



LEVENTHAL SENTER & LERMAN PLLC

December 10, 2007

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**BY HAND**

Marlene H. Dortch, Secretary  
Federal Communications Commission  
Office of the Secretary  
445 12th Street, SW, Room TW-B204  
Washington, DC 20554

**Re: Application of Row 44, LLC - SES-STA-20071121-01610**

Dear Ms. Dortch:

Transmitted herewith on behalf of Row 44, LLC ("Row 44") is additional information which supplements its pending request for Special Temporary Authority ("STA") in the above-referenced file. This information is submitted in response to a November 28 request from Scott Kotler and Jeanette Spriggs of the Satellite Division's Systems Analysis Branch for additional technical information demonstrating the compliance of the proposed STA facility with Sections 25.209 and 25.212(c) of the Commission's Rules. 47 C.F.R. §§ 25.209 & 25.212(c).

In particular, the following information is provided --

- (1) additional antenna patterns detailing both the sidelobe emissions of the proposed remote test antenna in the azimuth plane, plus and minus seven degrees, and the cross-polarization pattern, plus and minus nine degrees, which collectively demonstrate that the proposed operation will comply with the requirements of Section 25.209; and
- (2) revised Schedule B to Form 312 specifying modified power characteristics that comply fully with Section 25.212(c). The transmit antenna gain, total input power at the antenna flange, bandwidth, emission designator, and EIRP parameters for the proposed operation have been modified. The changed parameters are highlighted in the attached Revised Schedule B.

Row 44 notes that the test facility will operate using vertical polarization only in the transmit (uplink) mode and with horizontal polarization only in the receive (downlink) mode. As



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indicated in the initial application, the STA facility will operate exclusively with Intelsat's Galaxy 10-R satellite at 123° W.L. using a Hub station at Germantown, Maryland previously licensed to Hughes Network Systems, LLC. The frequencies to be utilized for this test will be as follows: (1) 14229.72 MHz, (2) 14230.08 MHz, (3) 14230.44 MHz, and (4) 14230.80 MHz.

Should there be any questions about this information, or if additional information is required, please contact the undersigned counsel.

