



WASHINGTON, DC

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September 11, 2012

VIA HAND DELIVERY

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

**Re: Erratum to STA Request for Lockheed Martin Corporation
File No. SES-STA-INTRO2012-02075**

Dear Ms. Dortch:

On September 10, 2012, Lockheed Martin Corporation (“Lockheed Martin”) submitted the above-referenced STA request to use its Carpentersville, NJ Ku-band FSS earth station (Call Sign E7541) to provide launch and early operations (“LEOp”) support services for this month’s scheduled launch of the Astra-2F satellite. In the attachment to the STA request, several of the dates relating to the commencement and duration of the STA were inadvertently misstated. A corrected version of the narrative exhibit (Exhibit A) is attached, and should be associated with the referenced STA request to replace Exhibit A as filed. Specifically, Lockheed Martin requests commencement of the STA on September 14, 2012 for calibration testing, and a 30-day term that runs from September 14, 2012 through October 13, 2012.

Please address any questions regarding this matter to me.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Stephen D. Baruch', with a long, sweeping flourish extending to the right.

Stephen D. Baruch
Counsel for Lockheed Martin Corporation

Attachment
cc: Paul Blais (by email)

Exhibit A
Lockheed Martin Corporation
Carpentersville, NJ Earth Station
Call Sign E7541
STA Request for
LEOp TT&C Operations
September 2012

Description

Lockheed Martin Corporation (“Lockheed Martin”) requests special temporary authority (“STA”) to operate its Carpentersville, New Jersey Ku-band fixed earth station (see File No. SES-LIC-20081103-01443, as amended)¹ to provide telemetry, tracking and control (“TT&C”) functions during the post-launch and transfer orbit phases of operation for the Astra-2F satellite that will be operated by SES, S.A. Astra-2F is currently scheduled for launch on September 21, 2012, and Lockheed Martin intends to perform test transmissions in preparation for the launch on or about September 14, 2012.² To the extent required to meet this timetable, Lockheed Martin requests expedited treatment of the instant STA request and action by September 14, 2012.

Lockheed Martin specifically seeks authority to transmit telecommand/ranging signals on the 17311.00 MHz and 18088.50 MHz uplink channels. The earth station would receive telemetry signals from the Astra-2F satellite on the 11711.50 MHz, 12491.00 MHz, and 11452.00 MHz channels.

The mission duration for the TT&C operations requested here – including the one day of calibration testing – is 10 to 12 days. To allow for some possible slippage in the launch schedule, Lockheed Martin requests a 30-day STA term that runs from September 14, 2012 to October 13, 2012, inclusive.

The transmit frequencies Lockheed Martin seeks to use for the Astra-2F TT&C support operations are not included in Lockheed Martin’s former license for Call Sign E920702 and current application for the Ku-band antenna in File No. SES-LIC-20081103-01443 (under Call Sign E7541). Lockheed Martin notes, however, that the Commission previously granted Lockheed Martin STA requests for launch and early-operations TT&C support using frequencies in the ranges sought in the instant STA request. Lockheed Martin emphasizes, however, that its proposed transmissions on both the 17311MHz and 18088.5 MHz frequencies will use the

¹ The pending application in File No. SES-LIC-20081103-01443, as amended, under Call Sign E7541, was filed on a provisional basis to replace Lockheed Martin’s inadvertently non-renewed license for a 14.2 meter Ku-band antenna at the Carpentersville, NJ site under Call Sign E920702. Lockheed Martin’s petition to reinstate the license for Call Sign E920702, as well as the “replacement” application it filed in the alternative under File No. SES-LIC-20081103-01443 and Call Sign E7541, are pending.

² The test transmissions that would begin on or about September 14, 2012 would occur over a period of approximately four or five days. During these tests, the earth station would not be communicating with any satellite; instead, the transmissions will be made with the antenna at zenith to verify RF functionality.

emission designators for telecommand that are proposed in the pending license application.³ The information in the Schedule B portion of Lockheed Martin's pending application in File No. SES-LIC-20081130-01443, as amended, is hereby incorporated by reference for the proposed Ku-band operation.

