Approved by OMB 3060-0678

Date & Time Filed: May 6 2020 2:59:44:223PM

File Number: SES-LIC-INTR2020-01098

Callsign/Satellite ID:

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:

JROC VSAT Application

1-8. Legal Name of Applicant

Phone 585-742-9122 L3HARRIS TECHNOLOGIES, INC. Name: Number:

DBA Fax Name: Number:

Street: 1025 West Nasa Blvd. E-Mail: Vance.Kannapel@L3Harris.com

Melbourne FL City: State:

Country: USA Zipcode: 32919 -

Attention: Vance Kannapel

9-16. Name of Contact Representative

F. William LeBeau Phone Number: Name: 202-862-5965 Company: Holland & Knight LLP Fax Number: 202-955-5564

Street: 800 17th Street, NW, Suite 110 E-Mail: bill.lebeau@hklaw.com

State: DC City: Washington

Country: **USA** Zipcode: 20006-

Attention: Bill LeBeau Legal Counsel Relationship:

CLASSIFICATION OF FILING

17. Choose the button next to the classification that applies to this filing for b1. Application for License of New Station both questions a. and b. Choose only one b2. Application for Registration of New Domestic Receive-Only Station for 17a and only one for 17b. (N/A) b3. Amendment to a Pending Application (N/A) b4. Modification of License or Registration (N/A) b5. Assignment of License or Registration al. Earth Station (N/A) b6. Transfer of Control of License or Registration (N/A) a2. Space Station (N/A) b7. Notification of Minor Modification (N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed (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 (s			
☐ Governmental Entity ☐ Noncommental Other(please explain):	cial educational licensee		
17d. Fee Classification BGV - Fixed Sa	tellite VSAT System		
18. If this filing is in reference to an		dment to a pending application enter:	
existing station, enter:	(a) Date pending application	n was filed: (b) File number of	pending application:
(a) Call sign of station: Not Applicable	Not Applicable	Not Applicable	
	TYPE OF		
20. NATURE OF SERVICE: This filing is	s for an authorization to prov	ide or use the following type(s) of service	e(s): Select all that apply:
Final Catallita			
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	ne annlicable status. Choose	22. If earth station applicant, check all the	nat apply.
only one.	te applicable status. Choose	✓ Using U.S. licensed satellites	11 7
Common Carrier Non-Common C	Carrier	✓ Using Non-U.S. licensed satellites	
23. If applicant is providing INTERNATIC these facilities:	ONAL COMMON CARRIER	R service, see instructions regarding Sec.	214 filings. Choose one. Are
Connected to a Public Switched Netw	ork Not connected to a F	Public Switched Network N/A	
24. FREQUENCY BAND(S): Place an "X	" in the box(es) next to all ap	oplicable frequency band(s).	
a. C-Band (4/6 GHz) 🗸 b. Ku-Band	,		
C.Other (Please specify upper and low Frequency Lower: Frequency Upper:	er frequencies in MHz.)		
	TYPE OF	STATION	
25. CLASS OF STATION: Choose the bu	tton next to the class of static	on 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	1		
g. Other (please specify)			
26. TYPE OF EARTH STATION FACILI	ITY: Choose only one.		
Transmit/Receive Transmit-Only	•		
-	PURPOSE OF M	MODIFICATION	
27. The purpose of this proposed modifica	ation is to: (Place an 'X' in the	e box(es) next to all that apply.)	
Not Applicable			
	ENVIRONME	NTAL POLICY	
28 Would a Commission	onegal in this and in the	mondmont have a significant	Vac A Ni
28. Would a Commission grant of any pro- environmental impact as defined by 47 CI			○ Yes ● No
1.1308 and 1.1311 of the Commission's ru application. A Radiation Hazard Study mu	ıles, 47 C.F.R. §§ 1.1308 and	d 1.1311, as an exhibit to this	Radiation Hazard

blanket license

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 explination 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 explination 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 exhinit, 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 O 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.	• Yes O No
If No, proceed to question 43.	Response to 42a
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued coordinated or is in the process of coordinating the space station?	ued, what administration has
43. Description. (Summarize the nature of the application and the services to be provided). Application for ne	ew Ku-Band VSAT

(U.S. Code (U.S. Co	Attachmen STATEMENTS MADE ON TH e, Title 18, Section 1001), AND/ ode, Title 47, Section 312(a)(1)), SATELLITE EART C Form 312 - Schedule FOR	IIS FORM ARE PUNISHAR OR REVOCATION OF AN , AND/OR FORFEITURE (I	STATION AUTHOUS. Code, Title 47, Selonizational Descriptional Descriptional Description Statement of the Sta	iption)					
Attachment 1: WILLFUL FALSE S (U.S. Code (U	STATEMENTS MADE ON THe, Title 18, Section 1001), AND/ode, Title 47, Section 312(a)(1)), SATELLITE EART C Form 312 - Schedule FOR Site JROC HUB Vance Kannapel 1350 Jefferson Road	IIS FORM ARE PUNISHAE OR REVOCATION OF AN AND/OR FORFEITURE (I TH STATION AUTH B:(Technical and Op OFFICIAL USE ONLY E5. Call Sign: E6. Phone Number: E7. City: E8. County:	SLE BY FINE AND / OY STATION AUTHOUS. Code, Title 47, Se IORIZATIONS Derational Descritorial Descritorial Henrietta Monroe	iption)					
Attachment 1: WILLFUL FALSE S (U.S. Code (U.S. Code) FCO Location of Earth Station E1: Site Identifier: E2: Contact Name	Attachmen STATEMENTS MADE ON THe, Title 18, Section 1001), AND/ode, Title 47, Section 312(a)(1)), SATELLITE EART C Form 312 - Schedule FOR Site JROC HUB Vance Kannapel	IIS FORM ARE PUNISHAB OR REVOCATION OF AN AND/OR FORFEITURE (I TH STATION AUTH B:(Technical and Op OFFICIAL USE ONLY E5. Call Sign: E6. Phone Number: E7. City:	BLE BY FINE AND / GY STATION AUTHOUS. Code, Title 47, Se IORIZATIONS Derational Description of the second state of the second se	iption)					
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Attachment 1: WILLFUL FALSE S (U.S. Code (U.S. Code	Attachmen STATEMENTS MADE ON THe, Title 18, Section 1001), AND/ode, Title 47, Section 312(a)(1)), SATELLITE EART C Form 312 - Schedule	IIS FORM ARE PUNISHARE FOR REVOCATION OF AN AND/OR FORFEITURE (IF STATION AUTHOR) B:(Technical and Op	BLE BY FINE AND / OY STATION AUTHOUS. Code, Title 47, Selectional Description	ORIZATION ction 503).					
Attachment 1: WILLFUL FALSE S (U.S. Code (U.S. Code	Attachmen STATEMENTS MADE ON TH e, Title 18, Section 1001), AND/ ode, Title 47, Section 312(a)(1)), SATELLITE EAR	IIS FORM ARE PUNISHAR OR REVOCATION OF AN , AND/OR FORFEITURE (I	BLE BY FINE AND / OY STATION AUTHOUS. Code, Title 47, Se	ORIZATION ction 503).					
Attachment 1: WILLFUL FALSE S (U.S. Code	Attachmen STATEMENTS MADE ON TH e, Title 18, Section 1001), AND/	IIS FORM ARE PUNISHAR OR REVOCATION OF AN	BLE BY FINE AND / C Y STATION AUTHO	ORIZATION					
	1	t 2:	Attachment 3:						
47. Please supply any need	a actualisation.			1					
	d attachments	· · · · · · · · · · · · · · · · · · ·							
45. Name of Person Sign Vance Kannapel	ing		46. Title of Person Signing System Engineer						
Other (please specify		15							
Governmental Entity	•								
Corporation									
Partnership	OVILLIOII								
Individual Unincorporated Asso	ociation								
	Choose the button next to applicab								
the United States because this application. The appli aggregation limit in 47 CF in this application. The un	or claim to the use of any particular of the previous use of the same, vicant certifies that grant of this aper FR Part 20. All statements made indersigned, individually and for the complete and correct to the best of	whether by license or otherwise plication would not cause the n exhibits are a material part has ne applicant, hereby certifies the	se, and requests an auth applicant to be in viola- hereof and are incorpora that all statements made	orization in accordance with tion of the spectrum ated herein as if set out in full in this application and in all					
The Applicant west-	relains to thef	CERTIFICATION	agnatia artres	singt the magnification of					
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.									
	rsigned certifies that the applicant secified in 47 C.F.R. Part 25 and v								
	rsigned certifies that the applicant pecified in 47 C.F.R. Part 25 and v			ОВ					
				• A					

