Approved by OMB 3060–0678

Date & Time Filed: Apr 30 2018 10:06:41:986AM File Number: SES-MOD-INTR2018-01114

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: WBZ E900319 – C–Band Add Antennas

1–8. Legal Name of Applicant **Phone Number:** Name: **CBS** Communications Services 202-457-4505 Inc. DBA Fax Number: 202-457-4615 Name: E-Mail: Street: 1725 DeSales Street NW dryson@cbs.com Suite 501 City: Washington State: DC **Country:** USA Zipcode: 20036 -4426Attention: Daniel G. Ryson

Name:	Daniel G. Ryson	Phone Number:	202-457-4074
Company:	CBS	Fax Number:	202-457-4615
Street:	1725 DeSales Street N	W <b>E-Mail:</b>	dryson@cbs.com
	Suite 501		
City:	Washington	State:	DC
<b>Country:</b>	USA	Zipcode:	20036-4426
Attention:	Daniel G. Ryson	<b>Relationship:</b>	Same
Country:	USA	Zipcode:	
FICATION O	F FILING		
• •	es to this filing for (N		New Domestic Receive–Only Station
and only one for	r 17b.	b3. Amendment to a Pending Applic	ation

(N/A) b1. Application for License of New Station
(N/A) b1. Application for License of New Station
(N/A) b1. 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 Database Entry
b13. Amendment to a Pending Database Entry
b14. Modification of Database Entry

17c. Is a fee submitted with this application						
If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).						
O Governmental Entity O Noncommercial educational licensee						
• Other(please explain):						
17d.						
Fee Classification CGX – Fixed Satellite 7 Station	Transmit/Receive Earth					
18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pending a modification please enter only the file number:	••				
(a) Call sign of station: E900319	(a) Date pending application was filed:	(b) File number:				
		SESRWL2010052600645				

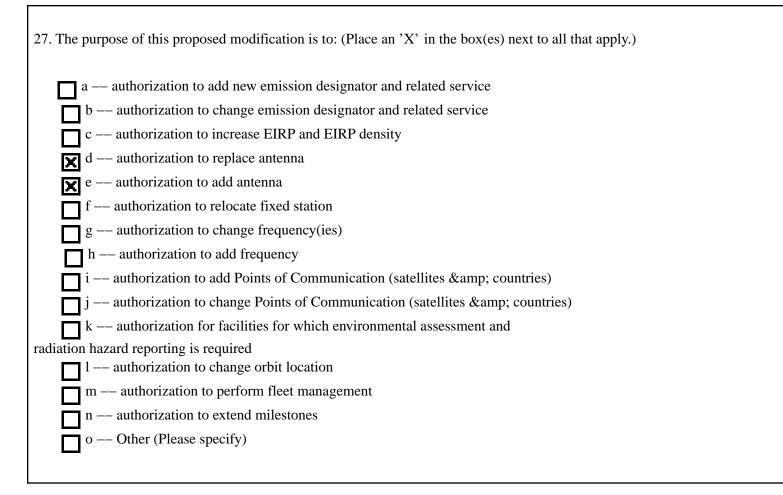
# TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provid	e 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 applicable status. Choose	22. If earth station applicant, check all that apply.
only one.	Using U.S. licensed satellites
Common Carrier 💿 Non–Common Carrier	Using Non–U.S. licensed satellites
23. If applicant is providing INTERNATIONAL COMMON CARRIER facilities:	service, see instructions regarding Sec. 214 filings. Choose one. Are these
• 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 a	applicable frequency band(s).
■ a. C–Band (4/6 GHz) b. Ku–Band (12/14 GHz)	
c.Other (Please specify upper and lower frequencies in MHz.)	
Frequency Lower: Frequency Upper: (Please specify addition	onal frequencies in an attachment)

# TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.
a. Fixed Earth Station
• b. Temporary–Fixed Earth Station
• c. 12/14 GHz VSAT Network
O d. Mobile Earth Station
• e. Geostationary Space Station
• f. Non–Geostationary Space Station
• g. Other (please specify)
26. TYPE OF EARTH STATION FACILITY:
Transmit/Receive      Transmit−Only      Receive−Only      N/A
"For Space Station applications, select N/A."

