Date & Time Filed: Jun 30 2017 11:34:17:166AM File Number: SES-MOD-INTR2017-01822

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:

KA399 Extend Ku June 2017 rev2

gal Name of Ap	plicant		
Name:	Telesat Network Services, Inc.	Phone Number:	613-748-8700
DBA Name:		Fax Number:	613–748–8712
Street:	135 Routes 202/206	E–Mail:	eneasmith@telesat.com
City:	Bedminster	State:	NJ
Country:	USA	Zipcode:	07921 -1538
Attention:	Ms Elisabeth Neasmith		

9–16. Name of Contact Representative

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

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

Wright LLP

Street: 1025 Connecticut Ave, NW E-Mail: jgodles@g2w2.com

Ste 1000

City: Washington State: DC

Country: USA Zipcode: 20036–

Attention: 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.	(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
a1. Earth Station a2. Space Station	 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 of the submitted with th	159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).
17d. Fee Classification CGX – Fixed Satellite T 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 pendir modification please enter only the file numb	ng application enter both fields, if this filing is a per:
(a) Call sign of station:	(a) Date pending application was filed:	(b) File number:
KA399		SESMOD2016032400275
TYPE OF SERVICE		
20. NATURE OF SERVICE: This filing is for	or an authorization to provide or use the follow	wing type(s) of service(s): Select all that apply:
a. Fixed Satellite		
b. Mobile Satellite		
c. Radiodetermination Satellite		
d. Earth Exploration Satellite		

o. Moone Saternite	
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	ervice, see instructions regarding Sec. 214 filings. Choose one. Are these
facilities:	
O 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 applicable frequency band(s).
a. C–Band (4/6 GHz) b. Ku–Band (12/14 GHz)
c.Other (Please specify upper and lower frequencies in MHz.)
Frequency Lower: Frequency Upper: (Please specify 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
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

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?	٥	Yes	0	No	⊚ 1	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.		0	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.		⊗ `	Yes	C	No)
	Exh	ibit 1				

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.	O Yes	⊚ 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?	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 Exhibit 2) Exhibit 2	on does not ap	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.	⊚ 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
	Exhibit B

CERTIFICATION

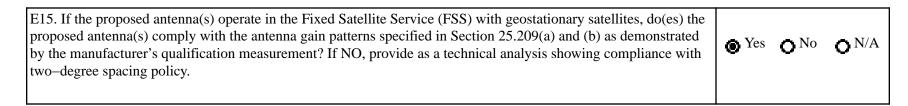
The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The 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.

4. Applicant is a (an): (Choose the button next to app	plicable response.)
o Individual	
Unincorporated Association	
• Partnership	
Corporation	
Governmental Entity	
Other (please specify)	
45. Name of Person Signing	46. Title of Person Signing
Elisabeth Neasmith	Director, Spectrum Management and Development

(U.S. Code, Title 18, Section 1001), AND/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 St	ation Site					
E1: Site Identifier:	1B	E5. Call Sign:	KA399			
E2: Contact Name	Todd Sypolt	E6. Phone Number:	540-477-5540			
E3. Street:	1350 Industrial Park Road	E7. City:	Mount Jackson			
		E8. County:	Shenandoah			
E4. State	VA	E9. Zip Code	22842			
E10. Area of Operat	tion:	Fixed				
E11. Latitude:	38 °43 '42.0 "N					
E12. Longitude:	78 °39 '25.0 "W					
E13. Lat/Lon Coord	linates are:	NAD-27	O NAD-83	O N/A		
E14. Site Elevation	(AMSL):	295.9 meters				



E16. If the proposed antenna(s) do not operate in the Fixed Satellite Scatellite Service (FSS) with non–geostationary satellites, do(es) the progain patterns specified in Section 25.209(a2) and (b) as demonstrated by measurements?	oposed antenna(s) comply with the antenna	o Yes	O No	⊚ N/A
E17. Is the facility operated by remote control? If YES, provide the loc point.	cation and telephone number of the control	Yes	٥	No
E18. Is frequency coordination required? If YES, attach a frequency co	pordination report as Exhibit C	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.) 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.	A's study regarding the potential hazard of	O Yes	•	No
POINTS OF COMMUNICATION		Į.		
Satellite Name: PERMITTED LIST If you selected OTHER, plo	ease 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:
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ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)	
1B	15M	1	Vertex	15KPK	15.0	62.9 dBi at 11.7	
1B	15M	1	Vertex	15KPK	15.0	64.5 dBi at 14.5	

Id	Diameter		, ,	Height Above	Input Power at antenna flange	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
15M	0.0/0.0	13.0	295.85	0.0	1445.0	0.0	93.1

