

**United Teleports**  
**Modification Application**

**ASC Signal 6.5m Gateway Earth Station**  
**Technical Appendix**

- I. Supplemental Schedule S Technical Information
- II. ASC Signal 6.5m Radiation Hazard Study
- III. FCC Letter to ANATEL
- IV. Frequency Coordination Notice
- V. Engineer Certification

## **I. Supplemental Schedule S Technical Information**

### **1. PURPOSE AND SCOPE**

The purpose of this Attachment is to provide the Commission with the technical characteristics of the EUTELSAT 65 WEST A (“E65WA”) satellite in support of the earth station application filed by United Teleports. This attachment, prepared with the cooperation of the satellite operator Eutelsat do Brasil LTDA (“Eutelsat”), contains information required by the Commission that cannot be entered online into the Schedule S submission.

### **2. GENERAL DESCRIPTION**

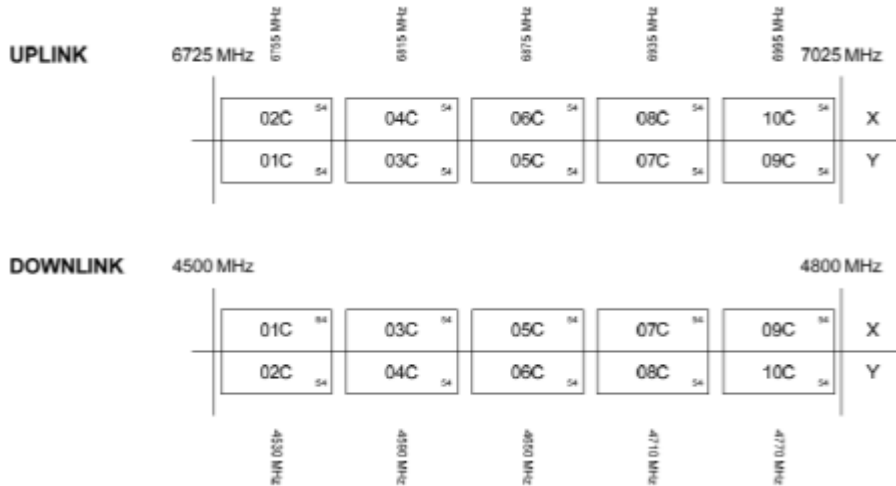
Eutelsat operates the E65WA satellite at the nominal 65° W.L. location. The satellite is capable of providing a wide range of FSS services using the C-, Ku- and Ka-bands. For purposes of the instant application, U.S. market access is being sought only for the Appendix 30B C-band uplink frequencies. Accordingly, only the characteristics of the C-band payload are described herein and in the Schedule S submission.

The C-band frequencies used by the satellite are the International Telecommunications Union (“ITU”) Appendix 30B bands: the 6725-7025 MHz uplink band and the 4500-4800 MHz downlink band. The satellite employs ten 54 MHz C-band transponders. There are two cross-polarized C-band beams in the uplink direction and two cross-polarized C-band beams in the downlink direction.

### **3. FREQUENCY PLAN AND POLARIZATION**

The E65WA satellite’s C-band frequency and polarization plan are provided in the associated Schedule S submission. The satellite provides full frequency reuse as required by Section 25.210(f) of the Commission’s rules, 47 C.F.R. § 25.210(f).

The satellite’s C-band frequency plan is provided below.



#### 4. SPACE STATION TRANSMIT & RECEIVE CAPABILITIES

The transmit and receive antenna gain contours of the satellite’s C-band beams are provided in GXT format and are embedded in the associated Schedule S submission. The maximum EIRP and EIRP densities for the downlink beams are listed in Table 1. Also listed are the maximum and minimum saturating flux-density (“SFD”) levels, referenced at the 0 dB/K contour, for the uplink beams.

**Table 1. Maximum Downlink EIRP and EIRP Densities. Maximum and Minimum SFD’s.**

Beam	Maximum Downlink EIRP (dBW)	Maximum Downlink EIRP Density (dBW/4kHz)	Maximum SFD (dBW/m <sup>2</sup> )	Minimum SFD (dBW/m <sup>2</sup> )
CTX	43.08	2.5		
CRX			-76 (@ 0 dB/K contour)	-96 (@ 0 dB/K contour)

In addition, uplink transmissions from the US territory towards the E65WA satellite will not exceed an input power density of -57.1 dBW/Hz. The E65WA satellite network will be operated in a manner consistent with ITU coordination agreements reached by Brazil.

## 5. ARRANGEMENT FOR TELEMETRY, TRACKING & COMMUNICATIONS

The arrangements for telemetry, tracking and command (“TT&C”) will be as informed in the submission for authorization to provide Ku-band services on the same satellite, filed in File No. SES-LIC-20160513-00427.

## 6. POWER FLUX DENSITY ANALYSIS

The Commission’s Part 25 rules do not contain power flex density (“PFD”) limits applicable to the ITU Appendix 30B downlink 4 GHz band. However, it is noted that Article 21 of the ITU Radio Regulations includes PFD limits that are applicable to GSO satellites using this band.

