

S3021 SAT-RPL-20170927-00136 IB2017002733
ES 172 LLC
EUTELSAT 172B



File # SAT-RPL-20170927-00136

Call Sign S3021 Grant Date 04/25/18
(or other identifier)

Term Dates
From 04/25/18 To: 12/07/32

Approved: Stephen J. Duall

*reissued
Sept 5, 2018

Approved by OMB
3060-0678

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Callsign/Satellite ID: S3021

*with conditions

Stephen J. Duall
Chief, Satellite Policy Branch


APPLICATION FOR SATELLITE SPACE STATION AUTHORIZATIONS FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	FCC Use Only
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APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:
EUTELSAT 172B Replacement Satellite Application

1-8. Legal Name of Applicant			
Name:	ES 172 LLC	Phone Number:	202-383-8043
DBA Name:		Fax Number:	202-383-8118
Street:	801 Pennsylvania Ave., NW Fifth Floor	E-Mail:	cnalda@lmiadvisors.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20004
Attention:	Jeffrey P Cunard		

ATTACHMENT TO GRANT
ES 172 LLC
IBFS File No. SAT-RPL-20170927-00136
**** RE-ISSUED ON SEPTEMBER 5, 2018 ****

IBFS File No(s):	SAT-RPL-20170927-00136	<p>GRANTED – With Conditions</p>  <p>International Bureau Satellite Division</p>
Licensee/Grantee:	ES 172 LLC (Eutelsat)	
Call Sign:	S3021	
Satellite Name:	EUTELSAT 172B	
Orbital Location: (required station-keeping tolerance)	172° E.L. (± 0.10 degrees)	
Administration:	United States of America	
Nature of Service:	Fixed-Satellite Service (FSS)	
Scope of Grant:	<p>Authority for EUTELSAT 172B to provide FSS at the 172° E.L. orbital location and to conduct telemetry, tracking, and command (TT&C) operations in connection with maintaining EUTELSAT 172B at the 172° E.L. orbital location.</p> <p>(Grant documents re-issued to reflect grant of Eutelsat’s Petition for Clarification, granted Sept. 5, 2018.)</p>	
Previous Grant(s):	<ul style="list-style-type: none"> • Authority for EUTELSAT 172B to provide FSS at the 172° E.L. orbital location and to conduct TT&C operations in connection with maintaining EUTELSAT 172B at the 172° E.L. orbital location, with deferral of request to provide FSS in the 12.7-12.75 GHz (space-to-Earth) to earth stations inside the United States and its Territories and Possessions. IBFS File No. SAT-RPL-20170927-00136 (granted in part/deferred in part Dec. 7, 2017) • Special temporary authority for a period of 60 days to (1) provide FSS via EUTELSAT 172B at the 172° E.L. orbital location using the 3700-4200 MHz (space-to-Earth), 10.95-11.20 GHz (space-to-Earth), 11.45-11.7 GHz (space-to-Earth), 12.2-12.75 GHz (space-to-Earth), and 5925-6425 MHz (Earth-to-space) and 14.0-14.5 GHz (Earth-to-space) frequency bands; and (2) conduct TT&C operations in connection with maintaining EUTELSAT 172B at the 172° E.L. orbital location using the following center frequencies: 11200.6 MHz and 12250.1 MHz (space-to-Earth), and 14499.8 MHz (Earth-to-space. IBFS File No. SAT-STA-20171104-00149 (granted Nov. 16, 2017) 	
Service Area(s):	North-East Asia, North Pacific, Oahu GW (Gateway), Pacific Ocean Region, South-East Pacific, South Pacific and South-West Pacific	
Frequencies:	<p>3700-4200 MHz (space-to-Earth) 10.95-11.20 GHz (space-to-Earth) 11.45-11.7 GHz (space-to-Earth) 12.2-12.70 GHz (space-to-Earth) 12.7-12.75 GHz (space-to-Earth)</p> <p>5925-6425 MHz (Earth-to-space) 14.0-14.5 GHz (Earth-to-space)</p> <p>TT&C: Telemetry: 11200.6 MHz and 12250.1 MHz Command: 14499.8 MHz</p>	

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Unless otherwise specified herein, operations under this grant must comport with the legal and technical specifications set forth by the applicant or petitioner and with Federal Communication Commission's rules not waived herein. This grant is also subject to the following conditions:

