

STA Narrative Statement

RiteNet Corp. (“RiteNet”), pursuant to Section 25.120 of the Commission’s rules, 47 C.F.R. § 25.120, respectfully seeks 60-day special temporary authorization (“STA”), commencing on Monday, January 3, 2021, or as soon as practicable thereafter, to operate a 2.4m fixed earth station in Mount Olotele, American Samoa to communicate with the JCSAT-2B satellite at 154°E in certain C-band frequencies. This STA application is submitted to ensure appropriate authority to operate the earth station during the pendency of RiteNet’s license application, which is hereby incorporated by reference and attached in its entirety for the Commission’s convenience.¹ As noted therein, RiteNet has now completed coordination of its proposed earth station operations and confirms the operations present no interference issues with terrestrial licensees.²

Grant of this STA serves the public interest because it will enable RiteNet to immediately support the Federal Emergency Management Agency’s (“FEMA”) Integrated Public Awareness Warning System (“IPAWS”).³ RiteNet, through its General Services Administration contract vehicle, will support IPAWS with critical satellite connectivity and earth station services. The earth station will serve as a remote terminal for IPAWS as a part of FEMA’s emergency broadcast network. FEMA will integrate RiteNet’s proposed earth station into IPAWS for communication with U.S. Pacific territories to urgently replace out-of-network facilities on which it currently relies.

The earth station in American Samoa will be interlinked with the national IPAWS network and communicate with a RiteNet earth station in Hawaii (which is the subject of a separate application) for emergency broadcasting, ensuring that Americans in remote Pacific locations are connected to the national emergency information system. Given this critical U.S. government mission, the urgent need to integrate and upgrade associated facilities, and important public interest benefits, RiteNet respectfully requests the Commission grant the requested STA at the earliest possible time to strengthen the U.S. government’s emergency broadcast system capabilities.

¹ RiteNet Corp., File No. SES-LIC-20211112-01809 (Call Sign E210430) (filed Nov. 12, 2021) (“*License Application*”).

² See *id.*, Section 1.65 Letter (filed Dec. 22, 2021) (notifying the Commission that RiteNet has completed coordination for the proposed operations).

³ IPAWS is FEMA's national system for local alerting that provides authenticated emergency and life-saving information to the U.S. public through mobile phones using Wireless Emergency Alerts and to radio and television via the Emergency Alert System. More information is available here: <https://www.fema.gov/emergency-managers/practitioners/integrated-public-alert-warning-system>.

Date & Time Filed: Nov 12 2021 12:39:34:316PM
File Number: SES-LIC-INTR2021-04296
Callsign/Satellite ID:

APPLICATION FOR EARTH STATION AUTHORIZATIONS FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	FCC Use Only
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APPLICANT INFORMATION

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

Application for 2.4m C-band Antenna in Mount Olotele, AS

1-8. Legal Name of Applicant

Name:	RiteNet Corp.	Phone Number:	240-505-4996
DBA Name:		Fax Number:	
Street:	1445 Research Blvd Suite 505	E-Mail:	rramineni@ritenet.com
City:	Rockville	State:	MD
Country:	USA	Zipcode:	20850 -6111
Attention:	Mr Rao Ramineni		

9-16. Name of Contact Representative

Name:	Carlos M. Nalda	Phone Number:	5713325626
Company:	LMI Advisors LLC	Fax Number:	
Street:	2550 M. Street, NW, Suite 300	E-Mail:	cnalda@lmiadvisors.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20037-
Attention:	Carlos M. Nalda	Relationship:	Other

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. ☐ b12. Application for Database Entry (N/A) b13. Amendment to a Pending Database Entry Application (N/A) b14. Modifiction of Database Entry
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: (b) File number of pending application: Not Applicable Not Applicable
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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. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.

☐ Yes ☒ No

Rad Haz Report

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

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

Antenna Statement

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? Japan

43. Description. (Summarize the nature of the application and the services to be provided).
(If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

(If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Application for authority to operate a 2.4m C-band earth station in connection with a critical project for the Federal Emergency Management Agency.

Narrative

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
Rao Ramineni

46. Title of Person Signing
President

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:	2.4m AS	E5. Call Sign:	
E2: Contact Name	Rao Ramineni	E6. Phone Number:	240-505-4996
E3. Street:	Mount Olotele	E7. City:	Aoloau
		E8. County:	Leasina
E4. State	AS	E9. Zip Code	96799
E10. Area of Operation:	Mount Olotele, AS		
E11. Latitude:	14 °19 '3.0 "S		
E12. Longitude:	170 °45 '51.0 "W		
E13. Lat/Lon Coordinates are:	☐ NAD-27	☒ NAD-83	☐ N/A
E14. Site Elevation (AMSL):	479.45 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 a technical analysis showing compliance with two-degree spacing policy.	☐ Yes ☒ No ☐ N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non-geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	☐ Yes ☐ No ☒ N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	☒ Yes ☐ No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	☒ Yes ☐ No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	☐ Yes ☒ 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.	☐ Yes ☒ No

POINTS OF COMMUNICATION

Satellite Name: JCSAT-2B(M174163) JCSAT-2B (M174163) 154 E.L. 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: 2.4m AS	
E26. Common Name:	E27. Country:USA

ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size<meters>	E41/42. Antenna GainTransmint and/or Recieve (____dBi at ____GHz)
2.4m AS	1	1	General Dynamics	2.4m	2.4	37.6 dBi at 4.0
						41.6 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	3.0	483.0	0.0	3.4	0.0	46.91

