Date & Time Filed: Nov 30 2007 4:07:09:143PM File Number: SES-AMD-INTR2007-02856

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: Gateway (E070098) amendment to 111 WL

egal Name of Ap	ppicant		
Name:	TerreStar Networks Inc.	Phone Number:	703–483–7800
DBA Name:		Fax Number:	
Street:	12010 Sunset Hills Road	E-Mail:	
	9th Floor		
City:	Reston	State:	VA
Country:	USA	Zipcode:	20190 –
Attention:	Douglas Brandon		

9–16. Name of Contact Representative

Name: Joseph A. Godles, Esq. Phone Number: 202–429–4900

Company: Goldberg Godles Wiener & Wright **Fax Number:** 202–429–4912

Street: 1229 19th Street, NW E-Mail: jgodles@g2w2.com

City: Washington State: DC

Country: USA **Zipcode:** 20036–2413

Attention: Attorney Relationship: Legal Counsel

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

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 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 application? If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114). Governmental Entity Noncommercial educational licensee Other(please explain):		
17d. Fee Classification CGX – Fixed Satellite Testation	Transmit/Receive Earth	
18. If this filing is in reference to an existing station, enter:(a) Call sign of station: E070098	19. If this filing is an amendment to a pending apmodification please enter only the file number: (a) Date pending application was filed: 05/30/2007	plication enter both fields, if this filing is a (b) File number: SESLIC2007053000732

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
Common Carrier Non–Common Carrier	Using Non–U.S. licensed satellites
23. If applicant is providing INTERNATIONAL COMMON CARRIER s facilities:	ervice, see instructions regarding Sec. 214 filings. Choose one. Are these
Connected to a Public Switched Network Not connected to a land	Public Switched Network N/A
24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all a	pplicable 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	nal 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	
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 & tountries)
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

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, aeron aeronautical fixed radio station services are not required to respond to Items 30–34.	autic	al en	ı rou	ite or		
29. Is the applicant a foreign government or the representative of any foreign government?	0	Yes	•	No		
30. Is the applicant an alien or the representative of an alien?	0	Yes	0	No	•	N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	0	No	•	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	•	N/A

 $lackbox{ Yes } lackbox{ No}$

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

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 O	No 👩 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.	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	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	O No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, w coordinated or is in the process of coordinating the space station? Canada	hat administr	ation has
43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description box, please go to the end of the form to view it in its entirety.) See attached description (Exhibit 1).	on does not a	ppear in this
Exhibit 1		

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.

44. Applicant is a (an): (Choose the button next to applicable r	esponse.)
 Individual Unincorporated Association Partnership Corporation Governmental Entity Other (please specify) 	
45. Name of Person Signing Douglas Brandon>	46. Title of Person Signing Vice President, Regulatory Affairs
	IIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT ND/OR REVOCATION OF ANY STATION AUTHORIZATION

(U.S. Code, Title 47, Section 312(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 S	tation Site					
E1: Site Identifier:	North Las Vegas	E5. Call Sign:	E070098			
E2: Contact Name	Patrick Murray	E6. Phone Number:	571-223-6604			
E3. Street:	One Aerojet Way	E7. City:	North Las Vegas			
		E8. County:	Clark			
E4. State	NV	E9. Zip Code	89030			
E10. Area of Opera	tion:	Fixed				
E11. Latitude:	36 °14 '9.9 "N					
E12. Longitude:	115 °7 '1.3 "W					
E13. Lat/Lon Coordinates are:		○ NAD-27	● NAD-83	O N/A		
E14. Site Elevation	(AMSL):	585.2 meters				
i						

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.

E16. If the proposed antenna(s) do not operate in the Fixed Satellite Set Satellite Service (FSS) with non–geostationary satellites, do(es) the progain patterns specified in Section 25.209(a2) and (b) as demonstrated by measurements?	O Yes	O No	⊚ N/A	
E17. Is the facility operated by remote control? If YES, provide the location.	ation and telephone number of the control	O Yes	•	No
E18. Is frequency coordination required? If YES, attach a frequency coordination	ordination report as	Yes	0	No
E19. Is coordination with another country required? If YES, attach the coordination contours as	name of the country(ies) and plot of	O Yes	•	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.1 have you attached a copy of a completed FCC Form 854 and/or the FAZ the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL APPLICATION.	A's study regarding the potential hazard of	O Yes	•	No
POINTS OF COMMUNICATION		!		-
Satellite Name: OTHER OTHER If you selected OTHER, please e	enter the following:			
E21. Common Name: TerreStar-1	E22. ITU Name: CANSAT-24			
E23. Orbit Location: 111.0 WL	E24. Country: Canada			
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)
North Las Vegas	A3	1	Vertex	9.3-KPK	9.3	60.2 dBi at 13
North Las Vegas	A3	1	Vertex	9.3-KPK	9.3	58.7 dBi at 11.45
North Las Vegas	A4	1	Vertex	6.3-KXK	6.3	57.0 dBi at 13
North Las Vegas	A4	1	Vertex	6.3-KXK	6.3	55.5 dBi at 11.45

