



**UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
RADIO STATION AUTHORIZATION**

Name: LOCKHEED MARTIN CORPORATION
(d/b/a Lockheed Martin Lncing Systems)

Call Sign: E7541

Authorization Type: Modification of License

File Number: SES-MOD-20001130-02268

Non Common Carrier

Grant Date: 03/06/2002

Expiration Date: 08/03/2007

Nature of Service: Domestic Fixed Satellite Service

Class of Station: Fixed Earth Stations

A) Site Location(s)

*ENG OK 87L
3/6/02
mailed*

#	Site ID	Address	Latitude	Longitude	Elevation (Meters)	NAD	Special Provisions (Refer to Section H)
1)	1	450 RIVER ROAD CARPENTERSVILLE, WARREN, NJ 08865	40°38'39.0"N	75°11'29.0"W	69	27	

Licensee certifies antenna(s) comply with gain patterns specified in Section 25.209

Subject to the provisions of the Communications Act of 1934, The Communications Satellite Act of 1962, subsequent acts and treaties, and all present and future regulations made by this Commission, and further subject to the conditions and requirements set forth in this license, the grantee is authorized to construct, use and operate the radio facilities described below for radio communications for the term beginning August 3, 1997 (3 AM Eastern Standard Time) and ending August 3, 2007 (3 AM Eastern Standard Time). The required date of completion of construction and commencement of operation is 00/00/0000. Grantee must file with the Commission a certification upon completion of construction and commencement of operation.

B) Particulars of Operations

The General Provision 1010 applies to all receiving frequency bands.

The General Provision 1900 applies to all transmitting frequency bands.

For the text of these provisions, refer to Section H.

#	Frequency (MHz)	Polarization Code	Emission	Tx/Rx Mode	Max EIRP /Carrier (dBW)	Max EIRP Density /Carrier (dBW/4kHz)	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
1)	6423.5000-6423.5000	H, V, L, R	3M00G7D	Tx	87.00	67.00	N-ANT 2	1205 2610 5014	3M00G7D (3000F9) for TT&C, GXD AND TRANSFER ORBIT
2)	3700.5000-4199.5000	H, V, L, R	3M00G7D	Rx			N-ANT 2	5014	3M00G7D (3000F9) for TT&C, GXD AND TRANSFER ORBIT
3)	3650.0000-3700.0000	H, V, L, R	3M00G7D	Rx			N-ANT 2	5854	3M00G7D (3000F9) for TT&C, GXD AND TRANSFER ORBIT
4)	6423.5000-6423.5000	H, V, L, R	3M00G7D	Tx	87.00	67.00	S-ANT 1	2610 5014	3M00G7D (3000F9) for TT&C, GXD AND TRANSFER ORBIT
5)	3700.5000-4199.5000	H, V, L, R	3M00G7D	Rx			S-ANT 1	5014	3M00G7D (3000F9) for TT&C, GXD AND TRANSFER ORBIT



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6)	3650.0000-3700.0000	H, V, L, R	3M00G7D	Rx			S-ANT 1	5854	3M00G7D (3000F9) for TT&C, GXD AND TRANSFER ORBIT

C) Frequency Coordination Limits

#	Frequency Limits (MHz)	Satellite Arc (Deg. Long.)		Elevation (Degrees)		Azimuth (Degrees)		Max EIRP Density toward Horizon (dBW/4kHz)	Associated Antenna(s)
		East Limit	West Limit	East Limit	West Limit	East Limit	West Limit		
1)	3600.0000-3700.0000			10.0	90.0	106.0	284.0		S-ANT 1
2)	6423.5000-6423.5000			10.0	90.0	076.0	284.0	19	S-ANT 1
3)	3700.5000-4199.5000			10.0	90.0	076.0	284.0		S-ANT 1
4)	3600.0000-3700.0000			10.0	90.0	076.0	284.0	0	N-ANT 2
5)	6423.5000-6423.5000			10.0	90.0	076.0	284.0	19	N-ANT 2
6)	3700.5000-4199.5000			10.0	90.0	076.0	284.0		N-ANT 2

D) Points of Communications

The following stations located in the Satellite orbits consistent with Sections B and C of this License:

- 1) 1 to INTELSAT AOR @ 342.0 E.L. satellite of the INTELSAT system
- 2) 1 to INTELSAT AOR @ 335.5 E.L. satellite of the INTELSAT system
- 3) 1 to INTELSAT AOR @ 332.5 E.L. satellite of the INTELSAT system
- 4) 1 to INTELSAT AOR @ 330.5 E.L. satellite of the INTELSAT system
- 5) 1 to INTELSAT AOR @ 328.5 E.L. satellite of the INTELSAT system
- 6) 1 to INTELSAT AOR @ 325.5 E.L. satellite of the INTELSAT system
- 7) 1 to INTELSAT AOR @ 310.0 E.L. satellite of the INTELSAT system
- 8) 1 to INTELSAT AOR @ 307.0 E.L. satellite of the INTELSAT system
- 9) 1 to INTELSAT 805 @ 304.5 degrees of the INTELSAT satellite system.
- 10) 1 to INTELSAT AOR @ 359.0 E.L. satellite of the INTELSAT system
- 11) 1 to All authorized U.S. Domestic (ALSAT) Satellites.