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	190KG7W	0.0	0.0
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) QPSK							
1	6417.67	6425	T	Horizontal and Vertical	190KG7W	46.91	30.15
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) QPSK							
1	5925 5991.62		T	Horizontal and Vertical	190KG7W	46.91	30.15
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) Digital							

1	6047.03 6050.93	T	Horizontal and Vertical	190KG7W	46.91	30.15
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) QPSK						
1	6106.32 6110.22	T	Horizontal and Vertical	190KG7W	46.91	30.15
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) QPSK						
1	6165.63 6362.26	T	Horizontal and Vertical	190KG7W	46.91	30.15
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) QPSK						

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	154.0/ 154.0	289.3	46.3	289.3	46.3	0.0
	Geostationary	5925 5991.62	154.0/ 154.0	289.3	46.3	289.3	46.3	-21.45
	Geostationary	6417.67 6425	154.0/ 154.0	289.3	46.3	289.3	46.3	-21.45
	Geostationary	6047.03 6050.93	154.0/ 154.0	289.3	46.3	289.3	46.3	-21.45
	Geostationary	6106.32 6110.22	154.0/ 154.0	289.3	46.3	289.3	46.3	-21.45
	Geostationary	6165.63 6362.26	154.0/ 154.0	289.3	46.3	289.3	46.3	-21.45

REMOTE CONTROL POINT LOCATION

E61. Call Sign NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.		E65. Phone Number 800-357-8799	
E62. Street Address 841 Livingston Court			
E63. City Marietta		E67. County Cobb County	
		E64/68. State/Country GA/ USA	E66. Zip Code 30067

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

The public reporting for this collection of information is estimated to average 0.25 – 24 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD-PERM, Paperwork Reduction Project (3060-0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to PRA@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

Remember – You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-0678.

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.

Narrative Statement

2.4m C-band Fixed Earth Station

RiteNet, Corp. (“RiteNet”) pursuant to Section 25.115 of the Commission’s rules, 47 C.F.R. § 25.115, respectfully seeks a license to operate a 2.4m fixed earth station in Mount Olotele, American Samoa to communicate with the JCSAT-2B satellite at 154°E in certain C-band frequencies. The earth station transmit frequencies identified herein are those identified by RiteNet’s frequencies coordinator to be clear (*i.e.*, present no interference cases with terrestrial licensees). RiteNet will update the record of this proceeding with respect to the final status coordination once complete. RiteNet also notes that the transmit power levels proposed herein are lower than those authorized for 2.4m C-band antennas with the same performance characteristics.¹

Grant of this application serves the public interest because it will directly support the Federal Emergency Management Agency’s (“FEMA”) Integrated Public Awareness Warning System (“IPAWS”).² RiteNet, through its General Services Administration contract vehicle, will support IPAWS with satellite connectivity and earth station services. The earth station will serve as a remote terminal for IPAWS as a part of FEMA’s emergency broadcast network. FEMA will integrate RiteNet’s proposed earth station into IPAWS for communication with U.S. Pacific territories to replace out-of-network facilities on which it currently relies.

The earth station in American Samoa will be interlinked with the national IPAWS network and communicate with a RiteNet earth station in Hawaii (which is the subject of a separate application) for emergency broadcasting, ensuring that Americans in remote Pacific locations are connected to the national emergency information system. Given this critical U.S. government mission and important public interest benefits, RiteNet respectfully requests the Commission grant the requested authorization at the earliest possible time to strengthen the U.S. government’s emergency broadcast system capabilities.

¹ See, e.g., File No. SES-LIC-20080718-00955 (Call Sign: E080172); see also Non-Conforming Antenna Statement provided herein.

² IPAWS is FEMA’s national system for local alerting that provides authenticated emergency and life-saving information to the U.S. public through mobile phones using Wireless Emergency Alerts and to radio and television via the Emergency Alert System. More information is available here: <https://www.fema.gov/emergency-managers/practitioners/integrated-public-alert-warning-system>.



LMI Advisors, LLC
2550 M Street, NW, Suite 300
Washington, DC 20037

Carlos M. Nalda
T +1 571 332 5626
cnalda@lmiadvisors.com

December 22, 2021

Marlene H. Dortch, Secretary
Federal Communications Commission
45 L Street, NE
Washington, DC 20554

**Re: Submission pursuant to Section 1.65 of the Commission's Rules;
File No. SES-LIC-20211112-01809 (Call Sign E210430)**

Dear Ms. Dortch:

Pursuant to Section 1.65 of the Federal Communications Commission's ("Commission") rules, 47 C.F.R. § 1.65, RiteNet Corp. ("RiteNet") hereby provides an update regarding the coordination status of the above-referenced application to operate a 2.4m fixed earth station in Mount Olotele, American Samoa.

RiteNet's frequency coordinator has completed a coordination study for the earth station with existing, proposed, and prior coordinated carriers as described in the attached letter.¹ No potential for interference was indicated and there are no unresolved interference objections related to the application.

Considering the foregoing and that the proposed operations are intended to strengthen the U.S. government's emergency broadcast system capabilities, RiteNet respectfully requests the Commission grant the requested earth station authorization at the earliest possible time.

Please do not hesitate to contact me with any questions regarding this matter.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Carlos M. Nalda", written in a cursive style.

Carlos M. Nalda
for RiteNet Corp.

¹ Additional information supporting the frequency coordinator's conclusions is also attached to this submission.

Micronet Communications, Inc.

812 Lexington Dr
Plano, Texas 75075
972-422-7200

SUPPLEMENTAL SHOWING PART 101.103(D)

File Number: P2126716
Licensee: RiteNet Corp.

