

## REQUEST FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

AT&T Corp. (“AT&T”), pursuant to Section 25.120 of the Commission’s rules,<sup>1</sup> respectfully requests a grant of special temporary authority (“STA”) for thirty (30) days<sup>2</sup> to operate a network of temporary fixed earth stations in the conventional C-band in Puerto Rico. More specifically, AT&T seeks authority to operate on a temporary basis two 4.5m hub earth station antennas located in the vicinity of San Juan, Puerto Rico and five 2.4m remote earth station antennas to be located at various fixed locations throughout the island. The antennas will communicate with the Eutelsat 113 West A satellite at 113° W.L.<sup>3</sup> and the Eutelsat 117 West A satellite at 116.8° W.L.,<sup>4</sup> which are satellites on the Commission’s Approved Space Station List for service to the United States. The antennas to be operated pursuant to this grant of STA will be integrated into a temporary system to help restore communications services in Puerto Rico, which is struggling to recover from the unprecedented devastation caused by Hurricanes Irma and Maria in September 2017.

While the Commission’s rules generally require STA requests to be submitted at least three (3) working days prior to the date of proposed operation,<sup>5</sup> AT&T would appreciate grant of this STA request as soon as possible. The antennas proposed for operation under this STA request have been tested and are already on site in Puerto Rico. Grant of this STA will enable

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<sup>1</sup> 47 C.F.R. § 25.120.

<sup>2</sup> AT&T is in the process of determining the anticipated duration of operations and will separately apply for a grant of special temporary authority for a period of 180 days or a permanent grant of authority, as needed.

<sup>3</sup> See Petition for Declaratory Ruling of Satelites Mexicanos, S.A. de C.V. (Satmex), Call Sign S2695, IBFS File No. SAT-PPL-20060329-00030, granted Aug. 4, 2006.

<sup>4</sup> See Petition for Declaratory Ruling of Satelites Mexicanos, S.A. de C.V. (Satmex), Call Sign S2873, IBFS File No. SAT-PPL-20120823-00140, granted Dec. 6, 2012.

<sup>5</sup> 47 C.F.R. § 25.120(a).

AT&T to commence operations immediately to help facilitate the restoration of communications services in Puerto Rico.

### **Public Interest Showing**

Grant of special temporary authority will serve the public interest by enabling AT&T to provide services that will benefit the population in Puerto Rico as it recovers from the recent hurricanes and rebuilds its telecommunications infrastructure.<sup>6</sup> The Commission estimates that nearly 40% of Puerto Rico's cell sites remain out of service.<sup>7</sup> Due to high demand for satellite services in the region, AT&T is deploying C-band temporary fixed earth stations to supplement and help facilitate the restoration of Puerto Rico's telecommunications networks. Grant of this STA request will serve the public interest because the earth stations will be used to bring local wireless networks in Puerto Rico online while the terrestrial infrastructure is being repaired.

### **Earth Station Technical Parameters**

Attachments A-F provide the technical information for each antenna that is typically set forth on FCC Form 312, Schedule B. The information includes a description of the antennas, proposed operations, and technical characteristics. Each attachment also contains a temporary uplink coordination report prepared by Comsearch for each antenna's proposed initial operating location. DIRECTV anticipates that some of these temporary fixed earth station antennas may operate at different sites as restoration needs evolve. DIRECTV will obtain updated coordination reports and resolve any interference concerns prior to operating the antennas under this STA at locations different from the initial operating locations identified in this application.

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<sup>6</sup> See Sean Breslin, *Six Weeks After Hurricane Maria, Majority of Puerto Rico Remains Without Power*, Weather.com (Nov. 6, 2017), <https://weather.com/news/news/2017-11-06-puerto-rico-power-outages-hurricane-maria>.

<sup>7</sup> FCC, *Communications Status Report for Areas Impacted by Hurricane Maria* (Nov. 12, 2017), [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-347705A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-347705A1.pdf).

**Point of Contact**

The two points of contact for technical questions relating to operation of this network of temporary fixed earth stations are:

Scott Wood (907-341-9178); and

Marshall Ellis (907-441-7113).

**Conclusion**

The requested STA will enable AT&T to help restore communications services in Puerto Rico as local terrestrial networks are being repaired, thereby serving the public interest.

Accordingly, AT&T respectfully requests that the Commission grant this STA request as soon as possible.

**Attachment A**

**San Juan Site Details and Coordination Report**

### San Juan Site Details

**Contact Information:**

Scott Wood  
Marshall Ellis

**Phone Number:**

(907) 341-9178  
(907) 441-7113

**Geographic Coordinates:**

Latitude: 18° 23' 12.8" N

Longitude: 65° 58' 53.5" W

**Site Elevation:**

20.0 meters AMSL

**Antenna Details**

Antenna ID: 1 and 2  
Manufacturer/Model: Andrew/4.5 meter  
Antenna Size: 4.5 meters  
Antenna Gain Transmit: 46.2 dBi at 6 GHz  
Antenna Gain Receive: 42.7 dBi at 4 GHz  
Height Above Ground Level: 2.74 meters  
Height Above Sea Level: 22.74 meters  
Total Input Power at the Flange: 10.7 dBW  
Total EIRP for all Carriers: 56.9 dBW

**Operational Details**

<b>Frequency (MHz)</b>	<b>TX/RX</b>	<b>Polarization</b>	<b>Emission Designator</b>	<b>Max EIRP per Carrier (dBW)</b>	<b>Max EIRP density per Carrier (dBW/4 kHz)</b>
5925-6018 6051-6107 6140-6388 6421-6425	TX	Horiz or Vert	6M00G1E	56.9	25.1
3700-3793 3826-3882 3915-4163 4196-4200	RX	Horiz or Vert	6M00G1E	0.0	0.0



**COMSEARCH**<sup>®</sup>

A CommScope Company

November 06, 2017

Re: AT&T Corp -  
SAN JUAN, PR  
Temporary Transmit-Only Earth Station  
Operation Dates: 11/09/2017 - 05/09/2018  
Job Number: 171106COMSGE04

Dear Frequency Coordinator:

On behalf of AT&T Corp - Extended C-Band Sites, we are forwarding the attached coordination data for a Temporary Transmit-Only Earth Station to be located at the site referenced above.

This earth station will transmit only on the satellite(s) and frequency or frequencies as described in the attached data. Please do not report cases involving 4 GHz facilities or problems involving non-active paths or frequencies outside the specified range.

If there are any questions concerning this coordination notice, please contact Comsearch.