Id	Diameter	E35. Above Ground Level (meters)	` ′	Height Above Ground Level	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
A3	0.0/0.0	11.0	596.2	0.0	89.1	0.0	79.6
A4	0.0/0.0	8.0	593.2	0.0	93.3	0.0	76.6

FREQUENCY

E43/44. Frequency Bands				E48. Maximum EIRP per Carrier	E49. Maximum ERIP Density per
(MHz)	1/K\bi>ivioue	L,R)	Designator	(dBW)	Carrier
					(dBW/4kHz)

A3	11448 11448	R	Right Hand Circular	1H00N0N	0.0	0.0
E50. Mod entirety.)	ulation and Services (If the complete d	escription does not appear	r in this box, please	go to the end of	the form to view it in its
Beaco	n					
A3	11200.5 11200.5	R	Right Hand Circular	138KGXD	0.0	0.0
TT&C						
A3	11449.5 11449.5	R	Right Hand Circular	138KGXD	0.0	0.0
E50. Mod entirety.)	ulation and Services (If the complete d	escription does not appear	r in this box, please	go to the end of	the form to view it in its
TT&C						

A3	12992 12992	Т	Right Hand Circular	1H00N0N	61.6	61.6
E50. Modulation entirety.)	n 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
Pilot						
A3	12751 12751	Т	Left Hand Circular	700KF9D	54.02	30.84
entirety.) Command						
A3	12999 12999	Т	Left Hand Circular	700KF9D	54.02	30.84
E50. Modulation entirety.)	n 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
Command						

A3	10700 10950	R	Left and Right Circular	1M25G7D	0.0	0.0
E50. Modulation entirety.)	n and Services ((If the complete d	lescription does not appear i	n this box, please	go to the end of t	he form to view it in its
Data, PSK	., 64kbps, in	route				
A3	11200 11450	R	Left and Right Circular	1M25G7D	0.0	0.0
Data, PSK	, 64kbps, in	route				
A3	13750.5 13750.5	Т	Left Hand Circular	700KF9D	85.0	62.8
E50. Modulation entirety.)	n and Services ((If the complete d	lescription does not appear i	n this box, please	go to the end of t	he form to view it in its
Command						

A3	13752.5 13752.5	Т	Left Hand Circular	700KF9D	85.0	62.8
E50. Modulation entirety.)	n and Services (If the complete d	description does not appear in	n this box, please	go to the end of t	he form to view it in its
Command						
A3	10700 10950	R	Left and Right Circular	31K3G7D	0.0	0.0
Data, PSK	, 23.4 KSPS,	inroute				
A3	11200 11450	R	Left and Right Circular	31K3G7D	0.0	0.0
E50. Modulation entirety.) Data, PSK	n and Services (description does not appear in	n this box, please	go to the end of t	he form to view it in its

A3	12750 13000	Т	Left and Right Circular	1M25G7D	55.13	30.18
E50. Mod entirety.)	dulation and Services	(If the complete d	description does not appear	in this box, please	go to the end of th	ne form to view it in its
Data,	PSK, 964 kbps,	outroute				
A3	12750 13000	Т	Left and Right Circular	31K3G7D	45.7	36.8
2000,	PSK, 23.4 KSPS					
A3	12750 13000	Т	Left and Right Circular	50K0G7D	51.4	40.4
entirety.)	lulation and Services PSK, 43.1 kbps		description does not appear	in this box, please	go to the end of th	ne form to view it in its

