Approved by OMB 3060–0678

Date & Time Filed: Mar 17 2009 2:01:50:086PM File Number: SES-MFS-20090317-00319

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: WB Holdings 1 – MOD – E050033 – add PoC

1–8. Legal Name of Applicant **Phone Number:** Name: WB Holdings 1 LLC 720-554-7400 DBA Fax Number: Name: Street: 5970 Greenwood Plaza Blvd. E-Mail: Suite 300 City: Greenwood Village State: CO **Country:** USA Zipcode: 80111 _ Attention: Mr David M Brown

Name:	William M. Wiltshire	Phone Number:	202-730-1350
Company:	Harris, Wiltshire & Grannis, LLP	Fax Number:	202-730-1301
Street:	1200 Eighteenth Street, NW	E-Mail:	wwiltshire@harriswiltshire.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20036-
Attention:		Relationship:	Legal Counsel

17. Choose the button next to the	
classification that applies to this filing for	(N/A) b1. Application for License of New Station
both questions a. and b. Choose only one	(N/A) b2. Application for Registration of New Domestic Receive–Only Station
for 17a and only one for 17b.	b 3. Amendment to a Pending Application
a1. Earth Station	b4. Modification of License or Registration
	b5. Assignment of License or Registration
• a2. Space Station	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 applicat		
If Yes, complete and attach FCC Form	159. If No, indicate reason for fee exemption (s	ee 47 C.F.R.Section 1.1114).
O Governmental Entity O Noncomme	ercial educational licensee	
• Other(please explain):		
17d.		
Fee Classification CGX – Fixed Satellite 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:	pplication enter both fields, if this filing is a
(a) Call sign of station:	(a) Date pending application was filed:	(b) File number:
E050033		SESMOD2007033000425

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	
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	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: 19700 Frequency Upper: 30000	(Please specify additional 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
o c. 12/14 GHz VSAT Network
d. Mobile Earth Station
e. Geostationary Space Station
o f. Non–Geostationary Space Station
• g. Other (please specify) Ka-band VSAT Network
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?Canada

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.)

See Exhibit A.

Exhibit A

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 appl	icable response.)
O Individual	
• Unincorporated Association	
• Partnership	
• Corporation	
Governmental Entity	
Other (please specify)	
-	
45. Name of Person Signing	46. Title of Person Signing
David M. Brown	VP, WildBlue, Manager WB Holdings 1 LLC
>	
	ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT 001), 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 Station Site			
E1: Site Identifier: WB1000-C	E5. Call Sign:		
E2: Contact Name David Brown	E6. Phone Number:	720–554–7400	
E3. Street:	E7. City:		
	E8. County:		
E4. State	E9. Zip Code		
E10. Area of Operation:	CONUS		
E11. Latitude: 0 °0 '0.0 "N			
E12. Longitude: 0 °0 '0.0 "W			
E13. Lat/Lon Coordinates are:	NAD-27	O NAD-83	O N/A
E14. Site Elevation (AMSL):	0.0 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	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?	O Yes	O [№]	N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	• Yes	0	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: ANIK F2 ANIK F2 111.1 W.L.	If you selected OTHER, please enter the following:		
E21. Common Name:	E22. ITU Name:		
E23. Orbit Location:	E24. Country:		

Satellite Name: AMC-16 | AMC 16 | 85 W.L. If you selected OTHER, please enter the following:

E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:

Satellite Name: AMC-15 AMC-15 105 W.L.	L. If you selected OTHER, please enter the following:		
E21. Common Name:	E22. ITU Name:		
E23. Orbit Location:	E24. Country:		

Satellite Name: WILDBLUE 1 WILDBLUE 1 111.1 W.L. 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: WB1000–C						
E26. Common Name:	E27. Country: Canada					

