

Approved by OMB  
3060-0678

Date & Time Filed: Oct 25 2013 6:39:36:140PM  
File Number: SES-LIC-INTR2013-02251  
Callsign/Satellite ID:

<b>APPLICATION FOR EARTH STATION AUTHORIZATIONS</b>	<b>FCC Use Only</b>
<b>FCC 312 MAIN FORM FOR OFFICIAL USE ONLY</b>	

**APPLICANT INFORMATION**

Enter a description of this application to identify it on the main menu:

QXR FCC Form 312 10-25-2013

<b>1-8. Legal Name of Applicant</b>	
Name: HARRIS CORPORATION	Phone Number: 321-797-9234
DBA Name:	Fax Number: 321-727-9125
Street: 1029 West Nasa Blvd.	E-Mail: bfitch@harris.com
City: Melbourne	State: FL
Country: USA	Zipcode: 32919 -
Attention: Bruce Fitch	
<b>9-16. Name of Contact Representative</b>	
Name: George Y. Wheeler	Phone Number: 202-955-3000
Company: Holland & Knight LLP	Fax Number: 202-955-5564
Street: 800 17th Street, NW Suite 1100	E-Mail: george.wheeler@hklaw.com
City: Washington	State: DC
Country: USA	Zipcode: 20006-
Attention: George Y. Wheeler	Relationship: Legal Counsel

**CLASSIFICATION OF FILING**

<p>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.</p> <p>a.</p> <p><input checked="" type="radio"/> a1. Earth Station (N/A) a2. Space Station</p>	<p>b.</p> <p><input checked="" type="radio"/> b1. Application for License of New Station</p> <p><input type="radio"/> b2. Application for Registration of New Domestic Receive-Only Station (N/A) b3. Amendment to a Pending Application (N/A) b4. Modification of License or Registration (N/A) b5. Assignment of License or Registration (N/A) b6. Transfer of Control of License or Registration (N/A) 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</p> <p><input type="radio"/> b10. Other (Please specify)</p> <p><input type="radio"/> 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.</p>
--	---

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 BAX - Fixed Satellite Transmit/Receive Earth Station**

18. If this filing is in reference to an existing station, enter: (a) Call sign of station: Not Applicable	19. If this filing is an amendment to a pending application enter: (a) Date pending application was filed: Not Applicable (b) File number of pending application: Not Applicable
--	--

**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 only one. <input type="radio"/> Common Carrier <input checked="" type="radio"/> Non-Common Carrier	22. If earth station applicant, check all that apply. <input checked="" type="checkbox"/> Using U.S. licensed satellites <input type="checkbox"/> Using Non-U.S. licensed satellites
---	--

23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:  
 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:

**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  
 (N/A) e. Geostationary Space Station  
 (N/A) f. Non-Geostationary Space Station  
 g. Other (please specify)

26. TYPE OF EARTH STATION FACILITY: Choose only one.  
 Transmit/Receive  Transmit-Only  Receive-Only  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.)  
 Not Applicable

**ENVIRONMENTAL POLICY**

28. Would a Commission grant of any proposal in this application or amendment have a significant  Yes  No



environmental 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.

Radiation Hazard

**ALIEN OWNERSHIP** Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30-34.

29. Is the applicant a foreign government or the representative of any foreign government?	<input type="radio"/> Yes <input checked="" type="radio"/> No
30. Is the applicant an alien or the representative of an alien?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> 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?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
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?	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> 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.	<input type="radio"/> Yes <input checked="" type="radio"/> 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 explanation of circumstances.	<input type="radio"/> Yes <input checked="" type="radio"/> 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 explanation of circumstances.	<input type="radio"/> Yes <input checked="" type="radio"/> 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	<input type="radio"/> Yes <input checked="" type="radio"/> No
39. Is the applicant, or any person directly or indirectly controlling the applicant, or any party to any pending matter referred to in the preceding two items? If yes, attach as an exhibit, an explanation of the circumstances.	<input type="radio"/> Yes <input checked="" type="radio"/> 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.	<input checked="" type="radio"/> Yes <input type="radio"/> No

42a. Does the applicant intend to use a non-U.S. licensed satellite to provide service in the United States? If  Yes  No  
 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.

42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?

43. Description. (Summarize the nature of the application and the services to be provided). **Harris Corporation requests authority to construct and operate a 2.4 meter C Band earth station to be used in connection with a critical project for the Federal Aviation Administration FAA Concur**

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.  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.  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 response.)  
 Individual  
 Unincorporated Association  
 Partnership  
 Corporation  
 Governmental Entity  
 Other (please specify)

45. Name of Person Signing <b>Jim Sheppard</b>	46. Title of Person Signing <b>Program Manager</b>
---	---

47. Please supply any need attachments.

Attachment 1: <b>Graphs</b>	Attachment 2:	Attachment 3:
-----------------------------	---------------	---------------

**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).**



### 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:	1- QXR	E5. Call Sign:	NEW
E2. Contact Name	Bruce Fitch	E6. Phone Number:	321-309-5517
E3. Street:	3441 Buck Mountain Road	E7. City:	Dover
E4. State	AR	E8. County:	Pope
E10. Area of Operation:		E9. Zip Code	72837
E11. Latitude:	35 ° 24 ' 9.1 " N	United States	
E12. Longitude:	92 ° 59 ' 39.7 " 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):	337.6 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 Non Comp Stmt a technical analysis showing compliance with two-degree spacing policy.	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> 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
<b>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.</b>	<input checked="" type="radio"/> Yes <input type="radio"/> No

