

E950307

SES-STA-20180828-02518

IB2018005221

Intelsat License LLC

Approved by OMB  
3060-0678

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:  
Request for 30-Day STA to Use Napa, CA Earth Station E950307 to Provide IOT and TT&C Services for Horizons 3e (S2947)  
Satellite

1. Applicant

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



File # SES-STA-20180828-02518  
E950307 Grant Date 9-24-18  
 Call Sign (or other identifier)  
 Term Dates From: 9-25-18 To: 10-25-18  
 Approved: [Signature]

<b>2. Contact</b>	
<b>Name:</b> Cynthia J. Grady	<b>Phone Number:</b> 703-559-6949
<b>Company:</b> Intelsat US LLC	<b>Fax Number:</b> 703-559-8539
<b>Street:</b> 7900 Tysons One Place	<b>E-Mail:</b> cynthia.grady@intelsat.com
<b>City:</b> McLean	<b>State:</b> VA
<b>Country:</b> USA	<b>Zipcode:</b> 22102 -5972
<b>Attention:</b>	<b>Relationship:</b> 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 or Submission ID	
4a. Is a fee submitted with this application?	
<input checked="" type="radio"/> If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R. Section 1.1114).	
<input type="radio"/> Governmental Entity <input type="radio"/> Noncommercial educational licensee	
<input type="radio"/> Other (please explain):	
4b. Fee Classification CGX - Fixed Satellite Transmit/Receive Earth Station	
5. Type Request	
<input checked="" type="radio"/> Use Prior to Grant	<input type="radio"/> Change Station Location <input checked="" type="radio"/> Other
6. Requested Use Prior Date	
7. City/Napa	8. Latitude (dd mm ss.s h) 38 14 42.0 N

9. State CA	10. Longitude (dd mm ss.s h) 122 16 48.0 W
11. Please supply any need attachments. Attachment 1: STA Request Attachment 2: Exhibit A Attachment 3: Attachment 3:	
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.) <div style="border: 1px solid black; padding: 5px;"> <p>Intelsat License LLC herein requests a grant of Special Temporary Authority for 30 days, commencing September 25, 2018, to use its Napa, California C-band earth station, call sign E950307, to provide telemetry, tracking, and command during in-orbit testing of Horizons 3e (S2947) at 164.0 E.L and TT&amp;C during the drift of Horizons 3e to its final location of</p> </div>	
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 &quot;party to the application&quot;; for these purposes. <div style="text-align: right;"> <input checked="" type="radio"/> Yes      <input type="radio"/> No </div>	
14. Name of Person Signing Cynthia J. Grady	15. Title of Person Signing Regulatory Counsel, Intelsat US LLC
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).	

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## **12. Description**

Intelsat License LLC herein requests a grant of Special Temporary Authority for 30 days, commencing September 25, 2018, to use its Napa, California C-band earth station, call sign E950307, to provide telemetry, tracking, and command during in-orbit testing of Horizons 3e (S2947) at 164.0 E.L and TT&C during the drift of Horizons 3e to its final location of 169.0 E.L. Horizons 3e is expected to be launched on September 18, 2018.

By Applicant: Intelsat License LLC-  
File No.: SES-STA-20180828-02518  
Call Sign: E950307  
Special Temporary Authority (STA)



File # SES-STA-20180828-02518  
E950307  
Call Sign E950307 Grant Date 9-24-18  
(or other identifier)  
Term Dates  
From: 9-25-18 To: 10-25-18  
Approved: Paul E. Black

Intelsat License LLC ("Intelsat") - is granted a special temporary authority for 30 days, beginning September 25, 2018 to operate its C-band earth station in Napa, California to provide telemetry, tracking, and command (TT&C) services during in-orbit testing ("IOT") of Horizons 3e (S2947) at 164.0°E.L. orbital location and TT&C during the drift of Horizon 3e to its permanent location of 169.0° E.L. orbital location, using the following frequencies and frequency bands: 4197.75 MHz, 4198.25 MHz, 4198.75 MHz, and 4199.25 MHz (space-to-Earth), and 6421.50 – 6425.0 MHz, and 5850.00 – 5853.5 MHz bands (Earth-to-space) under the following conditions:

1. All operators of satellites 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 Horizon 3e is as follows: Phone: (703) 559-770 I - East Coast Operations Center (primary); (310) 525-5591 - West Coast Operations Center (back-up). Request to speak with Harry Burnham or Kevin Bell.
2. All operations under this grant of special temporary authority shall be on an unprotected and non-harmful interference basis. Intelsat 's E950307 shall not cause harmful interference to, and shall not claim protection from interference caused to it by, any other lawfully operating radio communication system.
3. In the event of any harmful interference under this grant of special temporary authority, Intelsat must cease operations immediately upon notification of such interference and must inform the Commission, in writing, immediately of such an event.
4. Grant of this authorization is without prejudice to any determination that the Commission may make regarding pending or future Intelsat License LLC applications.
5. Any action taken or expense incurred as a result of operations pursuant to this special temporary authority is solely at Intelsat License LLC-s risk.
6. This grant is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261.

Prepared By

**COMSEARCH**

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

Prepared For

**Intelsat License LLC  
Napa, California**

Temporary Transmit-Only Earth Station  
Operation Dates: 09/05/2018 - 11/29/2018

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 05, 2018.

Company

AC BidCO LLC  
AT&T Mobility Spectrum LLC - N CA  
AT&T Mobility Wireless Operations Hldgs  
Alameda County of California  
CBS Broadcasting Inc  
CBS Communications Services Inc  
California Internet, L.P.  
California Oregon Broadcasting Inc.  
California Resources Corporation  
California Rural Service Area #1, Inc.  
California, State of  
Cellco Partnership - Southern California  
Citizens Telecommunications of CA Inc.  
City & County of San Francisco PUC  
Contra Costa, County of  
County of San Mateo  
County of Santa Cruz  
Crystal Smr Inc.  
DigitalPath, Inc  
East Bay Municipal Utility District  
Encina Communications Corporation  
Ethernic Networks, Inc.  
Federal Communication Commission  
Field, David J  
Frontier California Inc.  
GTE Mobilnet of California LTD Partnersh  
Happy Valley Telephone Company  
Higher Ground LLC  
ICG Telecom Group, Inc. - Debtor in poss  
Ion Media Sacramento License, Inc.  
Johannesen, Norman A  
KDTV License Partnership, G.P.  
KGO Television, Inc.  
KVIE, Inc.  
M.U.T. Licensing, LLC

MHO Networks  
Marin, County of  
Mendocino County of  
Modesto Irrigation District  
Mountain Tower Network Company, LLC  
Napa, County of  
New Cingular Wireless PCS LLC - N CAL  
North Coast Internet  
Northstar San Francisco License LLC  
Olympic Wireless, LLC  
Pacific Bell Tel Com dba AT&T California  
Pacific Gas and Electric Company  
Placer, County of  
Plumas, County of  
Proxim Wireless Corporation  
Radio License Holding SRC LLC  
Redding MSA Limited Partnership  
Ridge Wireless  
Sacramento County  
Sacramento Municipal Utility District  
Sacramento Valley Limited Partnership  
San Francisco, City and County of  
San Joaquin County  
Santa Clara Valley Water District  
Santa Clara, County of  
Silicon Valley Regional Interop Authorit  
Solano, County of  
Sonoma, County of CA  
T-Mobile License LLC  
The Internet Store, Inc.  
Union Pacific Railroad Company  
Velocity Communications, Inc.  
Verizon Wireless (VAW) LLC-N CA/NV  
Wiline Spectrum Holdings LLC  
Yolo Emergency Communications Agency  
Yolo, County of  
Your Town Online, Inc  
Yuba County Water Agency

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: 07/05/2018  
Job Number: 180705COMSGE09

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### Administrative Information

Status: TEMPORARY (Operation from 09/05/2018 to 11/29/2018)  
Call Sign: TEMP11  
Licensee Code: INTELS  
Licensee Name: Intelsat License LLC