E25. Site Identifier: WB1000–C	
E26. Common Name:	E27. Country: USA

E25. Site Identifier: WB1000–C	
E26. Common Name:	E27. Country: USA

E25. Site Identifier: WB1000–C	
E26. Common Name: WildBlue–1	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)	
WB1000-C	WB1000-C3	1000000	Raven Manufacturing	WB1000-003	0.7	39.4 dBi at 20.2	
WB1000-C	WB1000-C3	1000000	Raven Manufacturing	WB1000-003	0.7	42.5 dBi at 30.0	
WB1000-C	WB1000-C2	200000	Raven Manufacturing	WB1000-002	0.7	39.0 dBi at 20.2	
WB1000-C	WB1000-C2	200000	Raven Manufacturing	WB1000-002	0.7	41.8 dBi at 30.0	
WB1000-C	WB1000-TF2	500	Raven Manufacturing	WB1000-TF2	0.7	39.0 dBi at 20.2	
WB1000-C	WB1000-TF2	500	Raven Manufacturing	WB1000-TF2	0.7	41.8 dBi at 30.0	
WB1000-C	WB1000-TF3	10000	Raven Manufacturing	WB1000-TF3	0.7	39.4 dBi at 20.2	
WB1000-C	WB1000-TF3	10000	Raven Manufacturing	WB1000-TF3	0.7	42.5 dBi at 30.0	
WB1000-C	WB1000-C4	100000	Raven Manufacturing	WB1098-003	0.998	42.5 dBi at 20.2	
WB1000-C	WB1000-C4	100000	Raven Manufacturing	WB1098-003	0.998	45.5 dBi at 30.0	
WB1000-C	WB1000-TF4	10000	Raven Manufacturing	WB1098-003	0.998	42.5 dBi at 20.2	

WB1000-C	WB1000-TF4	10000	Raven Manufacturing	WB1098-003	0.998	45.5 dBi at 30.0	
			Wanutacturing				

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)	E39. Maximum Antenna Height Above Rooftop (meters)	E40. Total EIRP for al carriers(dBW)
WB1000-C3	0.65/0.75	0.0	0.0	0.0	2.8	0.0	47.0
WB1000-C2	0.65/0.75	0.0	0.0	0.0	2.8	0.0	46.3
WB1000-TF2	0.65/0.75	0.0	0.0	0.0	2.8	0.0	46.3
WB1000-TF3	0.65/0.75	0.0	0.0	0.0	2.8	0.0	47.0
WB1000-C4	0.947/0.998	0.0	0.0	0.0	2.8	0.0	50.0
WB1000-TF4	0.947/0.998	0.0	0.0	0.0	2.8	0.0	50.0

FREQUENCY

	E43/44. Frequency Bands (MHz)			Designator	EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
WB1000-C3	19700 20200	R	Left and Right Circular	18M0G7W	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.)

15 MSPS 8PSK, DIGITAL CARRIER

WB1000-C3	19700 20200	R	Left and Right Circular	18M0G7W	0.0	0.0
E50. Modulation entirety.)	n and Services (If	the complete de	escription does not appear	in this box, please	go to the end of t	the form to view it in its
15 MSPS QI	PSK, DIGITAL (CARRIER				
WB1000-C3	19700 20200	R	Left and Right Circular	27M0G7W	0.0	0.0
entirety.)	8PSK, DIGITAI	CARRIER				
WB1000-C3	19700 20200	R	Left and Right Circular	27M0G7W	0.0	0.0
E50. Modulation entirety.)	n and Services (If	the complete de	escription does not appear	in this box, please	go to the end of t	the form to view it in its
22.5 MSPS	QPSK, DIGITAI] CARRIER				

WB1000-C3	29500 30000	Т	Left and Right Circular	1M60G7W	47.0	21.0
E50. Modulation entirety.)	and Services (I	the complete de	escription does not appear	in this box, please	go to the end of the	he form to view it in its
1280 KSPS	QPSK, DIGITA	L CARRIER				
WB1000-C3	29500 30000	Т	Left and Right Circular	3M20G7W	47.0	17.9
E50. Modulation entirety.)	QPSK, DIGITA	•	escription does not appear			
WB1000-C3	29500	Т	Left and Right	200KG7W	47.0	30.0
	30000		Circular			
E50. Modulation entirety.)	and Services (I	the complete de	escription does not appear	in this box, please	go to the end of the	he form to view it in its
160 KSPS ()PSK, DIGITAL	CARRIER (US	SED UNDER RAIN FAI	DE CONDITIONS	ONLY)	

WB1000-C3	29500 30000	Т	Left and Right Circular	400KG7W	47.0	27.0
E50. Modulation entirety.)	on and Services (If the complete d	escription does not appear	in this box, please	go to the end of t	he form to view it in its
	QPSK, DIGITAI	CARRIER (U	JSED UNDER RAIN FAI)E CONDITIONS	; ONLY)	
WB1000-C3	29500 30000	Т	Left and Right Circular	800KG7W	47.0	24.0
			JSED UNDER RAIN FAI			
WB1000-C2	19700 20200	R	Left and Right Circular	18M0G7W	0.0	0.0
E50. Modulation entirety.)	on and Services (If the complete d	escription does not appear	in this box, please	go to the end of t	he form to view it in its
15 MSPS 8	8PSK DIGITAL (CARRIER				