**POINTS OF COMMUNICATION**

Satellite Name: ALSAT   ALL AUTHORIZED U.S.   ALSAT 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: \_\_\_\_\_

**ANTENNA**

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size	E41/42. Antenna Gain Transmint and/or Recieve(____ dBi at _____ GHz)
1-QXR	1	1	Prodelin	1244	2.4	38.0 dBi at 4.0 42.0 dBi at 6.175

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)
1	2.4/2.4	5.4	343.1	0.0	0.37	5.4	37.7

**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)
1	3700 4200	R	Horizontal and Vertical	166KG7W	0.0	0.0

**E50. Modulation and Services Digital Data**

1	5925 6425	T	Horizontal and Vertical	166KG7W	37.7	21.5
---	-----------	---	-------------------------	---------	------	------

**E50. Modulation and Services Digital Data**

**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)
1	Geostationary	3700 4200	74.0/139.0	149.28	44.21	240.78	26.74	0.0
	Geostationary	5925 6425	74.0/139.0	149.28	44.21	240.78	26.74	15.0

**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
					/	



U.S. Department  
of Transportation

800 Independence Ave., S.W.  
Washington, D.C. 20591

**Federal Aviation  
Administration**

ASU330-FTI-06-6219  
18 January 2006

Harris Corporation  
Attn: Elizabeth Briscoe  
Mail Stop F- 11A  
1025 West NASA Boulevard  
Melbourne, FL 32919

Subject: FAA Concurrence for Harris C-Band and Ku-Band License Submissions

Dear Ms. Briscoe:

This letter serves to affirm that Harris Corporation, the FAA Telecommunications Infrastructure contractor, requires C-Band and Ku-Band Satellite Frequency Licenses to meet the FAA's data and voice service requirements from remote locations. FAA Satellite communications are essential to the air traffic control and safety of flight within the National Airspace System (NAS). These licenses will also be used in response to emergency operations such as disaster recovery. Granting these licenses is considered in the best interest of the flying public.

If you have any questions regarding matter, please call me at 202.493.5963.

Sincerely,

//s//

Susan Eicher  
FTI Contracting Officer

ANALYSIS OF NON-IONIZING RADIATION  
for HARRIS CORPORATION  
Site: Russelville State: AR  
Latitude: 35 24 9.1 Longitude: 92 59 39.7 (NAD83)  
10-22-2013

The Office of Science and Technology Bulletin, No. 65, October 1985 and revised August 1997, specifies that the maximum level of non-ionizing radiation that a person may be exposed to over a six minute period is an average power density equal to 5 mW/cm\*\*2 (five milliwatts per centimeter squared) for a controlled environment. For an uncontrolled environment, the maximum level of non-ionizing radiation that a person may be exposed to over a thirty minute period is an average power density equal to 1 mW/cm\*\*2 (one milliwatt per centimeter squared). It is the purpose of this report to determine the maximum power flux densities of the earth station in the far zone, near zone, transition zone, at the main reflector surface, and between the antenna edge and the ground.

Parameters which were used in the calculations:  
=====

Antenna Diameter, (D) = 2.4000 m  
Antenna Surface Area (Sa) = pi(D\*\*2)/4 = 4.5239 m\*\*2  
Wavelength at 6.1750 GHz (lambda) = 0.0485 m  
Transmit Power at Flange (P) = 0.3700 Watts  
Antenna Gain at Earth Site (GES) = 42.0000 dBi = 15848.9319  
Power Ratio:  
AntiLog(GES/10)  
pi = 3.1415927  
Antenna Aperture Efficiency (n) = 0.6000



### 1. FAR ZONE CALCULATIONS

=====

$$\text{Distance to the Far Zone} \quad (D_f) = \frac{(n) (D^{**2})}{\text{lambda}} = 71.2577 \text{ m}$$

$$\text{Far Zone Power Density} \quad (R_f) = \frac{(GES) (P)}{4 * \text{pi} * (D_f^{**2})} = 0.0919 \text{ W/m}^{**2}$$
$$= 0.0092 \text{ mW/cm}^{**2}$$

### 2. NEAR ZONE CALCULATIONS

=====

Power Flux Density is considered to be at a maximum value throughout the entire length of this Zone. The Zone is contained within a cylindrical volume which has the same diameter as the antenna. Beyond the Near Zone, the Power Flux Density will decrease with distance from the Antenna.

$$\text{Distance to the Near Zone} \quad (D_n) = \frac{D^{**2}}{4 * \text{lambda}} = 29.6907 \text{ m}$$

$$\text{Near Zone Power Density} \quad (R_n) = \frac{16.0 (n) P}{\text{pi} (D^{**2})} = 0.1963 \text{ W/m}^{**2}$$
$$= 0.0196 \text{ mW/cm}^{**2}$$

### 3. TRANSITION ZONE CALCULATIONS

=====

The Power Density begins to decrease with distance in the Transition Zone. While the Power Density decreases inversely with distance in the Transition Zone, the Power Density decreases inversely with the square of the distance in the Far Zone. Since the maximum Power Density in the Transition Zone will not exceed the Near Zone values, it is not calculated.

