

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
Port St. Lucie test Ka band ES

I. Applicant

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



GRANTED

International Bureau

File # SES-STA-20191031-01398
Call Sign E160134 Grant Date 11-26-19
(or other identifier)
Term Dates
From: 11-26-19 To: 1-1-2020
Approved: Paul E. Hays

2. Contact			
Name:	Joseph A. Godles	Phone Number:	202-429-4900
Company:	Goldberg, Godles, Wiener & Wright LLP	Fax Number:	
Street:	1025 Connecticut Ave, NW Ste 1000	E-Mail:	jgodles@g2w2.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20036 -
Attention:		Relationship:	Legal Counsel
(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)			
3. Reference File Number or Submission ID			
4a. 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):			
4b. Fee Classification CGX – Fixed Satellite Transmit/Receive Earth Station			
5. Type Request			
☒ Use Prior to Grant ☐ Change Station Location ☐ Other			
6. Requested Use Prior Date			

7. CityPort St. Lucie	8. Latitude (dd mm ss.s h) 27 16 56.9 N	
9. State FL	10. Longitude (dd mm ss.s h) 80 28 58.4 W	
11. Please supply any need attachments.		
Attachment 1: Attachment 1	Attachment 2: Attachment 2	Attachment 3: Attachment 3
12. Description. (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)		
Special Temporary Authority to operate the earth station to provide testing support for the T19V Ka-band gateway earth station TNSI is constructing in Middletown, VA (See FCC Callsign E160134). This antenna will transmit/receive test carrier signals via T19V to measure antenna patterns and the gateway antenna		
13. 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 ☒ No ☐		
14. Name of Person Signing Elisabeth Neasmith	15. Title of Person Signing Director, Spectrum Management & Development	
WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (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).		

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

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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.

Applicant: Telesat Network Services, Inc.
Call Sign: E160134
File No.: SES-STA-20191031-01398
Special Temporary Authority



File # SES-STA-20191031-01398
Call Sign E160134 Grant Date 11-26-19
(or other identifier)
Term Dates
From: 11-2-19 To: 1-1-2020
Approved: Paul E. Hach

Telesat Network Services, Inc. ("Telesat") is granted Special Temporary Authority ("STA") for 30 days, commencing on December 2, 2019 to January 1, 2020, to test the 1.2m antenna located at 27° 16' 56.9"N/ 80° 28' 58.4"W at Port St. Lucie, FL with the geosynchronous orbit Telstar 19V (Call Sign S2955) satellite at orbital location 63°W in the 29500-30000 MHz (Earth-to-space), 18600-18800 MHz, 19700-20200 MHz (space-to-Earth) frequency bands. This grant of STA is subject to the following conditions:

1) The Maximum EIRP Density and Maximum aggregate EIRP shall not exceed the following limits:

Max EIRP Density (For CW carrier at beam peak):

- a. In the 18600-18800 MHz band: 46.60 dBW in 50 KHz; -0.39 dBW/Hz; Carrier CF=18562.0 MHz
- b. In the 19700-20200 MHz band: 45.02 dBW in 50 KHz; -1.39 dBW/Hz; Carrier CF=20181.2 MHz

Max aggregate EIRP (At beam peak):

- c. In the 18600-18800 MHz band: 55.31 dBW
- d. In the 19700-20200 MHz band: 58.30 dBW

2) Prior to commencing operations, Telesat Network Services, Inc., is required to provide the Air Force, Jimmy.Nguyen@us.af.mil with the Stop Buzzer POC.

3) Operations under this STA shall not cause harmful interference to, and shall not claim protection from, interference caused to it by any other lawfully operating station and it shall cease transmission(s) immediately upon notice of such interference.

4) Use of the frequency bands 18.3-19.1 GHz and 19.7-20.2 GHz (space-to-Earth) by the earth station at Port St. Lucie, FL must be in accordance with the US334 coordination agreement between Telesat International Limited ("Telesat") as the operator of Telstar 19V (S2955) and the U.S. government as the operator of the U.S. government satellite networks operating in the Ka-band frequencies.

