

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
Request for Special Temporary Authority to Use Hagerstown, MD Earth Station KA275 to Provide TT&C Services During LEOP,
IOT, and Drift for Intelsat 37

I. Applicant

Name:	Intelsat License LLC	Phone Number:	703-559-7848
DBA Name:		Fax Number:	703-559-8539
Street:	c/o Intelsat Corporation 7900 Tysons One Place	E-Mail:	susan.crandall@intelsat.com
City:	McLean	State:	VA
Country:	USA	Zipcode:	22102 -5972
Attention:	Susan H Crandall		



File # SES-STA-20170804-00874

Call Sign VA275 Grant Date 8-17-17
(or other identifier)

Term Dates From: 8-31-17 To: 9-30-17

Approved: [Signature]

Applicant: Intelsat License LLC
Call Sign: KA275
File No.: SES-STA-20170804-00874
Special Temporary Authority (STA)



File # SES-STA-20170804-00874
Call Sign KA275 Grant Date 8-17-17
(or other identifier)
Term Dates
From 8-31-17 To: 9-30-17
Approved: Paul E. Hays

Intelsat License LLC is granted STA, for 30 days, commencing August 31, 2017, to operate its GD Satcom 19-meter fixed earth station at 39° 35' 54.7" N.L./077° 45' 35.3" W.L. in Hagerstown, Maryland to provide launch and early orbit phase ("LEOP") services for satellite Intelsat 37e; telemetry, tracking, and command ("TT&C") functions during in-orbit testing ("IOT") at 17.5° W.L.; and TT&C functions during the drift of satellite Intelsat 37e to its final orbital location of 18° W.L. All operations will be in the 6421.5-6425.0 MHz, and 5850.0-5853.5 MHz (LHCP/ V) (Earth-to-space) frequency bands and on the following center frequencies: 4197.75 MHz, 4189.25 MHz, 4198.75 MHz, and 4199.25 MHz (LHCP/H) (space-to-Earth). All operations are authorized under the following conditions:

1. Operations will not exceed the operation power levels and parameters requested and coordinated.
2. Intelsat will coordinate the proposed IOT operations at IOT location 17.5° W.L. with operators of co-frequency satellites within six degrees. During the drift from 17.5° W.L. to the satellite's permanent orbital location 18° W.L., Intelsat will coordinate with operators of co-frequency satellites in the drift path.
3. The LEOP operations must be coordinated with all operators of satellites that use the same frequency bands and are in the LEOP path. All operators of satellites in that path will be provided with an emergency phone number where the licensee can be reached in the event that harmful interference occurs. Currently the 24x7 contact information for the Intelsat 37e mission is as follows: Ph.: (703) 559-7701 - East Coast Operations Center (primary); (310) 525-5591 - West Coast Operations Center (back-up). Request to speak with Harry Burnham or Kevin Bell.
4. Operations, 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.
5. In the event of any harmful interference under this grant of STA, Intelsat License LLC KA275 must cease operations immediately upon notification of such interference, and must inform the Commission, in writing, immediately of such an event.
6. Grant of this authorization is without prejudice to any determination that the Commission may make regarding pending FCC File No.: SES-MOD-20170707-00742 or future Intelsat License LLC applications.
7. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Intelsat License LLC's risk.
8. 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 immediately.

2. Contact

Name: Cynthia J. Grady **Phone Number:** 703-559-6949
Company: Intelsat Corporation **Fax Number:** 703-559-8539
Street: 7900 Tysons One Place **E-Mail:** cynthia.grady@intelsat.com

City: McLean **State:** VA
Country: USA **Zipcode:** 22102 -5972
Attention: **Relationship:** Legal Counsel

(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 SESMOD20170700742 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

7. City Hagerstown

8. Latitude
(dd mm ss.s h) 39 35 55.0 N

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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.

12. Description

Intelsat License LLC herein requests a grant of Special Temporary Authority for 30 days, commencing August 31, 2017, to use its Hagerstown, Maryland C-band earth station, call sign KA275, to provide launch and early orbit phase services for Intelsat 37e; telemetry, tracking, and command during in-orbit testing at 17.5 W.L; and TT&C during the drift of Intelsat 37e to its final location of 18.0 W.L. Intelsat 37e is expected to be launched on August 31, 2017.