Table 2 shows the PFD levels that will occur at various angles of arrival for the downlink beams when transmitting with a maximum downlink EIRP density of 2.5 dBW/4kHz. This table demonstrates compliance with the ITU’s Article 21 PFD limits.

*Table 2. Maximum PFD Levels of Transmit Beams*

Angle of Arrival	Applicable PFD Limit for Angle of Arrival (dBW/m <sup>2</sup> /4 kHz)	Spreading Loss (dBW/m <sup>2</sup> )	Worst Case Gain Contour (dB)	Worst Case PFD Level at Angle of Arrival (dBW/m <sup>2</sup> /4 kHz)	PFD Margin (dB)
0°	-152.0	-163.4	-2.0	-162.9	10.9
5°	-152.0	-163.3	-2.0	-162.8	10.8
10°	-149.5	-163.2	-2.0	-162.7	13.2
15°	-147.0	-163.0	-2.0	-162.5	15.5
20°	-144.5	-162.9	-2.0	-162.4	17.9
25°	-142.0	-162.8	-2.0	-162.3	20.3
61.4° (Peak)	-142.0	-162.2	0.0	-159.7	17.7

This information is provided for completeness; United Teleports does not seek to downlink from the E65WA satellite in the United States.

## 7. TWO-DEGREE COMPATIBILITY ANALYSIS

This section demonstrates that the E65WA satellite network’s operations are two-degree

compatible.

Currently there are no operational C-band satellites two degrees away from the nominal 65° W.L. location using the Appendix 30B bands, nor are there any pending applications before the Commission requesting to use the Appendix 30B C-bands at a location two degrees or less from the nominal 65° W.L. location. In order to demonstrate two-degree compatibility, the transmission parameters of the E65WA satellite network have been used as both the wanted and interfering transmissions.

Table 3 provides typical transmission parameters used by the E65WA satellite network which were used in the interference analysis.

Table 4 shows the results of the interference calculations in terms of the overall C/I margins. The interference calculations assume that the wanted and interfering carriers are co-polarized and all earth station antennas conform to a sidelobe pattern of  $29-25 \log(\theta)$ . The C/I calculations were performed on a per Hz basis.

These tables indicate that all the C/I margins are positive, thereby demonstrating the two-degree compatibility of the E65WA satellite network.

**Table 3. Typical Transmission Parameters**

Carrier ID	Emission Designator	Bandwidth (MHz)	Tx E/S Gain (dBi)	Uplink EIRP (dBW)	Downlink EIRP (dBW)	Rx E/S Gain (dBi)	C/I Criterion (dB)
1	45M0G7W	45.0	51.5	70.9	41.6	48.0	24.2
2	45M0G7W	45.0	51.5	69.9	40.5	48.0	24.2
3	30M0G7W	30.0	51.5	65.3	37.4	48.0	21.6
4	30M0G7W	30.0	51.5	65.3	36.3	48.0	21.6

**Table 4. Summary of the overall link C/I margins (dB)**

<b>VICTIM UPLINK BEAM INFORMATION</b>				
Uplink Frequency Band (MHz)	<b>6725-7025</b>	<b>6725-7025</b>	<b>6725-7025</b>	<b>6725-7025</b>
Uplink Beam Peak G/T (dB/K)	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>
<b>INTERFERING DOWNLINK BEAM INFORMATION</b>				
Downlink Frequency Band (MHz)	<b>4500-4800</b>	<b>4500-4800</b>	<b>4500-4800</b>	<b>4500-4800</b>
<b>INTERFERING CARRIER INFORMATION</b>				

Emission Designation	<b>45M0G7W</b>	<b>45M0G7W</b>	<b>30M0G7W</b>	<b>30M0G7W</b>
Carrier Modulation	<b>QPSK</b>	<b>QPSK</b>	<b>QPSK</b>	<b>QPSK</b>
Allocated Bandwidth(kHz)	<b>45000</b>	<b>45000</b>	<b>30000</b>	<b>30000</b>
Uplink Power Density (dBW/Hz)	<b>-57.1</b>	<b>-57.1</b>	<b>-61.0</b>	<b>-61.0</b>
Downlink EIRP Density (dBW/Hz)	<b>-34.9</b>	<b>-34.9</b>	<b>-37.4</b>	<b>-37.4</b>
<b>VICTIM CARRIER INFORMATION</b>				
Emission Designation	<b>45M0G7W</b>	<b>30M0G7W</b>	<b>45M0G7W</b>	<b>30M0G7W</b>
Carrier Modulation	<b>QPSK</b>	<b>QPSK</b>	<b>QPSK</b>	<b>QPSK</b>
Allocated Bandwidth(kHz)	<b>45000</b>	<b>30000</b>	<b>45000</b>	<b>30000</b>
Minimum Uplink EIRP (dBW)	<b>69.9</b>	<b>65.3</b>	<b>69.9</b>	<b>65.3</b>
Minimum Downlink EIRP (dBW)	<b>40.5</b>	<b>36.3</b>	<b>40.5</b>	<b>36.3</b>
<b>INTERFERING UPLINK EARTH STATION</b>				
Earth Station Diameter (meters)	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>
Earth Station Gain (dBi)	<b>51.5</b>	<b>51.5</b>	<b>51.5</b>	<b>51.5</b>
<b>VICTIM DOWNLINK EARTH STATION</b>				
Earth Station Diameter (meters)	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>
Earth Station Gain (dBi)	<b>48.0</b>	<b>48.0</b>	<b>48.0</b>	<b>48.0</b>
Earth Station G/T (dB/K)	<b>29.2</b>	<b>29.2</b>	<b>29.2</b>	<b>29.2</b>
<b>COMPOSITE LINK PERFORMANCE</b>				
Uplink Interference C/I (dB)	<b>29.5</b>	<b>26.7</b>	<b>33.3</b>	<b>30.5</b>
Downlink Interference C/I (dB)	<b>25.9</b>	<b>23.5</b>	<b>28.3</b>	<b>25.9</b>
Total C/I (dB)	<b>24.3</b>	<b>21.8</b>	<b>27.1</b>	<b>24.6</b>
C/I Required (dB)	<b>24.2</b>	<b>21.6</b>	<b>24.2</b>	<b>21.6</b>
Margin (dB)	<b>0.1</b>	<b>0.2</b>	<b>2.9</b>	<b>3.0</b>

