ACS Internet LLC
60-Day STA Request

Technical Appendix

I. Frequency Coordination Reports

II. Radiation Hazard Analyses

I. Frequency Coordination Reports

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

SUPPLEMENTAL SHOWING PART 101.103(D)

File Number: K1726405 5.93 GHz
Licensee: Alaska Communications Internet, LLC

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:

Hub, AK

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:

10/20/2017 Original PCN (Expedited response requested by 11/03/2017)
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:

ACS LONG DISTANCE LICENSE SUB, LLC
ACS OF ANCHORAGE LICENSE SUB, INC.
ACS OF ANCHORAGE LICENSE SUB, LLC
ACS WIRELESS LICENSE SUB, LLC
ALASCOM, INC.
ALASKA PIPELINE COMPANY
ALASKA PUBLIC TELECOMMUNICATIONS, INC
ALASKA RAILROAD CORPORATION
AT&T MOBILITY SPECTRUM LLC
CHUGACH ELECTRIC ASSOCIATION, INC.
COMSEARCH INC
ENSTAR NATURAL GAS CO., A DIVISION OF SEMCO ENERGY, INC.
GCI COMMUNICATION CORP.
HOMER ELECTRIC ASSOCIATION
MATANUSKA TELEPHONE ASSOCIATION
MATANUSKA-SUSITNA, BOROUGH OF
MICRONET COMMUNICATIONS INC
MTA COMMUNICATIONS
NORSTAR PIPELINE COMPANY, INC. AN ALASKA CORPORATION WHOLLY OWNE
RADIO DYNAMICS
STATE OF ALASKA
VERIZON WIRELESS (VAW) LLC
WIRELESS APPLICATIONS CORP

Micronet Communications, Inc.
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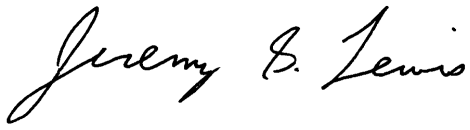
972-422-7200

SUPPLEMENTAL SHOWING PART 101.103(D)

File Number: K1726405 5.93 GHz
Licensee: Alaska Communications Internet, LLC

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: K1726405

TECHNICAL CHARACTERISTICS OF TRANSMIT RECEIVE EARTH STATION

Company:		Alaska Communications Internet, LLC	
Site Name, State:		Hub, AK	
Call Sign:			
Latitude	(NAD83)	61 8 28.4 N	
Longitude	(NAD83)	149 52 30.7 W	
Elevation AMSL	(ft/m)	134.51	41.00
Receive Frequency Range	(MHz)	3704-3776	
Transmit Frequency Range	(MHz)	5929-6001	
Range of Satellite Orbital Long.	(deg W)	114.00	115.00
Range of Azimuths from North	(deg)	140.45	141.49
Antenna Centerline	(ft/m)	34.12	10.40
Antenna Elevation Angles	(deg)	14.62	14.94

Equipment Parameters		Receive	Transmit
Antenna Gain, Main Beam	(dbI)	41.60	45.60
15 DB Half Beamwidth	(deg)	1.50	1.00
Antennas	Receive: PRODELIN 1383 (3.8 M)		
	Transmit: PRODELIN 1383 (3.8M)		
Max Transmitter Power	(dbW/4KHz)		-19.20
Max EIRP Main Beam	(dbW/4KHz)		26.40
Modulation / Emission Designator	DIGITAL	7M00G7W	

Coordination Parameters		Receive	Transmit
Max Greater Circle Distances	(km)	351.92	162.77
Max Rain Scatter Distances	(km)	281.38	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		3	A

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SUPPLEMENTAL SHOWING PART 101.103(D)

File Number: L1726405 5.93 GHz
Licensee: Alaska Communications Internet, LLC

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:

Hub, AK

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

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10/20/2017 Original PCN (Expedited response requested by 11/03/2017)
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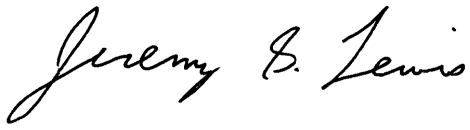

Jeremy Lewis
Systems Engineer

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File: L1726405

TECHNICAL CHARACTERISTICS OF TRANSMIT RECEIVE EARTH STATION

Company:		Alaska Communications Internet, LLC	
Site Name, State:		Hub, AK	
Call Sign:			
Latitude	(NAD83)	61 8 28.4 N	
Longitude	(NAD83)	149 52 30.7 W	
Elevation AMSL	(ft/m)	134.51	41.00
Receive Frequency Range	(MHz)	3704-3776	
Transmit Frequency Range	(MHz)	5929-5944.85	
Range of Satellite Orbital Long.	(deg W)	114.00	115.00
Range of Azimuths from North	(deg)	140.45	141.49
Antenna Centerline	(ft/m)	34.12	10.40
Antenna Elevation Angles	(deg)	14.62	14.94