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:

Mount Olotele, AS

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:

11/04/2021 Original PCN (Expedited response requested by 11/18/2021)
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:

AMERICAN SAMOA TELECOMMUNICATIONS AUTHORITY
COMSEARCH INC

Respectfully Submitted,



Jeremy Lewis
Systems Engineer

Attached: 1 data sheet

Micronet Communications, Inc.
812 Lexington Dr
Plano, Texas 75075
972-422-7200

File: P2126716

TECHNICAL CHARACTERISTICS OF TRANSMIT RECEIVE EARTH STATION

Company:	RiteNet Corp.		
Site Name, State:	Mount Olotele, AS		
Call Sign:			
Latitude	(NAD83)	14 19	3.0 N
Longitude	(NAD83)	170 45	51.0 W
Elevation AMSL	(ft/m)	1573.00	479.45
Receive Frequency Range	(MHz)	3700-4200	
Transmit Frequency Range	(MHz)	5925-5991.62/6047.03-6050.93/6106.32-6110.22/6165.63-6362.26/6417.67-6425	
Range of Satellite Orbital Long.	(deg W)	153.00	155.00
Range of Azimuths from North	(deg)	127.66	131.22
Antenna Centerline	(ft/m)	10.00	3.05
Antenna Elevation Angles	(deg)	63.46	65.20

Equipment Parameters	Receive	Transmit
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Antenna Gain, Main Beam	(dbI)	37.60	41.60
15 DB Half Beamwidth	(deg)	1.00	1.40

Antennas Receive: GENERAL DYNAMICS 1241 (2.4 M)
 Transmit: GENERAL DYNAMICS 1241 (2.4 M)

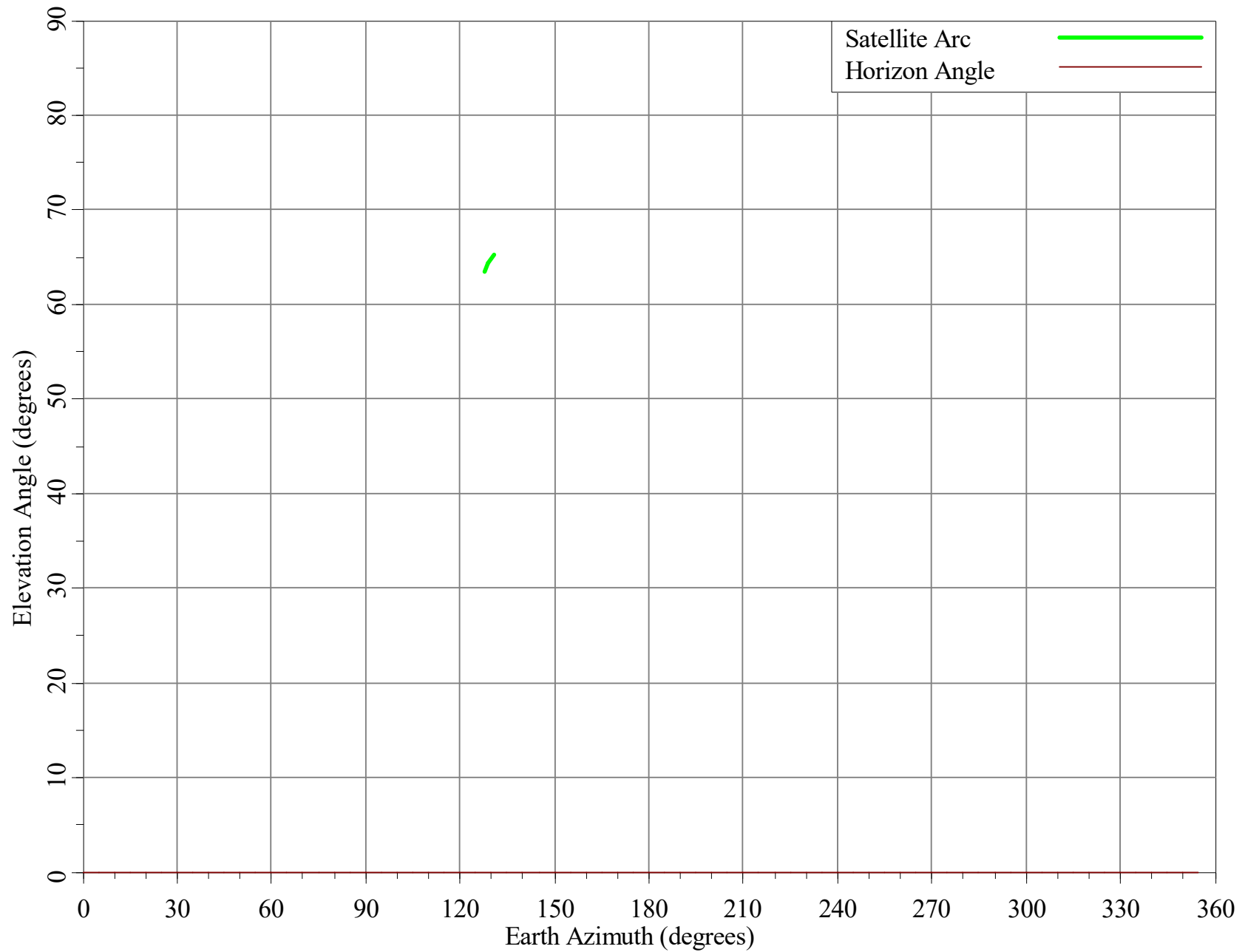
Max Transmitter Power	(dbW/4KHz)	-11.45
Max EIRP Main Beam	(dbW/4KHz)	30.15
Modulation / Emission Designator	DIGITAL 190KG7W	

