

E990323 SES-STA-20130122-00080
Intelsat License LLC

IB2013000174

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 Special Temporary Authority Using Earth Station E990323

1. Applicant

Name:	Intelsat License LLC	Phone Number:	202-944-7848
DBA Name:		Fax Number:	202-944-7870
Street:	c/o Intelsat Corporation 3400 International Drive, N.W.	E-Mail:	susan.crandall@intelsat.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20008 -3006
Attention:	Susan H. Crandall		



File # SES-STA-20130122-00080
E990323
Call Sign E990323 Grant Date 1-30-13
(or other identifier)
Term Dates
From 2-1-13 To: 3-3-13
Approved: Paul E. Haebe

2. Contact

Name:	Susan H. Crandall	Phone Number:	202-944-7848
Company:	Intelsat Corporation	Fax Number:	202-944-7870
Street:	3400 International Drive, N.W.	E-Mail:	susan.crandall@intelsat.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20008 -3006
Attention:	Susan H. Crandall	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 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 Castle Rock

8. Latitude
(dd mm ss.s h) 39 16 35.0 N

Applicant: Intelsat License LLC
Call Sign: E990323
File No.: SES-STA-20130122-00080
Special Temporary Authority (STA)

Intelsat License LLC (Intelsat) is granted STA, from February 1, 2013 to March 3, 2013 to provide telemetry, tracking and control ("TT&C") functions during the de-orbit of NileSat-101, which is licensed by Egypt and controlled by Astrium, the manufacturer of the NileSat-101 satellite, as described in the Intelsat STA application and under the following additional conditions.

1. All operations shall be on an unprotected and non-harmful interference basis, i.e., Intelsat shall not cause harmful interference to, and shall not claim protection from, interference caused to it by any other lawfully operating station.
2. In the event that there is a report of interference, Intelsat must immediately terminate transmissions and notify the FCC in writing.
3. The de-orbit operations will be coordinated with all operators of satellites that use the same frequency bands and are in the de-orbit 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.
4. Intelsat must make all reasonable and customary measures to ensure that the earth station does not create a potential for harmful non-ionizing radiation to persons who may be in the vicinity of the earth station when it is in operation. At a minimum, permanent warning labels shall be fixed to the earth station and its housing warning of the radiation hazard and including a diagram showing the regions around the earth station where radiation levels could exceed 1.0mW/cm². The earth station operator shall be responsible for assuring that individuals do not stray into the regions around the earth station where there is a potential for exceeding the maximum permissible exposure limits required by 47 C.F.R. §1.1310. This shall be accomplished by means of signs, caution tape, verbal warnings, placement of the earth station so as to minimize access to the hazardous region, and/or other appropriate means.
5. Any action taken or expense incurred as a result of operations pursuant to this special temporary authority is solely at Intelsat's risk.
6. 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. Petitions for reconsideration under Section 1.106 or applications for review under Sections 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within thirty days of the date of the public notice indicating that this action was taken.

File # SES-STA-20130122-00080

Call Sign E990323 Grant Date 1-30-13

(of other identifier)

Term Dates From 2-1-13 To 3-3-13

Approved: Paul E. Hayes

1 of 1

9. State CO	10. Longitude (dd mm ss.s h) 104 48 23.9 W
11. Please supply any need attachments. Attachment 1: STA Request Attachment 2: Exhibit A Attachment 3: Exhibit B	
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; margin: 5px 0;"> Intelsat License LLC herein requests a grant of Special Temporary Authority for 30 days commencing February 1, 2013 to use its Castle Rock, Colorado Ku-band earth station, call sign E990323, to provide de-orbit services for the NileSat-101 satellite that is scheduled to be de-orbited starting February 1, 2013. </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 "party to the application" for these purposes. <input checked="" type="radio"/> Yes <input type="radio"/> No	
14. Name of Person Signing Susan H. Crandall	15. Title of Person Signing Asst. General Counsel, Intelsat Corporation
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.

Exhibit A

PETITION FOR WAIVER OF SECTIONS 25.137 AND 25.114

Pursuant to Section 25.137 of the Federal Communications Commission's ("Commission" or "FCC") rules, earth station applicants "requesting authority to operate with a non-U.S. licensed space station to *serve the United States*" must demonstrate that effective competitive opportunities exist and must provide the same technical information required by Section 25.114 for U.S.-licensed space stations.¹ Intelsat License LLC ("Intelsat") herein seeks authority to provide de-orbit services -- not commercial services -- from the United States, and thus believes that Section 25.137 does not apply.