## 8. ORBITAL DEBRIS MITIGATION PLAN

The arrangements orbital debris mitigation will be as informed in the submission for authorization to provide Ku-band services on the same satellite, filed in File No. SES-LIC-20160513-00427.

## 9. ITU Filings

The E65WA satellite network operates under the following two ITU Appendix 30B filings:

B-SAT-3R – AP30B/A6A/254 published in IFIC 2744.

B-SAT-3R-1 – AP30B/A6A/333 published in IFIC 2774

## II. ANALYSIS OF NON-IONIZING RADIATION

for United Teleports Inc

Site: Port Saint Lucie State: FL

Latitude: 27 16 56.5 Longitude: 80 28 58.6 (NAD83)  
02-27-2017

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) = 6.5000 m  
Antenna Surface Area (Sa) =  $\pi(D^2)/4$  = 33.1831 m\*\*2  
Wavelength at 6.8000 GHz ( $\lambda$ ) = 0.0441 m  
Transmit Power at Flange (P) = 88.0000 Watts  
Antenna Gain at Earth Site (GES) = 51.5000 dBi = 141253.7545  
Power Ratio:  
AntiLog(GES/10)  
pi = 3.1415927  
Antenna Aperture Efficiency (n) = 0.6000

### 1. FAR ZONE CALCULATIONS

$$\text{Distance to the Far Zone} \quad (D_f) = \frac{(n) (D^{**2})}{\text{lambda}} = 574.8299 \text{ m}$$

$$\text{Far Zone Power Density} \quad (R_f) = \frac{(GES) (P)}{4 * \text{pi} * (D_f^{**2})} = 2.9936 \text{ W/m}^{**2}$$
$$= 0.2994 \text{ mW/cm}^{**2}$$

### 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.

$$\text{Distance to the Near Zone} \quad (D_n) = \frac{D^{**2}}{4 * \text{lambda}} = 239.5125 \text{ m}$$

$$\text{Near Zone Power Density} \quad (R_n) = \frac{16.0 (n) P}{\text{pi} (D^{**2})} = 6.3647 \text{ W/m}^{**2}$$
$$= 0.6365 \text{ mW/cm}^{**2}$$

### 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  
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$$\begin{aligned} \text{Main Reflector Power Density} &= \frac{2(P)}{S_a} = 5.3039 \text{ W/m}^2 \\ &= 0.5304 \text{ mW/cm}^2 \end{aligned}$$

5. ZONE BETWEEN THE MAIN REFLECTOR AND THE GROUND  
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Applying uniform illumination of the Main Reflector Surface:

$$\begin{aligned} \text{Main to Ground Power Density} &= \frac{P}{S_a} = 2.6520 \text{ W/m}^2 \\ &= 0.2652 \text{ mW/cm}^2 \end{aligned}$$

CALCULATED SAFETY MARGINS SUMMARY  
AND EVALUATION

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Controlled Safety Margin = 5.0 - Calculated Zone Value (mW/cm\*\*2)  
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Zones	Safety Margins (mW/cm**2)	Conclusions
1. Far Zone	4.7006	Complies with ANSI
2. Near Zone	4.3635	Complies with ANSI
3. Transition Zone	Rf < Rt < Rn	Complies with ANSI
4. Main Reflector Surface	4.4696	Complies with ANSI
5. Main Reflector to Ground	4.7348	Complies with ANSI

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Uncontrolled Safety Margin = 1.0 - Calculated Zone Value (mW/cm\*\*2)  
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Zones	Safety Margins (mW/cm**2)	Conclusions
1. Far Zone	0.7006	Complies with ANSI
2. Near Zone	0.3635	Complies with ANSI
3. Transition Zone	Rf < Rt < Rn	Complies with ANSI
4. Main Reflector Surface	0.4696	Complies with ANSI
5. Main Reflector to Ground	0.7348	Complies with ANSI

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

### III. FCC Letter to ANATEL



FEDERAL COMMUNICATIONS COMMISSION  
INTERNATIONAL BUREAU  
WASHINGTON, D.C. 20554

fax: +1 202 418 1208; TWX: 710 822 0160

In reply, refer to:  
800C2/SEB16174

Telefax message:

To: Agência Nacional de Telecomunicações - ANATEL  
Assessoria Internacional  
SAUS-Quadra 6 - Bloco H - 4th Floor  
70070-940 BRASILIA, DF  
Brazil  
TELEFAX NO.: 011 + 55 61 23122244 C

CC: ITU Radiocommunication Bureau  
Geneva, Switzerland  
Telefax no.: 41 22 730 5785

Date: 27 April 2016

Subject: Agreement under §6.6 of Article 6 of Appendix 30B

References: 1) Special Section AP30B/A6A/333, BRIFIC 2744 dated 22.07.2014, concerning the  
B-SAT-3R-1 satellite network.  
2) Our letter 800C2/SEB14393, dated 30.10.2014  
3) Your letter CT. n°163/ORER-Anatel dated 25.09.2015

The US administration thanks the administration of Brazil for its request for agreement regarding the operation of the B-SAT-3R-1 satellite network in the 6725-7025 MHz (Earth to space) and 4500-4800 MHz (space to Earth), 10.70-10.95 GHz (space to Earth), 11.20-11.45 GHz (space to Earth) and 12.75-13.25 GHz (Earth to space) planned bands of APP30B. The US administration is pleased to provide its agreement under the provision §6.6 of Appendix 30B for inclusion of its territory in the service area of the B-SAT-3R-1 satellite network. However, this agreement does not guarantee market access to the US. Any earth station located within US territory seeking to communicate with the B-SAT-3R-1 satellite network must first be licensed in accordance with US laws and regulations. Any operation of the satellites would be in accordance with international Radio Regulations and relevant provisions. Any such license application may or may not be granted.

REGARDS  
FEDCOMCOM  
SATELLITE DIVISION  
Direct Fax No.: +1 202 418 1208 (preferred)  
or +1 202 418 0398 (alternative)  
Email: [IBmail@fcc.gov](mailto:IBmail@fcc.gov)

Authorized: J. Payton  
International Bureau/SD

\* \* \* \* \*

**IV. Frequency Coordination Notice**  
**Micronet Communications, Inc.**

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

SUPPLEMENTAL SHOWING PART 101.103(D)

File Number: M1700303  
Licensee: United Teleports Inc

6.72 GHz

Page 1

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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:

Port Saint Lucie, FL

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:

02/02/2017 Original PCN (Expedited response requested by 02/16/2017)  
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:

BREVARD COMMUNITY COLLEGE  
BREVARD, COUNTY OF  
BROWARD COUNTY BOARD OF COUNTY COMMISSIONERS  
CITY OF CORAL SPRINGS  
COMSEARCH INC  
FLORIDA, STATE OF  
HARRIS CORPORATION  
HIGHLANDS COUNTY  
INDIAN RIVER, COUNTY OF  
MARTIN, COUNTY OF  
OSCEOLA COUNTY INTERGOVERNMENTAL COMMUNICATIONS  
PALM BEACH COUNTY OF  
PALM BEACH, COUNTY OF  
POLK, COUNTY OF  
RADIO DYNAMICS  
SOUTH FLORIDA WATER MANAGEMENT DISTRICT  
VERIZON WIRELESS PERSONAL COMMUNICATIONS LP  
WEST PALM BEACH, CITY OF

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: M1700303

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TECHNICAL CHARACTERISTICS OF TRANSMIT ONLY EARTH STATION

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Company:	United Teleports Inc		
Site Name, State:	Port Saint Lucie, FL		
Call Sign:	E160081		
Latitude	(NAD83)	27 16	56.5 N
Longitude	(NAD83)	80 28	58.6 W
Elevation AMSL	(ft/m)	24.61	7.50
Receive Frequency Range	(MHz)		
Transmit Frequency Range	(MHz)	6725-7025	
Range of Satellite Orbital Long.	(deg W)	64.00	66.00
Range of Azimuths from North	(deg)	147.16	150.60
Antenna Centerline	(ft/m)	21.33	6.50
Antenna Elevation Angles	(deg)	53.28	54.32

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Equipment Parameters	Transmit
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Antenna Gain, Main Beam	(dbI)	51.00
15 DB Half Beamwidth	(deg)	0.84

Antennas            Transmit: COMMSCOPE ES65-1

Max Transmitter Power	(dbW/4KHz)	-21.41
Max EIRP Main Beam	(dbW/4KHz)	29.59
Modulation / Emission Designator	DIGITAL	1M00G7W 36M0G7W
		54M0G7W

