

NOTICE OF COMPLETION OF C-BAND ESV COORDINATION –

ST. THOMAS, VIRGIN ISLANDS PORT AREA

MTN License Corp. (“MTN”), pursuant to Section 25.221(a)(12) of the Commission’s rules, 47 C.F.R. 25.221(a)(12), hereby submits notification of the successful completion of frequency coordination of Earth Station on Vessels (“ESV”) operations conducted in the port area of St. Thomas, Virgin Islands under its C-band ESV network license (Call Sign E050281). In support of this notification, MTN provides the following information as set forth in the Commission’s Public Notice DA 05-1671 (released June 15, 2005):

1. Name and contact information of the frequency coordinator

Ken Ryan, P.E.
Skjei Telecom, Inc.
777 Leesburg Pike, Suite 315N
Falls Church, VA 22043
Telephone: 703-917-4077
Email: www.skjeitelecom.com

2. Reference identification, date, and duration (if relevant) of the coordination report

Coordination Report Number: 151125SKJTEL02
Date: February 3, 2016

3. Frequency coordination method used

Critical contour point method

4. Interference criteria used

Long term: -154.0 dBW/4 kHz 20%
Short term: -131.0 dBW/4 kHz 0.0025%

5. Speed of coordinated vessel, if relevant

8.6 knots

6. Center frequencies, bandwidths, and total spectrum coordinated per satellite

Frequency Range: 6314.7-6344.3 MHz¹

Bandwidths: 1.05 MHz and 3.75 MHz

Total spectrum coordinated: 29.6 MHz

7. Name of satellite(s) and transponder(s) being used

Satellite: NSS7 @ 20° W.L.

Transponders: GAL8/GAR8

Transponder Frequency Range: 6309.0-6363.0 MHz

8. Textual description and scaled map of the geographic area(s) coordinated

The geographic area coordinated is the route depicted in the maps contained in the attached Frequency Coordination and Interference Analysis Report, as well as all of the area seaward of this route within 200 kilometers of the baseline of the United States or 200 kilometers from any fixed service offshore installation.

9. 24/7 contact information for the ESV operator

Telephone: 1-954-538-4074

Email: noc.maritime@emconnected.com

10. Call sign of the hub station if independently licensed

N/A

11. Statement indicating that as of the date of this notification there are no unresolved coordination requests which would result in an exceedance of the maximum 180 megahertz of coordinated spectrum for all ESV operations in the coordination area in Section 25.202(a)(8)

The frequency coordination advises that there are no unresolved coordination requests which would result in an exceedance of the maximum 180 megahertz of coordinated spectrum for all ESV operations in the 5925-6425 MHz band.

¹ MTN notes that the attached Frequency Coordination and Interference Analysis Report also includes the coordination of the 6410.4-6420.5 MHz frequency band. Although these frequencies were coordinated, MTN has no immediate plans to operate within this band and thus does not include it as part of this Notice.

MTN License Corp.

Call Sign E050281

January 27, 2017

MTN respectfully requests that this notification be placed on Public Notice. Questions concerning this matter should be directed to MTN's counsel: David Keir (email address: dkeir@lermansenter.com; telephone: 202-416-6742) and Philip Bonomo (email address: pbonomo@lermansenter.com; telephone: 202-416-6773).

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
MTN license Corp
St. Thomas, VI
Satellite Earth Station on Vessel (ESV)

Prepared By:
Skjei Telecom, Inc.
7777 Leesburg Pike, Suite 315N
Falls Church, VA 22043
February 3, 2016

Skjei Telecom, Inc.

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Skjei Telecom, Inc.

1. CONCLUSIONS

An interference study considering all existing, proposed and prior coordinated microwave facilities within the coordination contours of the proposed earth station demonstrates that this site will operate satisfactorily with the common carrier microwave environment. There will be spectrum restrictions due to interference considerations.

Skjei Telecom, Inc.

