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APPLICATION FOR EARTH STATION AUTHORIZATIONS

**FCC 312 MAIN FORM
FOR OFFICIAL USE ONLY**

FCC Use Only

APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:
QAF_ATCBI C_Band FCC Form 312 09-15-2014

1-8. Legal Name of Applicant

Name:	HARRIS CORPORATION	Phone Number:	321-797-9234
DBA Name:		Fax Number:	321-727-9125
Street:	1025 West Nasa Blvd.	E-Mail:	bfitch@harris.com
City:	Melbourne	State:	FL
Country:	USA	Zipcode:	32919 -
Attention:	Bruce Fitch		

9-16. Name of Contact Representative

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

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.

a.

- a1. Earth Station
(N/A) a2. Space Station

b.

- b1. Application for License of New Station
 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
 b10. Other (Please specify)
 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.

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.

- Common Carrier Non-Common Carrier

22. If earth station applicant, check all that apply.

- Using U.S. licensed satellites
 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 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. Yes No 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? Yes No

30. Is the applicant an alien or the representative of an alien? Yes No N/A

31. Is the applicant a corporation organized under the laws of any foreign government? Yes 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? Yes No 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? Yes No 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. Yes No

Graphs

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. Yes 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. 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 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 exhibit, an explanation of the circumstances. 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 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. Yes No

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

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
Harry Lo

46. Title of Person Signing
Program Manager

47. Please supply any need attachments.

Attachment 1:

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- QAF_ATCBI	E5. Call Sign:	NEW
E2: Contact Name	Bruce Fitch	E6. Phone Number:	321-309-8557
E3. Street:	13700 S 4250 Rd	E7. City:	Chelsea
		E8. County:	Rogers

E4. State	OK	E9. Zip Code	74017
E10. Area of Operation:		United States	
E11. Latitude:	36 ° 24 ' 36.7 " N		
E12. Longitude:	95 ° 26 ' 11.2 " 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):	288.3 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
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 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-QAF_ATCBI	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	293.7	0.0	0.42	5.4	38.2

FREQUENCY

E28. Antenna	E43/44. Frequency	E45. T/R	E46. Antenna Polarization(H,V,L,R)	E47. Emission	E48. Maximum EIRP per	E49. Maximum ERIP Density per
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Id	Bands(MHz)	Mode		Designator	Carrier(dBW)	Carrier(dBW/4kHz)
1	3700 4200	R	Horizontal and Vertical	96K0G7W	0.0	0.0
E50. Modulation and Services Digital Data						
1	5925 5985	T	Horizontal and Vertical	96K0G7W	37.7	24.4
E50. Modulation and Services Digital Data						
1	6065 6145	T	Horizontal and Vertical	96K0G7W	37.7	24.4
E50. Modulation and Services Digital Data						
1	6165 6325	T	Horizontal and Vertical	96K0G7W	37.7	24.4
E50. Modulation and Services Digital Data						
1	6365 6425	T	Horizontal and Vertical	96K0G7W	37.7	24.4
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	146.52	42.08	238.03	28.02	0.0
	Geostationary	5925 5985	74.0/ 139.0	146.52	42.08	238.03	28.02	17.9
	Geostationary	6065 6145	74.0/ 139.0	146.52	42.08	238.03	28.02	17.9
	Geostationary	6165 6325	74.0/ 139.0	146.52	42.08	238.03	28.02	17.9
	Geostationary	6365 6425	74.0/ 139.0	146.52	42.08	238.03	28.02	17.9

REMOTE CONTROL POINT LOCATION

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

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.

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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: Chelsea State: OK
Latitude: 36 24 36.7 Longitude: 95 26 11.2 (NAD83)
09-12-2014

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) = 0.4200 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

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

$$\text{Far Zone Power Density} \quad (R_f) = \frac{(GES) (P)}{4 * \text{pi} * (D_f^{**2})} = 0.1043 \text{ W/m}^{**2}$$
$$= 0.0104 \text{ mW/cm}^{**2}$$

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.

