

**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
)	
)	File No. _____
)	
)	

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 operate its previously authorized earth station aboard aircraft (“ESAA”) terminals with the EUTELSAT 172B satellite, which is designed to replace the EUTELSAT 172A satellite located at the 172° E.L. orbital location. Panasonic seeks this STA to facilitate the provision of enhanced in-flight connectivity services to its customer airlines operating in the Asia-Pacific region and to ensure uninterrupted service in connection with the impending transfer of traffic from EUTELSAT 172A to EUTELSAT 172B.

Panasonic seeks this STA for a period of 60 days commencing on or about November 15, 2017, which Panasonic understands to be the approximate target date for EUTELSAT 172B’s commencement of service (subject to appropriate Commission authority). In addition, Panasonic will soon file an application to modify its ESAA Blanket License¹ to add EUTELSAT 172B as an authorized point of communications and provides the attached draft FCC Form 312 Schedule B and Technical Appendix as an overview of its proposed temporary operations.

¹ See Panasonic Avionics Corporation, File No. SES-MFS-20170312-00255, Call Sign E100089 (“ESAA Blanket License”).

I. DISCUSSION

The EUTELSAT 172B satellite will be 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 will enhance the capacity and efficiency of eXConnect services provided in the Asia-Pacific region to U.S. airlines and U.S. consumers. Given its significant operational advancements offered by EUTELSAT 172B (as compared to the aging EUTELSAT 172A satellite), it is important that Panasonic's ESAA terminals be permitted to communicate with EUTELSAT 172B at the earliest practicable time.

This limited STA seeks interim authority to communicate with the EUTELSAT 172B satellite during the preparation and pendency of the underlying application to add the satellite as an authorized point of communications. The ESAA operations proposed herein are consistent with the Commission's rules and policies governing ESAA operations² and, for the reasons described herein, grant of the requested STA would serve the public interest.

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. That satellite is licensed by the Commission at 172° E.L. to provide traditional fixed-satellite service

² 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*").

(“FSS”) and satellite mobility applications.³ The EUTELSAT 172B satellite is designed to replace and enhance the broadband satellite services offered by EUTELSAT 172A.

1. Request to Communicate with EUTELSAT 172B

Panasonic understands that the EUTELSAT 172B satellite was launched and will operate certain communications payloads under authority issued by France. In addition, ES 172 LLC (whose ultimate parent corporation is Eutelsat S.A., referred to collectively herein as “Eutelsat”) has filed an application with the Commission to operate other communications payloads of EUTELSAT 172B to replace the U.S.-licensed EUTELSAT 172A satellite.⁴ 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.

Table 1. Overview of Eutelsat 172B Operations

Satellite	Licensing Admin.	Orbital Location	Downlink Freq. (GHz)	ITU Satellite Network⁵	ITU Region⁶
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

³ See, e.g., ES 172 LLC, File No. SAT-LOA-20031218-00358, Call Sign S2610.

⁴ 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 is sought and those which will operate pursuant to French licensing authority.

⁵ Panasonic understands that Eutelsat has provide updated operational parameters for EUTELSAT 172B in an ITU satellite network filing designated as USASAT-60Y.

⁶ 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.

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.⁷ EUTELSAT 172B was launched and will operate non-U.S. payloads pursuant to authority granted to Eutelsat by 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.⁸ Further, to the extent the Commission has not granted ES 172 LLC operating authority for the Ku-band replacement payloads onboard EUTELSAT 172B, Panasonic respectfully requests the Commission treat this STA application as a request to communicate with EUTELSAT 172B in all of the above-referenced Ku-band frequencies under the satellite's existing French authority so that Panasonic can operate on an interim basis until such time as the Commission is able to grant ES 172 LLC appropriate operating authority.

⁷ 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).

⁸ See generally 47 CFR § 25.137(a)(2).

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.⁹ 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.¹⁰

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

⁹ 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).

¹⁰ See Technical Appendix.

downlink frequencies that remains pending with the Commission.¹¹ 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 ESAA's 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.¹² 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-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

¹¹ See File No. SES-MFS-20170721-00787, Call Sign E150010.

¹² See 47 C.F.R. § 2.106 and n. NG52 and NG55; 47 C.F.R. § 25.227.

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 Internet 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 grant of authority to Eutelsat to operate the E172B satellite. 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 service and expanded network capabilities in the context of transition traffic from the aging EUTELSAT 172A satellite to the next-generation EUTELSAT 172B satellite, which includes vital HTS beam to support growing traffic requirements in the Asia-Pacific 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 conduct ESAA operations with the EUTELSAT 172B satellite on or about November 15, 2017, or such earlier time as it may grant operating authority for the EUTELSAT 172B satellite.