Equipment Parameters		Receive	Transmit
Antenna Gain, Main Beam	(dbI)	41.60	45.60
15 DB Half Beamwidth	(deg)	1.50	1.00
Antennas	Receive: PRODELIN 1383 (3.8 M)		
	Transmit: PRODELIN 1383 (3.8M)		
Max Transmitter Power	(dbW/4KHz)		-15.50
Max EIRP Main Beam	(dbW/4KHz)		30.10
Modulation / Emission Designator		DIGITAL 3M00G7W	

Coordination Parameters		Receive	Transmit
Max Greater Circle Distances	(km)	351.92	175.28
Max Rain Scatter Distances	(km)	281.38	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		3	A

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SUPPLEMENTAL SHOWING PART 101.103(D)

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Licensee: Alaska Communications Internet, LLC

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WIRELESS APPLICATIONS CORP

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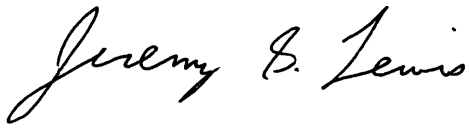
Respectfully Submitted,



Jeremy Lewis
Systems Engineer

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Micronet Communications, Inc.
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Plano, Texas 75074
972-422-7200

File: M1726405

TECHNICAL CHARACTERISTICS OF TRANSMIT RECEIVE EARTH STATION

Company:		Alaska Communications Internet, LLC	
Site Name, State:		Hub, AK	
Call Sign:			
Latitude	(NAD83)	61 8 28.4 N	
Longitude	(NAD83)	149 52 30.7 W	
Elevation AMSL	(ft/m)	134.51	41.00
Receive Frequency Range	(MHz)	3704-3776	
Transmit Frequency Range	(MHz)	5929-6001	
Range of Satellite Orbital Long.	(deg W)	114.00	115.00
Range of Azimuths from North	(deg)	140.45	141.49
Antenna Centerline	(ft/m)	34.12	10.40
Antenna Elevation Angles	(deg)	14.62	14.94

Equipment Parameters		Receive	Transmit
Antenna Gain, Main Beam	(dbI)	41.60	45.60
15 DB Half Beamwidth	(deg)	1.50	1.00
Antennas	Receive: PRODELIN 1383 (3.8 M)		
	Transmit: PRODELIN 1383 (3.8M)		
Max Transmitter Power	(dbW/4KHz)		-21.00
Max EIRP Main Beam	(dbW/4KHz)		24.60
Modulation / Emission Designator	DIGITAL	9M50G7W	

Coordination Parameters		Receive	Transmit
Max Greater Circle Distances	(km)	351.92	156.69
Max Rain Scatter Distances	(km)	281.38	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		3	A

Micronet Communications, Inc.
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Plano, Texas 75074
972-422-7200

SUPPLEMENTAL SHOWING PART 101.103(D)

File Number: N1726405 5.93 GHz
Licensee: Alaska Communications Internet, LLC

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:

Anchorage, AK

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

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ACS OF ANCHORAGE LICENSE SUB, LLC
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ALASKA RAILROAD CORPORATION
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MICRONET COMMUNICATIONS INC
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WIRELESS APPLICATIONS CORP

Micronet Communications, Inc.
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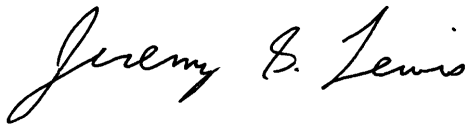
SUPPLEMENTAL SHOWING PART 101.103(D)

File Number: N1726405 5.93 GHz
Licensee: Alaska Communications Internet, LLC

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: N1726405

TECHNICAL CHARACTERISTICS OF TRANSMIT RECEIVE EARTH STATION

Company:		Alaska Communications Internet, LLC	
Site Name, State:		Anchorage, AK	
Call Sign:			
Latitude	(NAD83)	61 11 10.5 N	
Longitude	(NAD83)	149 52 15.6 W	
Elevation AMSL	(ft/m)	114.83	35.00
Receive Frequency Range	(MHz)	3704-3776	
Transmit Frequency Range	(MHz)	5929-5944.85	
Range of Satellite Orbital Long.	(deg W)	114.00	115.00
Range of Azimuths from North	(deg)	140.47	141.50
Antenna Centerline	(ft/m)	34.12	10.40
Antenna Elevation Angles	(deg)	14.59	14.90

