

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

In the Matter of)	
)	
Eutelsat S.A.)	
)	
Petition for Declaratory Ruling for)	File No.:
EUTELSAT 8 West B To Access the)	Call Sign:
U.S. Market and To Be Added to the)	
Permitted Space Station List at the)	
8°W.L. Orbital Location in)	
Ku-band Frequencies)	

PETITION FOR DECLARATORY RULING

Eutelsat S.A. (“Eutelsat”) respectfully files this Petition for Declaratory Ruling (“Petition”) pursuant to Section 25.137(a) of the Commission’s rule, 47 C.F.R § 25.137(a), to access the U.S. market using the French-licensed EUTELSAT 8 West B satellite, and to add the satellite to the Permitted Space Station List (“Permitted List”) in Ku-band frequencies, at the 8° W.L. orbit location. In this Petition, Eutelsat demonstrates that it is legally, technically, and otherwise qualified to hold the requested authority; the proposed facilities and operations are compliant with applicable Commission rules, regulations, and policies; and grant of the Petition would serve the public interest, convenience, and necessity.

I. INTRODUCTION

EUTELSAT 8 West B, a French-licensed satellite currently in orbit at 8° W.L., operates in Ku-band frequencies¹ to provide fixed-satellite service (“FSS”) connectivity to a range of users. The EUTELSAT 8 West B satellite was launched on August 20, 2015, and is expected to operate through 2033. Eutelsat seeks to add EUTELSAT 8 West B to the Permitted List for the 10.95-11.2 GHz and 11.45-11.7 GHz (space-to-Earth) and 13.75-14.5 GHz (Earth-to-space) bands. For

¹ Eutelsat does not seek to provide service in the United States using C-band, other Ku-band, or Ka-band frequencies available on the EUTELSAT 8 West B satellite, so they are not subjects of this Petition.

the reasons discussed herein, grant of this Petition will serve the public interest by allowing Eutelsat to meet growing U.S. market demand for satellite services.

II. DISCUSSION

A. Inclusion of EUTELSAT 8 West B on the Permitted List

The Commission allows non-U.S. licensed satellites to access the U.S. market and includes them on the Permitted List upon compliance with the Commission's Rules, 47 C.F.R. §§ 25.114 & 25.137, and demonstration that the public interest would be served by such inclusion. This Petition and accompanying information, including the waivers requested herein, establish that adding EUTELSAT 8 West B to the Permitted List would be consistent with the Commission's rules and policies.

1. Legal Qualifications

The legal qualifications of Eutelsat are a matter of record before the Commission. Eutelsat and its affiliates operate many satellites that have been approved by the Commission for inclusion on the Permitted Space Station List or as authorized points of communication for U.S. earth station licensees, including the Eutelsat ATLANTIC BIRD 2 ("AB-2") satellite previously included on the Permitted List at 8° W.L.² Eutelsat provides additional information regarding its legal qualifications in FCC Form 312 and relevant attachments to this Petition.

EUTELSAT 8 West B is licensed by France, a member country of the World Trade Organization ("WTO"). Satellites licensed by WTO-member countries seeking to provide services covered by the WTO Basic Telecommunications Agreement are presumed to promote

² See Permitted Space Station List, available at <https://www.fcc.gov/permitted-space-station-list>; see also Petitions for Declaratory Ruling To Add EUTELSAT Satellites ATLANTIC BIRD™ 1 at 12.5° W.L and ATLANTIC BIRD™ 2 at 8° W.L to the Commission's Permitted Space Station List, Order, File No. SAT-PDR-20010207-00012 (rel. Aug. 30, 2001) ("AB-2 Order"). Because the Eutelsat 8 West B satellite has replaced the Eutelsat 8 West A satellite (formerly known as AB-2), the latter satellite can be removed from the Commission's Permitted List and Approved Space Station List.

competition in the United States.³ Accordingly, Eutelsat need not make the effective competitive opportunities showing set out in Section 25.137 of the Commission's rules.