	Lon Coordinates						NAD-2			N.	AD-83		○ N/A
E14. Site	Elevation (AMS	SL):				15	2.0 mete	rs					
the proposed	proposed anten ed antenna(s) co ted by the manu e with two-degr	omply with facturer's	n the anter qualificati	nna ga	in patterns	speci	fied in Se	ection 25	5.209(a	a) and (b) as	. ,	• Yes	No No N/A
Satellite Se	proposed antenervice (FSS) with ns specified in Sents?	h non-geo	stationary	satell	ites, do(es	the p	roposed	antenna((s) con	nply with the	antenna	.	No No N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.								O Yes	No				
E18. Is fi	requency coo	rdinatior	n require	d? If	YES, at	tach a	a freque	ncy co	ordina	ation repor	t as	O Yes	No
	oordination v				equired?	If YI	ES, attac	ch the 1	name	of the cou	ntry	O Yes	No
` /	A Notification				t 17 and	47 (FR nai	rt 25.1	13(c)) Where F	'AA		
	ion is requir												
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								ТНЕ	O Yes	No			
	N OF THIS			N.									
	F COMMUNI												
Satellite	Name:PERM	IITTED I	LIST	If you	u selecte	d OT	HER, p	lease e	nter tl	he followii	ng:		
E21. Cor	mmon Name:							E22	. ITU	Name:			
E23. Orb	oit Location:							E24	. Cou	ntry:			
Satellite following		ZONAS	2 (S279	3) A	MAZO	NAS :	2 (S279	3) 61	W.L.	If you seld	ected C	THER, ple	ase enter the
	nmon Name:							F22	ITII	Name:			
	oit Location:												
	of Location: OF COMMUNI	CATION	Dostino	tion D	ointa)			E24	. Cou	ntry:			
	Identifier:	CATION	(Destina	tion P	oints)				1				
	nmon Name:								E27	Constant			
									E2/.	Country:			
ANTENNA	\					1		E.	32.	E 41 /4	2 44	anna Cain'	Transmint
Site ID	E28. Antenna Id	E29. Quanti	ll ll	E3 anufa	0. acturer	II	E31. Iodel	Ant	oz. enna ize	III		enna Gam ecieve(GHz)	_dBi at
JROC			Gor	neral		CAT	COM				_	GII <i>E)</i>	
HUB	1 (Hub)	1	ll ll	namic	;	4.8	COM	4.8		53.5 dB	i at 11.	575	
										55.2 dB	i at 14.	125	
E28.	E33/34. D	iameter	E35 Abo		E36.	ll ll	E 37. B u	_	Inn	8. Total ut Power		Maximum	E40. Total
Antenna			Grou		Above S	- 11	_		af e	antenna		na Height	
Id	(mete	•	Lev		Leve (meter		Ground mete)		f	lange		e Rooftop neters)	carriers (dBW)
			(mete	ers)	(metel	3)	(mete	.15)	(Watts)	(11)	101013)	` ′
1 (Hub)	4.8/4.8		6.4	_	158.4	0	0.0		6.47		0.0		63.3
FREQUEN													
E28.	E43/4	ll l	E45.		6. Ante		E47.	Emissi	on I	E48. Maxi			imum ERIP
Antenn			T/R Mode		olarizati 11 V I I		II.	ignato	r	EIRP p			oer Carrier V/4kHz)
Id	Bands(N	111Z <i>)</i>	Mode	(H,V,L,I	X)			L_'	Carrier(d	DYY	(ub v	// 1 KIIZ)

1 (Hub)	10950 11200	R	Horizontal and Vertical	4M68G7D	0.0	0.0				
E50. Modu	E50. Modulation and Services QPSK, Digital Data									
1 (Hub)	11450 11700	R	Horizontal and Vertical	4M68G7D	0.0	0.0				
E50. Modu	lation and Service	es QPSK,	Digital Data							
1 (Hub)	11700 12200	R	Horizontal and Vertical	4M68G7D	0.0	0.0				
E50. Modu	lation and Service	es QPSK,	Digital Data							
1 (Hub)	13750 14000	Т	Horizontal and Vertical	4M68G7D	60.9	34.8				
E50. Modu	lation and Service	es QPSK,	Digital Data							
1 (Hub)	14000 14500	Т	Horizontal and Vertical	4M68G7D	59.6	34.7				
E50. Modu	lation and Service	es QPSK,	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	Azımutlı Angle	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 (Hub)	Geostationary	10950 11200	11.0/ 139.0	106.0	8.0	250.0	12.0	0.0
	Geostationary	11450 11700	11.0/ 139.0	106.0	8.0	250.0	12.0	0.0
	Geostationary		11.0/ 139.0	106.0	8.0	250.0	12.0	0.0
	Geostationary	13750 14000	11.0/ 139.0	106.0	8.0	250.0	12.0	-20.4
	Geostationary		11.0/ 139.0	106.0	8.0	250.0	12.0	-20.5

REMOTE CONTROL POINT LOCATION

REMOTE CONTROL POINT LOCATION

REMOTE CONTROL FORM LOCATION				
E61. Call Sign	E65. Phone Number			
NOTE: Please enter the callsign of the controlling station, not the calls being filed.				
E62. Street Address				
E63. City			E66. Zip Code	

SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 - Schedule B:(Technical and Operational Description)

FOR OFFICIAL USE ONLY

Location of Ea	arth Station Site										
E1: Site Ident	ifier: R	em-Shdw .40)M E5. 0	Call Sign:							
E2: Contact N	lame V	ance Kannap	el E6. I	Phone Numbe	r:		585-74	2-9122			
E3. Street:			E7. C	•							
				County:							
E4. State				Zip Code	TT 4			FORIEG			
E10. Area of 0	•	0.01.0.0.11.3.1	CO	NUS, AK, I	HI, A	LL US T	EKKI	TORIES			
E11. Latitude:		° 0 ' 0.0 " N									
E12. Longitud		° 0 ' 0.0 " W									
	Coordinates are:		_	NAD-27			NA	D-83		○ N/	A
E14. Site Elev	vation (AMSL):		0.0	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?								antenna	O Yes	No	● N/A
E17. Is the fac point.	ility operated by	remote control?	If YES, provide the	e location and	telepl	hone numb	er of the	e control	O Yes	•	No
E18. Is frequ	uency coordina	ation required	d? If YES, attach	a frequenc	у сос	ordinatio	1 repor	t as	O Yes	•	No
	dination with a of coordinati		try required? If Y as	/ES, attach	the r	name of t	he cou	ntry	O Yes	•	No
notification the FAA's s FAILURE	is required, h study regardin	nave you attaing the potent	Part 17 and 47 ached a copy of tial hazard of the CFR PARTS 17	a complete e structur	ed FC e to a	CC Form aviation?	854 a	nd or	O Yes	•	No
POINTS OF C	COMMUNICAT	ION						,			
Satellite Na	me: If you sele	cted OTHER	R, please enter th	e following	; :						
E21. Comm			7.1			. ITU Na	me:				
E23. Orbit I						. Country					
	COMMUNICAT	ION (Destinati	ion Points)		L2-T	. Country	•				
E25. Site Ide		1011 (Destinati	ion i ones)								
E26. Comm						E27. Co	ıntrı				
ANTENNA	on rame.					L27. Co	uniny.				
ANTENNA	E28.				1 -	E32.	F/1/	/12 Ant	enna Gair	Tror	semint
Site ID	Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	Aı	ntenna Size		nd/or R		_dB	
Rem- Shdw .40M	Rem-Shdw	15	L3Harris	L3 Shadow	0.4		35.1 d	Bi at 11	.575		
		<u>n</u>		_1	<u> </u>		36.9 d	Bi at 14	.125		
E28. Antenna Id	E33/34. Diamo Minor/Majo (meters)		Above Sea Level	E37. Build Height Ab Ground L (meters	ove evel	E38. T Input P at ante	otal ower enna	E39. N Antenr Above	laximum na Height Rooftop eters)	EIR ca	. Total P for al rriers BW)