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

$$\text{Near Zone Power Density} \quad (R_n) = \frac{16.0 (n) P}{\text{pi} (D^{**2})} = 0.2228 \text{ W/m}^{**2}$$
$$= 0.0223 \text{ mW/cm}^{**2}$$

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

=====

$$\begin{aligned} \text{Main Reflector Power Density} &= \frac{2(P)}{S_a} = 0.1857 \text{ W/m}^2 \\ &= 0.0186 \text{ mW/cm}^2 \end{aligned}$$

5. ZONE BETWEEN THE MAIN REFLECTOR AND THE GROUND

=====

Applying uniform illumination of the Main Reflector Surface:

$$\begin{aligned} \text{Main to Ground Power Density} &= \frac{P}{S_a} = 0.0928 \text{ W/m}^2 \\ &= 0.0093 \text{ mW/cm}^2 \end{aligned}$$

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	4.9896	Complies with ANSI
2. Near Zone	4.9777	Complies with ANSI
3. Transition Zone	Rf < Rt < Rn	Complies with ANSI
4. Main Reflector Surface	4.9814	Complies with ANSI
5. Main Reflector to Ground	4.9907	Complies with ANSI

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

Zones	Safety Margins (mW/cm**2)	Conclusions
1. Far Zone	0.9896	Complies with ANSI
2. Near Zone	0.9777	Complies with ANSI
3. Transition Zone	Rf < Rt < Rn	Complies with ANSI
4. Main Reflector Surface	0.9814	Complies with ANSI
5. Main Reflector to Ground	0.9907	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: M1421008
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:

Chelsea, OK

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:

08/29/2014 No-impact change notification pursuant to Section
101.103(d)(2)(ix) - No response required.
07/30/2014 Original PCN
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
ARKANSAS STATE OF STATE POLICE
AT&T MOBILITY PUERTO RICO
BNSF RAILWAY COMPANY
CELLULAR NETWORK PARTNERSHIP
CELLULAR NETWORK PARTNERSHIP, A LIMITED PARTNERSHIP
CHEROKEE CONNEX LLC
CLASSIC CABLE OF OKLAHOMA INC D/B/A SUDDENLINK
COMSEARCH INC
COXCOM INC
DOBSON CELLULAR SYSTEMS INC
GRAND RIVER DAM AUTHORITY
KAMO ELECTRIC COOPERATIVE INC.
KANSAS #15 LIMITED PARTNERSHIP
MICRONET COMMUNICATIONS INC
NEW CINGULAR WIRELESS PCS LLC
NEW CINGULAR WIRELESS PCS LLC - AR
NEW CINGULAR WIRELESS PCS LLC - OK
NORTHEAST OKLAHOMA ELECTRIC COOPERATIVE INC
OKLAHOMA DEPARTMENT OF TRANSPORTATION COMMUNICATIONS
OKLAHOMA GAS AND ELECTRIC COMPANY
OKLAHOMA RSA 3 LIMITED PARTNERSHIP
OKLAHOMA RSA 4 SOUTH L P D/B/A ALLTEL
OKLAHOMA STATE OF
OKLAHOMA WINDSTREAM INC
PUBLIC SERVICE COMPANY OF OKLAHOMA D/B/A AMER ELECTRIC POWER

Micronet Communications, Inc.

720 F Avenue, Suite 100

Plano, Texas 75074

972-422-7200

SUPPLEMENTAL SHOWING PART 101.103(D)

File Number: M1421008


5.93 GHz

Licensee: HARRIS CORPORATION

Page 2

US CELLULAR TELEPHONE CO (GREATER TULSA)
US CELLULAR TELEPHONE CO OF GREATER TULSA L L C
USCOC OF GREATER OKLAHOMA INC
VERIZON WIRELESS (VAW) LLC
VERIZON WIRELESS (VAW) LLC - AR/LA/OK

Respectfully Submitted,



Jeremy Lewis
Systems Engineer

Attached: 1 data sheet

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

File: M1421008

=====

TECHNICAL CHARACTERISTICS OF TRANSMIT RECEIVE EARTH STATION

=====

Company:	HARRIS CORPORATION		
Site Name, State:	Chelsea, OK		
Call Sign:			
Latitude	(NAD83)	36 24	36.7 N
Longitude	(NAD83)	95 26	11.2 W
Elevation AMSL	(ft/m)	946.00	288.34
Receive Frequency Range	(MHz)	3700-4200	
Transmit Frequency Range	(MHz)	5925-5985/6065-6145/6165-6325/6365-6425	
Range of Satellite Orbital Long.	(deg W)	74.00	139.00
Range of Azimuths from North	(deg)	146.52	238.03
Antenna Centerline	(ft/m)	10.00	3.05
Antenna Elevation Angles	(deg)	42.08	28.02

Equipment Parameters	Receive	Transmit
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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)