Prepared By

COMSEARCH

19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 <http://www.comsearch.com>

Prepared For

**Intelsat License LLC
Hagerstown, Maryland**

Temporary Transmit-Only Earth Station
Operation Dates: 08/31/2017 - 09/30/2017

Pursuant to Part 25.203(c) of the FCC Rules and Regulations, the satellite earth station proposed in this application was coordinated by Comsearch using computer techniques and in accordance with Part 25 of the FCC Rules and Regulations. Verbal and written coordination was conducted with the below listed carriers on July 5, 2017.

Company

256Q Networks
AB Services LLC
AT&T Communications of Virginia, LLC
AT&T Corp.
AT&T Wireless Services 3 LLC - PA
AWC Networks
Access MLP Operating LLC
Adams County Department of Emergency Svc
Affiniti PA, LLC
Agile Network Builders LLC
Albermarle, County of, Virginia
Allentown SMSA Limited Partnership
Alltel Communications LLC - Western PA
Alltel Communications LLC-E OH WV
Alltel Communications LLC-TriState Rgn
American Electric Power Service Corp
Appalachia Engineering Services
Appalachian Power Company
Aratika LLC
Argos Engineering, LLC
Atlantic Broadband (Penn), LLC
Atlantic City Electric Company
Atlantic, County of
Baltimore County of Maryland
Baltimore Gas and Electric Company
Beaver Springs Faith Baptist Church, Inc
Bedford County of
Believe Wireless, LLC
Berks County Department of Emergency Ser
Blair County 911
Blue Ridge Carriers
Blueline Communications
Bucks County Dept. of Emergency Comm
CNG Transmission Corporation
Calvert, County of
Cambria, County of

Capital Communications of America
Carbon, County of 911 Center
Caroline County, VA
Carroll, County of
Cellco Partnership - Bridgeville, PA/WV
Cellco Partnership - Southern Virginia
Cellco Partnership- PA Region
Cellco Partnership-WDC/Baltimore
Cellco Prtnrshp - Phil. Tri-State Rgn
Centre Communications Inc.
Centre, County of
Charles, County of
Charter Communications, LLC
Chester, County of
Chesterfield, County of
City of Fredericksburg
Citynet
Clearfield, County of
Clinton, County of
Columbia Gas Transmission, LLC
Columbia, County
Commonwealth of Pennsylvania
Commonwealth of Pennsylvania-Radio Proj.
Comprehensive Wireless LLC
Conterra Ultra Broadband, LLC
Coralinks
County of Augusta
County of Burlington, Public Safety Cntr
County of Camden
County of Culpeper
County of Fayette
County of Frederick
County of King William, Virginia
County of Lycoming
County of York
DSRC Networks
Dauphin County Emergency Management
Delaware County (PA) Emergency Services
Delaware Division of Communications
Delmarva Broadcasting Company
Delmarva Power and Light Company
Direct Broadcast Services, Inc.
ECW Wireless, LLC
East Ohio Gas Company
Eastern MLG LLC
Electric Railroad, LLC
Enoch Pratt Free Library
Essex, County of
Exelon Generation Company, LLC
FELHC, Inc.
Federal Communication Commission
Frederick County
Fulton County of (PA)
Fundamental Broadcasting LLC
GSB Broadcasting LLC
Garden State Transmissions

