

FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	File Nos. SES-LIC-20100805-00992
Panasonic Avionics Corporation)	SES-AMD-20100914-01163
)	SES-AMD-20101115-01432
Authority to Operate Up to 50 Technically)	SES-AMD-20110325-00358
Identical Aeronautical Mobile-Satellite)	SES-AFS-20110405-00402
Service Aircraft Earth Stations in the 14.0-)	SES-STA-20110104-00005
14.4 GHz and 11.7-12.2 GHz Frequency)	
Bands)	Call Sign: E100089

MODIFICATION APPLICATION

Panasonic Avionics Corporation (“Panasonic”), pursuant to Section 25.117 of the Commission’s Rules (47 C.F.R. § 25.117), hereby seeks to modify its license to operate the “eXConnect” aeronautical mobile-satellite service (“AMSS”) system.¹ Specifically, Panasonic requests that the pointing offset threshold for increasing the data logging frequency (*i.e.*, decreasing the interval between individual log entries) for the MELCO aircraft earth station (“AES”) antenna be changed from 0.2° to 0.25° to reflect the actual technical characteristics of the antenna and data logging protocol being implemented by Panasonic.

I. DISCUSSION

On August 31, 2011, the Commission authorized Panasonic to operate the eXConnect system onboard Lufthansa Airlines aircraft using the previously authorized MELCO antenna.² In so doing, the Commission concluded that grant of the authorization would serve

¹ *Order and Authorization*, Panasonic Avionics Corporation, Application for Authority to Operate Up to 50 Technically Identical Aeronautical Mobile-Satellite Services Aircraft Earth Stations in the 14.0-14.4 GHz and 11.7-12.2 GHz Frequency Band, File Nos. SES-LIC-20100805-00992, SES-AMD-20100914-01163, SES-AMD-20101115-01432, SES-AMD-20110325-00358, SES-AFS-20110405-00402, SES-STA-20110104-00005, Call Sign E100089 (Aug. 31, 2011) (“Panasonic AMSS Authorization”).

² *See generally id.*

the public interest by allowing Panasonic “to provide two-way, in-flight broadband services, including Internet access, to passengers and flight crews aboard commercial airliners, thereby enhancing competition in an important sector of the mobile telecommunications market in the United States.”³

On September 30, 2011, Panasonic filed an application for a 30-day Special Temporary Authority (“STA”) to afford sufficient time to complete the ongoing software program necessary to fully implement the data logging protocol designed by Panasonic in anticipation of receiving its AMSS license. Included with the STA application was a Request for Clarification and/or Limited Waiver to confirm that the data logging approach embodied in its data logging protocol complies with the Panasonic AMSS Authorization.

On November 22, 2011, the Commission granted the STA until December 21, 2011,⁴ but for procedural reasons no action was taken on the Request for Clarification and/or Limited Waiver. Given the current procedural posture, Panasonic now understands that the appropriate mechanism to ensure that the data logging condition in its license reflects the technical characteristics of the MELCO antenna and data logging protocol designed by Panasonic is to request modification of the relevant license condition.⁵

A. Data Logging Condition and Current Protocol

The stated pointing accuracy of the MELCO AES antenna is 0.25°. The Panasonic AMSS Authorization includes Condition 26(k) as one of several operating requirements for the eXConnect system:

³ See *id.* at ¶ 1.

⁴ See SES-STA-20110930-01161 (Nov. 22, 2011)

⁵ Concurrent with the filing of the instant Modification Application, Panasonic is filing a further application for a 60-day STA to enable Panasonic to continue operating its eXConnect system on a commercial basis during the pendency of the Modification Application.

Panasonic shall maintain records of the following data for each operating AES: location (latitude, longitude, altitude); aircraft attitude (pitch, yaw, roll); transmit frequency and occupied bandwidth; data rate; EIRP; and target satellite. This data shall be recorded at intervals of no more than two minutes while an AES is transmitting and every 30 seconds when aircraft roll angle is greater than 10 degrees. Panasonic shall also record instances when AES pointing error angle is greater than 0.2 degrees. Panasonic shall make this data available upon request to an FSS system operator or the Commission within 24 hours after receiving the request.⁶

Consistent with the stated pointing accuracy of the MELCO antenna, however, Panasonic's data logging protocol decreases the time between log entries from every two minutes to every 30 seconds if an aircraft roll angle exceeds 10° or the pointing offset angle exceeds 0.25° rather than 0.2° as set forth in Condition 26(k).