5) Transmitter(s) must be turned off during antenna maintenance to ensure compliance with the FCC-specified safety guidelines for human exposure to radiofrequency radiation in the region between the antenna feed and the reflector. Appropriate measures must also be taken to restrict access to other regions in which the antennas' power flux-density levels exceed the specified guidelines.

6) The licensee shall take all necessary measures to ensure that the antenna does not create potential exposure of humans to radiofrequency radiation in excess of the FCC exposure limits defined in 47 CFR 1.1307(b) and 1.1310 wherever such exposures might occur. Measures must be taken to ensure compliance with limits for both occupational/controlled exposure and for general population/uncontrolled exposure, as defined in these rule sections. Compliance can be accomplished in most cases by appropriate restrictions such as fencing. Requirements for restrictions can be determined by predictions based on calculations, modeling or by field measurements. The FCC's OET Bulletin 65 (available on-line at www.fcc.gov/oet/rfsafety) provides information on predicting exposure levels and on methods for ensuring compliance, including the use of warning and alerting signs and protective equipment for workers.

7) Current 24/7 point of contact for this operation is Mr. Renato Dias, phone: 1 305 514 0001(mobile), 1 305 671 3333 (office)

8) Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Telesat's risk.

This action is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective immediately. The grant of this special temporary authority was authorized pursuant to Section 1.62 of the Commission's rules, 47 C.F.R. § 1.62.

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

Pursuant to Section 25.120 of the Commission's rules,¹ Telesat Network Services, Inc. ("TNSI") hereby requests special temporary authority ("STA") to operate a Ka-band antenna in Port St. Lucie, Florida for a period of thirty (30) days, commencing on December 2, 2019, in the manner described below. The Ka-band antenna will be used to provide testing support for a Ka-band earth station being constructed in Middletown, Virginia (the "Middletown gateway")² that will serve as a backup gateway for the Telstar 19 VANTAGE satellite ("T19V").³

Testing of the Middletown gateway will be conducted via transmissions both to and from the Ka-band antenna in Port St. Lucie. Test carriers sent from Middletown will be received at Port St. Lucie so the transmit antenna pattern of the Middletown gateway can be measured. And test carriers sent from Port St. Lucie will be received at Middletown so the Middletown gateway antenna's cross-polarization receive gain can be measured.

Technical specifications for the proposed operations in Port St. Lucie are set forth in an attachment hereto, which provides the information that would be appear in Schedule B of FCC Form 312 if regular authority were being sought. A radiation hazard study for the proposed operations also is attached. TNSI will coordinate its STA

¹ 47 C.F.R §25.120

² Telesat Network Services, Inc., FCC Callsign E160134. The testing itself is expected to take place within a single day, but TNSI is requesting an STA for 30 days because the start date for the testing is uncertain. TNSI currently projects it will complete construction of the Middletown gateway in late December 2019. Although TNSI is making every effort to accelerate this process, there are multiple contingencies, including the need for a faulty waveguide to be remanufactured and installed. Out of an abundance of caution, TNSI has requested an extension through March 10, 2020 to complete construction. *See* Telesat Network Services, Inc., Application to Further Extend Construction Deadline of Transmit/Receive Earth Station in Middletown, VA, FCC Callsign E160134, IBFS File No. SES-MOD-20191015-01323.

³ The licensee for T19V is Telesat International Limited, a commonly controlled affiliate of TNSI.

operations with the U.S. federal government under footnote US334 of the United States Table of Frequency Allocations.⁴

The Middletown gateway will support high capacity links to customers in the Caribbean, and a back-up gateway facility is a diversity requirement of these customers. Grant of TNSI's STA request is in the public interest because it will facilitate testing of the Middletown gateway antenna that is needed to initiate service in accordance with the terms of TNSI's Middletown license.

Accordingly, and for good cause shown, TNSI requests that the Commission grant its STA request.

⁴ TNSI has answered "no" to question E18 in Schedule B, thereby indicating that frequency coordination is not required, based on its understanding that the question is limited to non-federal government coordination requirements, if any.