Lockheed Martin has secured a temporary frequency coordination that covers the entire proposed STA window for operations on the Astra-2F TT&C frequencies from its Carpentersville earth station facility. The report is attached to this Attachment 1.

Lockheed Martin notes that it is possible that during an unexpected emergency with the Astra-2F satellite, the power levels proposed for the earth station in the license application for Call Sign E7541, as amended, may need to be exceeded to help recover the satellite. Under these extremely unlikely circumstances, Lockheed Martin will make every effort to coordinate such operations with affected users, and will take all reasonable steps to swiftly eliminate any harmful interference caused. Lockheed Martin understands that all of its proposed LEOp TT&C support for the Astra-2F launch will be on a strictly non-harmful interference, non-protected basis.

The 11711.5 MHz receive frequency is in the 11.7-12.2 GHz range that was authorized to Lockheed Martin under Call Sign E920702 and that is proposed in the license "replacement" application under Call Sign E7541. The parameters of operation are within the parameters in the pending application referenced in Note 1 above. With respect to the proposed telemetry receive operations at 12491.00 MHz, and 11452.00 MHz, Lockheed Martin believes that such limited duration operations – which it and the satellite operator will coordinate in advance with any and all potentially affected entities that operate communications systems in compliance with the Table of Frequency Allocations during the limited period of use – are required in the public interest, for reasons given below.

The Commission has previously granted Lockheed Martin STA requests for launch and early-operations TT&C support using its Carpentersville, New Jersey earth station facilities in both C-band and Ku-band. Most recently, the Commission authorized Lockheed Martin to perform launch support operations for the launch of Intelsat-23 (now scheduled for August 2012). *See e.g.*, Request of Lockheed Martin Corp. for STA to support LEOp TT&C Functions of Intelsat-23, File No. SES-STA-20120614-00514. *See also* Request of Lockheed Martin Corp. for STA to support LEOp TT&C Functions of SES-4, File Nos. SES-STA-20111209-01447 and File No. SES-STA-20120216-00176; Request of Lockheed Martin Corp. for STA to support LEOp TT&C Functions of AsiaSat-7, File No. SES-STA-20111108-01341; Request of Lockheed Martin Corp. for STA to support LEOp TT&C Functions of QuetzSat-1, File No. SES-STA-20110919-01105; Request of Lockheed Martin Corp. for STA to support LEOp TT&C Functions of BSAT-3c, File No. SES-STA-20110504-00547; and Request of Lockheed Martin Corp. for STA to Support LEOp TT&C Functions for EchoStar-7, File No. SES-STA-20020208-00160.

³ Specifically, transmissions would use the 3M00F3D and 3M00G7D emission designators. When no commands are being sent, the CW carrier (3M00N0N) would be present. *See* File No. SES-AMD-20081219-01664, at Schedule B.

Lockheed Martin's pending license application in File No. SES-LIC-20081103-01443 included radiation hazard studies for the Ku-band antenna that Lockheed Martin hereby incorporates by reference. *See* Exhibit 28 to Application of Lockheed Martin Corporation, File No. SES-LIC-20081103-01443.

Lockheed Martin believes that the limited operations it proposes in support of the launch of Astra-2F – operations Lockheed Martin and the satellite operator will coordinate in advance with any and all potentially affected entities that operate communications systems in compliance with the Table of Frequency Allocations during the limited period of use – are required in the public interest. Lockheed Martin's earth station will be part of a global network of control facilities for LEOp services that will be used to position the satellite as it progresses from transfer orbit to its final location. The safe and orderly use of the entire geostationary orbital resource and protection of the hundreds of satellites from the U.S. and other countries that operate there depends in no small part on ensuring that the Astra-2F satellite is controlled while over North America, and Lockheed Martin's earth station thus will serve a limited-duration but nonetheless vital function.