Equipment Parameters		Receive	Transmit
Antenna Gain, Main Beam	(dbI)	37.60	41.60
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)		-21.00
Max EIRP Main Beam	(dbW/4KHz)		20.60
Modulation / Emission Designator		DIGITAL 4M70G7W	

Coordination Parameters		Receive	Transmit
Max Greater Circle Distances	(km)	347.44	154.87
Max Rain Scatter Distances	(km)	281.43	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		3	A

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

SUPPLEMENTAL SHOWING PART 101.103(D)

File Number: P1726405 5.93 GHz
Licensee: Alaska Communications Internet, LLC

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:

St Paul, AK

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:

10/20/2017 Original PCN (Expedited response requested by 11/03/2017)
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:

COMSEARCH INC

Respectfully Submitted,

Jeremy B. Lewis

Jeremy Lewis
Systems Engineer

Attached: 1 data sheet

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

File: P1726405

TECHNICAL CHARACTERISTICS OF TRANSMIT RECEIVE EARTH STATION

Company:		Alaska Communications Internet, LLC	
Site Name, State:		St Paul, AK	
Call Sign:			
Latitude	(NAD83)	57 7 23.0 N	
Longitude	(NAD83)	170 16 45.0 W	
Elevation AMSL	(ft/m)	26.25	8.00
Receive Frequency Range	(MHz)	3704-3776	
Transmit Frequency Range	(MHz)	5929-6001	
Range of Satellite Orbital Long.	(deg W)	114.00	115.00
Range of Azimuths from North	(deg)	119.27	120.20
Antenna Centerline	(ft/m)	6.56	2.00
Antenna Elevation Angles	(deg)	8.96	9.45

Equipment Parameters		Receive	Transmit
Antenna Gain, Main Beam	(dbI)	41.60	45.60
15 DB Half Beamwidth	(deg)	1.00	1.00

Antennas Receive: PRODELIN 1383 (3.8 M)
Transmit: PRODELIN 1383 (3.8M)

Max Transmitter Power	(dbW/4KHz)		-26.20
Max EIRP Main Beam	(dbW/4KHz)		19.40
Modulation / Emission Designator		DIGITAL 3M20G7W	

Coordination Parameters		Receive	Transmit
Max Greater Circle Distances	(km)	369.72	146.43
Max Rain Scatter Distances	(km)	291.78	100.00
Max Interference Power Long Term	(dbW)	-140.60	-154.00
Max Interference Power Short Term	(dbW)	-118.40	-130.80
Rain Zone / Radio Zone		3	A

II. Radiation Hazard Analyses

ANALYSIS OF NON-IONIZING RADIATION
for Alaska Communications Internet LLC
Site: Hub State: AK
Latitude: 61 8 28.4 Longitude: 149 52 30.7 (NAD83)
11-08-2017

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) = 3.8000 m

Antenna Surface Area (Sa) = pi(D**2)/4 = 11.3411 m**2

Wavelength at 6.1750 GHz (lambda) = 0.0485 m

Transmit Power at Flange (P) = 21.2000 Watts

Antenna Gain at Earth Site (GES) = 45.6000 dBi = 36307.8055
Power Ratio:
AntiLog(GES/10)

pi = 3.1415927

Antenna Aperture Efficiency (n) = 0.6000

1. FAR ZONE CALCULATIONS

Distance to the Far Zone (Df) = $\frac{(n)(D^{**2})}{\text{lambda}}$ = 178.6392 m

Far Zone Power Density (Rf) = $\frac{(GES)(P)}{4*pi*(Df^{**2})}$ = 1.9194 W/m**2

= 0.1919 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.

Distance to the Near Zone (Dn) = $\frac{D^{**2}}{4*\text{lambda}}$ = 74.4330 m

Near Zone Power Density (Rn) = $\frac{16.0(n)P}{pi(D^{**2})}$ = 4.4863 W/m**2

= 0.4486 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

Main Reflector Power Density = $\frac{2(P)}{Sa}$ = 3.7386 W/m**2

= 0.3739 mW/cm**2

5. ZONE BETWEEN THE MAIN REFLECTOR AND THE GROUND

Applying uniform illumination of the Main Reflector Surface:

Main to Ground Power Density = $\frac{P}{Sa}$ = 1.8693 W/m**2

= 0.1869 mW/cm**2

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	4.8081	Complies with ANSI
2. Near Zone	4.5514	Complies with ANSI
3. Transition Zone	Rf < Rt < Rn	Complies with ANSI
4. Main Reflector Surface	4.6261	Complies with ANSI
5. Main Reflector to Ground	4.8131	Complies with ANSI

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

Zones	Safety Margins (mW/cm**2)	Conclusions
1. Far Zone	0.8081	Complies with ANSI
2. Near Zone	0.5514	Complies with ANSI
3. Transition Zone	Rf < Rt < Rn	Complies with ANSI
4. Main Reflector Surface	0.6261	Complies with ANSI
5. Main Reflector to Ground	0.8131	Complies with ANSI

