

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of

Application of Panasonic Avionics Corporation for 60-Day Special Temporary Authorization (“STA”) to Communicate with the EUTELSAT 172B Satellite for Earth Stations Aboard Aircraft (“ESAA”) Operations)	Call Sign E100089
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APPLICATION FOR SPECIAL TEMPORARY AUTHORIZATION

Panasonic Avionics Corporation (“Panasonic”), pursuant to Section 25.120 of the Commission’s rules, 47 C.F.R. § 25.120, respectfully requests 60-day special temporary authorization (“STA”) to continue to operate its previously authorized earth station aboard aircraft (“ESAA”) terminals with the EUTELSAT 172B satellite, which recently replaced the EUTELSAT 172A satellite located at the 172° E.L. orbital location. Panasonic seeks this STA for a period of 60 days, commencing on January 17, 2018, following the expiration of its existing 60-day STA for identical ESAA operations with EUTELSAT 172B.¹ Grant of this STA will serve the public interest by ensuring the uninterrupted delivery of broadband services to its customer airlines operating in the Asia-Pacific region that currently rely on the EUTELSAT 172B satellite for in-flight connectivity.

Panasonic will soon file an application to modify its *ESAA Blanket License*² to add EUTELSAT 172B as an authorized point of communications for long-term authority to operate

¹ See Panasonic Avionics Corporation, File No. SES-STA-20171003-01104, Call Sign E100089 (“*EUTELSAT 172B STA*”).

² See Panasonic Avionics Corporation, File No. SES-MFS-20170312-00255, Call Sign E100089 (“*ESAA Blanket License*”).

with the satellite. Panasonic re-submits the attached draft FCC Form 312 Schedule B and Technical Appendix, which was previously provided with the *EUTELSAT 172B STA* request, for an overview of its proposed temporary operations.

I. DISCUSSION

The EUTELSAT 172B satellite is a critical element of Panasonic's global eXConnect in-flight entertainment and connectivity ("IFEC") system. In particular, the availability of Ku-band high-throughput satellite ("HTS") spot beams on EUTELSAT 172B offers improved capacity and efficiency of eXConnect services provided in the Asia-Pacific region to U.S. airlines and U.S. consumers. Given the significant operational advancements offered by EUTELSAT 172B and because it is the only capacity available to Panasonic for Pacific Ocean coverage, it is important that Panasonic's ESAA terminals be permitted to continue to communicate with EUTELSAT 172B.

This STA request is to extend Panasonic's existing STA authority to operate with the EUTELSAT 172B satellite during the preparation and pendency of the forthcoming ESAA Blanket License modification application to add the satellite as an authorized point of communication. The ESAA operations proposed herein are consistent with the Commission's rules and policies governing ESAA operations³ and, for the reasons described herein, grant of the requested STA would serve the public interest.

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*").

A. Proposed Operation with EUTELSAT 172B

Under its *ESAA Blanket License*, Panasonic is presently authorized to operate several ESAA terminal types – the Single Panel Antenna (“SPA”), Panasonic Phased Array (“PPA”) and TECOM Ku-Stream 1000 (“TECOM”) terminals – with the EUTELSAT 172A satellite. EUTELSAT 172A, which has already been relocated to and operates from the 174° E.L. orbital location,⁴ will ultimately be operated on a long-term basis from its new location.⁵ Thus, Panasonic is relying on EUTELSAT 172B at 172° E.L. for connectivity over the Pacific Ocean and plans to request removal of the EUTELSAT 172A satellite as authorized point of communication in its forthcoming modification application.

1. Request to Communicate with EUTELSAT 172B

ES 172 LLC (whose ultimate parent corporation is Eutelsat S.A., referred to collectively herein as “Eutelsat”) was recently granted authority by the Commission to operate other communications payloads of EUTELSAT 172B to replace the U.S.-licensed EUTELSAT 172A satellite.⁶ In addition, the EUTELSAT 172B will operate certain communications payloads under authority issued by France. Panasonic seeks to conduct Ku-band ESAA operations with both U.S.-licensed and French-licensed payloads on EUTELSAT 172B. The ESAAs will transmit in the 14.0-14.5 GHz band; the table below provides an overview of Panasonic’s proposed ESAA receive operations.