Lockheed Martin designates Michael Usarzewicz to be the contact person that will be available whenever transmission to, or reception from, Astra-2F is to occur through the subject earth station. Mr. Usarzewicz can be reached at the following cell phone number: (609) 865-2658 and/or station number: (908) 859-4050.

The antenna to be used for operations under the proposed STA is already built. This is the same antenna that was previously authorized under Call Sign E920270, and that is now the subject of the pending application and reinstatement request described in Note 1 above. As noted, the antenna has been authorized for use on an STA-basis to support other satellite launches.

In sum, Lockheed Martin requests authority to operate its Carpentersville, NJ Ku-band earth station antenna to provide critical LEOp operations in support of Astra-2F, for a term of 30 days – from September 14, 2012 through October 13, 2012.

ATTACHMENT 1

Prepared By

COMSEARCH

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

Prepared For

Lockheed Martin Corporation Carpentersville, New Jersey

Temporary Transmit-Only Earth Station
Operation Dates: 09/05/2012 - 11/05/2012

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 August 2, 2012.

Company

ABC, Inc. - WPVI-TV
ART Licensing Corp.
AT&T CORP
American Broadcasting Companies, Inc.
Auburn Data Systems, LLC
Bergen, County of
Boeing Company
Borough of Sayreville
Business Only Broadband, LLC
CAMP HILL SCHOOL DISTRICT
Carlisle Area School District
City of Bethlehem, Pennsylvania
City of Jersey City
City of Jersey City, Police Department
Clearwire Spectrum Holdings III, LLC
Conterra Ultra Broadband, LLC
County of Hunterdon
Cumberland Valley School District
DREXEL UNIVERSITY
Diocese of Camden
ECW Wireless, LLC
East Pennsboro Area School
Eastern Lancaster County School District
Eastern MLG LLC
Federal Communications Commission
Federal Home Loan Bank of New York
FiberTower Network Services Corp.
Franklin County Dept. of Emergency Servi
Freehold Township Police Department
Guard Insurance Group

Company (Continued)

High Voltage Communications LLC
Hoboken Fire Department
Hopewell Radiology Group
Hotwire Communications
Hudson County MIS Department
IDT Corporation - IDT Spectrum
Jefferson Microwave, LLC
Jubatus, LLC
Kreider Networks
Last Mile Inc.
MONTGOMERY, McCRACKEN, WALKER & RHOADS
MPX, Inc.
Metro Networks Communications, Inc.
MetroPCS AWS, LLC
Monmouth County, NJ
NBC TELEMUNDO LICENSE LLC
NBC Telemundo License Co.
NEW JERSEY PUBLIC BROADCASTING AUTHORITY
NEW JERSEY STATE DEPT OF TRANSPORTATION
NEW YORK CITY POLICE DEPARTMENT
NEXTEL COMM. OF THE MID-ATLANTIC
Netrepid, Inc.
New Cingular Wireless PCS LLC -NJ
New Cingular Wireless PCS, LLC - PA
New Jersey Telcomm
New York City Police Department - TARU
New York Methodist Hospital
Nextel of New York, Inc.
Northrop Grumman Information Technology
OCEAN, COUNTY OF
Ocean, County of-Div of Wireless Tech.
PENNSYLVANIA MICROWAVE NETWORK INC.
PENNSYLVANIA TURNPIKE COMMISSION
Philadelphia, City of
Pitt Power
Plymouth Township Police Department
Port Authority of New York & New Jersey
Pottsville Area School District
Qoncept Holdings LLC
READING HOSPITAL & MEDICAL CENTER
Rutgers, The State University of N.J.
SECOM NET
SHIPPENSBURG AREA SCHOOL DISTRICT
SONSHINE FAMILY TELEVISION CORPORATION
SOUTHEASTERN PENNSYLVANIA TRANSIT AUTH
SPEAR LEEDS AND KELLOGG INC
ST. LUKE'S HOSPITAL
SUSQUEHANNA TOWNSHIP SCHOOL DISTRICT
San Juan Wireless
Sesame Workshop
Sprint Spectrum LP DBA Sprint PCS
Sprint Spectrum, LP

