

**FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Panasonic Avionics Corporation)	File No.
)	
Authority to Operate Up to 50 Technically)	
Identical Aeronautical Mobile-Satellite)	Call Sign: E100089
Service Aircraft Earth Stations in the 14.0-)	
14.4 GHz and 11.7-12.2 GHz Frequency)	
Bands)	

REQUEST FOR SPECIAL TEMPORARY AUTHORIZATION

Panasonic Avionics Corporation (“Panasonic”), pursuant to Section 25.120(b)(3) of the Commission’s rules, 47 C.F.R. § 25.120(b)(3), hereby seeks a 30-day special temporary authorization (“STA”) to the extent necessary to continue operating its “eXConnect” aeronautical mobile-satellite service (“AMSS”) system.

The Commission recently authorized Panasonic to operate the eXConnect AMSS system onboard Lufthansa Airlines aircraft using the previously authorized MELCO antenna.¹ Panasonic also holds a two-year experimental license for this antenna.² Concurrent with the filing of the instant STA request, Panasonic has filed with the Commission a Request for Clarification and/or Limited Waiver³ that the intervals in its data logging protocol comply

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 (“Panasonic AMSS Authorization”) at 14, ¶ 26(k).

² Experimental Radio Station Construction Permit and License, Call Sign WF2XMD, File No. 0281-EX-PL-2010 (effective July 12, 2011 through July 1, 2013).

³ Panasonic Aeronautics Corporation, Request for Clarification and/or Limited Waiver, 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

with the license conditions imposed by the Commission.⁴ In that submission, Panasonic also sought confirmation that the Commission does not object to temporary, continued operation pursuant to Panasonic's two-year experimental license to afford sufficient time to complete the ongoing software upgrade program that is necessary to fully implement the data logging protocol designed by Panasonic in anticipation of receiving its AMSS license.

Although Panasonic believes that its operations fully comply with its current authorizations and that no STA is required, Panasonic nonetheless requests the instant STA to the extent the Commission concludes such authority would be appropriate during the pendency of Panasonic's Request for Clarification and/or Limited Waiver.

I. DISCUSSION

The Commission recently authorized Panasonic to operate the eXConnect AMSS system onboard Lufthansa Airlines aircraft using the previously authorized MELCO antenna.⁵ In so doing, the Commission concluded that grant of the authorization would serve 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."⁶

The Panasonic AMSS Authorization includes the following condition as one of several operating requirements for the eXConnect system:

E100089 (filed Sept. 30, 2011) (attached hereto as Attachment A). Panasonic requests that this filing be incorporated by reference herein.

⁴ See Panasonic AMSS Authorization at ¶ 26.

⁵ See generally *id.*

⁶ See *id.*, ¶ 1.

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. (emphasis added).⁷

Consistent with this provision and with the pointing accuracy of the MELCO antenna, Panasonic decreases the time between required log entries (increases the logging interval) from every two minutes to every 30 seconds if an aircraft roll angle exceeds 10° or the pointing error angle exceeds the MELCO antenna's stated pointing accuracy of 0.25°.

A. Panasonic's Data Logging Protocol Complies with the Condition Set Forth in Paragraph 26(k) of its AMSS Authorization

Panasonic's data logging protocol complies with both the spirit and letter of paragraph 26(k) of the Panasonic AMSS Authorization. In the Panasonic AMSS Authorization, the Commission recognized and accepted that the MELCO antenna was designed, previously licensed and again authorized to operate with a pointing accuracy of 0.25°. ⁸ Although the Commission had not previously imposed a data logging requirement on the MELCO antenna,⁹ it apparently modeled the conditions set forth in paragraph 26(k) on the conditions imposed on recently licensed AMSS systems¹⁰ and other mobile VSAT services.¹¹ Given the

⁷ See *id.*, ¶ 26(k).

⁸ See *id.*, ¶¶ 6, 17.

⁹ See *The Boeing Company*, Order and Authorization, 16 FCC Rcd 22645 (Int'l Bur./OET 2001) at ¶ 19 (operating conditions previously imposed on the MELCO antenna).

¹⁰ See, e.g., *Row 44*, Order and Authorization, DA 09-1752 (Int'l Bur./OET 2009) at ¶ 35(m) (“[t]he licensee shall also record instances when AES pointing error exceeds 0.2 degrees” where the stated pointed accuracy of the Row 44 antenna was 0.2°).