Coordination Parameters	Receive	Transmit
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Max Greater Circle Distances	(km)	334.48	134.17
Max Rain Scatter Distances	(km)	345.33	100.00
Max Interference Power Long Term	(dbW)	-158.60	-154.80
Max Interference Power Short Term	(dbW)	-153.90	-126.80
Rain Zone / Radio Zone	4	A	

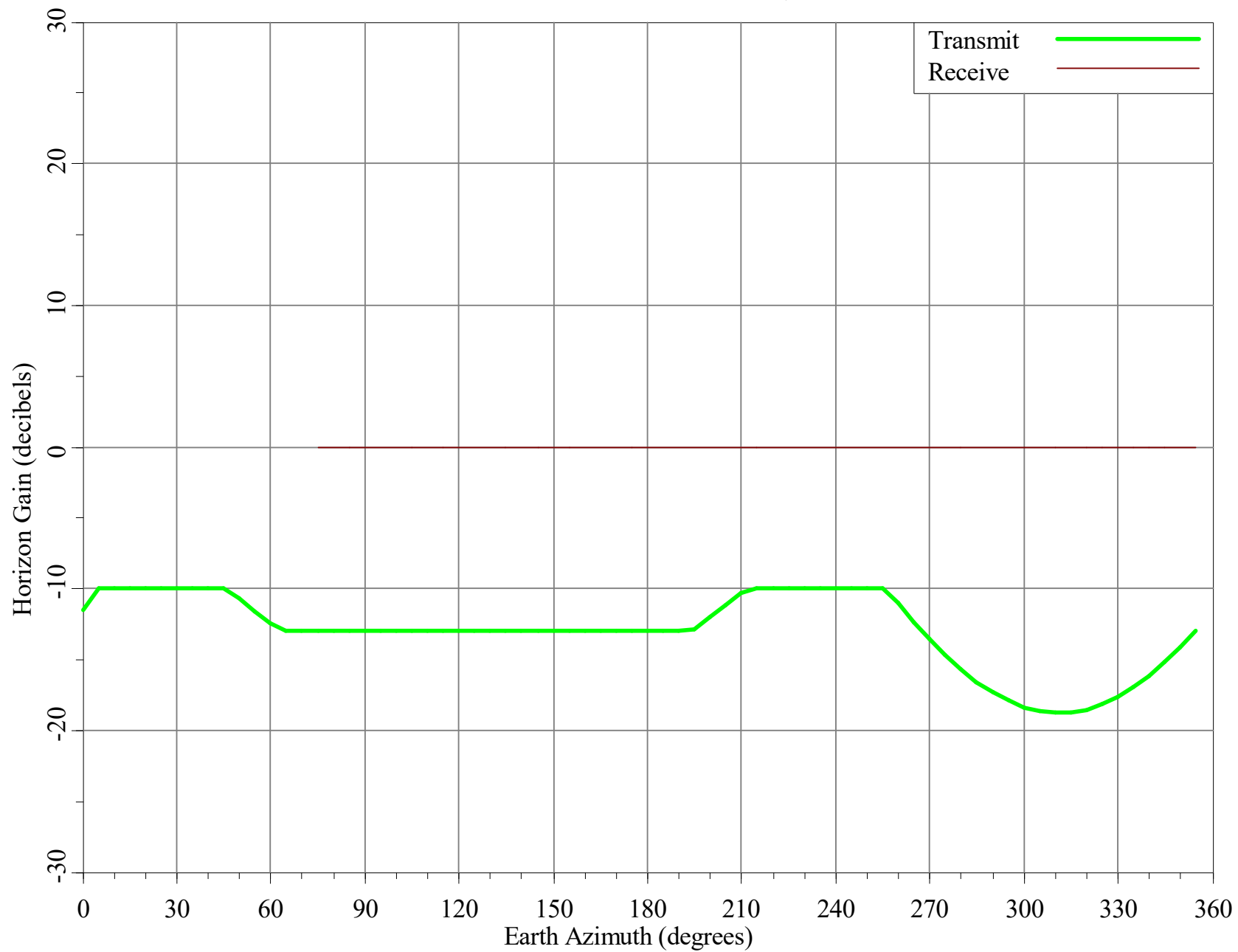
Horizon Angle & Satellite Arc for Mount Olotele, AS

Micronet Communications, Inc.