1. Eutelsat must prepare the necessary information, as may be required, for submission to the International Telecommunication Union (ITU) to initiate and complete the advance publication, coordination, due diligence, and notification process of this space station, in accordance with the ITU Radio Regulations. Eutelsat will be held responsible for all cost-recovery fees associated with ITU filings. No protection from interference caused by radio stations authorized by other administrations is guaranteed unless coordination and notification procedures are timely completed or, with respect to individual administrations, coordination agreements are successfully completed. Any radio station authorization for which coordination has not been completed may be subject to additional terms and conditions as required to effect coordination of the frequency assignments of other administrations. *See* 47 CFR § 25.111(b).
2. In connection with the provision of service in any particular country, Eutelsat is obliged to comply with the applicable laws, regulations, rules, and licensing procedures of that country.
3. Eutelsat's request for a waiver of 47 CFR § 2.106 of the Commission's rules to allow the use of the 12.2-12.7 GHz frequency on an unprotected, non-interference basis IS GRANTED. The 12.2-12.7 GHz frequency band is allocated to the Broadcasting-Satellite Service (BSS) in ITU Region 2 and the United States. Eutelsat states that EUTELSAT 172B will have incidental coverage of U.S. territory and possessions in or bordering the Pacific Ocean. Eutelsat's operations shall be on a non-interference and non-protected basis within the United States and its territories located in ITU Region 2. Additionally, EUTELSAT 172B will protect terrestrial station operations by complying with ITU PFD limits specified in No. 21.16 of the ITU Radio Regulations. As a non-conforming user of the 12.2-12.75 GHz band in ITU Region 2, EUTELSAT 172B must not cause harmful interference to existing and future authorized users who are operating in accordance with the Table of Allocations in ITU Region 2 and must accept interference from such authorized users. Waiver is justified because FSS operations in these bands are consistent with No. 5.492 of the ITU Radio Regulations and there are no U.S. BSS satellites transmitting from orbital locations within 50° of the 172° E.L. orbital location.
4. Eutelsat's request for a waiver of 47 CFR § 2.106 of the Commission's rules to permit the provision of FSS within Region 2 and the United States in the 12.7-12.75 GHz frequency band (space-to-Earth) IS GRANTED, subject to the following conditions:
 - a. Eutelsat shall not cause any harmful interference to existing and future authorized users operating in the United States in accordance with the U.S. Table of Frequency Allocations and shall accept any interference in the United States from such authorized users, including CARS operators, BAS operators, Private Operational Fixed Point-to-Point Service (OFS) operators and Common Carrier Local TV Transmission Service (LTTS) operators;
 - b. In the event of harmful interference to any authorized services operating in accordance with the ITU Table of Frequency Allocations resulting from Eutelsat's use of the 12.7-12.75 GHz band in Region 2, Eutelsat shall immediately cease operations in that band;
 - c. [Removed]
 - d. [Removed]
 - e. In the event that Eutelsat receives any report of harmful interference, Eutelsat shall inform the Commission of this and provide details of how it has been resolved;
 - f. To further protect services in this band, the power flux density limits (PFD) at the surface of the Earth for transmissions from the satellite in the band 12.7 - 12.75 GHz shall not exceed the limits specified in

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rule No. 21.16 of the ITU Radio Regulations.¹

5. Eutelsat's request for a waiver of Section 25.210(j) of the Commission's rules, 47 CFR § 25.210(j), to allow EUTELSAT 172B operate with a station-keeping tolerance of $\pm .10^\circ$ IS GRANTED. Section 25.210(j) states that space stations "must be maintained within 0.05 degrees of their assigned orbital longitude in the east/west direction, unless specifically authorized by the Commission to operate with a different longitudinal tolerance." Eutelsat states that EUTELSAT 172B is designed to operate with a station-keeping tolerance of $\pm .10^\circ$, and will only overlap in station-keeping with EUTELSAT 172A. According to Eutelsat, the larger station-keeping volume will allow Eutelsat more flexibility to use EUTELSAT 172B's electric propulsion for station-keeping. This waiver and the operations it permits shall terminate in the event that a satellite is launched into a location such that its station-keeping volume would overlap the EUTELSAT 172B satellite's $\pm .10^\circ$ station-keeping volume, but would not overlap EUTELSAT 172B's $\pm 0.05^\circ$ station-keeping volume, unless Eutelsat has successfully coordinated its physical operations with those of the other spacecraft. This waiver is limited to this spacecraft, does not extend any other spacecraft, and it is limited to operations at the 172° E.L. orbital location.
6. Eutelsat IS GRANTED a waiver of Section 25.113(g), 47 CFR § 25.113(g), which requires that a "launch authorization and station license (*i.e.*, operating authority) must be applied for and granted before a space station may be launched and operated in orbit." Eutelsat did not seek replacement authority for EUTELSAT 172A prior to launching EUTELSAT 172B in 2017. However, the operation of EUTELSAT 172B in the period after the satellite's launch have not resulted, and based on the conditions adopted herein, will not result in any adverse effects on U.S. interests. Therefore, the prior approval requirements of Section 25.113(g) would not be subverted by, and is not an impediment to, granting this special temporary authority.
7. Pursuant to footnote US211 of the United States Table of Frequency Allocations, 47 CFR § 2.106, services operating in the 10.7-11.7 GHz band shall take all practicable steps to protect the radio astronomy service from harmful interference.
8. Pursuant to footnote US342 of the United States Table of Frequency Allocations, 47 CFR § 2.106, services operating in the 14.47-14.5 GHz band shall take all practicable steps to protect the radio astronomy service from harmful interference.
9. The license term expires on December 7, 2032.

Licensee/grantee is afforded thirty (30) days from the date of release of this action to decline the grant as conditioned. Failure to respond within this period will constitute formal acceptance of the grant as conditioned.

