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COUNSEL

December 11, 2003

VIA ELECTRONIC DELIVERY AND FIRST CLASS MAIL

Thomas S. Tycz  
Chief, Satellite Division  
International Bureau  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Washington, D.C. 20554

Re: Galaxy VIII(I)  
Request for Special Temporary Authority  
File No. SAT-STA-20031126-00342

Dear Mr. Tycz:

On November 26, 2003, PanAmSat Licensee Corp. ("PanAmSat") filed the above-captioned request for special temporary authority to continue operating the tracking, telemetry, and command ("TT&C") payload on Galaxy VIII(I) while PanAmSat performs end of life maneuvers boosting the satellite to a disposal orbit above the geostationary arc. On December 4, 2003, you sent a letter asking that PanAmSat respond to two questions concerning the request.

PanAmSat responds below to your questions. PanAmSat begins by providing background information that may be relevant to your processing of the STA request.

Fuel problems have reduced the useful life of Galaxy VIII(I). The primary and back-up xenon ion propulsion systems ("XIPS") failed in September 2000, requiring that PanAmSat rely exclusively on the bi-propellant thrusters for station-keeping.<sup>1</sup> Although most of the traffic on Galaxy VIII(I) migrated to Galaxy III-C when that satellite commenced commercial operations on September 22, 2002, some traffic continued to be transmitted via Galaxy VIII(I).

To maximize the usefulness of the remaining fuel on Galaxy VIII(I), PanAmSat initiated inclined orbit operations on November 11, 2002. PanAmSat originally had planned to continue operating Galaxy VIII(I) in an inclined orbit mode for two years. PanAmSat "banked" a quantity of bi-propellant fuel (*i.e.*, reserved the fuel by transferring it to an empty fuel tank) with the expectation of boosting the spacecraft to an altitude of 150 km above the geostationary orbit at the end of the two-year period. Recent telemetry readings, however, suggest that some or all of the banked fuel might not be accessible. Out of an abundance of caution, therefore, PanAmSat decided to decommission Galaxy VIII(I) now, approximately one year ahead of schedule, and it terminated the remaining services on the spacecraft on October 1, 2003.

After discovering the banked fuel issue, PanAmSat worked closely with its spacecraft manufacturer for several weeks to explore its alternatives. A plan was developed that should enable PanAmSat to achieve an end-of-life altitude (apogee and perigee) for Galaxy VIII(I) of approximately 150 km above the GSO orbit assuming inaccessibility of the banked fuel. That plan is described below in response to the second of your questions.

Your specific questions and PanAmSat's responses follow:

**Question:** The request, at footnote 2, indicates that "Galaxy VIII(I) is actually in inclined orbit mode at 94.95° W.L." Please indicate whether Galaxy VIII(I) is currently operating with its station-keeping box centered at 94.95° W.L. Please indicate whether, during the period from November 11, 2002, to the present, the satellite has at any time been at a longitudinal position to the east of 94.95° W.L. If so, indicate the periods of time during which the satellite has been at such positions.

**Response:** To facilitate station-keeping with its other spacecraft at 95° W.L., PanAmSat currently operates Galaxy VIII(I) with a station-keeping box that is centered at 94.95° W.L. (*i.e.*, that is offset from 95° W.L. by 0.05°). For similar reasons, PanAmSat operates Galaxy III-C, which is co-located with Galaxy VIII(I), at 95.05° W.L. Absent

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<sup>1</sup> The satellite also has battery issues limiting the number of channels that can be supported during eclipse periods.

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these offsets, Galaxy VIII(I) and Galaxy III-C would have overlapping boxes, making the station-keeping plans for the satellites interdependent and making it necessary for PanAmSat to re-evaluate the station-keeping plan for each satellite on a regular basis to take into account developments involving the other satellite. Galaxy VIII(I) has not, at any time during the period from November 11, 2002 to the present,, been operated with a station-keeping box centered at a longitudinal position to the east of 94.95° W.L.

**Question:** Please indicate whether PanAmSat will “burn” the 57 kg of remaining Xenon fuel during the proposed end-of-life maneuver. If not, please indicate what disposition will be made of this fuel.

**Response:** In light of the fact that both XIPS systems on Galaxy VIII(I) have failed, it is not possible to “burn” the 57 kg of remaining xenon fuel during end-of-life maneuvers. Working with its spacecraft manufacturer, however, PanAmSat has developed a plan to achieve additional altitude for Galaxy VIII(I) at end-of-life by venting the xenon gas in the direction needed to propel the satellite above the GSO orbit. To implement this plan, PanAmSat will need to execute a series of maneuvers over the course of several months, which is the reason that PanAmSat has requested special temporary authority for a full 180 days. These maneuvers are labor intensive and go well beyond the end-of-life procedures that PanAmSat normally would employ.

Please direct any questions with respect to this letter to the undersigned.

Sincerely,

A handwritten signature in black ink that reads "Henry Goldberg". The signature is written in a cursive, slightly slanted style.

Henry Goldberg  
Joseph A. Godles  
Attorneys for PanAmSat Licensee Corp.