Respectfully submitted,

David S. Keir

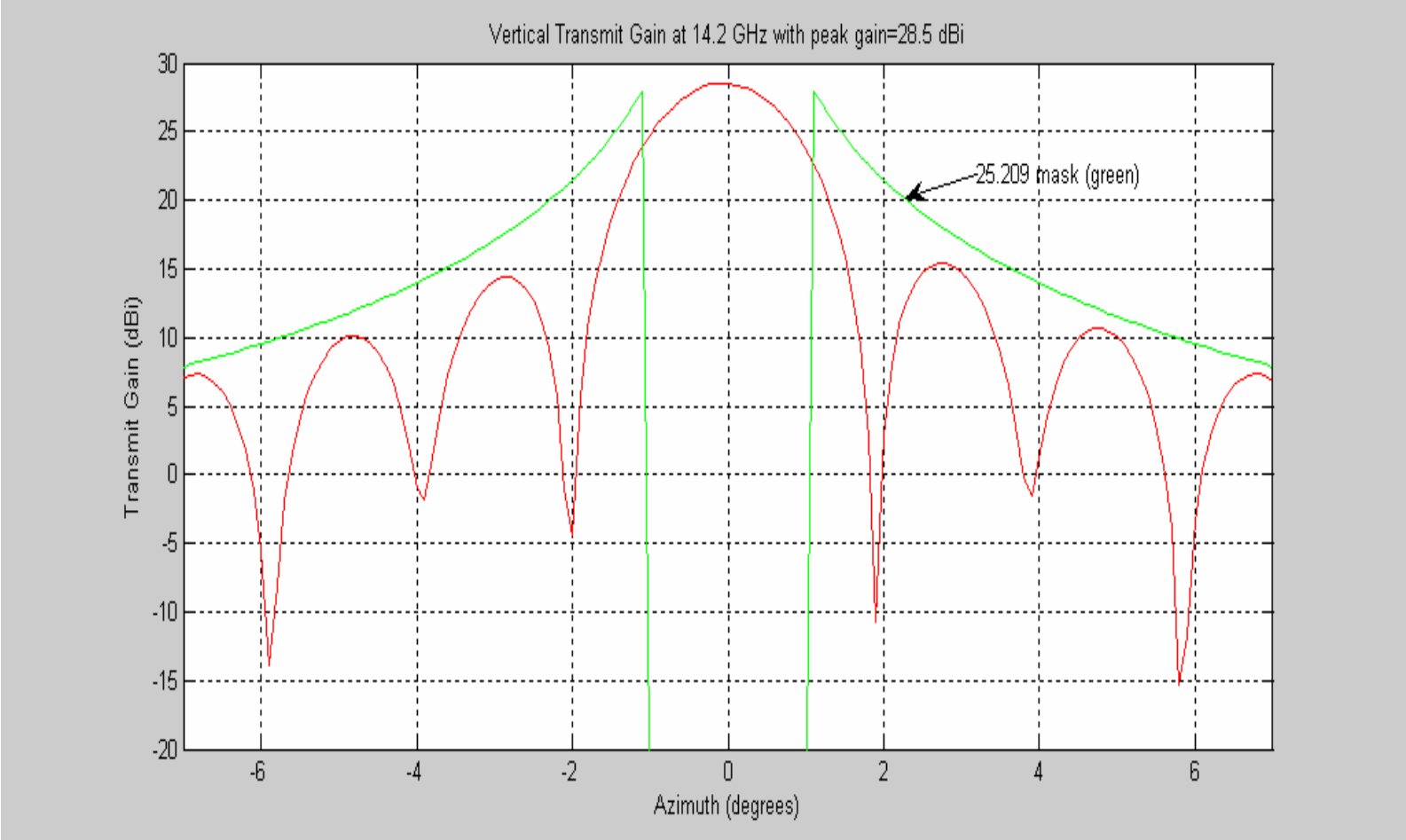
*Counsel to Row 44, LLC*

Enclosures

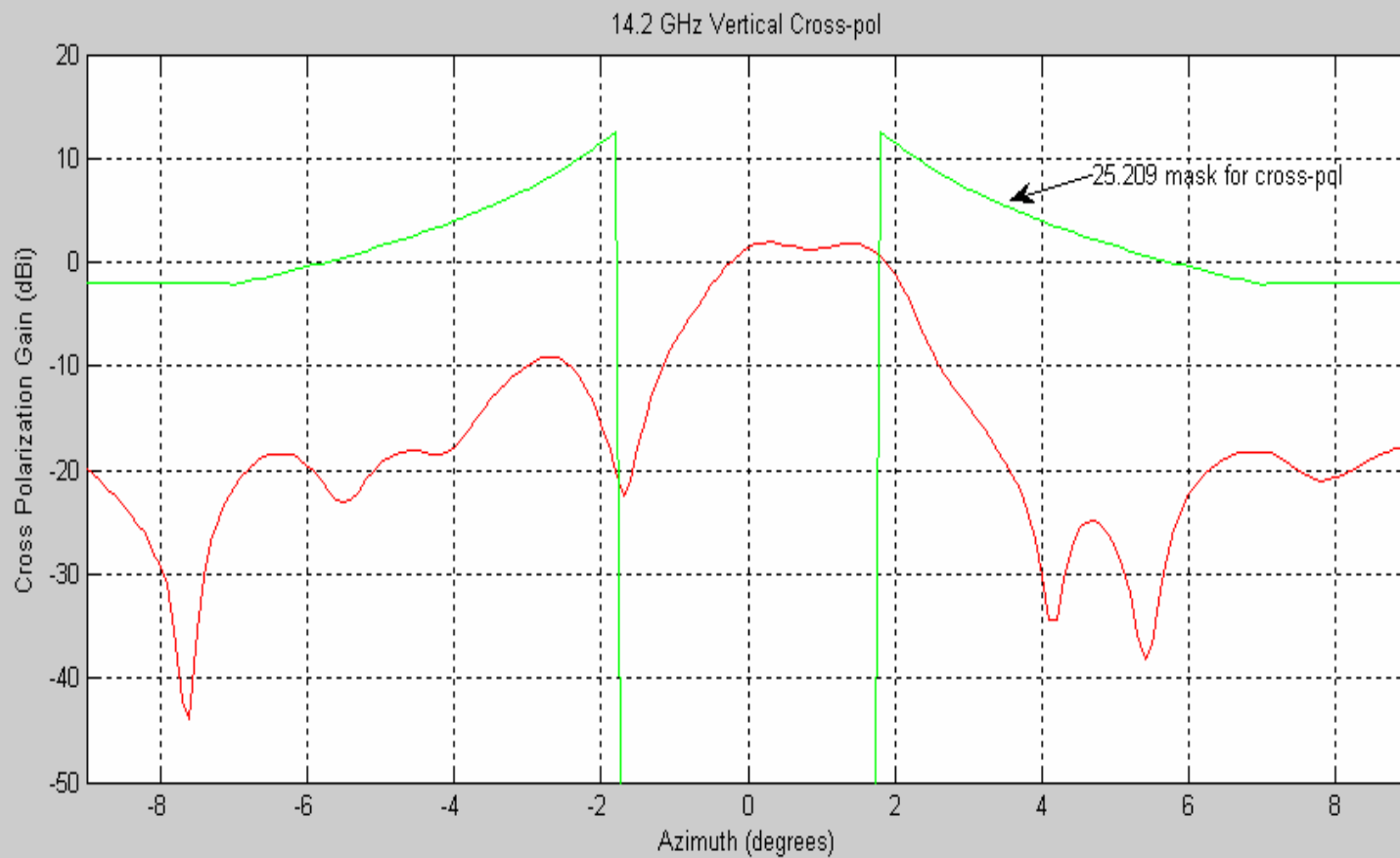
cc (by email): Scott Kotler  
Jeanette Spriggs  
Jim Costello  
Arthur Giordano