¹¹ See 47 CFR §§25.222(a)(4), 25.226(a)(6).

stated pointing accuracy of the MELCO antenna of 0.25°, it would appear the Commission intended more frequent data logging to commence when the pointing off-set exceeds this angle.

In addition, by its own terms, paragraph 26(k) only requires that Panasonic record instances when the AES pointing error angle is greater than the threshold, without reference to the interval. Because Panasonic logs the required data at all times (*i.e.*, when the pointing error angle is either less than or greater than 0.2°), its data logging protocol complies with the plain reading of paragraph 26(k).

Although Panasonic's experimental license contains no data logging requirements, Panasonic nonetheless developed a data logging protocol based on prior AMSS license conditions in expectation of grant of its own AMSS license. Indeed, software development began in early 2011, software testing was completed in July 2011, acceptance testing was completed in August 2011 and roll-out to the Lufthansa fleet has begun.¹² However, given the aircraft downtime and scheduling requirements necessary for software updates, it appears that implementation to the entire Lufthansa fleet will not be completed for several months. During the period in which Panasonic completes its software upgrade, it will continue to operate under valid experimental authority and otherwise operate fully consistent with the Panasonic AMSS Authorization.

B. Grant of Special Temporary Authority Would Serve the Public Interest

Although Panasonic believes that its operations are permissible under its current authority and that it will complete the roll-out of its new software upgrade in due course, it requests the instant STA out of an abundance of caution. To the extent that the Commission concludes that special temporary authority is necessary or appropriate, grant of the request

¹² Panasonic is also including another upgrade associated with an unrelated issue in the software roll-out that must also undergo acceptance testing.

would serve the public interest by allowing Panasonic to continue to provide service to MELCO-equipped Lufthansa aircraft that intermittently transit US airspace, which have operated without interference since the commencement of experimental trials in 2010. In addition, the STA would permit Panasonic to complete the rollout of its software upgrade and commence full commercial service to Lufthansa aircraft equipped with the MELCO antenna without disruption or delay.

II. CONCLUSION

In view of the foregoing, and in the absence of any objection or public interest harm and the significant public benefits associated with the requested relief, Panasonic respectfully requests that the Commission grant Panasonic a 30-day STA to the extent necessary to permit continued operation of the eXConnect System.

Sincerely,

PANASONIC AVIONICS CORPORATION

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September 30, 2011

ATTACHMENT A

**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

REQUEST FOR CLARIFICATION AND/OR LIMITED WAIVER

Panasonic Avionics Corporation (“Panasonic”) hereby seeks clarification that the intervals in the data logging protocol implemented in its recently licensed “eXConnect” aeronautical mobile-satellite service (“AMSS”) system complies with the license conditions imposed by the Commission.¹ Panasonic also seeks confirmation that the Commission does not object to temporary, continued operation pursuant to Panasonic’s two-year experimental license² to afford sufficient time to complete the ongoing software upgrade program necessary to fully implement the data logging protocol designed by Panasonic in anticipation of receiving its AMSS license.³ In the alternative, Panasonic seeks a limited waiver of the

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 (“Panasonic AMSS Authorization”) at 14, ¶ 26(k).

² Experimental Radio Station Construction Permit and License, Call Sign WF2XMD, File No. 0281-EX-PL-2010 (effective July 12, 2011 through July 1, 2013).

³ Out of an abundance of caution, Panasonic has concurrently filed a request for a 30-day commercial STA relating to ongoing operation of the eXConnect system onboard Lufthansa

data logging requirement included in the Panasonic AMSS Authorization until December 31, 2011 to allow for a redesign of its data logging protocol and roll-out of a new software upgrade for eXConnect aircraft earth stations (“AESs”).

I. DISCUSSION

The Commission recently authorized Panasonic to operate the eXConnect AMSS system onboard Lufthansa Airlines aircraft using the previously authorized MELCO antenna.⁴ In so doing, the Commission concluded that grant of the authorization would serve 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.”⁵

The Panasonic AMSS Authorization includes the following condition as one of several operating requirements for the eXConnect system:

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. (emphasis added).⁶

aircraft that intermittently transit U.S. airspace. However, as discussed herein, Panasonic believes that the Commission need not act on that request.

⁴ See generally Panasonic AMSS Authorization.

⁵ See *id.*, ¶ 1.

⁶ See *id.*, ¶ 26(k).

