

APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu:
Carpentersville TT&C STA for PSN-6 - 2019-01 (30-Day STA)

1. Applicant

Name:	Lockheed Martin Corporation	Phone Number:	703-413-5747
DBA Name:		Fax Number:	703-413-5908
Street:	2121 Crystal Drive Suite 100	E-Mail:	ryan.n.terry@lmco.com
City:	Arlington	State:	VA
Country:	USA	Zipcode:	22202
Attention:			



File # SES-STA-20190128-00046
E7541 Call Sign Grant Date 2-12-19
(or other identifier)
Term Dates
From: 2-15-19 To: 3-12-19
Approved: [Signature]

2. Contact			
Name:	Ryan N. Terry	Phone Number:	703-413-5747
Company:	Lockheed Martin Corporation	Fax Number:	703-413-5908
Street:	2121 Crystal Drive Suite 100	E-Mail:	ryan.n.terry@lmco.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	22202 -
Attention:		Relationship:	Same
(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 SESLIC2008110301443 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 02/15/2019			
7. City Carpentersville		8. Latitude (dd mm ss.s h) 40 38 39.1 N	

9. State NJ	10. Longitude (dd mm ss.s h) 75 11 27.8 W
11. Please supply any need attachments. Attachment 1: STA Attachment 2: Freq Coordination 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.) Lockheed Martin Corporation hereby requests Special Temporary Authority beginning February 15, 2019, to operate its Carpentersville, New Jersey fixed earth station (Call Sign E7541) to provide telemetry, tracking and control (TT&C) functions during the during the Launch and Early Operations Phase (LEOP) period of operation, ranging, and propulsion monitoring	
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 Jennifer A. Warren	15. Title of Person Signing Vice President, Technology Policy & Regulation
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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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

Lockheed Martin Corporation hereby requests Special Temporary Authority beginning February 15, 2019, to operate its Carpentersville, New Jersey fixed earth station (Call Sign E7541) to provide telemetry, tracking and control (TT&C) functions during the launch and Early Operations Phase (LEOP) period of operation, ranging, and propulsion monitoring for the PSN-6 satellite, which is registered by the Indonesian administration

Applicant: Lockheed Martin Corporation
Call Sign: E7541
File No.: SES-STA-20190128-00046
Special Temporary Authority (STA)

Lockheed Martin Corporation ("Lockheed Martin") is granted STA to operate, under the following conditions, its fixed-satellite service earth station (Call Sign E7541) in Carpentersville, New Jersey for a period of 30 days, beginning February 15, 2019, to provide telemetry, tracking and control ("TT&C") functions during the Launch and Early Operations Phase ("LEOP") of operation for the Indonesian registered PSN-6 satellite. The satellite's permanent orbital location will be at 146° E

1. Operations of TT&C functions shall transmit on 6717.5-6718.5 MHz and 6719.5-6720.5 MHz with emission designators 1M00F2D-1M00F8X.
2. Operations shall not cause harmful interference to, and shall not claim operation from, interference caused to it by any other lawfully operating station and it shall cease transmission(s) immediately upon notice of such interference.
3. Grant of this authorization is without prejudice to any determination that the Commission may make regarding pending or future Lockheed Martin's applications.
4. Any action taken or expense incurred as a result of operations pursuant to this STA is solely at Lockheed Martin Corporation's risk.
5. Lockheed Martin's contact person during the operation with PSN-6 mission will be Mr. Michael Usarzewicz cell phone number (609) 865-2658 or phone number at the station (908) 859-4050.

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.



File # SES-STA-20190128-00046
Call Sign E7541 Grant Date 2-12-19
(or other identifier)
Term Dates
From: 2-15-19 To: 3-17-19
Approved: [Signature]

Date: 01/28/2019
Job Number: 190128COMSGE01

Administrative Information

Status TEMPORARY (Operation from 02/18/2019 to 08/18/2019)
Call Sign TEMP08
Licensee Code RCASTR
Licensee Name Lockheed Martin Corporation-Phillipsburg

Site Information **CARPENTERSVILLE, NJ**

Venue Name
Latitude (NAD 83) 40° 38' 39.1" N
Longitude (NAD 83) 75° 11' 27.8" 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 **Transmit - FCC32**

Manufacturer TIW SYSTEMS
Model FCC STD 14.2-MET
Gain / Diameter 57.5 dBi / 14.2 m
3-dB / 15-dB Beamwidth 0.24° / 0.46°