		(meters)			(Watts)		
Rem- Shdw	0.4/0.4	0.4	0.0	0.0	53.0	0.0	41.7

FREQUENCY

E28. Antenna Id	E43/44. Frequency Bands(MHz)	E45. T/R Mode	E46. Antenna Polarization (H,V,L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier(dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
Rem- Shdw	10950 11200	R	Horizontal	625KG7D	0.0	0.0
E50. Modul	lation and Service	es QPSK,	Digital Data			
Rem- Shdw	11450 11700	R	Horizontal	625KG7D	0.0	0.0
E50. Modul	lation and Service	es QPSK,	Digital Data			
Rem- Shdw	11700 12200	R	Horizontal	625KG7D	0.0	0.0
E50. Modul	lation and Service	es QPSK,	Digital Data			
Rem- Shdw	13750 14000	Т	Horizontal	625KG7D	42.0	19.3
E50. Modul	lation and Service	es QPSK,	Digital Data			
Rem- Shdw	14000 14500	Т	Horizontal	625KG7D	42.0	19.3
E50. Modul	lation and Service	s QPSK,	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	Azımum Angle	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)
Rem- Shdw	Geostationary	10950 11200	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11450 11700	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11700 12200	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	13750 14000	0.0/ 0.0	0.0	5.0	0.0	5.0	-13.5
	Geostationary	14000 14500	0.0/ 0.0	0.0	5.0	0.0	5.0	-13.5

REMOTE CONTROL POINT LOCATION REMOTE CONTROL POINT LOCATION

REMOTE CONTROL POINT LOCATION	
F61 Call Sign	_

E61. Call Sign	E65. Phone Number		
NOTE: Please enter the callsign of the controlling station, not the callsbeing filed.			
E62. Street Address			
E63. City	E67. County		E66. Zip Code

SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 - Schedule B:(Technical and Operational Description)

FOR OFFICIAL USE ONLY

Site ID	E28. Antenna	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna	E41/42. Ant and/or R		dBi at
ANTENNA	E20				E22	E41/42 A4	anna CaimTi	uanawi-t-t
E26. Comn	non Name:				E27. Co	untry:		
E25. Site Id								
		ATION (Desti	nation Points)					
E23. Orbit					E24. Country	<i>'</i> :		
E21. Comr					E22. ITU Na	me:		
		selected OTF	IER, please enter	the following				
[COMMUNIC							
(ies) and plot of coordination contours as 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.							O Yes	● No
			ountry required? I ors as	f YES, attach	the name of t	he country	O Yes	No
E18. Is free	E18. Is frequency coordination required? If YES, attach a frequency coordination report as						O Yes	No
E17. Is the fa point.	E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.							No
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 antenn gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?							○Yes ○N	lo • N/A
E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(est 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.								Io ON/A
E14. Site Ele	evation (AMSL):	0.0	0 meters				
	n Coordinates a			NAD-27		• NAD-83		N/A
E11. Latitude E12. Longitu		0 ° 0 ' 0.0 " 0 ° 0 ' 0.0 "						
E10. Area of	-	0.001.001		ONUS, AK, H	II, ALL US T	ERRITORIES		
E4. State			E9	3. County: 9. Zip Code				
E3. Street:			E7	. City:				
E2: Contact		Vance Kan		. Phone Number		585-742-9122		
Location of E E1: Site Iden	Earth Station Si	te Rem-P2 .60)M F5	i. Call Sign:				

Size

Id

GHz)

P2 .60M			Ι	I .60M		37.3	dBi at 14.125	
E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level (meters)	Above Sea	E37. Build Height Ab Ground Lo (meters	ove evel	E38. Total Input Power at antenna flange (Watts)	F39 Maximum	
Rem- P2 .60	0.6/0.6	0.6	0.0	0.0]	18.62	0.0	41.7

FREQUENCY

TREQUERC						
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)
Rem- P2 .60	10950 11200	R	Horizontal	625KG7D	0.0	0.0
E50. Modu	lation and Service	s QPSK,	Digital Data			
Rem- P2 .60	11450 11700	R	Horizontal	625KG7D	0.0	0.0
E50. Modulation and Services QPSK, Digital Data						
Rem- P2 .60	11700 12200	R	Horizontal	625KG7D	0.0	0.0
E50. Modu	lation and Service	s QPSK,	Digital Data			
Rem- P2 .60	13750 14000	Т	Horizontal	625KG7D	42.0	19.3
E50. Modu	lation and Service	s QPSK,	Digital Data			
Rem- P2 .60	14000 14500	Т	Horizontal	625KG7D	42.0	19.3
E50. Modu	lation and Service	s QPSK,	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)
Rem- P2 .60	Geostationary	10950 11200	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11450 11700	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11700 12200	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	13750 14000	0.0/ 0.0	0.0	5.0	0.0	5.0	-18.0
	Geostationary	14000 14500	0.0/ 0.0	0.0	5.0	0.0	5.0	-18.0

REMOTE CONTROL POINT LOCATION

REMOTE CONTROL POINT LOCATION E61. Call Sign E65. Phone Number NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is E62. Street Address E67. County E63. City E64/68. E66. Zip State/Country Code 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: Rem-P2 .96M E5. Call Sign: E2: Contact Name Vance Kannapel E6. Phone Number: 585-742-9122 E3. Street: E7. City: E8. County: E9. Zip Code E4. State CONUS, AK, HI, ALL US TERRITORIES E10. Area of Operation: $0 \circ 0 ' 0.0 " N$ E11. Latitude: E12. Longitude: 0 ° 0 ' 0.0 " W E13. Lat/Lon Coordinates are: **NAD-27** NAD-83 ON/A E14. Site Elevation (AMSL): 0.0 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 ● Yes ○ No ○ N/A demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two-degree spacing policy. 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 ○ Yes ○ No ● N/A gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements? E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control O 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 Yes No (ies) and plot of coordination contours as 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? Yes No. FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION. POINTS OF COMMUNICATION

Satellite Name: 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 GainTransmint and/or Recieve(dBi atGHz)
Rem- P2 .96M	Rem-P2 .96	15	L3Harris	GCS Panther II .96M	0.96	39.3 dBi at 11.575
						41.3 dBi at 14.125

E35. E38. Total E37. Building E36. E39. Maximum E40. Total **Input Power** E28. Above E33/34. Diameter Above Sea Height Above Antenna Height EIRP for al Minor/Major at antenna Ground Antenna **Ground Level Above Rooftop** Level carriers Id (meters) Level flange (meters) (meters) (dBW) (meters) (meters) (Watts) Rem-0.0 0.96 0.0 0.0 0.96/0.96 7.41 41.7 P2 .96

