Date & Time Filed: Mar 12 2018 3:42:54:880PM File Number: SES-AMD-INTR2018-00590

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD - MAIN FORM	FCC Use Only
FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	

### APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:

Amendment of WDC Earth Station

-8. Legal Name of Ap	pncant		
Name:	Boeing Commercial Satellite Services, Inc.	Phone Number:	206-218-8568
DBA Name:		Fax Number:	206–665–3374
Street:	P.O. Box 3707 M/C 2T-22	E–Mail:	fmsfcccorrespondence@boeing.com
City:	Seatte	State:	WA
Country:	USA	Zipcode:	98124 –2207
<b>Attention:</b>	Mr Ronald E Center		

9–16. Name of Contact Representative

Name: Boeing Commercial Satellite Phone Number: 206–544–6053

Services, Inc.

**Company: Fax Number:** 206–665–3374

**Street:** P.O. Box 3707 M/C 2T–22 **E–Mail:** fmsfcccorrespondence@boeing.

com

City: Seatte State: WA

**Country:** USA **Zipcode:** 98124–2207

**Attention:** Allen S Lindsay SR **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.  a1. Earth Station a2. Space Station	(N/A) b1. Application for License of New Station (N/A) b2. Application for Registration of New Domestic Receive—Only Station b3. Amendment to a Pending Application b4. Modification of License or Registration b5. Assignment of License or Registration b6. Transfer of Control of License or Registration b7. Notification of Minor Modification (N/A) b8. Application for License of New Receive—Only Station Using Non—U.S. Licensed Satellite (N/A) b9. Letter of Intent to Use Non—U.S. Licensed Satellite to Provide Service in the United States (N/A) b10. Other (Please specify) (N/A) b11. Application for Earth Station to Access a Non—U.S.satellite Not Currently Authorized to Provide the Proposed Service in the Proposed Frequencies in the United States (N/A) b12. Application for Database Entry b13. Amendment to a Pending Database Entry Application b14. Modification of Database Entry
17c. Is a fee submitted with this application of the submitted with th	159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).
17d.  Fee Classification CGX – Fixed Satellite Station	Fransmit/Receive Earth

18. If this filing is in reference to an existing station, enter:	19. If this filing is an amer modification please enter		pplication enter both fields, if this filing is a
(a) Call sign of station:	(a) Date pending applicati	on was filed:	(b) File number:
	12/18/2017		SESLIC2017121801342
TYPE OF SERVICE			
20. NATURE OF SERVICE: This filing is f	or an authorization to provid	le or use the following	type(s) of service(s): Select all that apply:
a. Fixed Satellite b. Mobile Satellite c. Radiodetermination Satellite d. Earth Exploration Satellite e. Direct to Home Fixed Satellite f. Digital Audio Radio Service g. Other (please specify)			
21. STATUS: Choose the button next to the only one.	applicable status. Choose	22. If earth station a Using U.S. licer	pplicant, check all that apply. nsed satellites
Common Carrier Non–Common	Carrier	Using Non–U.S	
23. If applicant is providing INTERNATION facilities:	NAL COMMON CARRIER	service, see instruction	ns regarding Sec. 214 filings. Choose one. Are these

O Connected to a Public Switched Network Not connected to a Public Switched Network N/A

24 FREQUENCY BAND(S): Place an	'X' in the box(es) next to all ar	onlicable frequency band(s)				
24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all applicable frequency band(s).  a. C-Band (4/6 GHz) b. Ku-Band (12/14 GHz)						
c.Other (Please specify upper and low						
Frequency Lower: 19200	Frequency Upper: 29100	(Please specify additional frequencies in an attachment)				
1 3	1 7 11					
TYPE OF STATION						
25. CLASS OF STATION: Choose the but	ton next to the class of station t	hat applies. Choose only one.				
a. Fixed Earth Station						
b. Temporary–Fixed Earth Station						
c. 12/14 GHz VSAT Network						
d. Mobile Earth Station						
e. Geostationary Space Station						
f. Non–Geostationary Space Station						
g. Other (please specify)						
26. TYPE OF EARTH STATION FACILIT	ΓV·					
Transmit/Receive Transmit—On		N/A				
"For Space Station applications, select N/A						

### PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)
a — authorization to add new emission designator and related service
b — authorization to change emission designator and related service
c — authorization to increase EIRP and EIRP density
d — authorization to replace antenna
e — authorization to add antenna
f — authorization to relocate fixed station
g — authorization to change frequency(ies)
h — authorization to add frequency
i — authorization to add Points of Communication (satellites & Double
j — authorization to change Points of Communication (satellites & tountries)
k — authorization for facilities for which environmental assessment and
radiation hazard reporting is required
1 — authorization to change orbit location
m — authorization to perform fleet management
n — authorization to extend milestones
o — Other (Please specify)

#### **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 RADHAZ

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?	0	Yes	•	No		
30. Is the applicant an alien or the representative of an alien?	0	Yes	•	No	0	N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	•	No	0	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?	0	Yes	•	No	0	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?	O Yes	•	No	O 1	J/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					
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.	•	Yes	C	No	
	Exhibit A	A			
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 explination of circumstances.	0	Yes	•	) No	

