

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
Special Temporary Authority for Expired C-band earth station E940005 Littleton, Co

1. Applicant

Name:	Comcast Cable Communications Management, LLC	Phone Number:	215-286-7454
DBA Name:		Fax Number:	215-286-1022
Street:	One Comcast Center	E-Mail:	sheila_smith@cable.comcast.com
City:	1701 John F. Kennedy Boulevard Philadelphia	State:	PA
Country:	USA	Zipcode:	19103 -2838
Attention:	Sheila Smith		



File # ~~SES-STA-20190828-01119~~
~~E940005~~ Grant Date ~~9-27-19~~
Call Sign (or other identifier)
Term Dates
From: ~~9-27-19~~ To: ~~11-28-19~~
Approved: *Michael E. [Signature]*

2. Contact	
Name:	Catherine Fox
Company:	Comcast Cable Communications Management, LLC
Street:	One Comcast Center 1701 John F. Kennedy Boulevard
City:	Philadelphia
Country:	USA
Attention:	
Phone Number:	215-286-8818
Fax Number:	
E-Mail:	Catherine_Fox@Comcast.com
State:	PA
Zipcode:	19103 -
Relationship:	
(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.)	
3. Reference File Number or Submission ID	
4a. Is a fee submitted with this application?	
☒ If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).	
☐ Governmental Entity ☐ Noncommercial educational licensee	
☐ Other (please explain):	
4b. Fee Classification CGX – Fixed Satellite Transmit/Receive Earth Station	
5. Type Request	
☒ Use Prior to Grant ☐ Change Station Location ☐ Other	
6. Requested Use Prior Date 09/06/2019	

7. City/Littleton	8. Latitude (dd mm ss.s h) 39 34 45.5 N	
9. State CO	10. Longitude (dd mm ss.s h) 104 56 16.0 W	
11. Please supply any need attachments. Attachment 1: Radhaz	Attachment 2: STA Narrative	Attachment 3: Coordination Notices
12. Description. (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.) Special Temporary Authority per attached for expired E940005		
13. By checking Yes, the undersigned certifies that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application"; for these purposes. Yes ☒ No ☐		
14. Name of Person Signing Catherine Fox	15. Title of Person Signing Deputy General Counsel	
WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).		

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

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

THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.

Applicant: Comcast Cable Communications Management, LLC

Call Sign: E940005

File No.: SES-STA-20190828-01119

Special Temporary Authority ("STA")

Comcast Cable Communications Management, LLC ("Comcast") is granted Special Temporary Authorization for 60 days, commencing September 27, 2019, to operate its licensed fixed C-band Transmit-Only satellite earth station located at geographic coordinates 39° 34' 45.5"N, 104° 56' 16.0 "W in Littleton, CO with the listed C-band satellites at their permanent orbital location in the frequency band 5945-6425 MHz (Earth-to-space) under the following conditions:

1. Operations shall comply with 47 C.F.R. § 25.212.
2. Operations with C-band satellites: AMC 6 (S2347), AMC 8 (S2379), AMC 11 (S2433), AMC 18 (S2713), Anik F1R (S2674), Anik F2 (S2646), Anik F3 (S2703), Arsat 2 (S2956), Galaxy 23 (S2592), Eutelsat 113 West A (S2695), Eutelsat 115 West B (S2938), Eutelsat 117 West A (S2873), Galaxy 3C (S2381), Galaxy 13 (S2386), Galaxy 14 (S2385), Galaxy 15 (S2387), Galaxy 16 (S2687), Galaxy 17 (S2715), Galaxy 18 (S2733), Galaxy 19 (S2647), Galaxy 28 (S2160), SES-1 (S2807), SES-2 (S2826), SES-3 (S2892), Star One C1 (S2677).
3. All operations shall be on an unprotected and non-harmful interference basis, Comcast, shall not cause harmful interference to, and shall not claim protection from, interference caused to it by any other lawfully operating station and it shall cease transmission(s) immediately upon notice of such interference and must inform the Commission, in writing, immediately of such an event.
4. The licensee shall take all necessary measures to ensure that the antenna does not create potential exposure of humans to radiofrequency radiation in excess of the FCC exposure limits defined in 47 CFR 1.1307(b) and 1.1310 wherever such exposures might occur. Measures must be taken to ensure compliance with limits for both occupational/controlled exposure and for general population/uncontrolled exposure, as defined in these rule sections. Compliance can be accomplished in most cases by appropriate restrictions, such as fencing. Requirements for restrictions can be determined by predictions based on calculations, modeling, or by field measurements. The FCC's OET Bulletin 65 (available on-line at www.fcc.gov/oet/rfsafety) provides information on predicting exposure levels and on methods for ensuring compliance, including the use of warning and alerting signs and protective equipment for workers.
5. Grant of this STA is without prejudice to any determination that the Commission may make regarding pending or future Comcast applications.
6. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Comcast's risk.

This action is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. §0.261, and is effective upon release.