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)	
Rem- P2 .96	10950 11200	R	Horizontal	625KG7D	0.0	0.0	
E50. Modu	lation and Service	es QPSK,	Digital Data				
Rem- P2 .96	11450 11700	R	Horizontal	625KG7D	0.0	0.0	
E50. Modu	E50. Modulation and Services QPSK, Digital Data						
Rem- P2 .96	11700 12200	R	Horizontal	625KG7D	0.0	0.0	
E50. Modu	lation and Service	es QPSK,	Digital Data				
Rem- P2 .96	13750 14000	Т	Horizontal	625KG7D	42.0	19.3	
E50. Modu	lation and Service	es QPSK,	Digital Data				
Rem- P2 .96	14000 14500	Т	Horizontal	625KG7D	42.0	19.3	
E50. Modu	lation and Service	es QPSK,	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	Azımutn Angle	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)
Rem- P2 .96	Geostationary	10950 11200	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11450 11700	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0

G	Geostationary	11700 12200	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
G	Geostationary	13750 14000	0.0/ 0.0	0.0	5.0	0.0	5.0	-22.0
G	Geostationary	14000 14500	0.0/ 0.0	0.0	5.0	0.0	5.0	-22.0

REMOTE CONTROL POINT LOCATION

E61. Call Sign		E65. Phone Numb	er
Eor. Can Sign	Eos. Thone Ivamo	CI .	
NOTE: Please enter the callsign of the contbeing filed.	rolling station, not the callsign for which this application is		
E62. Street Address			
E63. City	E67. County	E64/68. State/Country	E66. Zip Code
CATELL	ITE FADTH STATION AUTHODIZATI	ONS	

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:	Rem-P2 1.3M	E5. Call Sign:					
E2: Contact Name	Vance Kannapel	E6. Phone Number:	585-742-9122				
E3. Street:	•	E7. City:					
		E8. County:					
E4. State		E9. Zip Code					
E10. Area of Operation:		CONUS, AK, HI, ALI	L US TERRITORIES				
E11. Latitude:	0 ° 0 ' 0.0 " N						
E12. Longitude:	0 ° 0 ' 0.0 " W						
E13. Lat/Lon Coordinates are:		NAD-27 0.0 meters	NAD-83	○N/A			
E14. Site Elevation (AM)							
the proposed antenna(s) c	omply with the antenna gain paracturer's qualification measu	tellite Service (FSS) with geostat patterns specified in Section 25.2 prement? If NO, provide as tech	09(a) and (b) as	• Yes ONo ON/A			
Satellite Service (FSS) wi	th non-geostationary satellites	xed Satellite Service (FSS), or if s, do(es) the proposed antenna(s) demonstrated by the manufactur	comply with the antenna	○ Yes ○ No ● N/A			
E17. Is the facility operate point.	ed by remote control? If YES,	provide the location and telepho	ne number of the control	○ Yes ● No			
E18. Is frequency coo	ordination required? If Y	ES, attach a frequency coor	dination report as	O Yes • No			
	E19. Is coordination with another country required? If YES, attach the name of the country (ies) and plot of coordination contours as						
		7 and 47 CFR part 25.113 a copy of a completed FCC					

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.	O Yes	No
POINTS OF COMMUNICATION		
Satellite Name: If you selected OTHER, please enter the following:	<u> </u>	<u> </u>

Satellite Name: 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 GainTransmint and/or Recieve(dBi at GHz)
Rem-P2 1.3M	Rem-P2 1.3	15		GCS Panther II 1.3M	1.3	42.9 dBi at 11.575
						43.9 dBi at 14.125

E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	E35. Above Ground Level (meters)		E37. Building Height Above Ground Level (meters)	ai anienna	E39. Maximum Antenna Height Above Rooftop (meters)	
Rem-P2 1.3	1.3/1.3	1.3	0.0	0.0	4.7	0.0	41.7

FREQUENCY

TREQUERTE									
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)			
Rem-P2 1.3	10950 11200	R	Horizontal	625KG7D	0.0	0.0			
E50. Modu	lation and Service	es QPSK,	Digital Data						
Rem-P2 1.3	11450 11700	R	Horizontal	625KG7D	0.0	0.0			
E50. Modu	lation and Service	es QPSK,	Digital Data						
Rem-P2 1.3	11700 12200	R	Horizontal	625KG7D	0.0	0.0			
E50. Modu	lation and Service	es QPSK,	Digital Data						
Rem-P2 1.3	13750 14000	Т	Horizontal	625KG7D	42.0	19.3			
E50. Modulation and Services QPSK, Digital Data									
Rem-P2 1.3	14000 14500	Т	Horizontal	625KG7D	42.0	19.3			
E50. Modu	E50. Modulation and Services QPSK, Digital Data								

FREQUENCY COORDINATION

			E56. Earth	E57.	E58. Earth	E59.	
	E52/53.	E54/55.	Station	Antenna	Station	Antenna	E60. Maximum

E28. Antenna Id	E51. Satellite Orbit Type	Frequency Limits (MHz)	Range of Satellite Arc E/W Limit	Angle	Elevation Angle Eastern Limit	Azimuth Angle Western Limit	Elevation Angle Western Limit	EIRP Density toward the Horizon (dBW/4kHz)
Rem-P2 1.3	Geostationary	10950 11200	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11450 11700	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11700 12200	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	13750 14000	0.0/ 0.0	0.0	5.0	0.0	5.0	-24.5
	Geostationary	14000 14500	0.0/ 0.0	0.0	5.0	0.0	5.0	-24.5

REMOTE CONTROL POINT LOCATION

REMOTE CONTROL POINT LOCATION				
E61. Call Sign	E65. Phone Number			
NOTE: Please enter the callsign of the controlling station, not the calls being filed.	sign for which this application is			
E62. Street Address				
E63. City	j		E66. Zip Code	

SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 - Schedule B:(Technical and Operational Description)

	Y			
Location of Earth Station	Site			
E1: Site Identifier:	Rem-H3 1.2M	E5. Call Sign:		
E2: Contact Name	Vance Kannapel	E6. Phone Number:	585-742-9122	
E3. Street:		E7. City:		
E4. State		E8. County: E9. Zip Code		
E10. Area of Operation:		CONUS, AK, HI, ALL	US TERRITORIES	
E11. Latitude:	$0^{\circ}0$ ' 0.0 " N			
E12. Longitude:	0 ° 0 ' 0.0 " W			
E13. Lat/Lon Coordinates	s are:	○ NAD-27	NAD-83	○ N/A
E14. Site Elevation (AMS	SL):	0.0 meters		
E15. If the proposed anten the proposed antenna(s) co- demonstrated by the manu compliance with two-degr	• Yes O No O N/A			
Satellite Service (FSS) wit	th non-geostationary satellites	xed Satellite Service (FSS), or if (s, do(es) the proposed antenna(s) demonstrated by the manufacture	comply with the antenna	○ Yes ○ No ● N/A
			i	