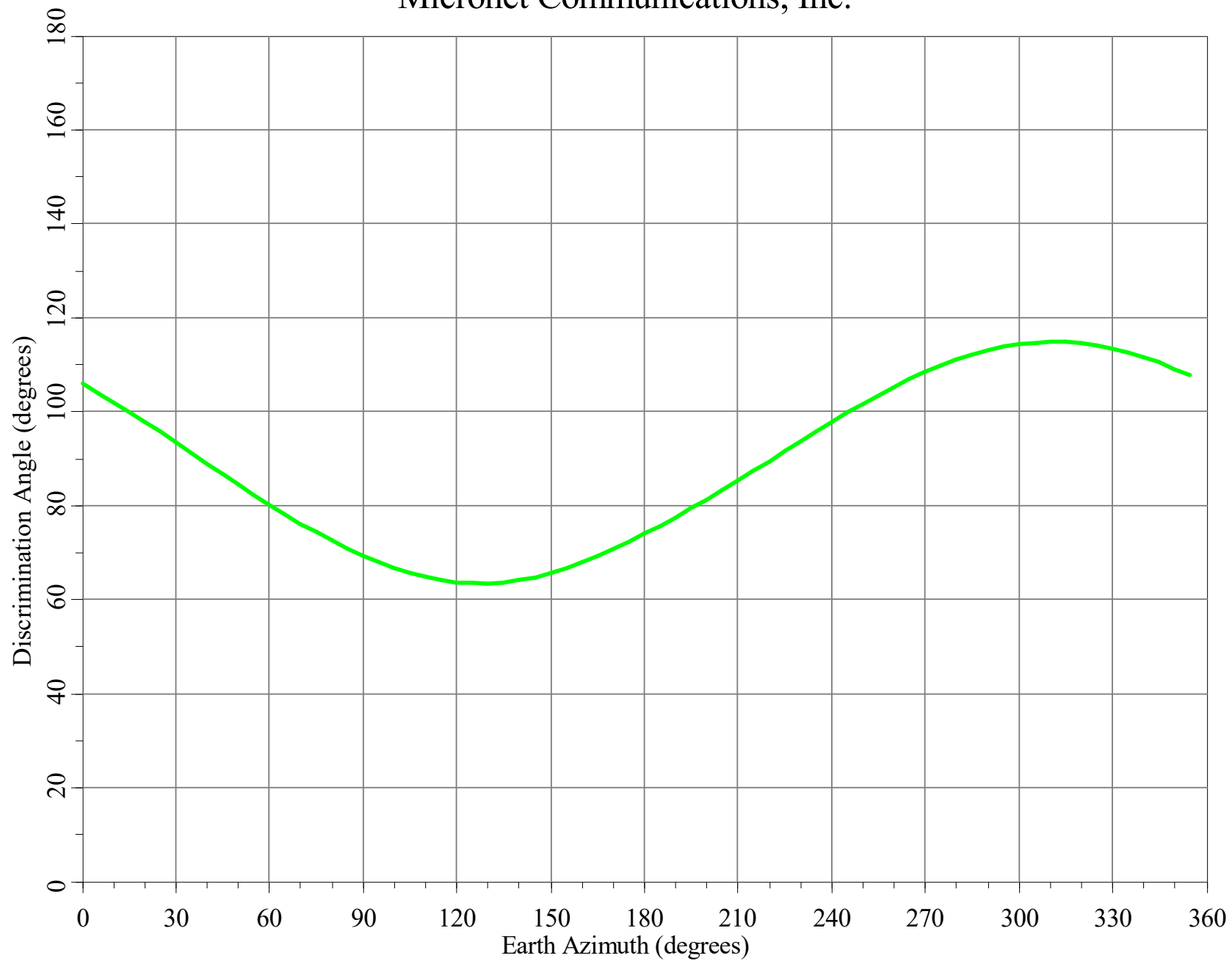


Horizon Gain for Mount Olotele, AS

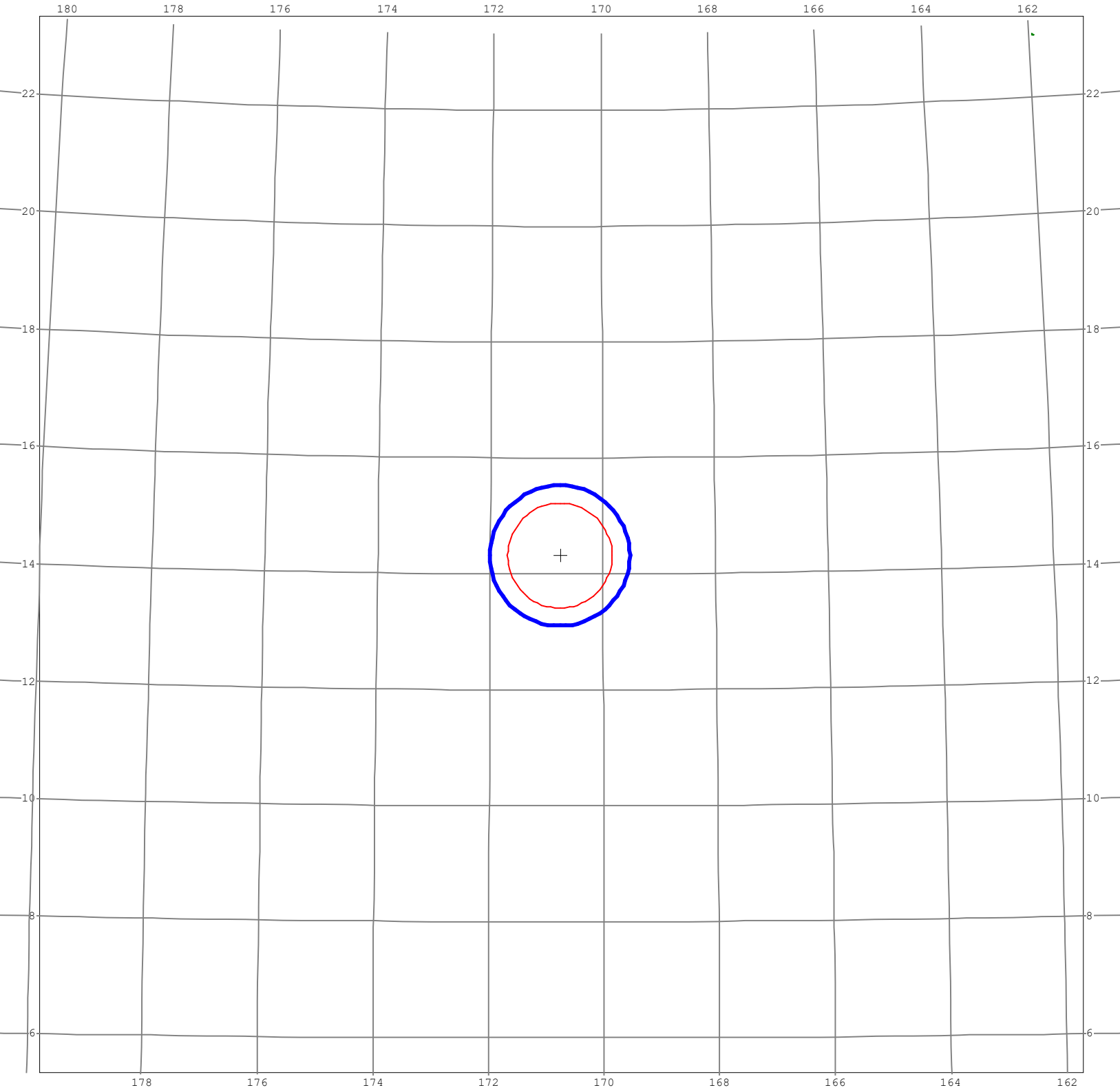
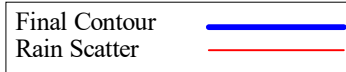
Micronet Communications, Inc.