#### PURPOSE OF MODIFICATION



#### 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.

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	۲	No		
30. Is the applicant an alien or the representative of an alien?	0	Yes	۲	No	0	N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	۲	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	۲	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?

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.	O Yes	le No
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.	O 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.	O Yes	● No
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 Yes	● 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.	• Yes	O 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.

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.



O No

Yes

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.)

This facility will be utilized for reception of digitized video and audio by television stations WBZ-TV and WSBK(TV), the CBS television network, and CBS News.

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>О</b> <sup>В</sup>
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 applicable response.)	
O Individual	
• Unincorporated Association	
• Partnership	
• Corporation	
Governmental Entity	
Other (please specify)	
45. Name of Person Signing	46. Title of Person Signing
Daniel G. Ryson	Associate Director Spectrum Services
>	
	I ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT
(U.S. Code, Title 18, Section 1001), AND/OR R (U.S. Code, Title 47, Section 312(a)(1)), AND/OR	EVOCATION OF ANY STATION AUTHORIZATION EOPEEITURE (U.S. Code, Title 47, Section 503)
(0.5, Code, 1100, 47, Section 512(a)(1)), AND/OK	$\mathbf{FOR} = \mathbf{FORE} (0.5, \mathbf{Code}, \mathbf{Fide} + 7, \mathbf{Section} 505).$

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

Location of Earth St	ation Site					
E1: Site Identifier:	1	E5. Call Sign:				
E2: Contact Name	Paul Pabis	E6. Phone Number:	617-787-7000			
E3. Street:	1170 Soldiers Field Rd.	E7. City:	Boston			
		E8. County:	Suffolk			
E4. State	MA	E9. Zip Code	02134			
E10. Area of Opera	tion:	Fixed Earth Station				
E11. Latitude:	42 °21 '53.6 "N					
E12. Longitude:	71 °7 '58.6 "W					
E13. Lat/Lon Coord	linates are:	ONAD-27	● NAD-83	O N/A		
E14. Site Elevation	(AMSL):	2.4 meters				

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two–degree spacing policy.	• Yes	<b>O</b> <sup>No</sup>	O <sup>N/A</sup>
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E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non–geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	O <sup>Yes</sup>	O <sup>No</sup>	● <sup>N/A</sup>
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	O Yes	۲	No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	0	Yes	۲	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	0	Yes	۲	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and/or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	0	Yes	۲	No

#### POINTS OF COMMUNICATION

Satellite Name: PERMITTED LIST     If you selected OTHER, plea	se enter the following:
E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:
POINTS OF COMMUNICATION (Destination Points)	
E25. Site Identifier: 1	

E26. Common Name:	E27. Country: USA
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 at GHz)
1	1	4	Patriot Antenna Systems	4.5 M	4.5	42.7 dBi at 4
1	2	1	Patriot Antenna Systems	4.5 M	4.5	42.7 dBi at 4
1	3	1	Andrew	ES73-1	7.3	47.6 dBi at 3.7
1	3	1	Andrew	ES73-1	7.3	48.7 dBi at 4.2
1	4	1	Andrew	ESA45	4.5	43.9 dBi at 4
1	5	1	DH Satellite	DH-5.0M-GDP	5.0	44.3 dBi at 4

E28. Antenna Id		E35. Above Ground Level (meters)	E36. Above Sea Level(meters)	Height Above	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
1	0.0/0.0	5.2	7.6	0.0	0.0	0.0	0.0
2	0.0/0.0	15.2	17.6	9.1	0.0	8.5	0.0
3	0.0/0.0	7.6	10.0	0.0	0.0	0.0	0.0

-	4	0.0/0.0	5.2	7.6	0.0	0.0	0.0	0.0
	5	0.0/0.0	5.2	7.6	0.0	0.0	0.0	0.0

FREQUENCY

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization(H,V, L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
1	3700 4200	R	Horizontal and Vertical	36M0G7W	0.0	0.0

E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

entirety.)						
Digital A	udio, Video, D	ata				
2	3700 4200	R	Horizontal and Vertical	36M0G7W	0.0	0.0
entirety.)	n and Services (If udio, Video, D		ion does not appear in	n this box, please go	to the end of the form	to view it in its
3	3700 4200	R	Horizontal and Vertical	36M0G7W	0.0	0.0