4. MAIN REFLECTOR ZONE  
=====

$$\begin{aligned} \text{Main Reflector Power Density} &= \frac{2(P)}{S_a} = 0.1636 \text{ W/m}^2 \\ &= 0.0164 \text{ mW/cm}^2 \end{aligned}$$

5. ZONE BETWEEN THE MAIN REFLECTOR AND THE GROUND  
=====

Applying uniform illumination of the Main Reflector Surface:

$$\begin{aligned} \text{Main to Ground Power Density} &= \frac{P}{S_a} = 0.0818 \text{ W/m}^2 \\ &= 0.0082 \text{ mW/cm}^2 \end{aligned}$$

CALCULATED SAFETY MARGINS SUMMARY  
AND EVALUATION

-----  
Controlled Safety Margin = 5.0 - Calculated Zone Value (mW/cm\*\*2)  
-----

Zones	Safety Margins (mW/cm**2)	Conclusions
1. Far Zone	4.9908	Complies with ANSI
2. Near Zone	4.9804	Complies with ANSI
3. Transition Zone	Rf < Rt < Rn	Complies with ANSI
4. Main Reflector Surface	4.9836	Complies with ANSI
5. Main Reflector to Ground	4.9918	Complies with ANSI

-----  
Uncontrolled Safety Margin = 1.0 - Calculated Zone Value (mW/cm\*\*2)  
-----

Zones	Safety Margins (mW/cm**2)	Conclusions
1. Far Zone	0.9908	Complies with ANSI
2. Near Zone	0.9804	Complies with ANSI
3. Transition Zone	Rf < Rt < Rn	Complies with ANSI
4. Main Reflector Surface	0.9836	Complies with ANSI
5. Main Reflector to Ground	0.9918	Complies with ANSI

6. EVALUATION  
=====

- A. Controlled Environment
- B. Uncontrolled Environment
  - All Zones comply with ANSI Standards.



**Micronet Communications, Inc.**

720 F Avenue, Suite 100  
Plano, Texas 75074  
972-422-7200

SUPPLEMENTAL SHOWING PART 101.103(D)

File Number: M1324603  
Licensee: HARRIS CORPORATION

5.93 GHz

Page 1

---

Pursuant to Parts 25.203 and 101.103(d) of the FCC Rules and Regulations, a frequency coordination study was conducted by Micronet Communications, Inc. for the following proposed earth station:

Russelville, AR

The results of the study indicate that no unacceptable interference will result with existing, proposed or prior coordinated radio facilities.

Coordination was performed with existing, proposed and prior coordinated carriers within coordination range on the following dates:

09/18/2013 Original PCN (Expedited response requested by 10/02/2013)  
There were no unresolved interference objections.

The attached coordination data was forwarded on the latest date to the following parties within coordination range or their authorized coordination agents:

ALLTEL COMMUNICATIONS INC  
ALLTEL COMMUNICATIONS LLC  
ARISTOTLE.NET INC.  
ARKANSAS STATE OF  
ARKANSAS STATE OF STATE POLICE  
ARKANSAS VALLEY ELECTRIC COOP CORP  
COMSEARCH INC  
CONTERRA ULTRA BROADBAND LLC  
COXCOM INC  
ENTERGY SERVICES INC  
KN TELECOMMUNICATIONS INC  
LITTLE ROCK CITY OF  
METROPOLITAN AREA NETWORKS INC  
MICRONET COMMUNICATIONS INC  
NEW CINGULAR WIRELESS PCS LLC  
NEW CINGULAR WIRELESS PCS LLC - AR  
NORTHWEST ARKANSAS RSA LIMITED PARTNERSHIP  
RADIO DYNAMICS  
SHERWOOD CITY OF  
SOUTHWESTERN BELL TELEPHONE COMPANY  
SOUTHWESTERN BELL TELEPHONE L P  
VERIZON WIRELESS (VAW) (AR)  
VERIZON WIRELESS (VAW) LLC

**Micronet Communications, Inc.**

720 F Avenue, Suite 100

Plano, Texas 75074

972-422-7200

SUPPLEMENTAL SHOWING PART 101.103(D)

File Number: M1324603

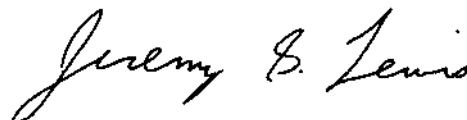
5.93 GHz

Licensee: HARRIS CORPORATION

Page 2

---

Respectfully Submitted,

A handwritten signature in black ink that reads "Jeremy B. Lewis". The signature is written in a cursive style with a large, sweeping initial 'J'.

Jeremy Lewis  
Systems Engineer

Attached: 1 data sheet

Micronet Communications, Inc.  
 720 F Avenue, Suite 100  
 Plano, Texas 75074  
 972-422-7200

File: M1324603

=====

TECHNICAL CHARACTERISTICS OF TRANSMIT RECEIVE EARTH STATION

=====

Company:	HARRIS CORPORATION		
Site Name, State:	Russelville, AR		
Call Sign:			
Latitude	(NAD83)	35 24	9.1 N
Longitude	(NAD83)	92 59	39.7 W
Elevation AMSL	(ft/m)	1107.70	337.63
Receive Frequency Range	(MHz)	3700-4200	
Transmit Frequency Range	(MHz)	5925-6425	
Range of Satellite Orbital Long.	(deg W)	74.00	139.00
Range of Azimuths from North	(deg)	149.28	240.78
Antenna Centerline	(ft/m)	10.00	3.05
Antenna Elevation Angles	(deg)	44.21	26.74