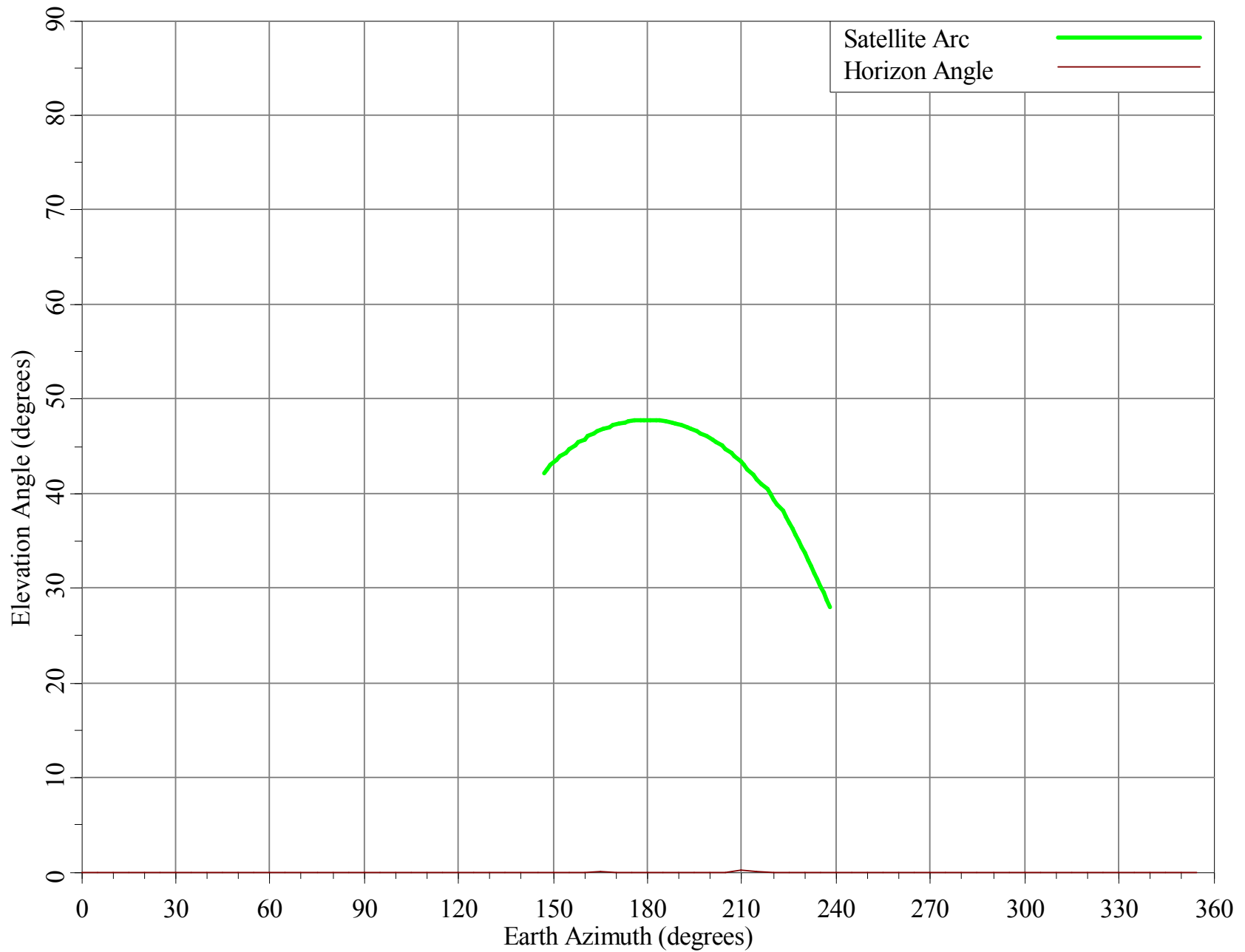
Max Transmitter Power	(dbW/4KHz)		-17.60
Max EIRP Main Beam	(dbW/4KHz)		24.40
Modulation / Emission Designator	DIGITAL	96K0G7W	

Coordination Parameters	Receive	Transmit
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Max Greater Circle Distances	(km)	280.36	136.60
Max Rain Scatter Distances	(km)	397.86	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		2	A