E17. Is the point.	facility operate	y operated by remote control? If YES, provide the location and telephone number of the control									O Yes	No		
E18. Is fro	18. Is frequency coordination required? If YES, attach a frequency coordination report as										O Yes	No		
E19. Is coordination with another country required? If YES, attach the name of the country (ies) and plot of coordination contours as									O 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.										O Yes	No			
I	F COMMUNI													
	Name: If you		d OTHE	ER, pl	ease ente	er th	e followin	-						
	mon Name:							E22	2. I	TU Nai	me:			
	t Location:							E24	4. C	Country	:			
	F COMMUNI	CATION	(Destina	tion P	Points)				1					
E25. Site										25 0				
<u> </u>	mon Name:								Εź	27. Cou	ıntry:			
Site ID	E28. Antenna Id	E29 Quant		E3 anufa	30. acturer	E	31. Model	A	E3 Ante Si	enna			tenna GainTransmint Recieve(dBi at GHz)	
Rem-H3	Rem-H3 1.2	15	L3]	Harris	S	GC Hav 1.2	wkeye III	1.2	,			lBi at 1		
	1		7		1				-			lBi at 1	4.125	
E28. Antenna Id	E33/34. D Minor/I	Major	E3 Abo Groo Lev (met	ove und ⁄el	E36. Above Leve (meter	Sea el	E37. Bui Height A Ground (meter	bove Leve	I	E38. T nput P at ante flans (Wat	ower enna ge	Anten Abov		E40. Total EIRP for al carriers (dBW)
Rem-H3 1.2	1.2/1.2		1.2		0.0		0.0		4.	79		0.0		41.7
FREQUEN	CY	100								10				
E28. Antenna Id	E43/4 Freque Bands(N	ency	E45. T/R Mode	P	46. Ante Polarizat (H,V,L,l	ion	E47. E Desi			E	Maxi IRP p rier(d	er	Density p	imum ERIP per Carrier //4kHz)
Rem-H3 1.2	10950 112	200	R	Hori	izontal		625KC	7D		0.0			0.0	
E50. Modulation and Services QPSK, Digital Data														
Rem-H3 1.2	11450 117							0.0						
E50. Mod	ulation and	Services	s QPSK,	Digi	tal Data									
Rem-H3 1.2	em-H3 11700 12200 R Horizontal 625KG7D 0.0								0.0					
E50. Mod	ulation and	Services	s QPSK,	Digi	tal Data									
Rem-H3 1.2	13750 140	000	Т	Hori	izontal		625KC	7D		42.0			19.3	

E50. Modu	E50. Modulation and Services QPSK, Digital Data								
Rem-H3 1.2	14000 14500	Т	Horizontal	625KG7D	42.0	19.3			
E50. Modu	E50. Modulation and Services QPSK, 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	Azımutlı Angle	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)
Rem-H3 1.2	Geostationary	10950 11200	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11450 11700	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11700 12200	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	13750 14000	0.0/ 0.0	0.0	5.0	0.0	5.0	-23.9
	Geostationary	14000 14500	0.0/ 0.0	0.0	5.0	0.0	5.0	-23.9

REMOTE CONTROL POINT LOCATION REMOTE CONTROL POINT LOCATION

E61. Call Sign		E65. Phone Number	
NOTE: Please enter the callsign of the controlling station, not the calls being filed.	sign for which this application is		
E62. Street Address			
E63. City	E67. County		E66. Zip Code

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: Rem-H3 1.6M E5. Call Sign:

E2: Contact Name Vance Kannapel E6. Phone Number: 585-742-9122

E3. Street: E7. City:

E7. City: E8. County:

E4. State E9. Zip Code

E10. Area of Operation: CONUS, AK, HI, ALL US TERRITORIES

E11. Latitude: $0 \circ 0 ' 0.0 " N$

E12. Longitude: $0 \circ 0 ' 0.0 " W$

E13. Lat/Lon Coordinates are: NAD-27 NAD-83 NAD-83

E14. Site I	Elevation (AMS	SL):			(0.0 n	neters						
the propose demonstrat	proposed antened antenna(s) co ed by the manu with two-degr	omply with ifacturer's	th the ante qualifica	enna ga	in patterns	s spec	cified in Secti	on 25	.209(a)	and (b) as	, ,	• Yes	No N/A
Satellite Se	proposed antenervice (FSS) with a specified in Sents?	th non-ge	ostationar	y satell	lites, do(es	s) the	proposed ant	tenna(s) comp	ly with the	antenna		No No N/A
E17. Is the point.	E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the contropoint.										O Yes	No	
E18. Is fr	E18. Is frequency coordination required? If YES, attach a frequency coordination report as										O Yes	No	
	oordination v			•	equired?	If Y	YES, attach	the 1	name o	f the cou	ntry	O Yes	No
notificati the FAA FAILUR	A Notification is requir's study rega E TO COMN OF THIS	ed, hav arding t IPLY W	e you at the pote VITH 47	ttache ntial l CFR	d a copy hazard o	y of of th	a complete e structur	ed FO	CC For aviatio	rm 854 a n?	nd or	O Yes	No
I -	F COMMUNI											·	
	Name: If you		d OTH	ER, plo	ease ente	er the	e following						
	nmon Name:							E22	. ITU N	Vame:			
	it Location:							E24	. Coun	ry:			
	F COMMUNI	CATION	N (Destina	ation P	oints)								
	Identifier:								707				
	nmon Name:								E27. C	Country:			
ANTENNA	E28.	1				1		1	E32.	E41	// / / /	tanna Cair	T
Site ID	Antenna Id	E29 Quan	tity M	E3 anufa		Е3	31. Model		E32. ntenna Size			Recieve(GHz)	nTransmint dBi at)
Rem-H3 1.6M	Rem-H3 1.6	15	L33	Harris	1	GC Hav 1.61	wkeye III	1.6		43.3 0	lBi at 1	1.575	
										45.3 (lBi at 1	4.125	
E28. Antenna Id	Antenna Minor/Major Ground Level Above Sea Level Ground G									Anten Abov	Maximum ina Height e Rooftop neters)	E40. Total EIRP for al carriers (dBW)	
Rem-H3 1.6											0.0		41.7
FREQUENCY													
E28. Antenna Id	E43/4 Freque Bands(N	ency	E45. T/R Mode	P	46. Ante olarizat (H,V,L,]	ion	E47. Er Design		on	8. Maxi EIRP p arrier(d	er	Density p	imum ERIP oer Carrier //4kHz)
Rem-H3 1.6	10950 112	200	R		zontal		625KG7	7D	0.0			0.0	
E50 Mod	dulation and	Service	s OPSK	Dioit	tal Data							·	-

 $\|$

 $\| \|$

Rem-H3 1.6	11450 11700	R	Horizontal	625KG7D	0.0	0.0				
E50. Modulation and Services QPSK, Digital Data										
Rem-H3 1.6										
E50. Modu	lation and Service	es QPSK,	Digital Data							
Rem-H3 1.6	13750 14000	Т	Horizontal	625KG7D	42.0	19.3				
E50. Modu	lation and Service	es QPSK,	Digital Data							
Rem-H3 1.6	14000 14500	Т	Horizontal	625KG7D	42.0	19.3				
E50. Modu	E50. Modulation and Services QPSK, Digital Data									

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits (MHz)	E54/55.	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)
Rem-H3 1.6	Geostationary	10950 11200	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11450 11700	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11700 12200	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	13750 14000	0.0/ 0.0	0.0	5.0	0.0	5.0	-26.0
	Geostationary	14000 14500	0.0/ 0.0	0.0	5.0	0.0	5.0	-26.0

REMOTE CONTROL POINT LOCATION REMOTE CONTROL POINT LOCATION

E61. Call Sign		E65. Phone Number	
NOTE: Please enter the callsign of the controlling station, not the calls being filed.	sign for which this application is		
E62. Street Address			
E63. City	3		E66. Zip Code

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: Rem-H3 2.0M E5.