WB1000-C2	19700 20200	R	Left and Right Circular	18M0G7W	0.0	0.0
E50. Modulation entirety.)	and Services (If t	he complete descript	ion does not appear	in this box, please	go to the end of t	the form to view it in its
15 MSPS QE	PSK DIGITAL CA	RRIER				
WB1000-C2	19700 20200	R	Left and Right Circular	27M0G7W	0.0	0.0
entirety.) 22.5 MSPS	8PSK DIGITAL (CARRIER				
WB1000-C2	19700 20200	R	Left and Right Circular	27M0G7W	0.0	0.0
E50. Modulation entirety.) 22.5 MSPS	QPSK DIGITAL (ion does not appear	in this box, please	go to the end of t	the form to view it in its

WB1000-C2	29500 30000	Т	Left and Right Circular	1M60G7W	46.3	20.3
E50. Modulation entirety.)	n and Services (If	the complete des	scription does not appear	in this box, please	go to the end of th	ne form to view it in its
1280 KSPS	QPSK DIGITAL	CARRIER				
WB1000-C2	29500 30000	Т	Left and Right Circular	3M20G7W	46.3	17.2
2560 KSPS	QPSK, DIGITA	CARRIER				
WB1000-C2	29500 30000	Т	Left and Right Circular	200KG7W	46.3	29.3
E50. Modulation entirety.)	n and Services (If	the complete des	scription does not appear	in this box, please	go to the end of th	ne form to view it in its
160 KSPS (QPSK DIGITAL (CARRIER (USE	D UNDER RAIN FADE	CONDITIONS	ONLY)	

WB1000-C2	29500 30000	Т	Left and Right Circular	400KG7W	46.3	26.3
E50. Modulation entirety.)	on and Services (I	f the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
	QPSK DIGITAL	CARRIER (US	ED UNDER RAIN FADE	CONDITIONS	ONLY)	
WB1000-C2	29500 30000	Т	Left and Right Circular	800KG7W	46.3	23.3
			ED UNDER RAIN FADE			
WB1000-TF2	19700 20200	R	Left and Right Circular	18M0G7W	0.0	0.0
E50. Modulation entirety.)	n and Services (I	f the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
15 MSPS 8	PSK DIGITAL C	ARRIER				

WB1000-TF2	19700 20200	R	Left and Right Circular	18M0G7W	0.0	0.0
E50. Modulation entirety.)	and Services (If t	he complete descript	ion does not appear	in this box, please	go to the end of t	the form to view it in its
15 MSPS QF	PSK DIGITAL CAN	RRIER				
WB1000-TF2	19700 20200	R	Left and Right Circular	27M0G7W	0.0	0.0
E50. Modulation entirety.)	8PSK DIGITAL (the form to view it in its
WB1000-TF2	19700 20200	R	Left and Right Circular	27M0G7W	0.0	0.0
E50. Modulation entirety.) 22.5 MSPS	QPSK DIGITAL (ion does not appear	in this box, please	go to the end of t	the form to view it in its

WB1000-TF2	29500 30000	Т	Left and Right Circular	1M60G7W	46.3	20.3
E50. Modulation entirety.)	and Services (If	the complete de	escription does not appear	in this box, please	go to the end of th	ne form to view it in its
1280 KSPS	QPSK DIGITAL	CARRIER				
WB1000-TF2	29500 30000	Т	Left and Right Circular	3M20G7W	46.3	17.2
entirety.)	QPSK, DIGITA	CARRIER				
WB1000-TF2	29500 30000	Т	Left and Right Circular	200KG7W	46.3	29.3
E50. Modulation entirety.)	and Services (If	the complete de	escription does not appear	in this box, please	go to the end of th	ne form to view it in its
160 KSPS (PSK DIGITAL (CARRIER (USP	ED UNDER RAIN FADE	CONDITIONS	ONLY)	

WB1000-TF2	29500 30000	Т	Left and Right Circular	400KG7W	46.3	26.3
E50. Modulation entirety.)	n and Services (If	the complete descript	tion does not appear	in this box, please	go to the end of t	he form to view it in its
• ·	QPSK DIGITAL C	ARRIER (USED U	NDER RAIN FADE	CONDITIONS	ONLY)	
WB1000-TF2	29500 30000	Т	Left and Right Circular	800KG7W	46.3	23.3
640 KSPS (ARRIER (USED U	INDER RAIN FADE	CONDITIONS	UNLY)	
WB1000-TF3	19700 20200	R	Left and Right Circular	18M0G7W	0.0	0.0
E50. Modulation entirety.)	n and Services (If	the complete descript	tion does not appear i	in this box, please	go to the end of t	he form to view it in its
15 MSPS 81	PSK DIGITAL CA	RRIER				