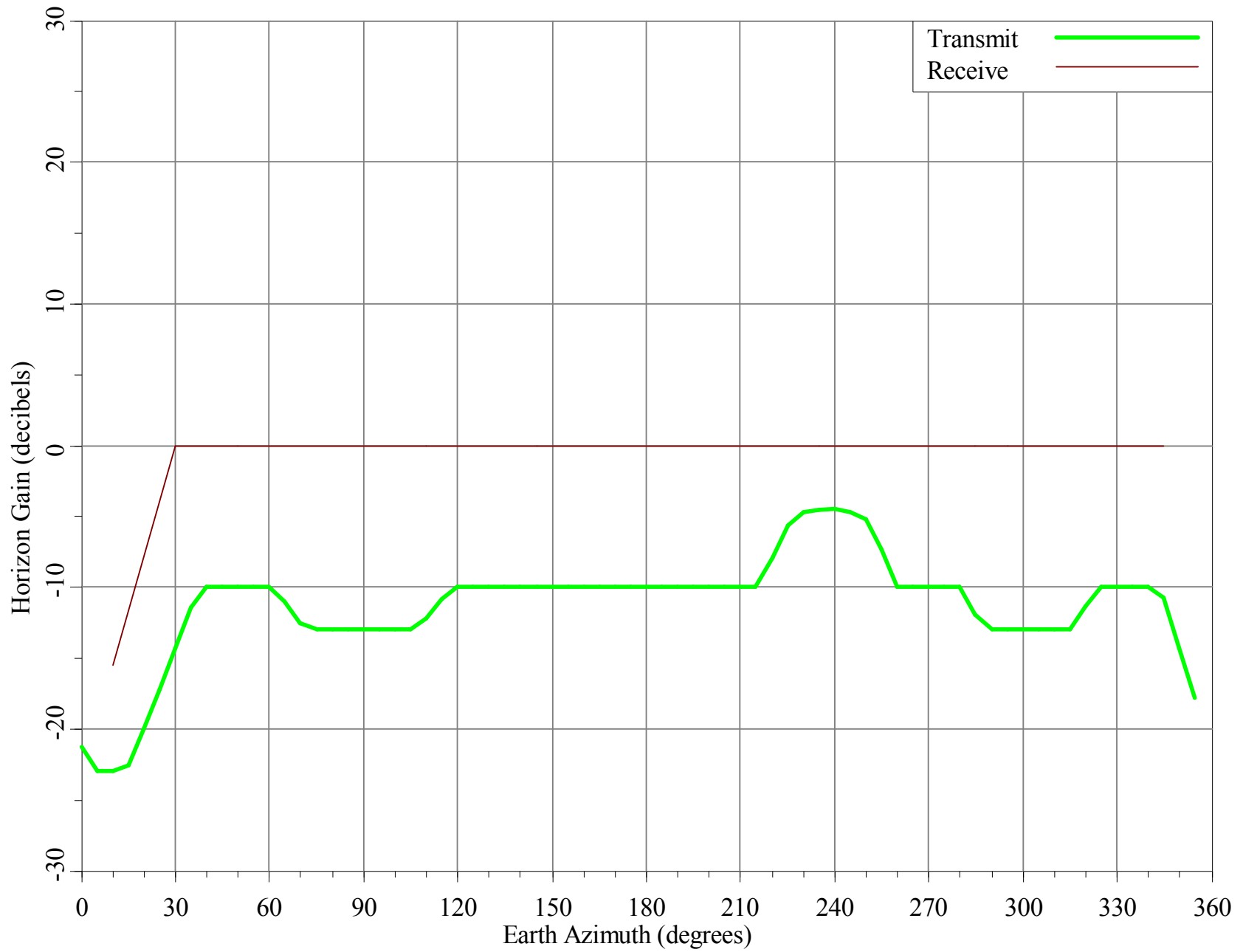
Horizon Angle & Satellite Arc for Chelsea, OK

Micronet Communications, Inc.