Getwireless.Net
Gloucester, County of
Goochland County
Goochland, County of
Great Scott Broadcasting
Greene, County of (PA)
Hanover, County of
Hardy Cellular Telephone Company
Hardy County OEM/E911
Harrisonburg-Rockingham ECC
Henrico County
High Voltage Communications LLC (CFN)
Huntingdon County, Pa
Indiana, County of
Jackson County West Virginia
Jefferson County of Pennsylvania
Jefferson Microwave, LLC
Juniata County Emergency Services
Kentucky Power Company
King and Queen County
Kryptick Technologies
Lancaster County-Wide Communications
Limitless Mobile, LLC
Loudoun, County of
MGW Networks, LLC
MVC Research. LLC
Maryland Public Broadcasting Commission
Maryland State Highway Administration
Maryland, State of - Dept.of Info & Tech
McKean, County of
Mifflin Mobilecom
Monroe County Control Center (PA)
Montgomery County Of
National Tower Company II, LLC
National Tower Company LLC
New Cingular Wireless PCS LLC - NJ
New Cingular Wireless PCS - Maryland
New Cingular Wireless PCS LLC - DC
New Cingular Wireless PCS LLC - KY
New Cingular Wireless PCS LLC - Ohio
New Cingular Wireless PCS LLC - VA
New Cingular Wireless PCS LLC - WV,NC,SC
New Cingular Wireless PCS LLC-DE/NH/RI
New Cingular Wireless PCS, LLC - PA
New Jersey Turnpike Authority-Pkwy Div
New Jersey, State of -NJ Transit
New Kent County
New Line Networks, LLC
Norfolk Southern Railway
Northumberland County DPS/911
Ohio Valley Electric Company
Old Dominion LLC
PA Communications
PSEG Services Corporation
Peco Energy Company
Pennsylvania Turnpike Commission

Peoples Natural Gas Company LLC
Pepeco Holdings Inc.
Perry, County of
Perseus Technology Holdings USA Inc.
Pittsburgh SMSA Limited Partnership
Preston County Office of Emergency Manag
Prince George's County
Prince William, County of
Radio One Inc
Rappahannock Electric Cooperative
Richmond, City of
Rockbridge Reg. Pub Safety Comm Ctr
Rural Broadband Network Services LLC
SCS Networks
SW Networks
Shenandoah Personal Communications, LLC
Shenandoah Valley Electric Cooperative
Somerset, County of
South Central Task Force (SCTFNET)
Southern Maryland Electric Cooperative I
Spotsylvania, County of
Sprintcom, Inc
St. Mary's County of (MD)
Stafford, County of
Standard Backhaul Communications LLC
State of Maryland, MIEMSS
Sullivan, County of
T-Mobile License LLC
Texas Eastern Communications, LLC
Thought Transmissions, LLC
Torelco LLC
Transcontinental Gas Pipeline Corp.
US Cellular Operating Company, LLC (WI)
USCOC of Cumberland, Inc.
USCOC of Virginia RSA #3, Inc.
USOC of Pennsylvania RSA No 10 B2 Inc.
Uniti Fiber PEG, LLC
Verizon Maryland, Inc.
Verizon Wireless (VAW) LLC - Delaware/NJ
Verizon Wireless (VAW) LLC - Maryland
Verizon Wireless (VAW) LLC - W/B/V Mkts
Verizon Wireless (VAW) LLC-Pennsylvania
Verizon Wireless VAW LLC - West Virginia
Verizon Wireless VAW LLC-Southern VA
Virginia RSA 5 Limited Partnership
Virginia Broadband, LLC
Virginia Department of State Police
Virginia Electric & Power Company
WV DHHR BPH, Office of Ems, Com. Div.
Warrenton Fauquier Joint Communications
Washington Gas Light Company
Washington Suburban Sanitary Commission
Washington, County of
Weblin Holdings LLC
West Virginia Educational Broadcasting
Westmoreland, County of

Wheeling Power Company
Wicomico County
Wireless Internetwork LLC
World Class Wireless, LLC
YAB Mobile
iSignal
xWave Engineering LLC

There are no unresolved interference objections with the station contained in these applications.

The following section presents the data pertinent to frequency coordination of the earth station that was circulated to all carriers within its coordination contours.

COMSEARCH
Earth Station Data Sheet
19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 <http://www.comsearch.com>

Date: 07/05/2017
Job Number: 170705COMSGE03

Administrative Information

Status TEMPORARY (Operation from 08/31/2017 to 09/30/2017)
Call Sign KA275
Licensee Code INTELS
Licensee Name Intelsat License LLC

Site Information **HAGERSTOWN, MD**

Venue Name
Latitude (NAD 83) 39° 35' 54.7" N
Longitude (NAD 83) 77° 45' 35.3" W
Climate Zone A
Rain Zone 2
Ground Elevation (AMSL) 171.3 m / 562.0 ft

Link Information

Satellite Type Geostationary
Mode TO - Transmit-Only
Modulation Analog and Digital
Satellite Arc 6° W to 149° West Longitude
Azimuth Range 101.9° to 257.8°
Corresponding Elevation Angles 5.3° / 5.7°
Antenna Centerline (AGL) 12.5 m / 41.0 ft