2. SUMMARY OF RESULTS

A number of great circle interference cases were identified during the interference study of the proposed earth station. The Critical Contour Point method of determining worst case interference from the route and port sites was the interference method used. Each of the cases, which exceeded the interference objective on a line-of-sight basis, was profiled and the propagation losses estimated using NBS TN101 (Revised) techniques. The losses were found to be sufficient to reduce the signal levels to acceptable magnitudes in every case. In those cases where OH losses did not resolve the interference the ESV will mute transmission within an exclusion zone sufficient in size to preclude interference. Also note, that there are no unresolved coordination requests which would result in an exceedance of the maximum 180 megahertz of coordinated spectrum for all ESV operations in the coordination area in the 5925-6425 MHz band.

The following companies reported potential great circle interference conflicts that did not meet the objectives on a line-of-sight basis. When over-the-horizon losses are considered on the interfering paths, sufficient blockage exists to negate harmful interference from occurring with the proposed transmit-only earth station. The ESV will employ a GPS sensitive ability to cease transmission when traveling in certain exclusion zones. The interference cases and the location of the critical contour point (CCP), around which the exclusion zones exist are detailed in the tables below.

Company

AT&T Mobility Puerto Rico
AT&T Mobility Virgin Islands, Inc.
Broadband Telecommunications Network
Broadband VI, LLC
Choice Communications, LLC (VI)
EVERTEC, INC
Iniciativa Tecnologica Centro Oriental
Licensee
Neptuno Media
Osnet Wireless Corporation
PR Wireless, Inc.
PREPA Networks, LLC.
Puerto Rico Electric Power Authority
Puerto Rico Telephone Company, Inc.
Sprintcom, Inc
Sprintcom, Inc. Puerto Rico
System Development Integration, LLC
UNIVERSITY OF THE VIRGIN ISLANDS
Virgin Islands Telephone Corporation

Skjei Telecom, Inc.

95	9.2	Y					5945.2	0	0	0	0	0	0	0
133	8.0			Y			5974.85	6034.15	0	0	0	0	0	0
5	6.6	Y					5945.2	0	0	0	0	0	0	0
169	1.1		Y	Y			6034.15	6123.1	0	0	0	0	0	0
Desired Frequencies (MHz)		5950.1992 - 5953.9708	6094.001 - 6112.771	5987 - 6020.96	6314.798 - 6344.248									
Into 2Case #	Margin(dB)													
172	46.3	Y					5945.2	0	0	0	0	0	0	0
216	43.0		Y				6063.8	6093.45	0	0	0	0	0	0
105	42.3			Y			6034.15	6152.75	0	0	0	0	0	0
103	40.9				Y	Y	6197.24	6256.54	6345.49	6404.79	0	0	0	0
217	40.5			Y			6034.15	0	0	0	0	0	0	0
41	39.1				Y		6256.54	6345.49	0	0	0	0	0	0
18	34.5				Y		6197.24	6256.54	6315.84	6375.14	0	0	0	0
166	33.2					Y	6404.79	0	0	0	0	0	0	0
238	33.2					Y	6404.79	0	0	0	0	0	0	0
44	33.1					Y	6404.79	0	0	0	0	0	0	0
94	32.7				Y		6315.84	6375.14	0	0	0	0	0	0
25	32.2			Y			6034.15	0	0	0	0	0	0	0
95	28.8				Y		6315.84	0	0	0	0	0	0	0
72	26.5		Y				6093.45	0	0	0	0	0	0	0
107	26.3	Y					5945.2	0	0	0	0	0	0	0
22	24.8					Y	6404.79	0	0	0	0	0	0	0
106	23.9		Y	Y			5974.85	6093.45	0	0	0	0	0	0
162	21.6	Y	Y				5945.2	6093.45	0	0	0	0	0	0
132	20.1		Y				6123.1	6152.75	0	0	0	0	0	0
138	19.6			Y			6034.15	0	0	0	0	0	0	0
9	15.8	Y	Y	Y			5945.2	6034.15	6093.45	6152.75	0	0	0	0
38	15.8		Y				6004.5	6123.1	0	0	0	0	0	0
70	12.6					Y	6375.14	6404.79	0	0	0	0	0	0
179	5.8		Y				6123.1	0	0	0	0	0	0	0
200	5.5				Y		6286.19	6345.49	0	0	0	0	0	0

Skjei Telecom, Inc.