Sincerely,

COMSEARCH

Gary K. Edwards  
Senior Manager  
gedwards@comsearch.com

Enclosure(s)

Date: 11/06/2017  
Job Number: 171106COMSGE04

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**Administrative Information**

Status: TEMPORARY (Operation from 11/09/2017 to 05/09/2018)  
Call Sign: TEMP05  
Licensee Code: P1175P  
Licensee Name: AT&T Corp -

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**Site Information****SAN JUAN, PR**

Venue Name  
Latitude (NAD 83): 18° 23' 12.8" N  
Longitude (NAD 83): 65° 58' 53.5" W  
Climate Zone: B  
Rain Zone: 1  
Ground Elevation (AMSL): 20.0 m / 65.6 ft

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**Link Information**

Satellite Type: Geostationary  
Mode: TO - Transmit-Only  
Modulation: Digital  
Satellite Arc: 110° W to 120° West Longitude  
Azimuth Range: 251.9° to 257.1°  
Corresponding Elevation Angles: 36.0° / 26.1°  
Antenna Centerline (AGL): 2.74 m / 9.0 ft

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**Antenna Information****Transmit - FCC32**

Manufacturer: Andrew  
Model: 4.5 meter  
Gain / Diameter: 46.2 dBi / 4.5 m  
3-dB / 15-dB Beamwidth: 0.94° / 1.90°

Max Available RF Power: (dBW/4 kHz) -21.1  
(dBW/MHz) 2.9

Maximum EIRP: (dBW/4 kHz) 25.1  
(dBW/MHz) 49.1

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

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**Frequency Information****Transmit 6.1 GHz**

Emission / Frequency Range (MHz):  
6M00G1E / 5925.0 - 6018.0  
6M00G1E / 6051.0 - 6107.0  
6M00G1E / 6140.0 - 6388.0  
6M00G1E / 6421.0 - 6425.0

Max Great Circle Coordination Distance: 122.0 km / 75.8 mi  
Precipitation Scatter Contour Radius: 100.0 km / 62.1 mi

Coordination Values		SAN JUAN, PR	
Licensee Name		AT&T Corp -	
Latitude (NAD 83)		18° 23' 12.8" N	
Longitude (NAD 83)		65° 58' 53.5" W	
Ground Elevation (AMSL)		20.0 m / 65.6 ft	
Antenna Centerline (AGL)		2.74 m / 9.0 ft	
Antenna Model		Andrew 4.5 meter	
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	-21.1 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.72	101.64	-10.00	100.00
5	0.44	106.09	-10.00	104.06
10	0.33	110.52	-10.00	113.01
15	0.00	114.85	-10.00	121.99
20	0.00	119.20	-10.00	121.99
25	0.00	123.49	-10.00	121.99
30	0.00	127.01	-10.00	121.99
35	0.00	130.30	-10.00	121.99
40	0.00	133.36	-10.00	121.99
45	0.00	136.16	-10.00	121.99
50	0.00	138.63	-10.00	121.99
55	0.00	140.71	-10.00	121.99
60	0.00	142.33	-10.00	121.99
65	0.28	143.70	-10.00	116.74
70	0.00	143.95	-10.00	121.99
75	0.00	143.88	-10.00	121.99
80	0.00	143.22	-10.00	121.99
85	0.00	142.00	-10.00	121.99
90	0.00	140.27	-10.00	121.99
95	0.00	138.09	-10.00	121.99
100	0.00	135.54	-10.00	121.99
105	0.00	132.67	-10.00	121.99
110	0.00	129.55	-10.00	121.99
115	0.00	126.22	-10.00	121.99
120	0.68	123.03	-10.00	100.00
125	1.07	119.50	-10.00	100.00
130	1.34	115.78	-10.00	100.00
135	1.25	111.84	-10.00	100.00
140	1.71	107.96	-10.00	100.00
145	0.94	103.78	-10.00	100.00
150	1.18	99.76	-10.00	100.00
155	1.59	95.70	-10.00	100.00
160	1.71	91.59	-10.00	100.00
165	1.83	87.45	-10.00	100.00
170	2.00	83.31	-10.00	100.00
175	1.57	79.24	-10.00	100.00
180	1.50	75.18	-10.00	100.00
185	1.14	71.24	-10.00	100.00



Coordination Values		SAN JUAN, PR	
Licensee Name		AT&T Corp -	
Latitude (NAD 83)		18° 23' 12.8" N	
Longitude (NAD 83)		65° 58' 53.5" W	
Ground Elevation (AMSL)		20.0 m / 65.6 ft	
Antenna Centerline (AGL)		2.74 m / 9.0 ft	
Antenna Model		Andrew 4.5 meter	
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	-21.1 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	0.62	67.43	-10.00	100.00
195	0.85	63.50	-10.00	100.00
200	0.99	59.66	-10.00	100.00
205	0.97	55.93	-10.00	100.00
210	0.84	51.98	-10.00	100.00
215	1.28	47.66	-9.95	100.00
220	1.01	43.74	-9.02	100.00
225	0.99	39.90	-8.02	100.00
230	1.16	36.16	-6.96	100.00
235	0.87	33.04	-5.98	100.00
240	0.76	30.23	-5.01	100.00
245	0.63	28.00	-4.18	107.62
250	1.52	25.51	-3.17	100.00
255	1.75	24.42	-2.69	100.00
260	2.48	23.77	-2.40	100.00
265	3.37	23.98	-2.49	100.00
270	3.74	25.63	-3.22	100.00
275	3.63	28.42	-4.34	100.00
280	3.88	31.47	-5.45	100.00
285	3.60	35.26	-6.68	100.00
290	4.19	38.82	-7.73	100.00
295	3.92	43.05	-8.85	100.00
300	3.22	47.55	-9.93	100.00
305	3.97	51.60	-10.00	100.00
310	3.11	56.27	-10.00	100.00
315	3.92	60.52	-10.00	100.00
320	3.48	65.13	-10.00	100.00
325	2.03	69.91	-10.00	100.00
330	1.68	74.47	-10.00	100.00
335	1.36	79.02	-10.00	100.00
340	1.03	83.57	-10.00	100.00
345	0.83	88.10	-10.00	100.00
350	0.73	92.62	-10.00	100.00
355	0.98	97.15	-10.00	100.00

**Attachment B**

**Asomante Site Details and Coordination Report**

**Asomante Site Details**

**Contact Information:**

Scott Wood  
Marshall Ellis

**Phone Number:**

(907) 341-9178  
(907) 441-7113

**Geographic Coordinates:**

Latitude: 18° 6' 56.7" N      Longitude: 66° 17' 51.1"

**Site Elevation:**

646 meters AMSL

**Antenna Details**

Antenna ID: 3  
Manufacturer/Model: Skyware/243  
Antenna Size: 2.4 meters  
Antenna Gain Transmit: 42.0 dBi at 6 GHz  
Antenna Gain Receive: 38.5 dBi at 4 GHz  
Height Above Ground Level: 2.74 meters  
Height Above Sea Level: 648.74 meters  
Total Input Power at the Flange: 10.2 dBW  
Total EIRP for all Carriers: 52.2 dBW

**Operational Details**

Frequency (MHz)	TX/RX	Polarization	Emission Designator	Max EIRP per Carrier (dBW)	Max EIRP density per Carrier (dBW/4 kHz)
5925-5929 5991-6018 6051-6077 6110-6181 6214-6270 6303-6329 6362-6425	TX	Horiz or Vert	6M00G1E	52.2	20.4
3700-3704 3766-3793 3826-3852 3885-3956 3989-4045 4078-4104 4137-4200	RX	Horiz or Vert	6M00G1E	0.0	0.0



**COMSEARCH**

A CommScope Company

November 10, 2017

Re: AT&T Corp - Extended C-Band Sites  
ASOMANTE, PR  
Temporary Transmit-Only Earth Station  
Operation Dates: 11/11/2017 - 05/11/2018  
Job Number: 171110COMSGE03

Dear Frequency Coordinator:

On behalf of AT&T Corp - Extended C-Band Sites, we are forwarding the attached coordination data for a Temporary Transmit-Only Earth Station to be located at the site referenced above.