B. Request for Modification

Panasonic respectfully requests modification of its AMSS Authorization by changing the referenced pointing offset threshold in Condition 26(k) from 0.2° to 0.25°. The modification is necessary to ensure that the operating condition is consistent with the stated technical characteristics of the MELCO antenna and the data logging protocol designed by Panasonic to implement well-settled AMSS operating requirements.

The requested modification is consistent with the Commission's intent to implement data logging with intervals that vary based on whether the licensed AES antenna exceeds ordinary operating parameters. Panasonic's data logging regime implements this requirement by logging required data more frequently when the pointing offset angle is greater than the 0.25° pointing accuracy of the antenna or when roll exceeds the specified threshold. This approach is fully consistent with more frequent data logging during extreme pointing conditions but before the AES antenna must automatically mute at an offset of 0.5°.⁷

⁶ See Panasonic AMSS Authorization at ¶ 26(k) (emphasis added).

⁷ The 0.2° threshold for increased data logging frequency in the Panasonic AMSS Authorization appears to be based on prior AMSS license conditions (for antennas with stated

The proposed change to the threshold pointing offset angle does not alter the requirement in Condition 26(k) to implement a data logging capability, or to increase data logging frequency when nominal operating conditions are exceeded but before automatic antenna muting is required. Because the Commission has previously authorized operation of the MELCO antenna with 0.25° pointing accuracy for use with both the Connexion by Boeing and Panasonic eXConnect systems, implementation of a data logging protocol using this pointing accuracy is consistent with Commission precedent.

C. The Requested Modification Would Serve the Public Interest

The requested modification is in the public interest because it will enable Panasonic to implement its data logging protocol based on prior Commission precedent to support provision of its innovative two-way, in-flight broadband services to passengers and crew onboard aircraft in flight. This, in turn, will enhance competition in the mobile telecommunications market in the United States.⁸ Grant of the modification will also ensure that the increase in consumer demand for in-flight broadband services will be met by affordable and reliable broadband communications services while strengthening U.S. leadership in these advanced communications services.

Moreover, granting the modification would not undermine the Commission's rules or policies, nor would it provide any competitive advantage to Panasonic. Previous AMSS authorizations granted by the Commission imposed similar data logging requirements.⁹ Altering the pointing accuracy referenced in Condition 26(k) does not alter the actual

pointing accuracy of 0.2°) but is not directly related to the MELCO antenna's stated pointing accuracy of 0.25°.

⁸ Panasonic AMSS Authorization at ¶ 1.

⁹ See, e.g., *Row 44*, Order and Authorization, DA 09-1752 (2009) at ¶ 35 (“[t]he licensee shall also record instances when the AES pointing error exceeds 0.2 degrees where the stated pointed accuracy of the Row 44 antenna 0.2 degrees”).

technical characteristics of the MELCO antenna or confer on Panasonic any unique technical benefit vis-à-vis its competitors. The modification is being sought only to ensure that the Panasonic AMSS Authorization is consistent with the operating parameters of the antenna, including the stated pointing accuracy of 0.25 degrees, as indicated in the application materials provided to the Commission. Altering the data logging threshold to match the pointed accuracy of the MELCO antenna is consistent with the intent of Condition 26(k).

Finally, Panasonic would note that its modification application is more in the nature of a “minor modification” under Section 25.118 (47 C.F.R. § 25.118) of the Commission’s Rules (which permits certain technical revisions to authorized earth stations without prior Commission authorization) because the proposed modification will have no impact on the operating characteristics or interference potential of the MELCO antenna. While Panasonic believes that modifying Condition 26(k) as requested herein requires prior Commission action, it is clear that the requested modification will in no way increase the potential for interference from MELCO antenna operations.

II. CONCLUSION

In view of the foregoing, and in the absence of any public interest harm and the significant public benefits of the requested relief, Panasonic respectfully requests that the Commission modify Condition 26(k) of the Panasonic AMSS Authorization to change the pointing offset threshold for increased data logging from to 0.2° to 0.25°.

Sincerely,

PANASONIC AVIONICS CORPORATION

/s/ **Carlos M. Nalda**

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November 28, 2011

CERTIFICATE OF SERVICE

I, Mark D. Johnson, do hereby certify that on this 28th day of November, 2011, I caused to be sent via First Class, postage prepaid US mail, a copy of the foregoing "Modification Application" to the following persons:

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