To the extent the Commission determines, however, that Intelsat's request for authority to provide de-orbit services on a special temporary basis is a request to serve the United States with a non U.S.-licensed satellite, Intelsat respectfully requests a waiver of Sections 25.137 and 25.114 of the Commission's rules.² The Commission may grant a waiver for good cause shown.³ The Commission typically grants a waiver where the particular facts make strict compliance inconsistent with the public interest.⁴ In granting a waiver, the Commission may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis.⁵ Waiver is therefore appropriate if special circumstances warrant a deviation from the general rule, and such a deviation will serve the public interest.

In this case, good cause exists for a waiver of both Section 25.137 and Section 25.114. With respect to Section 25.114, Intelsat seeks authority only to provide de-orbit services for the NileSat-101 satellite. The information sought by Section 25.114 is not relevant to LEOP services. Moreover, Intelsat does not have -- and would not easily be able to obtain -- such information because Intelsat is not the operator of the NileSat-101 satellite, nor is Intelsat in contractual privity with that operator. Rather, an affiliate of Intelsat has a contract with Astrium, the manufacturer of the NileSat-101 satellite, to conduct de-orbit services for the satellite.

The information that Intelsat is not including is not required to determine potential harmful interference. The Schedule S information for this satellite would pertain to the operation of the NileSat-101 satellite at its final orbital location. However, the present application for de-orbit services involves communications to the satellite as it departs its location in the geostationary orbit. In other words, during the de-orbit mission, the earth station will only briefly communicate with the satellite in the geostationary orbit. Primarily, it will be transmitting to a satellite traveling to its final de-orbit altitude. Moreover, as with any STA, Intelsat will perform the de-orbit services on a non-interference basis.

¹ 47 C.F.R. § 25.137 (emphasis added).

² 47 C.F.R. §§ 25.137 and 25.114.

³ 47 C.F.R. §1.3.

⁴ *N.E. Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) ("*Northeast Cellular*").

⁵ *WATT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969); *Northeast Cellular*, 897 F.2d at 1166.

Because it is not relevant to the service for which Intelsat seeks authorization, and because obtaining the information would be a hardship, Intelsat seeks a waiver of all the information required by Section 25.114. Intelsat has provided in this STA request the required technical information that is relevant to the de-orbit services for which Intelsat seeks authorization.

Good cause also exists to waive Section 25.137. Section 25.137 is designed to ensure that “U.S.-licensed satellite systems have effective competitive opportunities to provide analogous services” in other countries. Here, there is no service being provided by the satellite; it is simply being taken to its de-orbit altitude. Thus, the purpose of the information required by Section 25.137 is not implicated here. For example, Section 25.137(d) requires earth station applicants requesting authority to operate with a non-U.S.-licensed space station that is not in orbit and operating to post a bond.⁶ The underlying purpose in having to post a bond—*i.e.*, to prevent warehousing of orbital locations by operators seeking to serve the United States—would not be served by requiring Intelsat to post a bond in order to provide approximately 14 days of de-orbit services to the NileSat-101 satellite.

It is Intelsat’s understanding that NileSat-101 is licensed by Egypt, which is a WTO-member country. Thus, the purposes of Section 25.137—to ensure that U.S. satellite operators enjoy “effective competitive opportunities” to serve foreign markets and to prevent warehousing of orbital locations serving the United States—will not be undermined by grant of this waiver request.

Finally, Intelsat notes that it expects to operate with the NileSat-101 satellite using its U.S. earth station for a period of approximately 14 days. Requiring Intelsat to obtain copious technical and legal information from an unrelated party, where there is no risk of harmful interference and the operations will cease after approximately 14 days, would pose undue hardship without serving underlying policy objectives. Given these particular facts, the waiver sought herein is plainly appropriate.

⁶ See 47 C.F.R. §25.137(d)(4).

Prepared By

COMSEARCH

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

Prepared For
Intelsat License LLC
Castle Rock, Colorado

Temporary Transmit/Receive Earth Station
Operation Dates: 02/08/2013 – 04/10/2013

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 January 17, 2013.

Company

Boulder, County of
CBS Broadcasting Inc
City of Boulder
City of Colorado Springs
Clearwire Spectrum Holdings III, LLC
Comcast of Colorado/Pennsylvania/WV LLC
El Paso County Information Technologies
Federal Communications Commission
FiberTower Network Services Corp.
KLZ RADIO, INC.
LP Broadband, Inc.
MOBILE RELAY ASSOCIATES INC
MPX, Inc.
Memorial Health System
Memorial Hospital
NE Colorado Cellular, Inc.
NSAC, LLC
National Digital TV Ctr - Comcast Media
New Cingular Wireless PCS LLC -Colorado
PCI BROADBAND
QWEST CORPORATION
Sprint Spectrum LP DBA Sprint PCS
State of Colorado
Verizon Wireless (VAV) LLC -CO/ID/MT/WY
Vvxx, LLC - Colorado
WELD COUNTY COLORADO
Weld County District RE3J
Westminster City Colorado