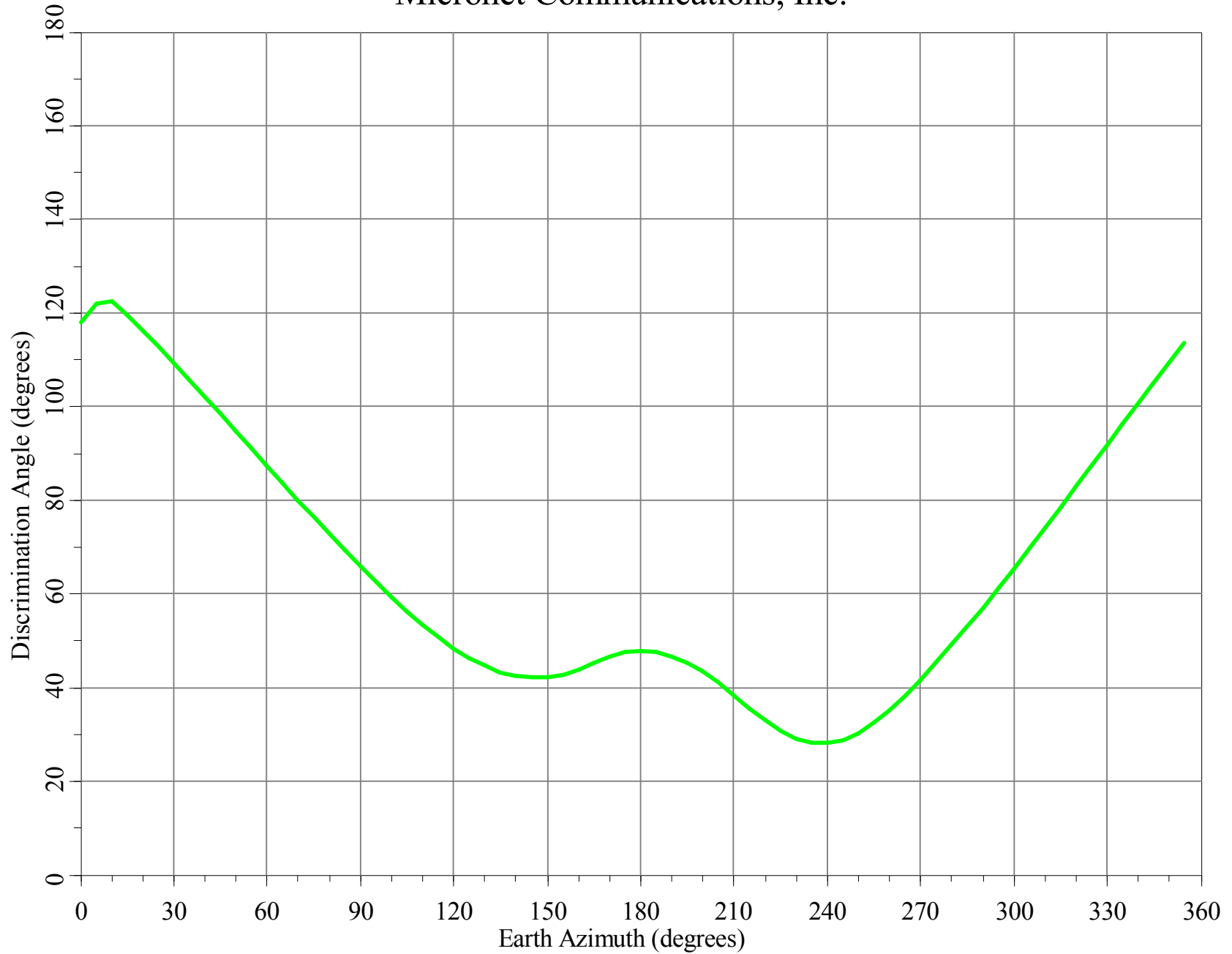


Horizon Gain for Chelsea, OK

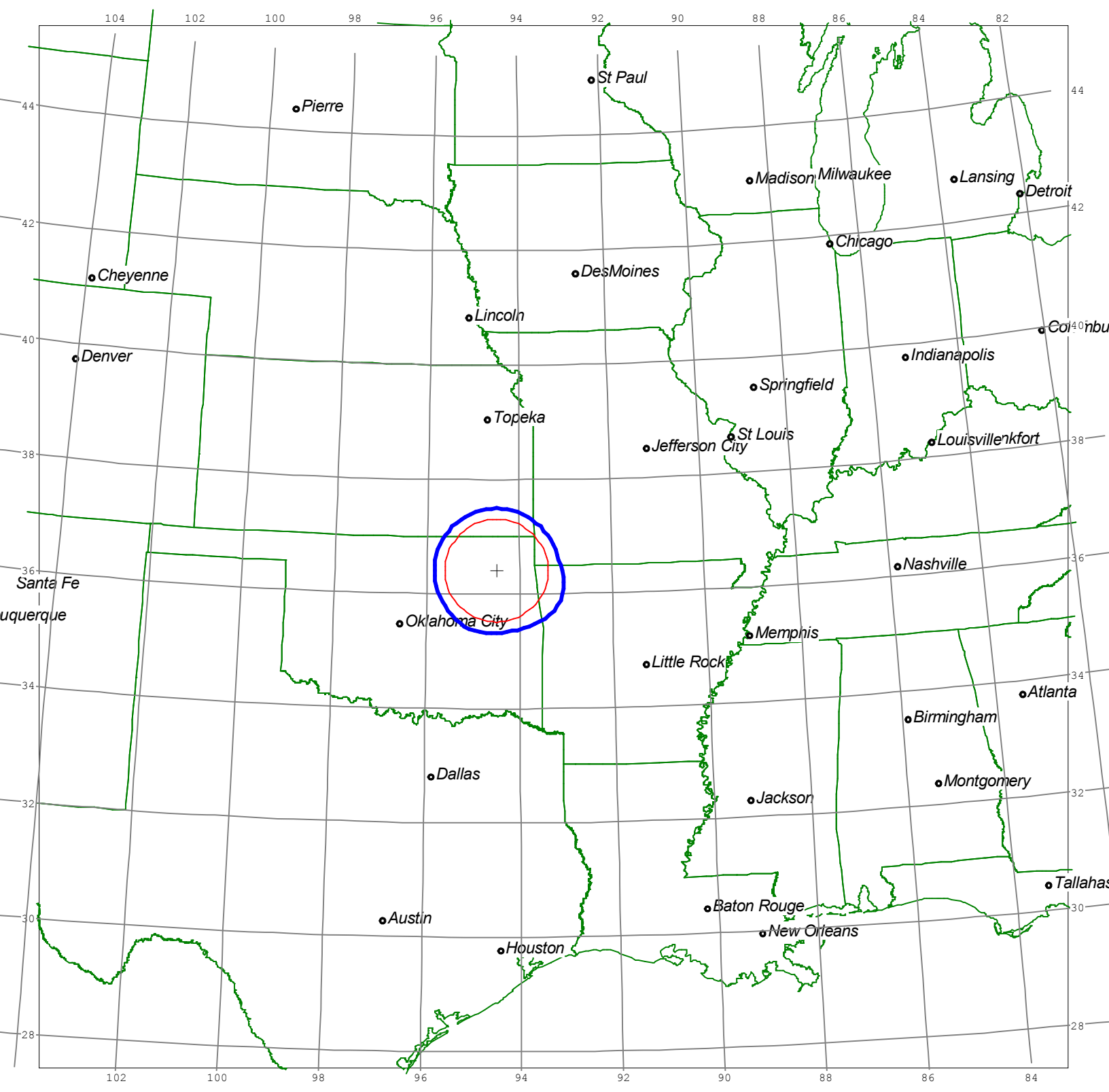
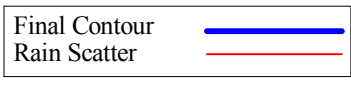
Micronet Communications, Inc.



Minimum Discrimination Angles for Chelsea, OK
Micronet Communications, Inc.