E5. Call Sign:

E21. Con E23. Orbi POINTS OF E25. Site E26. Com ANTENNA Site ID	mmon Name: it Location: F COMMUNIC Identifier: mmon Name: E28. Antenna Id Rem-H3 2.0	E29. Quantity	E30 Manuface L3Harris	ints) 0. ceturer E36.	E31. Model GCS Hawkeye III 2.0M E37. Build Height Ab	E22 E24 And 2.0	E27. Con E32. ntenna Size E38. T Input P at ante	E41/a 45.7 d 47.3 d 7otal	Bi at 11 Bi at 14 E39. M Antenn		_dBi at	otal r al
E21. Con E23. Orbi POINTS OF E25. Site E26. Com ANTENNA Site ID	mmon Name: It Location: F COMMUNIC Identifier: mmon Name: E28. Antenna Id Rem-H3	E29. Quantity	E30 Manufac	ints)	E31. Model GCS Hawkeye III	E22 E24	E27. Con	E41/ a	nd/or R lBi at 11	ecieve(GHz	_dBi at	int
E21. Con E23. Orbi POINTS OF E25. Site E26. Com ANTENNA	mmon Name: It Location: F COMMUNIC Identifier: Immon Name: E28. Antenna Id	E29. Quantity	E30 Manufac	ints)	E31. Model	E22 E24	E27. Con	E41/	nd/or R	ecieve(GHz	_dBi at	int
E21. Con E23. Orbi POINTS OF E25. Site E26. Com	nmon Name: It Location: F COMMUNIC Identifier: nmon Name: E28. Antenna	CATION (D	estination Po	ints)		E22 E24	E27. Con	untry:		ecieve(_dBi at	int
E21. Con E23. Orbi POINTS OF E25. Site E26. Com	nmon Name: it Location: F COMMUNIC Identifier: nmon Name:					E22	. Country	7:				
E21. Com E23. Orbi POINTS OF E25. Site	nmon Name: it Location: F COMMUNIC					E22	. Country	7:				
E21. Con E23. Orbi	nmon Name: it Location: F COMMUNIC					E22						
E21. Con E23. Orbi	nmon Name:					E22						
			official, pied	ase ente			. ITU Na	me:				
Satellite 1	Satellite Name: If you selected OTHER, please enter the following:											
POINTS OF COMMUNICATION										 '		
POINTS O	F COMMUNIO	CATION										
E20. FAA notificati the FAA' FAILUR	Notificatio on is require s study rega	n - (See 47 ed, have your ding the PLY WIT	CFR Part ou attached potential h H 47 CFR	l a copy azard o	147 CFR part y of a complete of the structure S 17 AND 25 V	ed FC e to a	CC Form viation?	854 a	nd or	O Yes	No	
	oordination woold of coord		•	quired?	If YES, attach	the r	name of t	he cou	ntry	O Yes	No	
				-	tach a frequenc					O Yes	No	
E17. Is the point.	facility operated	d by remote c	control? If YE	S, provid	le the location and	telep	hone numb	er of the	e control	O Yes	No	
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the I Satellite Service (FSS) with non-geostationary satellites, do(es) the proposed antenna(s) comply with the ant gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements? E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the co											No • N	N/A
the propose demonstrate compliance	proposed anteni d antenna(s) co ed by the manul with two-degre	owing	• Yes	No ON	N/A							
E14. Site E	Elevation (AMS	L):		C	0.0 meters							
	on Coordinates	are:		(NAD-27			NA	D-83		○N/A	
E12. Longi		0 ° 0 ' 0.	-									
E11. Latitu	•	0 ° 0 ' 0.	0 " N		201105, 7HC, 1	11, 11	LL OD I	LIXIXII	ORILS			
Liv. Inca	of Operation:				E9. Zip Code CONUS, AK, H	II A l	TZUU	FRRIT	ORIES			
E4. State E10. Area		E8. County:										
E3. Street: E4. State E10. Area				_		:	•		2-9122			[]

2.0								
FREQUEN	CY	<u>''</u>	<u>'</u>	<u>'</u>	<u>"</u>	<u>"</u>		
E28. Antenna Id	E43/44. Frequency Bands(MH	ll l	E46. And Polariza (H,V,I	ation E4	7. Emission Designator	E48. Maxin EIRP pe Carrier(dE	r De	. Maximum ERIP nsity per Carrier (dBW/4kHz)
Rem-H3 2.0	10950 11200	R	Horizontal	625	5KG7D	0.0	0.0	
E50. Mod	ulation and Ser	vices QPSK,	Digital Data					
Rem-H3 2.0	11450 11700	R	Horizontal	625	5KG7D	0.0	0.0	
E50. Mod	ulation and Ser	vices QPSK,	Digital Data	a				
Rem-H3 2.0	11700 12200	R	Horizontal	625	5KG7D	0.0	0.0	
E50. Mod	ulation and Ser	vices QPSK,	Digital Data	a			·	
Rem-H3 2.0	13750 14000	Т	Horizontal	625	5KG7D	42.0	19.3	
E50. Mod	ulation and Ser	vices QPSK,	Digital Data	a				
Rem-H3 2.0	14000 14500	Т	Horizontal	625	5KG7D	42.0	19.3	
E50. Mod	ulation and Ser	vices QPSK,	Digital Data	a				
FREQUEN	CY COORDINAT	TION	1	11	1	1	1	11
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	Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	toward the
Rem-H3 2.0	Geostationary	10950 11200	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11450 11700	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11700 12200	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	13750 14000	0.0/ 0.0	0.0	5.0	0.0	5.0	-28.0
	Geostationary	14000 14500	0.0/ 0.0	0.0	5.0	0.0	5.0	-28.0
	CONTROL POIN							
E61. Call Si	gn use enter the callsig			ot the callsign	for which this a		E65. Phone N	Number
E62. Street	Address							
E63. City				E67	. County		E64/68. State/Country	E66. Zip Y Code

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:	Rem-H3 2.4M	E5. Call Sign:		
E2: Contact Name	Vance Kannapel	E6. Phone Number:	585-742-9122	
E3. Street:		E7. City:		
		E8. County:		
E4. State		E9. Zip Code		
E10. Area of Operation:		CONUS, AK, H	I, ALL US TERRITORIES	
E11. Latitude:	0 $^{\circ}$ 0 ' 0.0 " N			
E12. Longitude:	0 ° 0 ' 0.0 " W			
E13. Lat/Lon Coordinate	es are:	○ NAD-27	NAD-83	○ N/A
E14. Site Elevation (AM	SL):	0.0 meters		
the proposed antenna(s) of	nna(s) operate in the Fixed Sat comply with the antenna gain pufacturer's qualification measure spacing policy.	patterns specified in Section	on 25.209(a) and (b) as	• Yes ONo ON/A
Satellite Service (FSS) w		s, do(es) the proposed ante), or if they operate in the Fixed enna(s) comply with the antenna ufacturer's qualification	○ Yes ○ No ● N/A
E17. Is the facility operat point.	ed by remote control? If YES,	provide the location and t	elephone number of the control	O Yes No
E18. Is frequency coo	ordination required? If YI	ES, attach a frequency	coordination report as	O Yes • No
E19. Is coordination (ies) and plot of coor	with another country requi	uired? If YES, attach t	he name of the country	○ Yes ● No
E20. FAA Notificati notification is requit the FAA's study reg FAILURE TO CON RETURN OF THIS	○ Yes ● No			
POINTS OF COMMUN	ICATION			
Satellite Name: If yo	u selected OTHER, pleas	e enter the following:		
E21. Common Name	::		E22. ITU Name:	
E23 Orbit Location:			F24 Country:	

ANTENNA

E25. Site Identifier:

E26. Common Name:

POINTS OF COMMUNICATION (Destination Points)

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size	E41/42. Antenna GainTransmint and/or Recieve(dBi at GHz)
Rem-H3	Rem-H3	15	IL3Hams	GCS Hawkeye III	2.4	47.3 dBi at 11.575

E27. Country:

2.4M	2.4			2.4	·M						
	48.8 dBi at 14.125										
E28. Antenna Id	E33/34. D Minor/N (mete	Major	E35. Above Ground Level (meters)	Above Sea	E37. Build Height Ab Ground Lo (meters	ove evel	Input Pov	wer na	E39. Maximum Antenna Height Above Rooftop (meters)		
Rem-H3 2.4	2.4/2.4	2	4	0.0	0.0		1.32		0.0	41.7	