Minimum Discrimination Angles for Mount Olotele, AS
Micronet Communications, Inc.



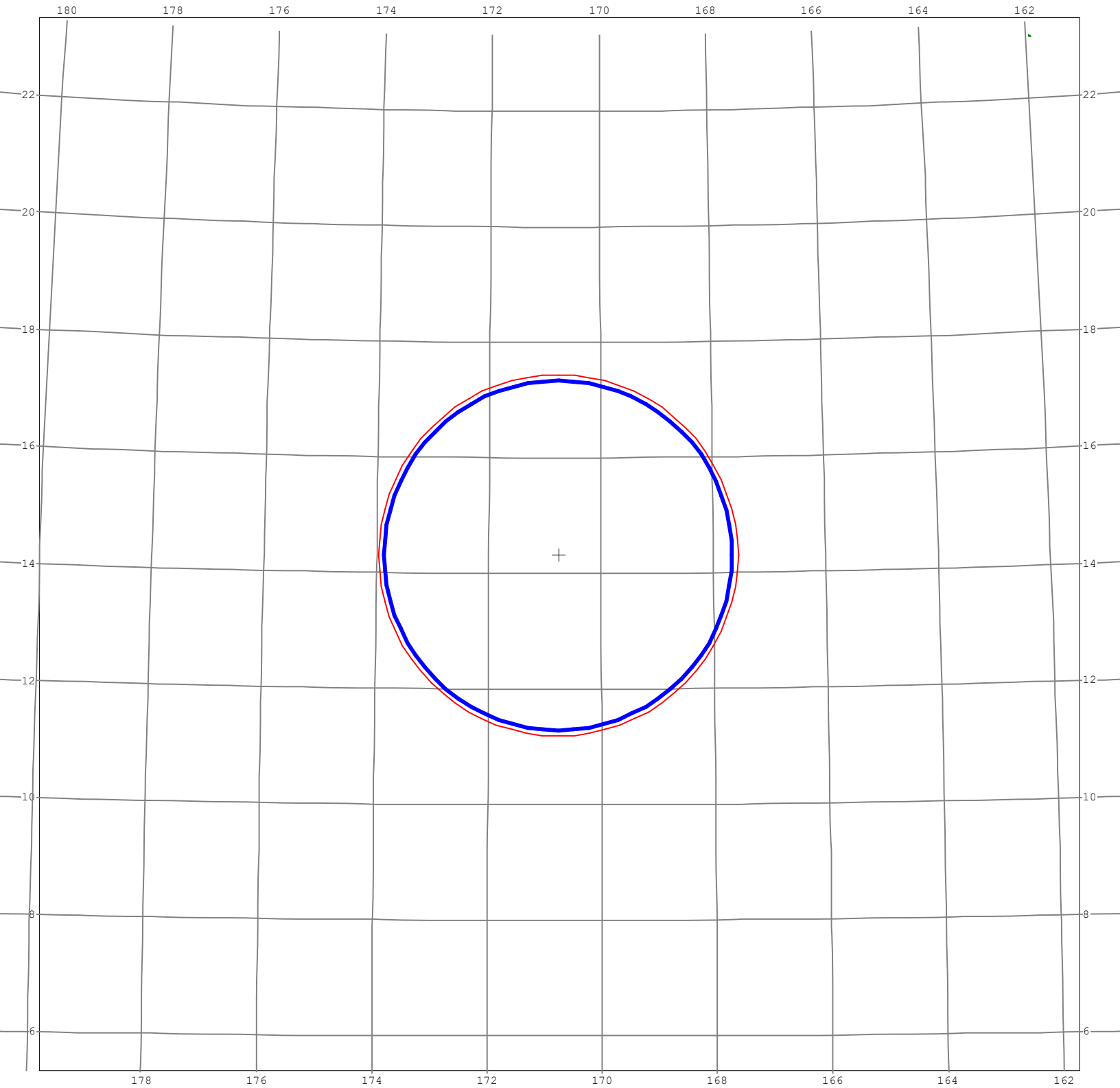
Final Contour & Rain Scatter for Mount Olotele, AS - Transmit



SCALE - 1:10000000 1 inch = 157.8 miles

Final Contour & Rain Scatter for Mount Olotele, AS - Receive

SCALE - 1:10000000 1 inch = 157.8 miles



Non-Conforming Antenna Statement
2.4m C-band Fixed Earth Station

RiteNet, Corp. ("RiteNet") proposes to use a General Dynamics (Prodelin) 2244, 2.4m antenna for its proposed earth station located in Mount Olotele, American Samoa at the coordinates of 14-19-3.0 S, 170-45-51.0 W. This antenna has the same performance characteristics as the Prodelin 1241 and 1244 antennas, which utilize the same 2.4m aperture.¹ The Prodelin 2.4m antenna does not strictly comply with Section 25.209 of the FCC's rules, 47 C.F.R. § 25.209, for receive operations in the 1° to 1.5° region.