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E) Antenna Facilities

Site/Elevation: 69 (Meters) AMSL

Table with columns: Site ID, Antenna ID, Units, Diameter (meters), Manufacturer, Model number, Max Antenna Height (Meters), Special Provisions. Contains two antenna entries (N-ANT 2 and S-ANT 1) with technical specifications.

F) Remote Control Point:

1 Call Sign: E7541

G) Antenna Structure marking and lighting requirements:

None unless otherwise specified under Special and General Provisions

H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

- 1010 --- Applicable to all receiving frequency bands. Emission designator indicates the maximum bandwidth of received signal at associated station(s). Maximum EIRP and maximum EIRP density are not applicable to receive operations.
1205 --- Emission 3000F9 denotes a TT&C radio channel.
1900 --- Applicable to all transmitting frequency bands. Authority is granted to transmit any number of RF carriers with the specified parameters on any discrete frequencies within associated band in accordance with the other terms and conditions of this authorization, subject to any additional limitations that may be required to avoid unacceptable levels of inter-satellite interference.
2010 --- This authorization is issued pursuant to the Commission's Second Report and Order adopted June 16, 1972 (35 FCC 2d 844) and Memorandum, Opinion and Order adopted December 21, 1972 (38 FCC 2d 665) in Docket No. 16495 and is subject to the policies adopted in that proceeding.
2610 --- No harmful interference shall be caused by the operation of this station to other lawfully operated radio stations and operation of this station must be terminated immediately upon notification of harmful interference.



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H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

2914 --- This station operating a Tracking, Telemetry and Command (TT&C) antenna.

2916 --- Transmitter(s) must be turned off during antenna maintenance to ensure compliance with the FCC-specified safety guidelines for human exposure to radiofrequency radiation in the region between the antenna feed and the reflector. Appropriate measures must also be taken to restrict access to other regions in which the earth station's power flux density levels exceed the specified guidelines.

3219 --- All existing transmitting facilities, operations and devices regulated by the Commission must be in compliance with the Commission's radiofrequency (RF) exposure guidelines, pursuant to Section 1.1307(b)(1) through (b)(3) of the Commission's rules, or if not in compliance, file an Environmental Assessment (EA) as specified in Section 1.1311. See 47 CFR 1.1307 (b) (5).

3428 --- This authorization is subject to all terms and conditions imposed on US-licensed satellite system(s) by the Commission. Also, this authorization is not to be construed as including any uplink or downlink authority in other countries.

5011 --- The Licensee(s) shall maintain on file with the Commission a current list or plan of the precise frequencies in use at the station, specifying for each frequency the RF center frequency, polarization, emission designator, nominal EIRP (in dBW) and maximum EIRP density (in dBW/4kHz). This list or plan may be submitted either on a station-by-station basis or on a system-wide basis and shall be updated within seven (7) days of any changes in frequency usage at this station. The Licensee(s) need not notify the Commission of temporary usage of frequencies for periods of less than seven (7) days. However, the Licensee(s) shall maintain accurate station records of the times and particulars of such temporary frequency usage.

5012 --- The authority granted here is limited to the operation of the facilities described above and does not include any authority to install and operate channelizing equipment or any other authority under Section 214 of the Communications Act of 1934, as amended, to establish channels of communications.

5013 --- In the event of the failure of a satellite with which operations are authorized in Section D of this license, operations are authorized in conjunction with the authorized INTELSAT satellite in the affected Ocean Region that provides the services authorized herein in order to maintain the continuity of commercial service; provided that the licensee(s) immediately notify the Commission of the nature of this emergency and its expected duration; and provided that the operational limits of elevation angle and azimuth range specified in Section C of this license are not exceeded. In the event that such emergency operations require emissions not specified in Section B of this license, such emissions may be utilized provided that the EIRP's of such emissions do not exceed the limits set forth in this license.

5014 --- With respect to potential co-channel interference to or from terrestrial microwave radio stations, the transmit and receive frequency bands listed in this license have been cleared for transmissions to and from satellites located in the geostationary or non-geostationary orbit for the emissions designated in Section B of this license.

5015 --- Upon completion of the station, the Licensee(s) must file with the Commission a certification including the following information: The name of the Licensee, file number of the application, call sign of the earth station, date of the license, a certification that the facility as authorized has been completed, that each antenna facility has been tested and is within 2 dB of the pattern specified in Section 25.209, and that the station is operational including the date of commencement of service, and will remain operational during the license period unless the license is submitted for cancellation.