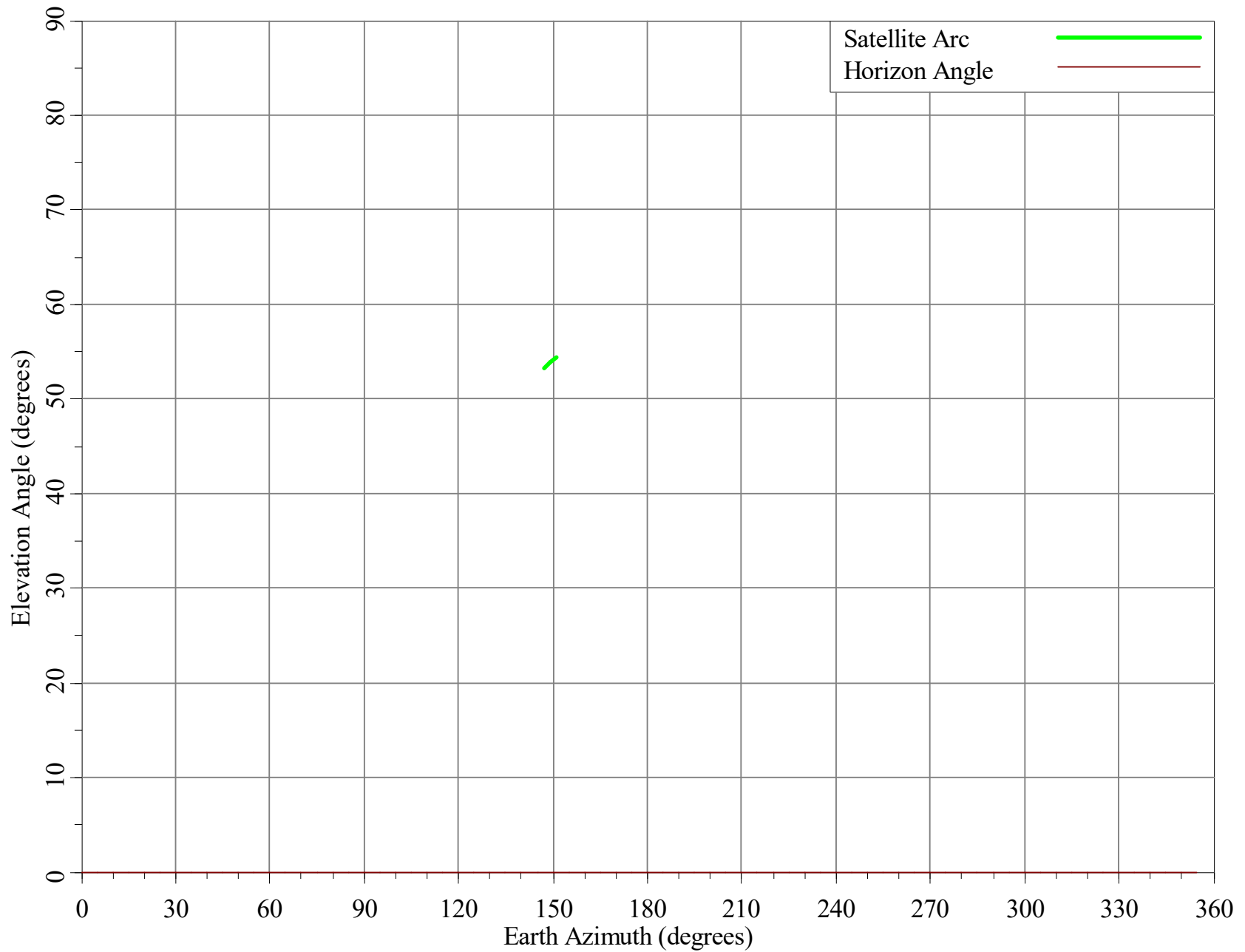
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Coordination Parameters	Transmit
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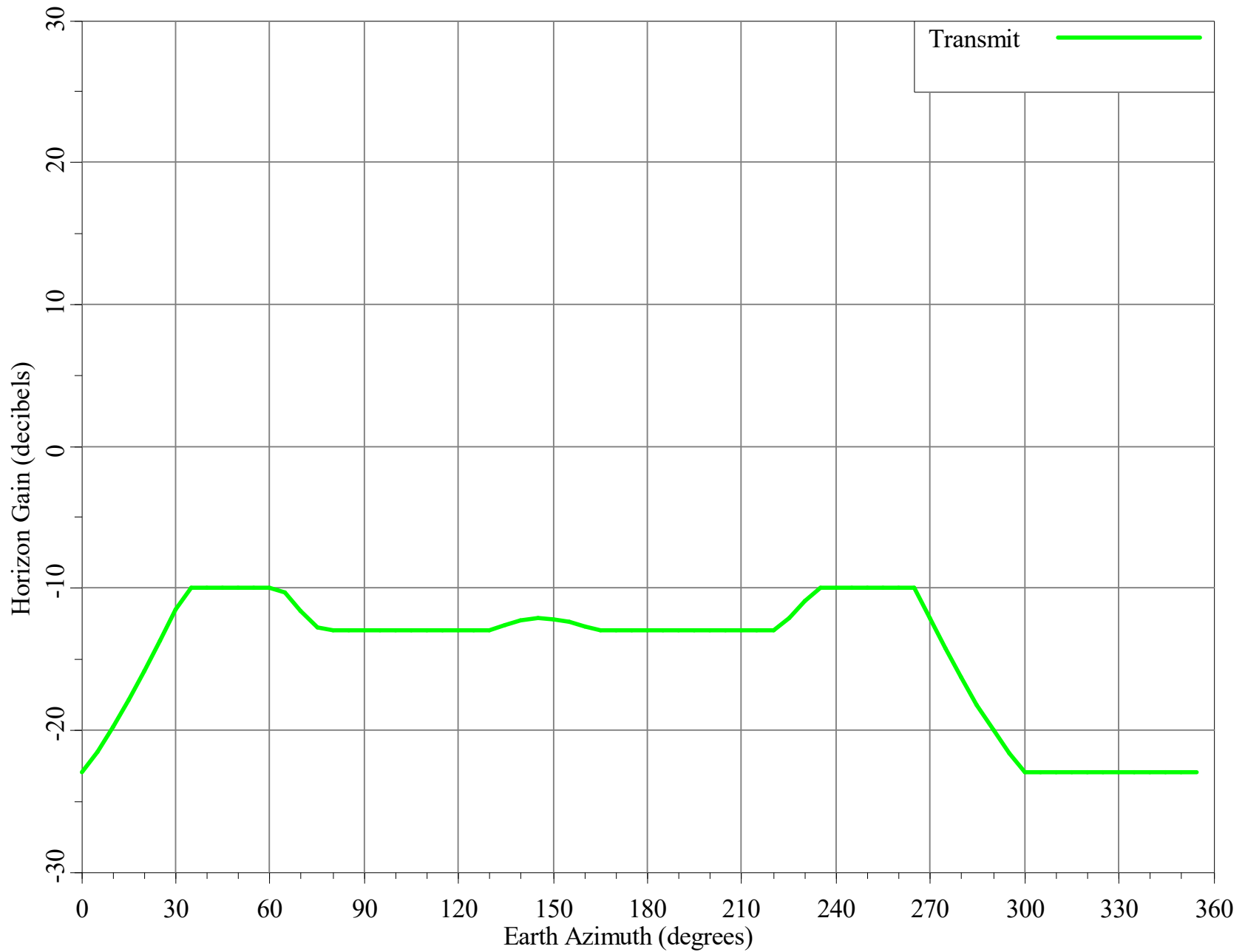
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Max Greater Circle Distances	(km)	113.01
Max Rain Scatter Distances	(km)	100.00
Max Interference Power Long Term	(dbW)	-154.00
Max Interference Power Short Term	(dbW)	-130.80
Rain Zone / Radio Zone		1            A