Antenna Information **Transmit - FCC32**

Manufacturer GD Satcom
Model 19 meter
Gain / Diameter 59.1 dBi / 19.0 m
3-dB / 15-dB Beamwidth 0.20° / 0.40°

Max Available RF Power (dBW/4 kHz) 10.3
(dBW/MHz) 34.3

Maximum EIRP (dBW/4 kHz) 69.4
(dBW/MHz) 93.4

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) 850KFXD - 1M20FXD / 6421.5 - 6425.0

Max Great Circle Coordination Distance 608.6 km / 378.1 mi
Precipitation Scatter Contour Radius 570.9 km / 354.7 mi

Coordination Values	HAGERSTOWN, MD	
Licensee Name	Intelsat License LLC	
Latitude (NAD 83)	39° 35' 54.7" N	
Longitude (NAD 83)	77° 45' 35.3" W	
Ground Elevation (AMSL)	171.3 m / 562.0 ft	
Antenna Centerline (AGL)	12.5 m / 41.0 ft	
Antenna Model	GD Satcom 19 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	10.3 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	101.81	-10.00	219.71
5	0.00	96.84	-10.00	219.71
10	0.00	91.86	-10.00	219.71
15	0.00	86.88	-10.00	219.71
20	0.00	81.90	-10.00	219.71
25	0.00	76.92	-10.00	219.71
30	0.00	71.95	-10.00	219.71
35	0.00	66.97	-10.00	219.71
40	0.00	62.00	-10.00	219.71
45	0.00	57.03	-10.00	219.71
50	0.00	52.06	-10.00	219.71
55	0.00	47.09	-9.82	220.46
60	0.00	42.14	-8.62	225.71
65	0.00	37.19	-7.26	231.81
70	0.00	32.26	-5.72	239.04
75	0.00	27.34	-3.92	247.78
80	0.00	22.47	-1.79	258.16
85	0.00	17.65	0.83	272.71
90	0.00	12.98	4.17	292.99
95	0.00	8.66	8.56	322.60
100	0.00	5.61	13.27	608.61
105	0.00	6.15	12.28	430.61
110	0.00	9.60	7.45	314.83
115	0.00	13.27	3.93	291.45
120	0.00	16.89	1.31	275.51
125	0.00	20.41	-0.75	263.81
130	0.00	23.83	-2.43	254.78
135	0.00	27.11	-3.83	248.25
140	0.00	30.23	-5.01	242.43
145	0.00	33.14	-6.01	237.64
150	0.00	35.82	-6.85	233.70
155	0.00	38.20	-7.55	230.48
160	0.00	40.26	-8.12	227.92
165	0.00	41.93	-8.56	225.95
170	0.00	43.16	-8.88	224.57
175	0.00	43.92	-9.07	223.74
180	0.00	44.18	-9.13	223.46
185	0.00	43.92	-9.07	223.74

Coordination Values	HAGERSTOWN, MD	
Licensee Name	Intelsat License LLC	
Latitude (NAD 83)	39° 35' 54.7" N	
Longitude (NAD 83)	77° 45' 35.3" W	
Ground Elevation (AMSL)	171.3 m / 562.0 ft	
Antenna Centerline (AGL)	12.5 m / 41.0 ft	
Antenna Model	GD Satcom 19 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	10.3 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	43.16	-8.88	224.57
195	0.00	41.93	-8.56	225.95
200	0.00	40.26	-8.12	227.92
205	0.00	38.20	-7.55	230.48
210	0.00	35.81	-6.85	233.70
215	0.00	33.14	-6.01	237.65
220	0.00	30.22	-5.01	242.44
225	0.00	27.11	-3.83	248.25
230	0.00	23.83	-2.43	254.77
235	0.00	20.42	-0.75	263.80
240	0.00	16.89	1.31	275.53
245	0.00	13.28	3.92	291.43
250	0.00	9.59	7.46	314.91
255	0.00	6.33	11.96	442.57
260	0.00	6.11	12.35	585.82
265	0.00	9.18	7.93	318.15
270	0.00	13.46	3.77	290.48
275	0.00	18.11	0.55	271.13
280	0.00	22.90	-2.00	257.06
285	0.00	27.76	-4.09	246.96
290	0.00	32.66	-5.85	238.39
295	0.00	37.59	-7.38	231.29
300	0.00	42.53	-8.72	225.27
305	0.00	47.48	-9.91	220.09
310	0.00	52.44	-10.00	219.71
315	0.00	57.40	-10.00	219.71
320	0.00	62.37	-10.00	219.71
325	0.00	67.34	-10.00	219.71
330	0.00	72.31	-10.00	219.71
335	0.00	77.28	-10.00	219.71
340	0.00	82.26	-10.00	219.71
345	0.00	87.23	-10.00	219.71
350	0.00	92.21	-10.00	219.71
355	0.00	97.18	-10.00	219.71