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### Site Information

#### NAPA, CA

Venue Name  
Latitude (NAD 83): 38° 14' 43.7" N  
Longitude (NAD 83): 122° 16' 50.9" W  
Climate Zone: B  
Rain Zone: 3  
Ground Elevation (AMSL): 7.62 m / 25.0 ft

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### Link Information

Satellite Type: Geostationary  
Mode: TO - Transmit-Only  
Modulation: Digital  
Satellite Arc: 190° W to 194.5° West Longitude  
Azimuth Range: 255.8° to 258.8°  
Corresponding Elevation Angles: 8.7° / 5.2°  
Antenna Centerline (AGL): 7.62 m / 25.0 ft

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### Antenna Information

#### Transmit - FCC32

Manufacturer: Vertex  
Model: 15.2 meter  
Gain / Diameter: 58.4 dBi / 15.2 m  
3-dB / 15-dB Beamwidth: 0.22° / 0.44°

Max Available RF Power (dBW/4 kHz): 11.8  
(dBW/MHz): 35.8

Maximum EIRP (dBW/4 kHz): 70.2  
(dBW/MHz): 94.2

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): 850KFXD - 1M20FXD / 5850.0 - 5853.5  
850KFXD - 1M20FXD / 6421.5 - 6425.0

Max Great Circle Coordination Distance: 629.3 km / 391.0 mi  
Precipitation Scatter Contour Radius: 409.0 km / 254.1 mi

<b>Coordination Values</b>		<b>NAPA, CA</b>	
Licensee Name		Intelsat License LLC	
Latitude (NAD 83)		38° 14' 43.7" N	
Longitude (NAD 83)		122° 16' 50.9" W	
Ground Elevation (AMSL)		7.62 m / 25.0 ft	
Antenna Centerline (AGL)		7.62 m / 25.0 ft	
Antenna Model		Vertex 15.2 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	11.8 (dBW/4 kHz)		

Transmit 6.1 GHz				
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	101.18	-10.00	297.29
5	0.00	106.16	-10.00	297.29
10	0.90	111.17	-10.00	192.13
15	0.80	116.15	-10.00	201.99
20	0.47	121.11	-10.00	240.42
25	0.36	126.08	-10.00	260.36
30	0.83	131.08	-10.00	199.63
35	2.06	136.14	-10.00	141.08
40	1.48	141.08	-10.00	161.72
45	2.55	146.14	-10.00	129.11
50	2.84	151.14	-10.00	122.79
55	3.18	156.15	-10.00	116.54
60	3.65	161.17	-10.00	111.17
65	4.36	166.20	-10.00	103.28
70	4.71	171.22	-10.00	100.95
75	4.39	175.60	-10.00	103.07
80	4.21	173.81	-10.00	104.25
85	4.11	169.68	-10.00	104.93
90	3.72	164.93	-10.00	109.96
95	3.06	159.98	-10.00	118.48
100	3.50	155.24	-10.00	113.45
105	2.95	150.25	-10.00	120.41
110	2.71	145.30	-10.00	125.48
115	3.16	140.44	-10.00	116.93
120	3.45	135.52	-10.00	114.28
125	4.18	130.61	-10.00	104.44
130	4.47	125.65	-10.00	102.53
135	4.15	120.66	-10.00	104.68
140	3.41	115.65	-10.00	114.82
145	3.56	110.68	-10.00	112.49
150	4.25	105.72	-10.00	104.01
155	4.31	100.73	-10.00	103.63
160	3.91	95.74	-10.00	107.06
165	3.42	90.76	-10.00	114.63
170	3.06	85.79	-10.00	118.58
175	2.65	80.82	-10.00	126.70
180	2.33	75.86	-10.00	134.13
185	2.03	70.90	-10.00	142.01