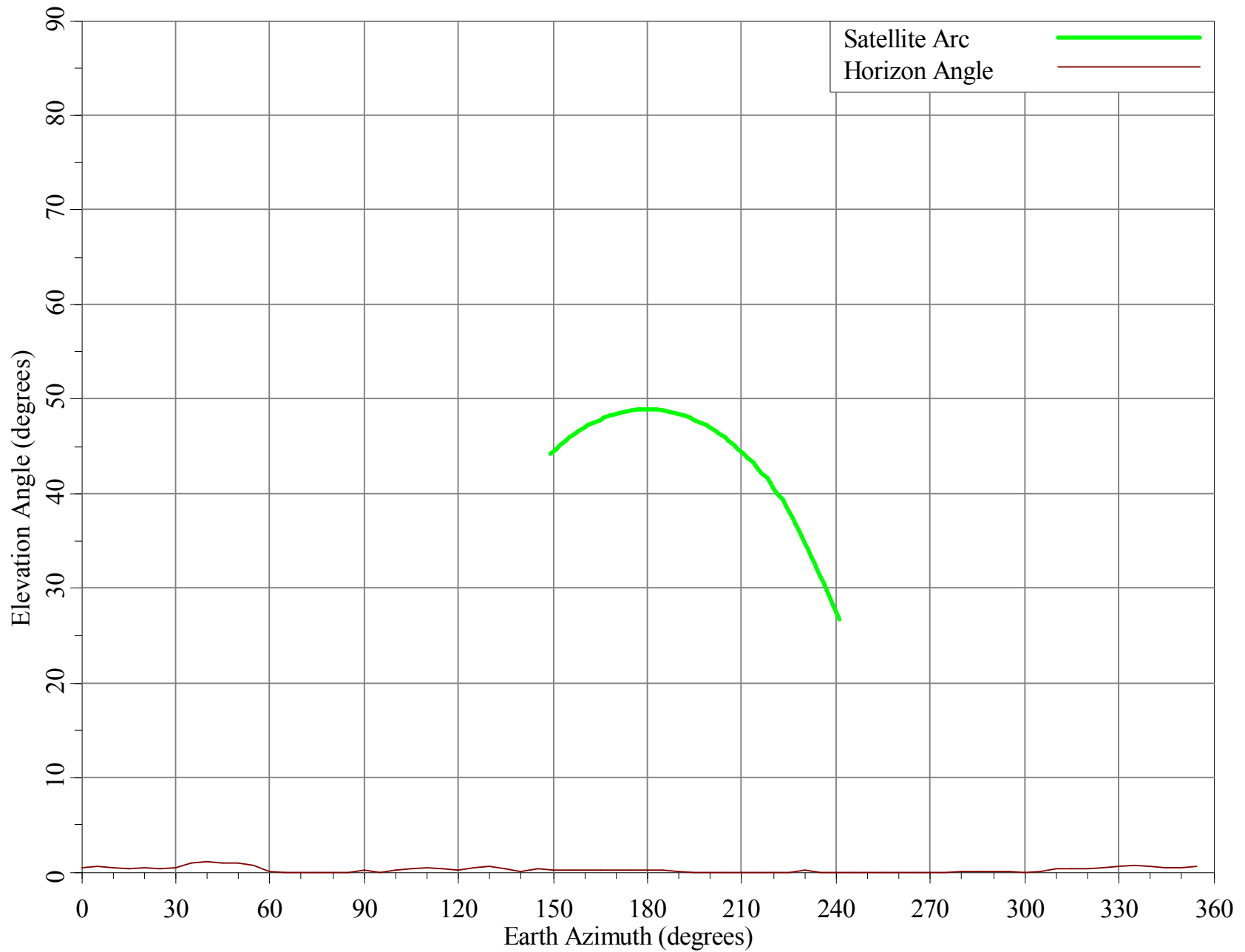
Equipment Parameters		Receive	Transmit
Antenna Gain, Main Beam	(dbI)	38.00	42.00
15 DB Half Beamwidth	(deg)	1.50	1.00
Antennas	Receive: PRODELIN 1244 (2.4M)		
	Transmit: PRODELIN 1244 (2.4M)		
Max Transmitter Power	(dbW/4KHz)		-20.50
Max EIRP Main Beam	(dbW/4KHz)		21.50
Modulation / Emission Designator	DIGITAL 166KG7W		

Coordination Parameters		Receive	Transmit
Max Greater Circle Distances	(km)	270.48	124.36
Max Rain Scatter Distances	(km)	508.78	100.00
Max Interference Power Long Term	(dbW)	-140.60	-154.00
Max Interference Power Short Term	(dbW)	-118.40	-130.80
Rain Zone / Radio Zone		1	A