This earth station will transmit only on the satellite(s) and frequency or frequencies as described in the attached data. Please do not report cases involving 4 GHz facilities or problems involving non-active paths or frequencies outside the specified range.

If there are any questions concerning this coordination notice, please contact Comsearch.

Sincerely,

COMSEARCH

Gary K. Edwards  
Senior Manager  
gedwards@comsearch.com

Enclosure(s)

## COMSEARCH

## Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147  
(703)726-5662 <http://www.comsearch.com>

Date: 11/10/2017  
Job Number: 171110COMSGE03

**Administrative Information**

Status: TEMPORARY (Operation from 11/11/2017 to 05/11/2018)  
Call Sign: TEMP05  
Licensee Code: P1175P  
Licensee Name: AT&T Corp - Extended C-Band Sites

**Site Information****ASOMANTE, PR**

Venue Name  
Latitude (NAD 83): 18° 6' 56.7" N  
Longitude (NAD 83): 66° 17' 51.1" W  
Climate Zone: B  
Rain Zone: 1  
Ground Elevation (AMSL): 646.0 m / 2119.4 ft

**Link Information**

Satellite Type: Geostationary  
Mode: TO - Transmit-Only  
Modulation: Digital  
Satellite Arc: 110° W to 120° West Longitude  
Azimuth Range: 252.0° to 257.1°  
Corresponding Elevation Angles: 36.4° / 26.5°  
Antenna Centerline (AGL): 2.74 m / 9.0 ft

**Antenna Information****Transmit - FCC32**

Manufacturer: Skyware  
Model: 243  
Gain / Diameter: 42.0 dBi / 2.4 m  
3-dB / 15-dB Beamwidth: 1.00° / 2.00°

Max Available RF Power (dBW/4 kHz): -21.6  
(dBW/MHz): 2.4

Maximum EIRP (dBW/4 kHz): 20.4  
(dBW/MHz): 44.4

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):  
6M00G1E / 5925.0 - 5929.0  
6M00G1E / 5991.0 - 6018.0  
6M00G1E / 6051.0 - 6077.0  
6M00G1E / 6110.0 - 6181.0  
6M00G1E / 6214.0 - 6270.0  
6M00G1E / 6303.0 - 6329.0  
6M00G1E / 6362.0 - 6425.0

Max Great Circle Coordination Distance: 141.5 km / 87.9 mi  
Precipitation Scatter Contour Radius: 100.0 km / 62.1 mi

## COMSEARCH

## Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147  
 (703)726-5662 <http://www.comsearch.com>

Coordination Values		ASOMANTE, PR	
Licensee Name		AT&T Corp - Extended C-Band Sites	
Latitude (NAD 83)		18° 6' 56.7" N	
Longitude (NAD 83)		66° 17' 51.1" W	
Ground Elevation (AMSL)		646.0 m / 2119.4 ft	
Antenna Centerline (AGL)		2.74 m / 9.0 ft	
Antenna Model		Skyware 2.4 meter	
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		-21.6 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	1.07	101.61	-10.00	100.00
5	0.81	106.06	-10.00	100.00
10	0.49	110.45	-10.00	100.00
15	0.44	114.84	-10.00	103.01
20	0.83	119.29	-10.00	100.00
25	0.67	123.55	-10.00	100.00
30	0.35	126.94	-10.00	110.07
35	0.00	130.01	-10.00	120.59
40	0.82	133.61	-10.00	100.00
45	1.43	136.90	-10.00	100.00
50	0.73	138.88	-10.00	100.00
55	0.92	141.14	-10.00	100.00
60	1.00	142.87	-10.00	100.00
65	0.75	143.75	-10.00	100.00
70	0.83	144.37	-10.00	100.00
75	0.79	144.26	-10.00	100.00
80	0.94	143.75	-10.00	100.00
85	0.92	142.49	-10.00	100.00
90	1.13	140.92	-10.00	100.00
95	1.10	138.68	-10.00	100.00
100	1.36	136.27	-10.00	100.00
105	1.27	133.28	-10.00	100.00
110	1.46	130.22	-10.00	100.00
115	0.63	126.38	-10.00	100.00
120	1.17	123.11	-10.00	100.00
125	0.00	118.95	-10.00	120.59
130	0.00	115.23	-10.00	120.59
135	0.00	111.41	-10.00	120.59
140	0.00	107.53	-10.00	120.59
145	0.00	103.59	-10.00	120.59
150	0.00	99.61	-10.00	120.59
155	0.00	95.61	-10.00	120.59
160	0.00	91.59	-10.00	120.59
165	0.00	87.57	-10.00	120.59
170	0.00	83.55	-10.00	120.59
175	0.00	79.55	-10.00	120.59
180	0.00	75.58	-10.00	120.59
185	0.00	71.65	-10.00	120.59

## COMSEARCH

## Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147  
 (703)726-5662 <http://www.comsearch.com>