185	3.4			Y		6226.89	6315.84	6375.14	0	0	0	0
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Table 1 – ESV Interference Cases

Skjei Telecom, Inc.

Interference Zones					
Into 1 Case #	CCP Latitude dec.deg)	CCP Longitudedec.deg.)	Margin (dB)	Victim Rx Site	Licensee
9	18.32388821	64.95817661	56.9	CROWN MTN	Virgin Islands Telephone Corporation
94	18.319813	64.93648816	53.9	SIGNAL HILL	AT&T Mobility Virgin Islands, Inc.
207	18.29261904	64.94453593	51.0	CROWN MT	Broadband VI, LLC
195	18.16683637	64.85923996	45.0	STALLEY	Choice Communications, LLC (VI)
78	18.16585011	64.85257052	44.1	FLAG HILL	System Development Integration, LLC
122	18.29633479	65.08110292	41.9	PR59XC205	Sprintcom, Inc
168	18.29633479	65.08110292	38.0	176 ISABELLA	Sprintcom, Inc. Puerto Rico
216	18.16683945	64.85926081	33.8	BLUE MTN	Choice Communications, LLC (VI)
103	18.15667037	64.79057254	33.3	COTTON VLY	Virgin Islands Telephone Corporation
155	18.34448261	65.13270753	32.1	CEIBA	AT&T Mobility Puerto Rico
31	18.62164156	65.73421416	29.4	CEDRO ABAJO	Puerto Rico Telephone Company, Inc.
100	18.6188463	65.7804028	28.3	EL GATO	Puerto Rico Electric Power Authority
174	18.39631228	65.15939179	26.7	LPI011	Iniciativa Tecnologica Centro Oriental
11	18.40463733	65.16367961	26.3	LA MESA	PR Wireless, Inc.
223	18.42849836	65.17744488	26.2	VIEQUES PILO	Puerto Rico Telephone Company, Inc.
145	18.57040309	65.39850677	26.0	PANDURA	Neptuno Media
57	18.62310437	65.70996852	25.5	JAYUYA	Puerto Rico Telephone Company, Inc.
17	18.63505265	65.50997268	24.7	JAYUYA	Puerto Rico Telephone Company, Inc.
62	18.62589671	65.66354316	24.4	MONTE JAYUYA	Puerto Rico Telephone Company, Inc.
140	18.60885239	65.45853716	23.7	PR70XC332	Sprintcom, Inc. Puerto Rico
111	18.23515012	64.91697382	23.0	COLLORES	PR Wireless, Inc.
36	18.40463733	65.16367961	22.9	LA MESA	PR Wireless, Inc.
193	18.63020582	65.59152672	19.4	PANDURA	Broadband Telecommunications Network
41	18.2919548	64.56002122	18.1	CROWN MTN	Virgin Islands Telephone Corporation
219	18.26918552	65.02202311	17.8	LA SANTA	PREPA Networks, LLC.
7	18.61442298	65.46723918	13.3	MONTE JAYUYA	EVERTEC, INC
95	18.33378812	64.92284624	9.2	MOUNTAIN TOP	Choice Communications, LLC (VI)
133	18.26634603	65.00669817	8.0	SANTA ANA	PR Wireless, Inc.
5	18.61559953	65.83382062	6.6	MARAVILLAS	Puerto Rico Telephone Company, Inc.

Skjei Telecom, Inc.