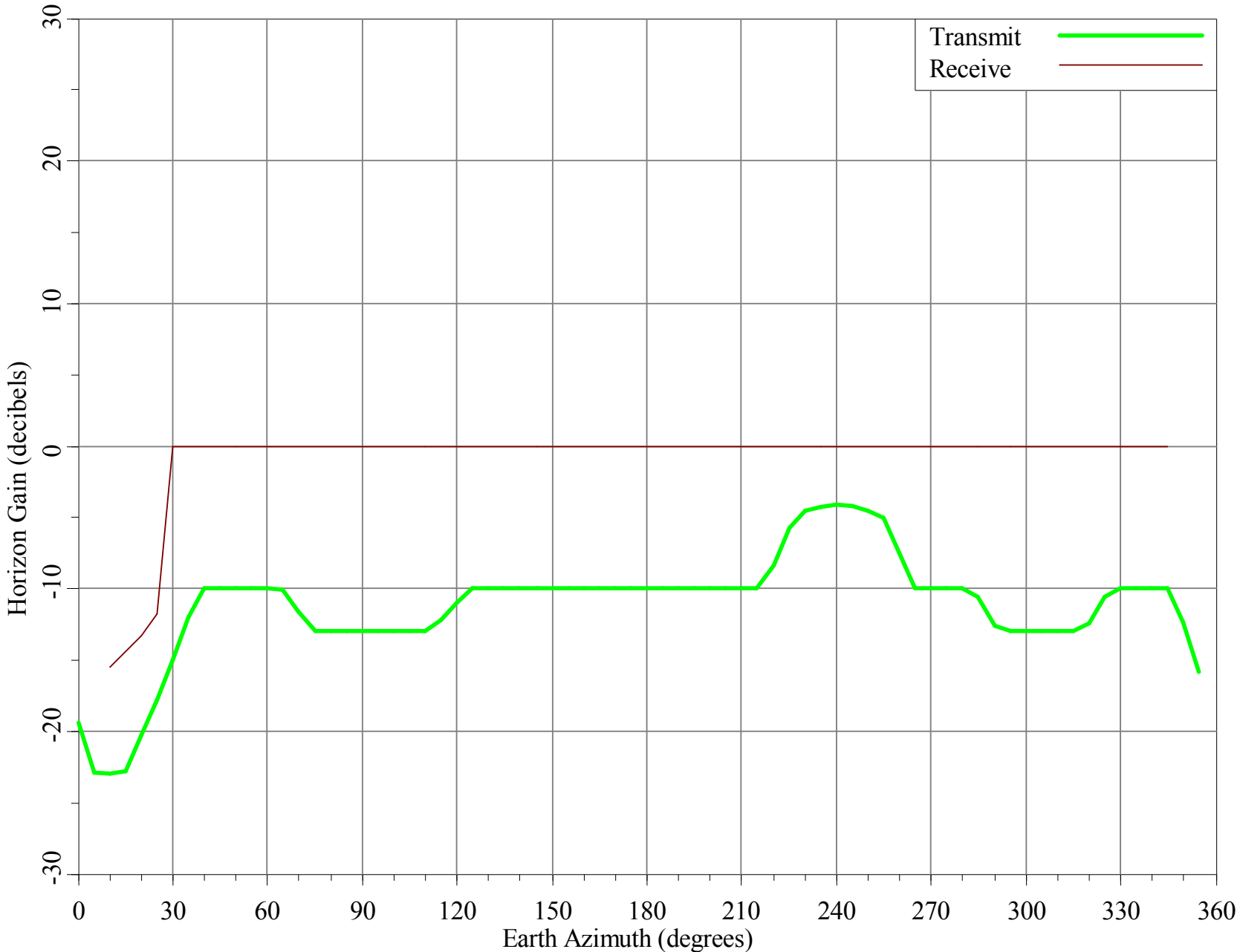


# Horizon Angle & Satellite Arc for Russelville, AR

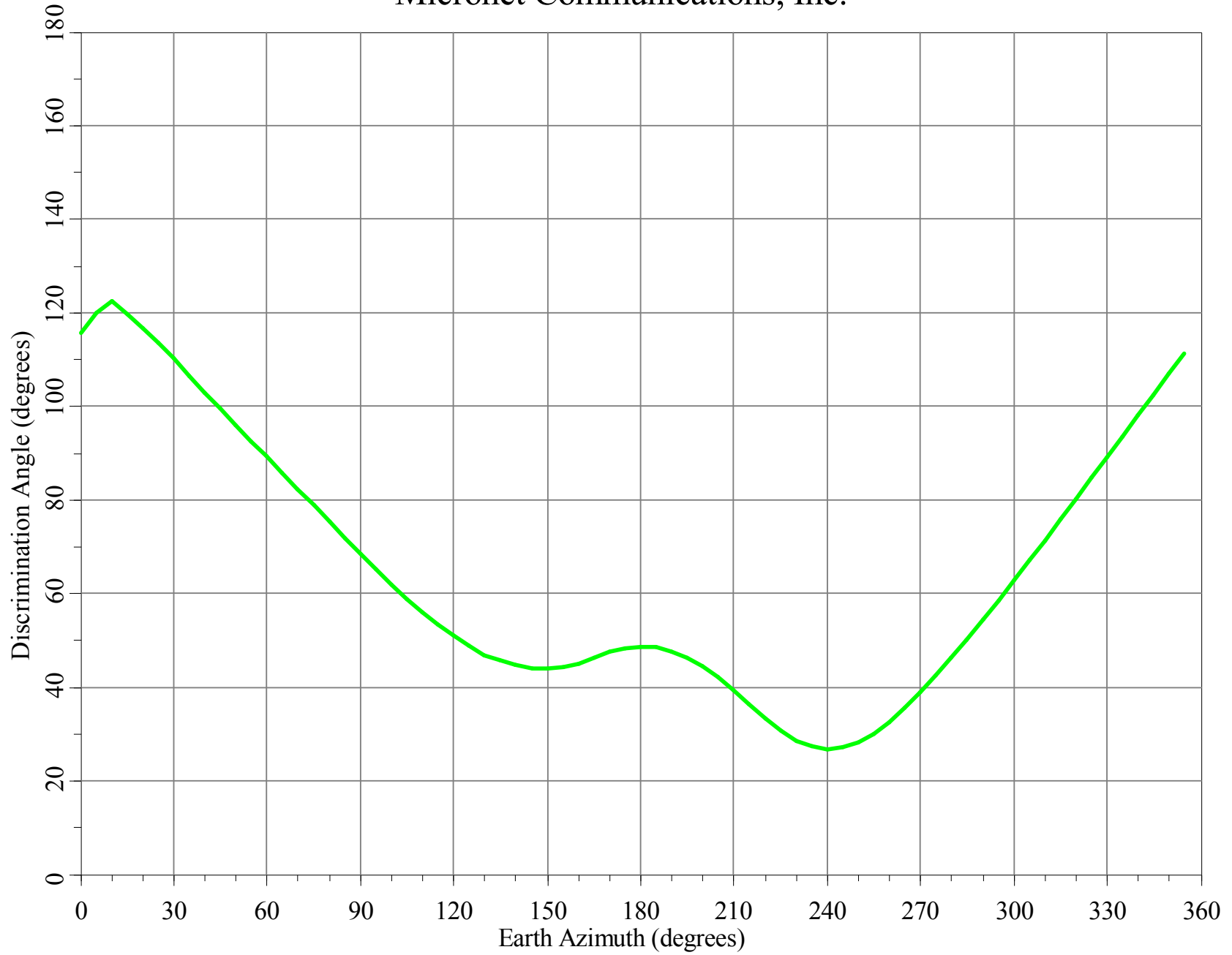
Micronet Communications, Inc.



