Date & Time Filed: Oct 11 2018 1:46:57:963PM File Number: SES-MOD-INTR2018-07347

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:

E4335 Mod App to add Recieve-Only C-Band Antennas at Transmit/Studio Locations

1–8.	Legal	Name	of App	lıcant

Name: KHOU–TV, Inc. Phone Number: 703–873–6606

DBA Fax Number:

Name:

Street: c/o TEGNA, Inc. E–Mail: dbranson@tegna.com

7950 Jones Branch Drive

City: McLean State: VA

Country: USA Zipcode: 22107 -

**Attention:** Denise A Branson

9–16. Name of Contact Representative

Name: Denise A. Branson **Phone Number:** 703–873–6606

Company: TEGNA, Inc. Fax Number:

Street: 7950 Jones Branch Dr. E–Mail: dbranson@tegna.com

City: McLean State: VA

Country: USA Zipcode: 22107–

**Attention:** Relationship: Same

#### **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

**b**3. Amendment to a Pending Application

**b**4. Modification of License or Registration

b5. Assignment of License or Registration

b6. Transfer of Control of License or Registration

**b**7. 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

**b** 13. Amendment to a Pending Database Entry Application

b14. Modification of Database Entry

17c. Is a fee submitted with this application of the submitted with this application. If Yes, complete and attach FCC Form	ion? 159. If No, indicate reason for fee exemption	(see 47 C.F.R.Section 1.1114).
Governmental Entity Noncomme	ercial educational licensee	
Other(please explain):		
17d.		
Fee Classification CGB – Mobile Satellite	Earth Stations	
18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pending modification please enter only the file number	g application enter both fields, if this filing is a r:
(a) Call sign of station: E4335	(a) Date pending application was filed:	(b) File number:
E4333		SESRWL2018020900106

## TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide of	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)	
	2. 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 ser facilities:	vice, see instructions regarding Sec. 214 filings. Choose one. Are these
Connected to a Public Switched Network  Not connected to a Public Switched Network	blic Switched Network N/A
24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all app	licable 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 additional	l 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>b.</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 FACILITY:
Transmit/Receive Transmit-Only Receive-Only 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 & Double of Communication)
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**

under the laws of a foreign country?

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.	plication. A Radiation Hazard Study cations, or major amendments.  broadcast, common carrier, aeronautical en route or ems 30–34.  government?  Yes No N/A					
ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aerona aeronautical fixed radio station services are not required to respond to Items 30–34.	autic	al er	ı roı	ıte o	r	
29. Is the applicant a foreign government or the representative of any foreign government?	ed by Sections 1.1308 and 1.1311 of oplication. A Radiation Hazard Study ications, or major amendments.  The broadcast, common carrier, aeronautical en route or tems 30–34.  The government?  Yes No N/A  Wernment?  Yes No N/A  Stock is owned of record or voted by Yes No N/A					
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	, o	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	0	Yes	•	. No	· o	N/A

O Yes No

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental

	<del></del>	
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 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		
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	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.	• Yes	<b>⊚</b> 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	• 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	<b>⊘</b> 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.	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.	O Yes	<b>⊚</b> No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, we coordinated or is in the process of coordinating the space station?	hat administr	ration has
43. Description. (Summarize the nature of the application and the services to be provided). (If the complete descriptions, please go to the end of the form to view it in its entirety.)  Application to add receive-only c-band antennas.	on does not a	ppear in this

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 applicate	able response.)	
Individual		
Unincorporated Association		
O Partnership		
Corporation		
Governmental Entity		
Other (please specify)		
45. Name of Person Signing	46. Title of Person Signing	
Akin S. Harrison	Secretary	
>		
(U.S. Code, Title 18, Section 100	ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRIDATION, AND/OR REVOCATION OF ANY STATION AUTHORIZATION, 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 S	tation Site					
E1: Site Identifier:	KHOU Mustang	E5. Call Sign:	E4335			
E2: Contact Name	Cody Blount	E6. Phone Number:	713–284–8741			
E3. Street:	3111 Senior Road	E7. City:	Missouri City			
		E8. County:	Fort Bend			
E4. State	TX	E9. Zip Code	77459			
E10. Area of Opera	tion:	Texas				
E11. Latitude:	29 °33 '37.7 "N					
E12. Longitude:	95 °30 '6.3 "W					
E13. Lat/Lon Coordinates are:		<b>○</b> NAD-27	<b>⊚</b> NAD-83	O N/A		
E14. Site Elevation (AMSL):		23.2 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.	<b>⊚</b> Yes	O No	O N/A
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E16. If the proposed antenna(s) do not operate in the Fixed Satellite S Satellite Service (FSS) with non–geostationary satellites, do(es) the pregain patterns specified in Section 25.209(a2) and (b) as demonstrated measurements?	roposed antenna(s) comply with the antenna	<b>○</b> Yes	O No	<b>⊚</b> N/A
E17. Is the facility operated by remote control? If YES, provide the location point.	cation and telephone number of the control	Yes	٥	No
E18. Is frequency coordination required? If YES, attach a frequency co	oordination report as	O Yes	•	No
E19. Is coordination with another country required? If YES, attach the coordination contours as	e name of the country(ies) and plot of	O Yes	•	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25. have you attached a copy of a completed FCC Form 854 and/or the FA the structure to aviation?  FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL APPLICATION.	AA's study regarding the potential hazard of	● Yes	0	No
POINTS OF COMMUNICATION				
Satellite Name: PERMITTED LIST   If you selected OTHER, pl	lease 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 atGHz)	
KHOU Mustang	Sat 2	1	Scientific- Atlanta/Viasat	8345	4.5	43.5 dBi at 3.95	
KHOU Mustang	Sat 3	1	Scientific- Atlanta/Viasat	8345	4.5	43.5 dBi at 3.95	

E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level (meters)	` ′	Height Above	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
Sat 2	0.0/0.0	5.0	28.5	0.0	0.0	0.0	0.0
Sat 3	0.0/0.0	5.0	28.5	0.0	0.0	0.0	0.0

# FREQUENCY

	E43/44. Frequency Bands (MHz)			Designator	EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
Sat 2	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.)