2. Technical Qualifications

Pursuant to Commission rule 47 C.F.R. § 25.137(d), Eutelsat demonstrates in this Petition that the proposed operations of the EUTELSAT 8 West B satellite comply with applicable Commission requirements for non-U.S. licensed satellites to operate in the United States. Eutelsat provides the attached Engineering Statement, Schedule S, and associated materials containing information relating to the technical and operational characteristics of the satellite.

a. Spectrum Compatibility

Eutelsat seeks to add the EUTELSAT 8 West B satellite to the Permitted List in the Ku-band, which includes use of the 10.95-11.2 GHz and 11.45-11.7 GHz bands (space-to-Earth) and 13.75-14.5 GHz band (Earth-to-space). The United States Table of Frequency Allocations ("Table of Allocations"), Commission rule 47 C.F.R. § 2.106, identifies conditions for spectrum use by FSS networks in these bands. Specifically, in the 10.95-11.2 GHz and 11.45-11.7 GHz bands, FSS operations are co-primary with fixed services ("FS") and access to the band has been permitted for a range of earth station receive operations (*e.g.*, earth stations in motion or "ESIMs") subject, in part, to compliance with downlink PFD limits and not claiming protection

³ See 47 C.F.R. § 25.137(a)(2); see also *Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Satellites Providing Domestic and International Service in the United States*, Report and Order, IB Docket No. 96-111, 12 FCC Rcd 24094, ¶ 39 (1997) ("We adopt our proposal to apply a presumption in favor of entry in considering applications to access non-U.S. satellites licensed by WTO members to provide services covered by the U.S. commitments under the WTO Basic Telecom Agreement."); *Id.*, ¶ 64 ("[W]e will not evaluate the effective competitive opportunities in the route market for non-U.S. satellites licensed by a WTO Member providing WTO covered services.").

from transmissions of FS stations.⁴ The addition of these Ku-band downlink frequencies for communications with satellites on the Permitted List is consistent with this policy.⁵

In the 13.75-14.0 GHz band, FSS operations share spectrum with U.S. government shipboard radar radiolocation and National Aeronautics and Space Administration (“NASA”) Tracking and Data Relay Satellite Systems (“TDRSS”) operations. Eutelsat will operate the EUTELSAT 8 West B satellite consistent with the Commission’s rules and policies governing use of the 13.75-14.0 GHz band,⁶ subject to not claiming protection from radiolocation stations and otherwise ensuring compatibility with U.S. government operations. In particular, Eutelsat acknowledges that applicants proposing uplink earth station operations with EUTELSAT 8 West B would be required to comply with FCC Report and Order 96-377⁷ to protect U.S. government operations from harmful interference. In addition, as necessary, Eutelsat also will coordinate operation of EUTELSAT 8 West B with NASA TDRSS operations.

In the 14.0-14.5 GHz band FSS operations are considered primary and the Commission routinely grants authority for satellite operations in this band.⁸ Eutelsat affirms that operations of the EUTELSAT 8 West B satellite will conform with the Commission’s rules (including, to the extent applicable, footnotes 5.149, US113, US133, US342, and NG527A to the Table of Allocations) by taking all practicable steps to protect the radio astronomy service and TDRSS operations from harmful interference.

⁴ See 47 C.F.R. § 2.106 at footnote NG52, NG527A.

⁵ See *Comprehensive Review of Licensing and Operating Rules for Satellite Services*, Second Report and Order, IB Docket No. 12-267 (rel. Dec. 17, 2015) at ¶249.

⁶ See 47 C.F.R. 2.106 at footnote US337, US356.

⁷ See *Amendment of Parts 2, 25 and 90 of the Commission’s Rules to Allocate 13.75-14.0 GHz Band to the Fixed-Satellite Service*, Report and Order, FCC 96-377 (rel. September 26, 1996).

⁸ See generally FCC Space Station Approval List (available at <https://www.fcc.gov/approved-space-station-list>).

