Date & Time Filed: Aug 29 2018 10:43:43:643AM File Number: SES-REG-INTR2018-05237

Callsign/Satellite ID:

APPLICATION FOR EARTH STATION AUTHORIZATIONS

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:

WTCM - Receive Only Earth Station

Name: WTCM Radio, Inc. Phone Number: 231–947–7675 x1022

DBA Fax Number: 231–929–3988

Name:

Street: 314 east front street E–Mail: chrisw@wtcmradio.com

City: traverse city State: MI

Country: USA **Zipcode:** 49684 –

Attention: chris k warren

9–16. Name of Contact Representative

Name: Bruce Bellamy Phone Number: 5172787339

Company: Munn–Reese Fax Number:

Street: PO Box 220 E-Mail: bruce@munn-reese.com

City: Coldwater State: MI

Country: USA Zipcode: 49036–

Attention: Bruce Bellamy Relationship: Engineer

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. a. a. 1. Earth Station (N/A) a2. Space Station	b. b1. Application for License of New Station 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 (N/A) b9. Letter of Intent to Use Non—U.S. Licensed Satellite to Provide Service in the United States
	■ b10. Other (Please specify)
	♦ 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. b12. Application for Database Entry
	(N/A) b13. Amendment to a Pending Database Entry Application (N/A) b14. Modification of Database Entry
17c. Is a fee submitted with this application	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 CMO – Receive Only E	arth Station

18. If this filing is in reference to an existing station, enter: (a) Call sign of station: Not Applicable 19. If this filing is an amendment to a pending application enter: (a) Date pending application was filed: (b) File number of pending application: Not Applicable Not Applicable
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TYPE OF SERVICE	
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:
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
O Common Carrier Non–Common Carrier	Using Non–U.S. licensed satellites
23. If applicant is providing INTERNATIONAL COMMON CARRIER sefacilities:	ervice, see instructions regarding Sec. 214 filings. Choose one. Are these
O Connected to a Public Switched Network Not connected to	o a Public Switched Network

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 lower frequencies in MHz.)
Frequency Lower: Frequency Upper:
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
d. Mobile Earth Station
(N/A) e. Geostationary Space Station
(N/A) f. Non-Geostationary Space Station
g. Other (please specify)
26. TYPE OF EARTH STATION FACILITY: Choose only one.
Transmit/Receive Transmit-Only Receive-Only 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.)
Not Applicable
1

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.	C	Yes	⊚ No	D.
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.	utical e	n route	or	
29. Is the applicant a foreign government or the representative of any foreign government?	O Yes	s ⊚ N	0	
30. Is the applicant an alien or the representative of an alien?	O Yes	6 6 N	o o N	J/A
31. Is the applicant a corporation organized under the laws of any foreign government?	O Yes	s ⊚ N	о о ^N	J/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?	O Yes	6 N	о о N	I/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 ⊗ N	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	O No
	Freq Coord Wa	niver
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.	O Yes	⊘ 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.	• Yes	No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, v coordinated or is in the process of coordinating the space station?	vhat administi	ration has

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

(If the complete description does

Registration for C-band receive only earth station used to receive broadcast audio and related data. No frequency coordination report is provided pursuant to the waiver granted in Public Notice DA 18-398. The coordinates provided in items E11 and E12 are in WGS84 format.

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.	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.	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.

- * 1' ' 1 1			
O Individual			
 Unincorporated Association 			
Partnership			
Corporation			
Governmental Entity			
Other (please specify)			
_			
45. Name of Person Signing		46. Title of Person Signing	
Eric Send		Director of Engineering	
47. Please supply any need attachr	nents.		
47. Please supply any need attachr Attachment 1:	Ments. Attachment 2:	Attachment 3:	
		Attachment 3:	
		Attachment 3:	
Attachment 1:	Attachment 2:	Attachment 3: ORM ARE PUNISHABLE BY FINE AND / OR IN	ИPRISONMENT
Attachment 1: WILLFUL FALSE STA (U.S. Code	Attachment 2: ATEMENTS MADE ON THIS FOR THE PROPERTY OF T		ZATION

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

Location of Earth Station Site

E1: Site Identifier: Radio Centre #1 E5. Call Sign:

E2: Contact Name Eric Send E6. Phone 2319477675

Number:

E3. Street: 300 East Front St E7. City: Traverse City

E8. County: Grand Traverse

E4. State MI E9. Zip Code 49684

E10. Area of Operation: Traverse City, MI

E11. Latitude: 44 °45 '50.1 "N

E12. Longitude: 85 °37 '4.2 "W

E13. Lat/Lon Coordinates are: NAD-27 NAD-83 N/A

E14. Site Elevation (AMSL): 179.3 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 asE15 Attachement a technical analysis showing compliance with two–degree spacing policy.	⊗ Ye	es	O No	C	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?	O Ye	es	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 7	Yes	•	N	O
E18. Is frequency coordination required? If YES, attach a frequency coordination report as	0 7	Yes	•	N	o
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	0,	Yes	•	N	Ō
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)	les .	•	N	o
POINTS OF COMMUNICATION					
Satellite Name: PERMITTED LIST If you selected OTHER, please 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 GainTransmint and/or Recieve (dBi atGHz)
Radio Centre #1	ANT1	1	Prime Focus	3.8 meter	3.8	41.7 dBi at 4.0
	ANT2					41.7 dBi at 4.0

E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level (meters)	E36. Above Sea Level (meters)	E37. Building Height Above Ground Level (meters)	E38. Total Input Power at antenna flange (Watts)	Maximum Antenna Height	E40. Total EIRP for al carriers (dBW)
ANT1	0.0/0.0	20.2	199.5	17.7	0.0	4.0	0.0
ANT2	0.0/0.0	20.2	199.5	17.7	0.0	4.0	0.0

FREQUENCY

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

ANT1	3700	4200	R	Horizontal and Vertical	36M0F8W	0.0	0.0
E50. Modulatio entirety.)	n and Servio	ces (If the	he complete d	escription does not appear	in this box, please	go to the end of t	the form to view it in its
Analog Au	dio						
ANT1	3700	4200	R	Horizontal and Vertical	36M0G7W	0.0	0.0
Digital A	udio						
ANT2	3700	4200	R	Horizontal and Vertical	36M0F8W	0.0	0.0
E50. Modulatio entirety.) Analog Au		es (If the	he complete d	escription does not appear	in this box, please	go to the end of t	the form to view it in its

ANT2	3700	4200	R	Horizontal and Vertical	36M0G7W	0.0	0.0
E50. Modulation entirety.)	and Services	(If th	e complete description	on does not appear in	this box, please go to	the end of the form	to view it in its
Digital Au	dio						

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc E/W Limit	Station Azimuth Angle	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)
ANT1	Geostationary	3700 4200	60.0/ 143.0	145.75	32.48	245.74	14.14	0.0
ANT2	Geostationary	3700 4200	60.0/ 143.0	145.75	32.48	245.74	14.14	0.0

REMOTE CONTROL POINT LOCATION

TEMOTE CONTINUE TO BUT EXCENTION	
E61. Call Sign	E65. Phone Number
NOTE: Please enter the callsign of the controlling station, not the	
callsign for which this application is being filed.	
E62. Street Address	

E63. City	E67. County	E64/68.	E66. Zip Code
		State/Country	
		/	

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