FREQUENCY

FREQUENC						
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)
Rem-H3 2.4	10950 11200	R	Horizontal	625KG7D	0.0	0.0
E50. Modul	lation and Service	es QPSK,	Digital Data			
Rem-H3 2.4	11450 11700	R	Horizontal	625KG7D	0.0	0.0
E50. Modul	lation and Service	s QPSK,	Digital Data			
Rem-H3 2.4	11700 12200	R	Horizontal	625KG7D	0.0	0.0
E50. Modul	lation and Service	s QPSK,	Digital Data			
Rem-H3 2.4	13750 14000	Т	Horizontal	625KG7D	42.0	19.3
E50. Modulation and Services QPSK, Digital Data						
Rem-H3 2.4	14000 14500	Т	Horizontal	625KG7D	42.0	19.3
E50. Modul	lation and Service	es QPSK,	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)
Rem-H3 2.4	Geostationary	10950 11200	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11450 11700	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	11700 12200	0.0/ 0.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	13750 14000	0.0/ 0.0	0.0	5.0	0.0	5.0	-29.5
	Geostationary	14000 14500	0.0/ 0.0	0.0	5.0	0.0	5.0	-29.5

REMOTE CONTROL POINT LOCATION

REMOTE CONTROL POINT LOCATION

E61. Call Sign

NOTE: Please enter the callsign of the controlling station, not the callsbeing filed.	sign for which this application is	
E62. Street Address		
E63. City		E66. Zip Code

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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.

FCC IBFS - Electronic Filing

Submission_id :IB2020001098 Successfully filed on :May 6 2020 2:59:44:223PM

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FCC Form 312 Attachment Pursuant to Item 42A

Attachment to Item 42A Use of Non-U.S.-Licensed Satellites

As noted in this application, the proposed authorization will be used to communicate with the AMAZONAS 2 (S2793) satellite which is licensed by Brazil and appears on the Commission's Permitted List. The authorization may also be used to communicate with non-U.S. space stations that are on the Commission's Permitted List. Pursuant to the DISCO II First Reconsideration Order, FCC 99-325 (released October 29, 1999), a U.S.-licensed earth station with an ALSAT license is permitted to access any space station on the Permitted List, provided that the space station complies with the Commission's technical requirements, and operates under the conditions on its license and set forth in the Orders cited at https://www.fcc.gov/permitted-space-station-list. The authorization does not intend to be used to communicate with any non-U.S. space station that is not on the Permitted List.

Radiation Hazard Report Page 1 of 4

Analysis of Non-Ionizing Radiation for a 4.8-Meter Earth Station System

This report analyzes the non-ionizing radiation levels for a 4.8-meter earth station system. The analysis and calculations performed in this report comply with the methods described in the FCC Office of Engineering and Technology Bulletin, No. 65 first published in 1985 and revised in 1997 in Edition 97-01. The radiation safety limits used in the analysis are in conformance with the FCC R&O 96-326. Bulletin No. 65 and the FCC R&O specifies that there are two separate tiers of exposure limits that are dependent on the situation in which the exposure takes place and/or the status of the individuals who are subject to the exposure. The Maximum Permissible Exposure (MPE) limits for persons in a General Population/Uncontrolled environment are shown in Table 1. The General Population/Uncontrolled MPE is a function of transmit frequency and is for an exposure period of thirty minutes or less. The MPE limits for persons in an Occupational/Controlled environment are shown in Table 2. The Occupational MPE is a function of transmit frequency and is for an exposure period of six minutes or less. The purpose of the analysis described in this report is to determine the power flux density levels of the earth station in the farfield, near-field, transition region, between the sub-reflector or feed and main reflector surface, at the main reflector surface, and between the antenna edge and the ground and to compare these levels to the specified MPEs.

Table 1. Limits for General Population/Uncontrolled Exposure (MPE)

Frequency Range (MHz)	Power Density (mW/cm ₂)
30-300	0.2
300-1500	Frequency (MHz)*(0.8/1200)
1500-100,000	1.0

Table 2. Limits for Occupational/Controlled Exposure (MPE)

Frequency Range (MHz)	Power Density (mW/cm ₂)		
30-300	1.0		
300-1500	Frequency (MHz)*(4.0/1200)		
1500-100,000	5.0		

Table 3. Formulas and Parameters Used for Determining Power Flux Densities

Parameter	Symbol	Formula	Value	Units
Antenna Diameter	D	Input	4.8 m	m
Antenna Surface Area	Asurface	$(\pi/4)\cdot D^2$	18.10	m²
Sub-reflector Diameter	Dsr	Input	36.6	cm
Area of Sub reflector	Asr	(π/4)·Dsr²	1049.67	cm ²
Frequency	F	Input	14125	MHz
Wavelength	λ	300/F	2.122	cm
Transmit Power	Р	Input	100.00	W
Antenna Gain (dBi)	Ges	Input	55	dBi
Antenna Gain (factor)	G	10 ^{Ges/10}	316227.7	n/a
Pi	π	Constant	3.1415927	n/a
Antenna Efficiency	η	$G \cdot (\lambda/(\pi \cdot D))^2$	0.627	n/a

1. Far Field Distance Calculation

The distance to the beginning of the far field can be determined from the following equation:

Distance to the Far Field Region R_{ff} =
$$0.60 D^2/\lambda$$
 (1)
= $650.9 m$

The maximum main beam power density in the far field can be determined from the following equation:

On-Axis Power Density in the Far Field S_{ff} =
$$G P / (4 \pi R_{ff}^2)$$
 (2)
= 5.93965 W/m²
= 0.5939 mW/cm²

2. Near Field Calculation

Power flux density is considered to be at a maximum value throughout the entire length of the defined Near Field region. The region is contained within a cylindrical volume having the same diameter as the antenna. Past the boundary of the Near Field region, the power density from the antenna decreases linearly with respect to increasing distance.

The distance to the end of the Near Field can be determined from the following equation:

Extent of the Near Field R_{nf} =
$$D^2/(4 \lambda)$$
 (3)
= 271.2 m

The maximum power density in the Near Field can be determined from the following equation:

Near Field Power Density
$$S_{nf} = 16.0 \, \eta \, P / (\pi \, D^2)$$

= 13.847 W/m²
= 1.3847 mW/cm²

3. Transition Region Calculation

The Transition region is located between the Near and Far Field regions. The power density begins to decrease linearly with increasing distance in the Transition region. While the power density decreases inversely with distance in the Transition region, the power density decreases inversely with the square of the distance in the Far Field region. The maximum power density in the Transition region will not exceed that calculated for the Near Field region. The power density calculated in Section 1 is the highest power density the antenna can produce in any of the regions away from the antenna. The power density at a distance Rt can be determined from the following equation:

Transition Region Power Density
$$S_t = S_{nf} R_{nf} / R_t$$
 (5)
= 1.481 mW/cm₂

Radiation Hazard Report Page 3 of 4

4. Region between the Main Reflector and the Sub-reflector

Transmissions from the feed assembly are directed toward the sub-reflector surface and are reflected back toward the main reflector. The most common feed assemblies are waveguide flanges, horns or sub-reflectors. The energy between the sub-reflector and the reflector surfaces can be calculated by determining the power density at the sub-reflector surface. This can be determined from the following equation:

Power Density at the Sub-reflector
$$S_{sr} = 4 \cdot P / Asr$$
 (6)
= 0.381072 W/cm²
= 381.07 mW/cm²

5. Main Reflector Region

The power density in the main reflector is determined in the same manner as the power density at the sub-reflector. The area is now the area of the main reflector aperture and can be determined from the following equation:

Power Density at the Main Reflector Surface
$$S_{surface} = 4 P / A_{surface}$$
 (7)
= 22.099 W/m²
= 2.209 mW/cm²

6. Off-axis Levels at the Far Field Limit and Beyond

In the far field region, the power is distributed in a pattern of maxima and minima (sidelobes) as a function of the off-axis angle between the antenna on-axis center line and the point of interest. The on-axis main-beam will be the location of the greatest of these maxima. The on-axis power density calculated above represent the maximum exposure levels that the system can produce. Off-axis power densities will be considerably less and hence comply with FCC limits.