⁴ See ES 172 LLC, File No. SAT-STA-20171122-00160, Call Sign S2610.

⁵ See ES 172 LLC, File Nos. SAT-MOD-20171122-00159 and SAT-AMD-20171205-00165, Call Sign S2610.

⁶ See File No. SAT-RPL-20170927-00136, Call Sign S3021 (“*EUTELSAT 172B Application*”). The application includes information regarding all EUTELSAT 172B satellite service operations, including frequencies for which Commission authority was granted and those which will operate pursuant to French licensing authority.

Table 1. Overview of Eutelsat 172B Operations

Satellite	Licensing Admin.	Orbital Location	Downlink Freq. (GHz)	ITU Satellite Network⁷	ITU Region⁸
Eutelsat 172B	U.S.	172° E	10.95-11.2; 11.45-11.7; 12.2-12.75	USASAT-60A, USASAT-60Y	1, 2, 3
Eutelsat 172B	France	172° E	11.2-11.45	F-SAT-E-30B-172E	1, 3

In the *EUTELSAT 172B Application*, Eutelsat provides the information required by Section 25.114 of the Commission’s rules, 47 C.F.R. § 25.114, including substantial technical showings and Schedule S data. Panasonic hereby incorporates by reference the satellite operational parameters and other information set forth in the *EUTELSAT 172B Application* associated with the temporary Ku-band ESAA operations proposed herein. The attached Technical Appendix and draft Form 312 Schedule B provide information regarding the operational characteristics of the ESAA terminals with the EUTELSAT 172B satellite.

With respect to the 11.2-11.45 GHz band, this STA application constitutes a request to communicate with a foreign-licensed satellite under the Commission’s rules.⁹ EUTELSAT 172B was launched and operates certain non-U.S. payloads pursuant to authority granted to Eutelsat by

⁷ Panasonic understands that Eutelsat has provide updated operational parameters for EUTELSAT 172B in an ITU satellite network filing designated as USASAT-60Y.

⁸ For bands not identified for ESAA receive operations in the Commission’s rules, Panasonic proposes to operate in Region 2 only outside the United States on a non-conforming (unprotected, non-interference) basis.

⁹ See 47 CFR § 25.137. In the interest of administrative convenient and efficiency, Panasonic respectfully requests that incorporation by reference of the *EUTELSAT 172B Application* be deemed to satisfy the technical information requirements of Section 25.137(b) and (d). See 47 CFR § 25.137(b), (d).

France, which is a member of the World Trade Organization for services covered under the World Trade Organization Basic Telecommunications Agreement. Thus, there is a presumption in favor of U.S. market access for the EUTELSAT 172B satellite.¹⁰

2. Higher Power Operations with EUTELSAT 172B

Panasonic seeks to operate its ESAA terminals with EUTELSAT 172B at off-axis EIRP spectral density (“ESD”) levels higher than those set forth in Section 25.227(a)(1) of the Commission’s rules and included in its current license for communication with EUTELSAT 172A. Thus, Panasonic will operate the ESAA terminals pursuant to Section 25.227(a)(2) of the Commission’s rules and incorporates by reference the antenna performance information and off-axis ESD data previously submitted for the SPA, PPA and TECOM ESAA terminals.¹¹ Of course, the antenna performance characteristics of these previously licensed ESAA terminals are well-understood and will not change.

Eutelsat has reviewed the technical characteristics of Panasonic’s proposed ESAA operations at the identified off-axis ESD levels and such operations are consistent with relevant coordination agreements and will not result in unacceptable interference to other satellites within +/- 6 degrees of EUTELSAT 172B. Attached hereto is a letter confirming that the power levels associated with Panasonic’s ESAA terminal operations are consistent with the coordinated parameters of the satellite.¹²

¹⁰ See generally 47 CFR § 25.137(a)(2).