Certification

I hereby certify that I am the technically qualified person responsible for the preparation of the frequency coordination data contained in this report. I am familiar with Parts 101 and 25 of the FCC Rules and Regulations and I have either prepared or reviewed the frequency coordination data submitted with this report, and that it is complete and correct to the best of my knowledge and belief.

BY: 

Gary K. Edwards
Senior Manager
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147

DATED: August 4, 2017

August 4, 2017

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Request for Special Temporary Authority
Hagerstown, Maryland Earth Station KA275

Dear Ms. Dortch:

Intelsat License LLC (“Intelsat”) herein requests a grant of Special Temporary Authority (“STA”)¹ for 30 days, commencing August 31, 2017, to use its Hagerstown, Maryland C-band earth station—call sign KA275—to provide launch and early orbit phase (“LEOP”) services for Intelsat 37e; telemetry, tracking, and command (“TT&C”) during in-orbit testing (“IOT”) at 17.5° W.L; and TT&C during the drift of Intelsat 37e to its final location of 18.0° W.L. Intelsat 37e is expected to be launched on August 31, 2017.² The LEOP, IOT, and drift are expected to last approximately 70 days.

The proposed operations will be performed using the following frequencies and frequency bands: 6421.5-6425.0 MHz, and 5850.0-5853.5 in the uplink (LHCP/V); and 4197.75 MHz, 4198.25 MHz, 4198.75 MHz, and 4199.25 MHz in the downlink (LHCP/H). The proposed operations will be coordinated with all operators of satellites that use the same frequency bands and are in the LEOP path, the drift path, or are potentially affected by these operations at the IOT location.³ All operators of potentially affected satellites will be provided with an emergency phone number where the licensee can be reached in the event that harmful interference occurs.

¹ Intelsat has filed its STA request, an FCC Form 159, a \$200.00 filing fee, and this supporting letter electronically via the International Bureau’s Filing System (“IBFS”).

² The permanent orbital location for Intelsat 37e will be at 18.0° W.L. *See Policy Branch Information; Actions Taken*, Report No. SAT-01243, File No. SAT-LOA-20160915-00089 (June 9, 2017) (Public Notice). The in-orbit testing location will be 17.5° W.L. *See Policy Branch Information; Satellite Space Applications Accepted for Filing*, Report No. SAT-01255, File No. SAT-STA-20170718-00105 (July 28, 2017) (Public Notice).

Ms. Marlene H. Dortch
August 4, 2017
Page 2

The 24x7 contact information for the Intelsat 37e mission is as follows:

Ph.: (703) 559-7701 – East Coast Operations Center (primary)
(310) 525-5591 – West Coast Operations Center (back-up)

Request to speak with Harry Burnham or Kevin Bell.

In further support of this request, Intelsat herewith attaches Exhibit A, which contains technical information that demonstrates that the operation of the earth station will be compatible with its electromagnetic environment and will not cause harmful interference into any lawfully operating terrestrial facility. In the extremely unlikely event that harmful interference should occur due to transmissions to or from its earth station, Intelsat will take all reasonable steps to eliminate the interference.

Grant of this STA request will allow Intelsat to help launch and test the Intelsat 37e satellite. This, in turn, will help provide additional capacity to customers at the 18.0° W.L. orbital location and thereby promotes the public interest.

Please direct any questions regarding this STA request to the undersigned at (703) 559-6949.

Respectfully submitted,



Cynthia J. Grady
Regulatory Counsel
Intelsat Corporation

cc: Paul Blais