Approved by OMB 3060–0678

Date & Time Filed: Oct 10 2018 3:43:49:840PM File Number: SES–MOD–INTR2018–07170

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: Modification of Call Sign E180135 to add antennas

1–8. Legal Name of Ap	pplicant		
Name:	WJW License, LLC	Phone Number:	312-222-3894
DBA Name:		Fax Number:	
Street:	303 E Wacker Dr	E-Mail:	jroberts@tribunemedia.com
	Suite 1700		
City:	Chicago	State:	IL
Country:	USA	Zipcode:	60601 –
Attention:	Jason S Roberts		

9–16. Name of Contact	Representative		
Name:	Jason S Roberts	Phone Number:	312-222-3894
Company:	Tribune Media	Fax Number:	
Street:	303 E Wacker Dr	E-Mail:	jroberts@tribunemedia.com
	Suite 1700		
City:	Chicago	State:	IL
Country:	USA	Zipcode:	60601-
Attention:		Relationship:	
CLASSIFICATION C	OF FILING		
 17. Choose the button r classification that appli both questions a. and b. for 17a and only one for al. Earth Station a1. Earth Station a2. Space Station 	es to this filing for . Choose only one or 17b.	Satellite (N/A) b9. Letter of Intent to Use Non–U.S. States (N/A) b10. Other (Please specify)	New Domestic Receive–Only Station ion ation tration Receive–Only Station Using Non–U.S. Licensed . Licensed Satellite to Provide Service in the United to Access a Non–U.S.satellite Not Currently Authorized osed Frequencies in the United States

17c. Is a fee submitted with this applicat	ion?	
● If Yes, complete and attach FCC Form	159. If No, indicate reason for fee exemption	n (see 47 C.F.R.Section 1.1114).
Governmental Entity O Noncomm	ercial educational licensee	
• Other(please explain):		
17d.		
Fee Classification CGO – Receive Only F	Earth Station	
18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pendin modification please enter only the file number	ng application enter both fields, if this filing is a er:
(a) Call sign of station:	(a) Date pending application was filed:	(b) File number:
E180135		SESDEC 2019042500440
		SESREG2018042500440

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	0	No	۲	N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	0	No	۲	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	0	No	۲	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	● 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	

O Yes O No ⊚ N/A

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.)

Modification of Call Sign E180135 to add antennas

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.	О ^В
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.	O 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	
O Unincorporated Association	
Partnership	
• Corporation	
Governmental Entity	
Other (please specify)	
45. Name of Person Signing	46. Title of Person Signing
Bill Vanduynhoven	Director of Engineering
>	
	ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT EVOCATION OF ANY STATION AUTHORIZATION 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:	Cleveland	E5. Call Sign:	E180135			
E2: Contact Name	Brian Dick	E6. Phone Number:	216-432-4284			
E3. Street:	5800 South Marginal Road	E7. City:	Cleveland			
		E8. County:	Cuyahoga			
E4. State	ОН	E9. Zip Code	44103			
E10. Area of Opera	tion:	ohio				
E11. Latitude:	41 °31 '47.4 "N					
E12. Longitude:	81 °38 '55.5 "W					
E13. Lat/Lon Coord	dinates are:	ONAD-27	● NAD-83	O ^{N/A}		
E14. Site Elevation	(AMSL):	183.9 meters				

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.

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 ^{Yes}	O ^{No}	● ^{N/A}
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:	

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 at GHz)
Cleveland	4.5mAnd	3	Andrew	4.5 meter	4.5	44.0 dBi at 3.95
Cleveland	3.5mdaw	1	Dawnco	3.5 meter	3.5	41.0 dBi at 3.95
Cleveland	3.5m	1	AFC	3.5 meter	3.5	39.5 dBi at 3.95
Cleveland	3.1m	2	Patriot	3.1 meter	3.1	37.0 dBi at 3.95
Cleveland	4.5m.cyc	1	Cyclesat	4.5 meter	4.5	44.0 dBi at 3.95
Cleveland	4.5mcom	1	Comtech	4.5 meter	4.5	44.0 dBi at 3.95
Cleveland	4.6m	1	Scientific– Atlanta	4.6 meter	4.6	45.0 dBi at 3.95
Cleveland	7m	2	Scientific– Atlanta	7 meter	7.0	46.0 dBi at 3.95