E	50. Modulation and Services	(If the complete description does not appear in this box, please go to the end of the form to view it in its
entir	ety.)	
	Digital Audio, Video	, Data

4	3700	4200	R	Horizontal and	36M0G7W	0.0	0.0
				Vertical			

E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

	3700	4200	R	Horizontal and Vertical	36M0G7W	0.0	0.0
50. Modulati ety.)	on and Servi	ices (If the	he complete o	description does not appear	in this box, please	go to the end of	the form to view it in i
•	Audio, V:	ideo, Da	ita				

FREQUENCY COORDINATION

	Limits(MHz)	Range of Satellite Arc Eastern/West ern Limit	Station Azimuth Angle Eastern Limit	Antenna Elevation Angle Eastern Limit	Station Azimuth Angle Western Limit	Antenna Elevation Angle Western Limit	Maximum EIRP Density toward the Horizon (dBW/4kHz)
Geostationary	3700 4200	58.0/139.0	160.9	39.3	254.7	7.5	0.0
Geostationary	3700 4200	58.0/139.0	160.9	39.3	254.7	7.5	0.0
Geostationary	3700 4200	58.0/139.0	160.9	39.3	254.7	7.5	0.0
Geostationary	3700 4200	58.0/139.0	160.9	39.3	254.7	7.5	0.0
Geostationary	3700 4200	58.0/139.0	160.9	39.3	254.7	7.5	0.0
NTROL POIN	T LOCATION		1	1			<b>!</b>
	•	•		. Phone Number			
	Geostationary Geostationary Geostationary Geostationary NTROL POIN n e enter the calls	4200Geostationary3700 4200Geostationary3700 4200Geostationary3700 4200Geostationary3700 4200Geostationary3700 4200NTROL POINT LOCATION (ne enter the callsign of the control ch this application is being filed.	ern LimitGeostationary3700 420058.0/139.0Geostationary3700 420058.0/139.0Geostationary3700 420058.0/139.0Geostationary3700 420058.0/139.0Geostationary3700 420058.0/139.0Geostationary3700 420058.0/139.0Geostationary3700 420058.0/139.0Geostationary3700 420058.0/139.0WTROL POINT LOCATION (n58.0/139.0e enter the callsign of the controlling station, noted this application is being filed.	ern LimitEastern LimitGeostationary3700 420058.0/139.0160.9Geostationary3700 420058.0/139.0160.9Geostationary3700 420058.0/139.0160.9Geostationary3700 420058.0/139.0160.9Geostationary3700 420058.0/139.0160.9Geostationary3700 420058.0/139.0160.9Geostationary3700 420058.0/139.0160.9Mathematical Structure58.0/139.0160.9Mathematical Structure58.0/139.0160.9	ern LimitEastern LimitEastern LimitGeostationary3700 420058.0/139.0160.939.3Geostationary3700 420058.0/139.0160.939.3Geostationary3700 420058.0/139.0160.939.3Geostationary3700 420058.0/139.0160.939.3Geostationary3700 420058.0/139.0160.939.3Geostationary3700 420058.0/139.0160.939.3Geostationary3700 420058.0/139.0160.939.3Geostationary3700 420058.0/139.0160.939.3MTROL POINT LOCATIONE66. Phone NumberE66. Phone Numbere enter the callsign of the controlling station, not the ch this application is being filed.E66. Phone Number	ern Limit         Eastern Limit         Eastern Limit         Western Limit           Geostationary         3700 4200         58.0/139.0         160.9         39.3         254.7           VTROL POINT LOCATION         58.0/139.0         160.9         39.3         254.7	ern Limit         Eastern Limit         Eastern Limit         Western Limit         Western Limit           Geostationary         3700 4200         58.0/139.0         160.9         39.3         254.7         7.5           VTROL POINT LOCATION         E66. Phone Number         Total         Total         Total         Total

E63. City	E68. County	E67/68. State/Country /	E64. Zip Code
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#### FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

The public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD–PERM, Paperwork Reduction Project (3060–0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to PRA@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

Remember – You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060–0678.

# THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104–13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.