Consistent with this provision and with the pointing accuracy of the MELCO antenna, Panasonic decreases the time between required log entries (increases the logging interval) from every two minutes to every 30 seconds if an aircraft roll angle exceeds 10° or the pointing error angle exceeds the MELCO antenna's stated pointing accuracy of 0.25°.

A. Panasonic's Data Logging Protocol Complies with the Condition Set Forth in Paragraph 26(k) of its AMSS Authorization

Panasonic's data logging protocol complies with both the spirit and letter of paragraph 26(k) of the Panasonic AMSS Authorization. In the Panasonic AMSS Authorization, the Commission recognized and accepted that the MELCO antenna was designed, previously licensed and again authorized to operate with a pointing accuracy of 0.25°. ⁷ Although the Commission had not previously imposed a data logging requirement on the MELCO antenna, ⁸ it apparently modeled the conditions set forth in paragraph 26(k) on the conditions imposed on recently licensed AMSS systems ⁹ and other mobile VSAT services. ¹⁰ Given the stated pointing accuracy of the MELCO antenna of 0.25°, it would appear the Commission intended more frequent data logging to commence when the pointing off-set exceeds this angle.

In addition, by its own terms, paragraph 26(k) only requires that Panasonic record instances when the AES pointing error angle is greater than the threshold, without reference to the interval. Because Panasonic logs the required data at all times (*i.e.*, when the pointing error angle is either less than or greater than 0.2°), its data logging protocol complies with the

⁷ See *id.*, ¶¶ 6, 17.

⁸ See *The Boeing Company*, Order and Authorization, 16 FCC Rcd 22645 (Int'l Bur./OET 2001) at ¶ 19 (operating conditions previously imposed on the MELCO antenna).

⁹ See, e.g., *Row 44*, Order and Authorization, DA 09-1752 (Int'l Bur./OET 2009) at ¶ 35(m) (“[t]he licensee shall also record instances when AES pointing error exceeds 0.2 degrees” where the stated pointed accuracy of the Row 44 antenna was 0.2°).

¹⁰ See 47 CFR §§25.222(a)(4), 25.226(a)(6).

plain reading of paragraph 26(k). Panasonic seeks clarification or confirmation of this conclusion.

B. Confirmation of Continued Operation under Experimental Authority

Although Panasonic's experimental license contains no data logging requirements, Panasonic nonetheless developed a data logging protocol based on prior AMSS license conditions in expectation of grant of its own AMSS license. Indeed, software development began in early 2011, software testing was completed in July 2011, acceptance testing was completed in August 2011 and roll-out to the Lufthansa fleet has begun. However, given the aircraft downtime and scheduling requirements necessary for software updates, it appears that implementation to the entire Lufthansa fleet will not be completed for several months.

During the period in which Panasonic completes its software upgrade, it will continue to operate under valid experimental authority and otherwise operate fully consistent with the Panasonic AMSS Authorization. To the extent necessary, Panasonic seeks confirmation that the Commission does not object to temporary reliance on such experimental authority, which Panasonic seeks to maintain for further testing of a new antenna type and additional limited market studies. In this connection, Panasonic has found nothing in the Commission's rules or precedent that would suggest that valid experimental authority is completely pre-empted by subsequent grant of commercial operating authority.

C. Request for Limited Waiver

To the extent that the Commission concludes that the Panasonic experimental license does not permit Panasonic's current operations or that Panasonic's data logging protocol does not satisfy its license conditions, Panasonic respectfully requests a limited waiver of paragraph 26(k) of the Panasonic AMSS Authorization until December 31, 2011 to allow for a redesign of its data logging protocol and roll-out of a new software upgrade for eXConnect AES.

To the extent that a limited waiver is necessary, grant of such a limited waiver would serve the public interest by allowing Panasonic to continue to provide service to MELCO-equipped Lufthansa aircraft that intermittently transit U.S. airspace, which have operated without interference since the commencement of experimental trials in 2010. In addition, a limited waiver would permit Panasonic to complete the rollout of its software upgrade and commence full commercial service to Lufthansa aircraft equipped with the MELCO antenna without disruption or delay.

II. CONCLUSION

In view of the foregoing, and in the absence of any objection or public interest harm and the significant public benefits of the requested relief, Panasonic respectfully requests that the Commission permit continued implementation of Panasonic's existing data logging protocol for the MELCO antenna and full commercial implementation of the eXConnect service at the earliest practicable time.

Sincerely,

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September 30, 2011