<b>Coordination Values</b>	<b>ASOMANTE, PR</b>		
Licensee Name	AT&T Corp - Extended C-Band Sites		
Latitude (NAD 83)	18° 6' 56.7" N		
Longitude (NAD 83)	66° 17' 51.1" W		
Ground Elevation (AMSL)	646.0 m / 2119.4 ft		
Antenna Centerline (AGL)	2.74 m / 9.0 ft		
Antenna Model	Skyware 2.4 meter		
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	-21.6 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	67.78	-10.00	120.59
195	0.00	63.99	-10.00	120.59
200	0.00	60.28	-10.00	120.59
205	0.00	56.52	-10.00	120.59
210	0.00	52.48	-10.00	120.59
215	0.00	48.40	-10.00	120.59
220	0.00	44.46	-9.20	122.86
225	0.00	40.70	-8.24	125.71
230	0.00	37.18	-7.26	128.78
235	0.00	33.97	-6.28	131.98
240	0.00	31.18	-5.35	135.15
245	0.00	28.92	-4.53	138.04
250	0.00	27.33	-3.92	140.28
255	0.00	26.54	-3.60	141.47
260	0.00	26.60	-3.62	141.38
265	0.00	27.52	-3.99	140.01
270	0.00	29.22	-4.64	137.65
275	0.00	31.56	-5.48	134.70
280	0.94	33.74	-6.20	100.00
285	0.61	37.29	-7.29	100.00
290	0.84	40.77	-8.26	100.00
295	1.00	44.54	-9.22	100.00
300	0.91	48.60	-10.00	100.00
305	1.25	52.63	-10.00	100.00
310	1.62	56.78	-10.00	100.00
315	1.59	61.15	-10.00	100.00
320	1.62	65.55	-10.00	100.00
325	1.36	70.05	-10.00	100.00
330	1.06	74.57	-10.00	100.00
335	0.98	79.06	-10.00	100.00
340	0.65	83.58	-10.00	100.00
345	0.43	88.08	-10.00	103.34
350	1.01	92.59	-10.00	100.00
355	0.44	97.07	-10.00	102.43

**Attachment C**

**Belz Site Details and Coordination Report**



**Belz Site Details**

**Contact Information:**

Scott Wood  
Marshall Ellis

**Phone Number:**

(907) 341-9178  
(907) 441-7113

**Geographic Coordinates:**

Latitude: 18° 22' 55.9" N                      Longitude: 65° 52' 49.6" W

**Site Elevation:**

16.0 meters AMSL

**Antenna Details**

Antenna ID: 4  
Manufacturer/Model: Skyware/243  
Antenna Size: 2.4 meters  
Antenna Gain Transmit: 42.0 dBi at 6 GHz  
Antenna Gain Receive: 38.5 dBi at 4 GHz  
Height Above Ground Level: 2.74 meters  
Height Above Sea Level: 18.74 meters  
Total Input Power at the Flange: 11.8 dBW  
Total EIRP for all Carriers: 53.8 dBW

**Operational Details**

<b>Frequency (MHz)</b>	<b>TX/RX</b>	<b>Polarization</b>	<b>Emission Designator</b>	<b>Max EIRP per Carrier (dBW)</b>	<b>Max EIRP density per Carrier (dBW/4 kHz)</b>
5925-6240 6273-6425	TX	Horiz or Vert	6M00G1E	53.8	22.0
3700-4015 4048-4200	RX	Horiz or Vert	6M00G1E	0.0	0.0



**COMSEARCH**<sup>®</sup>

A CommScope Company

November 07, 2017

Re: AT&T Corp  
BELZ, PR  
Temporary Transmit-Only Earth Station  
Operation Dates: 11/09/2017 - 05/09/2018  
Job Number: 171107COMSGE14

Dear Frequency Coordinator:

On behalf of AT&T Corp, we are forwarding the attached coordination data for a Temporary Transmit-Only Earth Station to be located at the site referenced above.

This earth station will transmit only on the satellite(s) and frequency or frequencies as described in the attached data. Please do not report cases involving 4 GHz facilities or problems involving non-active paths or frequencies outside the specified range.

If there are any questions concerning this coordination notice, please contact Comsearch.

Sincerely,

COMSEARCH

Gary K. Edwards  
Senior Manager  
gedwards@comsearch.com

Enclosure(s)

Date: 11/07/2017  
Job Number: 171107COMSGE14

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**Administrative Information**

Status TEMPORARY (Operation from 11/09/2017 to 05/09/2018)  
Call Sign TEMP05  
Licensee Code P1175P  
Licensee Name AT&T Corp -

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**Site Information****BELZ, PR**

Venue Name  
Latitude (NAD 83) 18° 22' 55.9" N  
Longitude (NAD 83) 65° 52' 49.6" W  
Climate Zone B  
Rain Zone 1  
Ground Elevation (AMSL) 16.0 m / 52.5 ft

---

**Link Information**

Satellite Type Geostationary  
Mode TO - Transmit-Only  
Modulation Digital  
Satellite Arc 110° W to 120° West Longitude  
Azimuth Range 252.0° to 257.1°  
Corresponding Elevation Angles 35.9° / 26.0°  
Antenna Centerline (AGL) 2.74 m / 9.0 ft

---

**Antenna Information****Transmit - FCC32**

Manufacturer Skyware  
Model 243  
Gain / Diameter 42.0 dBi / 2.4 m  
3-dB / 15-dB Beamwidth 1.00° / 2.00°

Max Available RF Power (dBW/4 kHz) -20.0  
(dBW/MHz) 4.0

Maximum EIRP (dBW/4 kHz) 22.0  
(dBW/MHz) 46.0

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) 6M00G1E / 5925.0 - 6240.0  
6M00G1E / 6273.0 - 6425.0

Max Great Circle Coordination Distance 148.2 km / 92.1 mi  
Precipitation Scatter Contour Radius 100.0 km / 62.1 mi

<b>Coordination Values</b>		<b>BELZ, PR</b>	
Licensee Name		AT&T Corp	
Latitude (NAD 83)		18° 11' 54.8" N	
Longitude (NAD 83)		65° 45' 58.4" W	
Ground Elevation (AMSL)		160.5 m / 526.6 ft	
Antenna Centerline (AGL)		2.74 m / 9.0 ft	
Antenna Model		Skyware 2.4 meter	
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	-20.0 (dBW/4 kHz)		

Transmit 6.1 GHz				
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	101.53	-10.00	125.23
5	0.27	106.03	-10.00	118.80
10	0.00	110.43	-10.00	125.23
15	0.00	114.83	-10.00	125.23
20	0.47	119.31	-10.00	104.33
25	0.47	123.63	-10.00	104.34
30	0.43	127.25	-10.00	107.61
35	0.47	130.60	-10.00	104.34
40	0.47	133.72	-10.00	104.34
45	0.47	136.56	-10.00	104.33
50	0.43	139.04	-10.00	107.62
55	0.43	141.15	-10.00	107.62
60	0.43	142.81	-10.00	107.62
65	0.43	143.93	-10.00	107.62
70	0.43	144.47	-10.00	107.61
75	0.43	144.41	-10.00	107.62
80	0.43	143.74	-10.00	107.62
85	0.43	142.51	-10.00	107.62
90	0.43	140.75	-10.00	107.61
95	0.43	138.55	-10.00	107.62
100	0.43	135.97	-10.00	107.61
105	0.43	133.07	-10.00	107.62
110	0.38	129.88	-10.00	111.86
115	0.50	126.58	-10.00	101.92
120	0.60	123.09	-10.00	100.00
125	1.09	119.60	-10.00	100.00
130	1.27	115.84	-10.00	100.00
135	1.03	111.85	-10.00	100.00
140	1.76	108.05	-10.00	100.00
145	2.36	104.09	-10.00	100.00
150	1.95	99.92	-10.00	100.00
155	2.22	95.81	-10.00	100.00
160	2.31	91.65	-10.00	100.00
165	3.08	87.47	-10.00	100.00
170	3.43	83.24	-10.00	100.00
175	3.14	79.08	-10.00	100.00
180	2.08	75.11	-10.00	100.00
185	2.13	71.04	-10.00	100.00