This action is taken pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective upon release.

Station licenses are subject to the conditions specified in Section 309(h) of the Communications Act of 1934, as amended, 47 U.S.C. § 309(h).

Action Date:	April 25, 2018 (re-issued September 5, 2018)	
Term Dates	From: April 25, 2018	To: December 7, 2032

¹ Article 21.16 of the International Radio Regulations imposes power flux density (PFD) limits on FSS downlink transmissions in the 12.2-12.75 GHz band within region 3 and 12.5-12.75 GHz band within region 1 in order to protect terrestrial services. As Eutelsat's non-conforming downlink transmissions are also in a terrestrial service band, we impose these same PFD limits on Eutelsat's downlink transmissions in the 12.7-12.75 GHz band in the United States.

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IBFS File No. SAT-RPL-20170927-00136
**** RE-ISSUED ON SEPTEMBER 5, 2018 ****

Approved:



Stephen J. Duall
Chief, Satellite Policy Branch

9-16. Name of Contact Representative

Name:	Carlos M Nalda	Phone Number:	571-332-5626
Company:	LMI Advisors	Fax Number:	202-697-5037
Street:	2550 M Street, NW Suite 345	E-Mail:	cnalda@lmiadvisors.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20037 -
Attention:		Relationship:	Other

CLASSIFICATION OF FILING

17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.

- a.
(N/A) a1. Earth Station
 a2. Space Station

- b.
 b1. Application for License of New Station
(N/A) b2. Application for Registration of New Domestic Receive-Only Station
(N/A) b3. Amendment to a Pending Application
(N/A) b4. Modification of License or Registration
(N/A) b5. Assignment of License or Registration
(N/A) b6. Transfer of Control of License or Registration
(N/A) b7. Notification of Minor Modification
(N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite

 b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States
 b10. Replacement Satellite Application - no new frequency bands
 b11. Replacement Satellite Application - new frequency bands (Not eligible for streamlined processing)
 b12. Petition for Declaratory Ruling to be Added to the Permitted List
(N/A) b13. Other (Please specify)

TYPE OF SERVICE

<p>20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply:</p> <p><input checked="" type="checkbox"/> a. Fixed Satellite <input type="checkbox"/> b. Mobile Satellite <input type="checkbox"/> c. Radiodetermination Satellite <input type="checkbox"/> d. Earth Exploration Satellite <input type="checkbox"/> e. Direct to Home Fixed Satellite <input type="checkbox"/> f. Digital Audio Radio Service <input type="checkbox"/> g. Other (please specify)</p>	
<p>21. STATUS: Choose the button next to the applicable status. Choose only one.</p> <p><input type="radio"/> Common Carrier <input checked="" type="radio"/> Non-Common Carrier</p>	<p>22. If earth station applicant, check all that apply. Not Applicable</p>
<p>23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:</p> <p><input type="radio"/> Connected to a Public Switched Network <input type="radio"/> Not connected to a Public Switched Network <input checked="" type="radio"/> N/A</p>	
<p>24. FREQUENCY BAND(S): Place an "X" in the box(es) next to all applicable frequency band(s).</p> <p><input checked="" type="checkbox"/> a. C-Band (4/6 GHz) <input checked="" type="checkbox"/> b. Ku-Band (12/14 GHz) <input type="checkbox"/> c. Other (Please specify upper and lower frequencies in MHz.) Frequency Lower: Frequency Upper: (Please specify additional frequencies in an attachment)</p>	

TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.

(N/A) a. Fixed Earth Station
(N/A) b. Temporary-Fixed Earth Station
(N/A) c. 12/14 GHz VSAT Network
(N/A) d. Mobile Earth Station
 e. Geostationary Space Station.
 f. Non-Geostationary Space Station
 g. Other (please specify)

26. TYPE OF EARTH STATION FACILITY: Not Applicable

PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an "X" in the box(es) next to all that apply.) Not Applicable

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. §§ 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments. Yes No

ALIEN OWNERSHIP

Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30-34.

29. Is the applicant a foreign government or the representative of any foreign government?	<input type="radio"/> Yes <input checked="" type="radio"/> No
30. Is the applicant an alien or the representative of an alien?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
32. Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.	

BASIC QUALIFICATIONS

<p>35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.</p>	<p><input checked="" type="radio"/> Yes <input type="radio"/> No Narrative</p>
<p>36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explanation of circumstances.</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>
<p>37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explanation of circumstances.</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>
<p>38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>
<p>39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhibit, an explanation of the circumstances.</p>	<p><input type="radio"/> Yes <input checked="" type="radio"/> No</p>

40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.

41. By checking Yes, the undersigned certifies, that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application"; for these purposes. Yes No

42a. Does the applicant intend to use a non-U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43. Yes No

42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?

43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Replacement satellite application for ES 172 LLC to operate the replacement C-band and Ku-band payloads of the EUTELSAT 172B satellite at 172˚ E.L.

EngineeringStatement

43a. Geographic Service Rule Certification

By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.

A

By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.

B

By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.

C

CERTIFICATION

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

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