File # SS-STA20190828-01119
Call Sign 2940005 Grant Date 9-27-19
(or other identifier)
Term Dates
From: 9-27-19 To: 11-28-19
Approved: [Signature] [Signature]

REQUEST FOR SPECIAL TEMPORARY AUTHORITY

Comcast Cable Communications Management, LLC (“Comcast”) requests Special Temporary Authority (“STA”) to operate a previously licensed transmit C-band earth station facility (E940005) for a period of sixty (60) days beginning September 6, 2019. The purpose of this STA is to authorize interim operation of this facility pending action on a forthcoming license application for permanent operating authority. As set forth below, FCC approval of this request will serve the public interest, convenience and necessity.

Section 25.120(b)(1) of the Commission’s rules provides that STA may be granted upon a finding of “extraordinary circumstances requiring temporary operations in the public interest and that a delay in the institution of service would seriously prejudice the public interest.”¹ Section 25.120(b)(3) further provides that the Commission may grant STAs for a period of sixty (60) days without placing the request on public notice where the applicant plans to file a request for regulatory authority. Comcast submits that the instant request satisfies both rule sections.

The subject earth station is located at Comcast’s national transmission center in Littleton, Colorado. Comcast uses the Littleton complex to distribute video programming to its cable television headends throughout the country, and to otherwise provide support to its various media operations. Comcast holds many FCC authorizations for earth stations located at the Littleton complex. In the past year, it has filed timely renewal applications for dozens of earth station authorizations and also surrendered the authorizations for numerous earth stations. Due to an accidental administrative error, however, the license for this station expired on December 17, 2018 without a renewal application being filed. This STA application is being filed promptly after discovery of the inadvertent error.

No party will be prejudiced by FCC grant of this STA request. The subject station (which is not being operated) was previously licensed and the transmit frequencies remain protected in the frequency coordinator’s database, and prior coordination notifications for the forthcoming license application were mailed to all interested parties via first class U.S. Mail on August 21, 2019 (*see* Attachment A). In addition, a new radiation hazard study has been completed for this facility (*see* Attachment B).

Favorable action on this request will also serve the public interest. As indicated, the station is being used to distribute video programming to Comcast customers nationwide and will be operated in accordance with the technical parameters set forth on the station’s most recent license authorization. Grant of the requested STA will thus simply reinstate the operational authority of an earth station that has been used by Comcast for many years without prejudice to any party. Accordingly, Comcast submits that FCC approval of this request for STA is warranted.

¹ 47 C.F.R. § 25.120(b)(1).

STA Application Amendment

Comcast Communications Management, LLC (“Comcast”) is seeking a STA to allow it to resume operations from a previously-licensed facility. The subject station is used to provide transmission service, on a case-by-case basis (as circumstances require), to C-band satellites included in the following list (each of which is on the approved space station list):

AMC 6
AMC 8
AMC 11
AMC 18
Anik F1R
Anik F2
Anik F3
Arsat 2
EchoStar 9/Galaxy 23
Eutelsat 113 West A
Eutelsat 115 West B
Eutelsat 117 West A
Galaxy 3C
Galaxy 13/Horizons 1
Galaxy 14
Galaxy 15
Galaxy 16
Galaxy 17
Galaxy 18
Galaxy 19
Galaxy 28
SES 1
SES 2
SES 3
Star One C1
Star One C2
Star One C3



COMSEARCH

A CommScope Company

August 21, 2019

Re: Comcast Cable Communications Mgt LLC
LITTLETON, CO (Suburban #5)
C-Band Transmit Only Earth Station
Job Number: 190821COMSGE03

Dear Frequency Coordinator:

This notice is being provided in accordance with Section 25.203(c) of the FCC Rules and Regulations. We are forwarding the attached coordination data on behalf of Comcast Cable Communications Mgt LLC, 7235 West Titan Road Littleton, CO 80125 for a C-Band Transmit Only Earth Station to be located in LITTLETON, CO.

The coordination notice is being circulated to the owners (or their protection agents) of all existing or proposed terrestrial facilities operating in a shared frequency band within the coordination contours of the proposed station(s).

We respectfully request that you examine this data for its interference potential with your system(s). In the event that your analysis identifies potential interference cases that have not been resolved, please contact us by September 25, 2019.

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: 08/21/2019
Job Number: 190821COMSGE03

Administrative Information

Status ENGINEER PROPOSAL
Call Sign
Licensee Code COMGTL
Licensee Name Comcast Cable Communications Mgt LLC

Site Information

LITTLETON, CO
Venue Name SUBURBAN #5
Latitude (NAD 83) 39° 34' 45.5" N
Longitude (NAD 83) 104° 56' 16.0" W
Climate Zone A
Rain Zone 2
Ground Elevation (AMSL) 1729.22 m / 5673.3 ft

Link Information

Satellite Type Geostationary
Mode TO - Transmit-Only
Modulation Analog and Digital
Satellite Arc 65° W to 145° West Longitude
Azimuth Range 127.3° to 232.8°
Corresponding Elevation Angles 28.6° / 28.5°
Antenna Centerline (AGL) 5.79 m / 19.0 ft