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 explination of circumstances.	<b>⊚</b> Ye	es <b>O</b> No
	Felony Sta	tement
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	O Ye	es 👩 No
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 exhinit, an explanation of the circumstances.	O Ye	es 🌘 No
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.	<b>⊘</b> Yes	O 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	O No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, wh coordinated or is in the process of coordinating the space station? United Kingdom	nat administr	ation has
43. Description. (Summarize the nature of the application and the services to be provided). (If the complete descriptio box, please go to the end of the form to view it in its entirety.)	n does not ap	opear in this
Amendment of BCSS HCC Earth Station, Washington D.C.  Amendment Narrative		

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.	<b>●</b> 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.	O 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.	<b>o</b> c

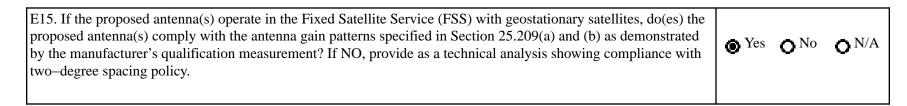
#### **CERTIFICATION**

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.

44. Applicant is a (an): (Choose the button next to appli	cable response.)	
Individual		
Unincorporated Association		
Partnership		
Corporation		
Governmental Entity		
Other (please specify)		
45. Name of Person Signing	46. Title of Person Signing	
Ronald E Center	Manager	
>		
(U.S. Code, Title 18, Section 10	ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT 01), AND/OR REVOCATION OF ANY STATION AUTHORIZATION a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).	

#### SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 – Schedule B:(Technical and Operational Description) FOR OFFICIAL USE ONLY

Location of Earth St	tation Site			
E1: Site Identifier:	WDC	E5. Call Sign:		
E2: Contact Name	Rob Ruggeri	E6. Phone Number:	855-556-1001	
E3. Street:	3522 International Ct NW	E7. City:	Washington	
		E8. County:	District of Colombia	
E4. State	DC	E9. Zip Code	20008	
E10. Area of Opera	tion:	WDC		
E11. Latitude:	38 °56 '41.8 "N			
E12. Longitude:	77 °4 '9.3 "W			
E13. Lat/Lon Coord	dinates are:	O NAD-27	NAD-83	O N/A
E14. Site Elevation	(AMSL):	94.09 meters		



E16. If the proposed antenna(s) do not operate in the Fixed Satellite Set Satellite Service (FSS) with non–geostationary satellites, do(es) the progain patterns specified in Section 25.209(a2) and (b) as demonstrated by measurements?	posed antenna(s) comply with the antenna	• Yes	O No	<b>⊚</b> N/A
E17. Is the facility operated by remote control? If YES, provide the loca point.	ation and telephone number of the control	• Yes	٥	No
E18. Is frequency coordination required? If YES, attach a frequency coordination	ordination report as Exhibit B	<b>⊚</b> Yes	•	No
E19. Is coordination with another country required? If YES, attach the coordination contours as	name of the country(ies) and plot of	O Yes	•	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.1 have you attached a copy of a completed FCC Form 854 and/or the FAZ the structure to aviation?  FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL APPLICATION.	A's study regarding the potential hazard of	O Yes	•	No
POINTS OF COMMUNICATION		'		
Satellite Name: INMARSAT 5F2   INMARSAT 5F2   55.0 W.L. If yo	ou selected OTHER, please enter the following	ng:		
E21. Common Name:	E22. ITU Name:			
E23. Orbit Location:	E24. Country:			
POINTS OF COMMUNICATION (Destination Points)	•			
E25. Site Identifier:				

E26. Common Name:	E27. Country:

## ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)
WDC	WDC	1	Paradigm	Connect 180	1.8	49.2 dBi at 19
WDC	WDC	1	Paradigm	Connect 180	1.8	52.3 dBi at 29.25

Id	Diameter		,	Height Above	Input Power at antenna flange	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
WDC	1.8/1.8	17.0	17.0	140.0	15.0	2.0	57.0

# FREQUENCY

	E43/44. Frequency Bands (MHz)	E45. T/R Mode			EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
WDC	19200 19300	R	Left Hand Circular	35M5M1D	0.0	0.0

E50. Modulation ntirety.)	and Services (If	the complete descrip	tion does not appea	ar in this box, please	go to the end of t	he form to view it in its
PPM, Data						
VDC	29000 29100	Т	Right Hand Circular	31M5M1D	57.0	18.0
E50. Modulation ntirety.)	and Services (If	the complete descrip	tion does not appea	ar in this box, please	go to the end of t	he form to view it in its
PPM, Data						

# FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	Station Azimuth Angle	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit		E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
WDC	Geostationary	19200 19300	55.0/55.0	147.2	39.4	147.2	39.4	0.0
	Geostationary	29000 29100	55.0/55.0	147.2	39.4	147.2	39.4	-47.0

REMOTE CONTROL POINT LOCATION

E61. Call Sign  NOTE: Please enter the callsign of the contro callsign for which this application is being filed.		E66. Phone Number 855–556–1001		
E62. Street Address 460 Herndon Pkwy				
E63. City Herndon	E68. County Fairfax		E67/68. State/Country VA/ USA	E64. Zip Code 20170

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