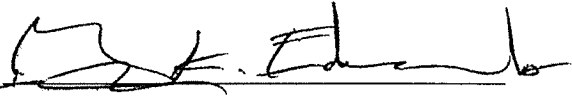
<b>Coordination Values</b>		<b>NAPA, CA</b>	
Licensee Name		Intelsat License LLC	
Latitude (NAD 83)		38° 14' 43.7" N	
Longitude (NAD 83)		122° 16' 50.9" W	
Ground Elevation (AMSL)		7.62 m / 25.0 ft	
Antenna Centerline (AGL)		7.62 m / 25.0 ft	
Antenna Model		Vertex 15.2 meter	
Antenna Mode		Transmit 6.1 GHz	
Interference Objectives: Long Term		-154.0 dBW/4 kHz	20%
Short Term		-131.0 dBW/4 kHz	0.0025%
Max Available RF Power	11.8 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	1.76	65.96	-10.00	151.08
195	1.37	61.03	-10.00	166.31
200	0.92	56.13	-10.00	190.43
205	0.52	51.24	-10.00	232.68
210	0.00	46.41	-9.66	300.08
215	0.00	41.53	-8.46	310.35
220	0.00	36.68	-7.11	322.29
225	0.00	31.86	-5.58	336.38
230	0.00	27.11	-3.83	352.85
235	0.00	22.45	-1.78	373.82
240	0.00	17.97	0.64	400.22
245	0.22	13.69	3.59	426.43
250	0.26	9.89	7.12	453.60
255	0.21	6.27	12.08	557.32
260	0.34	5.03	14.46	629.31
265	0.46	7.83	9.65	421.21
270	0.49	12.17	4.87	357.56
275	0.51	16.88	1.32	318.84
280	0.45	21.73	-1.43	308.73
285	0.50	26.62	-3.63	278.55
290	0.88	31.50	-5.46	222.81
295	0.98	36.44	-7.04	202.34
300	0.80	41.42	-8.43	211.72
305	1.18	46.37	-9.66	176.26
310	0.80	51.37	-10.00	202.20
315	0.85	56.34	-10.00	197.01
320	1.00	61.32	-10.00	182.76
325	1.12	66.30	-10.00	177.10
330	0.82	71.29	-10.00	200.26
335	0.00	76.29	-10.00	297.29
340	0.00	81.27	-10.00	297.29
345	0.00	86.25	-10.00	297.29
350	0.00	91.23	-10.00	297.29
355	0.00	96.20	-10.00	297.29

## 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: July 24, 2018



August 28, 2018

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

Re: Request for Special Temporary Authority  
Napa, California Earth Station E950307

Intelsat License LLC (“Intelsat”) herein requests a grant of Special Temporary Authority (“STA”)<sup>1</sup> for 30 days, commencing September 25, 2018, to use its Napa, California C-band earth station—call sign E950307—to provide telemetry, tracking, and command (“TT&C”) during in-orbit testing (“IOT”) of Horizons 3e (S2947) at 164.0° E.L and TT&C during the drift of Horizons 3e to its final location of 169.0° E.L. Horizons 3e is expected to be launched on September 18, 2018.<sup>2</sup> The IOT and drift are expected to last approximately 3 months.

The proposed operations will be performed using the following frequencies and frequency bands: 6421.5-6425.0 MHz, and 5850.0-5853.5 MHz in the uplink (LHCP/V); and 4197.75 MHz, 4198.25 MHz, 4198.75 MHz and 4199.25 MHz in the downlink (LHCP/V). The proposed operations will be coordinated with all operators of satellites that use the same frequency bands and are in the drift path or are potentially affected by these operations at the IOT location. 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.

The 24x7 contact information for the Horizons 3e 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

<sup>1</sup> 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”).

<sup>2</sup> The permanent orbital location for Horizons 3e will be at 169.0° E.L. See *Policy Branch Information; Actions Taken*, Report No. SAT-01313, File No. SAT-MOD-20170622-00093 (April 27, 2018) (Public Notice).

Ms. Marlene H. Dortch  
August 28, 2018  
Page 2

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 Horizons 3e satellite. This, in turn, will help provide additional capacity to customers at the 169.0° E.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,

*/s/ Cynthia J. Grady*

Cynthia J. Grady  
Regulatory Counsel  
Intelsat US LLC

cc: Paul Blais