FREQUENCY

	E43/44. Frequency Bands (MHz)	E45. T/R Mode			EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
15M	10950.00 11200.00	R	Horizontal and Vertical	200KG7W	0.0	0.0

E50. Modulation entirety.)	n and Services (If t	he complete descripti	on does not appear in	n this box, please go t	o the end of the form	to view it in its
Digital						
15M	10950.00 11200.00	R	Horizontal and Vertical	54M0G7W	0.0	0.0
E50. Modulation entirety.)	n and Services (If t	he complete descripti	on does not appear ir	this box, please go t	o the end of the form	to view it in its
Digital						
15M	11450.00 11700.00	R	Horizontal and Vertical	200KG7W	0.0	0.0
E50. Modulation entirety.)	n and Services (If t	he complete descripti	on does not appear in	this box, please go t	o the end of the form	to view it in its
Digital						
15M	11450.00 11700.00	R	Horizontal and Vertical	54M0G7W	0.0	0.0

E50. Modulation tirety.)	and Services (If	the complete desc	cription does not appear	in this box, please	go to the end of t	he form to view it in i
Digital						
5M	14000.00 14500.00	Т	Horizontal and Vertical	600KG7W	68.1	46.3
E50. Modulation ntirety.)	and Services (If	the complete desc	cription does not appear	in this box, please	go to the end of t	he form to view it in i
Digital						

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	Station Azimuth Angle	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	Elevation	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
15M	Geostationary	10950 11200	15.0/110.0	107.2	11.7	224.2	34.6	0.0
	Geostationary	11450.0 11700.0	15.0/110.0	107.2	11.7	224.2	34.6	0.0

	Geostationary	14000.0 14500.0	15.0/110.0	107.2	11.7	224.2	34.6	-11.7
REMOTE CO	NTROL POIN	T LOCATION	l	•		· · · · · · · · · · · · · · · · · · ·		•
	gn se enter the calls ich this application	•	•	ot the	 . Phone Nu -370-2841			
E62. Street A Allan Park F PO Box 99	Address Earth Station							
E63. City Hanover			E68. County Ontario	у		E67/68. State/Count / Cana	·	E64. Zip Code N4N3C

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

Location of Earth St	cation Site				
E1: Site Identifier:	1A	E5. Call Sign:	KA399		
E2: Contact Name	Todd Sypolt	E6. Phone Number:	540-477-5540		
E3. Street:	1350 Industrial Park Road	E7. City:	Mount Jackson		
		E8. County:	Shenandoah		
E4. State	VA	E9. Zip Code	22842		
E10. Area of Operat	tion:	Fixed			
E11. Latitude:	38 °43 '42.0 "N				
E12. Longitude:	78 °39 '25.0 "W				
E13. Lat/Lon Coord	linates are:	NAD-27	○ NAD-83	O N/A	
E14. Site Elevation	(AMSL):	295.9 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 No	● N/A

E17. Is the facility operated by remote control? If YES, provide the log point.	cation and telephone number of the control	● Yes	O No
E18. Is frequency coordination required? If YES, attach a frequency co	pordination report as Exhibit C	Yes	O 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. 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 WILI APPLICATION.	A's study regarding the potential hazard of	O Yes	No
POINTS OF COMMUNICATION			
Satellite Name: Telstar 12 (S2462) 109.2 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:		
A NUTENINI A	<u> </u>		

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)	
1A	15M	1	Vertex	15KPK	15.0	62.9 dBi at 11.7	
1A	15M	1	Vertex	15KPK	15.0	64.5 dBi at 14.5	

Id	Diameter		, ,	Height Above Ground Level	Input Power at antenna flange	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
15M	0.0/0.0	13.0	295.85	0.0	1445.0	0.0	93.1

FREQUENCY

	E43/44. Frequency Bands (MHz)	E45. T/R Mode			E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
15M	13750 13811	T	Horizontal and Vertical	54M0G7W	79.9	38.6

E50. Modulation entirety.)	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
Digital						
15M	13750 14000	Т	Horizontal and Vertical	600KG7W	68.1	46.3
Digital						
15M	13811 14000	T	Horizontal and Vertical	54M0G7W	84.7	43.4
E50. Modulation entirety.) Digital	n 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

FREQUENCY COORDINATION

	E51. Satellite Orbit Type	Frequency Limits(MHz)	Range of Satellite Arc Eastern/West	Station Azimuth	Antenna Elevation Angle	Station Azimuth Angle	Elevation Angle Western	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
15M	Geostationary	13750.0 14000	109.2/109.2	223.3	35.1	223.3	35.1	-11.7

REMOTE CONTROL POINT LOCATION

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

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