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H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

- 5017 --- Operation of this station is governed by the terms, conditions and limitations in Part 25 of the Commission's Rules and Regulations and the following additional conditions: 1. This license shall not vest in the Licensee(s) any right to operate the station or any right in the use of the frequencies designated in the license beyond its term or in any other manner than authorized in the license; 2. Neither the license nor the right granted under it shall be assigned or otherwise transferred in violation of the Commission's Rules and Regulations issued under it; and 3. This station is subject to the right of use or control conferred by Section 706 of the Communications Act of 1934, as amended.
- 5018 --- This license shall be forfeited automatically if this station is not ready for operation within the time specified unless, prior to the expiration date of this license, the Commission receives an Application for Additional Time to Construct a Radio Station (FCC Form 701) filed by the Licensee(s) showing good cause why the Licensee(s) could not complete construction on time.
- 5035 --- The receiving frequency band 3650-3700 MHz is for INTELSAT use only.
- 5216 --- All operations shall be on a non-common carrier basis.
- 5802 --- This authorization is issued pursuant to and subject to the terms and policy adopted in the Commission's Order, released December 11, 2000 (FCC 00-363).
- 5854 --- A waiver of footnote NG169 in Section 2.106 of the Commission's Rules and Regulations is granted for the authorized TT&C earth station to be located 45 miles from the grandfathered earth stations (E950436, KA444, E6777, E950209, KA260, KA308, and KA81). See the attached "Memorandum for the file" dated February 22, 2002.



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B) This RADIO STATION AUTHORIZATION is granted subject to the additional conditions specified below:

This authorization is issued on the grantee's representation that the statements contained in the application are true and that the undertakings described will be carried out in good faith.

This authorization shall not be construed in any manner as a finding by the Commission on the question of marking or lighting of the antenna system should future conditions require. The grantee expressly agrees to install such marking or lighting as the Commission may require under the provisions of Section 303(q) of the Communications Act. 47 U.S.C. § 303(q).

Neither this authorization nor the right granted by this authorization shall be assigned or otherwise transferred to any person, firm, company or corporation without the written consent of the Commission. This authorization is subject to the right of use or control by the government of the United States conferred by Section 706 of the Communications Act. 47 U.S.C. § 706. Operation of this station is governed by Part 25 of the Commission's Rules. 47 C.F.R. Part 25.

This authorization shall not vest in the licensee any right to operate this station nor any right in the use of the designated frequencies beyond the term of this license, nor in any other manner than authorized herein.

This authorization is issued on the grantee's representation that the station is in compliance with environmental requirements set forth in Section 1.1307 of the Commission's Rules. 47 C.F.R. § 1.1307.

This authorization is issued on the grantee's representation that the station is in compliance with the Federal Aviation Administration (FAA) requirements as set forth in Section 17.4 of the Commission's Rules. 47 C.F.R. § 17.4.

The following condition applies when this authorization permits construction of or modifies the construction permit of a radio station.

This authorization shall be automatically forfeited if the station is not ready for operation by the required date of completion of construction unless an application for modification of construction permit for additional time to complete construction is filed by that date, together with a showing that failure to complete construction by the required date was due to factors not under control of the grantee.

Licenses are required to pay annual regulatory fees related to this authorization. The requirement to collect annual regulatory fees from regulates is contained in Public Law 103-66, "The Omnibus Budget Reconciliation Act of 1993". These regulatory fees, which are likely to change each fiscal year, are used to offset costs associated with the Commission's enforcement, public service, international and policy and rulemaking activities. The Commission issues a Report and Order each year, setting the new regulatory fee rates. Receive only earth stations are exempt from payment of regulatory fees.



Federal Communications Commission
Washington, D.C. 20554

Original
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February 22, 2002

MEMORANDUM FOR THE FILE

FROM: *for* Bruce Franca, Deputy Chief *hoiguested*
Office of Engineering and Technology

SUBJECT: Lockheed Martin Request for Permanent Authority to Operate a Fixed Satellite Service Downlink Earth Station in the Extended C Band in the 3650-3700 MHz band at Carpentersville, New Jersey.

Footnote NG 169 in Section 2.106 of the Commission's rules states that license applications for primary operations for new earth stations, major amendments to pending earth station applications, or applications for major modifications filed on or after December 18, 1998, and prior to December 1, 2000 shall not be accepted unless the proposed facilities are in the vicinity (i.e., within 10 miles) of an authorized primary earth station operating in the band 3650-3700 MHZ.

The applicant requests a waiver of Section 2.106 of the rules, footnote NG169, to the extent necessary, because its application as originally filed proposed a site more than 10 miles (approximately 45 miles) from the nearest existing grandfathered station.

Waiver is warranted for the following reasons:

- The application was filed prior to December 1, 2000.
- The proposed earth station is at a location such that any new fixed station proposing to operate within the earth station's coordination contour would need to coordinate with other, grandfathered earth stations, in particular, at Hauppauge, New York (E950436), Roaring Creek, Pennsylvania (KA444), Franklin, New Jersey (E6777), Hawley, Pennsylvania (E950209), Clarksburg, Maryland (KA260), Staten Island NY (KA308), and Alexandria, VA (KA81). Thus, the geographic area in which fixed stations will be required to coordinate with fixed satellite earth stations will not be increased by a grant of this application.
- Because it will be located within an abandoned stone quarry, terrain shielding will facilitate coordination with new fixed operations, and will minimize the impact on potential fixed operations.
- This authorization is conditioned on the basis that the terrain shielding around this site, which supports this grant, be used to minimize the effect on facilities of primary services.

Accordingly, NG169 is waived.