Into 2 Case #	CCP Latitude (dec.deg)	CCP Longitude dec.deg.)	Margin (dB)	Victim Rx Site	Licensee
169	18.6322744	65.55679221	1.1	RONCADOR	AT&T Mobility Puerto Rico
172	18.29633479	65.08110292	46.3	PR59XC205	Sprintcom, Inc
216	18.16683945	64.85926081	43.0	STALLEY	Choice Communications, LLC (VI)
105	18.30402582	64.97559279	42.3	CROWN MTN	UNIVERSITY OF THE VIRGIN ISLANDS
103	18.15667037	64.79057254	40.9	BENNER HILL	Virgin Islands Telephone Corporation
217	18.16522321	64.84833207	40.5	WINTBERG	Choice Communications, LLC (VI)
41	18.37940506	65.15068518	39.1	BETHANY	Virgin Islands Telephone Corporation
18	18.62092614	65.74605339	34.5	HUMACAO	Puerto Rico Telephone Company, Inc.
166	18.16522321	64.84833207	33.2	LTL PRINCESS	Choice Communications, LLC (VI)
238	18.16522321	64.84833207	33.2	LTL PRINCESS	Choice Communications, LLC (VI)
44	18.16963404	64.87816778	33.1	LTL PRINCESS	Choice Communications, LLC (VI)
94	18.23108007	64.9147698	32.7	BLUE MTN	AT&T Mobility Virgin Islands, Inc.
25	18.42968687	65.17929317	32.2	EL YUNQUE	Puerto Rico Telephone Company, Inc.
95	18.31508271	65.11511834	28.8	CHALWELL	Choice Communications, LLC (VI)
72	18.61142513	65.46255598	26.5	CAGUAS HIMA	Neptuno Media
107	18.51653457	65.31449846	26.3	SANTA JUANA	Neptuno Media
22	18.63374639	65.53201026	24.8	AWILDA	PR Wireless, Inc.
106	18.16242303	64.82940821	23.9	ST CROIX CAM	UNIVERSITY OF THE VIRGIN ISLANDS
162	18.55782101	65.37887494	21.6	COCACOLA 104	PR Wireless, Inc.
132	18.50132509	65.29079938	20.1	BARRANQUITAS	PR Wireless, Inc.
138	18.61559953	65.83382062	19.6	PRTC PINAS	Neptuno Media
9	18.25024639	64.92514982	15.8	CHRISTIANST	Virgin Islands Telephone Corporation
38	18.25024639	64.92514982	15.8	CHRISTIANST	Virgin Islands Telephone Corporation
70	18.60818164	65.45748943	12.6	CERRO PUNTA	Puerto Rico Electric Power Authority
179	18.62910452	65.60997581	5.8	CPR LTL PRI	AT&T Mobility Puerto Rico
200	18.26445269	64.99648363	5.5	GUAYAMA CRWN	Osnet Wireless Corporation
185	18.40364601	65.16316901	3.4	RADIO ORO	Broadband Telecommunications Network

Table 2 - ESV CCP Locations
See Interference Analysis for Exclusion Zone Details

3. SUPPLEMENTAL SHOWING

Pursuant to Part 25.203(c) of the FCC Rules and Regulations, the satellite earth station proposed in this application was coordinated by Skjei Telecom, Inc. using computer techniques and in accordance with Part 25 of the FCC Rules and Regulations.

Coordination data for this earth station was sent to the below listed carriers with PCN letter dated 11/25/2015.

EVERTEC, INC
Iniciativa Tecnologica Centro Oriental
Micronet Communications, Inc.
Osnet Wireless Corporation
PREPA Networks, LLC.
Puerto Rico Commonwealth
Puerto Rico Commonwealth of State Police
Puerto Rico Electric Power Authority
Puerto Rico Telephone Company, Inc.
Surge Communications LLC
System Development Integration, LLC
UNIVERSITY OF THE VIRGIN ISLANDS
Virgin Islands Telephone Corporation
AT&T Mobility Puerto Rico
AT&T Mobility Virgin Islands, Inc.
Broadband Telecommunications Network
Choice Communications, LLC (VI)
Neptuno Media
PR Wireless, Inc.
Sprintcom, Inc
Sprintcom, Inc. Puerto Rico
T-Mobile Puerto Rico LLC
Aeronet Wireless Broadband Corp.
Broadband VI, LLC
T-Mobile Puerto Rico LLC