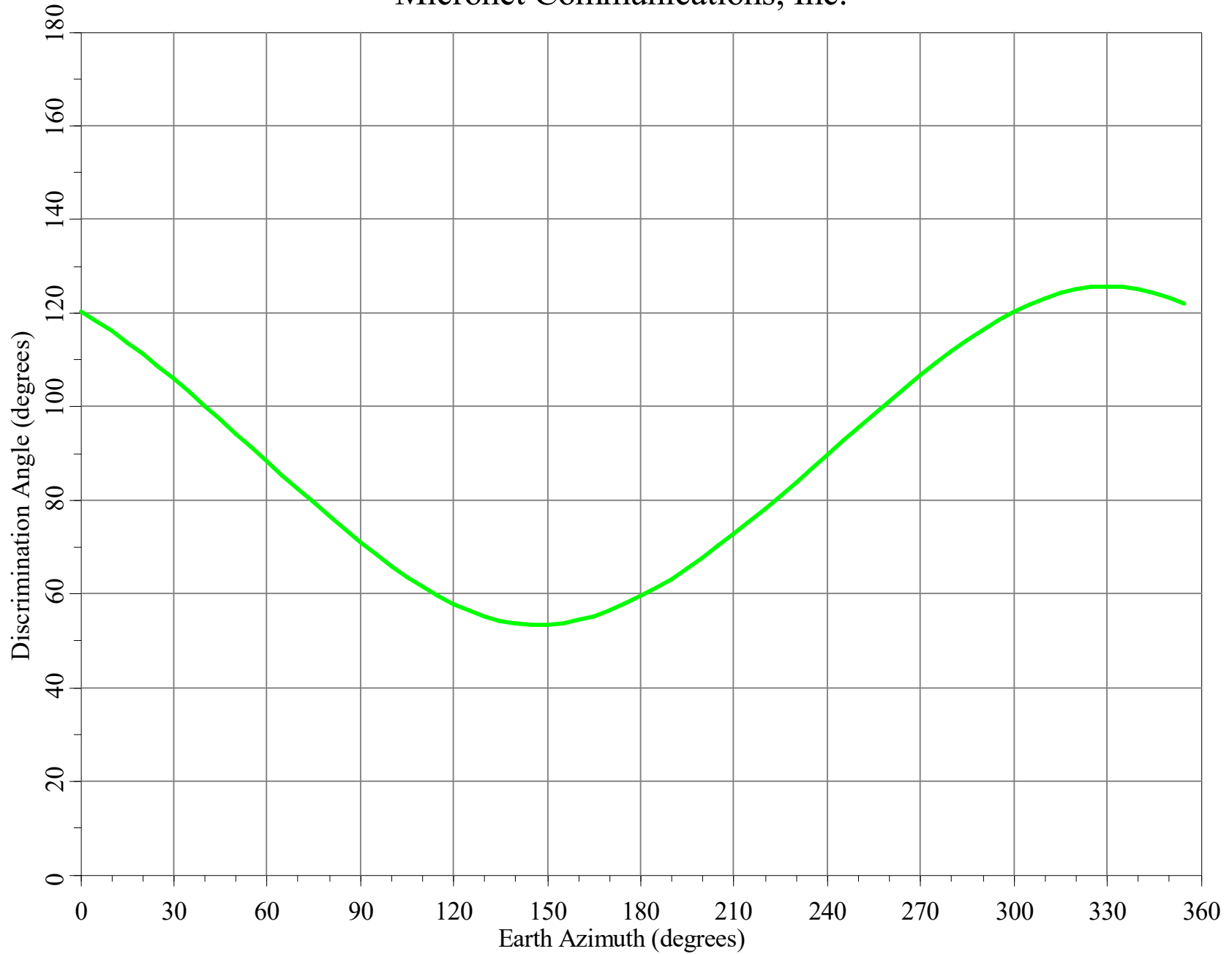
# Horizon Angle & Satellite Arc for Port Saint Lucie, FL Micronet Communications, Inc.