Company (Continued)

St. Joseph Medical Center
Steelton-Highspire School District
T-Mobile License LLC
TELEMARK NETWORKS, INC
TRF SERVICES LLC
TRIBUNE TELEVISION COMPANY
Telecom Transport Management, Inc
The Goldman Sachs Group, Inc.
Total Recall Corp
Towerstream Corp
Townsquare Media Monmouth-Ocean License
Turtle Networks 6384
Turtle Networks 6386
Turtle Networks 6444
Turtle Networks 6457
University of Medicine & Dentistry of NJ
Verizon New Jersey, Inc.
WDAS LICENSE LIMITED PARTNERSHIP
WINEMILLER COMMUNICATIONS, INC.
WXTU LICENSE LIMITED PARTNERSHIP
Weblin Holdings LLC
Western PA Internet Access, Inc.
Wireless Backhaul Infrastructure, LLC
Wireless Internetwork LLC
World Class Wireless LLC
Zayo Group, LLC
Zen Networks, Inc
iSignal

Society of Broadcast Engineers Coordinators

Maryland & DC – James Snyder
New York – Binghamton/Central (William Sitzman)
New York – NYC Leo Rosenberg
Pennsylvania – Central (Rick Markey)
Pennsylvania—Allentown (Barry Fisher)
Pennsylvania – SE, Delaware, and S. New Jersey (Jeff DePolo)
Pennsylvania – S. Central (Matt Lightner)

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

The following section presents the data pertinent to frequency coordination of the proposed 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: 08/23/2012
Job Number: 120802COMSJC02

Administrative Information

Status: TEMPORARY (Operation from 09/05/2012 to 11/05/2012)
Call Sign: TEMP11
Licensee Code: RCASTR
Licensee Name: LOCKHEED MARTIN CORPORATION

Site Information

CARPENTERSVILLE, NEW JERSEY

Venue Name
Latitude (NAD 83): 40° 38' 39.4" N
Longitude (NAD 83): 75° 11' 27.6" W
Climate Zone: A
Rain Zone: 2
Ground Elevation (AMSL): 54.86 m / 180.0 ft

Link Information

Satellite Type: Geostationary
Mode: TO - Transmit-Only
Modulation: Digital
Satellite Arc: 4° W to 147° West Longitude
Azimuth Range: 102.5° to 257.9°
Corresponding Elevation Angles: 5.5° / 5.0°
Antenna Centerline (AGL): 9.14 m / 30.0 ft

Antenna Information

Manufacturer: TIW
Model: 14.2 Meter
Gain / Diameter: 65.1 dBi / 14.2 m
3-dB / 15-dB Beamwidth: 0.10° / 0.20°

Transmit

Max Available RF Power (dBW/4 kHz): -0.3
(dBW/MHz): 23.7

Maximum EIRP (dBW/4 kHz): 64.8
(dBW/MHz): 88.8
(dBW): 88.0

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

Frequency Information

Emission / Frequency Range (MHz):
832KFXD / 17311.0
832KFXD / 18088.5

Transmit 18.0 GHz

Max Great Circle Coordination Distance: 457.2 km / 284.0 mi
Precipitation Scatter Contour Radius: 189.5 km / 117.7 mi