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: 01/21/2013
Job Number: 130117COMSJC01

Administrative Information

Status TEMPORARY (Operation from 02/08/2013 to 04/10/2013)
Call Sign TEMP04
Licensee Code INTELS
Licensee Name Intelsat License LLC

Site Information

Venue Name **CASTLE ROCK, COLORADO**
Latitude (NAD 83) 39° 16' 35.0" N
Longitude (NAD 83) 104° 48' 23.9" W
Climate Zone A
Rain Zone 2
Ground Elevation (AMSL) 2095.99 m / 6876.6 ft

Link Information

Satellite Type Geostationary
Mode TO - Transmit-Only
Modulation Digital
Satellite Arc 65° W to 150° West Longitude
Azimuth Range 127.2° to 237.8°
Corresponding Elevation Angles 28.9° / 25.2°
Antenna Centerline (AGL) 4.57 m / 15.0 ft

Antenna Information

	Transmit
Manufacturer	Vertex
Model	8.1 Meter
Gain / Diameter	61.0 dBi / 8.1 m
3-dB / 15-dB Beamwidth	0.60° / 1.20°

Max Available RF Power	(dBW/4 kHz) -1.1
	(dBW/MHz) 22.9

Maximum EIRP	(dBW/4 kHz) 59.9
	(dBW/MHz) 83.9
	(dBW) 83.0

Interference Objectives:	Long Term	-151.0 dBW/4 kHz	20%
	Short Term	-128.0 dBW/4 kHz	0.0025%

Frequency Information

	Transmit 18.0 GHz
Emission / Frequency Range (MHz)	816KFXD / 17301.0
	816KFXD / 17302.5

Max Great Circle Coordination Distance	158.7 km / 98.6 mi
Precipitation Scatter Contour Radius	201.7 km / 125.3 mi

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

Coordination Values			CASTLE ROCK, CO		
Licensee Name			Intelisat License LLC		
Latitude (NAD 83)			39° 16' 35.0" N		
Longitude (NAD 83)			104° 48' 23.9" W		
Ground Elevation (AMSL)			2095.99 m / 6876.6 ft		
Antenna Centerline (AGL)			4.57 m / 15.0 ft		
Antenna Model			Vertex 8.1 Meter		
Antenna Mode			Transmit 18.0 GHz		
Interference Objectives: Long Term			-151.0 dBW/4 KHz	20%	
			-128.0 dBW/4 KHz	0.0025%	
Short Term					
			-1.1 (dBW/4 KHz)		
Max Available RF Power					
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 18.0 GHz		
			Horizon Gain (dBi)	Coordination Distance (km)	
0	4.04	119.77	-10.00	100.00	
5	4.36	119.02	-10.00	100.00	
10	4.58	114.64	-10.00	100.00	
15	3.75	110.03	-10.00	100.00	
20	2.70	105.41	-10.00	100.00	
25	2.38	100.92	-10.00	100.00	
30	2.29	96.46	-10.00	100.00	
35	2.25	91.99	-10.00	100.00	
40	2.21	87.52	-10.00	100.00	
45	2.15	83.06	-10.00	100.00	
50	1.71	78.65	-10.00	100.00	
55	0.74	74.38	-10.00	108.66	
60	0.65	70.06	-10.00	112.67	
65	0.24	65.86	-10.00	138.50	
70	0.00	61.70	-10.00	141.52	
75	0.00	57.56	-10.00	141.52	
80	0.00	53.51	-10.00	141.52	
85	0.00	49.58	-10.00	141.52	
90	0.00	45.79	-9.52	142.92	
95	0.00	42.20	-8.63	145.54	
100	0.00	38.86	-7.74	148.26	
105	0.00	35.85	-6.86	150.98	
110	0.00	33.24	-6.04	153.58	
115	0.21	30.96	-5.27	155.15	
120	0.28	29.42	-4.72	150.32	
125	0.21	28.75	-4.47	158.68	
130	0.48	28.52	-4.38	134.55	
135	0.37	29.46	-4.73	142.41	
140	0.44	30.96	-5.27	135.57	
145	0.37	33.20	-6.03	139.09	
150	0.53	35.66	-6.80	125.94	
155	0.81	37.82	-7.44	112.59	
160	0.86	39.81	-8.00	108.95	
165	0.97	41.36	-8.42	103.30	
170	1.14	42.41	-8.69	100.00	
175	0.85	43.43	-8.94	106.71	
180	0.83	43.71	-9.01	107.68	
185	0.68	43.60	-8.99	113.85	