## **Additional Antenna Patterns**

# Vertical Transmit Gain at 14.2 GHz



# 14.2 GHz Vertical Cross-pol Transmission



**Revised Schedule B (Form 312)**

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:	Test Remote	E5. Call Sign:	
E2. Contact Name	Frank Blanda	E6. Phone Number:	(603) 672.0894
E3. Street:	62 Route 101A	E7. City:	Amherst
	Suite 2B	E8. County:	Hillsborough
E4. State	NH	E9. Zip Code	03031
E10. Area of Operation:		Fixed	
E11. Latitude:	42 °48 '42.4 "N		
E12. Longitude:	71 °35 '17.46 "W		
E13. Lat/Lon Coordinates are:	<input type="radio"/> NAD-27	<input checked="" type="radio"/> NAD-83	<input type="radio"/> N/A
E14. Site Elevation (AMSL):	66.75 meters		

<p>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.</p>	<p><input checked="" type="radio"/> Yes   <input type="radio"/> No   <input type="radio"/> N/A</p>
<p>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?</p>	<p><input type="radio"/> Yes   <input type="radio"/> No   <input checked="" type="radio"/> N/A</p>
<p>E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.</p>	<p><input type="radio"/> Yes   <input checked="" type="radio"/> No</p>

<p>E18. Is frequency coordination required? If YES, attach a frequency coordination report as</p>	<p><input type="radio"/> Yes   <input checked="" type="radio"/> No</p>
<p>E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as</p>	<p><input type="radio"/> Yes   <input checked="" type="radio"/> No</p>
<p>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?  <b>FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.</b></p>	<p><input type="radio"/> Yes   <input checked="" type="radio"/> No</p>

**POINTS OF COMMUNICATION**

<p>Satellite Name: GALAXY 10R   GALAXY 10R   123 W.L.   If you selected OTHER, please enter the following:</p>
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E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:

**POINTS OF COMMUNICATION (Destination Points)**

E25. Site Identifier: Test Remote	
E26. Common Name:	E27. Country:USA

**ANTENNA**

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size<meters>	E41/42. Antenna GainTransmint and/or Recieve (___ dBi at ___ GHz)
Test Remote	A	1	AeroSat Avionics	70-100-000-00	0.6	28.5 dBi at 14.25
						31.5 dBi at 11.95

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)
A	0.17/0.6	20.0	0.0	0.0	3.75	0.0	34.75

**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)

A	11700 12200	R	Horizontal	3M20G1D	0.0	0.0
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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.)

QPSK or octal PSK

A	14000 14500	T	Vertical	400KG1D	34.75	14.75
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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.)

QPSK or octal PSK

**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)
A	Geostationary	14000 14500	123.0/ 123.0	241.5	19.0	241.5	19.0	0.0

**REMOTE CONTROL POINT LOCATION**

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

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:	HNS Hub	E5. Call Sign:	E000166
E2. Contact Name	HNS Network Management Center	E6. Phone Number:	(301) 601-7205
E3. Street:	11717 Exploration Lane	E7. City:	Germantown
		E8. County:	Montgomery
E4. State	MD	E9. Zip Code	20876
E10. Area of Operation:	Fixed		
E11. Latitude:	39 °10 '46.0 "N		
E12. Longitude:	77 °14 '49.0 "W		
E13. Lat/Lon Coordinates are:	<input checked="" type="radio"/> NAD-27	<input type="radio"/> NAD-83	<input type="radio"/> N/A
E14. Site Elevation (AMSL):	136.0 meters		