A3	12750 13000	Т	Left and Right Circular	313KG7D	55.13	36.2
E50. Modulation entirety.)	on and Services (I	f the complete d	escription does not appea	r in this box, please	go to the end of the	he form to view it in its
Data, 160	QAM, 624 kbps,	outroute				
A4	11448 11448	R	Right Hand Circular	1H00N0N	0.0	0.0
Beacon						
A4	11200.5 11200.5	R	Right Hand Circular	138KGXD	0.0	0.0
E50. Modulation entirety.)	on and Services (I	f the complete d	escription does not appea	r in this box, please	go to the end of the	he form to view it in its

A4	11449.5 11449.5	R	Right Hand Circular	138KGXD	0.0	0.0
E50. Mod entirety.)	ulation and Services (If the complete d	escription does not appear in	n this box, please	go to the end of th	ne form to view it in its
TT&C						
A4	12992 12992	Т	Right Hand Circular	1H00N0N	61.6	61.6
Pilot						
A4	12751 12751	Т	Left Hand Circular	700KF9D	54.02	30.84
E50. Mod entirety.)	ulation and Services (If the complete d	escription does not appear in	n this box, please	go to the end of th	ne form to view it in its
Comma	nd					

A4	12999 12999	Т	Left Hand Circular	700KF9D	54.02	30.84
E50. Modulation entirety.)	and Services (If t	he complete descripti	on does not appear in	this box, please g	to the end of the	e form to view it in its
Command						
A4	10700 10950	R	Left and Right Circular	1M25G7D	0.0	0.0
Data, PSK,	64kbps, inrou	ate				
A4	11200 11450	R	Left and Right Circular	1M25G7D	0.0	0.0
E50. Modulation entirety.) Data, PSK,	and Services (If to		on does not appear in	this box, please g	to the end of the	e form to view it in its

A4	13750.5 13750.5	Т	Left Hand Circular	700KF9D	85.0	62.8
E50. Modulation entirety.)	and Services (If t	he complete descript	ion does not appear in	this box, please	go to the end of th	ne form to view it in its
Command						
A4	13752.5 13752.5	Т	Left Hand Circular	700KF9D	85.0	62.8
Command						
A4	10700 10950	R	Left and Right Circular	31K3G7D	0.0	0.0
E50. Modulation entirety.) Data, PSK	n and Services (If t		ion does not appear in	this box, please	go to the end of th	ne form to view it in its

	11200 11450	R	Left and Right Circular	31K3G7D	0.0	0.0
E50. M entirety.)	Iodulation and Services (If the complete de	escription does not appear	in this box, please	go to the end of th	e form to view it in its
Data	a, PSK, 23.4 KSPS,	inroute				
A4	12750 13000	Т	Left and Right Circular	1M25G7D	51.93	27.0
	a, PSK, 964 kbps, o					
 A4	12750 13000	Т	Left and Right Circular	31K3G7D	42.5	33.6
E50. M	13000					
entirety.)	13000	(If the complete do	Circular			

A4		12750 13000	Т	Left and Right Circular	50K0G7D	47.98	37.0
E50 entiret	0. Modulation ty.)	and Services (If the	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
	Data, PSK,	43.1 kbps, ou	troute				
A4		12750 13000	Т	Left and Right Circular	313KG7D	51.93	33.0
entiret	•	and Services (If the M, 624 kbps, o		on does not appear in	this box, please go to	o the end of the form	to view it in its

FREQUENCY COORDINATION

E28. Antenna Id		Frequency Limits(MHz)	Range of Satellite Arc Eastern/West	Station Azimuth Angle	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)
A3	Geostationary	10700 10950	111.0/111.0	173.0	41.2	173.0	41.2	0.0

	Geostationary	11200 11450	111.0/111.0	173.0	41.2	173.0	41.2	0.0
	Geostationary	12750 13000	111.0/111.0	173.0	41.2	173.0	41.2	-8.6
	Geostationary	13750.5 13752.5	111.0/111.0	173.0	41.2	173.0	41.2	-4.2
A4	Geostationary	10700 10950	111.0/111.0	173.0	41.2	173.0	41.2	0.0
	Geostationary	11200 11450	111.0/111.0	173.0	41.2	173.0	41.2	0.0
	Geostationary	12750 13000	111.0/111.0	173.0	41.2	173.0	41.2	-11.8
	Geostationary	13750.5 13752.5	111.0/111.0	173.0	41.2	173.0	41.2	-7.4

REMOTE CONTROL POINT LOCATION

E61. Call Sign	E66. Phone Number			
NOTE: Please enter the callsign of the contro callsign 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 jboley@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

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