

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

Telesat Network Services, Inc. (“Telesat”), pursuant to Section 25.120 of the Commission’s rules, hereby requests Special Temporary Authority (“STA”) to operate a temporary-fixed 2.4-m mobile antenna at its Mt. Jackson, VA teleport in the manner described herein. Telesat respectfully requests that its STA begin on December 14, 2015, for a period of 30 days, to permit testing of facilities that will communicate with the Telstar 12 Vantage (“T12V”) satellite.¹ The T12V satellite is planned for launch on November 24, 2015. The Commission has authorized Skynet Satellite Corporation, a Telesat affiliate, to operate the Telstar 12V satellite at 15°W.L.²

Specifically, the temporary-fixed antenna will be used to test the diversity switching functionality between the Mt. Jackson teleport and a proximate earth station site in Middletown, VA. Telesat anticipates operating at each site a 9.4-m antenna to support the services provided on the T12V satellite in the Ka-band.³

The Mt. Jackson antenna will be the primary one during nominal operation, but during periods of rain fade at Mt. Jackson and lesser atmospheric attenuation conditions at Middletown, the Middletown antenna will be used to transmit to and receive from Telstar 12V. When Middletown is active, the signals to be transmitted and that are generated at Mt. Jackson are switched onto a fiber optic link between the two sites. Similarly, the satellite signals received at Middletown are switched to the fiber optic link. In order to test and tune the switching equipment and the fiber optic link, the 2.4-m mobile antenna will simulate a user terminal both transmitting and receiving. In addition, it will uplink a Ka-band pilot carrier to be received at the 9.4-m antennas to allow their receive patterns to be measured.

The subject antenna will be located within a secured perimeter at the Mt. Jackson teleport to which only authorized employees would have access. Telesat is also providing herewith a radiation hazard report.

In addition, Telesat is providing a Frequency Coordination Report to demonstrate that coordination has been successfully completed with terrestrial operators in the 28 GHz band.⁴

¹ Telesat notes that it is concurrently filing herewith a second STA request for an additional 180 days to continue operation of the subject facility from January 14, 2016. Telesat anticipates that it will require a period through July 2016 to complete the subject testing and to make the appropriate network calibrations.

² FCC File No. SAT-LOA-20141010-00107.

³ FCC File Nos. SES-LIC-20151014-00689 and SES-LIC-20151016-00712. In addition to the instant request, Telesat will be submitting STA requests to cover the operation of the referenced 9.4-m antennas, as grant of those license requests will not be possible prior to the date on which testing must commence.

⁴ Telesat notes that it has not sought frequency protection for its proposed temporary receive operations and is willing to accept any interference it receives during the testing.

Finally, Telesat is attaching to this request a completed Schedule B in which it furnishes the technical details that relate to the proposed operations.

Grant of this application will serve the public interest, convenience, and necessity by allowing Telesat to test and calibrate its ground network system to support a newly launched satellite. Accordingly, and for good cause shown, Telesat respectfully requests that its STA be granted in time for it to commence testing under this 30-day STA on December 14, 2015.

SATELLITE EARTH STATION AUTHORIZATIONS

FCC Form 312 - Schedule B:(Technical and Operational Description)

Location of Earth Station Site E1: Site Identifier: Mt. Jackson E5. Call Sign: E2: Contact Name: Todd Sypolt E6. Phone Number: 540-477-5540 E3. Street: 1305 Industrial Park Road	E7. City: Mt. Jackson E8. County: Shenandoah E9. Zip Code: 22842
E4. State: VA E10. Area of Operation: Fixed E11. Latitude: 38-43-44.4 N E12. Longitude: 78-39-24.1 W E13. Lat/Lon Coordinates are:	<input type="radio"/> NAD-27 <input checked="" type="radio"/> NAD-83
E14. Site Elevation (AMSL): 282.24 meters	N/A
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 a technical analysis showing compliance with two-degree spacing policy.	<input checked="" type="radio"/> Yes <input type="radio"/> No 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?	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	<input type="radio"/> Yes <input checked="" type="radio"/> No
E18. Is frequency coordination required? If YES, attach a frequency coordination report as	<input checked="" type="radio"/> Yes <input type="radio"/> No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	<input type="radio"/> Yes <input checked="" type="radio"/> 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.	<input type="radio"/> Yes <input checked="" type="radio"/> No
POINTS OF COMMUNICATION	
Satellite Name: Eq. If you selected OTHER, please enter the following:	
E21. Common Name:	E22. ITU Name:
E23. Orbit Location: TELSTAR 12 VANTAGE (TELSTAR 12V)	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	E32. Antenna Size	E41/42. Antenna Gain Transmit and/or Receive (___dBi at ___GHz)	
Mt. Jackson	Temp-1	1	Andrews		2.4	2.4	54.7 dBi at 28.5 GHz 51.0 dBi at 18.7 GHz	
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)
Temp-1	0/0		5.0	287.24	0	7.4	0	63.4

FREQUENCY

E28. Antenna Id	E43/44. Frequency Bands(MHz)	E45. T/R Mode	E46. Antenna Polarization(H,V,L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier(dBW)	E49. Maximum ERIP Density per Carrier(dBW/4kHz)
Temp 1	28350-28872	T	Horizontal and Vertical	500KG7D	54.9	33.9
E50. Modulation and Services : Data						
Temp 1	28350-28872	T	Horizontal and Vertical	10K0N0N	37.9	33.9
E50. Modulation and Services : CW pilot carrier						
Temp 1	29300-29500	T	Horizontal and Vertical	500KG7D	54.9	33.9
E50. Modulation and Services : Data						
Temp 1	29300-29500	T	Horizontal and Vertical	10K0N0N	37.9	33.9
E50. Modulation and Services : CW pilot carrier						
Temp 1	18306-19103	R	Horizontal and Vertical	500KG7D	0.0	0.0
E50. Modulation and Services : Data						
Temp 1	18306-19103	R	Horizontal and Vertical	500KN0N	0.0	0.0
E50. Modulation and Services : CW pilot carrier						
Temp 1	19700-20070	R	Horizontal and Vertical	500KG7D	0.0	0.0
E50. Modulation and Services : Data						
Temp 1	19700-20070	R	Horizontal and Vertical	500KN0N	0.0	0.0
E50. Modulation and Services : CW pilot carrier						

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc E/W Limit	E56. Earth Station Azimuth Angle Eastern Limit	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)
Temp-1	Geostationary	28350-29500	15.0/15.0	107.2	11.7	107.2	11.7	-18.5
Temp-1	Geostationary	18306-20070	15.0/15.0	107.2	11.7	107.2	11.7	0

REMOTE CONTROL POINT LOCATION

E61. Call Sign			E65. Phone Number		
<p>NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.</p>					
E62. Street Address					
E63. City		E67. County		E64/68. State/Country	E66. Zip Code