# Horizon Gain for Russelville, AR Micronet Communications, Inc.

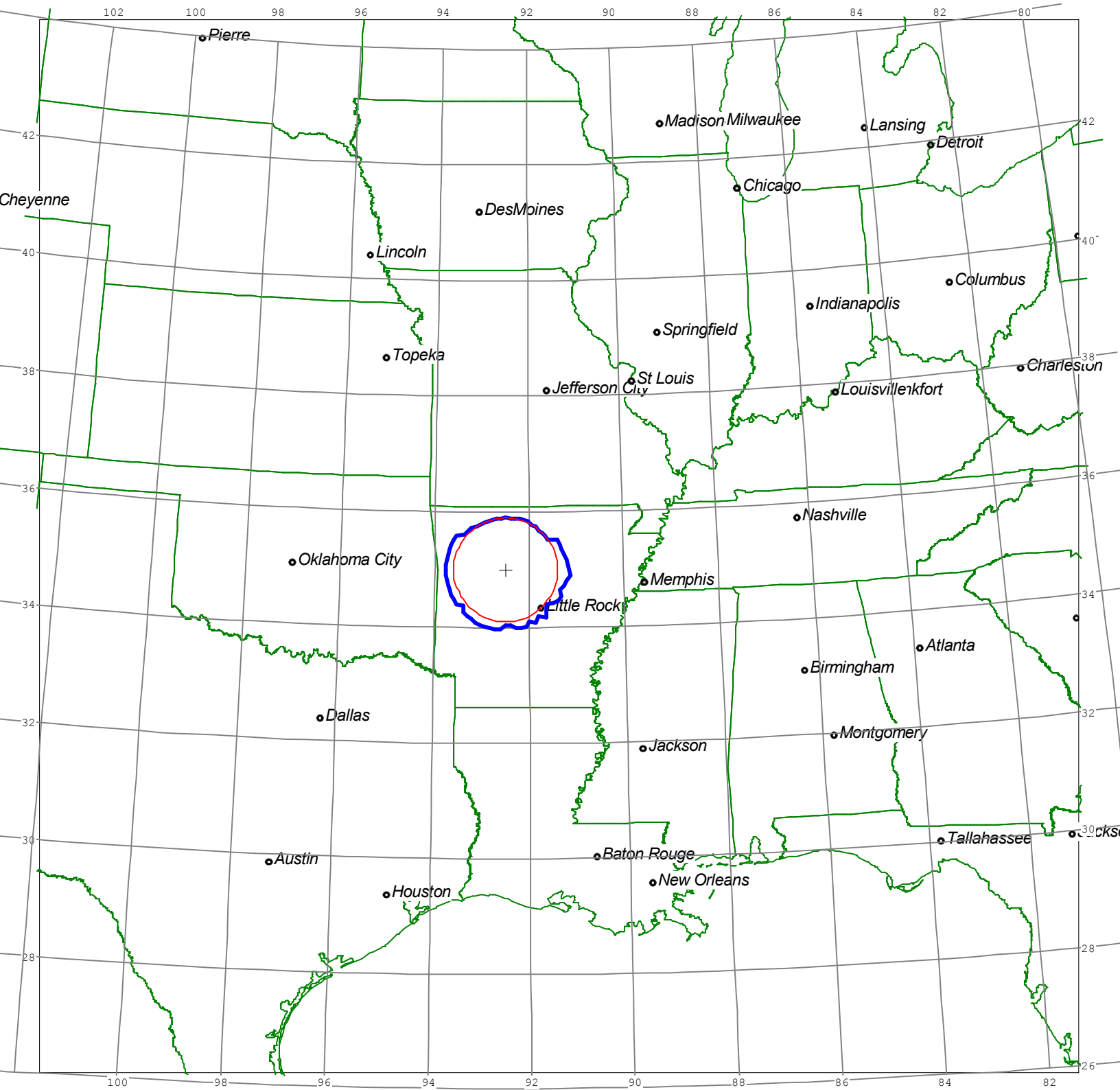
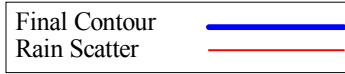


Minimum Discrimination Angles for Russelville, AR  
Micronet Communications, Inc.