The Commission has previously granted authority for operations in the 10.95-11.2 GHz, 11.45-11.7 GHz, 13.75-14.0 GHz, and 14.0-14.5 GHz bands and Eutelsat affirms that earth station operations with EUTELSAT 8 West B will be consistent with other approved operations.⁹

b. Other Issues

The EUTELSAT 8 West B satellite operates at the 8.0° W.L. orbital location and Eutelsat anticipates the satellite's end-of-life to be no earlier than 2033. Eutelsat has provided an Orbital Debris Mitigation Plan as part of this Petition to demonstrate compliance with the Commission's orbital debris mitigation and satellite end-of-life rules and policies.¹⁰

B. Public Interest Considerations

EUTELSAT 8 West B is an in-orbit satellite asset currently operated by Eutelsat at 8° W.L.¹¹ Grant of this Petition will enable additional satellite service to U.S. consumers using Ku-band spectrum from an orbital location for which Eutelsat has been previously authorized by the Commission to serve the U.S. market.

Granting EUTELSAT 8 West B authority to access the U.S. market will allow commercial operations from Eutelsat's replacement satellite at the 8° W.L. orbital location. These satellite services will help address current and future U.S. demand for Ku-band international satellite services.

C. Waiver Requests

Eutelsat requests waivers of certain Commission rules in the context of this Petition. The Commission has authority to grant waivers of its rules for "good cause shown."¹² In general,

⁹ *See id.*

¹⁰ Eutelsat seeks a limited waiver of certain end-of-life venting provisions embodied in the Commission's rules to the extent necessary to grant this Petition.

¹¹ EUTELSAT 8 West B satellite replaces the Eutelsat AB-2 satellite at the 8° W.L. position.

¹² *See* 47 C.F.R. § 1.3; *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969).

good cause exists if grant of a waiver would not undermine the purposes of the rule and would otherwise serve the public interest.¹³ As discussed below, compelling reasons exist to grant the requested waivers in connection with Eutelsat's Petition to access the U.S. market and add EUTELSAT 8 West B to the Permitted List.

1. EUTELSAT 8 West B Station-keeping Tolerance

Commission rule 47 § C.F.R. § 25.210(j), requires satellite operators to maintain station-keeping within $\pm 0.05^\circ$ of their assigned orbital longitude in the east/west direction, unless specifically authorized by the Commission to operate with a different longitudinal tolerance. The Commission has previously allowed an increased station-keeping tolerance based on a finding that doing so would not adversely affect the operations of other spacecraft and would have benefits such as conserving fuel for future operations.¹⁴

Eutelsat operates EUTELSAT 8 West B with an increased station-keeping volume of $\pm 0.10^\circ$. Operating with this station-keeping tolerance has had no adverse impact on other operators because the volume does not overlap with that of any other satellites. Furthermore, a station-keeping tolerance of $\pm .10^\circ$ affords Eutelsat additional operational flexibility and conserves fuel to extend the on-orbit lifetime of this valuable satellite asset. Thus, permitting a larger station-keeping tolerance under Section 25.210(j) will serve the public interest.

Eutelsat notes that the Commission has repeatedly granted authority to operate with a $\pm .10^\circ$ station-keeping tolerance, subject to the condition that authority to operate with the larger tolerance shall terminate in the event that another satellite is launched into a location such that its station-keeping volume would overlap the satellite's ± 0.10 degree station-keeping volume, but

¹³ *WAIT Radio*, 418 F.2d at 1157; *Intelsat North America LLC*, 22 FCC Rcd. 11989 ¶6 (2007).

¹⁴ *See, e.g., SES Americom, Inc. Application for Modification of Satcom SN-4 Fixed Satellite Space Station License*, 20 FCC Rcd 11542, 11545 (Sat. Div. 2005).

would not overlap a $\pm 0.05^\circ$ degree station-keeping volume, unless the satellite operator has successfully coordinated its physical operations with those of the other spacecraft.¹⁵

2. EUTELSAT 8 West B End-of-Life Venting

Commission rule 47 C.F.R. § 25.283(c) requires that after the completion of a satellite mission “all stored energy sources on board the satellite are discharged, by venting excess propellant, discharging batteries, relieving pressure vessels, and other appropriate measures.” Eutelsat requests waiver of 47 C.F.R. § 25.283(c) to the extent necessary to grant this Petition.