4. EARTH STATION COORDINATION DATA

This section presents the data pertinent to frequency coordination of the proposed earth station that was circulated to all carriers within its coordination contours. The coordination contours include all the area within this route as well as all of the area seaward of this route within 200 km of the baseline of the United States or 200 km from any fixed service offshore installations.”

Date: 11/24/2015
Job Number: 151125SKJTEL02

Administrative Information

Status ENGINEER PROPOSAL
Call Sign
Licensee Code MRNESV
Licensee Name MTN License Corp. - ESV In-Motion Route

Site Information

ST THOMAS, VI
Venue Name ST THOMAS ESV
Latitude (NAD 83) 18° 20' 3.5" N
Longitude (NAD 83) 64° 55' 13.8" W
Climate Zone B
Rain Zone 1
Ground Elevation (AMSL) 0.0 m / 0.0 ft

Link Information

Satellite Type Geostationary
Mode TO - Transmit-Only
Modulation Digital
Satellite Arc 20° W to 47° West Longitude
Azimuth Range 107.5° to 134.2°
Corresponding Elevation Angles 35.1° / 60.3°
Antenna Centerline (AGL) 15.54 m / 51.0 ft

Antenna Information

Transmit - FCC32
Manufacturer FCC REFERENCE
Model 32-25LOG(THETA)
Gain / Diameter 41.7 dBi / 2.4 m
3-dB / 15-dB Beamwidth 0.66° / 1.55°

Max Available RF Power (dBW/4 kHz) -10.0
(dBW/MHz) 14.0

Maximum EIRP (dBW/4 kHz) 31.7
(dBW/MHz) 55.7
(dBW) 61.4

Interference Objectives: Long Term -154.0 dBW/4 kHz 20%
Short Term -131.0 dBW/4 kHz 0.0025%

Frequency Information

Transmit 6.1 GHz
Emission / Frequency Range (MHz) 1M05G7W - 3M75G7W / 6314.7 - 6344.3
1M05G7W - 3M75G7W / 6410.4 - 6420.5

Max Great Circle Coordination Distance 162.9 km / 101.2 mi
Precipitation Scatter Contour Radius 100.0 km / 62.1 mi