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**Coordination Values****BELZ, PR**

Licensee Name AT&T Corp  
Latitude (NAD 83) 18° 11' 54.8" N  
Longitude (NAD 83) 65° 45' 58.4" W  
Ground Elevation (AMSL) 160.5 m / 526.6 ft  
Antenna Centerline (AGL) 2.74 m / 9.0 ft  
Antenna Model Skyware 2.4 meter  
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 -20.0 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	2.11	67.02	-10.00	100.00
195	1.98	63.12	-10.00	100.00
200	1.51	59.46	-10.00	100.00
205	1.63	55.65	-10.00	100.00
210	1.29	51.80	-10.00	100.00
215	1.40	47.61	-9.94	100.00
220	1.37	43.56	-8.98	100.00
225	1.90	39.38	-7.88	100.00
230	1.24	36.09	-6.93	100.00
235	1.12	32.82	-5.90	100.00
240	1.21	29.82	-4.86	100.00
245	0.91	27.69	-4.06	100.00
250	0.65	26.26	-3.48	111.35
255	0.31	25.75	-3.27	135.75
260	0.00	26.12	-3.43	148.21
265	0.00	27.06	-3.81	146.81
270	0.00	28.79	-4.48	144.20
275	0.00	31.17	-5.34	140.93
280	0.00	34.07	-6.31	137.41
285	0.28	37.18	-7.26	125.83
290	0.47	40.70	-8.24	109.12
295	0.33	44.62	-9.24	115.96
300	0.62	48.51	-10.00	100.00
305	0.00	52.90	-10.00	125.23
310	0.00	57.12	-10.00	125.23
315	0.00	61.42	-10.00	125.23
320	0.00	65.78	-10.00	125.23
325	0.00	70.19	-10.00	125.23
330	0.32	74.59	-10.00	116.51
335	0.49	79.05	-10.00	102.89
340	0.60	83.55	-10.00	100.00
345	0.30	88.06	-10.00	116.61
350	0.78	92.58	-10.00	100.00
355	0.37	97.08	-10.00	112.08

**Attachment D**

**Humacao Site Details and Coordination Report**

## Humacao Site Details

### Contact Information:

Scott Wood  
Marshall Ellis

### Phone Number:

(907) 341-9178  
(907) 441-7113

### Geographic Coordinates:

Latitude: 18° 11' 54.8" N

Longitude: 65° 45' 58.4" W

### Site Elevation:

160.5 meters AMSL

### Antenna Details

Antenna ID: 5  
Manufacturer/Model: Skyware/243  
Antenna Size: 2.4 meters  
Antenna Gain Transmit: 42.0 dBi at 6 GHz  
Antenna Gain Receive: 38.5 dBi at 4 GHz  
Height Above Ground Level: 2.74 meters  
Height Above Sea Level: 162.74 meters  
Total Input Power at the Flange: 11.5 dBW  
Total EIRP for all Carriers: 53.5 dBW

### Operational Details

Frequency (MHz)	TX/RX	Polarization	Emission Designator	Max EIRP per Carrier (dBW)	Max EIRP density per Carrier (dBW/4 kHz)
5925-5929 5962-6136 6169-6299 6332-6388 6421-6425	TX	Horiz or Vert	6M00G1E	53.5	21.7
3700-3704 3737-3911 3944-4163 4196-4200	RX	Horiz or Vert	6M00G1E	0.0	0.0



**COMSEARCH**<sup>®</sup>

A CommScope Company

November 07, 2017

Re: AT&T Corp  
HUMACAO, PR - NORTE  
Temporary Transmit-Only Earth Station  
Operation Dates: 11/09/2017 - 05/09/2018  
Job Number: 171107COMSGE12

Dear Frequency Coordinator:

On behalf of AT&T Corp, we are forwarding the attached coordination data for a Temporary Transmit-Only Earth Station to be located at the site referenced above.

This earth station will transmit only on the satellite(s) and frequency or frequencies as described in the attached data. Please do not report cases involving 4 GHz facilities or problems involving non-active paths or frequencies outside the specified range.

If there are any questions concerning this coordination notice, please contact Comsearch.

Sincerely,

COMSEARCH

Gary K. Edwards  
Senior Manager  
gedwards@comsearch.com

Enclosure(s)



Date: 11/07/2017  
Job Number: 171107COMSGE12

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**Administrative Information**

Status: TEMPORARY (Operation from 11/09/2017 to 05/09/2018)  
Call Sign: TEMP05  
Licensee Code: P1175P  
Licensee Name: AT&T Corp

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**Site Information**

**HUMACAO, PR**  
Venue Name: NORTE  
Latitude (NAD 83): 18° 11' 54.8" N  
Longitude (NAD 83): 65° 45' 58.4" W  
Climate Zone: B  
Rain Zone: 1  
Ground Elevation (AMSL): 160.5 m / 526.6 ft

---

**Link Information**

Satellite Type: Geostationary  
Mode: TO - Transmit-Only  
Modulation: Digital  
Satellite Arc: 110° W to 120° West Longitude  
Azimuth Range: 252.2° to 257.3°  
Corresponding Elevation Angles: 35.9° / 25.9°  
Antenna Centerline (AGL): 2.74 m / 9.0 ft

---

**Antenna Information**

**Transmit - FCC32**  
Manufacturer: Skyware  
Model: 243  
Gain / Diameter: 42.0 dBi / 2.4 m  
3-dB / 15-dB Beamwidth: 1.00° / 2.00°

Max Available RF Power (dBW/4 kHz): -20.3  
(dBW/MHz): 3.7

Maximum EIRP (dBW/4 kHz): 21.7  
(dBW/MHz): 45.7

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): 6M00G1E / 5925.0 - 5929.0  
6M00G1E / 5962.0 - 6136.0  
6M00G1E / 6169.0 - 6299.0  
6M00G1E / 6332.0 - 6388.0  
6M00G1E / 6421.0 - 6425.0

Max Great Circle Coordination Distance: 140.3 km / 87.1 mi  
Precipitation Scatter Contour Radius: 100.0 km / 62.1 mi

