC licensed system, or any other system applied for and under consideration by the FCC, having an overlapping stationkeeping volume with Galaxy 17. PanAmSat is not aware of any system with an overlapping stationkeeping volume with Galaxy 17 that is the subject of an ITU filing and that is either in orbit or progressing towards launch.

Post Mission Disposal

At the end of the mission, PanAmSat will dispose of the spacecraft by moving it to a minimum altitude of 300 kilometers above the geostationary arc. This exceeds the minimum altitude established by the IADC formula. PanAmSat has reserved 9.5 kilograms of fuel for this purpose. The reserved fuel figure was determined by the spacecraft manufacturer and provided for in the propellant budget. To calculate this figure, the manufacturer used the "rocket equation", *i.e.*, it plugged in the expected mass of the satellite at the end of life and the required delta-velocity to achieve the desired orbit. PanAmSat has assessed the fuel gauging uncertainty and has provided an adequate margin of fuel reserve to address the assessed uncertainty in remaining propellant.

In calculating the disposal orbit, PanAmSat has used simplifying assumptions as permitted under the Commission's Orbital Debris Report and Order. For reference, the effective area to mass ratios ($Cr \cdot A/M$) of the Galaxy 17 spacecraft is $0.04 \text{ m}^2/\text{kg}$, resulting in a minimum perigee disposal altitude under the IADC formula of at most 280.4 kilometers above the geostationary arc, which is lower than the 300 kilometer above geostationary disposal altitude specified by PanAmSat in this filing. Accordingly, the Galaxy 17 planned disposal orbit complies with the FCC's rules.

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For the reasons set forth in the STA request, PanAmSat respectfully requests that the Commission expeditiously grant this request.

Sincerely,

A handwritten signature in black ink, appearing to read "Susan H. Crandall". The signature is fluid and cursive, with a large initial "S" and a long horizontal flourish at the end.

Susan H. Crandall
Assistant General Counsel
Intelsat Corporation

Cc: Robert Nelson
Cassandra Thomas
Karl Kensinger