WB1000-TF3	19700 20200	R	Left and Right Circular	18M0G7W	0.0	0.0
E50. Modulation entirety.)	and Services (If	the complete des	scription does not appear	in this box, please	go to the end of t	the form to view it in its
15 MSPS QI	PSK DIGITAL CA	RRIER				
WB1000-TF3	19700 20200	R	Left and Right Circular	27M0G7W	0.0	0.0
E50. Modulation entirety.)	8PSK DIGITAL	-	scription does not appear	III IIIIs oox, picase		
WB1000-TF3	19700 20200	R	Left and Right Circular	27M0G7W	0.0	0.0
E50. Modulatior entirety.)	and Services (If	the complete des	scription does not appear	in this box, please	go to the end of t	the form to view it in its
22.5 MSPS	QPSK DIGITAL	CARRIER				

WB1000-TF3	29500 30000	Т	Left and Right Circular	1M60G7W	47.0	21.0
E50. Modulation entirety.)	and Services (If t	the complete descripti	ion does not appear i	in this box, please g	to the end of th	he form to view it in its
1280 KSPS	QPSK DIGITAL	CARRIER				
WB1000-TF3	29500 30000	Т	Left and Right Circular	3M20G7W	47.0	17.9
entirety.)	QPSK, DIGITAL	CARRIER				
WB1000-TF3	29500 30000	Т	Left and Right Circular	200KG7W	47.0	30.0
E50. Modulation entirety.)	and Services (If t	the complete descripti	on does not appear i	in this box, please g	to the end of th	he form to view it in its
160 MSPS Ç	PSK DIGITAL C.	ARRIER (USED UN	JDER RAIN FADE	CONDITIONS C)NLY)	

WB1000-TF3	29500 30000	Т	Left and Right Circular	400KG7W	47.0	27.0
E50. Modulation entirety.)	on and Services ()	If the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
•	QPSK DIGITAL	CARRIER (US	ED UNDER RAIN FADE	CONDITIONS	ONLY)	
WB1000-TF3	29500 30000	Т	Left and Right Circular	800KG7W	47.0	24.0
			ED UNDER RAIN FADE			
WB1000-C4	19700 20200	R	Left and Right Circular	18M0G7W	0.0	0.0
E50. Modulation entirety.)	on and Services ()	If the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
15 MSPS 8	8PSK CARRIER					

WB1000-C4	19700 20200	R	Left and Right Circular	18M0G7W	0.0	0.0
E50. Modulation entirety.)	n and Services (If	the complete d	escription does not appear	in this box, please	go to the end of t	the form to view it in its
15 MSPS QI	PSK CARRIER					
WB1000-C4	19700 20200	R	Left and Right Circular	27M0G7W	0.0	0.0
22.5 MSPS	8PSK CARRIER					
WB1000-C4	19700 20200	R	Left and Right Circular	27M0G7W	0.0	0.0
E50. Modulation entirety.)	a and Services (If	the complete d	escription does not appear	in this box, please	go to the end of t	the form to view it in its
22.5 MSPS	QPSK CARRIER					

WB1000-C4	29500 30000	Т	Left and Right Circular	1M60G7W	50.0	24.0
E50. Modulation entirety.)	and Services (If	the complete descript	ion does not appear i	in this box, please	go to the end of th	he form to view it in its
1280 KSPS	QPSK DIGITAL	CARRIER				
WB1000-C4	29500 30000	Т	Left and Right Circular	3M20G7W	50.0	20.9
entirety.)	QPSK DIGITAL	CARRIER				
WB1000-C4	29500 30000	Т	Left and Right Circular	200KG7W	50.0	33.0
E50. Modulation entirety.)	and Services (If	the complete descript	ion does not appear i	in this box, please	go to the end of th	he form to view it in its
160 KSPS (PSK DIGITAL C	CARRIER (USED UN	NDER RAIN FADE	CONDITIONS	ONLY)	

WB1000-C4	29500 30000	Т	Left and Right Circular	400KG7W	50.0	30.0
E50. Modulatio entirety.)	on and Services (If the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
320 KSPS	QPSK DIGITAL	CARRIER (US	ED UNDER RAIN FADE	CONDITIONS	ONLY)	
WB1000-C4	29500 30000	Т	Left and Right Circular	800KG7W	50.0	27.0
			ED UNDER RAIN FADE			
WB1000-TF4	19700 20200	R	Left and Right Circular	18M0G7W	0.0	0.0
E50. Modulation entirety.)	on and Services (If the complete de	escription does not appear	in this box, please	go to the end of t	he form to view it in its
15 MSPS 8	3PSK CARRIER					