Coordination Values		HUMACAO, PR	
Licensee Name		AT&T Corp	
Latitude (NAD 83)		18° 11' 54.8" N	
Longitude (NAD 83)		65° 45' 58.4" W	
Ground Elevation (AMSL)		160.5 m / 526.6 ft	
Antenna Centerline (AGL)		2.74 m / 9.0 ft	
Antenna Model		Skyware 2.4 meter	
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		-20.3 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	4.88	101.82	-10.00	100.00
5	6.25	106.62	-10.00	100.00
10	5.76	111.22	-10.00	100.00
15	4.28	115.58	-10.00	100.00
20	2.94	119.81	-10.00	100.00
25	0.91	123.64	-10.00	100.00
30	0.53	127.18	-10.00	100.00
35	0.42	130.46	-10.00	107.93
40	0.28	133.48	-10.00	117.29
45	0.00	136.12	-10.00	124.33
50	0.00	138.62	-10.00	124.33
55	0.00	140.73	-10.00	124.33
60	0.00	142.39	-10.00	124.33
65	0.41	143.92	-10.00	108.78
70	0.00	144.09	-10.00	124.33
75	0.00	144.05	-10.00	124.33
80	0.00	143.42	-10.00	124.33
85	0.00	142.22	-10.00	124.33
90	0.00	140.51	-10.00	124.33
95	0.00	138.35	-10.00	124.33
100	0.00	135.81	-10.00	124.33
105	0.00	132.95	-10.00	124.33
110	0.00	129.83	-10.00	124.33
115	0.00	126.50	-10.00	124.33
120	0.00	123.00	-10.00	124.33
125	0.00	119.35	-10.00	124.33
130	0.00	115.60	-10.00	124.33
135	0.00	111.76	-10.00	124.33
140	0.00	107.84	-10.00	124.33
145	0.00	103.88	-10.00	124.33
150	0.00	99.87	-10.00	124.33
155	0.00	95.84	-10.00	124.33
160	0.00	91.79	-10.00	124.33
165	0.00	87.74	-10.00	124.33
170	0.00	83.70	-10.00	124.33
175	0.00	79.67	-10.00	124.33
180	0.00	75.66	-10.00	124.33
185	0.00	71.70	-10.00	124.33

Coordination Values		HUMACAO, PR	
Licensee Name		AT&T Corp	
Latitude (NAD 83)		18° 11' 54.8" N	
Longitude (NAD 83)		65° 45' 58.4" W	
Ground Elevation (AMSL)		160.5 m / 526.6 ft	
Antenna Centerline (AGL)		2.74 m / 9.0 ft	
Antenna Model		Skyware 2.4 meter	
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		-20.3 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	67.80	-10.00	124.33
195	0.00	63.97	-10.00	124.33
200	0.00	60.22	-10.00	124.33
205	0.00	56.46	-10.00	124.33
210	0.00	52.43	-10.00	124.33
215	0.00	48.31	-10.00	124.33
220	0.00	44.33	-9.17	126.86
225	0.00	40.52	-8.19	129.95
230	0.00	36.95	-7.19	133.28
235	0.00	33.69	-6.19	136.77
240	0.00	30.83	-5.22	140.26
245	0.33	28.21	-4.26	129.59
250	0.57	26.30	-3.50	114.14
255	0.77	25.24	-3.05	105.76
260	0.73	25.32	-3.08	107.83
265	1.09	25.91	-3.33	100.00
270	0.23	28.44	-4.35	139.42
275	0.46	30.65	-5.16	116.80
280	0.52	33.53	-6.14	109.82
285	0.00	37.20	-7.26	133.04
290	0.00	40.79	-8.26	129.72
295	0.00	44.61	-9.24	126.65
300	1.26	48.07	-10.00	100.00
305	1.64	52.14	-10.00	100.00
310	2.56	56.18	-10.00	100.00
315	2.79	60.55	-10.00	100.00
320	2.71	65.05	-10.00	100.00
325	3.71	69.41	-10.00	100.00
330	3.38	74.04	-10.00	100.00
335	2.12	78.74	-10.00	100.00
340	2.51	83.29	-10.00	100.00
345	3.16	87.86	-10.00	100.00
350	4.02	92.49	-10.00	100.00
355	4.15	97.13	-10.00	100.00

**Attachment E**

**Morovis Site Details and Coordination Report**

### Morovis Site Details

**Contact Information:**

Scott Wood  
Marshall Ellis

**Phone Number:**

(907) 341-9178  
(907) 441-7113

**Geographic Coordinates:**

Latitude: 18° 18' 34.6" N

Longitude: 66° 24' 21.9" W

**Site Elevation:**

351 meters AMSL

**Antenna Details**

Antenna ID: 6  
Manufacturer/Model: Skyware/243  
Antenna Size: 2.4 meters  
Antenna Gain Transmit: 42.0 dBi at 6 GHz  
Antenna Gain Receive: 38.5 dBi at 4 GHz  
Height Above Ground Level: 2.74 meters  
Height Above Sea Level: 353.74 meters  
Total Input Power at the Flange: 11.8 dBW  
Total EIRP for all Carriers: 53.8 dBW

**Operational Details**

<b>Frequency (MHz)</b>	<b>TX/RX</b>	<b>Polarization</b>	<b>Emission Designator</b>	<b>Max EIRP per Carrier (dBW)</b>	<b>Max EIRP density per Carrier (dBW/4 kHz)</b>
5948-5982 6248-6288	TX	Horiz or Vert	6M00G1E	53.8	22.0
3723-3757 4023-4063	RX	Horiz or Vert	6M00G1E	0.0	0.0



**COMSEARCH**<sup>®</sup>

A CommScope Company

November 07, 2017

Re: AT&T Corp  
MOROVIS, PR  
Temporary Transmit-Only Earth Station  
Operation Dates: 11/09/2017 - 05/09/2018  
Job Number: 171107COMSGE13

Dear Frequency Coordinator:

On behalf of AT&T Corp we are forwarding the attached coordination data for a Temporary Transmit-Only Earth Station to be located at the site referenced above.

This earth station will transmit only on the satellite(s) and frequency or frequencies as described in the attached data. Please do not report cases involving 4 GHz facilities or problems involving non-active paths or frequencies outside the specified range.

If there are any questions concerning this coordination notice, please contact Comsearch.