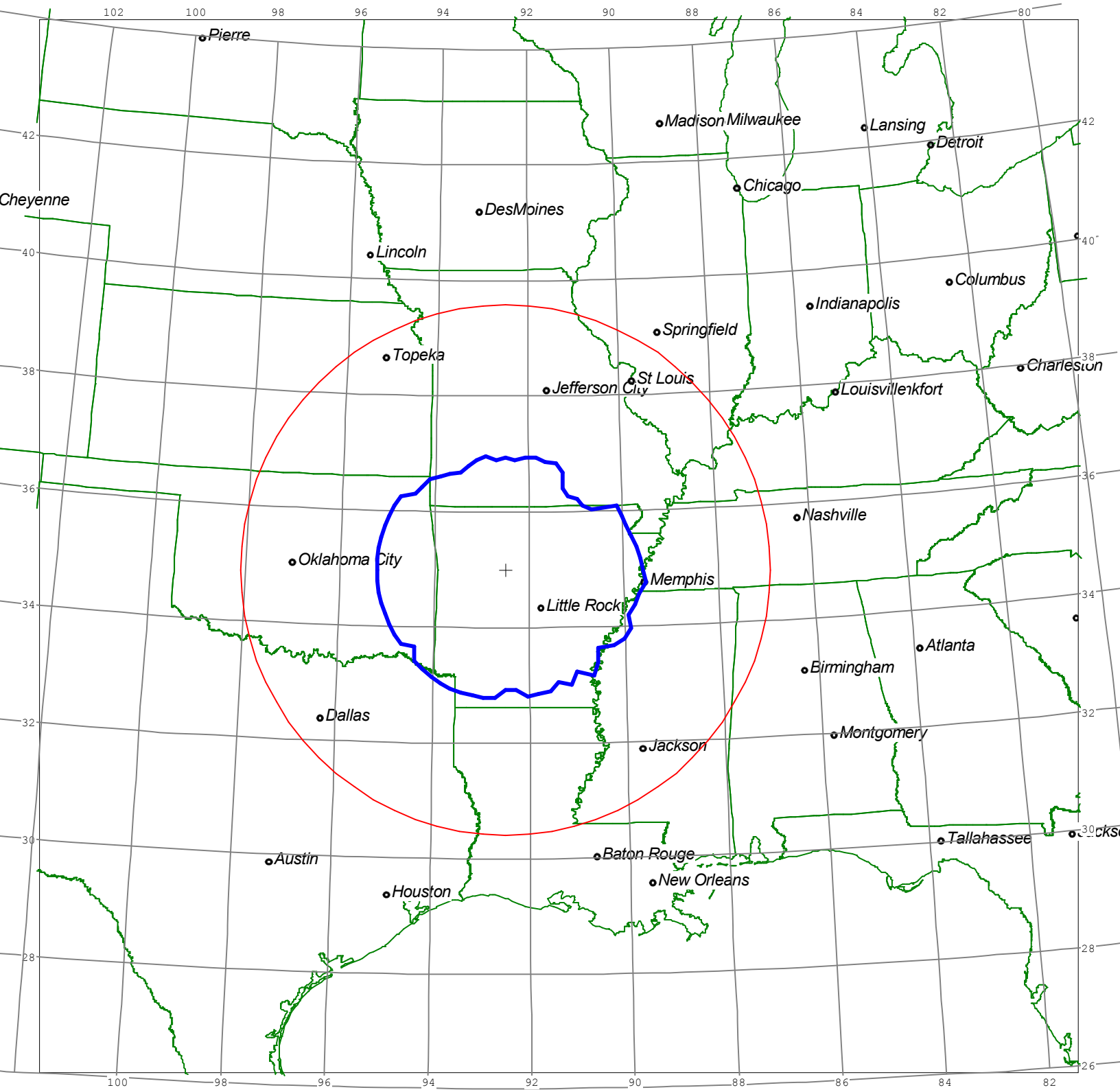


# Final Contour & Rain Scatter for Russelville, AR - Transmit



# Final Contour & Rain Scatter for Russelville, AR - Receive

SCALE - 1:10000000 1 inch = 157.8 miles



## Non-Compliant Antenna Statement

Re: 2.4 Meter Fixed Earth Station  
Fixed Satellite Service  
C-Band: 3700 – 4200 MHz and 5925.0 – 6425.0 MHz

Harris Corporation ("Harris" or "Applicant") proposes to use a Prodelin 1244, 2.4 meter antenna for its proposed earth station located in Russelville, AR at the coordinates of 35-24-09.1 N, 092-59-39.7 W. The Prodelin 1244 does not strictly comply with 25.209 of the FCC Rules and Regulations.

Pursuant to the *Part 25 Earth Station Fifth Report and Order*, the International Bureau (Bureau) provides a List of Approved Non-Routine Earth Station Antennas. Specifically the website <http://www.fcc.gov/ib/sd/nresa> lists non-routine earth station antennas licensed for use by one or more U.S. earth station operators since March 15, 2005.

“The Commission has ruled that an Earth station applicant proposing to use an antenna on this list may no longer be required to attach antenna radiation plots as an exhibit to their applications, as required by Section 25.132 (b)(3) of the Commission's rules, 47 C.F.R. § 25.132 (b)(3). Rather, they need only to provide an attachment to their applications citing the particular non-routine earth station antenna they plan to use, and an application file number and call sign of a license in which that type of non-routine antenna has been previously approved.”

Accordingly, Harris submits the application file number and call sign, **File No. SES-LIC-20060302-00342 (Call Sign: E060075)**, of a previously licensed Prodelin 1244, 2.4 meter earth station, which indicates that the 2.4 meter antenna proposed in this application will operate without conflict.

The applicant agrees to accept any adjacent satellite interference in the 4 GHz receive band as a result of the performance of the antenna in the 1° to 1.5° region. The applicant understands that no adjacent satellite interference protection will be available in the 1° to 1.5° regions. The applicant understands that adjacent satellite interference protection applies only to the extent of the criteria set forth in §25.209. Should the use of this antenna cause interference to other systems; the applicant agrees to terminate transmission upon notice from the Commission.