Antenna Information

Transmit - FCC32
Manufacturer Vertex
Model 9 KPC
Gain / Diameter 53.5 dBi / 9.0 m
3-dB / 15-dB Beamwidth 0.40° / 0.80°

Max Available RF Power (dBW/4 kHz) -0.5
(dBW/MHz) 23.5

Maximum EIRP (dBW/4 kHz) 53.0
(dBW/MHz) 77.0

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) 36M0F1W - 36M0G7W / 5925.0 - 6425.0

Max Great Circle Coordination Distance 197.6 km / 122.8 mi
Precipitation Scatter Contour Radius 147.4 km / 91.6 mi

Coordination Values	LITTLETON, CO		
Licensee Name	Comcast Cable Communications Mgt LLC		
Latitude (NAD 83)	39° 34' 45.5" N		
Longitude (NAD 83)	104° 56' 16.0" W		
Ground Elevation (AMSL)	1729.22 m / 5673.3 ft		
Antenna Centerline (AGL)	5.79 m / 19.0 ft		
Antenna Model	Vertex 9 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	-0.5 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	122.05	-10.00	179.20
5	0.00	117.96	-10.00	179.20
10	0.00	113.72	-10.00	179.20
15	0.00	109.44	-10.00	179.20
20	0.00	105.11	-10.00	179.20
25	0.00	100.76	-10.00	179.20
30	0.00	96.38	-10.00	179.20
35	0.28	92.00	-10.00	170.64
40	0.35	87.60	-10.00	161.02
45	0.32	83.20	-10.00	164.97
50	0.43	78.80	-10.00	153.00
55	0.57	74.41	-10.00	142.80
60	0.62	70.05	-10.00	140.38
65	0.56	65.75	-10.00	143.59
70	0.62	61.48	-10.00	140.50
75	0.72	57.25	-10.00	135.52
80	0.74	53.14	-10.00	134.57
85	0.88	49.08	-10.00	129.52
90	0.92	45.19	-9.38	129.84
95	0.95	41.50	-8.45	131.08
100	0.94	38.07	-7.51	133.35
105	0.91	34.97	-6.59	137.81
110	0.89	32.29	-5.73	142.21
115	0.79	30.20	-5.00	150.02
120	0.72	28.74	-4.46	156.03
125	0.81	27.87	-4.13	152.33
130	0.78	27.94	-4.15	153.90
135	0.93	28.64	-4.43	145.21
140	1.03	30.15	-4.98	138.86
145	1.27	32.19	-5.69	131.18
150	1.30	34.77	-6.53	127.50
155	0.90	37.46	-7.34	135.97
160	0.98	39.41	-7.89	131.61
165	1.37	40.67	-8.23	120.12
170	0.93	42.28	-8.65	131.35
175	0.93	43.02	-8.84	130.86
180	1.02	43.17	-8.88	127.07
185	1.17	42.79	-8.78	123.61

Coordination Values	LITTLETON, CO		
Licensee Name	Comcast Cable Communications Mgt LLC		
Latitude (NAD 83)	39° 34' 45.5" N		
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Ground Elevation (AMSL)	1729.22 m / 5673.3 ft		
Antenna Centerline (AGL)	5.79 m / 19.0 ft		
Antenna Model	Vertex 9 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	-0.5 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	1.37	41.86	-8.55	119.19
195	1.06	40.97	-8.31	128.01
200	1.08	39.32	-7.86	128.78
205	1.05	37.33	-7.30	131.55
210	0.98	35.03	-6.61	134.46
215	0.86	32.53	-5.81	143.36
220	0.67	30.45	-5.09	156.39
225	0.56	28.95	-4.54	164.86
230	0.35	28.29	-4.29	186.01
235	0.26	28.33	-4.30	195.03
240	0.29	29.05	-4.58	191.44
245	0.00	30.79	-5.21	197.61
250	0.00	32.90	-5.93	194.87
255	0.00	35.53	-6.76	191.67
260	0.00	38.57	-7.66	188.24
265	0.00	41.93	-8.56	184.75
270	0.00	45.54	-9.46	181.28
275	0.00	49.35	-10.00	179.20
280	0.00	53.30	-10.00	179.20
285	0.00	57.37	-10.00	179.20
290	0.00	61.53	-10.00	179.20
295	0.00	65.77	-10.00	179.20
300	0.00	70.05	-10.00	179.20
305	0.00	74.38	-10.00	179.20
310	0.00	78.73	-10.00	179.20
315	0.00	83.11	-10.00	179.20
320	0.00	87.50	-10.00	179.20
325	0.00	91.89	-10.00	179.20
330	0.00	96.28	-10.00	179.20
335	0.00	100.66	-10.00	179.20
340	0.00	105.02	-10.00	179.20
345	0.00	109.35	-10.00	179.20
350	0.00	113.64	-10.00	179.20
355	0.00	117.88	-10.00	179.20