¹¹ See Panasonic Avionics Corporation, File No. SES-MFS-20120913-00818, Call Sign E100089 at Technical Appendix (providing off-axis ESD plots for the PPA terminal) and File No. SES-MFS-20160819-00730, Call Sign E100089 at Technical Appendix (providing off-axis ESD plots for the SPA terminal); see also Row44 Inc., File No. SES-MFS-20150928-00635, Call Sign E080100 (providing off-axis ESD plots for the TECOM terminal).

¹² See Technical Appendix.

B. Ground Segment

The gateway earth station for EUTELSAT 172B is located in Kapolei, HI, will operate in Ka-band frequencies and will be operated by Hawaii Pacific Teleport, L.P. (“HPT”). HPT has filed an earth station application to communicate with the satellite in Ka-band uplink and downlink frequencies that remains pending with the Commission.¹³ As the Commission is aware, the gateway earth station is essential to enabling the ESAA operations proposed herein.

Network control and monitoring of Panasonic’s ESAs and the eXConnect network will continue to be provided by a Panasonic Mission Control Center (“MCC”) in Lake Forest, California on a 24/7 basis. The contact details for the MCC are on file with the Commission.

C. Non-Conforming, Non-Interference Operations

The FCC’s Table of Allocations permits use of the 10.95-11.2 GHz and 11.45-11.7 GHz (space-to-Earth) bands on an unprotected basis, and the 11.7-12.2 GHz (space-to-Earth) and 14.0-14.5 GHz (Earth-to-space) bands on a primary basis for ESAA operations.¹⁴ EUTELSAT 172B supports operations in all of the ESAA bands except 11.7-12.2 GHz, and also supports ESAA downlink operations in the 11.2-11.45 GHz and 12.2-12.75 GHz (space-to-Earth) bands. Panasonic seeks to utilize this additional EUTELSAT 172B downlink capacity on an unprotected, non-harmful interference basis outside the United States.

Panasonic previously was granted a waiver of Section 2.106 of the Commission’s rules, 47 C.F.R. § 2.106, to operate ESAA terminals in the 11.2-11.45 GHz and 12.2-12.75 GHz downlink bands. Panasonic understands, however, that current Commission practice is to allow such ESAA receive operations (outside of the United States only) on a non-conforming, non-

¹³ See File No. SES-MFS-20170721-00787, Call Sign E150010.

¹⁴ See 47 C.F.R. § 2.106 and n. NG52 and NG55; 47 C.F.R. § 25.227.

interference basis through license conditions.

In light of the Commission's current practice, and given that its ESAA receive operations present a negligible risk of interference to other spectrum users and the temporary nature of this STA request, Panasonic requests that the Commission permit ESAA operations in the 11.2-11.45 GHz and 12.2-12.75 GHz bands consistent with its current approach of granting authority to operate ESAA terminals outside the United States on a non-conforming, non-interference basis.

D. Public Interest Considerations

Section 25.120(a) of the Commission's rules provides that short-term STA requests should be filed at least three business days prior to commence of proposed operations. Here, Panasonic has timely filed this 60-day STA request so that the Commission may permit operations immediately upon the expiration of the existing *EUTELSAT 172B STA*. Moreover, consistent with Section 25.120(b)(3) of the Commission's rules, Panasonic plans to file an application for regular authority for the identical operations proposed herein.

Grant of this STA request will strongly serve the public interest by ensuring uninterrupted communication with the EUTELSAT 172B satellite, which serves a critical function in Panasonic's eXConnect network as the only available capacity for Pacific Ocean coverage. The EUTELSAT 172B satellite includes vital HTS beam to support growing traffic requirements in the Asia-Pacific region and this STA will ensure no failure of in-flight broadband connectivity in the region. Grant of this request would further serve the public interest by extending U.S. leadership in mobile broadband services.

II. CONCLUSION

In view of the foregoing, the public interest would be served by a grant of this 60-day STA to allow Panasonic to continue to conduct ESAA operations with the EUTELSAT 172B satellite on January 17, 2018 following the expiration of the existing *EUTELSAT 172B STA*.