Horizon Gain for Port Saint Lucie, FL  
Micronet Communications, Inc.

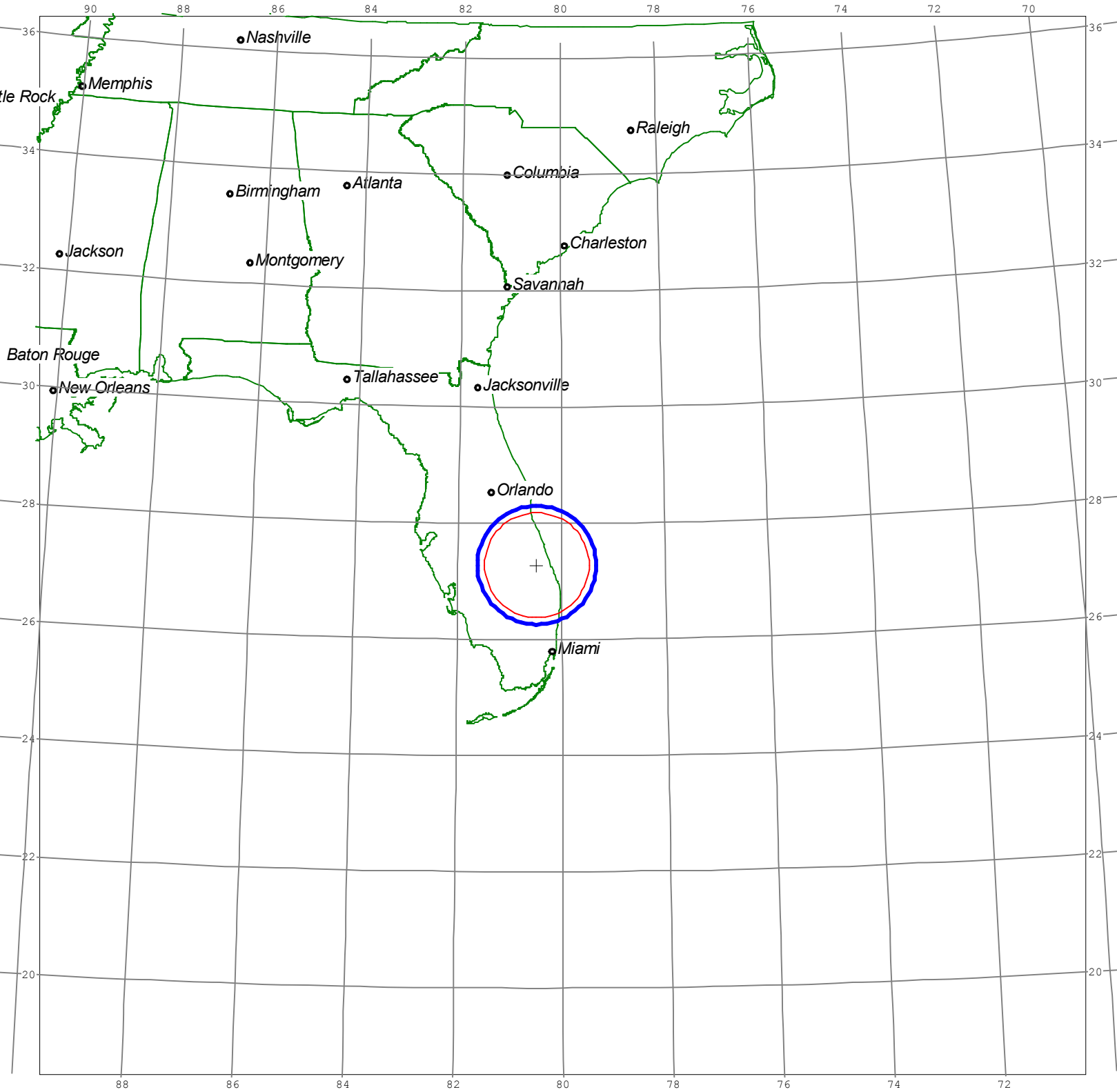
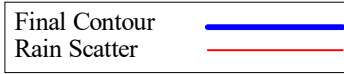


Minimum Discrimination Angles for Port Saint Lucie, FL  
Micronet Communications, Inc.