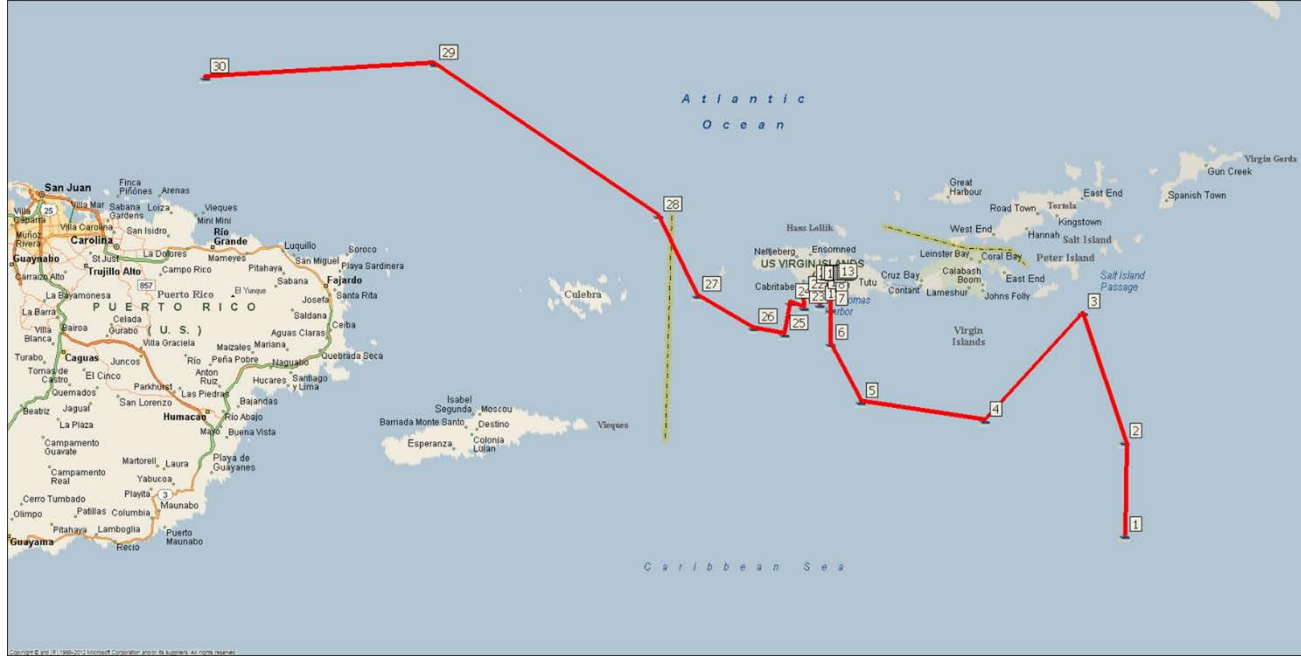
Coordination Values	ST THOMAS, VI
Licensee Name	MTN License Corp. - ESV In-Motion Route
Latitude (NAD 83)	18° 20' 3.5" N
Longitude (NAD 83)	64° 55' 13.8" W
Ground Elevation (AMSL)	0.0 m / 0.0 ft
Antenna Centerline (AGL)	15.54 m / 51.0 ft
Antenna Model	FCC Reference 32-25LOG(THETA)
Antenna Mode	Transmit 6.1 GHz
Interference Objectives: Long Term	-154.0 dBW/4 kHz 20%
Short Term	-131.0 dBW/4 kHz 0.0025%
Max Available RF Power	-10.0 (dBW/4 kHz)