DVB-S/S2, QPSK/8PSK ASI, Video downlink

Sat 3	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.)

DVB-S/S2, QPSK/8PSK ASI, Video downlink

### FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	1 0	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)
Sat 2	Geostationary	3700 4200	70.0/145.0	136.0	45.7	247.1	26.6	0.0
Sat 3	Geostationary	3700 4200	70.0/145.0	136.0	45.7	247.1	26.6	0.0

REMOTE CONTROL POINT LOCATION

E61. Call Sign KHOU NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.		E66. Phone Number 713–526–1111		
E62. Street Address 5718 Westheimer Rd.				
E63. City Houston	E68. County Harris		E67/68. State/Country TX/ USA	E64. Zip Code 77057

## 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:	KHOU Studio	E5. Call Sign:			
E2: Contact Name	Cody Blount	E6. Phone Number:	713–284–8741		
E3. Street:	5718 Westheimer Rd.	E7. City:	Houston		
		E8. County:	Harris		
E4. State	TX	E9. Zip Code	77057		
E10. Area of Operat	ion:	Tesax			
E11. Latitude:	39 °44 '21.9 "N				
E12. Longitude:	95 °28 '43.5 "W				
E13. Lat/Lon Coord	linates are:	<b>O</b> NAD-27	<b>●</b> NAD-83	O N/A	
E14. Site Elevation	(AMSL):	18.6 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.	<b>●</b> Yes	O No	O N/A
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?	○ Yes	O No	<b>⊚</b> N/A

E17. Is the facility operated by remote control? If YES, provide the location and telephone point.	O Yes ⊗ No
E18. Is frequency coordination required? If YES, attach a frequency coordination report as	s FreqCoord  Yes No
E19. Is coordination with another country required? If YES, attach the name of the country coordination contours as	y(ies) and plot of  Yes  No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA have you attached a copy of a completed FCC Form 854 and/or the FAA's study regarding the structure to aviation?  FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE APPLICATION.	g the potential hazard of Yes No
POINTS OF COMMUNICATION	•
Satellite Name: PERMITTED LIST   If you selected OTHER, please enter the follow	wing:
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)
KHOU Studio	Sat1	1	Scientific- Atlanta/Viasat	8345	4.5	43.5 dBi at 3.95
KHOU Studio	Sat2	1	Scientific- Atlanta/Viasat	8345	4.5	43.5 dBi at 3.95
KHOU Studio	Sat3	1	Scientific- Atlanta/Viasat	8345	4.5	43.5 dBi at 3.95
KHOU Studio	Sat4	1	Scientific- Atlanta/Viasat	8345	4.5	43.5 dBi at 3.95

E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level (meters)	E36. Above Sea Level(meters)	Height Above		E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
Sat1	0.0/0.0	32.4	46.0	27.4	0.0	5.0	0.0
Sat2	0.0/0.0	32.4	46.0	27.4	0.0	5.0	0.0
Sat3	0.0/0.0	32.4	46.0	27.4	0.0	5.0	0.0
Sat4	0.0/0.0	32.4	46.0	27.4	0.0	5.0	0.0

## FREQUENCY

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

Sat1	3700	4200	R	Horizontal and Vertical	36M0G7W	0.0	0.0
E50. Modulation entirety.)	and Service	s (If th	ne complete descri	iption does not appear	in this box, please	go to the end of t	the form to view it in its
DVB-S/S2,	QPSK/8PS	K ASI,	Video downl	.ink			
Sat2	3700	4200	R	Horizontal and Vertical	36M0G7W	0.0	0.0
DVB-S/S2,	QPSK/8PS	K ASI,	Video downl	.ink			
Sat3	3700	4200	R	Horizontal and Vertical	36M0F7W	0.0	0.0
E50. Modulation entirety.)  DVB-S/S2,			he complete descri		in this box, please	go to the end of t	the form to view it in its

Sat4	3700	4200	R	Horizontal and Vertical	36M0G7W	0.0	0.0	
E50. Modulation entirety.)	and Service	s (If th	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its	
DVB-S/S2,	QPSK/8PS	K ASI,	Video downlin	ık				

## 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)
Sat1	Geostationary	3700 4200	70.0/139.0	136.1	45.5	242.4	31.6	0.0
Sat2	Geostationary	3700 4200	70.0/139.0	136.1	45.5	242.4	31.6	0.0
Sat3	Geostationary	3700 4200	70.0/139.0	136.1	45.5	242.4	31.6	0.0
Sat4	Geostationary	3700 4200	70.0/139.0	136.1	45.5	242.4	31.6	0.0

REMOTE CONTROL POINT LOCATION

E61. Call Sign		E66. Phone Number		
NOTE: Please enter the callsign of the controcallsign for which this application is being filed.				
E62. Street Address				
E63. City	E68. County		E67/68. State/Country	E64. Zip Code

#### 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.

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