Max Available RF Power (dBW/4 kHz) 2.5
(dBW/MHz) 26.5

Maximum EIRP (dBW/4 kHz) 60.0
(dBW/MHz) 84.0

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

Frequency Information **Transmit 6.7 GHz**

Emission / Frequency Range (MHz) 1M00F2D - 1M00F8X / 6717.5 - 6718.5
1M00F2D - 1M00F8X / 6719.5 - 6720.5

Max Great Circle Coordination Distance 509.8 km / 316.7 mi
Precipitation Scatter Contour Radius 253.5 km / 157.5 mi

Coordination Values	CARPENTERSVI, NJ	
Licensee Name	Lockheed Martin Corporation-Phillipsburg	
Latitude (NAD 83)	40° 38' 39.1" N	
Longitude (NAD 83)	75° 11' 27.8" 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 6.7 GHz	
Interference Objectives: Long Term	-154.0 dBW/4 kHz	20%
Short Term	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power	2.5 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.7 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	3.51	102.08	-10.00	100.00
5	3.90	97.51	-10.00	100.00
10	2.91	92.51	-10.00	100.00
15	2.84	87.51	-10.00	100.00
20	2.83	82.52	-10.00	100.00
25	3.07	77.52	-10.00	100.00
30	3.44	72.52	-10.00	100.00
35	3.78	67.52	-10.00	100.00
40	3.82	62.52	-10.00	100.00
45	3.80	57.53	-10.00	100.00
50	3.59	52.54	-10.00	100.00
55	3.40	47.55	-9.93	100.00
60	3.31	42.56	-8.72	100.00
65	3.12	37.58	-7.37	100.00
70	2.88	32.61	-5.83	106.30
75	3.07	27.61	-4.03	109.48
80	3.04	22.64	-1.87	118.28
85	3.06	17.68	0.82	128.03
90	3.07	12.74	4.37	140.11
95	2.74	8.00	9.42	173.46
100	2.73	3.74	17.68	213.27
105	2.58	3.84	17.40	325.73
110	2.72	7.37	10.31	178.36
115	2.80	10.92	6.05	153.21
120	2.62	14.56	2.92	143.25
125	2.05	18.40	0.38	144.87
130	1.63	22.02	-1.57	147.81
135	2.22	24.75	-2.84	130.00
140	2.76	27.32	-3.91	115.62
145	2.31	30.46	-5.09	119.93
150	2.22	33.06	-5.98	118.32
155	1.94	35.55	-6.77	121.35
160	2.22	37.22	-7.27	113.78
165	2.67	38.33	-7.59	103.84
170	2.46	39.65	-7.95	106.68
175	1.94	40.84	-8.28	116.00
180	1.90	41.11	-8.35	116.70
185	1.86	40.92	-8.30	117.95

Coordination Values	CARPENTERSVI, NJ	
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Antenna Model	TIW 14.2 meter	
Antenna Mode	Transmit 6.7 GHz	
Interference Objectives: Long Term	-154.0 dBW/4 kHz	20%
Short Term	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power	2.5 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.7 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	1.23	40.84	-8.28	133.68
195	1.33	39.59	-7.94	132.36
200	2.37	37.09	-7.23	111.02
205	1.76	35.72	-6.82	125.59
210	1.77	33.44	-6.11	127.75
215	2.21	30.54	-5.12	121.77
220	3.42	26.81	-3.71	104.37
225	3.50	23.78	-2.41	107.97
230	4.90	19.59	-0.30	100.00
235	4.41	16.68	1.44	108.04
240	4.50	13.22	3.97	116.48
245	3.77	10.24	6.75	136.90
250	2.53	7.51	10.11	181.63
255	2.28	4.01	16.92	347.08
260	2.60	3.20	19.36	509.81
265	3.11	7.34	10.36	169.43
270	3.39	12.19	4.85	136.12
275	2.86	17.22	1.10	132.63
280	2.80	22.19	-1.65	123.52
285	3.05	27.15	-3.84	110.55
290	3.56	32.11	-5.67	100.00
295	4.21	37.09	-7.23	100.00
300	4.98	42.08	-8.60	100.00
305	5.49	47.09	-9.82	100.00
310	5.46	52.09	-10.00	100.00
315	5.57	57.09	-10.00	100.00
320	4.81	62.08	-10.00	100.00
325	3.99	67.09	-10.00	100.00
330	3.36	72.09	-10.00	100.00
335	3.16	77.09	-10.00	100.00
340	3.15	82.09	-10.00	100.00
345	3.00	87.09	-10.00	100.00
350	3.23	92.08	-10.00	100.00
355	3.48	97.08	-10.00	100.00