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 (*see* <http://www.fcc.gov/ib/sd/nresa>). The Commission has previously determined that an earth station applicant proposing to use an antenna on this list need not attach antenna radiation plots as an exhibit to their applications, as required by Section 25.132 of the FCC's rules, 47 C.F.R. § 25.132. Rather, they need only provide an attachment to their applications identifying the non-routine earth station antenna and an application file number and call sign of a license in which that type of non-routine antenna has been previously approved. In addition to the license identified in footnote 1 authorizing operation of the Prodelin 2244 antenna, RiteNet identifies File No. SES-LIC-20080718-00955 (Call Sign: E080172) authorizing the Prodelin 1244 antenna to operate at high power levels than proposed herein.

RiteNet agrees to accept any adjacent satellite interference in the earth station receive band as a result of the performance of the antenna in the 1° to 1.5° region because such interference protection applies only to the extent of the criteria set forth in Section 25.209 of the FCC's rules. Should the use of this antenna cause interference to other systems; RiteNet also agrees to terminate transmission upon notice from the FCC.

¹ See, e.g., File No. SES-LIC-20150609-00351; Call Sign E150093 (non-conforming antenna statement illustrating the same performance characteristics for the Prodelin antennas).

Radiation Hazard Study

2.4m C-band Earth Station

This study analyzes the non-ionizing radiation levels for a 2.4m C-band earth station. This report is developed in accordance with the prediction methods contained in OET Bulletin No. 65, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields, Edition 97-01.

Bulletin No. 65 specifies that there are two separate tiers of exposure limits that are depending on the area of exposure and/or the status of the individuals who are subject to the exposure -- the General Population/Uncontrolled Environment and the Controlled Environment, where the general population cannot access.

The maximum level of non-ionizing radiation to which individuals may be exposed is limited to a power density level of 5 milliwatts per square centimeter (5 mW/cm^2) averaged over any 6-minute period in a controlled environment, and the maximum level of non-ionizing radiation to which the general public is exposed is limited to a power density level of 1 milliwatt per square centimeter (1 mW/cm^2) averaged over any 30 minute period in a uncontrolled environment.

In the normal range of transmit powers for satellite antennas, the power densities at or around the antenna surface are expected to exceed safe levels. The purpose of this study is to determine the power flux density levels for the earth station under study as compared with the MPE limits. This comparison is done in each of the following regions:

1. Far-field region
2. Near-field region
3. Transition region
4. The region between the feed and the antenna surface
5. The main reflector region
6. The region between the antenna edge and the ground

Input Parameters

The following input parameters were used in the calculations:

<u>Parameters:</u>	<u>Value</u>	<u>Unit</u>	<u>Symbol</u>
<i>Antenna Diameter</i>	2.4	m	<i>D</i>
<i>Antenna Transmit Gain</i>	41.6	dBi	<i>G</i>
<i>Transmit Frequency</i>	6170	MHz	<i>f</i>
<i>Antenna Feed Flange diameter</i>	~22.5	cm	<i>d</i>
<i>Power Input to the Antenna</i>	3.4	W	<i>P</i>

Calculated Parameters:

The following values were calculated using the above input parameters and the corresponding formulas:

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Symbol</u>	<u>Formula</u>
Antenna Surface Area	4.524	m ²	A	$\pi D^2/4$
Area of Antenna Flange	~397.6	cm ²	a	$\pi d^2/4$
Antenna Efficiency	0.65		η	$G\lambda^2/(\pi^2 D^2)$
Gain Factor	14,454		g	$10^{G/10}$
Wavelength	0.049	m	λ	$300/f$

Behavior of EM Fields as a Function of Distance

The behavior of the characteristics of EM fields varies depending on the distance from the radiating antenna. These characteristics are analyzed in three primary regions: the near-field region, the far-field region and the transition region. Of interest also are the region between the antenna main reflector and the subreflector, the region of the main reflector area and the region between the main reflector and ground.