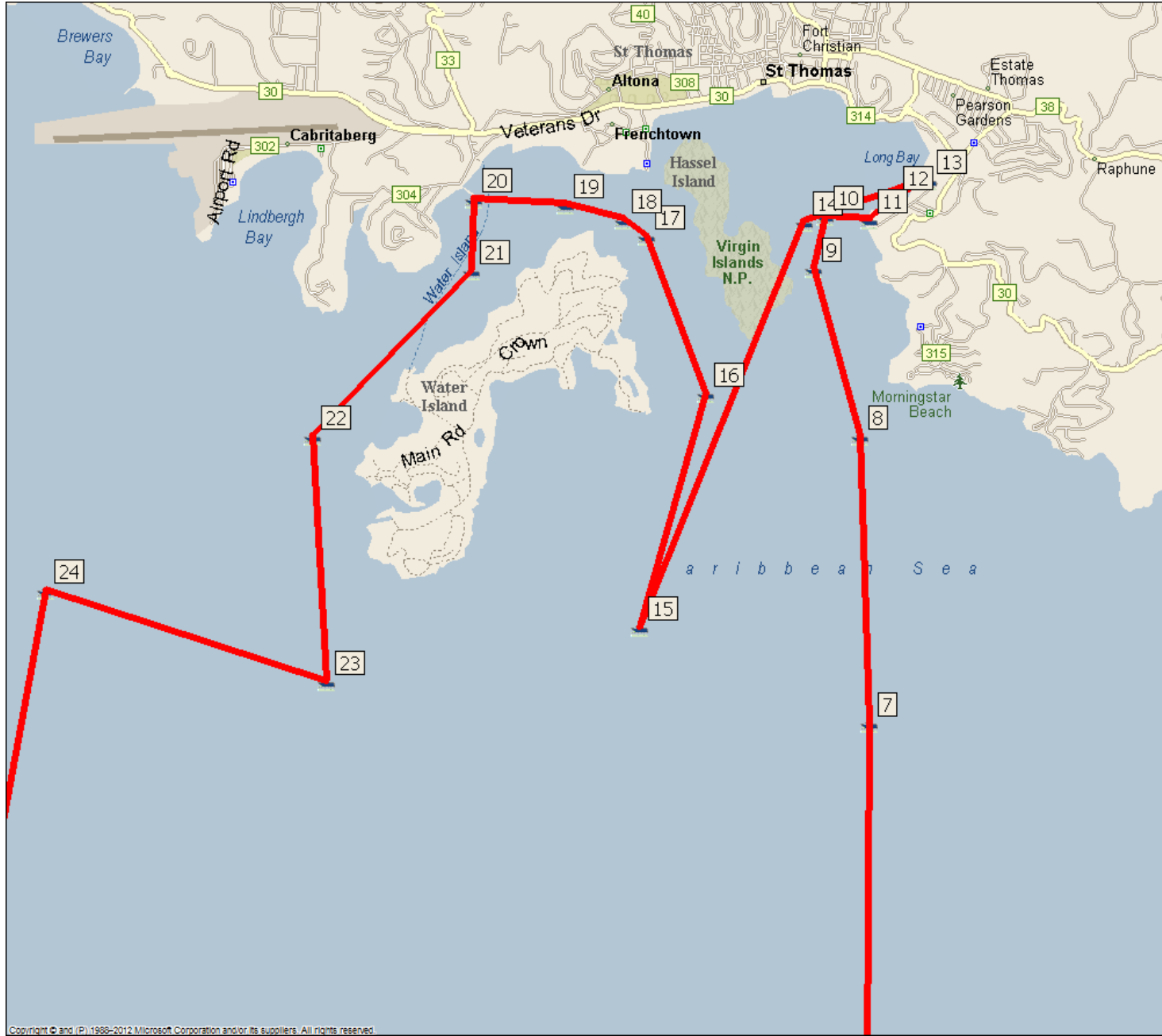
Transmit 6.1 GHz				
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)
0	7.33	105.43	-10.00	100.00
5	8.27	101.14	-10.00	100.00
10	8.89	96.73	-10.00	100.00
15	9.15	92.26	-10.00	100.00
20	9.59	87.75	-10.00	100.00
25	8.92	83.28	-10.00	100.00
30	8.76	78.83	-10.00	100.00
35	8.40	74.43	-10.00	100.00
40	7.67	70.16	-10.00	100.00
45	7.36	65.89	-10.00	100.00
50	8.30	61.36	-10.00	100.00
55	7.03	57.53	-10.00	100.00
60	5.85	53.90	-10.00	100.00
65	6.21	49.81	-10.00	100.00
70	5.94	46.17	-9.61	100.00
75	4.53	43.46	-8.95	100.00
80	4.42	40.31	-8.13	100.00
85	4.56	37.31	-7.30	100.00
90	5.31	34.17	-6.34	100.00
95	7.67	29.97	-4.92	100.00
100	9.84	26.31	-3.50	100.00
105	11.90	23.35	-2.21	100.00
110	12.63	22.63	-1.87	100.00
115	14.69	21.71	-1.42	100.00
120	14.77	23.75	-2.39	100.00
125	13.21	27.77	-4.09	100.00
130	11.83	31.94	-5.61	100.00
135	11.16	35.84	-6.86	100.00
140	10.55	39.91	-8.03	100.00
145	9.85	44.15	-9.12	100.00
150	8.43	48.78	-10.00	100.00
155	7.27	53.08	-10.00	100.00
160	5.82	57.21	-10.00	100.00
165	5.63	60.07	-10.00	100.00
170	4.76	62.66	-10.00	100.00
175	4.59	64.74	-10.00	100.00
180	4.36	67.00	-10.00	100.00
185	4.95	68.93	-10.00	100.00