The EUTELSAT 8 West B satellite is built on the widely used Thales Alenia Space Spacebus 4000-C4 spacecraft bus.¹⁶ This bus’s propulsion system design, like many others, isolates the propellant and pressurant tanks from each other during the orbit-raising process. Once the propellant and pressurant tanks have been isolated from each other, the remaining helium in the pressurant tank cannot be vented because the exit from the tank is closed by irreversible firing of a pyro-valve. Therefore, as a result of the design of the spacecraft bus, Eutelsat cannot vent all remaining pressurant from EUTELSAT 8 West B at end-of-life.

Multiple factors ensure that EUTELSAT 8 West B’s design is consistent with a safe flight profile and end-of-life passivation, and thus will not pose a risk of creating orbital debris. As explained in the EUTELSAT 8 West B Space Debris Mitigation Plan, the remaining helium in the two pressurant tanks will be *de minimis*: 1 kg of helium in each 89.5 liter tank. The pressurant tanks have been designed, manufactured, and validated according to MIL-STD-1522 and they are “leak before burst” designed. Therefore, the risk of break-up is negligible.¹⁷

¹⁵ See, e.g., FCC ISAT List, available at <https://www.fcc.gov/isat-list> (noting multiple waivers for Inmarsat 3F and 4F satellites).

¹⁶ See <https://www.thalesgroup.com/en/worldwide/space/press-release/successful-launch-eutelsat-8-west-b-satellite-built-thales-alenia>.

¹⁷ See EUTELSAT 8 West B Space Debris Mitigation Plan.

Eutelsat notes that the Commission has granted a waiver in analogous circumstances, such as for Anik F3, AMAZONAS-3, and Eutelsat 36B.¹⁸ Eutelsat respectfully submits that a similar waiver is justified in this circumstance, especially considering that the Eutelsat 36B belongs to the same family of bus designs and its propellant and pressurant tanks operate in a similar manner. Based on the above, a grant of this waiver would be consistent with Commission policy and precedent, will serve the public interest by authorizing commercial operations from the 8° W.L. orbital location, and will not undermine the purposes of the Commission's rule.

III. CONCLUSION

Eutelsat seeks authority for the EUTELSAT 8 West B satellite to access the U.S. market through inclusion on the Permitted List. Authorizing EUTELSAT 8 West B to provide service to U.S. customers will serve the public interest by enhancing competition in the United States and making efficient use of in-orbit satellite assets. The addition of EUTELSAT 8 West B to the Permitted List also will enhance transatlantic communications services by expanding Eutelsat's authorized satellite capacity available to provide such services. For these and other reasons, Eutelsat respectfully requests that the EUTELSAT 8 West B satellite be permitted to access the U.S. market and be added to the Permitted List in the Ku-band frequencies specified herein.

¹⁸ See, e.g., Telesat Canada Petition for Partial Waiver of Section 25.283(c), File No. SAT-APL-20111117-00222, Call Sign S2703 (granted April 11, 2012); Hispamar Satélites, S.A. Petition for Declaratory Ruling to Add Amazonas-3 Satellite to the Permitted Space Station List, File No. SAT-PPL-20121018-00183, Call Sign S2886 (Granted March 14, 2013) (granting Permitted List status to Amazonas-3, which will retain a de minimis quantity of helium pressurant at end of life); Boeing Application Supplement and Request for Waiver, Eutelsat 36B Space Debris Mitigation Plan at 6, File No. SES-LIC-20140922-00748, Call Sign E140097 (granted March 13, 2015).

Attachment A

FCC Form 312, Response to Questions 34 and 40: Foreign Ownership, Officers, Directors, and Ten Percent or Greater Shareholders of Eutelsat S.A.

Eutelsat S.A. is a *société anonyme* organized under the laws of France and incorporated under number 422 551 176 RCS Paris. The address of Eutelsat S.A. is 70 rue Balard, 75015 Paris, France. An organizational chart showing the ownership of Eutelsat S.A. is attached.