**HARRIS CORPORATION  
FCC FORM 312  
NEW EARTH STATION  
QEVQDGT 2013**

**FAA NOTIFICATION NOT REQUIRED**

FAA notification is not required pursuant to 47 C.F.R. § 17.7(a), because the antenna is less than 6.1 meters in height above ground level.

# **FCC IBFS - Electronic Filing**

**Submission\_id :IB2013002251**

**Successfully filed on :Oct 25 2013 6:39:36:140PM**

[Return to Main Menu](#)





Online Payment

Step 3: Confirm Payment

1 | 2 | 3

Thank you.  
Your transaction has been successfully completed.

Pay.gov Tracking Information

Application Name: Remittance Advice

Pay.gov Tracking ID: 25CTAETE

Agency Tracking ID: PGC2406021

Transaction Date and Time: 10/25/2013 19:01 EDT

Payment Summary

Address Information

Account Holder HOLLAND & KNIGHT

Name: LLP

Billing 800 17TH STREET,

Address: STE. 1100

Billing Address

2:

City: WASHINGTON

State /

Province: DC

Zip / Postal

Code: 20006-3906

Country: USA

Account Information

Card Type: American Express

Card Number: \*\*\*\*\*1009

Payment Information

Payment Amount: \$2,615.00

Transaction Date 10/25/2013 19:01  
and Time: EDT



## Electronic Form 159

### Payment Confirmation

Your transaction has been approved. For your records, please note the following:

<b>AGENCY TRACKING ID:</b>	<b>PGC2406021</b>
<b>AUTHORIZATION NUMBER :</b>	<b>267398</b>
<b>AMOUNT PAID :</b>	<b>\$2,615.00</b>

[PRINT FORM 159](#)

[CLOSE](#)

---

#### Customer Service

[FCC Fees](#)

[Web Policies / Privacy Policy](#)

[FCC Home Page](#)

If you have any questions or concerns please contact your licensing system help desk.

# Agency Tracking ID:PGC2406021

## Authorization Number:267398

### Successful Authorization -- Date Paid: 10/25/13

# FILE COPY ONLY!!

READ INSTRUCTIONS CAREFULLY BEFORE PROCEEDING  (1) LOCKBOX #979093	FEDERAL COMMUNICATIONS COMMISSION <b>REMITTANCE ADVICE</b> <b>FORM 159</b> PAGE NO 1 OF 1	APPROVED BY OMB 3060-059 SPECIAL USE FCC USE ONLY
<b>SECTION A - Payer Information</b>		
(2) PAYER NAME (if paying by credit card, enter name exactly as it appears on your card) <b>HOLLAND &amp; KNIGHT LLP</b>		(3) TOTAL AMOUNT PAID (dollars and cents) <b>\$2615.00</b>
(4) STREET ADDRESS LINE NO. 1 <b>800 17TH STREET, STE. 1100</b>		
(5) STREET ADDRESS LINE NO. 2 <b>TELECOM-C. NAFTALIN</b>		
(6) CITY <b>WASHINGTON</b>	(7) STATE <b>DC</b>	(8) ZIP CODE <b>20006-3906</b>
(9) DAYTIME TELEPHONE NUMBER (INCLUDING AREA CODE) <b>202-9553000 x7040</b>	(10) COUNTRY CODE (IF NOT IN U.S.A.) <b>US</b>	
<b>FCC REGISTRATION NUMBER (FRN) AND TAX IDENTIFICATION NUMBER (TIN) REQUIRED</b>		
(11) PAYER (FRN) <b>0004148995</b>	(12) FCC USE ONLY	
<b>IF PAYER NAME AND THE APPLICANT NAME ARE DIFFERENT, COMPLETE SECTION B IF MORE THAN ONE APPLICANT, USE CONTINUATION SHEETS (FORM 159-C)</b>		
(13) APPLICANT NAME <b>HARRIS CORPORATION</b>		
(14) STREET ADDRESS LINE NO. 1 <b>1029 West Nasa Blvd.</b>		
(15) STREET ADDRESS LINE NO. 2		
(16) CITY <b>Melbourne</b>	(17) STATE <b>FL</b>	(18) ZIP CODE <b>32919-</b>
(19) DAYTIME TELEPHONE NUMBER (INCLUDING AREA CODE) <b>321-797-9234</b>	(20) COUNTRY CODE (IF NOT IN U.S.A.) <b>US</b>	
<b>FCC REGISTRATION NUMBER (FRN) AND TAX IDENTIFICATION NUMBER (TIN) REQUIRED</b>		
(21) APPLICANT (FRN) <b>0003791472</b>	(22) FCC USE ONLY	
<b>COMPLETE SECTION C FOR EACH SERVICE, IF MORE BOXES ARE NEEDED, USE CONTINUATION SHEET</b>		
(23A) FCC Call Sign/Other ID	(24A) Payment Type Code(PTC) <b>BAX</b>	(25A) Quantity <b>1</b>
(26A) Fee Due for (PTC) <b>\$2,615.00</b>	(27A) Total Fee <b>\$2615.00</b>	FCC Use Only
(28A) FCC CODE 1	(29A) FCC CODE 2 <b>IB2013002251</b>	

(23B) FCC Call Sign/Other ID	(24B) Payment Type Code(PTC)	(25B) Quantity
(26B) Fee Due for (PTC)	(27B) Total Fee	FCC Use Only
(28B) FCC CODE 1	(29B) FCC CODE 2	