E28. Antenna	E33/34.	E35. Above	E36. Above Sea	E37. Building	E38. Total	E39. Maximum	E40. Total
Id	Diameter	Ground Level	Level(meters)	Height Above	Input Power at	Antenna Height	EIRP for al
	Minor/Major	(meters)		Ground Level	antenna flange	Above Rooftop	carriers(dBW)
	(meters)			(meters)	(Watts)	(meters)	
		(meters)			0	_ _	

4.5mAnd	0.0/0.0	4.5		188.4		0.0		0.0		0.0	0.0
3.5mdaw	0.0/0.0	3.5		187.6		0.0		0.0		0.0	0.0
3.5m	0.0/0.0	3.5		187.4		0.0		0.0		0.0	0.0
3.1m	0.0/0.0	3.1		187.0		0.0		0.0		0.0	0.0
4.5m.cyc	0.0/0.0	4.5		188.4		0.0		0.0		0.0	0.0
4.5mcom	0.0/0.0	4.5		188.4		0.0		0.0		0.0	0.0
4.6m	0.0/0.0	4.6		188.5		0.0		0.0		0.0	0.0
7m	0.0/0.0	7.0		190.9		0.0		0.0		0.0	0.0
FREQUENCY											,
E28. Antenna Id	E43/44. Frequency (MHz)	Bands	E45. T/R M	ode	E46. Ante Polarizati L,R)		E47. Ei Designa	mission ator		Maximum P per Carrier V)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
4.5mAnd	3700	4200	R		Horizontal Vertical	and	36M0G	i7W	0.0		0.0
E50. Modulati entirety.) Digital	on and Service	, , , , , , , , , , , , , , , , , , ,	ne complete d	escripti	on does not	appear in	this box	a, please go t	to the e	end of the form	to view it in its

E50. Modulation	and Service	es (If th	he complete descripti	on does not appear in	n this box, please go t	to the end of the form	to view it in its
entirety.)							
Digital V:	ideo Carr	ier					
3.5m	3700	4200	R	Horizontal and Vertical	36M0G7W	0.0	0.0
E50. Modulation entirety.)	and Service	es (If th	he complete descripti	on does not appear in	n this box, please go t	o the end of the form	to view it in its
Digital V:	ideo Carr	ier					
3.1m	3700	4200	R	Horizontal and Vertical	36M0G7W	0.0	0.0
E50. Modulation entirety.)	and Service	es (If th	he complete descripti	on does not appear in	n this box, please go t	to the end of the form	to view it in its
Digital V:	ideo Carr	ier					
4.5m.cyc	3700	4200	R	Horizontal and Vertical	36M0G7W	0.0	0.0

E50. Modula entirety.)	ation and Servic	ces (If t	he complete de	scription does not appear	in this box, please	go to the end of	the form to view it in its
Digital	Video Car	rier					
4.5mcom	3700	4200	R	Horizontal and Vertical	36M0G7W	0.0	0.0
E50. Modula entirety.)	ation and Servic	ces (If t	he complete de	scription does not appear	in this box, please	go to the end of	the form to view it in its
4.6m	3700	4200	R	Horizontal and	36M0G7W	0.0	0.0
				Vertical			
E50. Modula entirety.)	ation and Servic	ces (If t	he complete de	scription does not appear	in this box, please	go to the end of	the form to view it in its
, .	Video Car	rier					
7m	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.)

Digital Video Carrier

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	E56. Earth Station Azimuth Angle Eastern Limit	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
4.5mAnd	Geostationary	3700 4200	60.0/143.0	149.1	37.2	250.1	12.5	0.0
3.5mdaw	Geostationary	3700 4200	60.0/143.0	149.1	37.2	250.1	12.5	0.0
3.5m	Geostationary	3700 4200	60.0/143.0	149.1	37.2	250.1	12.5	0.0
3.1m	Geostationary	3700 4200	60.0/143.0	149.1	37.2	250.1	12.5	0.0
4.5m.cyc	Geostationary	3700 4200	60.0/143.0	149.1	37.2	250.1	12.5	0.0
4.5mcom	Geostationary	3700 4200	60.0/143.0	149.1	37.2	250.1	12.5	0.0
4.6m	Geostationary	3700 4200	60.0/143.0	149.1	37.2	250.1	12.5	0.0

7m	Geostationary	3700 4200	60.0/143.0	149.1		37.2	250.1	12.5	0.0
REMOTE CO	NTROL POIN	T LOCATION		•					
E61. Call Si	gn				E66	. Phone Nu	mber		
callsign for whi	NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed. E62. Street Address								
E63. City			E68. County	y			E67/68. State/Countr /	'y	E64. Zip Code

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