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February 5, 2013

VIA ELECTRONIC FILING

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

Re: **Application of Panasonic Avionics Corporation for Special Temporary Authority
File No. SES-STA-20120913-00820 (Call Sign E100089)**

Dear Ms. Dortch:

Panasonic Avionics Corporation (“Panasonic”), pursuant to Section 1.65 of the Commission’s Rules, 47 C.F.R. § 1.65, hereby submits supplemental information for association with the above-captioned application for special temporary authority (“STA”). Specifically, Panasonic provides confirmation from Eutelsat America Corp., the current licensee of the E172A satellite (formerly GE-23), that the proposed operations are consistent with the coordinated parameters of the satellite.

Please feel free to contact the undersigned if Panasonic can provide any additional information to facilitate expeditious action on its pending STA application.

Respectfully submitted,

Squire Sanders (US) LLP

/s/ Carlos M. Nalda

Carlos M. Nalda

Attachment

Counsel to Panasonic Avionics Corporation

cc: Paul Blais, FCC International Bureau
Andrea Kelly, FCC International Bureau

37 Offices in 18 Countries

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February 4, 2013

Mark DeFazio
Manager, GCS Regulatory and Business Operations
Panasonic Avionics Corporation
26200 Enterprise Way
Lake Forest, CA 92630

Re: Application of Panasonic Avionics Corporation
Call Sign E100089, File No. SES- MFS-20120913-00818

Dear Mr. DeFazio:

In connection with Panasonic Avionics Corporation's ("PAC's") above-captioned application ("Application") to the Federal Communications Commission,¹ you have requested that Eutelsat confirm it has reviewed the technical characteristics of PAC's Ku-band aeronautical mobile-satellite service ("AMSS") operations with the Eutelsat 172A satellite ("E172A," formerly GE-23). You would like Eutelsat to certify that such operations are consistent with Eutelsat's coordination agreements for the satellite and that, when operated in the prescribed manner, such operations do not result in unacceptable interference.

As set forth in the Application, the basic characteristics of the PAC phased-array ("PPA") aircraft earth station ("AES") terminal (referred to in the Application as the "Aura LE" terminal) for operation with the E172A satellite at 172°E.L. include:²

Antenna Dimensions	34.7 inches (0.88 m) 6.6 inches height (0.17 m)
Type of Antenna	Dual panel waveguide fed phased array
SSPA Rated Output Power	16 watts
Bandwidth	10.70 GHz to 12.75 GHz 14.0 GHz to 14.5 GHz

¹ Application of Panasonic Avionics Corporation To Modify AMSS License To Permit Operation of Up to 2000 Technically Identical Aeronautical Mobile-Satellite Service ("AMSS") Aircraft Earth Stations ("AESs") in the 14.0-14.5 GHz and 10.7-12.75 GHz Frequency Bands, Call Sign E100089, File No. SES-MFS-20120913-00818 ("Application").

² See *id.* at 4.

Transmit Gain	38 dBi
EIRP	48 dBW
Transmit Polarization	Horizontal or Vertical
Receive G/T	10 to 14 dB/K
Transmit Azimuth Beamwidth	1.5 degrees
Transmit Elevation Beamwidth	4 degrees

We understand that the terminal is designed to comply with the FCC’s rules and policies governing Ku-band earth stations onboard aircraft (“ESAAs”) adopted in new Section 25.227 of the rules.³

You have advised Eutelsat that the PPA AES avoids interference to other satellite operations by limiting off-axis EIRP spectral density to no more than the levels specified in the contract between Eutelsat and Panasonic, through various means, including: (i) limiting transmit power spectral density by controlling the transmit power of the terminal and using spread spectrum technology (selecting appropriate carrier bandwidths and spread factors); (ii) controlling the off-axis gain of the antenna along the GSO by inhibiting transmissions when the skew angle exceeds a specified threshold; and (iii) controlling pointing error to less than 0.2° (3-sigma) and inhibiting transmissions when the pointing offset exceeds a threshold of 0.35 degrees.⁴

When operating as described in the Application and with the off-axis EIRP density envelope as defined in the contract between Eutelsat and Panasonic, PAC’s proposed operations are compliant with the off-axis EIRP density levels coordinated with neighboring satellites up to and including 6° separation in the geostationary orbit from the E172A satellite, and therefore will not cause unacceptable interference into these satellites.

Eutelsat confirms that the maximum downlink satellite EIRP density of 13 dBW/4KHz, which you have stated is the operational level of the Ku-band AMSS network operated by PAC, is consistent with Eutelsat’s existing coordination agreements with adjacent satellite operators.

Based on the foregoing representations and affirmations by PAC, additional consultations between Eutelsat engineering staff and PAC, and more than a year of operation on the E172A satellite, Eutelsat hereby confirms the following:

³ See *Revisions to Parts 2 and 25 of the Commission’s Rules to Govern the Use of Earth Stations Aboard Aircraft Communicating with Fixed-Satellite Service Geostationary-Orbit Space Stations Operating in the 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz and 14.0-14.5 GHz Frequency Bands; Service Rules and Procedures to Govern the Use of Aeronautical Mobile Satellite Service Earth Stations in Frequency Bands Allocated to the Fixed Satellite Service*, IB Docket Nos. 12-376 & 05-20, Notice of Proposed Rulemaking and Report and Order, FCC 12- 161 (rel. Dec. 28, 2012) (“ESAA Order”).

⁴ See Application at 5, 8-11 and Technical Appendix at 4-12.

1. Eutelsat is familiar with the represented technical characteristics of the PPA AES terminal.
2. Eutelsat has incorporated the power density levels contractually agreed between Eutelsat and Panasonic, for both uplink and downlink, into its current operational planning and coordination agreements with adjacent satellite operators for the E172A satellite at 172° E.L.
3. Eutelsat further advises that it is not aware of any cases of unacceptable interference relating to PAC's operation of the PPA AES from other customers operating on the E172A satellite or from adjacent satellite operators.

In sum, Eutelsat confirms that, if operated as described in the Application, as supplemented by PAC's representations and affirmations set forth above, operation of the PPA AES terminal will not cause unacceptable interference into other operations on E172A or adjacent satellites.

Please let me know if you require any further support from Eutelsat relative to PAC's operation of the PPA AES terminal on the E172A satellite.

Sincerely,



Ronald Samuel
Chief Executive Officer