Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
	)	File No. SES-MFS-20150609-00349
Amendment of Application of Panasonic Avionics Corporation for Modification of Existing Ku-band Earth Station Aboard Aircraft ("ESAA") Blanket License to Add Satellite Points of Communication	)	Call Sign E100089

Amendment of License Modification Application

Panasonic Avionics Corporation ("Panasonic") hereby amends its pending application to modify its existing Ku-band earth station aboard aircraft ("ESAA") blanket license, Call Sign E100089, by adding additional authorized satellite points of communication.[1] As the Commission is aware, Panasonic's ESAA terminals operate onboard U.S. and foreign-registered aircraft using the eXConnect System, a worldwide Ku-band satellite network supporting Panasonic's Global Communications Suite ("GCS") in-flight connectivity offering. In order to maximize the utility of its eXConnect System, Panasonic respectfully requests that the Commission grant the above-referenced application and this amendment to add three (3) new satellites as points of communication for the previously licensed Panasonic Phased Array ("PPA," formerly "Aura LE") and Mitsubishi Electronics Company ("MELCO") antennas.

I. Introduction

Panasonic seeks to amend its modification application for its ESAA blanket license to add a total of three (3) new satellites (Eutelsat 115WB, IS-29E and AMC-16) as authorized points of communication for the PPA and MELCO terminals. Panasonic requests authority to communicate with these satellites to extend the coverage and increase the capacity of its global eXConnect network.[2] The proposed operations are

[1] *See* File No. SES-MFS-20150609-00349 (Call Sign: E100089).

[2] Because the MELCO terminal operates only on German-registered aircraft of Lufthansa, operational authority for this ESAA terminal is limited to U.S. airspace.

consistent with the coordinated parameters of the proposed satellites and the Commission's rules and policies governing Ku-band ESAAs.[3]

The technical characteristics of ESAA operations with the additional satellite points of communication are highlighted herein and provided in more detail in the associated Technical Appendix, FCC Form 312 and Schedule B. Panasonic certifies the remaining information in support of the Panasonic Ku-band ESAA blanket license has not changed. Grant of the proposed modification, as amended, would serve the public interest by allowing Panasonic to expand its ESAA network serving the United States and permit U.S. airlines to access the same range of satellites as foreign competitors to offer in-flight broadband connectivity outside U.S. airspace.

II. Additional Satellite Points of Communication

Panasonic requests that the Commission modify its Ku-band ESAA blanket license by adding three (3) satellites as authorized points of communication for the previously licensed PPA and MELCO terminals – Eutelsat 115WB, IS-29E and AMC-16 – in addition to the six satellites included in its original modification application. This authority will allow Panasonic to utilize additional commercial Ku-band satellite capacity for the global eXConnect network.

A. Proposed Satellites

The following table provides an overview of the basic parameters of the proposed operations with each new satellite point of communication, including the three proposed in this amendment and the six proposed in Panasonic's original modification application:

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[3] *See* 47 C.F.R. § 25.227; *see also 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*").

Satellite	Licensing Admin.	Orbital Location	Downlink Freq. (GHz)	ITU Region Coverage Area	Serves U.S.
Eutelsat 115WB	Mexico	114.9° W	11.7-12.2	R2	Yes
IS-29E	U.S.	50° W	10.95-12.5[4]	R1, R2	Yes
AMC-16	U.S.	85° W	11.7-12.2	R2	Yes
Eutelsat 70B	France	70.5° E	10.95 to 11.7; 12.5 to 12.75	R1, R3	No
Galaxy 16	U.S.	99° W	11.7 to 12.2	R2	Yes
JCSAT-5A	Japan	132° E	12.25 to 12.75	R3	No
Yamal 401	Russia	90° E	10.95 to 11.2; 11.45 to 12.75	R1	No
Yamal 300K	Russia	183° E	10.95 to 11.7	R1, R2	Yes
NSS-6	Netherlands	95° E	11.45 to 12.75; 12.5 to 12.75	R3	No

Additional information regarding Panasonic's request to operate with the three newly proposed satellite points of communication is provided below and in the attachments to this application.

1. Eutelsat 115WB

Eutelsat 115WB is a non-U.S.-licensed satellite positioned at the 114.9° W orbital location that is licensed by Mexico, a member of the World Trade Organization ("WTO") for services covered under the WTO Basic Telecommunications Agreement. The

[4] Panasonic will access the following IS-29E beams: U3, U42 and WB. Together, these beams cover the full range of Ku-band downlink frequencies granted in the IS-29E license. See attached Technical Appendix, Coverage Area Exhibit for the combined coverage zone of the three beams.