COMSEARCH

Earth Station Data Sheet

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

Coordination Values	CARPENTERSVILLE, NJ
Licensee Name	LOCKHEED MARTIN CORPORATION
Latitude (NAD 83)	40° 38' 39.4" N
Longitude (NAD 83)	75° 11' 27.6" W
Ground Elevation (AMSL)	54.86 m / 180.0 ft
Antenna Centerline (AGL)	9.14 m / 30.0 ft
Antenna Model	TIW 14.2 Meter
Antenna Mode	Transmit 18.0 GHz
Interference Objectives: Long Term	-154.0 dBW/4 kHz 20%
Short Term	-131.0 dBW/4 kHz 0.0025%
Max Available RF Power	-0.3 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 18.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	3.52	102.08	-10.00	100.00
5	4.01	97.51	-10.00	100.00
10	4.15	92.51	-10.00	100.00
15	2.87	87.51	-10.00	100.00
20	2.87	82.52	-10.00	100.00
25	3.07	77.52	-10.00	100.00
30	3.50	72.52	-10.00	100.00
35	3.79	67.52	-10.00	100.00
40	3.82	62.52	-10.00	100.00
45	3.86	57.53	-10.00	100.00
50	3.66	52.53	-10.00	100.00
55	3.45	47.54	-9.93	100.00
60	3.33	42.56	-8.72	100.00
65	3.16	37.57	-7.37	100.00
70	2.88	32.61	-5.83	100.00
75	3.16	27.60	-4.02	100.00
80	3.14	22.63	-1.87	100.00
85	3.07	17.67	0.82	100.00
90	3.08	12.74	4.37	109.96
95	2.95	7.93	9.52	129.22
100	2.73	3.74	17.67	167.18
105	2.74	3.71	17.75	287.39
110	2.73	7.36	10.32	135.98
115	2.77	10.94	6.02	121.14
120	2.69	14.50	2.96	111.67
125	2.32	18.20	0.50	109.98
130	1.61	22.03	-1.57	117.69
135	2.18	24.78	-2.85	101.56
140	2.74	27.34	-3.92	100.00
145	2.33	30.44	-5.09	100.00
150	2.25	33.04	-5.98	100.00
155	1.92	35.57	-6.78	100.00
160	2.20	37.24	-7.28	100.00
165	2.65	38.35	-7.59	100.00
170	2.42	39.68	-7.96	100.00
175	1.94	40.84	-8.28	100.00
180	1.90	41.11	-8.35	100.00

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Earth Station Data Sheet

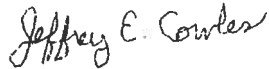
19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 <http://www.comsearch.com>

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Licensee Name	LOCKHEED MARTIN CORPORATION
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Antenna Model	TIW 14.2 Meter
Antenna Mode	Transmit 18.0 GHz
Interference Objectives: Long Term	-154.0 dBW/4 kHz 20%
Short Term	-131.0 dBW/4 kHz 0.0025%
Max Available RF Power	-0.3 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 18.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
185	1.86	40.92	-8.30	100.00
190	1.24	40.83	-8.27	106.96
195	1.32	39.60	-7.94	106.02
200	2.35	37.10	-7.24	100.00
205	1.75	35.73	-6.82	100.00
210	1.78	33.44	-6.11	100.51
215	2.16	30.58	-5.14	100.00
220	3.42	26.81	-3.71	100.00
225	3.53	23.75	-2.39	100.00
230	4.84	19.63	-0.32	100.00
235	4.35	16.73	1.41	100.00
240	4.47	13.24	3.95	100.00
245	3.78	10.22	6.76	106.82
250	2.48	7.55	10.05	139.61
255	2.26	4.02	16.89	309.66
260	2.60	3.21	19.35	457.18
265	3.11	7.34	10.36	129.47
270	3.30	12.21	4.84	107.95
275	2.81	17.22	1.10	103.18
280	2.82	22.19	-1.65	100.00
285	3.08	27.15	-3.84	100.00
290	3.59	32.11	-5.67	100.00
295	4.24	37.09	-7.23	100.00
300	5.02	42.08	-8.60	100.00
305	5.51	47.09	-9.82	100.00
310	5.46	52.09	-10.00	100.00
315	5.56	57.09	-10.00	100.00
320	4.72	62.08	-10.00	100.00
325	3.93	67.09	-10.00	100.00
330	3.38	72.09	-10.00	100.00
335	3.19	77.09	-10.00	100.00
340	3.15	82.09	-10.00	100.00
345	3.01	87.09	-10.00	100.00
350	3.24	92.08	-10.00	100.00
355	3.48	97.08	-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, Virginia 20147

DATED: August 23, 2012