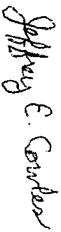
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Antenna Model		Vertex 8.1 Meter	
Antenna Mode		Transmit 18.0 GHz	
Interference Objectives:	Long Term	-151.0 dBW/4 KHz	20%
	Short Term	-128.0 dBW/4 KHz	0.0025%
		-1.1 (dBW/4 KHz)	
Max Available RF Power			

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 18.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	1.31	42.25	-8.64	100.00
195	0.65	41.66	-8.49	116.29
200	1.15	39.56	-7.93	100.00
205	0.92	37.73	-7.42	108.15
210	0.91	35.36	-6.71	110.50
215	1.03	32.59	-5.83	108.24
220	1.13	29.64	-4.80	108.76
225	2.06	26.29	-3.49	100.00
230	2.29	24.14	-2.57	100.00
235	2.34	23.02	-2.05	100.00
240	2.27	23.02	-2.05	100.00
245	2.39	23.85	-2.44	100.00
250	2.49	25.60	-3.21	100.00
255	2.57	28.12	-4.23	100.00
260	2.58	31.25	-5.37	100.00
265	2.63	34.76	-6.53	100.00
270	2.63	38.58	-7.66	100.00
275	2.71	42.58	-8.73	100.00
280	3.27	46.56	-9.70	100.00
285	3.34	50.87	-10.00	100.00
290	3.51	55.25	-10.00	100.00
295	3.60	59.72	-10.00	100.00
300	3.41	64.30	-10.00	100.00
305	3.30	68.89	-10.00	100.00
310	3.61	73.45	-10.00	100.00
315	3.77	78.06	-10.00	100.00
320	4.51	82.67	-10.00	100.00
325	4.46	87.35	-10.00	100.00
330	3.97	92.02	-10.00	100.00
335	3.28	96.64	-10.00	100.00
340	3.12	101.26	-10.00	100.00
345	3.33	105.90	-10.00	100.00
350	3.44	110.51	-10.00	100.00
355	4.12	115.21	-10.00	100.00

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.



Jeffrey E. Cowles
Engineer III, Telecommunications
COMSEARCH
19700 Janelia Farm Blvd.
Ashburn, Va. 20147

DATED: January 21, 2013

January 22, 2013

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



Re: Request for Special Temporary Authority
Castle Rock, Colorado Earth Station E990323

Dear Ms. Dortch:

Intelsat License LLC ("Intelsat") herein requests a grant of Special Temporary Authority ("STA")¹ for 30 days commencing February 1, 2013 to use its Castle Rock, Colorado Ku-band earth station -- call sign E990323 -- to provide de-orbit services for the NileSat-101 satellite that is scheduled to be de-orbited starting February 1, 2013.² The de-orbit period is expected to last approximately 14 days.³

The NileSat-101 de-orbit operations will be performed in the following frequency bands:

Uplink: 17301.0 MHz and 17302.5 MHz (CP);
Downlink: 12498.0 MHz and 12499.0 MHz (CP).

The maximum uplink EIRP transmitted during the de-orbit operations will be 85 dBW, with an emission designator of 816KFXD. The de-orbit operations will be coordinated with all operators of satellites that use the same frequency bands and are in the de-orbit path. As such, there would be no risk of interference with respect to lawfully operating, co-frequency radiocommunication facilities. Nevertheless, 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.

The 24x7 contact information for the NileSat-101 de-orbit mission is as follows:

Ph.: (202) 944-7701 – East Coast Operations Center (primary)
(310) 525-5900 – West Coast Operations Center (back-up)

¹ Intelsat has filed its STA request, an FCC Form 159, a \$180.00 filing fee and this supporting letter electronically via the International Bureau's Filing System, ("IBFS").

² NileSat-101 is currently located at 7.0° W.L.

³ Intelsat is seeking authority for 30 days to accommodate a possible delay in the de-orbit schedule.

Ms. Marlene H. Dortch
January 22, 2013
Page 2

Request to speak with Harry Burnham or Kevin Bell.

In addition, Intelsat attaches Exhibits A and B, which contain a waiver request as well as 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.

Finally, Intelsat notes that during the NileSat-101 de-orbit, the spacecraft will be controlled by Astrium, which is the satellite's manufacturer and the manager of the de-orbit mission. Astrium will build and send the commands to the Intelsat antenna, which will process and execute the commands. Telemetry received by Intelsat will be forwarded to Astrium. Intelsat will remain in control of the baseband unit, RF equipment and antenna.

Grant of this STA request will allow Intelsat to help de-orbit the NileSat-101 satellite. This, in turn, will help ensure the safety of operational geostationary satellites and thereby promotes the public interest.

Please direct any questions regarding this STA request to the undersigned at (202) 944-7848.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Susan H. Crandall", written in a cursive style.

Susan H. Crandall
Assistant General Counsel
Intelsat Corporation

cc: Paul Blais