Sincerely,

COMSEARCH

Gary K. Edwards  
Senior Manager  
gedwards@comsearch.com

Enclosure(s)

Date: 11/07/2017  
Job Number: 171107COMSGE13

---

**Administrative Information**

Status TEMPORARY (Operation from 11/09/2017 to 05/09/2018)  
Call Sign TEMP05  
Licensee Code P1175P  
Licensee Name AT&T Corp

---

**Site Information****MOROVIS, PR**

Venue Name  
Latitude (NAD 83) 18° 18' 34.6" N  
Longitude (NAD 83) 66° 24' 21.9" W  
Climate Zone B  
Rain Zone 1  
Ground Elevation (AMSL) 351.0 m / 1151.6 ft

---

**Link Information**

Satellite Type Geostationary  
Mode TO - Transmit-Only  
Modulation Digital  
Satellite Arc 110° W to 120° West Longitude  
Azimuth Range 251.7° to 257.0°  
Corresponding Elevation Angles 36.5° / 26.5°  
Antenna Centerline (AGL) 2.74 m / 9.0 ft

---

**Antenna Information****Transmit - FCC32**

Manufacturer Skyware  
Model 243  
Gain / Diameter 42.0 dBi / 2.4 m  
3-dB / 15-dB Beamwidth 1.00° / 2.00°

Max Available RF Power (dBW/4 kHz) -20.0  
(dBW/MHz) 4.0

Maximum EIRP (dBW/4 kHz) 22.0  
(dBW/MHz) 46.0

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

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**Frequency Information****Transmit 6.1 GHz**

Emission / Frequency Range (MHz) 6M00G1E / 5948.0 - 5982.0  
6M00G1E / 6248.0 - 6288.0

Max Great Circle Coordination Distance 147.6 km / 91.7 mi  
Precipitation Scatter Contour Radius 100.0 km / 62.1 mi

Coordination Values		MOROVIS, PR	
Licensee Name		AT&T Corp	
Latitude (NAD 83)		18° 11' 54.8" N	
Longitude (NAD 83)		65° 45' 58.4" W	
Ground Elevation (AMSL)		160.5 m / 526.6 ft	
Antenna Centerline (AGL)		2.74 m / 9.0 ft	
Antenna Model		Skyware 2.4 meter	
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	-20.0 (dBW/4 kHz)		

Transmit 6.1 GHz				
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	101.65	-10.00	125.23
5	0.00	106.09	-10.00	125.23
10	0.00	110.50	-10.00	125.23
15	0.00	114.88	-10.00	125.23
20	0.00	119.20	-10.00	125.23
25	0.00	123.45	-10.00	125.23
30	0.00	126.89	-10.00	125.23
35	0.00	130.14	-10.00	125.23
40	0.00	133.16	-10.00	125.23
45	0.00	135.92	-10.00	125.23
50	0.00	138.34	-10.00	125.23
55	0.00	140.38	-10.00	125.23
60	0.00	141.96	-10.00	125.23
65	0.00	143.02	-10.00	125.23
70	0.00	143.51	-10.00	125.23
75	0.00	143.42	-10.00	125.23
80	0.00	142.75	-10.00	125.23
85	0.00	141.53	-10.00	125.23
90	0.00	139.80	-10.00	125.23
95	0.40	137.97	-10.00	109.63
100	0.70	135.62	-10.00	100.00
105	1.26	133.11	-10.00	100.00
110	2.26	130.50	-10.00	100.00
115	2.71	127.27	-10.00	100.00
120	3.49	123.96	-10.00	100.00
125	3.31	120.06	-10.00	100.00
130	3.16	116.08	-10.00	100.00
135	2.47	111.90	-10.00	100.00
140	3.02	108.00	-10.00	100.00
145	2.98	103.90	-10.00	100.00
150	2.77	99.75	-10.00	100.00
155	3.81	95.67	-10.00	100.00
160	3.62	91.46	-10.00	100.00
165	3.30	87.27	-10.00	100.00
170	4.32	83.01	-10.00	100.00
175	3.89	78.85	-10.00	100.00
180	3.52	74.75	-10.00	100.00
185	3.86	70.56	-10.00	100.00



Coordination Values		MOROVIS, PR	
Licensee Name		AT&T Corp	
Latitude (NAD 83)		18° 11' 54.8" N	
Longitude (NAD 83)		65° 45' 58.4" W	
Ground Elevation (AMSL)		160.5 m / 526.6 ft	
Antenna Centerline (AGL)		2.74 m / 9.0 ft	
Antenna Model		Skyware 2.4 meter	
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	-20.0 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	3.09	66.70	-10.00	100.00
195	3.15	62.72	-10.00	100.00
200	2.18	59.22	-10.00	100.00
205	2.08	55.52	-10.00	100.00
210	2.94	51.19	-10.00	100.00
215	2.94	47.03	-9.81	100.00
220	2.94	42.91	-8.81	100.00
225	2.70	39.09	-7.80	100.00
230	2.70	35.37	-6.72	100.00
235	2.70	31.95	-5.61	100.00
240	1.21	30.15	-4.98	100.00
245	0.88	28.11	-4.22	100.00
250	0.69	26.68	-3.66	108.72
255	0.00	26.59	-3.62	147.58
260	0.00	26.68	-3.65	147.42
265	0.00	27.63	-4.03	145.93
270	0.00	29.34	-4.69	143.40
275	0.00	31.70	-5.53	140.24
280	0.00	34.58	-6.47	136.83
285	0.00	37.84	-7.45	133.42
290	0.00	41.41	-8.43	130.17
295	0.00	45.20	-9.38	127.14
300	0.00	49.16	-10.00	125.23
305	0.00	53.26	-10.00	125.23
310	0.00	57.46	-10.00	125.23
315	0.00	61.73	-10.00	125.23
320	0.00	66.07	-10.00	125.23
325	0.00	70.46	-10.00	125.23
330	0.00	74.87	-10.00	125.23
335	0.00	79.32	-10.00	125.23
340	0.00	83.78	-10.00	125.23
345	0.00	88.25	-10.00	125.23
350	0.00	92.72	-10.00	125.23
355	0.00	97.19	-10.00	125.23

**Attachment F**

**San Sebastian Site Details and Coordination Report**

### San Sebastian Site Details

**Contact Information:**

Scott Wood  
Marshall Ellis

**Phone Number:**

(907) 341-9178  
(907) 441-7113

**Geographic Coordinates:**

Latitude: 18° 20' 28.5" N

Longitude: 66° 57' 36.8" W

**Site Elevation:**

317.1 meters AMSL

**Antenna Details**

Antenna ID: 7  
Manufacturer/Model: Skyware/243  
Antenna Size: 2.4 meters  
Antenna Gain Transmit: 42.0 dBi at 6 GHz  
Antenna Gain Receive: 38.5 dBi at 4 GHz  
Height Above Ground Level: 2.74 meters  
Height Above Sea Level: 319.74 meters  
Total Input Power at the Flange: 11.5 dBW  
Total EIRP for all Carriers: 53.5 dBW

**Operational Details**

<b>Frequency (MHz)</b>	<b>TX/RX</b>	<b>Polarization</b>	<b>Emission Designator</b>	<b>Max EIRP per Carrier (dBW)</b>	<b>Max EIRP density per Carrier (dBW/4 kHz)</b>
5925-5930 5990-6107 6168-6319 6392-6425	TX	Horiz or Vert	6M00G1E	53.5	21.7
3700-3705 3765-3882 3943-4094 4167-4200	RX	Horiz or Vert	6M00G1E	0.0	0.0



**COMSEARCH**<sup>®</sup>

A CommScope Company

November 08, 2017

Re: AT&T Corp  
SAN SEBASTIAN, PR  
Temporary Transmit-Only Earth Station  
Operation Dates: 11/10/2017 - 05/10/2018  
Job Number: 171108COMSGE08

Dear Frequency Coordinator:

On behalf of AT&T Corp, we are forwarding the attached coordination data for a Temporary Transmit-Only Earth Station to be located at the site referenced above.