96.37% of Eutelsat S.A.'s share capital is held by Eutelsat Communications S.A., the publicly traded parent of Eutelsat S.A. In addition, the Russian Satellite Communications Company ("RSCC") holds 3.38% of the shares issued by Eutelsat S.A. and 0.25% of the shares of Eutelsat S.A. are held by other non-Eutelsat entities as set out on the ownership chart attached hereto. RSCC and these other entities have no control over Eutelsat S.A. All shareholdings of Eutelsat S.A. (other than the 0.05% of such shares held by Eutelsat S.A.'s employees and executives) are a result of the privatization of Eutelsat S.A., formerly an intergovernmental organization.

19.80% of the share capital of Eutelsat Communications S.A. is held by Bpifrance Participations (formerly named Fonds Stratégique d'Investissement), a *société anonyme* formed in 2008 to enhance equity in France and help stabilize French companies during the economic crisis. Approximately 50% of Bpifrance Participations' share capital is held by the Caisse des Dépôts et Consignations (the "CDC") and approximately 50% of its share capital is held by the French State. Bpifrance Participations must present its strategic plans and annual report to the supervisory commission of the CDC. The Bpifrance Participations' board of directors has ten members. Three of the directors are representatives of the CDC, three of the directors are representatives of the French State and three of the directors are independent directors. The chief executive officer of Bpifrance Participations is appointed by its board of directors. The address of Bpifrance Participations is 27-31, avenue du Général Leclerc, 94710 Maisons-Alfort, Cedex, France.

The CDC is a financial institution wholly owned by the French State and under the supervision of the French Parliament that serves the general interest and the economic development of France. CDC has a mission of long-term investment. Approximately 50% of the CDC's recurring and non-recurring net profit is paid to the French State. The CDC is managed by a chief executive officer, who is appointed by the President of the French State. The CDC is supervised by a supervisory commission of thirteen members, all of which are appointed by various sectors of the French government.

7.50% of the share capital of Eutelsat Communications is held by Fonds Stratégique de Participation (FSP). Backed by six major French insurance companies (BNP PARIBAS CARDIF, CNP ASSURANCES, CREDIT AGRICOLE ASSURANCES, SOGECAP (SOCIETE GENERALE group), GROUPAMA and NATIXIS ASSURANCES), the FSP is a long-term equity investor in French companies. Through FSP, insurance companies and key institutional investors with long-term liabilities channel some of France's long-term savings into equity investments.

6.60% of the share capital of Eutelsat Communications S.A. is held by Land Breeze s.a.r.l. Land Breeze s.a.r.l. is organized under the laws of Luxembourg and is a wholly owned subsidiary of China Investment Corp. ("CIC"). Two other subsidiaries of CIC organized under the laws of the People's Republic of China, Flourish Investment Corporation and Best Investment Corporation (together with Land Breeze s.a.r.l., the "CIC Entities"), own 0.06% and 0.01% of the shares of Eutelsat Communications, S.A., respectively. Information about CIC can be found on its website: www.china-inv.cn.

To the best of Eutelsat Communications S.A.'s knowledge, no other shareholders own, directly or indirectly, more than 10% of its share capital or voting rights. Eutelsat Communications S.A. is managed by a board of directors that currently has 12 members, each of whom has a four-year renewable term of office. Currently, eight of the directors are independent, three are affiliated with the Bpifrance Participations. No decisions of the board of directors can be taken or be blocked by three directors. Neither the Bpifrance Participations, nor any of the CIC Entities or FSP, nor any foreign government or person controlled by or acting on behalf of a foreign government has or will have the right or power to appoint any of Eutelsat Communications S.A.'s principal officers. None of the CIC Entities or FSP has the right or power to appoint any of Eutelsat Communications S.A.'s directors.

More information about Eutelsat Communications S.A., its shareholders, and its governance can be found on its website at www.eutelsat.com.

Principal officers of Eutelsat Communications S.A. include:

Rodolphe Belmer, CEO
Michel Azibert, Deputy CEO
Yohann Leroy, Deputy CEO

The individuals listed above can be contacted c/o Eutelsat S.A., 70 rue Balard, 75015 Paris, France. Mr. Belmer, Mr. Azibert and Mr. Leroy are citizens of the Republic of France.