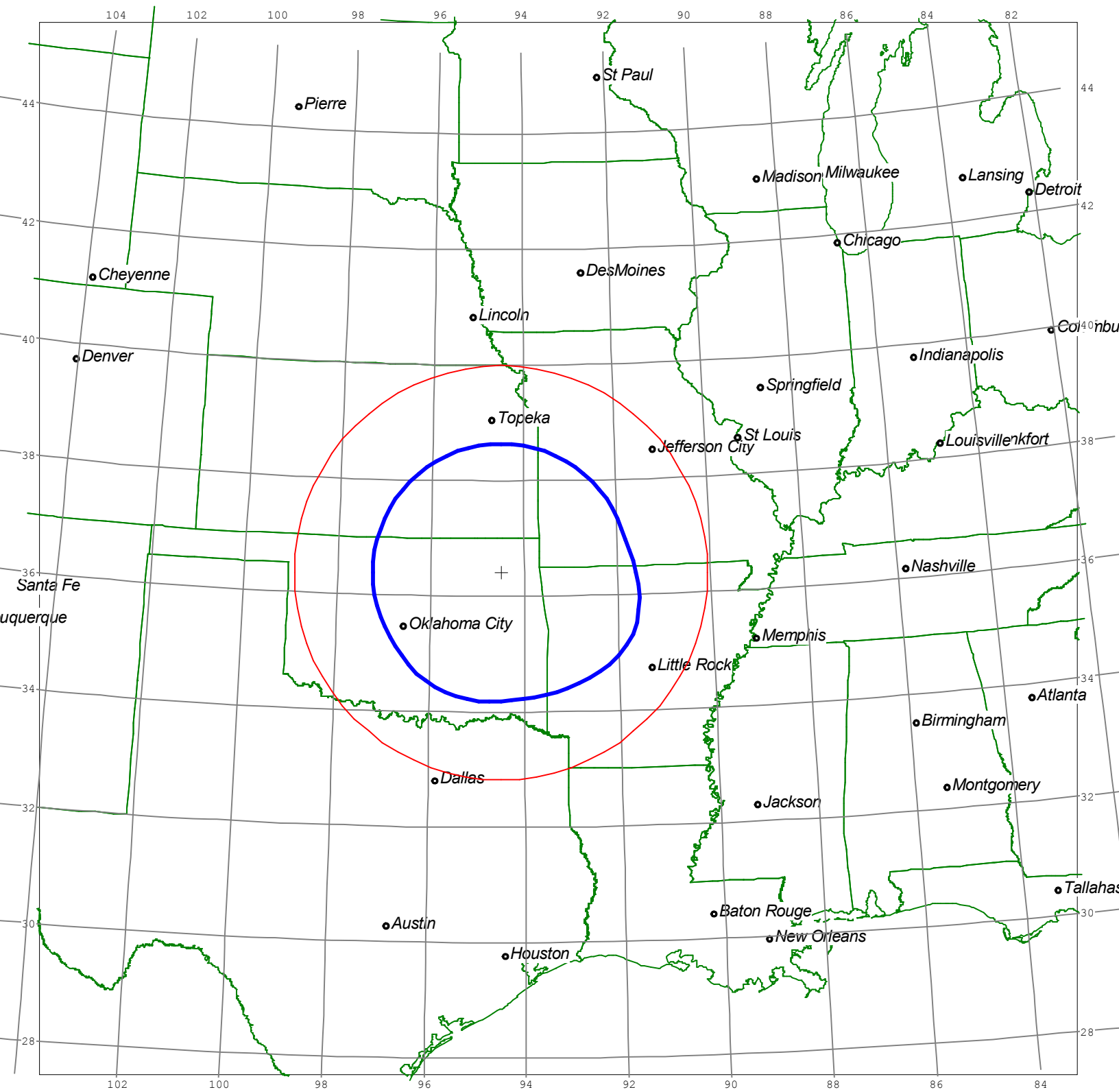
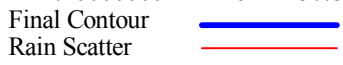
Final Contour & Rain Scatter for Chelsea, OK - Transmit



SCALE - 1:10000000 1 inch = 157.8 miles

Final Contour & Rain Scatter for Chelsea, OK - 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 Chelsea, OK at the coordinates of 36-24-36.7 N, 095-26-11.2 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
SEPTEMBER 2014**

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.

Online Payment

Step 3: Confirm Payment

Thank you.
Your transaction has been successfully completed.
It is recommended you [print a copy](#) for your records.



[Print this window.](#)

Pay.gov Tracking Information

Application Name: Remittance Advice

Pay.gov Tracking ID: 25HILSGU

Agency Tracking ID: PGC2566252

Transaction Date and Time: 09/15/2014 12:04 EDT

Payment Summary

Address Information	Account Information	Payment Information
<p>Account HOLLAND & Holder Name: KNIGHT LLP Billing 800 17TH STREET, Address: STE. 1100 Billing Address 2: City: WASHINGTON State / Province: DC Zip / Postal Code: 20006-3906 Country: USA</p>	<p>Card Type: American Express Card Number: *****1009</p>	<p>Payment Amount: \$2,825.00 Transaction Date 09/15/2014 and Time: 12:04 EDT</p>

[Return to your agency website](#)

Payment Confirmation

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

AGENCY TRACKING ID:	PGC2566252
AUTHORIZATION NUMBER :	243258
AMOUNT PAID :	\$2,825.00

[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:PGC2566252 Authorization Number:243258 Successful Authorization -- Date Paid: 9/15/14 FILE COPY ONLY!!