6. EVALUATION

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

ANALYSIS OF NON-IONIZING RADIATION
for Alaska Communications Internet LLC
Site: Anchorage State: AK
Latitude: 61 11 10.5 Longitude: 149 52 15.6 (NAD83)
11-08-2017

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) = 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) = 9.3300 Watts

Antenna Gain at Earth Site (GES) = 41.6000 dBi = 14454.3977
Power Ratio:
AntiLog(GES/10)

pi = 3.1415927

Antenna Aperture Efficiency (n) = 0.6000

1. FAR ZONE CALCULATIONS

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

Far Zone Power Density (Rf) = $\frac{(GES)(P)}{4*pi*(Df^{**}2)}$ = 2.1135 W/m**2

= 0.2114 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.

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

Near Zone Power Density (Rn) = $\frac{16.0(n)P}{pi(D^{**}2)}$ = 4.9497 W/m**2

= 0.4950 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

Main Reflector Power Density = $\frac{2(P)}{Sa}$ = 4.1248 W/m**2

= 0.4125 mW/cm**2

5. ZONE BETWEEN THE MAIN REFLECTOR AND THE GROUND

Applying uniform illumination of the Main Reflector Surface:

Main to Ground Power Density = $\frac{P}{Sa}$ = 2.0624 W/m**2

= 0.2062 mW/cm**2

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	4.7886	Complies with ANSI
2. Near Zone	4.5050	Complies with ANSI
3. Transition Zone	Rf < Rt < Rn	Complies with ANSI
4. Main Reflector Surface	4.5875	Complies with ANSI
5. Main Reflector to Ground	4.7938	Complies with ANSI

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

Zones	Safety Margins (mW/cm**2)	Conclusions
1. Far Zone	0.7886	Complies with ANSI
2. Near Zone	0.5050	Complies with ANSI
3. Transition Zone	Rf < Rt < Rn	Complies with ANSI
4. Main Reflector Surface	0.5875	Complies with ANSI
5. Main Reflector to Ground	0.7938	Complies with ANSI

6. EVALUATION

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

ANALYSIS OF NON-IONIZING RADIATION
for Alaska Communications Internet LLC
Site: St Paul State: AK
Latitude: 57 7 23.0 Longitude: 170 16 45.0 (NAD83)
11-08-2017

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:
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Antenna Diameter, (D) = 3.8000 m

Antenna Surface Area (Sa) = pi(D**2)/4 = 11.3411 m**2

Wavelength at 6.1750 GHz (lambda) = 0.0485 m

Transmit Power at Flange (P) = 1.9000 Watts

Antenna Gain at Earth Site (GES) = 45.6000 dBi = 36307.8055
Power Ratio:
AntiLog(GES/10)

pi = 3.1415927

Antenna Aperture Efficiency (n) = 0.6000

1. FAR ZONE CALCULATIONS

Distance to the Far Zone (Df) = $\frac{(n)(D^{**}2)}{\text{lambda}}$ = 178.6392 m

Far Zone Power Density (Rf) = $\frac{(GES)(P)}{4*pi*(Df^{**}2)}$ = 0.1720 W/m**2

= 0.0172 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.

Distance to the Near Zone (Dn) = $\frac{D^{**}2}{4*\text{lambda}}$ = 74.4330 m

Near Zone Power Density (Rn) = $\frac{16.0(n)P}{pi(D^{**}2)}$ = 0.4021 W/m**2

= 0.0402 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

Main Reflector Power Density = $\frac{2(P)}{Sa}$ = 0.3351 W/m**2

= 0.0335 mW/cm**2

5. ZONE BETWEEN THE MAIN REFLECTOR AND THE GROUND

Applying uniform illumination of the Main Reflector Surface:

Main to Ground Power Density = $\frac{P}{Sa}$ = 0.1675 W/m**2

= 0.0168 mW/cm**2

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	4.9828	Complies with ANSI
2. Near Zone	4.9598	Complies with ANSI
3. Transition Zone	Rf < Rt < Rn	Complies with ANSI
4. Main Reflector Surface	4.9665	Complies with ANSI
5. Main Reflector to Ground	4.9832	Complies with ANSI

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

Zones	Safety Margins (mW/cm**2)	Conclusions
1. Far Zone	0.9828	Complies with ANSI
2. Near Zone	0.9598	Complies with ANSI
3. Transition Zone	Rf < Rt < Rn	Complies with ANSI
4. Main Reflector Surface	0.9665	Complies with ANSI
5. Main Reflector to Ground	0.9832	Complies with ANSI

6. EVALUATION

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