Coordination Values	ST THOMAS, VI
Licensee Name	MTN License Corp. - ESV In-Motion Route
Latitude (NAD 83)	18° 20' 3.5" N
Longitude (NAD 83)	64° 55' 13.8" W
Ground Elevation (AMSL)	0.0 m / 0.0 ft
Antenna Centerline (AGL)	15.54 m / 51.0 ft
Antenna Model	FCC Reference 32-25LOG(THETA)
Antenna Mode	Transmit 6.1 GHz
Interference Objectives: Long Term	-154.0 dBW/4 kHz 20%
Short Term	-131.0 dBW/4 kHz 0.0025%
Max Available RF Power	-10.0 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	3.35	72.14	-10.00	100.00
195	3.25	74.60	-10.00	100.00
200	3.28	77.10	-10.00	100.00
205	2.57	79.88	-10.00	100.00
210	1.31	82.73	-10.00	100.00
215	0.00	85.45	-10.00	162.88
220	0.00	87.91	-10.00	162.88
225	0.00	90.39	-10.00	162.88
230	1.41	92.99	-10.00	100.00
235	1.54	95.57	-10.00	100.00
240	0.81	97.94	-10.00	112.67
245	0.91	100.42	-10.00	107.91
250	1.18	102.91	-10.00	100.00
255	0.64	105.00	-10.00	118.80
260	0.76	107.25	-10.00	115.18
265	0.40	109.13	-10.00	137.79
270	1.25	111.64	-10.00	100.00
275	0.20	112.74	-10.00	162.61
280	1.32	115.24	-10.00	100.00
285	1.93	117.26	-10.00	100.00
290	3.61	120.08	-10.00	100.00
295	4.29	121.88	-10.00	100.00
300	4.99	123.50	-10.00	100.00
305	5.86	125.05	-10.00	100.00
310	7.20	126.80	-10.00	100.00
315	6.39	126.10	-10.00	100.00
320	6.15	125.66	-10.00	100.00
325	5.73	124.73	-10.00	100.00
330	6.23	124.39	-10.00	100.00
335	6.47	123.51	-10.00	100.00
340	7.18	122.54	-10.00	100.00
345	6.13	118.04	-10.00	100.00
350	6.65	113.95	-10.00	100.00
355	7.16	109.76	-10.00	100.00

Name	Latitude	Longitude
1	17.985	-64.5
2	18.11333	-64.5
3	18.29167	-64.56
4	18.14333	-64.7017
5	18.17	-64.8817
6	18.25	-64.925
7	18.29717	-64.9247
8	18.31667	-64.9253
9	18.328	-64.9287
10	18.3315	-64.9278
11	18.33133	-64.9247
12	18.33283	-64.9228
13	18.334	-64.9205
14	18.33117	-64.9293
15	18.30367	-64.941
16	18.3195	-64.9363
17	18.33017	-64.9405
18	18.33133	-64.9422
19	18.33233	-64.9463
20	18.33267	-64.9528
21	18.32783	-64.953
22	18.31667	-64.9643
23	18.3	-64.9633
24	18.30617	-64.9833
25	18.26333	-64.9917
26	18.27167	-65.0367
27	18.31667	-65.1183
28	18.42667	-65.175
29	18.635	-65.5
30	18.615	-65.8333





5. CERTIFICATION

I HEREBY CERTIFY THAT I AM THE TECHNICALLY QUALIFIED PERSON RESPONSIBLE FOR THE PREPARATION OF THE FREQUENCY COORDINATION DATA CONTAINED IN THIS APPLICATION, THAT I AM FAMILIAR WITH PARTS 101 AND 25 OF THE FCC RULES AND REGULATIONS, THAT I HAVE EITHER PREPARED OR REVIEWED THE FREQUENCY COORDINATION DATA SUBMITTED WITH THIS APPLICATION, AND THAT IT IS COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY:



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DATED: February 3, 2016