# Final Contour & Rain Scatter for Port Saint Lucie, FL - Transmit



Email to Coordinators Re: Coordination Notice Update

-----Original Message-----

From: jlewis@micronetcom.com [mailto:jl@micronetcom.com]

Sent: Monday, February 27, 2017 1:40 PM

To: cnalda@lmiadvisors.com

Cc: jlewis@micronetcom.com; frequencyprotection@micronetcom.com

Subject: PCN M1700303 - United Teleports Inc

Enclosed is a copy of the Prior Coordination Notice sent to all affected carriers.

Please let me know if you have any questions or if I can be of further assistance.

RE: United Teleports Inc

Micronet File Number(s): M1700303

Path Count: 1 State(s): FL Band(s): 6.7

\*\*\* Minor Modification - Satellite Earth Station \*\*\*

Dear Coordinator:

A radio frequency study of the above referenced system has been conducted and no interference problems were indicated.

We are enclosing this frequency coordination notice for your review in compliance with the rules and regulations of the F.C.C., Part 25.203 (C).

Please find attached the corresponding path data sheet(s) and click on the link below to view the system diagram in Google Earth (kmz file).

[www.micronetcom.com/pcn/E6B7F6](http://www.micronetcom.com/pcn/E6B7F6)

Please update your database accordingly with the underlined changes on the attached data sheets. This data change notification is for your information only, and no response is required.

Please call if you should have any questions.

Frequency Protection  
Micronet Communications, Inc.  
720 F Ave Suite 100  
Plano, TX 75074  
(972) 422-7200  
epcn@micronetcom.com

Sincerely,  
Jeremy Lewis

**(Coordination Change Notification)**

**Micronet Communications, Inc.**

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

SUPPLEMENTAL SHOWING PART 101.103(D)

File Number: M1700303  
Licensee: United Teleports Inc

6.72 GHz

Page 1

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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:

Port Saint Lucie, FL

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:

- 02/27/2017** No-impact change notification pursuant to Section 101.103(d)(2)(ix) - No response required.
- 02/02/2017 Original PCN (Expedited response requested by 02/16/2017)  
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:

BREVARD COMMUNITY COLLEGE  
BREVARD, COUNTY OF  
BROWARD COUNTY BOARD OF COUNTY COMMISSIONERS  
CITY OF CORAL SPRINGS  
COMSEARCH INC  
FLORIDA, STATE OF  
HARRIS CORPORATION  
HIGHLANDS COUNTY  
INDIAN RIVER, COUNTY OF  
MARTIN, COUNTY OF  
OSCEOLA COUNTY INTERGOVERNMENTAL COMMUNICATIONS  
PALM BEACH COUNTY OF  
PALM BEACH, COUNTY OF  
POLK, COUNTY OF  
RADIO DYNAMICS  
SOUTH FLORIDA WATER MANAGEMENT DISTRICT  
VERIZON WIRELESS PERSONAL COMMUNICATIONS LP  
WEST PALM BEACH, CITY OF

**Micronet Communications, Inc.**

720 F Avenue, Suite 100

Plano, Texas 75074

972-422-7200

SUPPLEMENTAL SHOWING PART 101.103(D)

File Number: M1700303

6.72 GHz

Licensee: United Teleports Inc

Page 2

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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: M1700303

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TECHNICAL CHARACTERISTICS OF TRANSMIT ONLY EARTH STATION

=====

Company:	United Teleports Inc		
Site Name, State:	Port Saint Lucie, FL		
Call Sign:	E160081		
Latitude	(NAD83)	27 16	56.5 N
Longitude	(NAD83)	80 28	58.6 W
Elevation AMSL	(ft/m)	24.61	7.50
Receive Frequency Range	(MHz)		
Transmit Frequency Range	(MHz)	6725-7025	
Range of Satellite Orbital Long.	(deg W)	64.00	66.00
Range of Azimuths from North	(deg)	147.16	150.60
Antenna Centerline	(ft/m)	21.33	6.50
Antenna Elevation Angles	(deg)	53.28	54.32

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Equipment Parameters Transmit

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Antenna Gain, Main Beam	(dbI)	51.50
15 DB Half Beamwidth	(deg)	0.84

Antennas Transmit: COMMSCOPE ES65-1

Max Transmitter Power	(dbW/4KHz)	-21.10
Max EIRP Main Beam	(dbW/4KHz)	30.40
Modulation / Emission Designator	DIGITAL	45M0G7W 30M0G7W

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Coordination Parameters Transmit

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Max Greater Circle Distances	(km)	113.61
Max Rain Scatter Distances	(km)	100.00
Max Interference Power Long Term	(dbW)	-154.00
Max Interference Power Short Term	(dbW)	-130.80
Rain Zone / Radio Zone		1 <span style="float: right;">A</span>

**V. CERTIFICATION OF PERSON RESPONSIBLE FOR PREPARING  
ENGINEERING INFORMATION**

I hereby certify that I am the technically qualified person responsible for preparation of the engineering information contained in this application, that I am familiar with Part 25 of the Commission's rules that I have either prepared or reviewed the engineering information submitted in this application, and that it is complete and accurate to the best of my knowledge and belief.

/s/

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Humberto Henriques  
Telecomm Strategies

February 27, 2017