7. Off-axis Levels at the Near Field Limit and in the Transition Region

According to Bulletin 65, off-axis calculations in the near field may be performed as follows: assuming that the point of interest is at least one antenna diameter removed from the center of the main beam, the power density at that point is at least a factor of 100 (20dB) less than the value calculated for the equivalent on-axis power density in the main beam. Therefore, for regions at least D meters away from the center line of the dish, whether behind, below, or in front under of the antenna's main beam, the power density exposure is at least 20 dB below the main beam level as follows:

Power Density off-axis behind, below or in front under the antenna's main beam $S_g = \frac{S_q = Snf/100 = 0.014 \text{ mW/cm}^2}{100 = 0.014 \text{ mW/cm}^2}$

Radiation Hazard Report Page 4 of 4

7. Summary of Calculations

Table 4. Summary of Expected Radiation levels for Uncontrolled Environment

Decies		Calculated Max. Radiation Power Density Level (mW/cm²)		Hazard Assessment (≤ 1mW/cm²)
	Region Far Field (R _# = 650.9 m)		0.593	Satisfies FCC MPE
	Near Field (R _{nf} = 271.2 m)	Sff Snf	1.385	Potential Hazard
	Transition Region (Rnf < Rt < Rff)	St	1.385	Potential Hazard
	Between Main Reflector and Sub-reflector	Ssr	381.072	Potential Hazard
	Main Reflector	Ssurface	2.209	Potential Hazard
	Between Main Reflector and Ground	Sg	0.014	Satisfies FCC MPE

Table 5. Summary of Expected Radiation levels for Controlled Environment

Region		Calculated Max. Radiation Power Density Level (mW/cm²)		Hazard Assessment (≤ 5mW/cm²)
	Far Field (R _{ff} = 650.9 m)	Sff	0.593	Satisfies FCC MPE
	Near Field (R _{nf} = 271.2 m)	Snf	1.385	Satisfies FCC MPE
	Transition Region (Rnf < Rt < Rff)	St	1.385	Satisfies FCC MPE
	Between Main Reflector and Sub-reflector	Ssr	381.072	Potential Hazard
	Main Reflector	Ssurface	2.209	Satisfies FCC MPE
	Between Main Reflector and Ground	Sg	0.014	Satisfies FCC MPE

It is the applicant's responsibility to ensure that the public and operational personnel are not exposed to harmful levels of radiation.

8. Evaluation of Safe Occupancy Area in Front of Antenna

As covered in the section above "Off-axis levels at the Near Field and in the Transition Region", the off-axis levels are well below the FCC limit for a controlled environment. However, in an abundance of caution, a fence will be used to prevent employee and the general public access to the area surrounding the antenna. In addition, the area between the feed horn and the reflector will not be accessible by maintenance personnel without the proper training and the transmitter being turned off.

9. Conclusions

Based on the above analysis it is concluded that harmful levels of radiation will not exist in regions normally occupied by the public or the earth station's operating personnel. The transmitter will be turned off during antenna maintenance so that the FCC MPE of 5.0 mW/cm2 will be complied with for those regions with close proximity to the reflector that exceed acceptable levels.



Online Payment

Step 3: Confirm Payment

1 | 2 | 3

Thank you.

Your transaction has been successfully completed.

Pay.gov Tracking Information

Application Name: Remittance Advice

Pay.gov Tracking ID: 26OSSDEA
Agency Tracking ID: PGC3390582

Transaction Date and Time: 05/06/2020 15:03 EDT

Payment Summary

Address Information	Account Information	Payment Information Payment Amount: \$11,015.00 Transaction Date 05/06/2020 15:03		
Account Holder HOLLAND & Name: KNIGHT LLP	Credit Card Type: Visa Credit Card Number: ********8263			
800 17TH STREET, Billing Address: STE. 1100	Credit Card Number. 6203	and Time: EDT		
Billing Address 2:				
City: WASHINGTON				
State/Province: DC				
ZIP/Postal Code : 20006-3906				
Country: USA				



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Electronic Form 159

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Payment Confirmation

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

AGENCY TRACKING ID: PGC3390582
AUTHORIZATION NUMBER: 026390
AMOUNT PAID: \$11,015.00

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Customer Service

<u>FCC Fees</u> <u>Web Policies</u> / <u>Privacy Policy</u>

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

Agency Tracking ID:PGC3390582 Authorization Number:026390

Successful Authorization -- Date Paid: 5/6/20 FILE COPY ONLY!!

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PROCEEDING	REMITTANCE ADVICE					
	FORM 159 PAGE NO 1 OF 1		SPEC	SPECIAL USE		
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			FCC (USE ONLY		
	SECTION	A - Payer Information	•			
(2) PAYER NAME (if paying by credit card	L enter name exactly as it appears on your ca	ard)		AMOUNT PAID (dollars and cents)		
HOLLAND & KNIGHT LLP	, encernance chacay as it appears on your ex		\$11015.0	0		
(4) STREET ADDRESS LINE NO. 1			·			
800 17TH STREET, STE. 1100						
(5) STREET ADDRESS LINE NO. 2						
TELECOM-C. NAFTALIN						
(6) CITY		(7)) STATE	(8) ZIP CODE		
WASHINGTON		D	C	20006-3906		
(9) DAYTIME TELEPHONE NUMBER (I	NCLUDING AREA CODE)		CODE (IF NOT IN	U.S.A.)		
202-9553000 x7040		US				
	REGISTRATION NUMBER (FRN) AN		BER (TIN) REQUI	RED		
(11) PAYER (FRN)		(12) FCC USE ONLY				
0004148995						
IF	PAYER NAME AND THE APPLICANT IF MORE THAN ONE APPLICANT,			В		
(13) APPLICANT NAME	IF MORE THAN ONE ATTEICANT	, USE CONTINUATION SHEETS	5 (FORM 139-C)			
L3HARRIS TECHNOLOGIES	, INC.					
(14) STREET ADDRESS LINE NO. 1						
1025 West Nasa Blvd.						
(15) STREET ADDRESS LINE NO. 2						
(16) CITY Melbourne		(17) FL) STATE	(18) ZIP CODE 32919-		
(19) DAYTIME TELEPHONE NUMBER (INCLUDING AREA CODE)		CODE (IF NOT IN			
585-742-9122	including area code)	US	CODE (IF NOT IN	U.S.A.)		
FCC	REGISTRATION NUMBER (FRN) AN	D TAX IDENTIFICATION NUM	BER (TIN) REQUI	RED		
(21) APPLICANT (FRN)	<u> </u>	(22) FCC USE ONLY	, ,			
0003791472						
COMPLETI	E SECTION C FOR EACH SERVICE, IF			ION SHEET		
(23A) FCC Call Sign/Other ID		(24A) Payment Type Code(P		(25A) Quantity		
(26A) Fee Due for (PTC)		(27A) Total Fee	GV	FCC Use Only		
	,015.00		015.00	rec use only		
(28A) FCC CODE 1		29A) FCC CODE 2				
	Ì		32020001098			
		la m n = -		Tama a		
(23B) FCC Call Sign/Other ID		(24B) Payment Type Code(P	TC)	(25B) Quantity		
(26B) Fee Due for (PTC)		(27B) Total Fee		FCC Use Only		
(28B) FCC CODE 1		29B) FCC CODE 2				