Eutelsat 115WB satellite was recently granted U.S. market access and placed on the Commission's Permitted List.[5] Accordingly, the Commission has previously reviewed the orbital debris mitigation and satellite end-of-life plans for this satellite and no new showing regarding these issues is required.

Panasonic seeks authority to use Eutelsat 115WB capacity for ESAA uplink operations in the 14.0-14.5 GHz band (Earth-to-space) and for downlink operations in the 11.7-12.2 GHz band (space-to-Earth). The Eutelsat 115WB satellite will serve the North American region.

The operator of Eutelsat 115WB, Eutelsat Americas (formerly Satmex), has reviewed the technical characteristics of Panasonic's PPA ESAA terminal operations and confirmed that such operations are consistent with its coordination agreements and will not result in unacceptable interference to other satellites within +/- 6 degrees of Eutelsat 115WB. Attached hereto is a letter confirming that the power levels associated with Panasonic's ESAA terminal operations with Eutelsat 115WB have been coordinated with operators of adjacent satellites.[6]

2. IS-29E

IS-29E (Call Sign S2913), operated by Intelsat, is a U.S.-licensed satellite positioned at the 50° W orbital location. Intelsat was recently granted authority to operate the IS-29E to provide fixed-satellite services ("FSS") in the Ku-band.[7] Panasonic seeks authority to use IS-29E capacity for ESAA operations in the 14.0-14.5 GHz band (Earth-to-space) and the 10.95-12.5 GHz band (space-to-Earth), consistent with Section 25.227 of the Commission's Rules. The IS-29E satellite will serve the United States and Europe.

The operator of IS-29E, Intelsat, has reviewed the technical characteristics of Panasonic's ESAA terminal operations and confirmed that such operations are consistent with its coordination agreements and will not result in unacceptable interference to other satellites within +/- 6 degrees of IS-29E. Attached hereto is a letter confirming that the

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[5] *See* File No. SAT-PPL-20150227-00008 (Call Sign: S2938).

[6] *See* Technical Appendix, Certification Letter Exhibit at 1.

[7] *See* File Nos. SAT-LOA-20130722-00097 & SAT-AMD-20140718-00087.

power levels associated with Panasonic's ESAA terminal operations with IS-29E have been coordinated with operators of adjacent satellites.[8]

3. AMC-16

AMC-16 (Call Sign S2181), operated by EchoStar, is a U.S.-licensed satellite positioned at the 85° W orbital location.[9] Panasonic seeks authority to use AMC-16 capacity for ESAA operations in the 14.0-14.5 GHz band (Earth-to-space) and the 11.7-12.2 GHz band (space-to-Earth), consistent with Section 25.227 of the Commission's Rules. The AMC-16 satellite will serve the North American region.

The operator of AMC-16, EchoStar, has reviewed the technical characteristics of Panasonic's PPA ESAA terminal operations and confirmed that such operations are consistent with its coordination agreements and will not result in unacceptable interference to other satellites within +/- 6 degrees of AMC-16. Attached hereto is a letter confirming that the power levels associated with Panasonic's ESAA terminal operations with AMC-16 have been coordinated with operators of adjacent satellites.[10]

B. Ground Segment

The following table identifies each of the three new satellite points of communication and associated gateway earth stations. Network control for Panasonic's proposed operations will be provided by Panasonic's Network Operations Center ("NOC") located in Lake Forest, California through the gateway earth stations below:

Satellite	Satellite Operator	Gateway Earth Station Location	Country	Gateway Operator	FCC Call Sign
Eutelsat 115WB	Eutelsat Americas	Brewster, WA	U.S.	USEI	S2938
IS-29E	Intelsat	Hagerstown, MD	U.S.	Intelsat	S2913

[8] *See* Technical Appendix, Certification Letter Exhibit at 2.

[9] EchoStar and SES Americom ("SES") were recently granted Commission consent to assign the license for the Ku-band communications payload on the AMC-16 satellite from SES to EchoStar. *See* File No. SAT-ASG-20141020-00111.

[10] *See* Technical Appendix, Certification Letter Exhibit at 3.

Satellite	Satellite Operator	Gateway Earth Station Location	Country	Gateway Operator	FCC Call Sign
AMC-16	EchoStar	Brewster, WA	U.S.	USEI	S2181

C. Geographic Areas of Operations

Attached hereto in the Technical Appendix as Annexes A-2, B-2, and C-2, Panasonic includes depictions of the geographic areas in which its ESAA terminals will operate with each proposed satellite point of communication.

III. Conclusion

Panasonic respectfully requests that the Commission grant the pending application to modify Panasonic's existing ESAA blanket license Call Sign E100089 by adding the satellites included in the original modification application and this amendment as authorized points of communication for the PPA and MELCO terminals.