This earth station will transmit only on the satellite(s) and frequency or frequencies as described in the attached data. Please do not report cases involving 4 GHz facilities or problems involving non-active paths or frequencies outside the specified range.

If there are any questions concerning this coordination notice, please contact Comsearch.

Sincerely,

COMSEARCH

Gary K. Edwards  
Senior Manager  
gedwards@comsearch.com

Enclosure(s)

Date: 11/08/2017  
Job Number: 171108COMSGE08

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**Administrative Information**

Status TEMPORARY (Operation from 11/10/2017 to 05/10/2018)  
Call Sign TEMP05  
Licensee Code P1175P  
Licensee Name AT&T Corp -

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**Site Information SAN SEBASTIAN, PR**

Venue Name  
Latitude (NAD 83) 18° 20' 28.5" N  
Longitude (NAD 83) 66° 57' 36.8" W  
Climate Zone B  
Rain Zone 1  
Ground Elevation (AMSL) 317.1 m / 1040.4 ft

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**Link Information**

Satellite Type Geostationary  
Mode TO - Transmit-Only  
Modulation Digital  
Satellite Arc 110° W to 120° West Longitude  
Azimuth Range 251.4° to 256.7°  
Corresponding Elevation Angles 37.0° / 27.1°  
Antenna Centerline (AGL) 2.74 m / 9.0 ft

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**Antenna Information Transmit - FCC32**

Manufacturer Skyware  
Model 243  
Gain / Diameter 42.0 dBi / 2.4 m  
3-dB / 15-dB Beamwidth 1.00° / 2.00°

Max Available RF Power (dBW/4 kHz) -20.3  
(dBW/MHz) 3.7

Maximum EIRP (dBW/4 kHz) 21.7  
(dBW/MHz) 45.7

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

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**Frequency Information Transmit 6.1 GHz**

Emission / Frequency Range (MHz)  
6M00G1E / 5925.0 - 5930.0  
6M00G1E / 5990.0 - 6107.0  
6M00G1E / 6168.0 - 6319.0  
6M00G1E / 6392.0 - 6425.0

Max Great Circle Coordination Distance 145.6 km / 90.4 mi  
Precipitation Scatter Contour Radius 100.0 km / 62.1 mi

<b>Coordination Values</b>		<b>SAN SEBASTIAN, PR</b>	
Licensee Name		AT&T Corp -	
Latitude (NAD 83)		18° 20' 28.5" N	
Longitude (NAD 83)		66° 57' 36.8" W	
Ground Elevation (AMSL)		317.1 m / 1040.4 ft	
Antenna Centerline (AGL)		2.74 m / 9.0 ft	
Antenna Model		Skyware 2.4 meter	
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	-20.3 (dBW/4 kHz)		

Transmit 6.1 GHz				
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	101.84	-10.00	124.33
5	0.00	106.26	-10.00	124.33
10	0.00	110.64	-10.00	124.33
15	0.00	114.99	-10.00	124.33
20	0.00	119.29	-10.00	124.33
25	0.00	123.44	-10.00	124.33
30	0.00	126.82	-10.00	124.33
35	0.00	130.02	-10.00	124.33
40	0.00	133.00	-10.00	124.33
45	0.00	135.69	-10.00	124.33
50	0.00	138.06	-10.00	124.33
55	0.00	140.03	-10.00	124.33
60	0.00	141.54	-10.00	124.33
65	0.28	142.82	-10.00	116.92
70	0.25	143.24	-10.00	119.30
75	0.44	143.29	-10.00	106.09
80	0.29	142.44	-10.00	116.11
85	0.33	141.23	-10.00	114.82
90	0.45	139.58	-10.00	105.45
95	0.46	137.41	-10.00	104.05
100	0.37	134.79	-10.00	111.48
105	0.80	132.22	-10.00	100.00
110	0.84	129.11	-10.00	100.00
115	1.22	125.97	-10.00	100.00
120	1.01	122.34	-10.00	100.00
125	0.49	118.47	-10.00	102.10
130	0.68	114.81	-10.00	100.00
135	0.65	110.97	-10.00	100.00
140	0.00	106.93	-10.00	124.33
145	0.00	103.01	-10.00	124.33
150	0.00	99.06	-10.00	124.33
155	0.00	95.09	-10.00	124.33
160	0.00	91.10	-10.00	124.33
165	0.00	87.11	-10.00	124.33
170	0.00	83.12	-10.00	124.33
175	0.00	79.16	-10.00	124.33
180	0.00	75.22	-10.00	124.33
185	0.00	71.33	-10.00	124.33

<b>Coordination Values</b>	<b>SAN SEBASTIAN, PR</b>		
Licensee Name	AT&T Corp -		
Latitude (NAD 83)	18° 20' 28.5" N		
Longitude (NAD 83)	66° 57' 36.8" W		
Ground Elevation (AMSL)	317.1 m / 1040.4 ft		
Antenna Centerline (AGL)	2.74 m / 9.0 ft		
Antenna Model	Skyware 2.4 meter		
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	-20.3 (dBW/4 kHz)		

Transmit 6.1 GHz				
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	67.50	-10.00	124.33
195	0.00	63.75	-10.00	124.33
200	0.00	60.09	-10.00	124.33
205	0.00	56.36	-10.00	124.33
210	0.00	52.34	-10.00	124.33
215	0.00	48.31	-10.00	124.33
220	0.00	44.42	-9.19	126.79
225	0.00	40.72	-8.25	129.78
230	0.00	37.28	-7.29	132.96
235	0.00	34.15	-6.34	136.24
240	0.00	31.45	-5.44	139.46
245	0.00	29.30	-4.67	142.32
250	0.00	27.81	-4.11	144.48
255	0.00	27.11	-3.83	145.56
260	0.00	27.25	-3.88	145.34
265	0.00	28.22	-4.26	143.87
270	0.00	29.94	-4.91	141.44
275	0.00	32.29	-5.73	138.42
280	0.00	35.14	-6.64	135.16
285	0.00	38.38	-7.60	131.90
290	0.00	41.92	-8.56	128.77
295	0.00	45.68	-9.49	125.85
300	0.00	49.62	-10.00	124.33
305	0.00	53.69	-10.00	124.33
310	0.00	57.87	-10.00	124.33
315	0.00	62.12	-10.00	124.33
320	0.00	66.43	-10.00	124.33
325	0.00	70.80	-10.00	124.33
330	0.24	75.16	-10.00	120.40
335	0.25	79.59	-10.00	119.76
340	0.00	84.06	-10.00	124.33
345	0.00	88.51	-10.00	124.33
350	0.00	92.96	-10.00	124.33
355	0.00	97.41	-10.00	124.33