SATELLITE EARTH STATION AUTHORIZATIONS
FCC Form 312 - Schedule B (Technical and Operational Description)

E1. Site Identifier:	1
E2. Contact Name:	Mr. Renato Dias (United Teleports)
E3. Street Address or Area of Operation:	10161 Range Line Rd
E4. State:	Florida
E5. Call Sign:	
E6. Phone Number:	305-514-0001 (mobile), 305-671-3333 (office)
E7. City:	Port St. Lucie
E8. Country:	United States
E9. Zip Code:	34987
E11. Latitude:	27°16'56.9"N
E12. Longitude:	80°28'58.4"W
E13. Lat/Long Coordinates are:	NAD 83
E14. Site Elevation (AMSL):	11 m

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
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?	N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	No
E18. Is frequency coordination required? If YES, attach a frequency coordination report.	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours	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.	N/A

ATTACHMENT 3
Technical & Operational Description
1.2 meter GD 3122 Ka-Band

POINTS OF COMMUNICATION

Satellite Name	
E21. Common Name:	Telstar 19 Vantage
E22. ITU Name:	IOMSAT-KA-63W-R
E23. Orbit Location:	63°W
E24. Country:	United Kingdom

POINTS OF COMMUNICATION (Destination Points)

E25. Site Identifier	FCC Call Sign: E160134
E26. Common Name	T19V Ka Gateway at Middletown VA
E27. Country	United States

ANTENNA

Site ID	E.28. Antenna ID	E29. Quantity	E30. Manufacturer	E31. Model	E32 Antenna Size (m)	E41/42. Antenna Gain Transmit or Receive (___dBi at ___GHz)
1	1	1	General Dynamics	3122	1.2	45.8 dBi at 19.8 GHz
1	1	1	General Dynamics	3122	1.2	49.3 dBi at GHz 30.0 GHz

E.28. Antenna ID	E33/34. Diameter Minor/Major (m)	E35. Above Ground Level (m)	E36. Above Sea Level (m)	E37. Building Height Above Ground Level (m)	E38. Max Total Input Power at Antenna Flange (W)	E39. Maximum Antenna Height Above Rooftop (m)	E40. Total EIRP for all Carriers (dBW)
1	1.2 / 1.2	10.2	21.2	9.1	2.0	1.1	52.4

ATTACHMENT 3
Technical & Operational Description
1.2 meter GD 3122 Ka-Band

FREQUENCY

E28. Antenna ID	E 43/44. Frequency Band (MHz)	E45. T/R Mode	E46. Antenna Pol (H, V, L, R)	E47. Emission Designator	E48. Max EIRP per Carrier (dBW)	E49. Max EIRP Density per Carrier (dBW/4KHz)	E50. Modulation and Services
1	29500 - 30000	T	L	50KON0X	52.4	41.4	Unmodulated CW Carrier to test T19V gateway in Middletown, VA
1	18600 - 18800	R	R	50KON0X			Unmodulated CW Carrier to test T19V gateway in Middletown, VA
1	19700 - 20200	R	R	50KON0X			Unmodulated CW Carrier to test T19V gateway in Middletown, VA

FREQUENCY COORDINATION

E28. Antenna ID	E 51. Satellite Orbit Type	E52/53. Frequency Limits (MHz)	E454/55 Range of Satellite Arc Eastern/Western Limit	E56. Earth Station Az. Angle Eastern Limit	E57. Earth Station Elevation Angle Lower Limit	E58. Earth Station Az. Angle Western Limit	E59. Earth Station Elevation Angle Upper Limit	E60. Max EIRP Density toward the Horizon (dBW/4KHz)
1	GEO	29500 - 30000	63°W - 63°W	145.5°	52.7°	145.5°	52.7°	-22.0
1	GEO	18600 - 18800	63°W - 63°W	145.5°	52.7°	145.5°	52.7°	
1	GEO	19700 - 20200	63°W - 63°W	145.5°	52.7°	145.5°	52.7°	