WB1000-TF4	19700 20200	R	Left and Right Circular	18M0G7W	0.0	0.0
E50. Modulatior entirety.)	and Services (If	the complete de	escription does not appear	in this box, please	go to the end of t	the form to view it in its
15 MSPS QI	PSK CARRIER					
WB1000-TF4	19700 20200	R	Left and Right Circular	27M0G7W	0.0	0.0
22.5 MSPS	8PSK CARRIER					
WB1000-TF4	19700 20200	R	Left and Right Circular	27M0G7W	0.0	0.0
E50. Modulatior entirety.)	and Services (If	the complete de	escription does not appear	in this box, please	go to the end of t	the form to view it in its
22.5 MSPS	QPSK CARRIER					

WB1000-TF4	29500 30000	Т	Left and Right Circular	1M60G7W	50.0	24.0
E50. Modulation entirety.)	and Services (If t	the complete descripti	on does not appear i	n this box, please g	go to the end of th	he form to view it in its
1280 KSPS	QPSK DIGITAL (CARRIER				
WB1000-TF4	29500 30000	Т	Left and Right Circular	3M20G7W	50.0	20.9
entirety.)	QPSK DIGITAL (CARRIER				
WB1000-TF4	29500 30000	Т	Left and Right Circular	200KG7W	50.0	33.0
E50. Modulation entirety.)	and Services (If t	the complete descripti	on does not appear i	n this box, please g	go to the end of the	he form to view it in its
160 KSPS Ç	PSK DIGITAL C	ARRIER (USED UN	IDER RAIN FADE	CONDITIONS (DNLY)	

WB1000-TF4	29500 30000	Т	Left and Right Circular	400KG7W	50.0	30.0		
E50. Modulation entirety.)	and Services (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		
320 KSPS Q	320 KSPS QPSK DIGITAL CARRIER (USED UNDER RAIN FADE CONDITIONS ONLY)							
WB1000-TF4	29500 30000	Т	Left and Right Circular	800KG7W	50.0	27.0		
E50. Modulation entirety.)	and Services (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		
640 KSPS Q	PSK DIGITAL CA	RRIER (USED UN	DER RAIN FADE	CONDITIONS ONL	Υ)			

FREQUENCY COORDINATION

		Frequency Limits(MHz)	Range of Satellite Arc Eastern/West	Station Azimuth Angle	Antenna Elevation Angle Eastern Limit	Station Azimuth Angle	Antenna Elevation Angle Western	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
WB1000-C3	Geostationary	19700 20200	85.0/111.1	128.8	23.6	234.0	21.5	0.0

	Geostationary	29500 30000	85.0/111.1	128.8	23.6	234.0	21.5	-14.7
WB1000-C2	Geostationary	19700 20200	85.0/111.1	128.8	23.6	234.0	21.5	0.0
	Geostationary	29500 30000	85.0/111.1	128.8	23.6	234.0	21.5	-16.0
WB1000-TF2	Geostationary	19700 20200	85.0/111.1	128.8	23.6	234.0	21.5	0.0
	Geostationary	29500 30000	85.0/111.1	128.8	23.6	234.0	21.5	-16.0
WB1000-TF3	Geostationary	19700 20200	85.0/111.1	128.8	23.6	234.0	21.5	0.0
	Geostationary	29500 30000	85.0/111.1	128.8	23.6	234.0	21.5	-14.7
WB1000-C4	Geostationary	19700 20200	85.0/111.1	128.8	23.6	234.0	21.5	0.0
	Geostationary	29500 30000	85.0/111.1	128.8	23.6	234.0	21.5	-20.0
WB1000-TF4	Geostationary	19700 20200	85.0/111.1	128.8	23.6	234.0	21.5	0.0
	Geostationary	29500 30000	85.0/111.1	128.8	23.6	234.0	21.5	-20.0
REMOTE CO	NTROL POIN	T LOCATI	ON					
E61. Call Si N/A NOTE: Plea	-	sign of the co	ontrolling station, n	ot the	E66. Phone Nu 720–554–7575			

NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.

E62. Street Address 5970 Greenwood Plaza Boulevard Suite 300			
E63. City Greenwood village	E68. County Arapahoe	E67/68. State/Country CO/ USA	E64. Zip Code 80111

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 jboley@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.