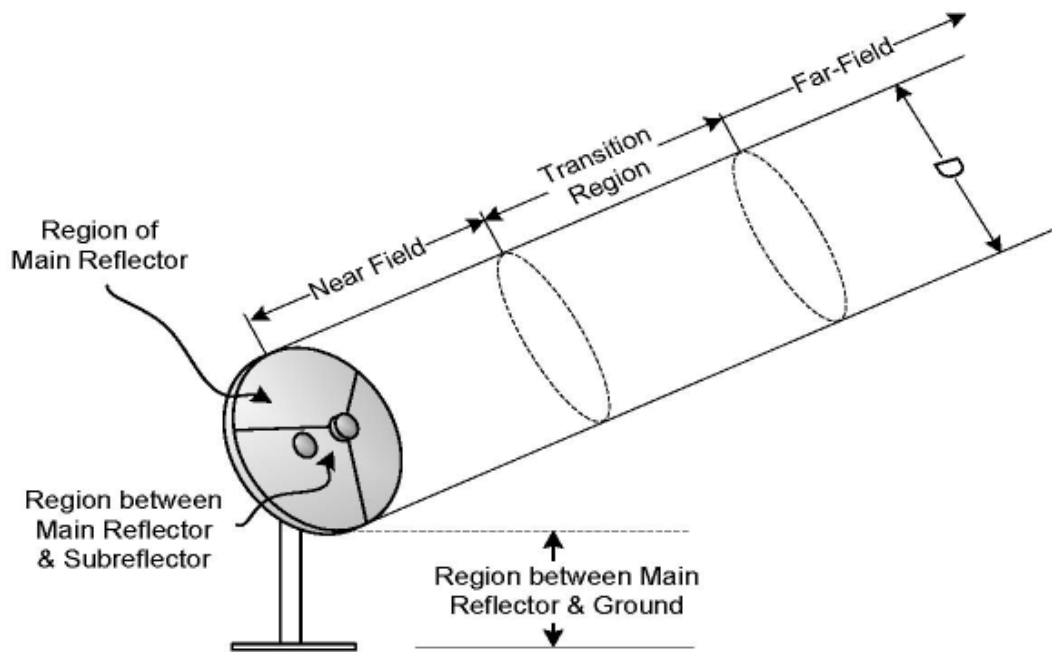


Figure 1. EM Fields as a Function of Distance

For parabolic aperture antennas with circular cross sections, such as the antenna under study, the near-field, farfield and transition region distances are calculated as follows:

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Formula</u>
Near-Field Distance	29.6	m	$R_{nf} = D^2/(4\lambda)$
Distance to Far-Field	71.1	m	$R_{ff} = 0.60D^2/(\lambda)$
Distance of Transition Region	29.6	m	$R_t = R_{nf}$

The distance in the transition region is between the near and far fields. Thus, $R_{nf} \leq R_t \leq R_{ff}$. However, the power density in the transition region will not exceed the power density in the near-field. Therefore, for purposes of the present analysis, the distance of the transition region can equate the distance to the near-field.

Power Flux Density Calculations

The power flux density is considered to be at a maximum through the entire length of the near-field. This region is contained within a cylindrical volume with a diameter, D , equal to the diameter of the antenna. In the transition region and the far-field, the power density decreases inversely with the square of the distance. The following equations are used to calculate power density in these regions.

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Symbol</u>	<u>Formula</u>
<i>Power Density in the Near-Field</i>	0.18	mW/cm ²	S_{nf}	$16.0 \eta P / (\pi D^2)$
<i>Power Density in the Far-Field</i>	0.08	mW/cm ²	S_{ff}	$GP / (4\pi R_{ff}^2)$
<i>Power Density in the Transition Region</i>	0.18	mW/cm ²	S_t	$S_{nf} R_{nf} / (R_t)$

The region between the main reflector and the subreflector is confined within a conical shape defined by the feed assembly. The most common feed assemblies are waveguide flanges. This energy is determined as follows:

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Symbol</u>	<u>Formula</u>
<i>Power Density at the Feed Flange</i>	34	mW/cm ²	S_{fa}	$4P / a$

The power density in the main reflector is determined similarly to the power density at the feed flange; except that the area of the reflector is used.

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Symbol</u>	<u>Formula</u>
<i>Power Density at Main Reflector</i>	0.3	mW/cm ²	$S_{surface}$	$4P / A$

The power density between the reflector and ground, assuming uniform illumination of the reflector surface, is calculated as follows:

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Symbol</u>	<u>Formula</u>
<i>Power Density b/w Reflector and Ground</i>	0.08	mW/cm ²	S_g	P / A

The below table summarizes the calculated power flux density values for each region. In a controlled environment, the only regions that exceed FCC limitations are shown below. These regions are only accessible by trained technicians who, as a matter of procedure, turn off transmit power before performing any work in these areas.

<u>Power Density</u>	<u>Value</u>	<u>Unit</u>	<u>Controlled Environment</u>
<i>Far Field Calculation</i>	0.08	mW/cm ²	Satisfies FCC MPE
<i>Near Field Calculation</i>	0.18	mW/cm ²	Satisfies FCC MPE

<i>Transition Region</i>	0.18	mW/cm ²	Satisfies FCC MPE
<i>Region b/w feed iris and reflector</i>	34	mW/cm ²	Exceeds Limits
<i>Main Reflector Region</i>	0.3	mW/cm ²	Satisfies FCC MPE
<i>Region b/w Main Reflector & Ground</i>	0.03	mW/cm ²	Satisfies FCC MPE

The antenna will be installed in an area that is not accessible by the general public. The antenna will be sited at an elevation angle of greater than 30-degrees. The earth station will be marked with the standard radiation hazard warnings, as well as the area in the vicinity of the earth station to inform the general public and personnel not responsible for earth station maintenance or operations, who might be working or otherwise present in or near the path of the main beam.

Finally, the earth station's operational personnel will not have access to areas that exceed the MPE limits while the earth station is in operation. The transmitter will be turned off during periods of maintenance so that the MPE standard of 5.0 mW/cm² will be complied with for those regions in close proximity to the main reflector, which could be occupied by operating personnel.

In conclusion, the results show that the antenna, in a controlled environment, may exist in the regions noted above and applicant will take the proper mitigation procedures to ensure it meets the guidelines specified in 47 C.F.R. § 1.1310.