READ INSTRUCTIONS CAREFULLY BEFORE PROCEEDING (1) LOCKBOX # 979093	FEDERAL COMMUNICATIONS COMMISSION REMITTANCE ADVICE FORM 159 PAGE NO 1 OF 1	APPROVED BY OMB 3060-059 SPECIAL USE FCC USE ONLY
SECTION A - Payer Information		
(2) PAYER NAME (if paying by credit card, enter name exactly as it appears on your card) HOLLAND & KNIGHT LLP		(3) TOTAL AMOUNT PAID (dollars and cents) \$2825.00
(4) STREET ADDRESS LINE NO. 1 800 17TH STREET, STE. 1100		
(5) STREET ADDRESS LINE NO. 2 TELECOM-C. NAFTALIN		
(6) CITY WASHINGTON	(7) STATE DC	(8) ZIP CODE 20006-3906
(9) DAYTIME TELEPHONE NUMBER (INCLUDING AREA CODE) 202-9553000 x7040		(10) COUNTRY CODE (IF NOT IN U.S.A.) US
FCC REGISTRATION NUMBER (FRN) AND TAX IDENTIFICATION NUMBER (TIN) REQUIRED		
(11) PAYER (FRN) 0004148995	(12) FCC USE ONLY	
IF PAYER NAME AND THE APPLICANT NAME ARE DIFFERENT, COMPLETE SECTION B IF MORE THAN ONE APPLICANT, USE CONTINUATION SHEETS (FORM 159-C)		
(13) APPLICANT NAME HARRIS CORPORATION		
(14) STREET ADDRESS LINE NO. 1 1025 West Nasa Blvd.		
(15) STREET ADDRESS LINE NO. 2		
(16) CITY Melbourne	(17) STATE FL	(18) ZIP CODE 32919-
(19) DAYTIME TELEPHONE NUMBER (INCLUDING AREA CODE) 321-797-9234		(20) COUNTRY CODE (IF NOT IN U.S.A.) US
FCC REGISTRATION NUMBER (FRN) AND TAX IDENTIFICATION NUMBER (TIN) REQUIRED		
(21) APPLICANT (FRN) 0003791472	(22) FCC USE ONLY	
COMPLETE SECTION C FOR EACH SERVICE, IF MORE BOXES ARE NEEDED, USE CONTINUATION SHEET		
(23A) FCC Call Sign/Other ID	(24A) Payment Type Code(PTC) BAX	(25A) Quantity 1
(26A) Fee Due for (PTC) \$2,825.00	(27A) Total Fee \$2825.00	FCC Use Only
(28A) FCC CODE 1	(29A) FCC CODE 2 IB2014001828	
(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	

From: paygovadmin@mail.doc.twai.gov
To: [Werner, Glenn \(WAS - X71818\)](#)
Subject: Pay.gov Payment Confirmation: Remittance Advice- Chelsea, OK C Band Earth Station
Date: Monday, September 15, 2014 12:04:10 PM

Your payment has been submitted to Pay.gov and the details are below. If you have any questions or you wish to cancel this payment, please contact FCC Financial Operations Group Help Desk at ARINQUIRIES@fcc.gov at 877-480-3201 option 4.

Application Name: Remittance Advice
Pay.gov Tracking ID: 25HILSGU
Agency Tracking ID: PGC2566252
Transaction Type: Sale
Transaction Date: Sep 15, 2014 12:04:06 PM

Account Holder Name: HOLLAND & KNIGHT LLP
Transaction Amount: \$2,825.00
Billing Address: 800 17TH STREET, STE. 1100
City: WASHINGTON
State/Province: DC
Zip/Postal Code: 20006-3906
Country: USA
Card Type: AmericanExpress
Card Number: *****1009

THIS IS AN AUTOMATED MESSAGE. PLEASE DO NOT REPLY.

Logged in as: HARRIS CORPORATION (FRN: 0003791472) [[Log Out](#)][Print](#) | [Help](#)

9/15/2014 11:56 AM

Current Status of FRN 0003791472

STATUS: Green


You have no delinquent bills which would restrict you from doing business with the FCC.

The Red Light Display System checks all FRNs associated with the same Taxpayer Identification Number (TIN). A green light means that there are no outstanding delinquent non-tax debts owed to the Commission by any FRN associated with the requestor's TIN. The Red Light Display System was last updated on 09/15/2014 at 6:38 AM; it is updated once each business day at about 7 a.m., ET.

Customer Service

[Red Light Help](#)[FCC Debt Collection](#)[FCC Fees](#)[Web Policies](#) / [Privacy Policy](#)

Red Light Display System Help Line: (877) 480-3201 , option 4, 4; TTY (202) 414-1255  (Mon.-Fri. 8 a.m.-6:00 p.m. ET)

Red Light Display System has a dedicated staff of customer service representatives standing by to answer your questions or concerns. You can email us at arinquiries@fcc.gov or fax us at (202) 418-7869 .